FOR BANKS

Mastercard Cross-Border Services Product Guide

MAY 2021

Table of Contents

Summary of Changes **7**

Chapter 1: Overview **10**

Chapter 2: Product Standards **13**

2.1 Customer Participation 13
2.1.1 Originating Institutions 13
2.1.2 Transaction Originator 14
2.2 Use of Third-Party Processors 14
2.3 Regulatory Compliance 15
2.3.1 Registrations, permits, licenses, and compliance 15
2.3.2 Prohibited Business Activities 15
2.3.3 Freezing orders 16
2.4 Anti-Money Laundering (AML) and Sanctions Compliance 16
2.4.1 Anti-Money Laundering Compliance 16
2.4.2 Written AML/Sanctions Policy and Sanctions Screening 18
2.4.3 Customer compliance obligations 19
2.5 Privacy and Data Protection 21
2.5.1 Compliance 22
2.5.2 Safeguards 22
2.5.3 Security Incidents 22
2.5.4 Subcontractors 22
2.5.5 Confidential Information of a Customer 22
2.5.6 Personal Data of Transaction Originators 23
2.5.7 Consent by Data Subjects 23
2.6 General Standards 23
2.6.1 Terms and Acceptance of Use of Technologies 23
2.6.2 Applicability of the Standards 24
2.6.3 Cross-Border Service Enhancements 24
2.6.4 Processing by Participating Customers or Other Third Parties 25
2.6.5 Limitation of Purpose 25
2.6.6 Program Fees 25
2.6.7 Transaction Routing 25
2.6.8 Customer Brand Marks 26
2.6.9 Intellectual Property Rights 26
2.6.10 Termination or Suspension or Modifications 27
2.6.11 Miscellaneous 28

2.7 Obligations and Responsibilities of all Participating Customers 30
2.7.1 Comply with the Standards 30
2.7.2 Territory for Origination of Transactions 30
2.7.3 Neither Resell nor Misrepresent the Cross-Border Service 30
2.7.4 Comply with information security requirements 31
2.7.5 Notify Mastercard of key changes 31
2.7.6 Maintain a Disaster Recovery Plan 31
2.8 Obligations and Responsibilities of Originating Institutions 32
2.8.1 Use accurate and complete data 32
2.8.2 Provide Sender with Disclosures 32
2.8.3 Obtain Sender Consents 33
2.8.4 Ensure appropriate support is provided to Senders 33
2.8.5 Comply with the Mastercard Brand Guidelines in User Interfaces 33
2.9 Recalls, Returns and Cancellations 33
Chapter 3: Key Product Features 34
3.1 Cross-Border Services Connection Options 34
3.2 Types of Transactions Supported 34
3.3 Types of Funding Sources and Beneficiary Accounts Supported 35
3.3.1 Originating Instruments Supported 35
3.3.2 Beneficiary Accounts Supported 35
3.4 Transaction Limits 35
Chapter 4: FX Rate Management and Transaction Flows 37
4.1 FX Rate Delivery and Identification Options 37
4.2 Rate Data Specifications 37
4.2.1 API Specifications 37
4.2.2 Carded Rate File Specifications (v2) 38
4.3 FX Refresh Frequency 42
4.4 Escalated Rates 42
4.5 Expired Rates and Expired Quotes 42
4.6 Participants to a Transaction 44
4.7 Transaction Flow Types 44
4.7.1 Transactions with an FX Rate Identifier 45
4.7.2 Transactions without an FX Rate Identifier 45
4.7.3 Transaction Statuses and Life Cycle 50
Chapter 5: Settlement 54
5.1 Settlement Overview 54
5.2 Originating Institution Settlement Requirements 54
5.3 Settlement Risk Assessment and Credit Cap Management 55

5.4 Settlement Process 56
5.5 Settlement Reports 57
5.6 Settlement Finality and Discharge 58
5.7 Transaction Clearing and Settlement Timing 59
5.8 Settlement Holidays 60
5.9 Failure to Meet Mastercard Settlement 61

Chapter 6: Mastercard Developers API Resources and Information ... 64

6.1 API Resources 64
6.1.1 Quote API Resource 64
6.1.2 Payment API Resource 65
6.1.3 Retrieve Payment API Resource 65
6.1.4 Cancel Payment API 66
6.1.5 Carded Rate APIs (push and pull) 66
6.1.6 Status Change API 67
6.2 Additional API Format Information 68
6.3 Data Integrity and Quality 68
6.4 Security and Authentication 69

Chapter 7: Reporting 71

7.1 Reports Summary 71
7.2 Report Delivery Options 72
7.3 Status Change Report and Daily Transaction Report (V2) 72
7.3.1 Daily Transaction Report Example (Version 2) 73
7.3.2 Status Change and Daily Transaction Reports Specifications (V2) 74
7.4 Settlement Reconciliation File (BAI2 Format, Version 4) 86
7.4.1 Settlement Reconciliation File Structure 87
7.4.2 Sample Reports 88
7.4.3 Record Formats 90
01 File Header 90
02 Group Header 91
03 Account Identifier 92
16 Transaction Detail 93
88 Continuation Record 96
49 Account Trailer 96
98 Group Trailer 97
7.5 Net Settlement Advisement 98
7.5.1 Net Settlement Advisement Layout and Field Descriptions 100

Chapter 8: Implementation 105

8.1 Key Implementation Activities 105

8.1.1 Enrollment Activities 105
8.1.2 System Resources and Access 105
8.1.3 Project and Service Launch 106
8.2 Program Configuration 107
8.2.1. ICA, Settlement, and Mastercard Consolidated Billing System (MCBS) Fees 107
8.2.2 Receiving Endpoint Selection 110
8.2.3 Pricing Model 110
8.2.4 Optional Sending Transaction Limits 110
8.3 Testing and Implementation 111
8.3.1 Sandbox (API Only) 111
8.3.2 Mastercard Test Facility (MTF) 114
8.3.3 Production Validation Testing (PVT) 114
8.4 Implementation Support 117
8.5 Implementation Key Success Factors 117
8.6 Program Updates 118
Chapter 9: Fees and Collection 119
9.1 Transaction Fees 119
9.2 Other Fees 119
Chapter 10: Customer Support 120
10.1 Customer Site Application 120
10.2 Customer Support Overview 120
10.3 Returns 123
10.3.1 Originating Institution Initiated Returns 123
10.3.2 Receiving Institution Initiated Returns 125
10.4 Customer Communication Information 126
10.4.1 Managing Customer Contacts 126
10.5 Requests for Information (RFI) 127
10.6 Credit Cap Change Process 128
Appendix A: Definitions 129
Appendix B: Customer Portal 135
Appendix C: TPP Technical Integrator Appendix 147
Originating Institutions: 147
Third Party Processor Technical Integrator: 147
Cross-Border Services: 147
System Identification – TPP and OI 150
Onboarding 151

Project Governance 151
TPP Decision Matrix 151
Enrollment Form and Scope Document 152
RSP Approvals 152
Settlement 152
Request for Information (RFIs) 153
Report Hierarchy 153
Consolidation Options 154
TPP Reporting Delivery - Examples 154
Consolidated Report Layouts 155
Sample Report Files 157
Customer Support Responsibilities 157
Appendix D: Request for Information (RFI) Process 158
Appendix E: Onboarding Document Samples 168
E.1: Onboarding Document Samples – AML Compliance Memo 169
E.2: Onboarding Document Samples - AML Questionnaire 179
E.3: Onboarding Document Samples - Enrollment Forms 184
E.4: Onboarding Document Samples - Customer Program Scope Document 196
E.5: Onboarding Document Samples - Customer Implementation Checklist 211
Appendix F: Legacy Reports 214
F.1 (Legacy) Settlement Reconciliation File Layout (V3.0) 214
F.1.1 (Legacy) Settlement Reconciliation File Example 220
F.2 (Legacy) Daily Transaction and Status Change Reports (Version 1) 224
F.2.1 (Legacy) Status Change Report v1 Example 234
F.2.2 (Legacy) Daily Transaction Report Example 235
Notices 236

Summary of Changes

This section provides an overview of notable updates in this release of the Product Guide.

Section	Description
1.4	Added list of related documents.
Chapter 2	This Product Guide, including the Product Standards in Chapter 2, are updated to reflect that, effective December 1, 2021, the *Account-based Program Standards* apply instead of the Payment Transfer Activity Rules in the *Mastercard Rules*. As noted in the row below, the *Account-based Program Standards* are a fit-for-purpose manual of Standards related to Account-based programs, including Mastercard Cross-Border Services. Certain sections are removed from Chapter 2 since they are covered by the *Account-based Program Standards* or are not applicable to Cross-Border Services, including: • Applicability of Standards in Section 2.3.1 (Registrations, permits, licenses and compliance) • 2.5.5 (Confidentially and Data Use) • Sections 2.6.1 (License from Mastercard) • Conflict of provisions in Section 2.6.2 (Applicability of the Standards) • 2.6.3 (Type of Settlement Program) • Material breach termination by Mastercard in 2.6.9 (Termination or Suspension) • Added language to provide that 2.6.1 (Terms and Acceptance of Use of Technologies) in the *Account-based Program Standards* is applicable to Transaction Originators
Chapter 2	In 2019, we announced the addition of the Payment Transfer Activity Rules to the *Mastercard Rules*, which established a franchise structure to Account-based programs offered by Mastercard. For Account-based programs that are not wholly dependent on the Mastercard Network, Mastercard announced in AN 4419 a fit-for-purpose manual that is independent of the *Mastercard Rules*. Since Cross-Border Services is not dependent on the Mastercard Network, Cross-Border Services will be governed by the *Account-based Program Standards* effective December 1, 2021. The *Account-based Program Standards* have been designed to make it easier for customers to understand the Standards specifically related to Cross-Border Services. The development of the Standards creates a fit-for-purpose manual meant to clarify existing rules, not to change or impact existing operations between an organization and Cross-Border Services. The fit-for-purpose manual does not include any references to card or card transactions (for the avoidance of doubt Accounts may be card accounts) and updates the Standards throughout to reflect that the *Account-based Program Standards* are specific to Account-based programs that are not wholly dependent on the Mastercard Network. Other changes include: • Adding Eligibility Representations in Section 1.1.1 • Adding General Eligibility Requirements in Section 1.1.2 • Removing "Visible to Customers" noncompliance category as not applicable

Section	Description
	• Adding to 2.2.1 that a Customer has an obligation to obtain all consents, information and materials necessary from third parties and local authorities for participation in each program • Moving the ICA territory requirements to Section 2.7.2 of the Program Guide • Update Section 3.3 (Integrity of Corporation) • Update Section 3.5 (Taxes and Other Charges) • Include confidential information Standards around Activity that includes a Directory in 3.11 (Confidential Information of the Corporation) • Add Terms and Acceptance of Use of Technologies in Section 3.13 (Terms and Acceptance of Use of Technologies) • Add Section 3.14 (Use of Program Services) • Add Section 3.15 (Enhancements) • Removing references to use of any Mastercard marks • Update Originating Institution Requirements to be specific to Account-based programs covered by the *Account-based Program Standards* • Provide that Receiving Institutions will be party to an agreement with the Corporation, or if a Program is identified as having Beneficiary Institution Participations in the Program Standards, each Beneficiary Institution Participation will be a party to a Participation Agreement with Mastercard Changes to defined terms: • "Area of Use" to "Territory" • Adding "Beneficiary Institution" definition • Adding "Beneficiary Institution Participant" definition • Adding "Directory" definition • Adding "Enhancement" definition • "Interchange System" to "Corporation System" • "Non-Mastercard Funding source", "Non-Mastercard Receiving Account" and "Non-Mastercard Systems and Networks Standards" replaced with applicable term, including, "Local Funds", "Local Funds Network" and "Local Funds Standards" • "Originating Account" to "Sender Account" • "Originating Account Holder" to "Sender" • "PTA Agreement" to "Participation Agreement" • "Receiving Account Holder" to "Beneficiary Account Holder" • Updating definition of "Receiving Institution" • Updating definition of "Standards"
Chapter 2	Clarification changes and changing references from "shall" to "must" to clarify that those statements result to an obligation.
2.5.5	Providing clarification that Mastercard may share Confidential Information and Confidential Transaction Information collected through due diligence to downstream receive side participants.
3.1	Added payment transfer connectivity option information.
4.63	Added a note: When a payment is returned or rejected to a sender, the sender must receive an accurate description of the reason for the return or reject.

Section	Description
6.4	Payload encryption is now required.
8.1	Deleted reference to *Settlement Manual* since information is now included in Chapter 5
10.3	Added a note: When a payment is returned or rejected to a sender, the sender must receive an accurate description of the reason for the return or reject. Added information about Recall transaction requests.
Appendix A	Updated definitions. Pointed certain definitions to the *Account-based Program Standards*. Deleted definitions included in the *Account-based Program Standards* or that are not used in this guide. As a result of the *Account-based Program Standards* application, the following defined terms have been updated throughout the guide: • "Network" to "Local Funds Network" • "Non-Mastercard Systems and Network Standards" to "Local Funds Standards" • "Participation" to "participation" • "Payment Transaction" to "Transaction" • "PTA Agreement" to "Participation Agreement" • "PTA Transaction" to "Transaction" • "Receiving Account" to "Beneficiary Account" • "Receiving Account Holder" to "Beneficiary Account Holder"
Appendix C	Updated Transaction Research screenshots show that the Customer Portal now includes links to the reports and/or payment file(s) the actual transaction was sent in. Also, the Download pages now allow reports to be exported from the download screen.
Throughout	The URL digital.support@mastercard.com has been changed to crossborder.services.support@mastercard.com.

Chapter 1: Overview

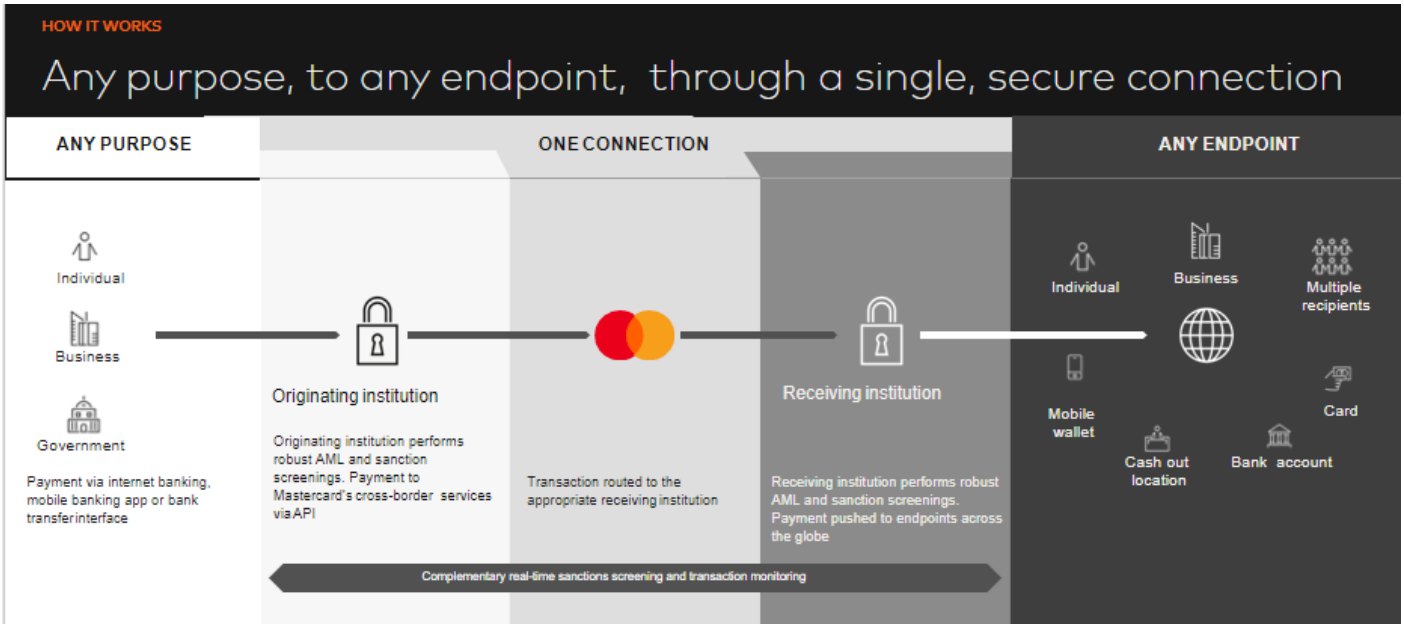
This section provides an overview of Cross-Border Services.

1.1 About Cross-Border Services

Cross-Border Services is a global payments network with integrated, holistic capabilities. The result is a single solution committed to delivering a frictionless cross-border payment experience that is simple, certain, and secure.

Financial institutions can modernize their cross-border payment services. Both Entity and Individual Senders experience faster, more transparent payments through multiple payment channels and payout methods. Valid payment types are:

- Person to Person (P2P)
- Business to Person Disbursements (B2P or B2C)
- Government/Non-Profit to Person Disbursements (G2P)
- Business to Business (B2B)
- Person to Business (P2B)



The Cross-Border Services are offered to Originating Institutions (OI) with Mastercard performing the following:

- Provides a technical interface for OIs to initiate Transactions
- Facilitates settlement between OIs and the Receiving Institutions (RIs)

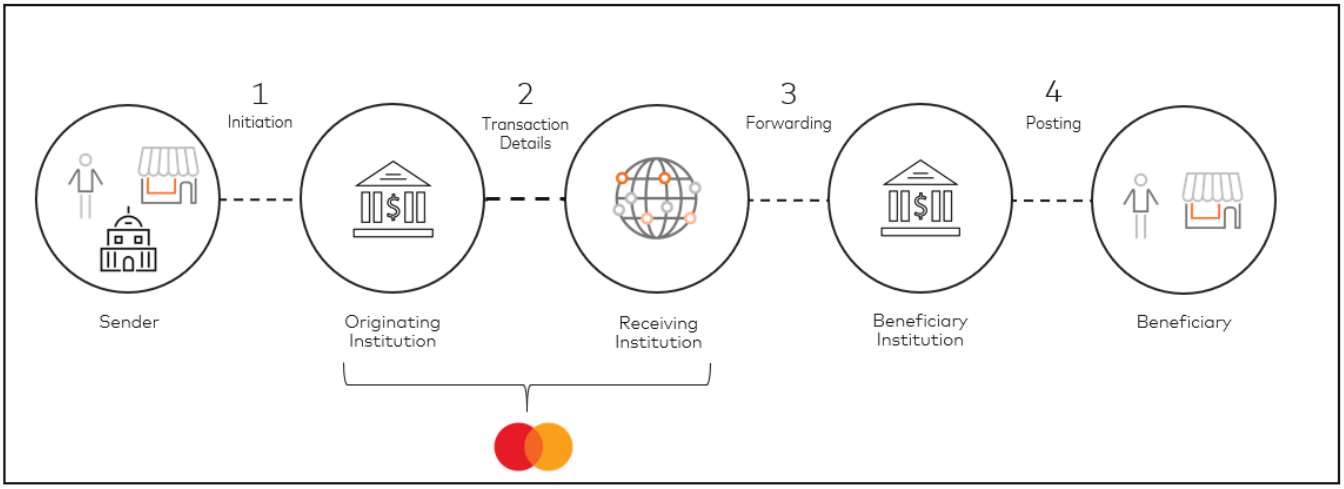
- Supplies wholesale Foreign Exchange (FX) rates
- Provides customer support
- Facilitates an end-to-end compliance framework
- Supplies Transaction and settlement reconciliation reporting

Note: Capitalized terms used in this Product Guide have the respective meanings stated in Appendix A or in the *Account-based Program Standards* and other Standards.

1.2 How it Works

Cross-Border Services enables Participating Customers to transfer funds internationally to a variety of payout options, including bank accounts, mobile money accounts, consumer cards, and retail cash pick-up to countries all around the world. The most direct transaction structure, shown below, is when the Originating Institution holds the relationship with the Sender and sends the Transactions to the Receiving Institution using Cross-Border Services.

Originating Institution Direct Relationship Flow:



Step 1 – Initiation

The Sender instructs the Originating Institution to transfer funds from their account to an account of the Beneficiary. The Sender also indicates which of their accounts to debit for the transfer of funds. See section 3 for details on valid types of Funding and Beneficiary Accounts supported.

Step 2 – Transaction Details

The Originating Institution submits the instruction to transfer the funds (i.e., the Transaction) to Cross-Border Services. The transaction is then forwarded by Cross-Border Services to the Receiving Institution. The funds are cleared and settled using the Mastercard Corporation Systems and the Receiving Institution receives the Transaction information.

Step 3 – Forwarding

The Receiving Institution forwards instructions and funds related to the Transaction to the Beneficiary Institution if the Receiving and Beneficiary Institutions are distinct. Depending on the Receiving Corridor used, this forwarding may be done through of one or more intermediaries such as the local Automated Clearing House (ACH) network. Mastercard will be a party to an agreement with the Receiving Institution or Beneficiary Institution as appropriate to cover this step.

Step 4 – Posting

The Beneficiary Institution receives the funds transfer and posts the funds to the Beneficiary Account. The end-to-end delivery speed depends on the Corridor. Please reference the Cross-Border Services Business Endpoint Guide for details.

Note: The Program also supports other transaction structures, such as:

- Another Entity – called the Transaction Originator – may alternatively hold the relationship with the Sender and then forward the Transactions to the Originating Institution for the Originating Institution to send it to the Receiving Institution.
- The Originating Institution may use a Third-Party Processor to connect to the Mastercard Systems and the Third-Party Processor sends the Transactions on its behalf. Refer to section 2 for a graphic depiction of this use case.

1.3 Benefits of Participation

Participating Originating Institutions benefit from:

- A secure and easy integration through our suite of Application Programming Interface (API) tools or Payment File Processing
- Operational efficiencies through a single connection and commercial contract with payout coverage in over 100 countries
- An integrated and streamlined settlement gateway, regardless of the payout option or destination (existing Participating Customers can leverage their existing settlement service(s) with Mastercard)
- An absence of landing fees offers pricing transparency; the amount expected is the amount received by the Beneficiary
- Greater control over pricing and branding to the Senders
- Competitive Foreign Exchange (FX) rates
- Ability to reach a broad range of Beneficiaries, including banked, underbanked, and the unbanked

1.4 Related Product Documentation

In addition to key operational and implementation information shared in this guide, further public content is available on the Mastercard Developers website. Additional details are provided by your representative during onboarding, including:

- Account-based Program Standards
- Business Endpoint Guide
- Technical Endpoint Guide
- Payment File Mapping Document
- Payment File Processing Guide
- Customer Implementation Plan

Chapter 2: Product Standards

This section lists the Standards that govern the Cross-Border Service

The changes in this Chapter 2 are effective December 1, 2021.

2.1 Customer Participation

2.1.1 Originating Institutions

Role Summary

The Originating Institution:

- Holds the direct relationship with Senders or the Transaction Originators that hold the direct relationship with Senders
- Ensures Know Your Customer (KYC) due diligence and sanction screening are performed on the Senders and Beneficiaries
- Conduct thorough client identification and due diligence of, as applicable, Senders, Transaction Initiators and Beneficiaries
- Holds, and ensures that any Transaction Originators hold, the Required Licenses
- Determines, or lets the Transaction Originators determine, branding and pricing to the Sender
- Develops, or ensures the Transaction Originators develop, Sender user interfaces
- Connects to Cross-Border Services directly or through the services of a Third-Party Processor
- Fulfills settlement obligation with Mastercard
- Delivers, or ensures that the Transaction Originator delivers, appropriate customer service to Senders
- Ensures Sender account takeover fraud risk is mitigated

Eligibility Criteria

An Entity that is an Originating Institution or is eligible to participate in the Cross-Border Service as an Originating Institution must meet the eligibility criteria applicable to a Customer (see Rule 1.1 of the *Account-based Program Standards* or any successor version thereof).

Other Participation Requirements

To participate in the Cross-Border Services, an Entity must:

1. Obtain approval from Mastercard to participate in the Cross-Border Service (Mastercard may, in its sole discretion, decline to allow any particular Entity to participate in the Cross-Border Service)

2. Execute the appropriate Enrollment Form and any other documentation that is part of or required pursuant to the Cross-Border Service Standards
3. At all times during its participation in the Cross-Border Service, be in good standing and in compliance with all Standards
4. At all times during its participation in the Cross-Border Service, ensure that any Transaction Originator with which it holds a relationship complies with all Applicable Law and is in good standing and in compliance with all Standards, and will be responsible to Mastercard for such compliance.

2.1.2 Transaction Originator

Role Summary

A Transaction Originator:

- Maintains a direct relationship with Senders and holds a relationship with the Originating Institution
- Enables Senders to request a transfer of funds
- Sends Transactions to the Originating Institution for the Originating Institution to forward to Mastercard
- Ensures Know Your Customer (KYC) due diligence and sanction screening are performed on applicable Senders and Beneficiaries
- Determines, or provides that the Originating Institution determines, branding and pricing to Senders
- Develops, or ensures that the Originating Institution develops, Sender user interfaces
- Delivers, or ensures that the Originating Institution delivers, appropriate customer service to Senders

Ensures Sender account takeover fraud risk is mitigated

Eligibility Criteria

An Entity that is a Transaction Originator must have all Required Licenses. The Originating Institution with which the Transaction Originator holds a relationship must ensure satisfaction of the foregoing eligibility criteria.

Other Participation Requirements

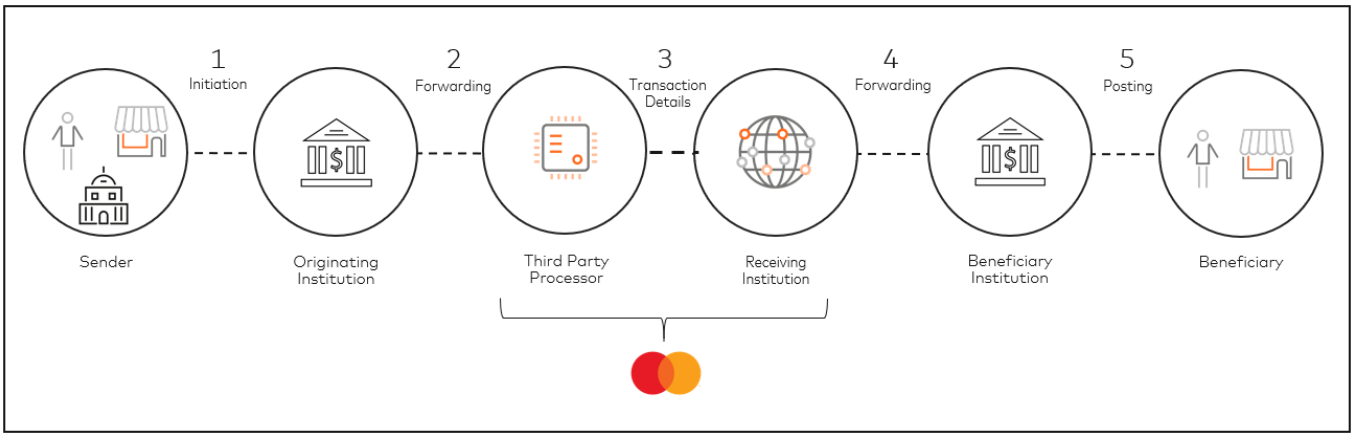
Transaction Originators may participate in the Program without prior registration at Mastercard or prior approval from Mastercard. Notwithstanding the above, Mastercard may, in its sole discretion, decline to allow any particular Transaction Originator to participate in the Program.

2.2 Use of Third-Party Processors

When an Originating Institution (OI) uses a Third-Party Processor (as specified in Chapter 7 of the *Account-based Program Standards*, or any successor version thereof) to submit Transactions to the Cross-Border Service, the OI:

- Must register their designated Third-Party Processor with Mastercard as a Service Provider of the Third-Party Processor category, prior to starting use of such Third-Party Processor, in accordance with Chapter 6 of the *Account-based Program Standards*
- Maintains all obligations under the Standards as the Participating Customer
- Must, at all times, remain responsible for the acts and omissions of its designated Third-Party Processor and must ensure of its relation which such Service Provider is in compliance with the sanctions laws and regulations enacted by United States sanctions authorities (including, the Office of Foreign Asset Control/OFAC and the United States Department of State), as well as all applicable local sanctions regulations where the activity is taking place.

Third-Party Processor Process Flow:



In the transaction flows described in this Product Guide, the Third-Party Processor submits Transaction instructions to the Cross-Border Service on behalf of the Originating Institution.

2.3 Regulatory Compliance

2.3.1 Registrations, permits, licenses, and compliance

Throughout the entirety of the conduct of any Participating Customer's activities in connection with the Cross-Border Service, such Participating Customer must hold all Required Licenses and perform all its activities in compliance with Applicable Law and Standards. In addition, all Originating Institutions supporting Transaction Originators must further ensure that the Transaction Originator's compliance with the foregoing.

2.3.2 Prohibited Business Activities

The Participating Customer represents and warrants that, as of its execution of its Enrollment Form and throughout the entirety of the conduct of its activities in

connection with the Cross-Border Service, it does not, and must not, engage in any Prohibited Business Activities.

Mastercard is not obligated to provide the Cross-Border Service with respect to requested Transactions that may, in Mastercard's reasonable opinion, be prohibited under Applicable Law or result in Mastercard violating any Applicable Law.

Mastercard must notify the Participating Customer promptly if it is unable to process any Transaction that may, in Mastercard's reasonable opinion, be prohibited or may cause Mastercard to be in violation of any Applicable Law.

2.3.3 Freezing orders

The Participating Customer or Mastercard may be required by law, a competent authority, or a court order, to freeze the funds that are the subject of a Transaction. If the Transaction is not completed and such funds have been recovered from the Sender by the Participating Customer at the time the freezing order is received from the competent authority or court, or communicated by the Participating Customer or Mastercard, the Participating Customer must immediately freeze the funds or cause the funds to be frozen. If the Transaction is not completed and such funds have not been recovered from the Sender by the Participating Customer at the time the freezing order is received from the competent authority or court, or communicated by Participating Customer or Mastercard, the Participating Customer must cause the funds to be frozen.

2.4 Anti-Money Laundering (AML) and Sanctions Compliance

Mastercard is committed to preventing its products and services from being used in a manner that facilitates criminal purposes, including handling the proceeds of crime, participating in a money laundering scheme, facilitating support for financing terrorism, or evading or violating economic sanctions.

Each Participating Customer will participate in a Program in compliance with such Participating Customer's AML compliance program in accordance with Section 1.2 of the *Account-based Program Standards*. Without limiting the generality of Section 1.2 of the *Account-based Program Standards*, in applying the requirements thereof to the Program, Participating Customers must further:

2.4.1 Anti-Money Laundering Compliance

Mastercard expects and understands that Originating Institutions and Receiving Institutions will manage cross-border transactions in a way that satisfies their specific regulatory obligations as well as internal risk-management processes and policies that comply with standards set forth by the Cross-Border Service AML / Counter Terrorism / Sanctions Policy.

Mastercard requires all Originating Institutions and Receiving Institutions to identify and comply with all Anti-Money Laundering, Counter Terrorist Finance (CTF) and Sanctions regulatory mandates in place for the countries in which they operate by having adequate

policies, procedures, and systems in place. The minimum AML Program requirements as defined by Mastercard include:

- Customer Identification Program (CIP)
- Know Your Customer (KYC) Due Diligence Program inclusive of PEP (Politically Exposed Person [list]) identification and negative news reviews of controlling owners and relevant Board members
- Recordkeeping
- Limitations of Anonymous Activities
- Suspicious Activity Monitoring and Reporting
- Independent Testing/Audit
- A sanctions screening program that includes the screening of the Sender and Beneficiary against the OFAC, United Nations (UN), and European Union (EU) lists
- Compliance with the local laws and regulations

AML Compliance Details

The following outlines the AML compliance details for Originating Institutions and Receiving Institutions.

All Originating Institutions have previously undergone a thorough AML review by the Global Mastercard AML / CTF / Sanctions Compliance team. This review includes an attestation from the Originating Institution that their AML Program includes minimum requirements previously defined in this Product Guide. At the discretion of Mastercard, the AML program documentation submitted by certain Originating Institutions that may pose a heightened risk will undergo a comprehensive review to confirm compliance with Mastercard Standards. Mastercard monitors and refreshes KYC of its Originating Institutions using a risk-based approach that includes regular sanctions screening, PEP screening, and adverse media scans of Originating Institution entities, as well as their owners and directors.

Receiving Institutions that Cross-Border Service elects to use are thoroughly reviewed prior to program participation to ensure compliance with Mastercard's AML / CTF / Sanctions compliance requirements. All Receiving Institutions are monitored with KYC documentation updated according to a risk-based approach. For Receiving Institutions located in countries considered to have non-equivalent AML / CTF / Sanctions controls, Mastercard ensures enhanced reviews of all AML / CTF / Sanctions Policies, Procedures and systems, including site visits if required.

Participating Customers of the Cross-Border Service are required to provide the information obtained through Customer Due Diligence (CDD) measures as well as a copy of the relevant records to the Cross-Border Service compliance function within 5 working days of receiving a request to do so. The applicant/Participating Customer must ensure that the transaction records and CDD information are available to competent authorities upon appropriate authority and a request to do so.

2.4.2 Written AML/Sanctions Policy and Sanctions Screening

Each Customer must have a written:

- AML compliance AML/Sanctions Program with a policy, procedures, and controls in place to safeguard the Corporation and the Corporation System from and against the use of the Corporation System for money laundering and/or terrorist financing; and
- sanctions compliance AML/Sanctions Program that includes a policy, procedures, and controls. The sanctions compliance AML/Sanctions Program must address, to the satisfaction of the Corporation, all Activity and include, at a minimum, the requirements in this Section and Section 1.2.2 of the Account-based Program Standards.

Originating Institutions are required to ensure that no funds are sent to/from a sanctioned Individual or to/from a country or a region that is the subject of a comprehensive sanctions program (embargoed country). For a current listing of countries subject to both selective and/or comprehensive sanctions please visit OFAC's website: https://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx. Since Mastercard does not have any contact with the End-users (Senders and Beneficiaries), the "first line" transaction screening is the contractual responsibility of Originating Institutions.

An Originating Institution must screen the Senders, the Beneficiaries, and entities transferring Transaction funds directly to the Beneficiaries, Service Providers, and other representatives and agents (including, but not limited to, a program manager), in each case at the time of onboarding and on an ongoing basis, against applicable sanctions lists, including, but not limited to, OFAC sanctions lists, such as, the Specially Designated Nationals and Blocked Persons (SDN) and Sectoral Sanctions Identifications List (SSI).

Originating Institution must ensure that Senders, Beneficiaries and any other entities involved in the Transaction (including, without limitation, service providers, program managers, employees or entities involved in transferring any Transaction funds (including Transaction Originators) are not sanctioned entities.

Receiving Institutions are also required to perform transaction screening against local and international sanctions lists (OFAC SDN List and SSI List, the EU Consolidated list, UN Lists). This includes:

- Receiving Institutions that are the Beneficiary Institution are, at a minimum, must screen the name of the holder of the account to which the funds are credited against the local and international sanctions lists daily.
- Receiving Institutions that route the Transaction to the Beneficiary Institution through the Local Funds Network, another paying bank, or directly to the Beneficiary Institution must ensure that, at a minimum, the name of the account holder to which the funds are credited is screened against the local and international sanctions lists daily, or to inform Mastercard of the specific sanctions list screening obligations

applicable to the specific Corridor, which may be carried out via bilateral agreements or local payment system requirements.

Any Transactions that involve a positive match to an SSI List, may only be conducted in compliance with the limitations or conditions established by the relevant OFAC Directive.

Prior to opening a Corridor between an Originating Institution and a Receiving Institution, Mastercard makes sure that due diligence is conducted on the Participating Customer and Receiving Institution to ensure they have the appropriate processes in place to perform their necessary AML and sanctions screening requirements.

2.4.3 Customer compliance obligations

Compliance

Throughout the entirety of the Participating Customer's activities in connection with the Cross-Border Service, Participating Customer must ensure: (i) it provides any information (including the name and Entity details) reasonably requested by Mastercard on the Transaction Originators that it intends to provide access to the Cross-Border Service in order to allow Mastercard to identify, assess, monitor, and manage any material risk arising from such arrangements; and (ii) at all times during its use of the Cross-Border Service, Participating Customer is in good standing and in compliance with all obligations required for Participating Customers under this Product Guide and, as applicable, the Standards in relation to the provision and use of any of Mastercard's services. Participating Customer acknowledges and agrees that any compliance requirements in the Standards and the conduct of the Participating Customer's and Transaction Originator's respective activities in connection with the Cross-Border Service under this Product Guide and the Cross-Border Service Standards is subject to Mastercard's review and, where required, consent. Participating Customer must provide such cooperation as may be required by Mastercard in connection with such review.

Anti-money Laundering and Sanctions

At all times, and without limiting the generality of any other provision in this Product Guide, Participating Customer must, and must ensure that any Transaction Originator must: (i) comply with Applicable Law relating to anti-money laundering (including, without limitation, the Bank Secrecy Act, Title III of the USA PATRIOT Act, and the implementing regulations promulgated by the Financial Crimes Enforcement Network) and any related or similar Applicable Law issued, administered, or enforced by any Government Authority; (ii) comply with Applicable Law relating to economic sanctions including, but without limitation to, Applicable Law administered or enforced by OFAC, the United Nations Security Council, the Council of the European Union and U.S. Department of State and must prohibit any Individual or Entity on the OFAC SDN List and SSI List or otherwise subject to sanctions administered or enforced by the foregoing, from sending or receiving funds via the Participating Customer's or Transaction Originator's services; (iii) screen the Sender, its Beneficial Owner (if applicable), and the Beneficiary Account Holder of funds against the SDN List and SSI List and the relevant

United Nations and European Union lists prior to initiating Transactions on their behalf through the Cross-Border Service; (iv) incorporate daily screening (including resolving of False Positives) of the names of the Senders and Beneficial Owners against the SDN List and SSI List and the relevant United Nations and European Union lists; (v) monitor Transactions to detect suspicious activity; (vi) identify and report suspicious activity in accordance with Applicable Law; (vii) comply with the Foreign Corrupt Practices Act and all other anti-corruption and anti-bribery laws as required by this Product Guide or the Participating Customer's Enrollment Form. Participating Customer must, and must ensure that each Transaction Originator must, implement and maintain all required policies, procedures or standards to ensure compliance with the foregoing and have an audit process to regularly test the measures taken with respect to the foregoing; and (viii) demonstrate to the satisfaction of Mastercard the ongoing maintenance of comprehensive anti-money laundering ("AML") and sanctions compliance programs that safeguard the Corporation and the Corporation System from risk associated with money laundering, terrorist financing, and violation of sanctions as indicated by Mastercard's Anti-Money Laundering and Sanctions Requirements (Section 1.2 of the *Account-based Program Standards*).

Suspicious Activities Reporting

Participating Customer must have procedures and processes in place to monitor and, where present, detect and report suspicious or fraudulent payment activities in accordance with Applicable Law and the Standards. Mastercard may ask to review such procedures and processes at any time. Participating Customer must ensure that its Transaction Originators notify Participating Customer of any suspicious or fraudulent activities as soon as practicable after a Transaction Originator becomes aware of such activities.

Due Diligence on Participating Customer's Sender and Beneficial Owner

Without limiting any other provisions in this Product Guide or in other Cross-Border Service Standards, Participating Customer must, with respect to any potential Sender and Beneficial Owner, conduct thorough identity verification as required by the "Know Your Customer" Due Diligence Requirements. Accordingly, Participating Customer must not engage in any activities related to the Cross-Border Service with a potential Sender or Beneficial Owner whose identity has not been verified, and must have an audit process to test the measures taken to verify identity or satisfy the "Know Your Customer" Due Diligence Requirements. Participating Customer acknowledges and agrees that Mastercard may, occasionally, at any time upon reasonable advance written notice to Participating Customer, request a copy of the due diligence information and records for a specific Sender or Beneficial Owner, as solely determined by Mastercard. Upon receipt of such notice, Participating Customer must, at its own expense, provide to Mastercard such due diligence information and records within the reasonable time frame as indicated by Mastercard in such notice.

Due Diligence on Transaction Originator by Participating Customer

Without limiting any other provisions in this Product Guide or in other Cross-Border Service Standards, Participating Customer must, with respect to any potential

Transaction Originator, comply with the "Know Your Customer" Due Diligence Requirements. Participating Customer must not engage in any activities related to the Cross-Border Service with a potential Transaction Originator whose identity has not been verified, and must have an audit process to test the measures taken to verify identity or satisfy the "Know Your Customer" Due Diligence Requirements. Participating Customer acknowledges and agrees that Mastercard may, occasionally, at any time upon reasonable advance written notice to Participating Customer, request a copy of the Transaction Originator due diligence information and records for a specific Transaction Originator, as solely determined by Mastercard. Upon receipt of such notice, Participating Customer must, at its own expense, provide to Mastercard such due diligence information and records for such Transaction Originator within the reasonable time frame as indicated by Mastercard in such notice.

Due Diligence on Transaction Originator's Sender and Beneficial Owner

Without limiting any other provisions in this Product Guide or in other Cross-Border Service Standards, Participating Customer must ensure that each Transaction Originator must, with respect to each potential Sender of the Transaction Originator and any Beneficial Owner, comply with the "Know Your Customer" Due Diligence Requirements prior to submitting any Transactions on behalf of any such potential Sender. Participating Customer must ensure that each Transaction Originator must not engage in any activities related to the Cross-Border Service with an Entity or an Individual who has not been verified. Participating Customer must have an audit process to test the measures taken by Transaction Originators to verify identity or satisfy the "Know Your Customer" Due Diligence Requirements with respect to its Senders and their Beneficial Owners.

Further Due Diligence by Participating Customer

If a Participating Customer reasonably believes that a Transaction Originator, its Sender, a Transaction Originator's Sender, or any Beneficial Owner may pose a higher risk to the integrity or the reputation of Mastercard, the Cross-Border Service, and/or the other Participating Customers, including with respect to money laundering or terrorist financing, the Participating Customer must ensure that further due diligence and inquiries are carried out on such Transaction Originator, Sender, or Beneficial Owner. If the identified risks are not adequately addressed to the satisfaction of the Participating Customer as required by Applicable Law, the Participating Customer must immediately stop using the Cross-Border Service for the transfer of any funds from that Transaction Originator or Sender, and must notify Mastercard of the same, without prejudice to Mastercard's rights and remedies under this Product Guide or other Cross-Border Service Standards.

2.5 Privacy and Data Protection

Each Participating Customer will participate in a Program in compliance with such Section 3.8 (Privacy and Protection) of the *Account-based Program Standards*. Without limiting the

generality of Section 3.8 of the *Account-based Program Standards*, in applying the requirements thereof to the Program, Participating Customers must further:

2.5.1 Compliance

Participating Customer and Mastercard must each comply with all Applicable Data Protection Laws in connection with the Cross-Border Service.

Participating Customer must ensure that any Processing of Personal Data carried out by any Transaction Originators in connection with the Cross-Border Service is in compliance with Applicable Data Protection Laws.

2.5.2 Safeguards

Participating Customer must comply, and must ensure that each Transaction Originator complies, with the obligations set forth in Section 2.25, Information Security Program, set forth in the *Account-based Program Standards* as if Transaction Originator were a Customer, and subject to the same rights and obligations set out in this Guide for Participating Customers.

2.5.3 Security Incidents

In addition to Section 3.7, Security Incidents of the *Account-based Program Standards* (or any successor version thereof), Participating Customer agrees that it must comply with the requirements set forth in such Section 3.7 in respect of a breach of its Transaction Originator's security measures as well as its own.

2.5.4 Subcontractors

Mastercard and Participating Customer must remain liable towards the other for the Processing of Personal Data carried out by their subcontractors in connection with the Cross-Border Service, and must bear responsibility for the correct fulfillment of their respective obligations by such subcontractors. Mastercard and Participating Customer are authorized to use subcontractors and must impose on their subcontractors at least the same level of data protection, including, but not limited to, the same confidentiality and security obligations as required hereunder or under other Cross-Border Service Standards, and must probibit its subcontractors from Processing of Personal Data other than as instructed.

2.5.5 Confidential Information of a Customer

In addition to Section 3.9, Confidential Information of a Customer of the Account-based Program Standards (or any successor version thereof), Participating Customer agrees that the Corporation may also use or disclose Confidential Information and Confidential Transaction Information collected through the Due Diligence Process (including any Confidential Information provided as updates thereto) to a Receiving Institution and/or Beneficiary Institution for the purpose of their own Due Diligence Process **(subject to the Receiving Institution and/or Insitution being obligated to similar requreiments to maintain confidentiality of such information)** and/or any government or governmental regulatory agency.

For the purposes of this Section, "Due Diligence Process" means the process of conducting an investigation of the Participating Customer, as determined by the Corporation (and/or any Receiving Institution or Beneficiary Institution, as applicable), which may include, but is not limited to, "Know Your Customer" Due Diligence Requirements.

2.5.6 Personal Data of Transaction Originators

Mastercard and Participating Customer acknowledge and agree that Transaction Originators may be customers of Participating Customer and/or Mastercard and, thus, that each party may have certain rights to Process of Personal Data originating from such Transaction Originators independent of the Cross-Border Service or this Product Guide. Nothing in this Product Guide will be construed to deprive or to limit Participating Customer's or Mastercard's rights to Process of Personal Data of Transaction Originators. Such data will be governed by the applicable agreements of Participating Customer or Mastercard, as applicable, with such Transaction Originators.

2.5.7 Consent by Data Subjects

In compliance with Applicable Law and Applicable Data Protection Laws, Participating Customer must, and must ensure that the Transaction Originator must: (i) where relevant and necessary, obtain for Mastercard the right to use data in the manner set forth in Section 2.5.5 above and Section 3.9, Confidential Information of Customer of the *Account-based Program Standards* and (ii) ensure that any terms and conditions, privacy notices, and other disclosures provide Participating Customer and the Transaction Originator (as appropriate) the right and authority to: (A) provide Mastercard with all information and the Personal Data of the relevant Senders and Beneficiaries required by Mastercard (as set forth in this Product Guide and any other Cross-Border Service Standards), and (B) have such Processing of Personal Data and transferred to countries outside the country in which the Personal Data was collected in the context of the Cross-Border Service by, as applicable, Mastercard, Originating Institution, and Receiving Institution. Upon reasonable or legally required request, Participating Customer must ensure that Mastercard is provided with copies of all consents and/or withdrawals of consents of any Senders and Beneficiaries.

2.6 General Standards

2.6.1 Terms and Acceptance of Use of Technologies

In addition to Section 3.13, Terms and Acceptance of Use of Technologies, of the *Account-based Program Standards,* Mastercard also grants to the Transaction Originators of the Participating Customer, during the Participating Customer's participation in and use of the Cross-Border Services, and solely to the extent needed by the Transaction Originator to perform, comply with, or exercise its rights and obligations in connection with its use of the Cross-Border Services, permission to use the Technologies as set forth in Section 3.13, Terms and Acceptance of Use of Technologies,

of the *Account-based Program Standards* as if Transaction Originator were a Customer, and subject to the same rights and obligations set out in this Guide for Participating Customers.

2.6.2 Applicability of the Standards

The access to and use of the Cross-Border Service in connection with any Transactions is an Activity of the Participating Customer pursuant to the *Account-based Program Standards*.

When the Transaction is with respect to a Beneficiary Account that is a Card Account, the Receiving Institution may forward the Transaction to Mastercard's MoneySend Payment Transactions Program. Such Transactions are therefore also governed by the Standards applicable to the MoneySend Payment Transactions Program. For more information please refer to the Mastercard MoneySend and Funding Transactions Program Standards.

2.6.3 Cross-Border Service Enhancements

Mastercard reserves the right to change, from time to time, in Mastercard's sole discretion:

1. The design, operation and functionalities of, and services comprising, the Cross-Border Service
2. The formatting guidelines with respect to Transaction instructions that it provides to the Participating Customer, together with the relevant requirements and/or restrictions applicable to such guidelines
3. This Product Guide and other Cross-Border Service Standards (exclusive of any changes to the Participation Agreement, which must be agreed in writing between Mastercard and the Participating Customer)

For the avoidance of doubt, the availability or extent of the design, operation, and functionalities of, and services comprising the Cross-Border Service may vary by location. The Participating Customer is solely responsible for notifying its Senders of any such changes relevant to its use of the Cross-Border Service.

Notwithstanding the foregoing and Section 3.15, *Enhancements*, of the *Account-based Program Standards*, any changes or modifications to the Cross-Border Service or any changes to the Product Guide or Cross-Border Service Standards that impose new or modified material obligations, including significant system changes, on the Participating Customer, must, unless otherwise required pursuant to Applicable Law, be notified to the Participating Customer in writing at least 90 days in advance of becoming applicable. Mastercard will use commercially reasonable efforts to notify the Participating Customer of any updates and/or changes to Corridor Transaction instruction guidelines in writing at least 30 days in advance of becoming applicable subject to any notice served on Mastercard by the provider of such guidelines, or unless otherwise required pursuant to Applicable Law, in which case Mastercard will inform the Participating Customer as soon as reasonably practicable.

2.6.4 Processing by Participating Customers or Other Third Parties

Mastercard MAKES NO WARRANTIES AS TO THE OPERATIONS OR ACTIVITIES OF ANY PARTICIPATING CUSTOMER, ITS SERVICE PROVIDERS, AGENTS OR REPRESENTATIVE AND/OR NETWORK IN CONNECTION WITH THE PROCESSING OF ANY TRANSACTION, INCLUDING, BUT NOT LIMITED TO, THE SETTLEMENT OF A TRANSACTION.

2.6.5 Limitation of Purpose

Mastercard makes the Cross-Border Service available to the Participating Customer solely for the Participating Customer to facilitate Transactions.

For the avoidance of doubt, other than enabling the Participating Customer to submit the appropriate instructions for a Transaction to a Local Funds Network, the Cross-Border Service does not provide, support, or facilitate any processing, routing, authorization, clearing, settlement, or other related activities of a Local Funds Network or Receiving Institution. The routing of any Transaction by a Local Funds Network and the authorization, clearing, settlement, and other related activities of a Local Funds Network in connection therewith, are subject to the applicable Local Funds Standards.

Also, for the avoidance of doubt, the Cross-Border Service does not include risk or fraud management, dispute management, or electronic check services.

2.6.6 Program Fees

Mastercard may change the fees payable by the Participating Customer in connection with its use of the Cross-Border Service, at any time upon ninety (90) days written notice. It is the responsibility of the Participating Customer to determine the fees that it charges its Senders and/or Transaction Originators for their use of the Cross-Border Service. Any taxes, levies, or similar government charges based on Participating Customer's activities in connection with the Cross-Border Service, including but not limited to sales, use, property, and value added taxes, must be exclusively paid by the Participating Customer in a timely manner; except that, the Participating Customer must not be responsible for any taxes based upon the income of Mastercard. The Participating Customer and Mastercard are each responsible for bearing their own expenses in connection with their activities in connection with the Cross-Border Service. Each of the Participating Customer and Mastercard are responsible for any fines or penalties that may be assessed by any Local Funds Network or Governmental Authority due to its own negligence, fraud, or willful misconduct. The Participating Customer and Mastercard are responsible for maintaining their own books and records relating to fees and other costs and expenses in connection with the Cross-Border Service in accordance with such Entity's local auditing or regulatory requirements.

2.6.7 Transaction Routing

Mastercard may determine, in its sole discretion, the appropriate Receiving Institution to which all Transactions must be routed. In addition, the Receiving Institution may determine, in its sole discretion, the appropriate Local Funds Network, if any, to which all Transactions must be routed.

2.6.8 Customer Brand Marks

The Participating Customer grants Mastercard and its Affiliates a limited, non-exclusive, and non-sublicensable license to display Participating Customer's Brand Marks, solely in a publicly disclosed list of Participating Customers that are Participating in the Cross-Border Service. Any other use of the Participating Customer's Brand Marks by Mastercard requires the Participating Customer's prior written approval.

2.6.9 Intellectual Property Rights

Mastercard

As between Participating Customer and Mastercard, Mastercard owns and must retain all right, title, and interest, including, without limitation, all Intellectual Property Rights, in and to, the Mastercard Intellectual Property.

Participating Customer

As between Participating Customer and Mastercard, Participating Customer owns and must retain all right, title, and interest, including, without limitation, all Intellectual Property Rights in and to its Technology used in connection with the Cross-Border Service.

Restriction on the Use of Intellectual Property

Each party must not use any of the other party's intellectual property except as expressly authorized in this Product Guide.

Other than the explicit rights granted herein, nothing in this Product Guide must be construed or interpreted as granting to Participating Customer any rights or licenses, including any rights of ownership or any other proprietary rights in or to the Mastercard Technology, any other software or Technology of Mastercard or its licensors, or any Intellectual Property Rights embodied within any of the foregoing.

Mastercard IS NOT RESPONSIBLE FOR, AND EXPRESSLY DISCLAIMS, ALL WARRANTIES, OBLIGATIONS AND LIABILITY FOR THE PERFORMANCE, NON-PERFORMANCE, OPERATION, ACCURACY, SUITABILITY AND FUNCTIONALITY OF ALL SOFTWARE, APIs, APPLICATIONS OR ANY OTHER PRODUCTS AND SERVICES PROVIDED BY PARTICIPATING CUSTOMER.

ALL Mastercard INTELLECTUAL PROPERTY PROVIDED OR MADE AVAILABLE IS "AS IS" AND "AS AVAILABLE". TO THE FULLEST EXTENT PERMITTED BY LAW, Mastercard AND ITS AFFILIATES MAKE NO WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO ANY OF THE Mastercard INTELLECTUAL PROPERTY AND ANY RELATED PRODUCTS OR SERVICES, OR THE USE OF OR ABILITY TO USE ANY OF THE FOREGOING, INCLUDING, WITHOUT LIMITATION: (I) ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OR TITLE OR IMPLIED WARRANTIES ARISING FROM COURSE OF DEALING OR COURSE OF PERFORMANCE; OR (II) THAT ANY OF THE FOREGOING WILL MEET PARTICIPATING CUSTOMER'S OR ANY OF ITS TRANSACTION ORIGINATORS' OR THEIR

RESPECTIVE SENDER'S REQUIREMENTS, WILL ALWAYS BE AVAILABLE, ACCESSIBLE, UNINTERRUPTED, TIMELY, SECURE, FREE OF BUGS, VIRUSES, OPERATE WITHOUT ERROR OR OTHER DEFECTS, OR WILL CONTAIN ANY PARTICULAR FEATURES OR FUNCTIONALITY.

Participating Customer must:

1. Maintain the security of the Cross-Border Service APIs and limit access to the Cross-Border Service APIs only to authorized officers, employees or agents of Participating Customer. Any Individual using the Cross-Border Service APIs on behalf of Participating Customer will be presumed to be authorized by Participating Customer unless Participating Customer notifies Mastercard in writing that such Individual is not authorized;
2. Be solely responsible and liable for, and must appropriately monitor, manage, direct and control those Individuals authorized by Participating Customer to access the Cross-Border Service APIs;
3. Access the Cross-Border Service APIs only to submit properly authorized instructions for Transactions;
4. Treat the Cross-Border Service APIs as confidential information and safeguard them using the same standards that Participating Customer uses to safeguard its own confidential information; and
5. Comply with any additional terms and conditions required by Mastercard related to use of the Cross-Border Service APIs and ensure the compliance of those Individuals authorized by Participating Customer to access the Cross-Border Service APIs.

2.6.10 Termination or Suspension or Modifications

Without limiting the generality of Section 1.8, Termination, of the *Account-based Program Standards*, in applying the requirements thereof to the Program, Participating Customers must further:

Termination by Mastercard

Mastercard may also suspend or terminate the Participating Customer's participation in and use of the Cross-Border Service, in whole or in part, in Mastercard's sole discretion or, at Mastercard's option, Mastercard and a Participating Customer may agree to modify the terms and conditions of its Activity and Enrollment Form, if:

1. The Transaction Originator's use of the Cross-Border Service has breached a material obligation, representation, or warranty as stated in the applicable Standards, and, following written notification of such breach from Mastercard to the Participating Customer, the Participating Customer has failed to cure such breach, or failed to ensure that the relevant Transaction Originator cures such breach, within thirty (30) days after such notification
2. Mastercard's agreement(s) with its key vendor(s) is/are terminated or other agreements relevant to the Receiving Institution are suspended or terminated or otherwise cease to apply in full effect, thereby rendering Mastercard unable to perform its obligations under this Product Guide. In the event of such suspension by Mastercard, Mastercard must make commercially reasonable efforts to enter into or procure an agreement with a replacement vendor or Receiving Institution within thirty (30) days.

Termination by the Participating Customer

The Participating Customer may suspend or terminate its participation in and use of the Cross-Border Service, in whole or in part, if Mastercard has materially breached its obligations set forth in this Product Guide and, following written notification of such material breach from the Participating Customer to Mastercard, Mastercard has failed to cure such breach within thirty (30) days after such notification, to the substantial detriment of the Participating Customer.

Voluntary Termination

In accordance with Section 1.8.1 of the *Account-based Program Standards*, Participating Customer may voluntarily suspend or terminate its participation in and use of the Cross-Border Service, in whole or in part by providing written notice and submitting documentation as then required by Mastercard. The notice must fix a date on which the termination will be effective as follows:

Written notice to Mastercard provided by or with respect to Participating Customer	Regarding termination of its participation in Cross-Border Service	Must be received in advance of the termination effective date, by at least 180 days

Effect of Termination

All provisions of the Cross-Border Service Standards which by their nature extend beyond the termination of Participating Customer's participation in and use of the Cross-Border Service, including, without limitation Sections 2.5 (*Privacy and Data Protection*) and 2.6 (*General Standards*) of this Program Guide must survive the termination of this Product Guide. The Participating Customer has sole responsibility and liability toward Mastercard for any obligations of Transaction Originators and its and their respective Senders related to the foregoing which extend beyond the termination of the Participating Customer's participation in and use of the Cross-Border Service.

2.6.11 Miscellaneous

Assignment

Neither party may assign or transfer its rights or obligations granted under the Standards, by operation of law, contract or otherwise, without the other party's prior written consent, such consent not to be unreasonably withheld, and any attempted assignment without the express consent of the other party must be deemed null and void; provided, however, that Mastercard may, without the consent of the Participating Customer, delegate any obligations hereunder or assign the Standards in whole or in part to an Affiliate capable of performing Mastercard's obligations hereunder. The Standards must be binding upon and inure to the benefit of the successors and permitted assigns of each party.

Announcements

Participating Customer and Mastercard must mutually agree upon and approve any statement that may be intended for use with media releases, public announcements and public disclosures related to Participating Customer's use of the Cross-Border Service, which announcment may be used by either party until one party provides notice to the other party to cease using such announcement.

Independent Parties

Nothing in this Product Guide will constitute or be deemed to constitute an employment, association, partnership, joint venture, agency or any other type of relationship between Mastercard and the Participating Customer or render either of them the agent of the other for any purpose whatsoever. Neither Mastercard nor the Participating Customer will have authority or power to bind the other to contract or create a liability against the other in any way, or to make representations as to the other. Each of Mastercard and the Participating Customer must act in all aspects as independent contractors.

Force Majeure

In the event that a party is unable to perform or is precluded from performing its obligations in respect of the Cross-Border Service under the Standards due to any unforeseen circumstances beyond the reasonable control of such party, including any act of god, natural disaster, fire, strike, riot or civil commotion, act of government or governmental instrumentality (whether federal, state or local), war, pandemics, epidemics, failure of performance by a common carrier or other service/network, failure in whole or in part of technical facilities or any other similar cause beyond the reasonable control of such party (a "Force Majeure Event"), then such inability to perform must not be deemed to be a default hereunder; provided, however, that the non-performing party was not at fault in causing or failing to reasonably prevent the occurrence of such event and must make commercially reasonable efforts to continue to meet its obligations throughout the duration of the Force Majeure Event. The occurrence of a Force Majeure Event will not excuse any party from following the procedures set forth in its disaster recovery plan. During the pendency of such Force Majeure Event, the other party will be excused from performance of its obligations under the Standards that are dependent upon the parallel performance of the non-performing party.

Notices

All notices delivered in respect to the Cross-Border Service under the Standards must be in writing and deemed to be given (i) when actually received if delivered personally, (ii) two (2) days after the date deposited with the local postal service if sent by certified or registered mail, and (iii) one (1) day after the date delivered to a reputable next-day courier service. Notices must be addressed to a party at the address set forth in the Enrollment Form, to the signatory, with a copy to the General Counsel of such party. Either party may change such address by giving notice in accordance with this Section.

Third-Party Beneficiaries

Nothing in the Standards is intended to confer any rights or remedies on any persons in respect to the Cross-Border Service other than Participating Customer and Mastercard and their respective permitted successors and assigns. Without limiting the foregoing, no Third-Party must be a beneficiary of the Standards with respect to the Cross-Border Service.

2.7 Obligations and Responsibilities of all Participating Customers

2.7.1 Comply with the Standards

The Participating Customer must comply, and must ensure that any Transaction Originator complies, at all times with all applicable Standards, as well as any security certification and testing requirements, questionnaires or processes, and respective validation of such processes applicable to each of them and the conduct of their respective activities in connection with the Cross-Border Service, in each case as determined by Mastercard from time to time.

2.7.2 Territory for Origination of Transactions

For Programs that use ICAs, except as otherwise provided in the Standards, the ICA number used to conduct Activity must reflect the country, from among those in the Customer's Territory(ies) from where the origination of payment occurs.

An OI may effect Transactions from an Originating Territory: (a) which is approved by Mastercard via its Enrollment Form and (b) for which the OI holds all Required Licenses. The Originating Institution Settlement Account must be held in the applicable Originating Territory.

If the Sender's Funding Account is held outside of the relevant Originating Territory, the OI must ensure: (c) its ability to effect the Transaction in full compliance with Applicable Law and (d) that the location of the Sender's Funding Account is clear and included in the instructions for the Transaction provided to the Receiving Institution.

Originating Institutions must ensure their Transaction Originator's compliance with the foregoing requirements.

2.7.3 Neither Resell nor Misrepresent the Cross-Border Service

The Participating Customer must not, and must ensure its Transaction Originators must not, authorize or appoint any dealers, agents, representatives, sub-resellers, or other third parties to market, offer for sale or sell the Cross-Border Service. The Participating Customer must not bind Mastercard, nor represent to any third parties that it has authority to bind Mastercard.

2.7.4 Comply with information security requirements

The Originating Institution must, and must ensure that each Transaction Originator must, for the purposes of Transactions involving the storage, processing and transmission of cardholder data: (i) if applicable, ensure that an annual PCI-DSS compliance review is conducted in respect of its services provided to its Senders and participation in the Cross-Border Service (and all consumer facing functions and applications thereof), by a Quality Security Assessors ("**QSA**") or Internal Security Assessors ("**ISA**") (as such terms are defined by PCI-DSS), to verify PCI-DSS compliance thereof; (ii) complete, and deliver to Mastercard, on an annual basis, a PCI-DSS Report on Compliance and Attestation of Compliance (completed by a QSA or ISA) in respect of all relevant Transactions (and all email and consumer facing functions and applications thereof); and (iii) ensure that any modifications, updates and other changes to the services provided to any Senders as related to Transactions (and all email and consumer facing functions and applications thereof) continue to meet all PCI-DSS requirements. In addition, the OI must participate in periodic meetings (whether held in person, by telephone conference or otherwise), to be held upon Mastercard's reasonable request, to discuss, among other things, information security, fraud, data privacy and other issues as Mastercard may desire from time to time.

2.7.5 Notify Mastercard of key changes

Notifications. Participating Customer must immediately notify Mastercard in writing of the following:

1. Any communication from any Governmental Authority which suggests or may suggest that the activities of Participating Customer, an Originating Institution's Transaction Originator or Sender or Mastercard may be in violation of any Applicable Law or that the activities of Participating Customer may be Prohibited Business Activities;
2. Any change in Applicable Law that Participating Customer reasonably believes may result in the activities of it, any Transaction Originator or Mastercard to be in violation of any Applicable Law; or
3. The termination, voluntary or involuntary, of any license, rights or authorization under any Standards or Local Funds Standards, or any material change or modification to any such license, rights or authorization or such standards such that they affect or may affect Participating Customer's ability to perform its activities or obligations in connection with the Cross-Border Service.

Procedures for notifying Mastercard are provided herein or in the Participating Customer's Enrollment Form.

2.7.6 Maintain a Disaster Recovery Plan

Participating Customer must, and Participating Customer must ensure that each Transaction Originator must, maintain a disaster recovery plan, which they must test regularly, as well as systems, equipment, facilities and trained personnel that are reasonably designed to enable each party to perform its basic obligations under this Product Guide with minimal interruption in the event of a disaster.

2.8 Obligations and Responsibilities of Originating Institutions

2.8.1 Use accurate and complete data

The Originating Institution is solely responsible for providing to Mastercard for each Transaction: (i) complete and accurate information in accordance with the requirements of Applicable Law and the Standards and (ii) any information required by Applicable Law and the Standards applicable to the Transaction.

Mastercard will have no liability or responsibility for incomplete or inaccurate Transaction instructions provided to Mastercard by the Originating Institution (including, without limitation, any liability for the misdirection of funds related thereto).

The Originating Institution must complete each Transaction pursuant to the Sender's instructions (subject, in all cases, to compliance with Applicable Law and the Standards).

If information on the Sender and/or the Beneficiary Account Holder of a Transaction is missing, Mastercard may, in its sole discretion, ask for further information on the Sender and/or the Beneficiary, or decide to execute, reject or suspend a transfer of funds, as appropriate, and take the appropriate follow up actions. Mastercard may also decide to reject or suspend a transfer of funds, as appropriate, where it reasonably believes the Originating Institution may be unable to fulfill its settlement obligations in connection with the Cross-Border Service, where the Originating Institution is not in full compliance with any of its compliance obligations under Sections 2.3 and 2.4 of this Product Guide or otherwise in order to comply with Applicable Law or Mastercard's policies.

2.8.2 Provide Sender with Disclosures

In compliance with Applicable Law and Applicable Data Protection Laws, the Originating Institution must, and must ensure that the Transaction Originator must:

1. Provide relevant terms and conditions for its services provided to its Senders and an appropriate privacy notice in connection with its Sender's use of the Originating Institution's or the Transaction Originator's (as appropriate) services;
2. Ensure that each of the terms and conditions and privacy notices will identify the Originating Institution or the Transaction Originator (as appropriate) as provider of its services to its Senders and will establish privity with respect to such services between the Originating Institution or the Transaction Originator (as appropriate) and the Senders;
3. Comply with the terms set forth in its privacy notice; and
4. Be solely responsible for complying with all consumer disclosure requirements in connection with its services provided to its Senders, in accordance with Applicable Data Protection Laws and the aforementioned privacy notice.

2.8.3 Obtain Sender Consents

Without limiting the generality of the foregoing, the Originating Institution must, and must ensure that the Transaction Originator must, ensure that it obtains or causes to be obtained all necessary consents from, and provides all notices to, its Senders as required by such Applicable Data Protection Laws and the aforementioned privacy notice in order to operate its services provided to its Senders in connection with the Cross-Border Service, and to provide full disclosure on any fees charged in connection with such services.

2.8.4 Ensure appropriate support is provided to Senders

The Originating Institution must, and must ensure that Transaction Originators must, ensure that: (i) it makes available to its Senders general information and self-help documentation regarding its services provided to its Senders; and (ii) be responsible for handling and promptly responding to, addressing and resolving inquiries related to such services and any Transaction. For purposes of clarity, the Originating Institution or the Transaction Originators (as appropriate) are responsible for the management of any relationship between it and its Senders.

2.8.5 Comply with the Mastercard Brand Guidelines in User Interfaces

If the Originating Institution or a Transaction Originator presents a user interface to its Senders for its services then, for any Card Accounts with Mastercard branding, the Originating Institution must ensure that it and such Transaction Originator use, display or incorporate Mastercard's Brand Marks in such user interface in accordance with the Mastercard Brand Guidelines.

2.9 Recalls, Returns and Cancellations

After a Transaction has been submitted by the Originating Institution to Mastercard in connection with the Cross-Border Service, it may not be reversed, modified or cancelled. If the Originating Institution has submitted a Transaction in error or with incomplete or inaccurate instructions or which is subsequently identified to be fraudulent, the Originating Institution will initiate a Recall (as outlined in the Returns section of this Product Guide), and Mastercard will take all reasonable steps to try to return the associated funds to the Originating Institution (less any costs and expenses incurred in doing so). For the avoidance of doubt and without prejudice to the terms of Section 2.8.1 above, Mastercard will not incur any liability or obligation to the Originating Institution in connection with trying to recall, return or cancel such Transaction and in particular if it is unable to obtain the associated funds from the Receiving Institution.

Chapter 3: Key Product Features

This section provides information on the key product features of Cross-Border Services

3.1 Cross-Border Services Connection Options

Payments can be sent to the Cross-Border Services application either via an API connection or via a file transfer (Mastercard's Global File Transfer (GFT) and/or SWIFT FIN or FileAct).

- For API specifications, visit https://developer.mastercard.com/cross-border-services/documentation/
- Payment File specifications can be found in the *Cross-Border Services Payment File Processing Guide*.

3.2 Types of Transactions Supported

Cross-Border Services supports Participating Customers that offer the following cross-border payment types to their end-user customers:

1. Person to Person (P2P). For transfers of funds between physical persons. For example, a person might use this type of funds transfer to send money to a child away at college or to reimburse a friend.
2. Business Disbursements (B2P). For transfers of funds from a business to a physical person or to a small business. For example, a business might use this type of funds transfer to distribute insurance claim payments, payroll, or investment dividends.
3. Government/Non-Profit Disbursements (G2P). For transfers of funds from a government or from a non-profit organization to a physical person or to a small business. For example, a government or a non-profit might use this type of funds transfer to distribute pensions, social benefits, tax refunds, or emergency aid.
4. Business to Business (B2B). For transfers of funds from one business to another. For example, a business might use this type of funds transfer to pay for the goods it imported from another country.
5. Person to Business (P2B). For transfers of funds from a physical person to a business. For example, a person might use this type of funds transfer to pay for the goods it bought from another country.

For a list of supported payment types by country, please refer to the Cross-Border Services Business Endpoint Guide.

3.3 Types of Funding Sources and Beneficiary Accounts Supported

10.1.1 3.3.1 Originating Instruments Supported

Cross-Border Services supports the transfer of funds from many types of Sender sources including the following:

- Bank account
- Mastercard (including Debit Mastercard), Maestro, or Cirrus Card Account
- Other branded card account
- Mobile money account
- E-Wallet
- Cash (some restrictions by Receiving Institution may apply)

10.1.2 3.3.2 Beneficiary Accounts Supported

Cross-Border Services supports Senders to transfer funds to the following types of Beneficiary Accounts:

- Bank account
- Mastercard (including Debit Mastercard), Maestro, or Cirrus Card Accounts (restrictions may apply, as stated throughout this document)
- Mobile money account
- Retail cash pick-up

For a list of types of Beneficiary Accounts supported by country please refer to the Cross-Border Services Business Endpoint Guide.

3.4 Transaction Limits

To assist with AML/CTF risk and exposure, Mastercard manages individual transaction amount limits and velocity limits at three levels:

1. Every unique receive endpoint has individual transaction and velocity limits set by the Receiving Institution or the Beneficiary Institution or such other applicable intermediary (as appropriate)
2. Cross-Border Services has established standard individual transaction and velocity limits based on three factors:
   a. Payment type –B2B, B2P, P2P, P2B, and G2P
   b. Sender Funding Account type– bank account, pre-paid card, e-wallet and e-transfers, mobile money accounts, and cash-in
   c. Beneficiary Account type – bank account, debit/credit card, e-wallet or mobile wallet, mobile money accounts and cash-out

3. The Originating Institution has the option to set lower individual transaction amount and velocity limits than those set by either Cross-Border Services or the Receiving Institution or the Beneficiary Institution or such other applicable intermediary (as appropriate).

Additional considerations:

- The lower of the foregoing items 1, 2, or 3 will apply
- The individual transaction amount and velocity limits that apply for each receiving endpoint are included within the guide and may be subject to change
- All individual transaction amount and velocity limits are in USD or its equivalent
- Velocity limits apply to the sum of all Transactions made by a Sender or received by a Beneficiary across Corridors during the relevant period
- Transactions that fall outside of specified limits will not be processed by Cross-Border Services

Note: Some restrictions exist in Originating Territories and Receiving Territories. For a list of transaction amount limits and/or exceptions by country please refer to the Endpoint Guide.

Chapter 4: FX Rate Management and Transaction Flows

This section provides information on the different FX rate delivery mechanisms and expired quote/rate options and Transaction flows

4.1 FX Rate Delivery and Identification Options

Flexible FX rate delivery method includes rates by currency pair and validity period.

See Mastercard Developers for API related details: https://developer.mastercard.com/cross-border-services/documentation/api-ref/	
Quote API	An API that allows Participating Customers to pull individual Corridor FX rates prior to sending a Transaction request. The FX rate can be identified for a subsequent Transaction using the **Proposal ID** returned in the Quote response.
Carded Rate APIs (push and pull)	An API that provides rates at set intervals for currency pairs across all Corridors. The FX rate can be identified for subsequent Transactions using the **Rate ID**. Rates can be pushed to the Originating Institution (via a webhook to a specified URL), or the Originating Institution can pull them.
Carded Rate File	A file-based option for Participating Customers to receive FX rates by currency pair across all Corridors. The FX rate can be identified for subsequent Transactions using the **Rate ID**. File Transfer Bulk Files IDs for Carded Rates: Test: T702 Prod: T700 **Note:** The Mastercard GFT system has a scheduled maintenance window from Saturday 10pm CT to Sunday 6am CT which may prevent files from being sent. For file-based-only Participating Customers whose FX rates refresh over this timeframe, Transactions must only be submitted with the Expired Rate option or held until refreshed rates are received on Sunday.
No upfront rate communication	No rate communication in advance of sending Transaction requests. No Proposal ID or Rate ID is identified with the Transactions, and the Transactions are processed at the prevailing FX rates.
Notes	A Proposal ID cannot be submitted in the same Transactions as a Rate ID. A Proposal ID is only used for a single Transaction, while a Rate ID may be for multiple.

4.2 Rate Data Specifications

This section provides specification for the FX rate delivery options.

10.1.3 4.2.1 API Specifications

All of the specifications for the APIs, including the Quote and Carded Rate APIs, are in the API reference section of the Mastercard Developers site: https://developer.mastercard.com/cross-border-services/documentation/api-ref/

10.1.4 4.2.2 Carded Rate File Specifications (v2)

The FX Rate File is provided in a comma-separated values (.csv) file. Fields are separated by embedded commas and double quotes to allow for special characters. Any decimals provided in transaction amounts are explicitly displayed. The reports are sent in bulk files, which are in variable block format during file transfer.

The following table describes names and specifications for the report fields.

Field	Specification
File Header	Header begins with a 100 record and the details for the header will start with a 101 record. Header will contain the following fields: 1. Report Name – "Cross Border Carded Rate File" [alphanumeric, max length: 40] 2. Report Destination Partner Name – Name of the Partner for which the report is being generated [alphanumeric, max length: 100] 3. Report Destination Partner ID – ID of the Partner for which the report is being generated [alphanumeric, max length: 80] 4. Third-Party Processor – Name of Third-Party Processor if partner is under a Third-Party Processor else this will be blank. 5. Third-Party Processor Partner ID – ID of Third-Party Processor if partner is under a Third-Party Processor else this will be blank. 6. Generated Date – Date when the report was generated [timestamp in St. Louis Missouri, USA time, Format: YYYY-MM-DDTHH:MM:SS±hh[:mm] or YYYY-MM-DDTHH:MM:SSZ 7. Report Version (e.g 2.0) 8. Environment (e.g MTF, Production) 9. Event Reference – Unique Reference pertaining to the Carded Rate delivery Event [alphanumeric, max length: 32] 10. Event Type – This parameter holds information related to an escalated FX rate or a standard published FX rate. Valid values: • CARDFX_PUB – A new FX rate published as part of its scheduled standard publication. • CARDFX_ESC – One or more FX rates have been escalated resulting in an Out of Schedule Push. Only updated FX rates are provided. **Note:** Out of Schedule push rates are only sent on rare occasions when atypical market fluctuations exist.)
Sub Header	Sub header begins with a 110 record and the details will start with a 111 record. This row will be associated to an Originating Institution or an Originating Institution behind a Third-Party Processor 3. Parent Partner Name – Name of the Originating Institution Partner [alphanumeric, max length: 100] 4. Parent Partner ID– ID of the Originating Institution Partner [alphanumeric, max length: 80]
Batch Record Headers	Batch header line starts with a 200 for an Originating Institution or an Originating Institution behind a Third-Party Processor or 400 for a Sub-Originating Institution

Field	Specification
Batch Record Indicators	Batch records start with a 201 record for an Originating Institution or an Originating Institution behind a Third-Party Processor. 401 record for a Sub-Originating Institution.
Partner Name in 200 records and Child Partner Name in 400 records	Name of Program Participant as registered during onboarding [alphanumeric, max length: 100]
Partner ID in 200 records and Child Partner ID in 400 records	[alphanumeric, max length: 80] example: BEL_MASEND5ged2
Rate ID	System generated Unique Rate ID associated with the Rate to be included in the Transactions. [alphanumeric, max length: 64] example: 11ig8xy5uc10fm11cymngqstcqq
Valid From	This parameter contains the effective "FROM" datetime from when the FX rate becomes valid. It holds an "ISO 8601" timestamp of the format: YYYY-MM-DDTHH:MM:SS±hh[:mm] example: 2019-04-24T04:07:00-05:00
Valid To	This parameter contains the expiration "TO" datetime for this FX rate. It holds an "ISO 8601" timestamp of the format: YYYY-MM-DDTHH:MM:SS±hh[:mm] **Note:** If there are any delays receiving updated rates, partners must continue to utilize expired rates until they receive new rates. Example: 2019-04-24T05:07:00-05:00
From Currency – Alpha	This parameter contains a "FROM" currency code in three-letter "ISO 4217". This is the sending currency. It holds a string of alphabet characters with an exact length of three. Example: USD
To Currency – Alpha	This parameter contains a "TO" currency code in three-letter "ISO 4217". This is the Beneficiary currency. It holds a string of alphabet characters with an exact length of three. Example: BRL
Rate Type	This parameter indicates whether the FX rate is tiered or single. Only specially configured Participating Customers will have tiered rates provided; Single is standard. Valid values: • tiered • single example: tiered

Field	Specification
Rate Use	Indicates the intended use of this FX rate, i.e. Rate used for the Customer Managed Sender Pricing or Mastercard Managed Sender Pricing. This is based on the business model of the Participating Customer. Customer Managed Sender Pricing = CMSP Mastercard Managed Sender Pricing = MMSP Valid values: • CMSP • MMSP (**Note:** map wholesale to CMSP, map retail to MMSP) example: CMSP
ASK Rate	**Note:** This is applicable for **future use only**; the value will not be provided, and the field will be blank. This parameter contains the ask rate value for this tier, which is the price at which market participants are willing to sell currencies. The format for this value is 1 to 10 numbers to the left of the decimal and 1 to 10 numbers to the right of the decimal. Example: 0.841220911
MID Rate	**Note:** This is applicable for **future use only**; the value will not be provided, and the field will be blank. This parameter contains the mid-market rate value for this tier, which is the mid-point between the buy and the sell prices of the two currencies to an exchange rate. It holds an integer value with a maximum length of 21. The format for this value is 1 to 10 numbers to the left of the decimal and 1 to 10 numbers to the right of the decimal. Example: 1.23
BID Rate	This parameter contains the rate used for the given Corridor transactions. It is the rate used to change the Sender or Originating Institution amount into the Beneficiary amount. The format for this value is 1 to 10 numbers to the left of the decimal and 1 to 10 numbers to the right of the decimal. example: 3.7833456828
Tier Identifier Rate	**Note:** This is applicable for **future use only**; the value will not be provided, and the field will be blank. This parameter contains the reference rate that must be used to select the tier of the rate. Amounts in tiers are always provided in "FROM" currency. It holds an integer value with a maximum length of 21. The provided rate must be used to calculate the Beneficiary amount, then that Beneficiary amount will be used to select the appropriate Tier. This is only applicable if the OI is configured to utilize tiered rates (as opposed to non-tiered rates). The format for this value is 10 numbers to the left of the decimal and 10 numbers to the right of the decimal. example: 0.2551280743
From Amount	**Note:** This is applicable for **future use only**; the value will not be provided, and the field will be blank. This parameter contains the starting amount for tiered rate calculation in 'FROM' currency. It holds a numeric value with a maximum length of 22. example: 1250.

Field	Specification
	For partners utilizing non-tiered pricing, this value will always be zero. For partners utilizing tiered pricing, this value will represent the starting amount for the tier.
Account Type	Identification of the Beneficiary account type this rate must be used for. Rates can be different based on the Beneficiary account type. Valid values: • BANK • E-WALLET • CARD • CASH-OUT example: BANK
Reserved01	No data available. Reserved for future use.
Reserved02	No data available. Reserved for future use.
Reserved03	No data available. Reserved for future use.
Reserved04	No data available. Reserved for future use.
Reserved30	No data available. Reserved for future use.
Batch Trailer	For an Originating Institution or an Originating Institution behind a Third-Party Processor Batch trailer begins with a 300 and the details for the batch trailer will start with a 301 record. Batch trailer will contain the following fields: Partner Batch Count —Number of total detail (202) records in batch [numeric min value: 1, max value: 999999999999] For a Child/Sub-Originating Institution Batch trailer begins with a 500 and the details for the batch trailer will start with a 501 record. Batch trailer will contain the following fields: Child Partner Batch Count —Number of total detail (402) records in batch [numeric min value: 1, max value: 999999999999]
Sub trailer	Originating Institution or an Originating Institution behind a Third-Party Processor's trailer begins with 800 and the details for the Sub trailer will start with 801 record. Sub trailer will contain the following fields: Parent Partner Batch Count —Number of total detail 402 and 202 records for all itself and the Sub-Originating Institutions for this partner in batch [numeric min value: 1, max value: 999999999999]

Field	Specification
File Trailer	File trailer begins with a 900 and the details for the file trailer will start with a 901 record. File trailer will contain the following fields: File Count—Number of total detail (202 and 402) records in the file [numeric min value: 1, max value: 999999999999].

4.3 FX Refresh Frequency

Participating Customers may receive rates at set intervals. Time intervals available are every:

- Near Real-Time (not applicable for carded rates)
- 1 hour
- 4 hours
- 6 hours
- 24 hours

The FX frequency/time specified will be applied to all currency pairs and Corridors within an Originating Institution's program.

4.4 Escalated Rates

In the rare scenario when an atypical situation arises in the respective region/market that greatly impact FX rates, Mastercard generates escalated rates. The escalated rates are differentiated from normal rates by the "Event Type" field in the API and Carded Rate Files. These rates may be delivered outside of normal delivery times.

4.5 Expired Rates and Expired Quotes

Participating Customers may identify the rate that must be applied to a transaction by either sending a Rate ID (provided in the Carded Rate API or file) or a Proposal ID (provided in the Quote API). The IDs provide an expiration date and time after which the ID can no longer be used to initiate a Transaction.

With the Expired Rate or Expired Quote option, Participating Customers may submit Transactions after the quoted FX rate has expired and have the Transaction process at the current FX rate, rather than receiving a rejected transaction.

Participating Customers have the option to set a set a variable threshold and/or a grace period for expired quotes/rates to continue processing. The variable threshold would be percentage of the charged amount. For example, if the threshold is set to 10%, and the charged amount would have been 100 USD, but the new FX rate takes the charged amount to over 110 USD, the transaction will reject. A grace period can also be set to only allow Expired Rates to be sent up to a certain timeframe. For example, a Participating Customer can request to allow their Expired Rates to continue processing up to 30 days after the original expiration time. These parameters are captured in the Customer Program Scope

Document during the implementation process. If no option is selected, the default is set to 100% variable threshold and a grace period of 30 days.

Additional Data Fields are provided in the Transaction response to denote if the ID was honored or expired.

How Rate is Received	ID Used in Transaction	Optional Expired Service	Expired Service Additional Data Response Fields
Quote API Response	Proposal ID	Expired Quote	840 and 841
Carded Rate API or File	Rate ID	Expired Rate	830 and 831

Data Field Names	Additional Data	Field Description as documented under the Response API Call Additional Data Fields section of the Cross-Border Mastercard Developers site: https://developer.mastercard.com/cross-border-services/documentation/api-ref/api-additional-info/
840	Quote ID	This field will only be provided on Quote and Transaction responses when an Originating Institution is configured for "Expired Quote" processing. This is a "Quote ID" provided for each quote and Transaction response as part of expired quote processing. This value can be used by an Originating Institution if they need to have a unique value for backend processing or trading associated to each transaction. This field is used in conjunction with Expired Quote Indicator field (841) described below. When Additional Data 841 = **QUOTE_HONORED**, the value in the Quote ID field will be the same in the Quote and Transaction response. When Additional Data 841 = **QUOTE_EXPIRED**, the value in the Quote ID field of the Transaction response will be different than the value provided in the Quote response. When there is a new (different) value provided in the Transaction response, the Originating Institution may use this new value in any backend process required to support the new settlement amount calculated as part of expired quote processing.
841	Expired Quote Indicator	This field will only be provided on Transaction responses when an Originating Institution is configured for "Expired Quote" processing. Indicator telling whether the proposal in the Quote used on the Transaction was honored or expired. This also indicates if the settlement amount in the Transaction response was recalculated as part of Expired Quote processing or not. This field is used in conjunction with Quote ID field (840) described above. Valid Values: **QUOTE_HONORED**: The rate from the proposal in the Quote was still valid when the Transaction was processed and was honored (used for Transaction processing). **QUOTE_EXPIRED**: The rate from the proposal in the Quote was no longer valid when the Transaction was processed and a new FX rate has been applied. The new FX rate created a new settlement amount for the Transaction that was processed.

830	Rate ID	This field will only be provided on Transaction responses when an Originating Institution has opted in for Carded Rates and is configured for "Expired Rate" processing. This is the "Rate ID" associated to the rate utilized to process the Transaction. This field is used in conjunction with Expired Rate Indicator field (831) defined below. When Additional Data 831 = **RATE_HONORED**, the value in the Rate ID field will be the same as the value provided by the Originating Institution in the card_rate_id field of the Transaction request. When Additional Data 831 = **RATE_EXPIRED**, the value in the Rate ID field will be different than the value provided by the Originating Institution in the card_rate_id field of the Transaction request. In this case, the value in this field will represent the card rate ID associated to the rate used on the Transaction.
831	Expired Rate Indicator	This field will only be provided on Transaction responses when an Originating Institution has opted in for Carded Rates and is configured for "Expired Rate" processing. Indicator telling whether the value provided in the card_rate_id field of the Transaction request was honored or expired. This also indicates if the settlement amount in the Transaction response was recalculated as part of Expired Rates processing or not. This indicator is used in conjunction with the Rate ID field (830) defined above. Valid Values: **RATE_HONORED**: The rate ID from the card_rate_id field of the Transaction request was still valid when the Transaction was processed and was honored (used for Transaction processing). **RATE_EXPIRED**: The rate Id from the card_rate_id field of the Transaction request was no longer valid when the Transaction was processed and a new FX rate has been applied. The new FX rate created a new settlement amount for the Transaction that was processed.

4.6 Participants to a Transaction

The transaction flow for Cross-Border Services has the following participants:

- Sender
- Originating Institution
- Cross-Border Services
- Receiving Institution
- Beneficiary Institution (when the Receiving Institution is different from the Beneficiary Institution)
- Beneficiary

4.7 Transaction Flow Types

Transactions can be submitted via the Cross-Border API or through Payment File Processing.

Please refer to the ***Payment File Processing Guide*** for Transaction file-specific layouts and processing. Industry standard formats: ISO20022 and MT103 are accepted with customer conversion available to preserve other existing message structures.

Note: Payment File Processing can be used in conjunction with the Payment API if needed. For example, an Originating Institution may want to send P2P transactions in near real-time via the Payment API but compile multiple B2B transactions to send at different intervals throughout the day using Payment File Processing. If both data avenues are used, it is strongly suggested the different Partner IDs be used to separate the activity between API and file processing.

View the following primary transaction flows below.

10.1.5 4.7.1 Transactions with an FX Rate Identifier

Use of an FX rate identifier is optional, however it can be used as part of the Originating Institution's Transaction processing to determine either how much to charge a Sender, how much will be received in the Beneficiary currency, or how much they will be charged at settlement prior to initiating a Transaction. Refer to **Figure A**, **B, C, and D** for transaction flow examples.

10.1.6 4.7.2 Transactions without an FX Rate Identifier

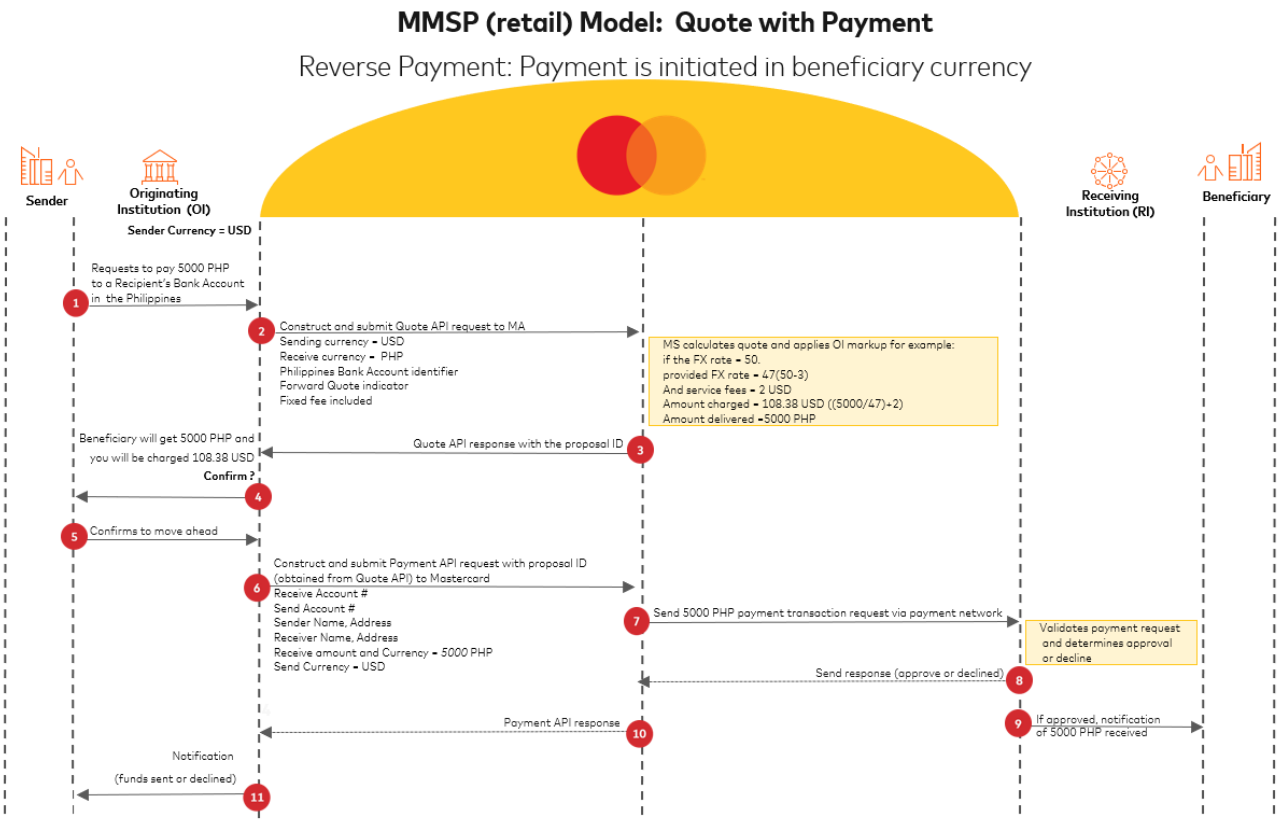
Transactions can be submitted without using a rate identifier. In these cases, the Originating Institution knowingly accepts the cross-border Transaction risks, without needing to confirm the FX rate, received amount in Beneficiary currency or related fees prior to a Transaction submission.

Neither a Proposal ID field from a Quote nor a Rate ID from the Carded Rate would need to be submitted in these types of Transactions; however, required Transaction details (amount, Sender/Receiver currency, Sender details, and Receiver details) must be submitted at the time of the Transaction.

The Transaction Response will communicate details to the Originating Institution such as the amount delivered or the amount charged, depending on the type of Transaction.

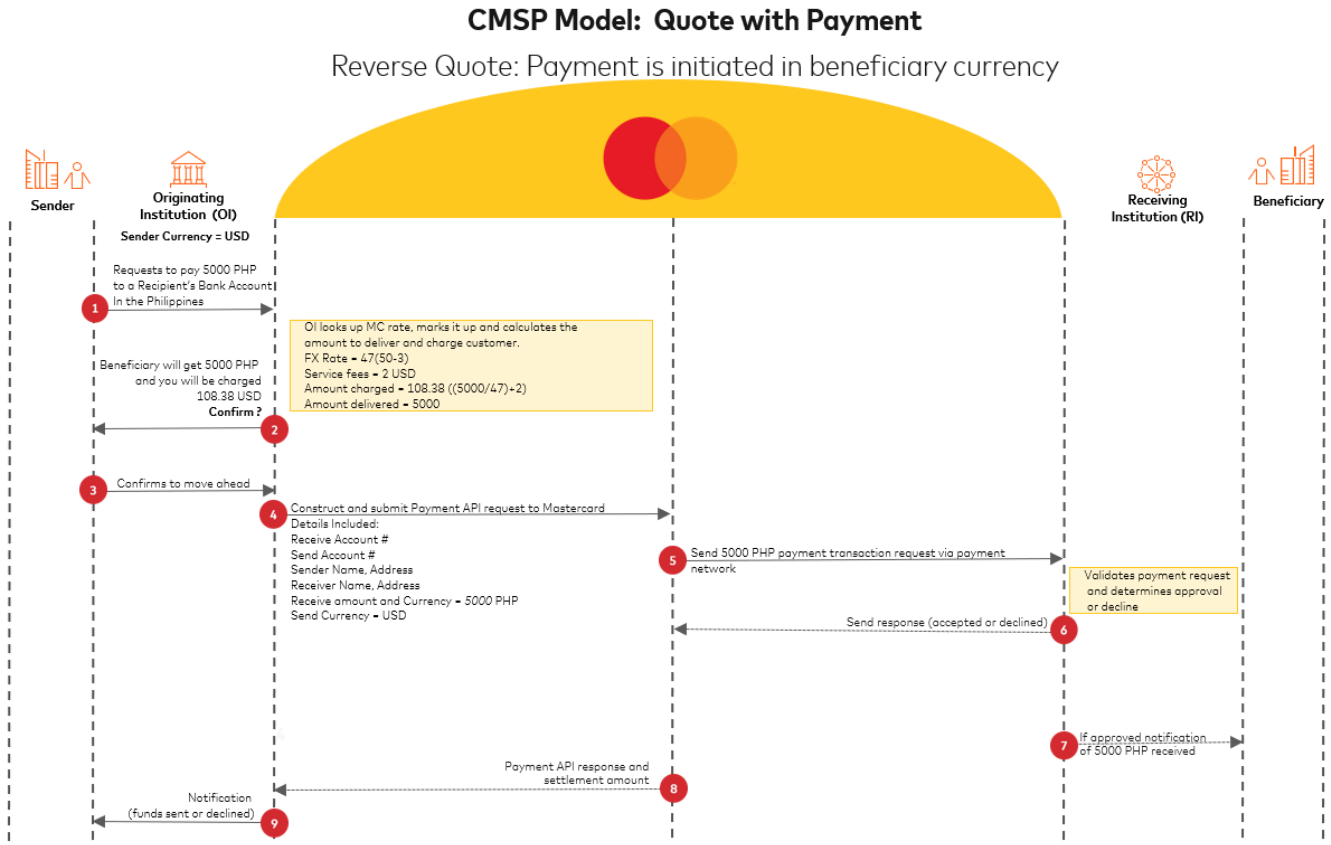
Note: Mastercard Managed Sender Pricing (MMSP) and Customer Managed Sender Pricing (CMSP) Models are described in section 8.2.3.

Figure 1. Transaction with a (forward) Quote as part of Transaction processing (fixed amount of Sender currency)



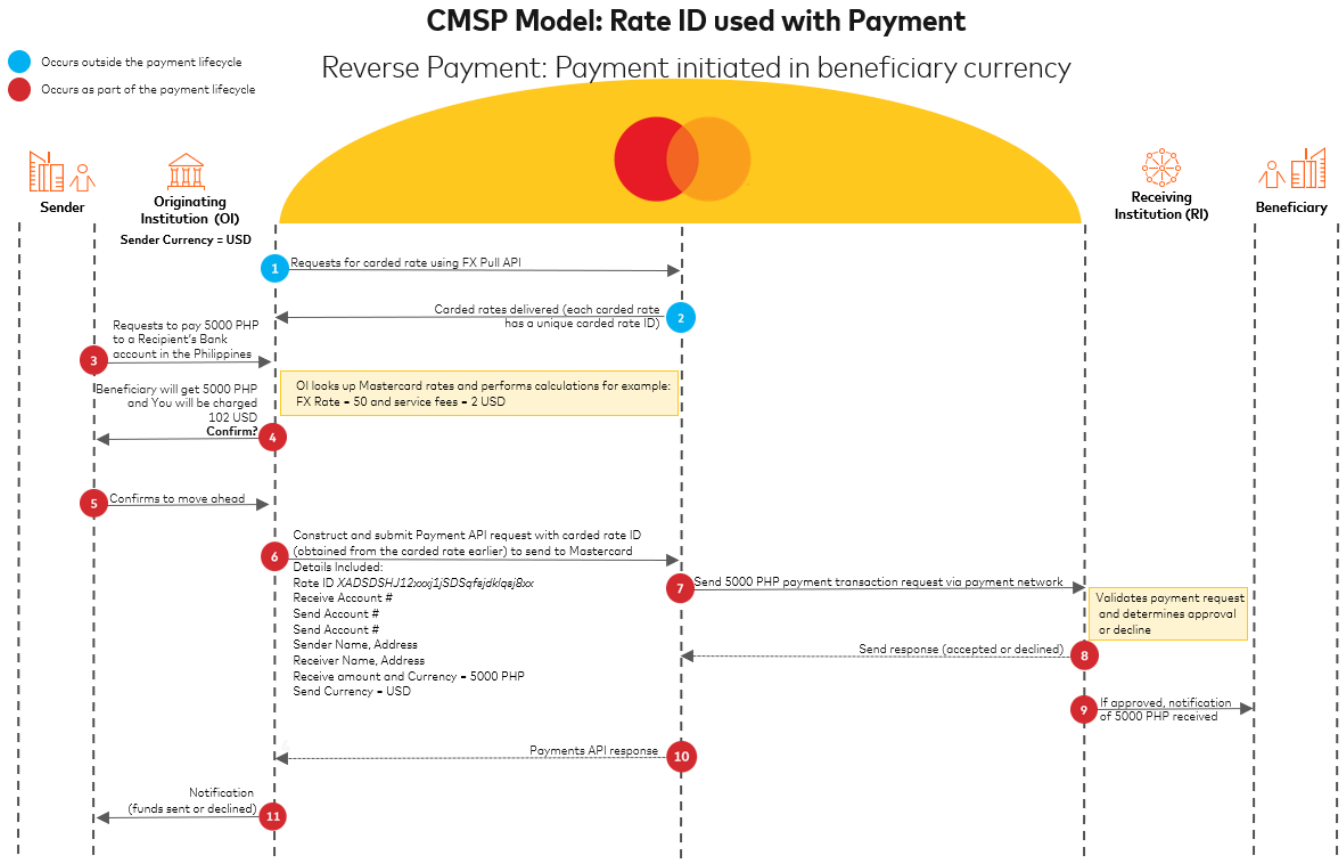
1. The Sender of an Originating Institution requests to send a Transaction to a bank account in the Philippines
2. The Originating Institution generates a quote for the proposed Transaction using Cross-Border Services taking into consideration sending amount, sending currency, receiving currency, and Beneficiary Account. Cross-Border Services calculates the quote by deducting the Originating Institution mark up from the FX rate and adding service fees to the Sender amount
3. The Quote API provides a quote and a Proposal ID is generated so the quote can be referenced in the future
4. The quote is presented to the Sender and they decide whether to move forward
5. If the Sender approves of the quoted amount, the Transaction continues to a Payment API request
6. The Originating Institution submits a Transaction request to Cross-Border Services using Payment API along with the Proposal ID from the associated quote
7. Cross-Border Services forwards the Transaction request to the RI for processing, including all details from the original quote
8. The RI validates the Transaction information and sends an approval response
9. If the Transaction request is approved, the RI increments the Beneficiary Account by the appropriate amount
10. Cross-Border Services provides the Originating Institution with the Transaction approval status
11. ORIGINATING INSTITUTION provides confirmation to the Sender that the Transaction was approved

Figure 2 Transaction with a (reverse) Quote as part of Transaction processing (fixed amount of Beneficiary Currency)



1. The Sender of an Originating Institution requests to send a Transaction to a bank account in the Philippines
2. The Originating Institution calculates the potential quote based on Mastercard FX rates, the Originating Institution's mark up, and service fees. This amount is shown to the Sender and they decide whether to move forward
3. If the Sender approves of the quoted amount, the Transaction continues to a Payment API request. (The Originating Institution can additionally submit a quote request for the proposed Transaction and to obtain a Proposal ID to be submitted along with the Payment API request. This will ensure that the final rate will be consistent with the amount quoted to the Sender)
4. The Originating Institution submits a Transaction request to Mastercard (using the Proposal ID from the associated quote if applicable)
5. Mastercard forwards the Transaction request to the RI for processing
6. The RI validates the Transaction information and sends an approval response
7. If the Transaction request is approved, the RI increments the Beneficiary Account by the appropriate amount
8. Mastercard provides the Originating Institution with the Transaction approval status
9. ORIGINATING INSTITUTION provides confirmation to the Sender that the Transaction was approved

Figure 3. Carded Rates are used to send a Transaction with a Rate ID



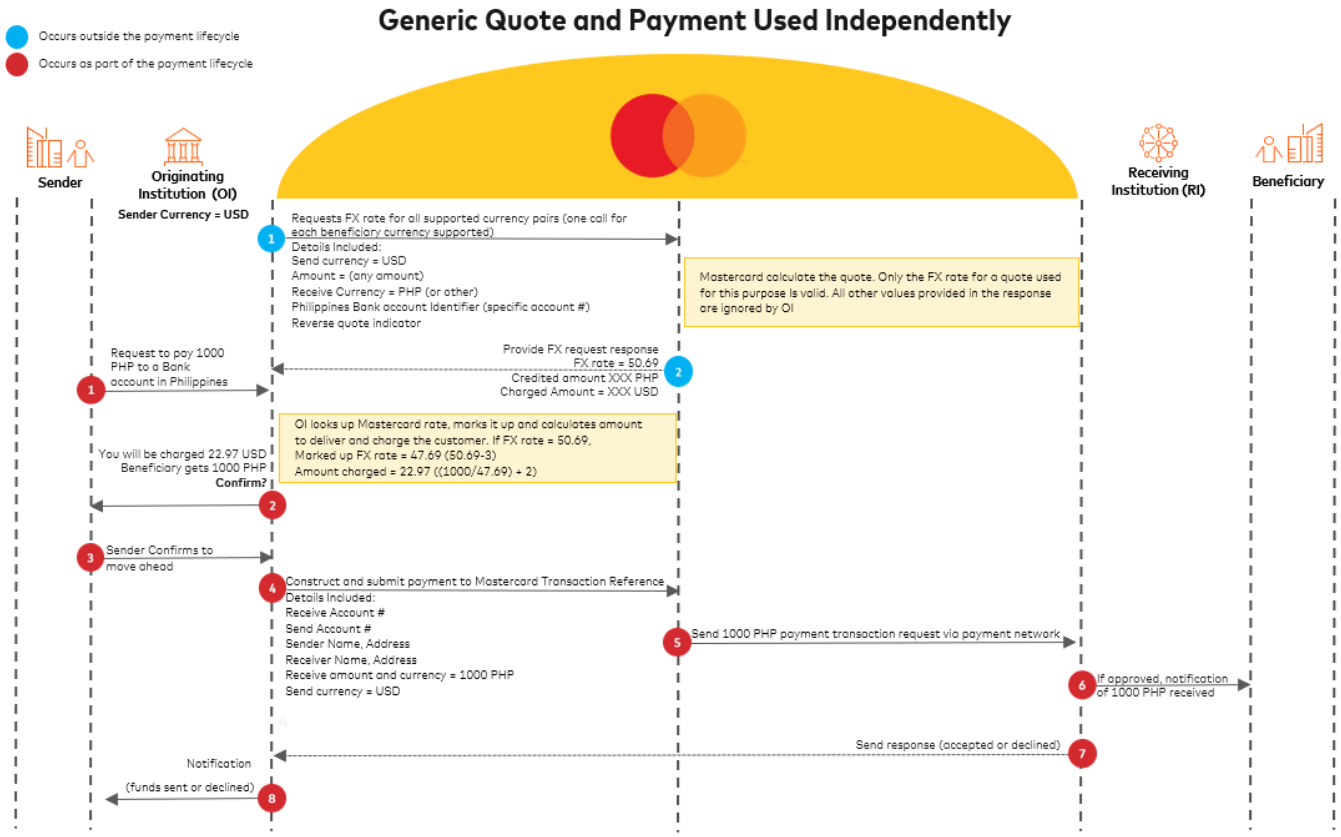
Carded Rate Portion:

1. An Originating Institution requests the FX rates for all Corridors in use through the FX Pull API
2. Mastercard pushes the carded rate files containing the current FX rate per Corridor that will be utilized for Transactions during the set interval.

Transaction Portion:

3. A Sender of the Originating Institution submits a Transaction request to a bank account
4. The Originating Institution gets the USD to PHP FX rate, marks it up and converts sending to receiver currency, then submits Transaction amount information to Sender
5. If the Sender approves, a Transaction request is submitted
6. ORIGINATING INSTITUTION submits the Transaction information with the corresponding Rate ID
7. Cross-Border Services validates the Transaction details and ensures Beneficiary Account is valid and reachable
8. Cross-Border Services forwards the Transaction request to the RI for processing
9. RI validates Transaction information and increments the Beneficiary Account
10. Mastercard provides the Originating Institution with the Transaction approval status
11. The Originating Institution provides confirmation to the Sender that the Transaction was approved

Figure 4 Transaction with a generic Quote that can be used for all Transactions in the Corridor



Carded Rate Portion:

1. An Originating Institution requests the FX rates for all Corridors in use by inserting generic values
2. Mastercard pushes the carded rate files containing the current FX rate per Corridor that will be utilized for Transactions during a set interval. The Originating Institution updates their system with the FX rate information received

Transaction Portion:

1. A Sender of an Originating Institution submits a Transaction request to a bank account
2. The Originating Institution gets the USD to PHP FX rate, marks it up and converts sending to receiver currency, then submits Transaction amount information to Sender
3. If the Sender approves, a Transaction request is submitted
4. ORIGINATING INSTITUTION submits the Transaction information with the Corresponding Rate ID
5. Cross-Border Services validates the Transaction details and ensures Beneficiary Account is valid and reachable
6. Cross-Border Services forwards the Transaction request to the RI for processing
7. RI validates Transaction information and increments the Beneficiary Account
8. RI provides an approval response for the Transaction request
9. The Originating Institution provides confirmation to the Sender that the Transaction was approved

10.1.7 4.7.3 Transaction Statuses and Life Cycle

When a Transaction request is made, it will immediately be assigned a status. The status can change throughout the Transaction Life Cycle.

A status of Rejected, Pending, and Success are returned immediately after the initial Transaction request while a status of Returned will only occur after a Transaction was in a Success status but later returned by the Receiving Institution.

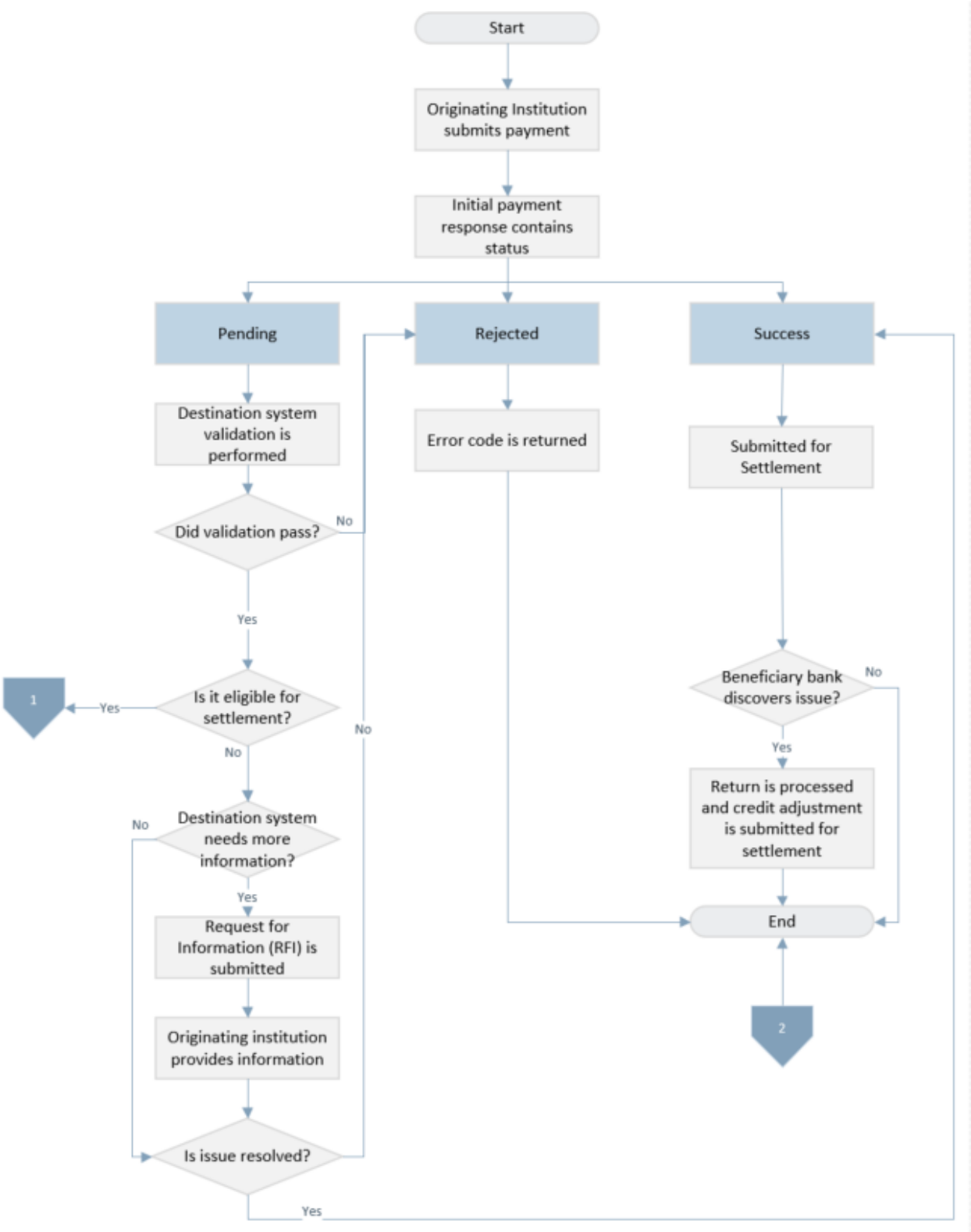
Status	Description
Rejected	Transaction instructions have either been rejected by Mastercard, the Receiving Institution, or the Beneficiary Institution where the Beneficiary's Beneficiary Account is held. Transactions will only move to Rejected immediately after the initial Transaction request or following a pending status. **Note**: When a payment is returned or rejected to a sender, the sender must receive an accurate description of the reason for the return or reject.
Pending	Transaction instructions have passed initial edits (including but not limited to message formatting validation, required data elements, and transaction limits). Transaction will be or has been routed to the Receiving Institution for the destination country and channel for further review against required data, transaction limits, and compliance checks and confirmation. Transactions will only move to pending immediately after the initial Transaction request and never follow any other status. Depending on the Corridor, some transactions may go into a pending status before either a success or rejected status. Mastercard will provide status updates whether the Transaction has been confirmed as success or has been rejected by the Receiving Institution via the daily Status Change Report, Status Change API, or in the Retrieve Payment API response. **Pending Stages:** A pending stage is also assigned to each pending Transaction to provide additional information on why a Transaction is pending. Transactions can move from one pending stage to another stage. See the Payment API resource on the Mastercard Developers site for current pending stages. **Note:** Whenever the pending stage *EligibleForSettlement* is received, a debit will be created for settlement. If this pending transaction is later rejected, a credit that reverses the complete transaction and fee amounts will be created for settlement, thus netting the transaction settlement to zero. If this pending transaction is later successful, no additional debit is created. For destination countries where real-time or near real-time delivery is offered, transactions will normally change from pending to success within the same business day. For other markets it may take 1-2 business days for a pending transaction to change to success. For Transactions in pending status where there is a request for information (RFI), the Transaction will remain pending until resolved.
Success	Transaction instructions have passed initial edits (including but not limited to message formatting validation, required data elements, transaction limits, and compliance checks), have been routed to the Receiving Institution for the destination country and

	channel, and have been confirmed for delivery (or to facilitate delivery) into the Beneficiary's Beneficiary Account via the destination system (local ACH system). Transactions will only move to success immediately after the initial Transaction request or following pending. Transactions can move from success to returned later if not accepted by the local ACH system or the Beneficiary Institution. **Note:** This status does not confirm that the beneficiary has already received the Transaction.
Returned	A transaction that was in a previous status of success but later returned by the Receiving Institution. Returned reasons include the local ACH system did not accept it, the Beneficiary's Beneficiary Account cannot be located, the Beneficiary requests the funds to be returned, or the Originating Institution has requested the funds be returned. Transactions will only move to returned following success. **Note**: When a payment is returned or rejected to a sender, the sender must receive an accurate description of the reason for the return or reject.

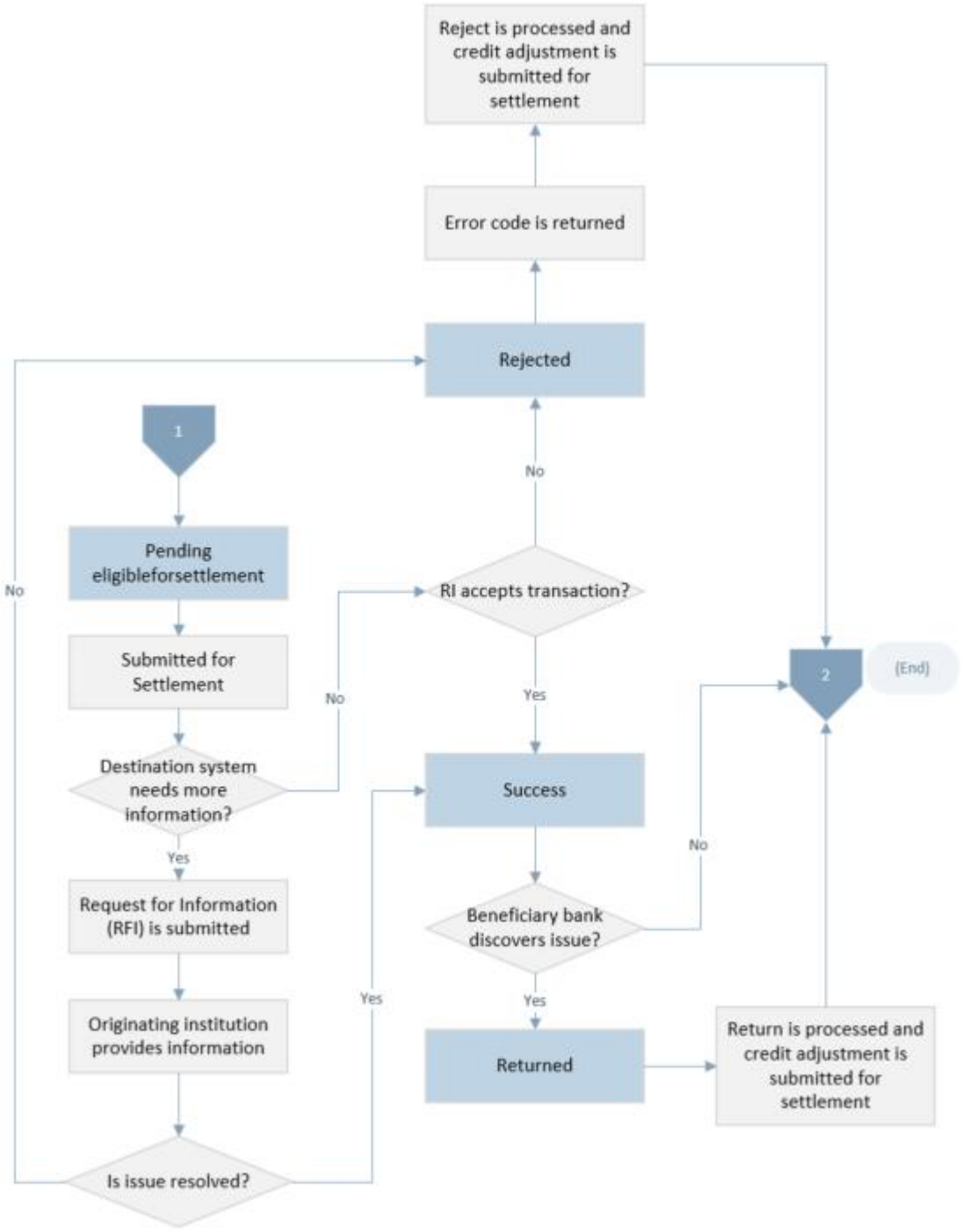
Note: Only Transactions with a status of Pending/EligibleforSettlement, Success or Returned will settle.

Transaction Life Cycle

The Transaction Life Cycle is depicted in the following two flow diagrams:



Transaction Life Cycle (continued): Pending/EiligibleForSettlement Flows



Chapter 5: Settlement

This section provides details regarding the settlement process

5.1 Settlement Overview

Settlement is the process by which Mastercard facilitates the exchange of funds on behalf of Originating Institutions and Receiving Institutions. Cross-Border Services uses many of the same processes, functions, and systems, that current Participating Customers are familiar with for card processing, such as:

- Settlement Account Management System (SAM) for the movement of funds
- ICAs to identify Participating Customers for settlement purposes
- Regional Settlement Services which allow Participating Customers to settle their activity in a regional settlement currency supported by Mastercard, independent of the settlement currency of the other party to the transaction
- Net Settlement Advisements for daily net settlement position notification (optional)
- GFT (processes to deliver settlement files)

These product similarities provide cost-savings with the ease of implementation.

Cross-Border Services settlement models:

1. **With FX translation:** The Originating Institution settles with Mastercard in one of the available Regional Settlement Services and currencies, most often its native currency, and Mastercard performs the necessary FX to translate the Transaction into the Beneficiary Account currency.
2. **Without FX translation**: The Originating Institution settles with Mastercard in one of the available Regional Settlement Services and currencies and the same currency as the Beneficiary Account currency, therefore no FX is performed.

5.2 Originating Institution Settlement Requirements

The Originating Institution must:

- Provide settlement details (ICAs, Regional Settlement Services, and GFT endpoints) at the time of implementation
- Utilize existing or set up a new ICA
- Agree to settle in one or more of the Regional Settlement Services
- Utilize existing or set up new GFT endpoints to receive settlement reconciliation files
- Accept settlement files which provide details about settlement for a specific processing day
  - Settlement Reconciliation File
  - Net Settlement Advisement (optional)

- Pay the daily net settlement amount to the Mastercard settlement account by the settlement service Transaction deadline (settlement date)

Note: Settlement date is the date when funds transfers must be received or completed. This does not correlate to the Beneficiary receipt date.

5.3 Settlement Risk Assessment and Credit Cap Management

To mitigate settlement risk exposures and to protect the integrity of Cross-Border Services, Mastercard will perform a settlement risk assessment on each Participating Customer. Mastercard global risk standards will be used, and the assessment will include but is not limited to the following factors: credit agency ratings, balance sheet strength, and enforcement actions.

Participating Customers which satisfy Mastercard's risk standards are generally not required to provide collateral. If a Participating Customer does not satisfy Mastercard global risk standards, Mastercard will carry out an underwriting analysis to determine the risk exposure for the Participating Customer. If Mastercard's estimated exposure to a Participating Customer exceeds its exposure appetite for the Participating Customer, it may require the Participating Customer to modify its program or to supply a protective collateral arrangement (typically collateral such as a letter of credit, guarantee, or cash collateral) to cover the excess exposure. Mastercard only accepts letters of credit or guarantees issued by acceptably rated institutions.

Mastercard will establish a daily maximum allowable credit cap for each Participating Customer which limits the aggregate daily volume each Participating Customer can process through Cross-Border Services. For Participating Customers which satisfy Mastercard risk standards the daily maximum allowable credit cap should be high enough not to negatively impact normal expected daily volumes but low enough to catch any potential unexpected Participating Customer outlier events. For Participating Customers that do not satisfy Mastercard global risk standards, the daily maximum allowable credit cap will be determined by factoring: expected daily volumes, risk exposure, and the amount of the protective collateral arrangement. Please note that once a Participating Customer's daily maximum allowable credit cap has been exceeded, all future transactions will be rejected until the daily counter resets, therefore it is important for Participating Customers to monitor volumes and keep Mastercard informed in advance of planned volume increases.

Here is how the daily maximum allowable credit cap works:

a. There are two daily maximum allowable credit caps configured. One that covers Monday-Thursday activity and one that covers Friday–Sunday. For Participating Customers that do not satisfy Mastercard global risk standards, the Monday–Thursday credit cap will be higher than that for Friday–Sunday since settlement will be delayed because of the weekend, which causes settlement exposure to increase.

b. All submitted Transactions across all Corridors by the Participating Customer, which are not rejected, aggregate in the pivot currency USD (leveraging FX rates provided by a public market benchmark source) throughout the day and once the threshold is reached, all new additional Transactions will reject. No Transactions will be accepted

and processed if the Transactions would cause the Participating Customer to exceed their daily maximum allowable credit cap.

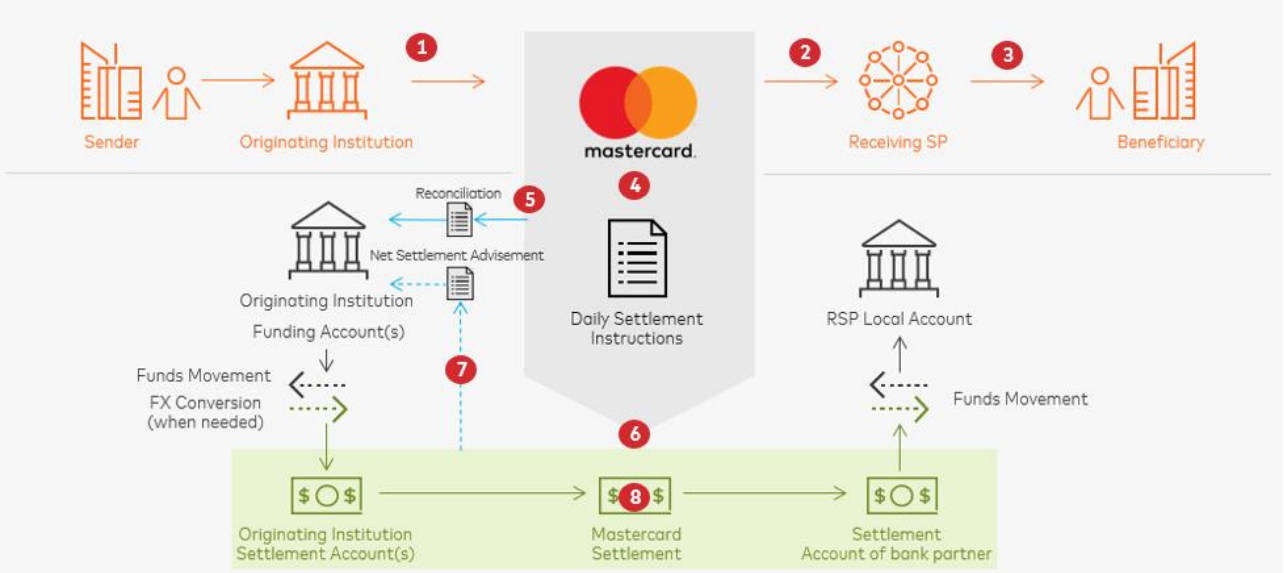
c. Daily credit cap counters reset daily, at midnight UTC, irrespective if it's a business day or not.

d. Courtesy notifications will be provided to the Participating Customer when the daily aggregate volume reaches 50%, 75%, and 90% of the established daily allowable credit cap. Once daily aggregate volume reaches the established daily allowable credit cap, all future Transactions will be rejected until the daily counter resets.

e. Refer to Chapter 10: Customer Support for the process to increase the credit cap amount.

Note: E-mail contacts set up to receive credit cap notifications are collected during onboarding. To update the contact list, please contact your Mastercard Account Manager.

5.4 Settlement Process



1 – 3. Transactions are submitted by the Originating Institution

4. At the end of the processing day, a Cross-Border Services net settlement position is created at the Participating Customer and settlement currency level

5. Based on the Cross-Border Services net settlement position, the Settlement Reconciliation File is created and delivered to the Participating Customer via the GFT endpoint configured and defined during implementation

6. All settlement positions are submitted by Cross-Border Services to Mastercard Settlement Account Management which uses the information to update the Mastercard Net Settlement positions. This is the Participating Customer's settlement position for all Mastercard transactions and products (API and Non-API) for the specific settlement cycle

7. Mastercard provides the Net Settlement Advisement to the Originating Institution via the method configured at onboarding

8. According to the settings of the specific settlement service, the funds for the net settlement are paid by the Originating Institution or collected by Mastercard and made available to the Receiving Institution based on the settings of the specific settlement service used by the Receiving Institution

5.5 Settlement Reports

Mastercard provides the Originating Institution the following daily settlement reports for reconciliation purposes.

Settlement Reconciliation File

The Settlement Reconciliation File is provided to the Originating Institutions for the purpose of providing the details required to reconcile between the total number of Transactions submitted for the day versus those that are being settled for the day.

The file will include the amounts to be settled and the details associated with each transaction that is part of the settlement for that processing day. Transactions that have the status of *Success* or a Pending Stage of *EligibleForSettlement* will create debits in settlement. Transactions with the status *Rejected* after having a Pending Stage of *EligibleForSettlement* or that status of Returned will create credits in settlement. Transactions submitted during the processing day that are outright rejected are not part of settlement, and therefore are not part of the reconciliation file or settlement for that day.

The Settlement Reconciliation File is delivered to the GFT endpoint identified or set up at the time of implementation. The specification for the Settlement Reconciliation File contains a readable format of the data and the data field formats for the file.

Note: For Originating Institutions using an existing ICA and Settlement Service, the Settlement Reconciliation File provides only the information needed to reconcile Cross-Border Services settled transactions (card processing transactions will not be included for reconciliation).

Refer to ***Chapter 7: Reporting*** - Settlement Reconciliation File for details.

Net Settlement Advisement

Although it is recommended to avoid the risk of non-compliance assessments due to settlement failures, Originating Institutions may optionally receive a Mastercard Net Settlement Advisement based on their current settlement set-up and confirmation. For settlement, Originating Institutions follow an agreed upon settlement cutoff for calculating end-of-day net settlement positions. Following the agreed upon settlement cutoff, Mastercard generates advisements for each Originating Institution's net settlement position associated to that ICA for all Mastercard products and transactions.

Originating Institutions must ensure that the Mastercard settlement bank has received funds on the settlement date for the amount due as indicated on the Settlement

Advisement. To do this, the Originating Institution must instruct their transfer agent or pay-thru bank to give transfer order messages top priority and to respond to them accordingly.

At settlement cutoff, SAM determines the net settlement position for all Originating Institutions that are settling in that settlement cycle. Advisement recipients may elect to receive an advisement for their net debit or net credit position, or to not receive a net settlement advisement at all. All of Cross-Border Services Originating Institutions are anticipated to be in a net debit position and thus are expected to forward Transaction to Mastercard for the sum of the net position with or without receiving the advisement. In addition, Originating Institutions may request more than one advisement destination or advisement transmission medium.

Net Settlement Advisements are available for delivery through the following methods:

- Mastercard eService
- Email message
- SWIFT MT998

When using an existing ICA and Settlement Service, the Cross-Border Services settlement position will show as a separate line item on the Settlement Advisement.

Note: A Settlement Advisement is not required for this service as the Settlement Reconciliation File provides all detailed settlement transaction data. Receiving the Settlement Advisement is recommended for Originating Institutions that want to set up a new ICA.

Funds transfer must occur on the settlement date that appears on the settlement advisement.

Refer to ***Chapter 7: Reporting*** – Net Settlement Advisement for details.

5.6 Settlement Finality and Discharge

Settlement Finality

Interbank Settlement System (for example, High Value [RTGS] and Low Value [ACH] Payment Systems)

- Transactions remitted via national interbank settlement systems are considered final in accordance with the rules of the Local Funds Standards in which the funds transfer is executed.
- For purposes of establishing settlement finality and discharge of obligations, funds become irrevocable when such funds are no longer subject to unwinding or a revocation period.

All Other Transaction Methods (for example, book transfer and Local Funds Networks)

- Transactions remitted through any other method are considered final when (i) funds are received by or sent from the Mastercard settlement agent, and (ii) such transfer of funds becomes irrevocable.
- For purposes of establishing settlement finality and discharge of obligations, funds become irrevocable when such funds are no longer subject to unwinding or a revocation period.

Discharge

Interbank Settlement Systems

- The settlement obligation of a net-debit Originating Institution is deemed discharged (i) upon crediting of funds in full to the Mastercard settlement agent's central bank account, and (ii) when such receipt of funds becomes irrevocable.
- The Transaction obligation to a net-credit Originating Institution is deemed discharged upon debiting of funds in full, from the Mastercard settlement agent's central bank account, for the benefit of such net-credit Originating Institution.

Book Transfer

- The settlement obligation of a net-debit Originating Institution is deemed discharged (i) upon debiting of funds from the Originating Institution's designated settlement account at the Mastercard settlement agent and credited in full to the Mastercard settlement account or the Mastercard settlement agent's in-transit account, and (ii) when such receipt of funds becomes irrevocable.

The Transaction obligation to a net-credit Originating Institution is deemed discharged upon crediting of funds to the Originating Institution's designated settlement account at the Mastercard settlement agent for the benefit of such net-credit Originating Institution.

Local Funds Networks (if settlement occurs in commercial bank funds and not through an interbank settlement system)

- The settlement obligation of a net-debit Originating Institution is deemed discharged (i) upon crediting of funds in full to the Mastercard settlement account or Mastercard settlement agent's in-transit account, and (ii) when such receipt of funds becomes irrevocable.
- The Transaction obligation to a net-credit Originating Institution is deemed discharged upon debiting of funds in full, from the Mastercard settlement account or the Mastercard settlement agent's in-transit bank account for the benefit of such net-credit Originating Institution.

5.7 Transaction Clearing and Settlement Timing

Settlement timing is determined by:

1. Transaction clearing time
2. Settlement service cutoff

Transaction clearing is the timeframe that Cross-Border Services uses to determine which transactions are eligible for the next settlement cutoff. Transactions processed between 1:00 AM UTC and 12:59 AM UTC the following day are cleared together and are eligible for the next settlement cutoff. Please note, only transactions with a status of SUCCESS, RETURNED, or PENDING with a stage of EligibleforSettlement, are eligible for settlement.

Settlement service cutoff is a time set by Mastercard Treasury specific to each settlement currency. The time represents the deadline for all settlement records to be received in order to be part of the next money movement cycle.

Transaction Date	Transaction Time (UTC)	Settlement Eligible Date
1-Mar	22:00	2-Mar
2-Mar	1:30	3-Mar
2-Mar	17:00	3-Mar
3-Mar	3:00	4-Mar

The expected time that physical movement of funds will happen to settle the transactions is based on the cutoff time associated with the settlement service being used to settle the transactions. Refer to the *Settlement Guide* for each settlement service.

The delivery of the Mastercard Net Settlement Advisement is typically 2 hours after the settlement cutoff time associated with the settlement currency and service.

5.8 Settlement Holidays

Regional holidays factor into when settlement occurs. The following holiday rules apply for all regional settlement services:

- Settlement will not occur on any declared holidays (identified in the table below).
- Settlement will not occur on any of the local country's banking holidays.
- Settlement will not be valued on any local currency holiday or U.S. Federal Reserve holidays.

When a currency holiday is announced by the central bank, local monetary authority, or local settlement agent, Mastercard will exclude that currency's regional settlement service from a settlement cutoff. Therefore, when a currency holiday is declared or the local settlement agent observes a banking holiday, settlement advisements for the affected regional settlement service will not be delivered to the Participating Customers. In addition, those dates are excluded as a settlement date for that currency.

Mastercard determines the holidays that regional settlement service participants will observe and may change at any time. When the transfer of funds is late, the computation

of compensation will include holidays occurring between the dates that the transfer should have occurred and the date that the transfer took place.

U.S. Federal Reserve Holiday Calendar

Holiday	2021	2022	2023
New Year's Day	1-Jan	1-Jan	1-Jan
Birthday of Martin Luther King, Jr.	18-Jan	17-Jan	16-Jan
Washington's Birthday	15-Feb	21-Feb	20-Feb
Memorial Day	31-May	30-May	29-May
Independence Day	4-Jul	4-Jul	4-Jul
Labor Day	6-Sep	5-Sep	4-Sep
Columbus Day	11-Oct	10-Oct	9-Oct
Veterans Day	11-Nov	11-Nov	11-Nov
Thanksgiving Day	25-Nov	24-Nov	23-Nov
Christmas Day	25-Dec	25-Dec	25-Dec

Settlement processing for Holidays and Weekends:

TFO = Funds Transfer Order (funds movement)

When	Advice and TFO Delivered?	Count Towards Settlement Date?	Funds Move?
US: Non-Holiday Local: Non-Holiday	Yes	Yes	Yes
US: Holiday Local: Non-Holiday	Yes	Yes	No
US: Holiday Local: Holiday	No	No	No
US: Non-Holiday Local: Holiday	No	No	No

5.9 Failure to Meet Mastercard Settlement

All Originating Institutions of Cross-Border Services that are in a net debit settlement position must transfer funds to the Mastercard settlement bank on the appropriate settlement date. This includes Originating Institutions that elect not to receive Net Settlement Advisement reports.

An Originating Institution is expected to have a business recovery plan in place such that they will be able to transfer funds in a timely manner in the event of a natural disaster or other force majeure at the Originating Institution's primary location(s). Mastercard has the option to terminate the Originating Institution's license if the Originating Institution is unable to transfer funds to the Mastercard settlement bank.

Additionally, the Originating Institution responsible for payment of the Transaction to Mastercard is subject to pay Mastercard interest compensation and a non-compliance fee, regardless of the reason for the settlement failure.

Assessments for Failing to Meet Mastercard Settlement

Assessments are noncompliance fees levied against any Originating Institution that fails to transfer funds by the specified settlement date to the Mastercard settlement bank. Assessments are calculated based on the USD settlement equivalent amount.

Assessments are applied on the first day, and each subsequent day thereafter, that an Originating Institution fails to transfer funds in a timely manner and in agreement with proper settlement procedures.

An amount up to USD 5,000 is assessed for each failure after the second failure in a calendar month, including when an Originating Institution fails the 14:00 CT cutoff deadline three or more times in one calendar month.

Mastercard assesses a $100 processing fee for funds transfer exceptions. Examples include, but are not limited to, overpayment refunds and funds collection re-presentments.

Assessment Amounts

Originating Institutions participating in the U.S. Dollar regional settlement that fail to settle by 14:00 CT on the appropriate settlement date can be assessed the following, based on the amount of settlement:

Settlement Amount	Daily Assessment
USD 0.01 to USD 249,999.99	USD 250
USD 250,000 to USD 499,999.99	USD 500
USD 500,000 to USD 999,999.99	USD 1,000
USD 1,000,000 to USD 1,499,999.99	USD 2,500
USD 1,500,000 to USD 1,999,999.99	USD 5,000
USD 2,000,000 to USD 4,499,999.99	USD 7,500
USD 5,000,000 or more	USD 10,000

Originating Institutions participating in any settlement service that fail to settle on the appropriate settlement date can be assessed the following, based on the amount of settlement:

Settlement Amount Daily Assessment	Daily Assessment
USD 0.01 to USD 99,999.99	USD 250
USD 100,000 or more	0.25% times the unpaid settlement obligation

Chapter 6: Mastercard Developers API Resources and Information

This section provides an overview the API resources and information available from the Cross-Border Services page on Mastercard Developers:
https://developer.mastercard.com/documentation/mastercard-send-cross-border/1

6.1 API Resources

10.1.8 6.1.1 Quote API Resource

The Quote API resource provides the Originating Institution FX rates for Transaction processing.

The Quote resource also provides the necessary information to help meet certain regulatory requirements around providing information about the charged amount, fees, and the amount and currency delivered to the Beneficiary.

If the Originating Institution is providing a quote to the Sender of a transaction based on their own FX rates and calculations, then the Quote from Cross-Border Services is optional for all Transaction Types. A Quote can be used as part of the Originating Institution's Transaction processing to determine either how much to charge a Sender, how much will be received in the Beneficiary currency, or how much they will be charged at settlement prior to initiating a Transaction.

When a Quote is utilized and the Quote Proposal ID information is provided for Payment API, the quote transaction details (sending/ Beneficiary Accounts, amounts, currencies, etc.) are used to fill the Transaction request. This is done to simplify processing and avoid potential keying errors.

Quote Types

There are two types of Quotes:

1. **Reverse Quote**
   - Originating Institution provides Beneficiary amount and the Quote returns the Transaction amount to be collected at settlement
   - Example: Deliver EUR 100 to the Beneficiary and pay X USD, where USD is the sending/settlement currency
2. **Forward Quote**
   - Originating Institution provides Sender amount and the Quote returns the Beneficiary amount to be received.

- Example: Pay USD 100 and deliver X EUR to Beneficiary, where USD is the sending/settlement currency

Refer to the Mastercard Developers site for details on the data contained in the Quote resource.

10.1.9 6.1.2 Payment API Resource

The Payment API resource is used by Originating Institutions to submit a Transaction request. The Transaction request provides the Receiving Institution important information, such as the account the Transaction needs to be applied to, the amount and currency to be applied, and Sender and receiver information.

After the Originating Institution initiates Transaction instructions, Mastercard will deliver the Transaction instruction to the Receiving Institution and it is expected that the Transaction instruction will be delivered to the Beneficiary Account according to the delivery indicators outlined in the Cross-Border Services Business Endpoint Guide, as long as the Transaction is not rejected.

Note: For Corridors that support multiple currencies, if the Beneficiary holds an account in a currency different from the Beneficiary currency sent in the Transaction, the Receiving Institution or the Beneficiary Institution may deduct fees from the Transaction amount for converting the Transaction currency into the Beneficiary currency.

Refer to the Mastercard Developers site for details on the data contained in the Transaction resource.

10.1.10 6.1.3 Retrieve Payment API Resource

The Retrieve Payment API resource is used by Originating Institutions to find out the current status of a previously submitted Transaction. The response to the Retrieve Payment API request will bring back necessary fields provided as part of the original payment response with the only field potentially different than the original response being the status field.

When using the Retrieve Payment API resource to check the status of a pending Transaction, it should be used no more than every 30 minutes for each Transaction being retrieved.

6.1.3.1 Retrieve Payment by Transaction ID

This retrieve Transaction call uses the *Cross-Border Services-generated* Payment ID ('payment.ID' API field) generated at the time of the original Transaction request as the key to find the transaction and its associated status.

6.1.3.2 Retrieve Payment by Transaction Reference

This Retrieve Payment call utilizes the *Originating Institution-defined* transaction reference ('transaction_reference' API field) provided at the time of the original Transaction request as the key to find the transaction and its associated status.

Refer to the Mastercard Developers site for details on the data contained in the Retrieve Payment resource.

10.1.11 6.1.4 Cancel Payment API

The Cancel Payment API resource can only be used on a limited basis for mobile Transactions that are in a Pending Status due to a receiver who has not yet registered to receive funds, or cash payout corridors, where the funds have not been picked up yet.

The API response to the Cancel Payment request indicates that the request was successfully *delivered* to the Receiving Institution; it does not indicate the status of the cancellation process.

To verify if the Transaction is cancelled, the Status Change API (Refer to 6.1.6 Status Change API) and the Status Change Report can be used. If the status moves from "Pending" to "Success," the response is final and the attempt to cancel was not permitted. If the Receiving Institution agrees to allow the cancellation of a Transaction, most will change the status immediately, but others may take multiple hours.

Note: Transactions requiring cancellation that do not qualify for this API resource must follow the reversal process. See the *Reversals/Cancellations* section in the *Customer Support* chapter for more information.

10.1.12 6.1.5 Carded Rate APIs (push and pull)

The Carded Rate APIs allow OIs to:

- Receive FX rates for all active Corridors without the need to execute individual Quote API calls for each Corridor
- Identify the rate that should be applied to the transaction using a new, optional Rate ID field.

The Carded Rate Pull is where the Originating Institution creates a scheduler that will call the API based on the refresh times per currency pair provided by Cross-Border Services. The Carded Rate Push, once coded to provides the ability for Cross-Border Services to push all FX rates to the Originating Institution that are refreshing at the time of the push without any requests from the Originating Institution. Depending on the number and FX refresh schedules of the rates, the Originating Institution should expect to receive multiple carded rates a day.

It is a Cross-Border Services best practice for any Participating Customer who codes to the Push API to also code to the Pull API in case connectivity issues prevents Mastercard from pushing them rates in a timely manner.

The specification for the Carded Rate APIs can be found on the Cross-Border Mastercard Developers site in the API Refence Section: https://developer.mastercard.com/cross-border-services/documentation/api-ref/

10.1.13 6.1.6 Status Change API

The Status Change API provides near real-time Transaction status updates to those Originating Institutions who opt-in for the service. The Transaction data in the Status Change API closely correlates to the data fields in the Status Change Reports and allows Originating Institutions to update their processing systems and Senders in a quick and seamless manner.

The Status Change API is a Webhook where the details are "pushed" via the API to the Originating Institution, so there is no requirement for the Originating Institution to make an API request to receive the status change information. Updates for each Transaction are sent individually within seconds of Cross-Border Services receiving the updated information from our receiving partners.

The specifications for the push API can be found on the Cross-Border Mastercard Developers site in the API Refence Section: https://developer.mastercard.com/cross-border-services/documentation/api-ref/

Status Change API Connection Failure Logic:

Given that the Status Change API is an unsolicited "push" API, there could be instances where a connectivity issue creates an inability for Mastercard to get status change updates to a Participating Originating Institution. In these instances, Mastercard will take the following actions:

- Retry the first failed push 3 times every 10 seconds after the initial break in connectivity. This will cover a very short break in connectivity that is automatically corrected (a blip).
- If the first 3 retries are unsuccessful, Mastercard will retry again 10 minutes after the initial break in connectivity.
- Mastercard will continue retrying every 10 minutes until the connectivity is back up and delivery is successful.
- Once connectivity is reestablished, all transactions statuses that are waiting to be delivered will be delivered to the Originating Institution in First in, First out (FIFO) order.

Note: Originating Institutions may always us the static Status Change Report, the Retrieve Payment API, and/or the Customer Site application to proactively verify transaction history.

6.2 Additional API Format Information

API Field	Explanation
Sender and Recipient Account URIs	The Account URI (Uniform Resource Identifier) section provides details and formats for all account types (source and destination) used for the Cross-Border API set. **Note:** The Sender Account URI scheme is based on the Funding Account and is mandatory. As such, where a bank account is the funding source, the International Bank Account Number (iban) or Bank Account Number (ban) scheme must be provided. The Recipient Account URI mandatory scheme is provided in the Technical Endpoint Guide.
Government ID URIs	The Government ID URI (Uniform Resource Identifier) section provides details and formats for all Government ID account types used for the Cross-Border API set.
ISO Country and Currency Codes	The ISO Country and Currency Codes sections provides the ISO version supported in Cross-Border and the list of codes.
Date and Time Formats	The Data and Time formats section provides details and formats for all date and time fields used for the Cross-Border API set.
Additional Data Fields	The Additional Data Field section contains formats that might be required for distinct Corridors. Actual fields required for each Corridor are provided in the Originating Institution's Technical Endpoint Guide (TEG) during the onboarding process.
HTTP Response Codes	Provides the most common response codes and description that are returned at the pre-application level.
Error Codes	The Error Code section provides details and formats for all error codes used for Cross-Border activity.
Return Messages	Provides a list of the current return messages.

6.3 Data Integrity and Quality

Cross-Border Services performs edits to ensure data integrity and quality, so transactions reach their destination as accurately as possible. Cross-Border Services manages data integrity and quality at two levels:

Data formatting

The Cross-Border Service provides data format requirements for each data field. When transactions are received from an Originating Institution, Cross-Border Services performs validations to ensure that the data provided matches the API definition for each field. Cross-Border Services validates that required fields are present, data lengths match defined maximums and minimums, data types conform to defined types (alpha, numeric, special, etc.), conditionality of data based on Transaction Types is met, and checks to ensure only valid values are passed, etc. When a field does not match the definition, an error will be returned to the Originating Institution in the API Response defining the field that caused the error and the specific type of error experienced. For example, if the Sending Account URI is

provided in the Transaction request, but the value provided is longer than the maximum length, the error details will be returned in the API Response with the Error: "Source" as "Sender_account_uri" (notification of the field with the error), the Error: "ReasonCode" will be "INVALID_INPUT_LENGTH," and the Error: "Description" will be "Invalid Length."

Transaction-specific data requirements

Cross-Border Services also performs validations on data that is required for the API call type, specific Receiving Institutions, or specific Corridors.

Required Fields
Within the API specifications on the Mastercard Developers site, fields that are marked "*required*" are to be included in *every* transaction.

Conditional Fields

Other fields are conditional, based on the usage of the transaction and Corridor. For example, a Transaction linked to a quote's Proposal ID would require different fields than a stand-alone (one shot) Transaction. These conditions are described in the field description on the Mastercard Developers site.

Corridor-Specific Fields

The specific identification of fields required for each receiving Corridor is defined as part of the *Cross-Border Services Technical Endpoint Guide*. For example, in the case that a Bank Code is not provided for Corridor that requires it, an error will be returned where the Error: "Source" value will be "bank_code" (notification of the field with the error) and the Error: "ReasonCode" will be "MISSING_REQUIRED_INPUT" (notification of the error received).

Refer to the list of Error codes and descriptions on the Mastercard Developers site for more information.

Note: Quote API calls cannot be used to confirm the validity of a Sender or Beneficiary Account. Some Receiving Institutions only validate accounts at the time of the Transaction.

6.4 Security and Authentication

Cross-Border Services is an application available on the Mastercard Developers gateway API site. All applications on Mastercard Developers leverage OAuth, a standard security protocol which provides applications with "secure delegated access". OAuth works over HTTP and authorizes our APIs with signatures generated from private cryptographic keys installed on a Participating Customer's system, rather than less secure user credentials. Each Participating Customer has a logon ID and password created for the client, or group of credentials, initiating API requests and used to securely register their API keys. Instead of the Originating Institution passing the login and password information in each API request for validation, OAuth private keys generate a signature which prevents the client's authentication information from being exposed to the API client, where it could be captured and used maliciously.

The OAuth protocol enables websites or applications to access protected resources from a web service via an API, without requiring users to disclose their credentials. OAuth creates a freely implementable and generic methodology for API authentication.

Payload data level encryption is an additional layer of security and required by Cross-Border Services. This is achieved by using a set of encryption keys.

Instructions for setting up the secure API connection and data level encryption are detailed in the Mastercard Developers page for the Cross-Border Services application.

Chapter 7: Reporting

This section provides information on the different reports made to Participating Customers.

7.1 Reports Summary

Mastercard has four different reports available to Participating Customers. The below times are when the reports are expected to be generated. They are usually delivered within a few minutes but may be delayed up to two hours due to system maintenance.

Report Name	Description	File Transfer Bulk ID	Occurrence or Timing
Status Change Report (SCR) (optional if using the Status Change API)	Provides detailed transaction information for transactions where a status has changed since the previous transaction status was reported.	Standard: Test: T6J2 Production: T6J0 Encrypted: Test: T1D4 Production: T1Q8	Daily, at 4 intervals 5 am, 11 am, 5 pm and 11 pm (CT)
Daily Transaction Report (DTR)	Provides detailed transaction information for new transactions aligning to the cutoff for the previous day.	Standard: Test: T6J6 Production: T6J4 Encrypted: Test: T1Q2 Production: T1Q0	Daily around 9:30 pm (CT) Contains transactions from midnight to midnight UTC from the previous day
Settlement Reconciliation File (SRF)	Provides the amount to be settled and the details associated with each transaction that is part of the settlement for that processing day. Transactions are grouped by currency.	Standard: Test: TX39 Production: TX37 Encrypted: Test: T1D4 Production: T1Q8	Daily around 1:30 am (CT)
Net Settlement Advisement (optional)	Provides net settlement positions by Originating Institution ICA.	Made available via Mastercard Connect, Email, or Fax	Once per day when there are settled transactions

7.2 Report Delivery Options

Participating Customers will leverage existing GFT connection types that Mastercard uses to send and receive customer files. The following are the supported secure file transfer mechanisms for file delivery:

Connection Type	Implementation Timing	Required hardware/software	Authentication	Delivery Method	Automatic Scheduling	Built-In Encryption
Mastercard Data Exchange (MDE)	2-3 weeks	RSA soft-token software and access to Mastercard Connect	RSA soft-token	Attended customer initiated pull	No	Yes
Mastercard File Express (MFE) Client	2-3 weeks	Windows based desktop suite, RSA soft-token software installation and access to Mastercard Connect	Keys exchanged	Attended customer initiated pull	Yes	Yes
Mastercard File Express (MFE) Scheduler	3-4 weeks	Windows based desktop suite, RSA soft-token installation and access to Mastercard Connect	Keys exchanged	Automatic, uses SSH keys for authentication	Yes	N/A
FTP w/ Secure Socket Layer (FTPS)	2-3 weeks attended or 3-8 weeks unattended	3rd party software – FTPS enabled client/server (Attended mode requires RSA SecurID for session authentication)	Certificate based	Automatic with file based certification, Mastercard pushes or customer pulls	Yes	Yes
Secure Shell FTP (SFTP)	2-3 weeks attended or 3-5 weeks unattended	3rd party software – SFTP enabled client/server	Keys exchanged	Automatic with file based certification, Mastercard pushes or customer pulls	Yes	Yes

7.3 Status Change Report and Daily Transaction Report (V2)

The **Status Change Report** provides information for transactions where the status has changed since the previous transaction status was reported. For example:

- A single transaction can be displayed on multiple Status Change Reports during the day, depending on how many reported status changes there are for a transaction.
- A transaction may be present on the Daily Transaction Report and then on the next day be present on the Status Change Report.
- A transaction may be present on both the Daily Transaction Report and Status Change Report on the same day.

Note: The SCR is sent four times daily, while the DTR is sent once daily and reflects statuses at the time of cutoff.

The **Daily Transaction Report** provides detailed transaction information aligning to the processing cutoff for the previous day, including rejected transactions. The Daily Transaction Report reflects the status transactions when the report is generated. If the status changes multiple times during the initial day of submission, only the status at the time of report generation will be displayed.

CSV Formatting: These reports are provided in a comma-separated values (.csv) file. Some helpful considerations when viewing report data in the .csv format:

- For any field type (numeric or string) *with data* is represented **within quotes** so that special characters (like comma) can be interpreted correctly
- Numeric values (including dates) *when empty*, a blank is displayed **within quotes**. E.g. - Charged Amount, Principal Amount, Pending Max Completion Date (,"",)
- String values *when empty*, a blank is displayed **without quotes**. E.g. - Charged amount currency, Principal amount currency (,,,)
- Any decimals provided in transaction amounts are explicitly displayed.
- Though the report contents are in CSV, the report files are sent in variable block format during file transfer to the Participating Customer's GFT endpoint.

Delivery: The SCR and DTR are delivered every day including weekends and holidays. If there are no transactions for a given day, empty files will be delivered which will include file header, batch header, field names, file and batch trailers but no data will be present.

Specifications: The SCR and DTR Reports share the same layout but there are two differences between the two transaction reports.

1. The report name in the 100 record
2. The transaction sets contained within

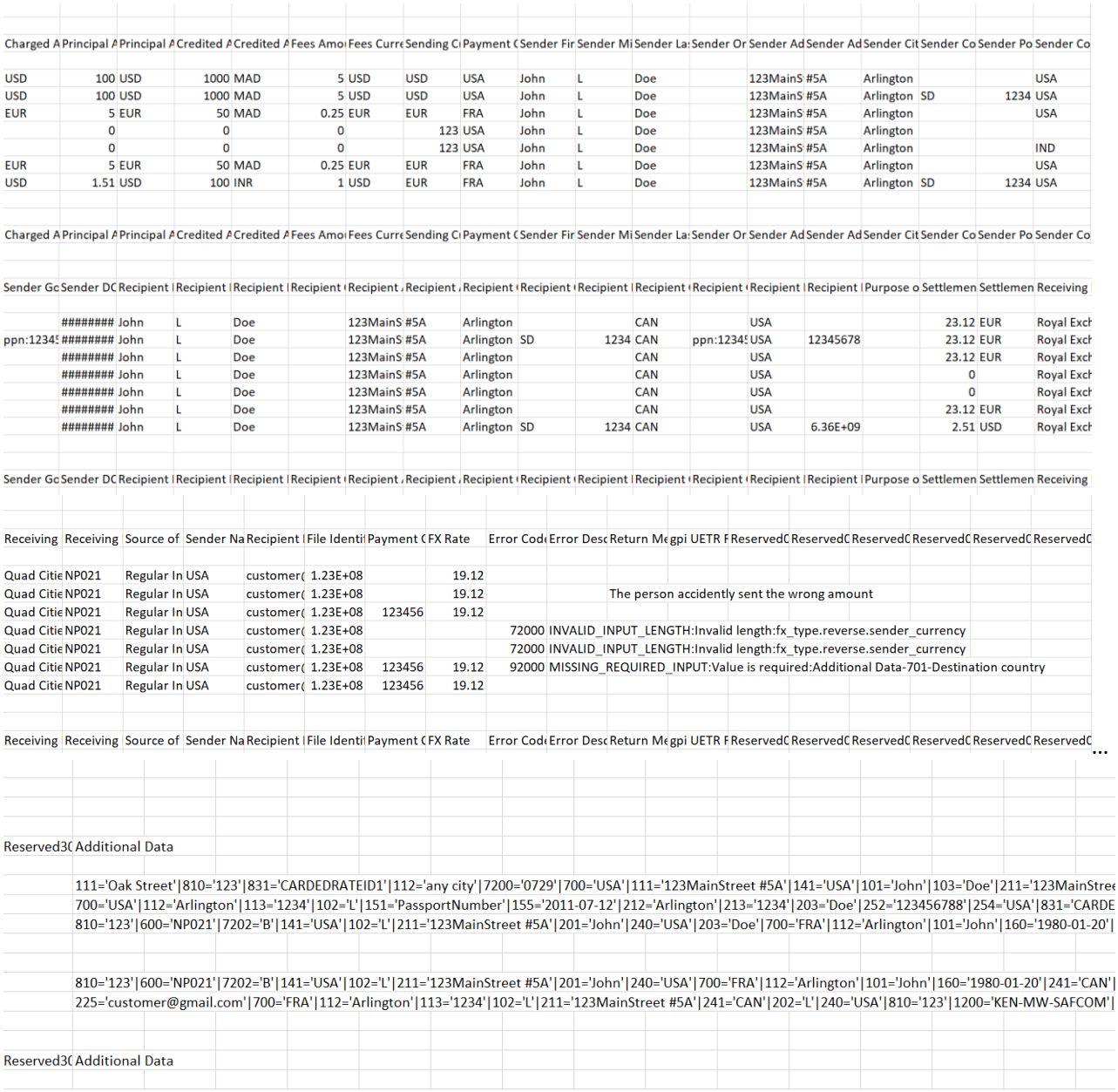
10.1.14 7.3.1 Daily Transaction Report Example (Version 2)

This sample is displayed as opened in manual read mode, with lines broken out to fit the Product Guide.

100	Report Name	Report Destination Partner Name	Report Destination Partner ID	Third Party Processor	Third Party	Generated	Report Versi	Environment	
101	Cross Border Daily Transaction Report	123 Parent Partner_USA	123 Parent Partner_USA ID123			2019-12-24	2	Production	
110	Parent Partner Name	Parent Partner ID							
111	123 Parent Partner_USA	123 Parent Partner_USA ID123							
200	Partner Name	Partner ID	Reference ID	Quote Proposal ID	Transactior	Payment Ty	Local Date/T	Send Proce	Sending Ac
201	123 Parent Partner_USA	123 Parent Partner_USA ID123							
202	123 Parent Partner_USA	123 Parent Partner_USA ID123	0912f8d0c501fb4491a88d5		PAYMENT	P2P	729111620	2019-12-24	tel:+254108
202	123 Parent Partner_USA	123 Parent Partner_USA ID123	x`x`7ca370c812f5448a82fb0		PAYMENT	P2P	903063226	2019-12-24	tel:+254108
202	123 Parent Partner_USA	123 Parent Partner_USA ID123	06705b2628e2c7407a84974	pen_40000134494823111	PAYMENT	P2P		2019-12-24	tel:+254108
202	123 Parent Partner_USA	123 Parent Partner_USA ID123	07522f86f805e542068ae78		PAYMENT	P2P		2019-12-24	tel:+254108
202	123 Parent Partner_USA	123 Parent Partner_USA ID123	074cb52b36df37487fbaf25		PAYMENT	P2P		2019-12-24	tel:+254108
202	123 Parent Partner_USA	123 Parent Partner_USA ID123	06b3c03e345c0a4a47b33e9	pen_40000019756501373	PAYMENT	P2P		2019-12-24	tel:+254108
202	123 Parent Partner_USA	123 Parent Partner_USA ID123	062bb16916abb94c4c9bd7f		PAYMENT	P2P	729111620	2019-12-24	tel:+254108
300	Partner Batch Count	Partner Batch Checksum							
301	7	2200							
400	Child Partner Name	Child Partner ID	Reference ID	Quote Proposal ID	Transactior	Payment Ty	Local Date/T	Send Proce	Sending Ac
401	456 Child Partner_USA	456 Child Partner_USA ID456							
500	Child Partner Batch Count	Child Partner Batch Checksum							
501	0	0							
800	Parent Partner Batch Count	Parent Partner Batch Checksum							
801	7	2200							
900	File Count	File Checksum							
901	7	2200							

Receiving .	Quote Typ	Fees Inclu	Original Transaction Status	Original Status Timestamp	Current Transaction Status	Current Status Timestamp	Current Pe	Pending M	Previous S	Previous S	Charged A
tel:+254068989		TRUE	SUCCESS	2019-12-24T03:11:32-06:00	SUCCESS	2019-12-24T03:11:32-06:00					105
tel:+254068989		TRUE	SUCCESS	2019-12-24T03:31:14-06:00	RETURNED	2019-12-24T03:31:19-06:00			SUCCESS	2019-12-2	105
ban:2015	REVERSE	FALSE	PENDING	2019-12-24T03:33:01-06:00	PENDING	2019-12-24T03:33:01-06:00	InProgress	2019-12-24T03:36:01-06:00			5.25
tel:+254068989		FALSE	REJECTED	2019-12-24T03:39:09-06:00	REJECTED	2019-12-24T03:39:09-06:00					0
tel:+254068989		FALSE	REJECTED	2019-12-24T03:41:41-06:00	REJECTED	2019-12-24T03:41:41-06:00					0
ban:2015	REVERSE	FALSE	PENDING	2019-12-24T03:43:38-06:00	REJECTED	2019-12-24T03:43:43-06:00			PENDING/	2019-12-2	5.25
ban:2015	FORWARD	TRUE	PENDING	2019-12-24T03:44:23-06:00	SUCCESS	2019-12-24T03:45:34-06:00			PENDING/	2019-12-2	2.51

Receiving .	Quote Typ	Fees Inclu	Original Transaction Status	Original Status Timestamp	Current Transaction Status	Current Status Timestamp	Current Pe	Pending M	Previous S	Previous S	Charged A



Charged A	Principal A	Principal A	Credited A	Credited A	Fees Amo	Fees Curre	Sending C	Payment C	Sender Fir	Sender Mi	Sender La	Sender Or	Sender Ad	Sender Ad	Sender Cit	Sender Co	Sender Po	Sender Co
USD	100	USD	1000	MAD	5	USD	USD	USA	John	L	Doe		123MainS	#5A	Arlington			USA
USD	100	USD	1000	MAD	5	USD	USD	USA	John	L	Doe		123MainS	#5A	Arlington	SD	1234	USA
EUR	5	EUR	50	MAD	0.25	EUR	EUR	FRA	John	L	Doe		123MainS	#5A	Arlington			USA
	0		0		0		123	USA	John	L	Doe		123MainS	#5A	Arlington			
	0		0		0		123	USA	John	L	Doe		123MainS	#5A	Arlington			IND
EUR	5	EUR	50	MAD	0.25	EUR	EUR	FRA	John	L	Doe		123MainS	#5A	Arlington			USA
USD	1.51	USD	100	INR	1	USD	EUR	FRA	John	L	Doe		123MainS	#5A	Arlington	SD	1234	USA

Charged A	Principal A	Principal A	Credited A	Credited A	Fees Amo	Fees Curre	Sending C	Payment C	Sender Fir	Sender Mi	Sender La	Sender Or	Sender Ad	Sender Ad	Sender Cit	Sender Co	Sender Po	Sender Co

Sender Gc	Sender DC	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Purpose o	Settlemen	Settlemen	Receiving
	########	John	L	Doe		123MainS	#5A	Arlington			CAN		USA			23.12	EUR	Royal Exch
ppn:1234	########	John	L	Doe		123MainS	#5A	Arlington	SD	1234	CAN	ppn:1234	USA	12345678		23.12	EUR	Royal Exch
	########	John	L	Doe		123MainS	#5A	Arlington			CAN		USA			23.12	EUR	Royal Exch
	########	John	L	Doe		123MainS	#5A	Arlington			CAN		USA			0		Royal Exch
	########	John	L	Doe		123MainS	#5A	Arlington			CAN		USA			0		Royal Exch
	########	John	L	Doe		123MainS	#5A	Arlington			CAN		USA			23.12	EUR	Royal Exch
	########	John	L	Doe		123MainS	#5A	Arlington	SD	1234	CAN		USA	6.36E+09		2.51	USD	Royal Exch

Sender Gc	Sender DC	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Recipient	Purpose o	Settlemen	Settlemen	Receiving

Receiving	Receiving	Source of	Sender Na	Recipient	File Identi	Payment C	FX Rate	Error Cod	Error Desc	Return Me	gpi UETR F	ReservedC	ReservedC	ReservedC	ReservedC	ReservedC	ReservedC
Quad Citie	NP021	Regular In	USA	customer(	1.23E+08		19.12										
Quad Citie	NP021	Regular In	USA	customer(	1.23E+08		19.12			The person accidently sent the wrong amount							
Quad Citie	NP021	Regular In	USA	customer(	1.23E+08	123456	19.12										
Quad Citie	NP021	Regular In	USA	customer(	1.23E+08			72000	INVALID_INPUT_LENGTH:Invalid length:fx_type.reverse.sender_currency								
Quad Citie	NP021	Regular In	USA	customer(	1.23E+08			72000	INVALID_INPUT_LENGTH:Invalid length:fx_type.reverse.sender_currency								
Quad Citie	NP021	Regular In	USA	customer(	1.23E+08	123456	19.12	92000	MISSING_REQUIRED_INPUT:Value is required:Additional Data-701-Destination country								
Quad Citie	NP021	Regular In	USA	customer(	1.23E+08	123456	19.12										

Receiving	Receiving	Source of	Sender Na	Recipient	File Identi	Payment C	FX Rate	Error Cod	Error Desc	Return Me	gpi UETR F	ReservedC	ReservedC	ReservedC	ReservedC	ReservedC	ReservedC

Reserved3(	Additional Data
	111='Oak Street'|810='123'|831='CARDEDRATEID1'|112='any city'|7200='0729'|700='USA'|111='123MainStreet #5A'|141='USA'|101='John'|103='Doe'|211='123MainStree
	700='USA'|112='Arlington'|113='1234'|102='L'|151='PassportNumber'|155='2011-07-12'|212='Arlington'|213='1234'|203='Doe'|252='123456788'|254='USA'|831='CARDE
	810='123'|600='NP021'|7202='B'|141='USA'|102='L'|211='123MainStreet #5A'|201='John'|240='USA'|203='Doe'|700='FRA'|112='Arlington'|101='John'|160='1980-01-20'|
	810='123'|600='NP021'|7202='B'|141='USA'|102='L'|211='123MainStreet #5A'|201='John'|240='USA'|700='FRA'|112='Arlington'|101='John'|160='1980-01-20'|241='CAN'|
	225='customer@gmail.com'|700='FRA'|112='Arlington'|113='1234'|102='L'|211='123MainStreet #5A'|241='CAN'|202='L'|240='USA'|810='123'|1200='KEN-MW-SAFCOM'|

Reserved3(	Additional Data

10.1.15 7.3.2 Status Change and Daily Transaction Reports Specifications (V2)

Hierarchy: Version 2 of the DTR and SCR reports contain hierarchical fields with records using the following numbering logic:

101-110: Parent Partner information as well as any processor information, if applicable

200-301: Parent Partner batch information

400-501: Child Partner batch information if a Child Partner has been set up; otherwise these fields are not present

For example:

100	Report Name
101	Cross Border Daily Transaction Report
110	Parent Partner Name
111	123 Parent Partner_USA
200	Partner Name
201	456 Partner_USA
202	456 Partner_USA
202	456 Partner_USA
202	456 Partner_USA
202	456 Partner_USA

300	Partner Batch Count
301	4
400	Child Partner Name
401	456-2 Child Partner_USA
500	Child Partner Batch Count
501	0
800	Parent Partner Batch Count
801	4
900	File Count
901	4

Note: The file and format is VARIABLE length, so any lengths provided are to show maximum length and does not mean that the value provided will always be that length. Fields are delimited with embedded commas and double quotations.

Note: Transactions that are rejected in the Daily Transaction Report will show 0 in the amount fields as the transactions do not have settlement impact.

Reserved Fields: The reports contain reserved field placeholders. These placeholders are identified by "No data available. Reserved for future use" in the field description. No new columns will be added to the reports until these fields are exhausted. Updates to these fields, such as column name, data type and length, are considered backward compatible and will be added without changing the report version. Applications consuming these resources must be written such that new fields and data appearing in reporting will not cause errors.

CSV Formatting: These reports are provided in a comma-separated values (.csv) file. Some helpful considerations when viewing report data in the .csv format:

- For any field type (numeric or string) with data is represented within quotes so that special characters (like comma) can be interpreted correctly
    - Numeric values: (including dates) when empty, a blank is displayed within quotes. E.g. - Charged Amount, Principal Amount, Pending Max Completion Date
    - String values: when a blank is not displayed within quotes. E.g. - Charged amount currency, Principal amount currency
- Any decimals provided in transaction amounts are explicitly displayed.
- Though the report contents are in CSV, the report files are sent in variable block format during file transfer to the Participating Customer's GFT endpoint.

The following table describes names and specifications for the report fields.

Field	Specification
File Header	Header begins with a **100** record and the details for the header will start with a **101** record. Header will contain the following fields: 1. **Report Name** – "Cross Border Daily Transaction Report" [alphanumeric, max length: 40] 2. **Report Destination Partner Name** – Name of the partner or processor to which the report is being delivered. [alphanumeric, max length: 100] 3. **Report Destination Partner ID** – ID of the Partner for which the report is being delivered [alphanumeric, max length: 80] 4. **Third-Party Processor** - Name of processor or parent Entity. If no TPP is identified, this field will be blank. [alphanumeric, max length: 100] 5. **Third-Party Processor Partner ID** - ID of processor or parent Entity. If no TPP is identified, this field will be blank. [alphanumeric, max length: 100] 6. **Generated Date –** Date when the report was generated [timestamp in St. Louis Missouri, USA time [YYYY-MM-DDTHH:MM:SS±hh[:mm] or YYYY-MM-DDTHH:MM:SSZ] Example: 2015-03-18T14:18:55-05:00 7. **Report Version** [Constant value: 2.0] 8. **Environment** [Constant value: MTF or Production]
Sub File Header	Sub header begins with a **110** record and the details will start with a **111** record. 1. **Parent Partner Name** – Name of the Originating Institution [alphanumeric, max length: 100] 2. **Parent ID** [alphanumeric, max length: 80]
Batch Header	Parent batch header begins with a **200** record. Child batch header begins with a **400** record. These records contain the column headings for the detail records that follow. Batch header details start with **201** or **401** based on Partner Type **1. Partner Name** [alphanumeric, max length: 100] **2. Partner ID** [alphanumeric, max length: 80]

Field	Specification
Batch Detail Indicators	Batch detail records start with a **202** record (parent batch) or **402** record (child batch) based on partner type.
Partner Name	Name of Originating Institution as registered during onboarding [alphanumeric special, max length: 100] Example: Bank of Send
Partner ID	[alphanumeric special, max length: 80] Example: CAN_CUSTOMER_yFS8
Reference ID	Unique transaction ID provided by the Originating Institution [alphanumeric special, max length: 40] Example: 999999034810154000 **Note:** The Reference ID column in this report contains an ID that is assigned by the Originating Institution. This reference ID is carried through from the API call.
Quote Proposal ID	Proposal ID provided as part of the Quote response, proposal used to create payment example: prp_AFO0lQZlOfo-DmbP4cZfoDzh_1 [alphanumeric special, max length: 40]
Transaction Type	Captures the type of transaction. The system supports only PAYMENT today. [alpha, length 7] example: PAYMENT
Payment Type	Identifies the payment flow associated to the transaction. Valid payment types are: B2P, B2B, G2P, P2P, P2B Value: P2P [alphanumeric, length: 3]
Local Date/Time	Date / Time provided by Originating Institution MMDDYYHHMM [alphanumeric, length: 10] Example: 1231142230
Send Processed Date/Time	Cross-Border Services Processed Date/Time [timestamp in St. Louis Missouri, USA time, Format: YYYY-MM-DDTHH:MM:SS±hh[:mm] or YYYY-MM-DDTHH:MM:SSZ Example: 2015-03-18T14:18:55-05:00

Field	Specification
Sending Account URI	Sender Account. All account URI types are supported. Examples: pan:XXXXXXXXXXXX6005;exp=2017-02 iban:CH5108686001256515001 ewallet:user011;sp=ewallet1 ban:300560011401140001111111;bic=CCFRFRPP tel:+3312345678 [alphanumeric special, max length: 200]
Receiving Account URI	Receiving (or Beneficiary) Account. All account URI types are supported. Examples: pan:XXXXXXXXXXXX6005;exp=2017-02 iban:CH5108686001256515001 ewallet:user011;sp=ewallet1 ban:300560011401140001111111;bic=CCFRFRPP tel:+3312345678 [alphanumeric special, max length: 200]
Quote Type	Forward or Reverse Indicates how fees will be paid. Valid values: Forward, Reverse, spaces [alpha special, max length: 7] Example: Forward
Fees Included	Indicates whether fees are included. If 'True' fees are subtracted from Sender amount. If 'False' then the Sender will pay the fees in addition to the Sender amount. If Quote Type is Reverse, this field will always be 'False'. Valid Values: True or False [alpha, max length: 5] Example: True
Original Transaction Status	Original status of transaction Valid values: Success, Rejected, Pending [alpha, max length: 100] Example: Rejected
Original Status Timestamp	Timestamp of the original status as an ISO 8601 Timestamp. Format: YYYY-MM-DDTHH:MM:SS±hh[:mm] or YYYY-MM-DDTHH:MM:SSZ Example: 2015-03-18T14:18:55-05:00

Field	Specification
Current Transaction Status	Current status of transaction. Valid values: Success, Rejected, Pending, Cancelled (valid only for Cancel Payment resource responses), and Returned Format: [alpha, max length: 100] Example: Rejected
Current Status Timestamp	Timestamp of the current status as an ISO 8601 Timestamp. Format: YYYY-MM-DDTHH:MM:SS±hh[:mm] or YYYY-MM-DDTHH:MM:SSZ Example: 2015-03-18T14:18:55-05:00 **For transactions on the Daily Transaction Report, Current Status Timestamp will be equal to the Original Status Timestamp.**
Current Pending Stage	An identifier showing the current transaction's pending stage • Stages of Pending are provided on the Mastercard Developers website • Associated with the Current Transaction Status • Only returned if the status is PENDING *A compliant Originating Institution MUST be able to accept any other value in addition to those listed on Mastercard Developers. Even if such a value can't be explicitly understood, the sending system must consider it as if it was in the "Processing" stage. [alpha special, maximum length 30] Example: EligibleForSettlement
Previous Status	Previous status and stage of transaction. Valid values: Success, Rejected, Pending/[any Pending stage value] For transactions on the Daily Transaction Report, Current Transaction Status will be equal to the Original Transaction Status. [alpha, max length: 100] Example: Rejected
Previous Status Timestamp	Timestamp of the previous status. Format: YYYY-MM-DDTHH:MM:SS±hh[:mm] or YYYY-MM-DDTHH:MM:SSZ Example: 2015-03-18T14:18:55-05:00

Field	Specification
Pending Max Completion Date	This value is used for Cross-Border Services internal processes only and it SHOULD NOT be used as an indicator of funds delivery into the Beneficiary account or passed to the Sender by an Originating Institution. It is conditional and only returned if the status is PENDING. It holds "ISO 8601" timestamp format. For JSON: YYYY-MMDDTHH:MM:SS±hh[:mm] Example: 2014-09-11T17:41:08-05:00 For XML: YYYY-MMDDTHH:MM:SS.SSS±hh[:mm] Example: 2014-09-11T17:41:08.301-05:00
Charged Amount	Amount charged to or provided by the Sender for Mastercard Managed Sender Pricing Model (Retail) Amount charged to the Originating Institution (settlement amount) for the Customer Managed Sender Model (Wholesale) [numeric, max length: 30, up to 5 digits after decimal Example: 1000.00
Charged Amount Currency	Currency of the Charged Amount [alphanumeric, max length: 3] Example: CAD
Principal Amount	Amount used (possibly minus fees) to calculate the Charged or Credited amount, depending on the quote type [numeric, max length: 30 up to 5 digits after decimal] Example: 900.00
Principal Amount Currency	Currency of the Principal Amount [alphanumeric, max length: 3] Example: CAD
Credited Amount	Amount to be applied to the Receiving Account [numeric, max length: 30 up to 5 digits after decimal] Example: 5000.00
Credited Amount Currency	Currency of the Principal Amount [alphanumeric, max length: 3] Example: CAD
Fees Amount	Amount of the Fee [numeric, max length: 30 up to 5 digits after decimal] Example: 2.00
Fees Currency	Currency of the Fees Amount [alphanumeric, max length: 3] Example: CAD

Field	Specification
Sending Currency	Currency used by sender to send the payment [alphanumeric, max length: 3] Example: CAD
Payment Originating Country	Country from which the funds originate A three-letter ISO country code representing the Sender's home address country [alpha, max length: 3] Example: CAN
Sender First Name	Sender's first name [alphanumeric special, max length: 140] example: John
Sender Middle Name	Sender's middle name [alphanumeric special, length: 140] example: A
Sender Last Name	Sender's last name [alphanumeric special, max length: 140] example: Smith
Sender Organization Name	Sender's Organization Name [alphanumeric special, max length: 140] example: Smith's Farm
Sender Address line 1	First line of Sender's address [alphanumeric special, max length: 500] example: 123 Main
Sender Address line 2	Second line of Sender's address [alphanumeric special, max length: 500] example: Apt A
Sender City	Sender's city [alphanumeric special, max length: 35] example: Toronto
Sender Country/Subdivision	Sender's state or province [alphanumeric special, max length: 35] Example: ON
Sender Postal Code	Sender's postal code [alphanumeric special, max length: 16] example: M3C 0C2

Field	Specification
Sender Country	Sender's country A three-letter ISO country code representing the Sender's home address country. [alpha, max length: 3] Example: CAN
Sender Gov. ID	Information about the identification of the Sender [alphanumeric special, max length: 256] There may be multiple instances of Sender Gov. ID Example: ppn:123456789;expiration-date=2019-05-27;issue-date=2011-07-12;country=USA
Sender DOB	Sender's date of birth [Date, YYYY-MM-DD, alphanumeric, max length: 10] example: 1985-06-24
Recipient First Name	Recipient's first name [alphanumeric special, max length: 140] example: John
Recipient Middle Name	Recipient's middle name [alphanumeric special, max length: 140] example: A
Recipient Last Name	Recipient's last name [alphanumeric special, max length: 140] example: Smith
Recipient Organization Name	Recipient's Organization Name [alphanumeric special, max length: 140] example: Smith's Farm
Recipient Address line 1	First line of Recipient's address [alphanumeric special, max length: 50] example: 123 Main
Recipient Address line 2	Second line of Recipient's address [alphanumeric special, max length: 50] example: Apt A
Recipient City	Recipient's city [alphanumeric special, max length: 35] example: Toronto
Recipient Country/Subdivision	Recipient's state or province [alphanumeric special, max length: 35] Example: ON

Field	Specification
Recipient Postal Code	Recipient's postal code [alphanumeric special, max length: 16] example: M3C 0C2
Recipient Country	Recipient's country A three-letter ISO country code representing the Recipient's home address country. [alpha, max length: 3] Example: CAN
Recipient Gov. ID	Information about the identification of the Recipient [alphanumeric special, max length: 256] may be multiple instances of Recipient Gov. ID
Recipient Nationality	Country where the Recipient resides Recipient's nationality, as an ISO 3166 Alpha-3 country code, in uppercase. [Details- string, length: 3] example: FRA
Recipient Phone	Phone number of Recipient [alphanumeric special, max length: 30] Example: 4195458614
Purpose of Remittance	Purpose of the payment [alphanumeric special, max length: 100] Example: Family Maintenance
Settlement Amount for Transaction	Amount to be settled [numeric, max length: 22, up to 10 digits after decimal] Example: 102.00
Settlement Currency for Transaction	Currency of the Settlement Amount for the Transaction [alpha, max length: 3] Example: CAD
Receiving Bank Name	Name of the Bank holding the Receiving Account [alphanumeric special, max length: 140] Example: Bank of Christina
Receiving Bank Branch Name	Name of the Bank Branch holding the Receiving Account [alphanumeric special, max length: 140] Example: Quad Cities
Receiving Bank Code	Bank code associated with the Bank Name and BIC provided by the Originating Institution [alphanumeric, max length: 225] Example: NS02

Field	Specification
Source of Income	Sender's identification of the source of the funds being submitted [alphanumeric special, max length: 35] Example: Salary
Sender Nationality	Sender's nationality A three-letter ISO country code representing the Recipient's home address country [alpha, max length: 3] Example: CAN
Recipient Email	Email address of the Beneficiary [alphanumeric special, max length: 1000] Example: customer@gmail.com
File Identifier	Identifies the payment file in which this specific payment was submitted by the originator [alphanumeric special, max length: 35] Example: AH20765345_873
Payment Cash-out Code	Code or phrase passed by cash out Receiving Institutions. May be present when the Receiving Institution is a cash-out location. [alphanumeric special, max length: 30] Example: Peaches
FX Rate	The FX rate used for the given transaction [numeric, max length: 16 with up to 6 digits after decimal] Example: 15.121351
Error Code	Provides error code if applicable [alphanumeric special, max length: 10] Example: 130113
Error Description	Provides description of error code [alphanumeric special, max length: 600] Example: DECLINE: Unable to support the recipient account provided

Field	Specification
Return Message	The following is a list of available return reasons that would populate this field: • Returned per sending service provider's request • Beneficiary Account is not valid or unable to locate account • Beneficiary Account is inactive • Beneficiary name does not match account • Invalid account type • Credit refused by Beneficiary • Unspecified reason • Beneficiary Account is not authorized to receive deposits • Beneficiary Account currency does not match payout currency • Beneficiary Account is frozen [alphanumeric special, max length: 100]
Reserved01	No data available. Reserved for future use.
Reserved02	No data available. Reserved for future use.
Reserved03	No data available. Reserved for future use.
Reserved04	No data available. Reserved for future use.
	
Reserved29	No data available. Reserved for future use.
Reserved30	No data available. Reserved for future use.
Batch Trailer	Batch trailer begins with a **300** (Parent) or **500** (Child) and the details for the batch trailer will start with a **301/501** record. Batch trailer will contain the following fields: Batch Count—Number of total detail (**202/402**) records in batch [numeric min value: 1, max value: 999999999999] Batch Checksum—Absolute value of the transaction totals within a batch to confirm complete transmission of batch data.
Parent Batch Trailer	Parent Batch trailer begins with an **800** and the details for the batch trailer will start with an **801** record. Batch trailer will contain the following fields: Batch Count—Number of total detail **402 and 202** records for all partner comes under this partner in batch [numeric min value: 1, max value: 999999999999] Batch Checksum—Absolute value of the batch transaction totals to confirm complete transmission of batch data.

Field	Specification
File Trailer	File trailer begins with a **900** and the details for the file trailer will start with a **901** record. File trailer will contain the following fields: Total Record Count—Number of total detail (201) records in file [numeric min value: 1, max value: 999999999999] File Checksum—Absolute value of all the batch transaction totals to confirm complete transmission of file data

7.4 Settlement Reconciliation File (BAI2 Format, Version 4)

The Settlement Reconciliation File (SRF) includes the amount to be settled and the details associated with each transaction that is part of the settlement for that processing day. The file format is based on the electronic cash management reporting established by the Bank Account Institution (BAI), or BAI2 format. Below are the record codes, record names, and purpose of each record within the reconciliation file. The order of the record descriptions corresponds to the layout of the file. Cross-Border Services does not limit the maximum physical record length. The length is variable.

Record Code	Record Name	Purpose
01	File Header	Identifies the Sender and Receiver of the transmission and unique file identifiers, such as date, time and file ID
02	Group Header	Identifies a Settlement ICA and currency of the grouped transactions
03	Account Identifier	Reports summary activity by debit and credit totals for the currency
16	Transaction Detail	Provides transaction details for each transaction being settled in the currency identified in the 03 record
88	Continuation Record	Used whenever desirable to continue data into an additional record. It may follow any record type, including another "continuation" (88) record
49	Account Trailer	Marks the end of a settlement currency and provides account control totals
98	Group Trailer	Marks the end of a group and provides group control totals
99	File Trailer	Marks the end of a file and provides file control totals

10.1.16 7.4.1 Settlement Reconciliation File Structure

The BAI2 structure for the SRF includes settlement amounts and details associated with each transaction. Each file may contain several groups defined by partner ID, ICA and settlement currency.

Each group begins with a 02 Group Header record and ends with a 98 Group Trailer record. Each group contains only one account. Each account begins with a 03 record and ends with a 49 Account Trailer record. The 03 record may be followed by a transaction detail record (16). Any record may be continued with the Continuation record (88).

Sample BAI2 Structure:

01	FILE HEADER	Begins File
02	GROUP HEADER	Begins First Group
03	ACCOUNT IDENTIFIER	First Account
16	TRANSACTION DETAIL	First Account Detail
49	ACCOUNT TRAILER	Ends First Account
98	GROUP TRAILER	Ends First Group
02	GROUP HEADER	Begins Second Group
03	ACCOUNT IDENTIFIER	Begins Second Account
88	CONTINUATION	Continues Previous
49	ACCOUNT TRAILER	Ends Second Account
98	GROUP TRAILER	Ends Second Group
99	FILE TRAILER	Ends File

The preceding example includes two groups. Each group contains one account. Only the first account includes transaction detail. The second group contains a continuation record (88), which may be used to continue any record and will use the format of the record it follows.

Delimiters

- Comma "," delimits fields.
- Slash "/" delimits the end of the logical record.
- Semi-colon ";" delimits multiple values as part of single field in a record.
- Adjacent delimiters ",," or ",/" indicate defaulted or unspecified fields.
- All defaulted or unspecified fields must be identified.

10.1.177.4.2 Sample Reports

Below is a series of report samples that include the following variants: 1) individual and consolidated; 2) with and without transactions; and 3) with and without commissions.

Sample Report 1: Individual with debits and credits

01, Mastercard Send Cross Border,SOI2Qtest_PRVDR,190506,0503,106890,,,2/
02,SOI2Qtest_PRVDR;104404, Mastercard Send Cross Border,1,190506,0503,EUR,/
03,SOI2Qtest_PRVDR;104404,EUR,400,+17984,,,100,+26976,,/
16,699,+8992,,,12384,11;190505;0000;INR;8858;134;0;0;0;0;;/
16,699,+8992,,,12386,33;190505;0000;INR;8858;134;0;0;0;0;;/
16,399,+8992,,,12381,44;190505;0000;INR;8858;134;0;0;0;0;020;REJ/
16,399,+8992,,,12386,33;190505;0000;INR;8858;134;0;;;;021;RTN/
16,399,+8992,,,12382,55;190505;0000;INR;8858;134;0;;;;021;RTN/
49,+89920,7/
98,+89920,1,9/
99,+89920,1,11/

Sample Report 2: Consolidated, multi-currency, multi-ICA, with commissions

01, Mastercard Send Cross BorderBEL_MASEND5ged2,181105,0106,18784,,,2/
02,OI1;ICA1, Mastercard Send Cross Border,1,181105,0106,EUR,/
03,OI1;ICA1,EUR,400,+1696,,,100,+0,,/
16,699,+1596,,,05009674235165521011,91JKLFjdy8Sqfsjdklqsj890J12KKj;181102;1559;EUR;1396;200;100;14;190;204;;/
49,+3392,3/
98,+3392,1,5/
02,OI1;ICA1, Mastercard Send Cross Border,1,181105,0106,USD,/
03,OI1;ICA1,EUR,400,+0,,,100,+1696,,/
16,399,+1696,,,05009674235165521011,91JKLFjdy8Sqfsjdklqsj890J12KKj;181102;1559;EUR;1396;200;100;14;190;204;021;RTN/
49,+3392,3/
98,+3392,1,5/
02,SOI1;ICA2, Mastercard Send Cross Border,1,181105,0106,EUR,/
03,OI1;ICA1,EUR,400,+1696,,,100,+0,,/
16,699,+1696,,,05009674235165521011,91JKLFjdy8Sqfsjdklqsj890J12KKj;181102;1559;EUR;1396;200;100;14;190;204;;/
49,+3392,3/
98,+3392,1,5/
02,OI2;ICA3, Mastercard Send Cross Border,1,181105,0106,EUR,/
03,OI1;ICA1,EUR,400,+1696,,,100,+0,,/
16,699,+1696,,,05009674235165521011,91JKLFjdy8Sqfsjdklqsj890J12KKj;181102;1559;EUR;1396;200;100;14;190;204;;/
49,+3392,3/
98,+3392,1,5/
99,+13568,4,22/

Sample Report 3: Consolidated, multi-currency, multi-ICA, without commissions

01, Mastercard Send Cross Border,BEL_MASEND5ged2,181105,0106,18784,,,2/
02,OI1;ICA1,Mastercard Send Cross Border,1,181105,0106,EUR,/
03,OI1;ICA1,EUR,400,+1696,,,100,+0,,/

16,699,+1696,,,05009674235165521011,91JKLFjdy8Sqfsjdklqsj890J12KKj;181102;1559;E
UR;1396;200;100;0;0;0;;/
49,+3392,3/
98,+3392,1,5/
02,OI1;ICA1, Mastercard Send Cross Border,1,181105,0106,USD,/
03,OI1;ICA1,EUR,400,+0,,,100,+1696,,/
16,399,+1696,,,05009674235165521011,91JKLFjdy8Sqfsjdklqsj890J12KKj;181102;1559;E
UR;1396;200;100;;;021;RTN/
49,+3392,3/
98,+3392,1,5/
02,SOI1;ICA2, Mastercard Send Cross Border,1,181105,0106,EUR,/
03,OI1;ICA1,EUR,400,+1696,,,100,+0,,/
16,699,+1696,,,05009674235165521011,91JKLFjdy8Sqfsjdklqsj890J12KKj;181102;1559;E
UR;1396;200;100;0;0;0;/
49,+3392,3/
98,+3392,1,5/
02,OI2;ICA3,Mastercard Send Cross Border,1,181105,0106,EUR,/
03,OI1;ICA1,EUR,400,+1696,,,100,+0,,/
16,699,+1696,,,05009674235165521011,91JKLFjdy8Sqfsjdklqsj890J12KKj;181102;1559;E
UR;181102;1559;EUR;1396;200;100;0;0;0;;/
49,+3392,3/
98,+3392,1,5/
99,+13568,4,22/

Sample Report 4: Individual Blank, no volume

01, Mastercard Send Cross Border,BEL_MASEND5ged2,181214,0110,19080,,,2/
02,OI1;ICA1, Mastercard Send Cross Border,1,181214,0110,,/
03,OI1;ICA1,,,,,,,,,/
49,+0,2/
98,+0,1,4/
99,+0,1,6/

Sample Report 5: Consolidated Blank, no volume

01, Mastercard Send Cross Border,BEL_MASEND5ged2,181105,0106,18784,,,2/
02,OI1;ICA1, Mastercard Send Cross Border,1,181214,0110,,/
03,OI1;ICA1,,,,,,,,,/
49,+0,2/
98,+0,1,4/
02,SOI1;ICA2, Mastercard Send Cross Border,1,181214,0110,,/
03,SOI1;ICA2,,,,,,,,,/
49,+0,2/
98,+0,1,4/
02,OI2;ICA3, Mastercard Send Cross Border,1,181214,0110,,/
03,OI2;ICA3,,,,,,,,,/
49,+0,2/
98,+0,1,4/
99,+0,3,14/

10.1.18 7.4.3 Record Formats

10.1.19 01 File Header

Identifies the Sender and Receiver of the transmission and unique file identifiers, such as date, time, and file ID.

Field Name	Field Description	Format
Record Code	01	Constant
Sender Identification	Transmitter of file. Static value: Mastercard Send Cross Border	Constant
Receiver Identification	Recipient of the file. Contains reporting Entity's Partner ID. Will contain a processor's Partner ID if sent to a processor.	Alpha-numeric, length 15-35
File Creation Date	Date Cross-Border Services created the file.	YYMMDD
File Creation Time	Time Cross-Border Services created the file. St. Louis, Missouri, USA time zone.	Numeric-4 (HHMM) Military format (2400)
File Identification Number	Identification number for the file defined by Cross-Border Services. The number will be unique per Originating Institution and allows for researching any questions or issues associated with reconciliation processing.	Numeric-variable No maximum length
Physical Record Length	Not applicable.	Always blank
Block Size	Not applicable.	Always blank
Version Number	2 BAI Format Version	Constant

Sample 01 Record:

01, Mastercard Send Cross Border,Ptnr_ID_12345,181214,0110,19080,,,2/

The Partner ID for the reporting Entity is Ptnr_ID_12345. The file was created December 14, 2018 (181214) at 1:10 a.m. (0110). This file was created with File Identification Number of 19080. Physical records were not specified. No block size is specified. The file is in version (2) of the specification.

10.1.20 02 Group Header

The group header is defined by Partner ID, ICA and settlement currency. All fields are required except those labeled optional. This record is always present regardless of transaction activity.

Field Name	Field Description	Format
Record Code	02	
Ultimate Receiver Identification	Defined as [Partner ID];[ICA]. A consolidated report with multiple Partner IDs will order the partners alphabetically. Any sub-entities will be listed alphabetically under its parent.	Alpha-numeric, variable length
Originator Identification	Static value will always be: Mastercard Send Cross Border	Constant
Group Status	Status indicator for the file. Cross-Border Services always uses a Group Status of 1, indicating an update. Other values are not supported by Cross-Border Services.	Constant
As-of-date	Date of file creation.	YYMMDD
As-of-time	Time of file creation. St. Louis, Missouri, USA time zone.	Numeric-4 (HHMM) Military format (2400)
Currency Code	Settlement currency code for the group.	Alpha-3
As-of-date Modifier	Not applicable.	Always blank

Sample 02 Record:

02,OIPARTNERID1;ICA#1, Mastercard Send Cross Border,1,181214,0110,USD,/

A group of data is being sent for OIPARTNERID1 followed by their settlement ICA of ICA#1 from Cross-Border Services. The data in the file has a group status of update (1) and the data is as-of December 14, 2018 (181214) at 1:10 a.m. (0110). The group currency code is USD. The As-of-date modifier was not defined.

10.1.21 03 Account Identifier

Each 02 record is accompanied by the 03 record (account identifier), which reports summary activity by debit and credit totals for the currency. The debits and credits in the 03 record can be combined to validate amounts on the settlement advisement.

Field Name	Field Description	Format
Record Code	03	Constant
Customer Account Number	Defined as [Partner ID];[ICA]. A consolidated report with multiple Partner IDs will order the partners alphabetically. Any sub-entities will be listed alphabetically under its parent.	Alpha-numeric, variable length
Currency Code	Settlement currency for the Account section. Defaulted to group currency code (02 Record).	Alpha-3
Type Code	Identifies the type of summary or status data. Value "400" = Total Debit Summary	Constant
Note: When there is no volume, the remaining fields in this record will be blank. See above sample reports with no volume.		
Amount	Amount associated to the debit position for the currency. A Summary amounts with no value will be displayed as "+0"	Numeric-variable length. Expressed without a decimal. Currency will dictate the decimal precision for the amount. Status amounts are signed positive "+" or negative "-". Default of sign is
Item Count	Not utilized or provided.	Constant
Funds Type**	Not utilized or provided.	Constant
Type Code	Identifies the type of summary or status data. Value "100" = Total Credits Summary	Constant
Amount	This is the amount associated to the credit position for the currency. Summary amounts with no value will be displayed as "+0"	Numeric-variable length. Expressed without a decimal. Currency will dictate the decimal precision for the amount. Status amounts are signed positive "+" or negative "-". Default of sign is
Item Count	Not utilized or provided.	Constant
Funds Type**	Not utilized or provided.	Constant

Sample 03 Record:

03,OIPARTNERID1;ICA#1,USD,400,+60000,,,100,+0,,/

Data in this record are for the OIPARTNERID1 followed by their settlement ICA of ICA#1. The currency code (USD) will match the group currency code. The Debit summary amount (type code 400) is $600.00. (+60000). The item count is not defined. Funds type is not defined. The credit summary amount for (type code 100) is $0.00 (+0). The item count is not defined. Funds type is not defined.

10.1.22 16 Transaction Detail

This record reports transaction detail with accompanying text and reference numbers. Only one detail transaction will be reported by each Type 16 record. Transaction detail records report individual transaction activity for the currency identified in the 03 record.

Field Name	Field Description	Format
Record Code	16	Constant
Type Code	Identifies the type of detail data. Credit entries (credit to the Originating Institution) start with 399. This represents flows of funds back to the Originating Institution, such as Returns. Debit entries (debit from the Originating Institution) start with 699. This represents flows of funds from an Originating Institution to cover successful Transactions.	Constant 399 or 699
Amount	Settlement amount of a given transaction. Currency Code in the 03 record determines the implied decimal.	Variable length. Always positive. Expressed without a decimal.
Funds Type	Not utilized or provided.	Constant
Bank Reference Number	Not utilized or provided.	Constant
Customer Reference Number	Transaction Reference ID provided by the Originating Institution for the transaction being reported. For 399 record transactions (Returns), this will be the reference ID provided by the Originating Institution for the original Transaction that is being returned.	Variable length
Note: The remaining 16 record fields populate the "text" freeform field of the original BAI2 record format. Data is separated by a semicolon.		

Field Name	Field Description	Format
LockID	Applicable to LockID participants only. Contains the system generated Unique Rate ID associated with a currency pair and the amount locked that will be used in a transaction. This ID will be included by the Originating Institution in the Transaction request.	30 Characters, Alpha-Numeric
Transaction Date	Date the Transaction occurred	YYMMDD
Transaction Time	Time the Transaction occurred. Each reject and return will have its own transaction detail record (16) with details of date and time from the original transaction. St. Louis, Missouri, USA time zone.	Numeric-4 (HHMM) Military format (2400)
Transaction Currency	Currency of the Beneficiary	Alpha-numeric-3
Principal Amount in Settlement Currency	Base amount used to do all computations in the settlement currency of the Originating Institution	Numeric-variable Expressed without a decimal. Currency will dictate the decimal precision for the amount.
Charges in Settlement Currency	Originating Institution's settlement amount for the transaction fees	Numeric-variable Expressed without a decimal. Currency will dictate the decimal precision for the amount.
Variable Fees in Settlement Currency	Fees charged from the Originating Institution which varies on the type of transaction performed	Numeric-variable Expressed without a decimal. Currency will dictate the decimal precision for the amount.
Commission fields are only provided for transactions when the Originating Institution is in the Mastercard Managed Sender Pricing Model. These fields provide detail about the commission made by the Originating		
Variable Commission Amount	The Originating Institution's variable commission amount expressed in the settlement currency	Numeric-variable Expressed without a decimal. Currency will dictate the decimal precision for the amount.
Fixed Commission Amount	The Originating Institution's total fixed commission amount expressed in the settlement currency	Numeric-variable Expressed without a decimal. Currency will dictate the decimal precision for the amount.

Field Name	Field Description	Format
Total Commission Amount	This will be an amount equal to the variable + fixed commission amounts in the Originating Institution's settlement currency	Numeric-variable Expressed without a decimal. Currency will dictate the decimal precision for the amount
Transaction Adjustment fields applicable for all BAI2 reports:		
TXN ADJ Type Code	020: Rejected This occurs when a Transaction settled in "Pending" state and later "Rejected". In this case both Transaction and reversal will have the same reference ID. 021: Returned This occurs when a settled Transaction is returned upon request. In this case the Transaction and reversal will have the different reference IDs.	Numeric-3 "020" or "021"
TXN ADJ Reason Code	REJ: Rejected RTN: Returned	Alpha-3 "REJ" or "RTN"

Sample 16 record:

16,699,+10100,,,0598835233739329,91JKLFjdy8Sqfsjdklqsj890J12KKj;181213;0809;USD;9886;114;100;0;0;0;/

This is a detail record (type 16). The transaction is a debit to the Originating Institution to cover a completed Transaction as identified by type code 699. The amount of the transaction is $101.00 (+10100), the funds type and bank reference fields were not provided (,,). The customer reference number for the Transaction was 0598835233739329. The text field is made up of Lock ID, transaction date of December 13, 2018 (121318), transaction time of 8:09 am, (0809), Transaction currency of USD, principal amount in settlement currency of $98.86 (9886), charges in settlement currency of $1.14 (114), variable fee was $1.00 (100) and in this case variable, fixed and total commission fields were not provided, nor a return.

10.1.23 88 Continuation Record

Used whenever desirable to continue data into an additional record. It may follow any record type, including another "continuation" (88) record.

Field Name	Field Description
Record Code	88
(Next Field)	The "Record Code" field is followed by a continuation or addendum of the preceding record to capture any additional data. The format will follow exactly from the preceding record.

Sample 88 record:
16,699,+10100,,,0598835233739329,91JKLFjdy8Sqfsjdklqsj890J12KKj;181213;0809;USD;9886;114;100;0;0;0;;/
88,any additional data

10.1.24 49 Account Trailer

Marks the end of a settlement currency and provides account control totals.

There must be one 49 record for each 03 record. All 16 and 88 records between the 03 record and the 49 record refer to the account identified in the 03 record. All fields are required.

Field Name	Field Description
Record Code	49
Account Control Total	Contains the absolute checksum value of all "Amount" fields in the preceding type 03 record and all type 16 and 88 records associated with that account. This field includes the sign "+" or "-" for the total. If no sign precedes the total, the default is positive.
Number of Records	Integer. The total number of records in the account, including the 03 record and all 16 and 88 records, and including this account trailer 49 record.

Sample 49 record:
49,+120000,8/
The account trailer record contains the account control total (+120000) which is the absolute checksum value of "Amounts" in all records back to and including the preceding 03 record. The number of records (8) includes the 03 record, 6 individual transaction detail records (16), and this account trailer (49) record.

10.1.25 98 Group Trailer

Marks the end of a group and provides group control totals. There will always be one 98 record for each 02 record.

Field Name	Field Description
Record Code	98
Group Control Total	Algebraic sum of account control totals in this group. This field includes the sign ("+" or "-") for the total. If no sign precedes the total, the default is positive.
Number of Accounts	Integer. The number of 03 records in this group.
Number of Records	Integer. The total number of all records in this group. Include the 02, all 03, 16, 49, and 88 records, and this 98 record.

Sample 98 record:

98,+120000,1,10/

This group trailer record contains the group control total (+120000) which is the absolution checksum value of all account control totals in this group. The number of accounts is 1, reflecting the single 03 record type in this group. The number of records in this group (10) includes the 02 record + the 03 record + 6 transaction detail records (record type 16) + 49 record and this 98 record.

7.5 Net Settlement Advisement

Settlement Advisement Sample without Card Processing Settlement

Note: Cross-Border Services transaction settlement position is separated out with the Input Source of "10". In this example, $125,268.52 represents the amount due from the Originating Institution for that day.

```
                                                TRANSFER AGENT ADVISEMENT
                                                        DETAIL
REPORT: BSADV308-AA                                                                                    DATE: 02 FEB 2017
PAGE:   1                                                                                              TIME: 15:00

DELIVERY MEDIA:           MANUAL
DESTINATION:              MANUAL                                  FROM NAME:          MASTERCARD
TO TRANSFER AGENT:        Bank of XXXX                            FROM OFFICE:        ST. LOUIS
TRANSFER AGENT ID:        12345
TRANSFER AGENT BANK:      THE BANK XXXX                           FROM PHONE NUMBER: XXX-XXX-XXXX
CONTACT NAME:             MANUAL                                  SETTLEMENT DATE:   02 FEB 2017

SETTLEMENT SERVICE NAME:  U.S. DOLLAR REGIONAL                    SCHEDULED CUTOFF TIME:      14:55
SETTLEMENT SERVICE ID:    US00000001                              SCHEDULED SETTLEMENT CYCLE: 1
SETTLEMENT SERVICE TYPE:  Regional
SETTLEMENT BANK NAME:     JP MORGAN CHASE- USA                    SETTLEMENT
SETTLEMENT ACCOUNT NBR:   014053007                               ROUTING NUMBER:             021000021


AGENT ACCOUNT NUMBER:     [redacted]                              BANK ROUTING NUMBER:        CUSNOS33
CURRENCY NAME:            U.S. DOLLAR                             CURRENCY CODE:              USD/840
COUNTRY CODE:             USA                                     VALUE DATE:                 02 FEB 2017

MEMBER NAME:              BANK OF XXXX                            MEMBER ID:                  17680
INTERNAL ID:              12345


NO   RECON DATE   INPUT       File                          ORIGINATED IN      D/  RECEIVED IN       D/  NET AMOUNT IN      D/
                  SOURCE      ID                            Payment            C   Payment           C   Payment           C
  1  02 FEB 2017  0000000010  11DHT7NER0MXX214TV1E3MOVV          125,268.52    D            0.00   C          125,268.52    D

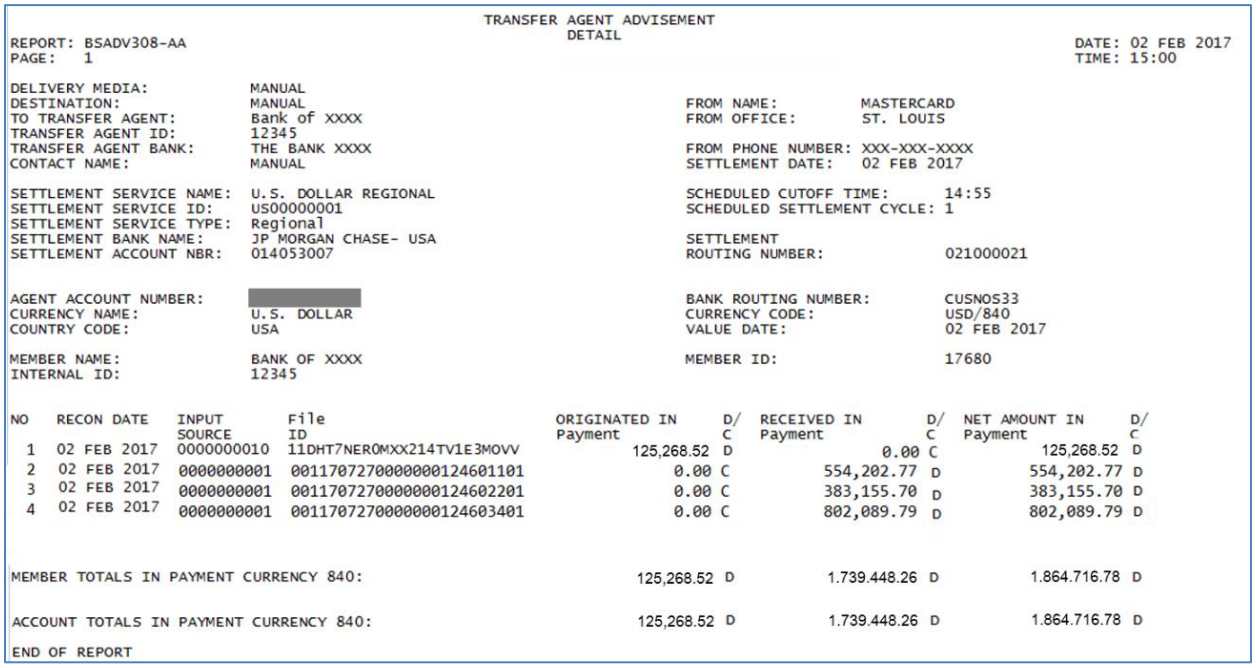
MEMBER TOTALS IN PAYMENT CURRENCY 840:                          125,268.52    D            0.00   C          125,268.52    D


ACCOUNT TOTALS IN PAYMENT CURRENCY 840:                         125,268.52    D            0.00   C          125,268.52    D

END OF REPORT
```

Settlement Advisement Sample with Card Processing Settlement

Cross-Border Services settlement position is separated out with the Input Source of "10". In this example, $125,268.52 is due from the Originating Institution for that day for Cross-Border Services for cross-border Transaction activity. Card processing activity is listed with any Input Source other than "10", but all input source codes are included in the net amount due, which is the amount identified as "Account Totals in Payment Currency 840".



TRANSFER AGENT ADVISEMENT
DETAIL

REPORT: BSADV308-AA
PAGE: 1
DATE: 02 FEB 2017
TIME: 15:00

DELIVERY MEDIA: MANUAL
DESTINATION: MANUAL
TO TRANSFER AGENT: Bank of XXXX
TRANSFER AGENT ID: 12345
TRANSFER AGENT BANK: THE BANK XXXX
CONTACT NAME: MANUAL

FROM NAME: MASTERCARD
FROM OFFICE: ST. LOUIS
FROM PHONE NUMBER: XXX-XXX-XXXX
SETTLEMENT DATE: 02 FEB 2017

SETTLEMENT SERVICE NAME: U.S. DOLLAR REGIONAL
SETTLEMENT SERVICE ID: US00000001
SETTLEMENT SERVICE TYPE: Regional
SETTLEMENT BANK NAME: JP MORGAN CHASE- USA
SETTLEMENT ACCOUNT NBR: 014053007

SCHEDULED CUTOFF TIME: 14:55
SCHEDULED SETTLEMENT CYCLE: 1
SETTLEMENT ROUTING NUMBER: 021000021

AGENT ACCOUNT NUMBER: [redacted]
CURRENCY NAME: U.S. DOLLAR
COUNTRY CODE: USA

BANK ROUTING NUMBER: CUSNOS33
CURRENCY CODE: USD/840
VALUE DATE: 02 FEB 2017

MEMBER NAME: BANK OF XXXX
INTERNAL ID: 12345

MEMBER ID: 17680

NO	RECON DATE	INPUT SOURCE	File ID	ORIGINATED IN Payment	D/C	RECEIVED IN Payment	D/C	NET AMOUNT IN Payment	D/C
1	02 FEB 2017	0000000010	11DHT7NER0MXX214TV1E3MOVV	125,268.52	D	0.00	C	125,268.52	D
2	02 FEB 2017	0000000001	00117072700000000124601101	0.00	C	554,202.77	D	554,202.77	D
3	02 FEB 2017	0000000001	00117072700000000124602201	0.00	C	383,155.70	D	383,155.70	D
4	02 FEB 2017	0000000001	00117072700000000124603401	0.00	C	802,089.79	D	802,089.79	D
MEMBER TOTALS IN PAYMENT CURRENCY 840:				125,268.52	D	1.739.448.26	D	1.864.716.78	D
ACCOUNT TOTALS IN PAYMENT CURRENCY 840:				125,268.52	D	1.739.448.26	D	1.864.716.78	D

END OF REPORT

10.1.26 7.5.1 Net Settlement Advisement Layout and Field Descriptions

Heading	Description
Field Number	The field number in this column corresponds to the field number in parenthesis on the sample layout.
Field Name	The name used to reference the field.
Required (R) or Optional (O)	This column displays an R if the field is required and displays on every Member Advisement Detail created. This column displays an O if the field is optional and will be displayed only if the field is appropriate for this Member Advisement Detail.
Attribute	This column describes the size and characteristics of the field. An a represents an alpha field, n represents a numeric field, and the number represents the number of characters in the field.
Description	This column describes the contents of the field and any special notes.

Field Number	Field Name	Required -R Optional - O	Attribute	Description
1	Report	R	an-11	Report ID
2	Date	R	DD MMM YYYY	System date on which the report was created. This is displayed as the St. Louis, MO, USA date
3	Page	R	n-3	Page number of the report
4	Time	R	HH:MM	System time on which the report was created. This is displayed as St. Louis time
5	Delivery Media	R	an-40	The assigned delivery media for all detail positions on the report
6	Destination	R	an-50	The assigned destination for all detail positions on the report
7	From Name	R	an-40	Name of the company sending this report. This will always say MASTERCARD
8	To Member	R	an-40	The name of the Participating Customer receiving this report
8a	Member ID	R	n-11	The ID of the Participating Customer receiving this report
9	From Office	R	an-15	The location of the Mastercard office that is sending this report
10	From Phone Number	R	an-12	The phone number of the Mastercard office to contact if you have questions about this report
11	Settlement Date	R	DD MMM YYYY	The date on which settlement processing occurred and advisements were delivered
12	Settlement Service Name	R	an-40	The name of the settlement service that this report supports
13	Scheduled Cutoff Time	R	HH:MM	Scheduled cutoff in Coordinated Universal Time (UTC)
14	Settlement Service ID	R	an-10	The Mastercard unique identifier for the settlement service

Field Number	Field Name	Required -R Optional - O	Attribute	Description
15	Scheduled Settlement Cycle	R	an-2	The originally scheduled settlement service cycle, sequential within settlement service
16	Settlement Service Type	R	an-16	The level of the settlement service: regional or intra-currency
17	N/A	R		Reserved for future use
18	Currency Name	R	an-40	The ISO name of the currency in which the positions are valued
19	Currency Code	R	a-3 n-3	The ISO alpha and numeric codes in which the currency positions are valued
20	Country Code	R	a-3	The three-character ISO code for the country in which the transfer agent resides. This code is displayed as alpha characters
21	Value Date	R	an-11	The value date for each of the following detail lines on the report
22	No	R	an-3	A unique identifier for the line created at the time of the report
23	Recon Date	R	an-11	The reconciliation date of an distinct Participating Customer settlement position that will be settled through the transfer agent based on processing local time
24	Input Source	R	an-10	System that provides data to the Settlement Account Management (S.A.M.): 0000000001 = GCMS 0000000002 = RPPS® 0000000003 = MCBS 0000000004 = RSC / APC 0000000006 = Single Message System 0000000010 = Cross-Border Services

Field Number	Field Name	Required -R Optional - O	Attribute	Description
25	Trans ID	R	an-25	Transmission ID
26	Originated in Payment Currency	O	n-18	The amount of the settlement position that is submitted by this Participating Customer, displayed on the report in Transaction currency
27	D/C	O	a-1	Debit/credit indicator for the amount of the settlement position that is submitted by the Participating Customer
28	Received in Payment Currency	O	n-18	The amount of the settlement position that is received by this Participating Customer, displayed on the report in Transaction currency
29	D/C	O	a-1	Debit/credit indicator for the amount of the settlement position that is submitted by the Participating Customer
30	Net Amount in Payment Currency	O	n-17	The total net amount of this Participating Customer's settlement position that will be settled through the transfer agent, displayed on the report in Transaction currency
31	D/C	O		Debit/credit indicator for the total net amount of the Customer's settlement position
32	Account Totals in Payment Currency	R		Displays field name, "Account Totals in Transaction Currency"
33	Payment Currency	R		Three-digit code that indicates the currency in which the Customer is paid or pays to settle its activity
34	Account Totals in Payment Currency (Originated)	O		The total amount of all settlement positions with the same value date for an account that has activity submitted by the Participating Customer
35	D/C	O		Debit/credit indicator

Field Number	Field Name	Required -R Optional - O	Attribute	Description
36	Account Totals in Payment Currency (Received)	O		The total amount of all settlement positions with the same value date for an account that has activity received by the Participating Customer
37	D/C	O		Debit/credit indicator
38	Account Totals in Payment Currency (Net Amount)	O	n-18	The total net amount of all settlement positions with the same value date for this account
39	D/C	R	a-1	Debit/Credit Indicator

Chapter 8: Implementation

This section provides general information on implementation requirements, the process, and the activities. Your Mastercard Delivery Manager will provide a project plan specific for each Originating Institution.

8.1 Key Implementation Activities

Once an organization decides to enroll in Cross-Border Services there are defined enrollment, system access and project launch activities. The **Appendix** provides descriptions of key terms and samples of key materials.

10.1.27 8.1.1 Enrollment Activities

1. **Perform Scope Assessment—**the Originating Institution and Mastercard will define and document the scope of the program. **See Appendix.**
2. **Determine ICA Assignment**—the Originating Institution may use an existing ICA or request a new ICA to be used for processing and settlement of the Cross-Border Service transactions.
3. **Complete and sign the Cross-Border Services Enrollment Form** —this includes key parameters required to enable the program like ICA, Corridor selection, transaction limits, pricing and settlement information. **See Appendix.**
4. **Complete Due Diligence –** Mastercard performs due diligence on the Originating Institution which includes an AML/KYC Compliance review and a Credit Risk assessment. **See Appendix.**

10.1.28 8.1.2 System Resources and Access

5. **Access the API on Mastercard Developers –** Navigate to *Mastercard Cross-Border Services* to view specific information about the service, API specifications, and usage instructions. https://developer.mastercard.com/cross-border-services/documentation/
6. **Register online with Mastercard Developers to gain Sandbox access** - complete registration for the Cross-Border Service API online and submit it to Mastercard for review and approval. Once approved, the Originating Institution receives an approval notification from Mastercard and then may access the Cross-Border Service for Cross-Border API sandbox on the Mastercard Developers site. An API tutorial is available on the site to assist Originating Institutions in correctly creating libraries and downloading how to use the swagger files when coding to the API.
7. **Sign up for Mastercard Connect** – Get access to the Mastercard portal to access Cross-Border relevant data. This site is accessible from www.mastercardconnect.com. Follow the instructions in the "Connect Sign Up Guide" link to request access.
    - For detailed instructions, please see **Appendix B: Customer Site Portal**

If the Originating Institution is not already set up with a business administrator who can approve access to your ICA's applications, you will need to have your Company ID to request the appropriate setup. For Originating Institutions in testing, your Customer Implementation Specialist can provide this to you. For OIs in production, please contact crossborder.services.support@mastercard.com.

OIs are sent a software token that must be installed before you can access any proprietary applications in Mastercard Connect.

Once set up for Mastercard Connect, Participating Customers should request Publications from the Store to access the following.

- Account-based Program Standards (give further context to the Product Standards in Section 2)
- Company Contact Management Application Guide (explains how to manage contacts)
- Mastercard Consolidated Billing System (provides detail on MCBS billing process and events)
- Request access to My Company Manager (see Customer Contacts section 10.3) and Mastercard Send Cross-Border Customer Site, soon to be named Cross-Border Services Portal application.

10.1.29 8.1.3 Project and Service Launch

8. **Conduct Kickoff Meeting—**Customer/Market Delivery, your dedicated project lead, will schedule and facilitate a kickoff meeting with the Originating Institution to review the defined scope, required forms, timelines, testing expectations, live dates, and contacts. After the completion of the kickoff meeting, development may begin. Weekly status calls are scheduled, and weekly status updates are distributed to relevant stakeholders across all work streams.
9. **Validate Connectivity** -Performed between the Originating Institution and Mastercard in the Sandbox environment for the API, or via a file transfer endpoint.
10. **Complete Development Phase**—the Originating Institution's development team writes application code to develop the user interface, integrate to the API resources and/or Transaction file processing endpoint, and perform settlement processing in accordance with the Cross-Border Services specifications.
11. **Complete Integration and Testing Phase**—Mastercard implementation resources support end-to-end testing between the Originating Institution and Mastercard. This phase includes unattended sandbox testing, Member Test Facility (MTF) testing that include parameters set up specifically for the Originating Institution, and then Production Validation Testing (PVT), which must be completed before a production commercial launch.
12. **Receive Request for Information (RFI) Training and Setup** – A Mastercard representative will set up your institution for secure transmission of RFI requests and responses. See Chapter 10: Customer Support for more information.

13. **Production Commercial Launch** -The service is now live and ready to offer to Senders. The Mastercard implementation team supports the Originating Institution for 30 days post-launch. Once 30 days have passed, Cross Border Services support team manages ongoing operations support.

8.2 Program Configuration

To properly configure Participating Customers for their selected program, several parameters are obtained at the time of implementation and documented in the Enrollment Form and/or Customer Program Scope document. The following information is required:

10.1.30 8.2.1. ICA, Settlement, and Mastercard Consolidated Billing System (MCBS) Fees

Cross-Border Services processing fees are inclusive within the transaction pricing. However, the movement of settlement funds is a separate service with associated costs. Settlement is managed by a Mastercard-assigned ICA number. Most Participating Customers that have an existing relationship with Mastercard choose to use existing settlement accounts. There is a separate settlement account for each regional settlement service that corresponds to a determined currency. There are no additional fees associated with an Originating Institution using an existing ICA and settlement service.

Any time a new ICA, settlement service, or additional settlement account is added, additional, recurring fees will be applied via the Mastercard Consolidated Billing System, as indicated in your region-specific MCBS manual.

Note: Other MCBS fees, such as customer implementation fees, may be applicable according to the customer region.

The below table summarizes the impact of using existing or new ICA/settlement parameters. **Note**: Cross-Border (denoted as XB in table) activity is never reported in Mastercard card processing activity reports. If card and XB activity are pulled from the same settlement account, both card and XB reconciliation reports should be used to reconcile the settlement account activity.

Scenario	Impact	Additional Cost	Additional Time
Use existing ICA and settlement services	XB activity is net debited with existing card activity from the same settlement account but is a separate line item on the Net Settlement Advisement (see NSA section 7.5).	None	None
Use existing ICA, but new settlement service or account	A new settlement service may be necessary to allow the Originating Institution to settle in the Sender currency. Each settlement currency contains separate settlement accounts and debits/credits.	Monthly settlement service fees	2-3 weeks

New ICA, new settlement service	A new ICA completely separates XB from card activity in every aspect, including settlement, file transfer endpoint management, contact management, and MCBS.	One-time ICA setup fees, recurring annual ICA fees, recurring monthly settlement service fees	6-8 weeks

Scenario 1: Participating Customer uses its existing regional settlement accounts (no additional fees to the Originating Institution).

An Originating Institution (OI) wants to leverage an existing Mastercard ICA used for card processing and Cross-Border Services processing. The OI currently has 3 different regional settlement services: USD, EUR, and GBP with Mastercard. The bank wants to segregate Cross-Border Services transactions from Card processing.

Solution: Leverage existing accounts with the USD and EUR settlement services.

- The Originating Institution leverages the Settlement Reconciliation Report to determine the Cross-Border Services net position
- The Settlement Advisement shows the separation of activities by Input Source, where applicable (the settlement advisement is an optional service).

Scenario 2: Participating Customer adding two new accounts to existing Mastercard Settlement Services (additional recurring fees to add new accounts to existing settlement accounts apply).

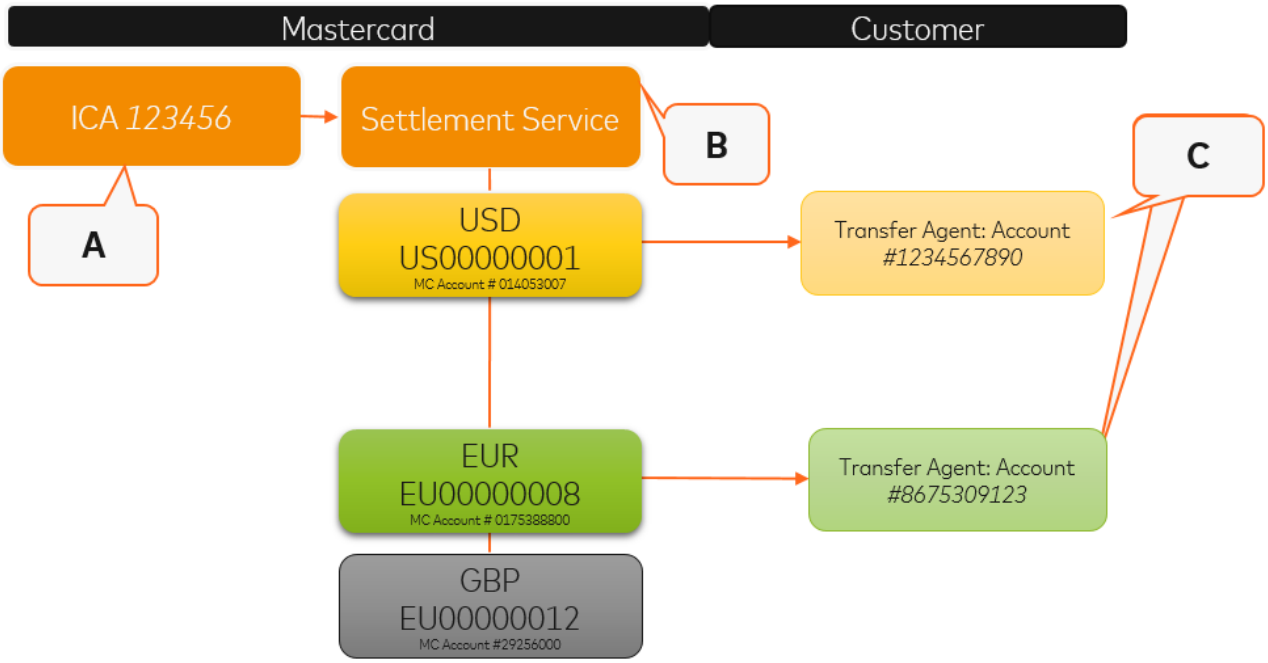
An Originating Institution (OI) the UAE wants to leverage their existing Mastercard ICA used for card processing along with XB processing. The OI currently has 3 different regional settlement services: USD, EUR, and GBP with Mastercard. The bank wants to segregate Cross-Border Services transactions from Card processing credits and debits for their USD and EUR accounts.

Solution: Add a new account to their existing USD and EUR settlement services.

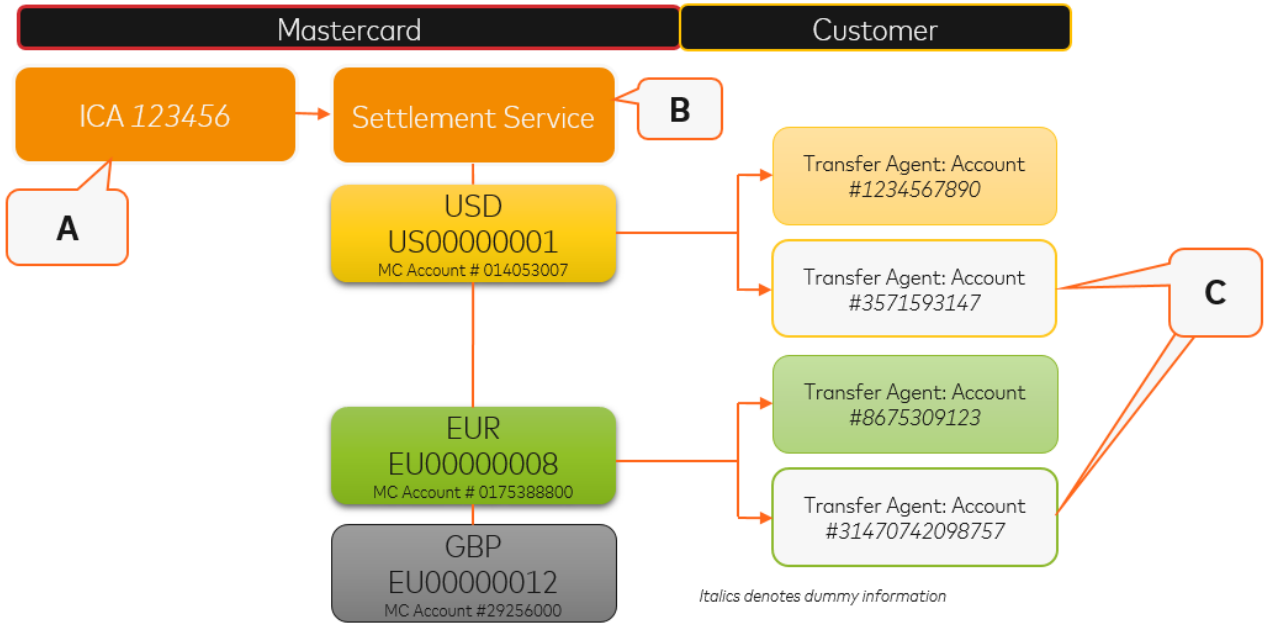
- ICA used for card processing and Cross-Border Services transactions
- Settlement Service –Participating Customer leverages an existing settlement service
- New account designated to Cross-Border Services processing only. (MCBS fees are applicable)
    - The Originating Institution leverages the Settlement Reconciliation Report to determine the Cross-Border Services net position
    - The Settlement Advisement shows the separation of activities by Input Source
        - The card and XB activity continue to be netted from the same settlement account
    - Separate Settlement Advisements are set for each account

- Only card processing activity continues to be pulled from the old account for EUR and USD
- Only Cross-Border Service activity is pulled from the new, dedicated accounts for EUR and USD

Old Setup



New Setup



Legend

A. Same ICA activity

B. Same ICA activity

C. Accounts to settle XB Service activity

10.1.31 8.2.2 Receiving Endpoint Selection

The following denotes a Corridor:

- Sending and Receiving country
- Channel – Bank Account, Mobile Money Account, Payment Card or Cash-out
- Beneficiary Currency – the destination currency or local currency for a given endpoint
- Settlement currency – the currency in which the Participating Customer settles with Mastercard and applies to one or more of Mastercard's existing Settlement Services. If adding a new Mastercard Regional Settlement Service, a Net Settlement Information Form (NSIF) is required
- Payment Type – One of the following apply per corridor: P2P/B2P/B2B/G2P/P2B

10.1.32 8.2.3 Pricing Model

A customer will choose to leverage either the Customer Managed Sender Pricing model or the Mastercard Managed Sender Pricing model.

- Customer Managed Sender Pricing (CMSP): Cross-Border Services provides the FX rate for a supported currency pair and the Originating Institution applies their own mark-up and performs their calculation to determine the fees and how much to collect from the Sender.
- Mastercard Managed Sender Pricing (MMSP): Cross-Border Services will perform the calculation for the amount to charge and collect from the Sender on the Originating Institution's behalf based on an agreed upon Originating Institution margin that will be added into the calculation.

  In both models, Cross-Border Services calculates the settlement amount for each Transaction in this business model utilizing the Cross-Border Services FX rate and Mastercard fixed fee. In the MMSP model, Cross-Border Services shows the Originating Institution's markup and fees in reporting but does not collect them during settlement.

  Note: The type of Pricing Model the Originating Institution chooses dictates which of the two Enrollment Form template will be used. See **Appendix G** for the appropriate form by Pricing Model.

10.1.33 8.2.4 Optional Sending Transaction Limits

Each Corridor adheres to specific default limits, but an Originating Institution has the option to set more restrictive limits for the following:

- Maximum transferred amount for an individual Transaction
- Maximum cumulative amount allowed during a period
- Maximum number of Transactions allowed during a period

8.3 Testing and Implementation

The Participating Customer must complete testing in 3 separate environments:

1. Sandbox (API Only)
2. Mastercard Test Facility (MTF)
3. Production Validation Testing (PVT)

A designated resource from the Mastercard implementation team will be assigned to create a test plan and implementation plan that is specific to the Participating Customer and the functionality that they want to develop. The detailed plan will include testing in each environment with stage-gates for progressing to the next environment.

Description of each test environment:

10.1.34 8.3.1 Sandbox (API Only)

Participating Customers coding to the API may begin unattended testing in the Sandbox environment at their own discretion, without any configuration required by Mastercard. Predefined parameters are available to provide specific responses in a simulated environment. Testing in this environment does not include the creation or passing of settlement files and transaction reports that would be generated as part of normal transaction processing, nor does it include testing of program specific configurations unique to each Participating Customer. The sandbox does ensure that API connectivity is successfully established and that API payloads are properly formatted and responded to. Please refer to the Cross-Border API "Sandbox" section on the Mastercard Developers site for more information.

To begin Sandbox testing, follow these steps:

- Create a Project to initiate a Sandbox certificate request.

  Note: As a best practice, Participating Customers should set up their API project with an e-mail address associated with a distribution list or shared mailbox for the annual key reminders to be sent to a relevant contact. It is also recommended for OIs to set a reminder to add another key and transition it prior to its expiration.
- Create a project name. Select 'Mastercard Cross-Border' under the 'Choose API' menu
- Download the certificate and import it to the development environment
- Install and configure libraries and files for the API
- The Participating Customer is now ready to make requests to the Sandbox environment
- Format requests according to the API Specifications using the scenarios provided
- Review the responses and modify your application as necessary

Note: Once the requested Corridors and their parameters are provided in the Enrollment Form and Customer Program Scope Document, and once the Originating Institution (OI) has completed Sandbox testing, Mastercard will provide the Participating Customer with a detailed **Technical Endpoint Guide** unique to the program requirements that will include specific information about the fields required vs. optional based on the destination endpoints selected. It is required that the OI performs development against these specifications prior to the next phase of testing.

Once these eligibility requirements are complete and the application is fully functional and free of defects, the Mastercard implementation manager will provide a Test Plan that clearly documents each testing phase, entrance criteria, and test cases to assist the OI in transitioning to the next phase of testing.

8.3.1.1 Technical Endpoint Guide (TEG)

Note: the TEG is for API quote and Transactions. Transaction File Processing uses the *Currency Guide* for file-specific requirements.

This document includes all optional and required fields by destination country and channel per Payment Type (P2P, P2B, B2B, and B2P). It also includes the Beneficiary Account currency and decimal precision, destination service tag, Transaction Type, and account URIs.

Field requirements are determined by the Receiving Institution and/or based on local regulation. **Note:** that data requirements may differ from other Local Funds Networks.

In the online specifications tabular view PDF, some fields for the Cross-Border Service API are denoted as "REQUIRED". This means that it is required for each individual transaction. If information is not provided for these required resources, Cross-Border Services will reject the transaction. Where "REQUIRED" is not indicated, the request is either conditional or optional. To determine if a resource is required for a specific destination, refer to the Technical Endpoint Guide.

The following is a sample only of a TEG that includes two Corridors for B2B Transactions: Sri Lanka bank account and Ethiopia bank account.

		Channel Type	Bank Account	Bank Account
		Flow Direction	Receiver	Receiver
		Destination Country (ISO-3)	**LKA**	**ETH**
		Beneficiary Currency and Decimal Precision	LKR(2)	ETB(2)
		Destination Service Tag	LKA-BK	ETH-BK
		Payment Type	B2B	B2B
		Account URI prefixes	ban:.*;bic=[0-9]{3} (Proprietary bank branch code in BIC)	ban:.*;bic=[A-Z]{4}ET.{2}.* (SWIFT code in BIC)
Field Name	**Additional Data Field Number**	**Additional DataDescription**		
sender.organization_name			[Payment Req - M]	[Payment Req - M]
sender.address.line2			[Payment Req - O]	[Payment Req - O]
sender.address.line1			[Payment Req - M]	[Payment Req - M]
sender.address.city			[Payment Req - O]	[Payment Req - O]
sender.address.postal_code			[Payment Req - O]	[Payment Req - O]
sender.address.country_subdivision			[Payment Req - O]	[Payment Req - O]
sender.nationality			[Payment Req - M]	[Payment Req - M]
sender.address.country			[Payment Req - M]	[Payment Req - M]
sender.government_ids[].government_id_uri			[Payment Req - O]	[Payment Req - O]
sender.date_of_birth			[Payment Req - O]	[Payment Req - O]
recipient.organization_name			[Payment Req - M]	[Payment Req - M]
recipient.address.line2			[Payment Req - O]	[Payment Req - O]
recipient.address.line1			[Payment Req - M]	[Payment Req - M]
recipient.address.city			[Payment Req - O]	[Payment Req - O]
recipient.address.postal_code			[Payment Req - O]	[Payment Req - O]
recipient.address.country_subdivision			[Payment Req - O]	[Payment Req - O]
recipient.phone			[Payment Req - O]	[Payment Req - O]
recipient.email			[Payment Req - O]	[Payment Req - O]
recipient.nationality			[Payment Req - M]	[Payment Req - M]
recipient.address.country			[Payment Req - M]	[Payment Req - M]
recipient.government_ids[].government_id_uri			[Payment Req - O]	[Payment Req - O]
source_of_income			Not Supported	Not Supported
purpose_of_payment			[Payment Req - O]	[Payment Req - O]
bank_code			[Payment Req - M] Proprietary bank code [Quote Req - M] Proprietary bank code	[Payment Req - M] Branch Name
receiving_bank_name			Not Supported	Not Supported
receiving_bank_branch_name			Not Supported	Not Supported
payment_origination_country			[Payment Req - M] [Quote Req - M]	[Payment Req - M] [Quote Req - M]
additional_data	**121**	**Sender Mobile Number**	[Payment Req - O]	[Payment Req - O]
additional_data	**122**	**Sender Landline Number**	[Payment Req - O]	[Payment Req - O]
additional_data	**125**	**Sender E-mail address**	[Payment Req - O]	[Payment Req - O]
additional_data	**161**	**Sender Place Of Birth**	[Payment Req - O]	[Payment Req - O]
additional_data	**170**	**Sender Occupation**	[Payment Req - O]	[Payment Req - O]
additional_data	**222**	**Recipient Landline Number**	Not supported	Not supported
additional_data	**260**	**Recipient Date Of Birth**	[Payment Req - O]	[Payment Req - O]
additional_data	**261**	**Recipient Place of Birth**	[Payment Req - O]	[Payment Req - O]
additional_data	**270**	**Recipient Occupation**	[Payment Req - O]	[Payment Req - O]
additional_data	**409**	**Additional Information Field**	[Payment Req - O]	[Payment Req - O]
additional_data	**630**	**Recipient Bank Account Type**	Not Supported	Not Supported

Sender URI information is available on the Mastercard Developers site

Some corridors require proprietary bank codes. In these instance, the codes will be provided by Mastercard with the TEG

Colors represent fields that are optional in green and mandatory in red. Where no color is denoted, the field is not supported. Therefore, if an Originating Institution provides information in a field that is green, Cross-Border Services will pass this information along to the RI, however it may not be sent to the Beneficiary. If an Originating Institution provides information in a field that is red, this information is

required by the RI and will be sent. If an OI provides information in a field that has no color, this field is not supported and will be dropped from the transaction, however, it will not be rejected.

Example: A Participating Customer provides a transaction from Business A that includes the Sender Organization Name, Sender Address Line 1 (required or mandatory) and Sender Address Line 2 (optional). Cross-Border Services will accept all these fields and process accordingly.

10.1.35 8.3.2 Mastercard Test Facility (MTF)

Within the Mastercard Test Facility (MTF) environment, the Participating Customer will utilize the code tested in the Sandbox and access configured endpoints within Cross-Border Services. Settlement files will be generated for each successful transaction and the settlement reports will be provided to test the OI's settlement and reconciliation processes. In addition, the Daily Transaction Report and Status Change Report will be sent.

Prior to moving a Participating Customer into the MTF, the following entry criteria must be met:

- Participating Customer has signed the Enrollment Form
- Participating Customer has provided input to and signed the Customer Program Scope Document
- Participating Customer has successfully made test requests for all test scenarios in the Sandbox and its application has appropriately handled the responses
- Participating Customer has performed the necessary development against the specifications as provided in the Technical Endpoint Guide for selected destination endpoints
- Mastercard has completed all configuration based on the signed Enrollment Form and Customer Program Scope Document, and provided the Partner ID
- Participating Customer has received and reviewed both the Test Plan and Test Cases
- Participating Customer has formatted its requests according to the API Specifications/Payment File specifications using the test scenarios provided
- Participating Customer has reviewed the responses and modified its application as necessary

10.1.36 8.3.3 Production Validation Testing (PVT)

Mastercard will facilitate a PVT/soft launch within the Production environment, which includes live transactions to ensure all connectivity, configurations, settlement, etc., functions as expected by Corridor. Funds will originate from the Originating

Institution and Beneficiary Accounts should be provided as well. If the Participating Customer cannot provide its own Beneficiary Accounts for PVT, Mastercard will make every effort possible to provide select Beneficiary Accounts.

- **Note:** Transactions that take place during production validation/soft launch cannot be reversed/returned.

Pre-Production Criteria

Prior to moving an Originating Institution into Production, the following entry criteria must be met:

- OI has successfully completed all MTF test cases and all error codes identified. This includes validation of the front-end user interface screens for Mastercard Managed Sender Pricing or Customer Managed Sender Pricing and reconciliation
- All issues and defects have been resolved
- OI has generated a production key and provided the key to its assigned Mastercard implementation manager for configuration
- Mastercard has completed all configuration in the Production environment
- Joint Mastercard and Customer agreement on the scheduled implementation, go-live date
- OI was issued a Testing Acknowledgement Notification (TAN)
- OI and Mastercard have created and agreed to the customer end-user Operations Support Plan
- Request for Information (RFI) actions are complete
- OI has access to Mastercard Connect
- Production Validation/Soft Launch plan has been developed and agreed to by both OI and Mastercard
- OI and Mastercard have created and agreed to the end-user support plan
- Mastercard confirmation of Anti Money Laundering, Sanction Screening, and Credit Cap with Participating Customer

The purpose of the PVT is to validate Corridor configuration for a select number of endpoints in the Production environment. This should be a subset of all Corridors to represent a good sample from each region. Minor changes may be required, and are anticipated, following PVT.

The following types of criteria are set for each PVT Plan (varies by program):

- Number of Transactions = *1-2 per Corridor*
- List Corridors = *Philippines, PHP, P2P, Bank Account, P2P*
- Maximum per transaction value = *$5.25 USD*
- Maximum cumulative transaction amount for PVT = *$500 USD*
- PVT Duration = *1 week*
- Production accounts provided Yes/No = *Yes, provided by Participating Customer*

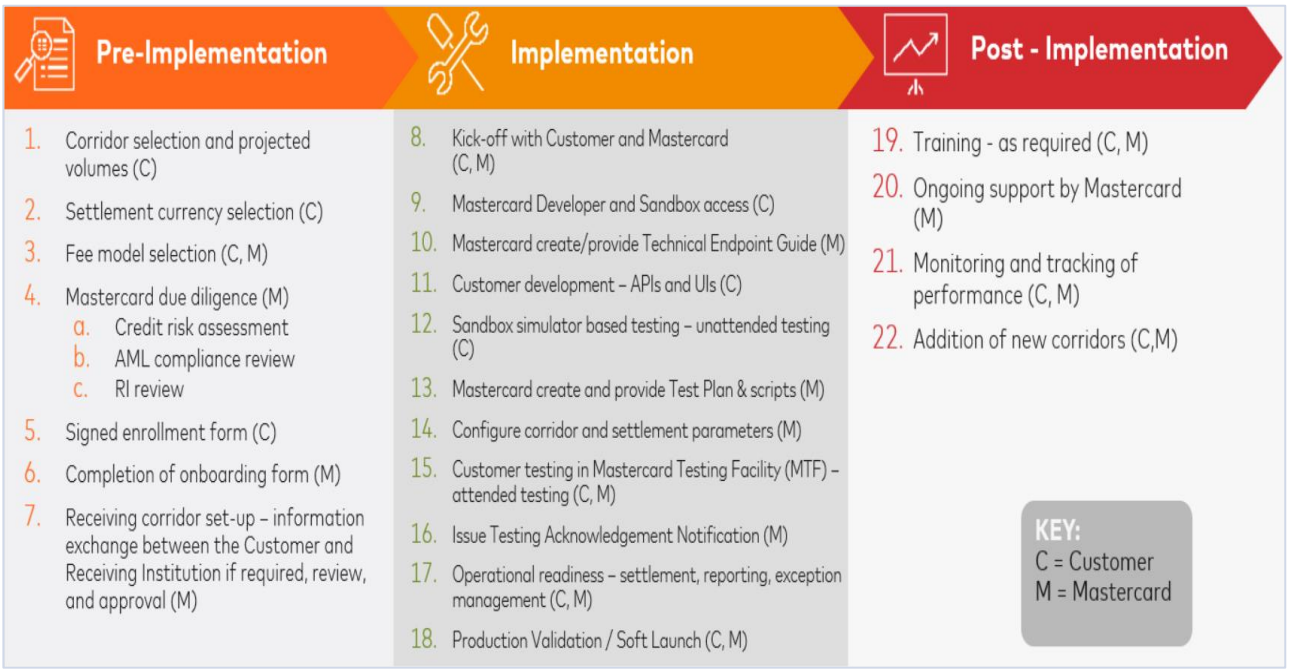
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PVT Best Practices

- Conduct the PVT on Monday-Tuesday in case fixes are necessary
- Perform "attended' connectivity testing to allow for quote requests to validate connectivity while all impacted stakeholders are on a conference bridge
- Validate all "Quote" API calls for each currency pair
- Validate "Payments" for each currency where accounts are available (1-2 per Corridor)
- Validate receipt and processing of the Settlement Reconciliation Report, Daily Transaction Report and Status Change API or Report
- Set daily credit cap at $500 USD during PVT
- Provide a contingency date if the production move cannot take place to ensure all proper resources are available
- Conclude PVT at least 5 business days prior to Market/commercial launch date

Note: Minimum transaction thresholds are put in place. Once this phase is complete and the Participating Customer and Mastercard agree to the commercial launch date, these limits are lifted, the program is ready, and testing is complete. Mastercard requires at least 5 business days' notice to set the commercial launch date.

Implementation Stages

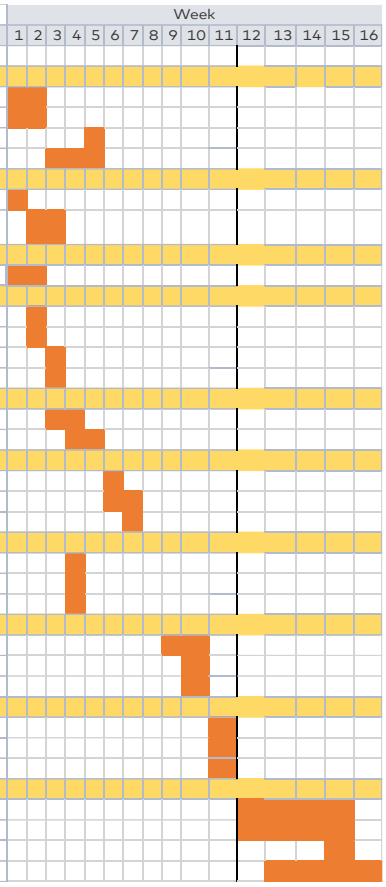


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Sample Implementation Project Milestone Plan

Tasks, durations, and timelines vary based on Participating Customer requirements.

Task Name	Duration	Resource Names
Mastercard Cross-Border Services Implementation Plan		
Project Admin	**90 days**	
Establish project team	5 days	Customer, Mastercard
Project Kick-off with Customer	2 days	Customer, Mastercard
Establish communication plan for launch	30 days	Customer, Mastercard
Complete Scoping Document		Customer, Mastercard
Mastercard Developers (Sandbox)	**10 days**	
Customer requests keys	1 day	Customer
Customer develops and tests against sandbox (including development of UIs)	10 days	Customer
Commercials/Contract	14 days	
Enrollment Form Sign-off	14 days	Customer
Project Qualification	10 days	
Assemble project team for kick-off meeting to clarify & confirm	2 days	Customer, Mastercard
Provide updated Implementation Plan/Checklist to all stakeholders	5 days	Customer, Mastercard
Implementation Plan sign-off	3 days	Customer
Complete Mastercard Connect access and application setup	5 days	Customer
Configure API (MTF)	5 days	
Network configuration setup	5 days	Mastercard
Test case planning	1 day	Customer, Mastercard
API Testing (MTF)	15 days	
Perform connectivity testing for MTF Environment	1 day	Mastercard
Testing for Customer specific Test Cases	10 days	Mastercard
Validate testing results	3 days	Mastercard
Configure API (Production)	5 days	
Generate PROD Consumer Key/Client ID	1 day	Customer
Configure Prod environment per specs	5 days	Mastercard
Setup RFI process, training and access	5 days	Customer, Mastercard
API Validation/ Soft Launch (Production)	10 days	
Production testing with Customer specific test cases (including	10 days	Mastercard
Sign-off on Production Customer Validation	1 days	Customer, Mastercard
Customer Sign-off on Testing Acknowledgment Notice (TAN)	5 days	Customer
Production Setup/ Commercial Launch	3 days	
Notify project teams of production date	1 day	Customer, Mastercard
Coordinate operational support handoff between Customer, GCS, and	5 days	Mastercard
Commercial Launch - LIVE	1 day	Customer, Mastercard
Post-Implementation Activities	31 days	
Monitor Implementation for 30 days	1 day	Mastercard
Report production status and progress	30 days	Mastercard
Conduct Post Project Review (PPR)	1 day	Mastercard, Customer
Close Project	1 day	Mastercard



8.4 Implementation Support

During the project implementation and for 30 days afterward, Participating Customers will leverage their dedicated Customer Delivery / implementation resource for support. Beginning 31 days post-implementation and ongoing thereafter, support will be managed by the Customer Support team.

8.5 Implementation Key Success Factors

- Alignment on key milestones, dates, and dependencies across both Mastercard and the Participating Customer are important to have at the beginning of the project to ensure agreement of expectations
- After the implementation kick-off, the best practice is to confirm development, testing, and launch milestone dates immediately after finalized impacts are provided by the Participating Customer
- If a critical path date needs to change, both Mastercard and Participating Customer impacts should be assessed, and re-alignment of delivery dates may be required

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- Mastercard has three testing phases: Sandbox, MTF, and Production Validation. It is important to ensure the appropriate configuration is documented prior to beginning MTF and Production Validation

8.6 Program Updates

To add, change, or delete a Corridor after launch, a Participating Customer needs to complete and sign a new Enrollment Form document and denote the change within the *Receiving Endpoint Selection* and *Pricing* section of the document.

To update program parameters, a Participating Customer needs to document the changes in their Customer Program Scope Document. Such changes include but are not limited to the following:

- New settlement currency or service
- Additional product features like Carded FX Rate, Status Change Push API, Encrypted API, Expired Quote/Rate
- New GFT endpoints
- Implementing Payment File Processing

Some changes will require testing in MTF and/or validation in the Production environment and may be subject to the creation of a new project with the Mastercard implementation team. An updated Enrollment Form and/or Scoping Document is required for changes that require testing resources.

Changes that do not require testing include but are not limited to the following:

- Credit Cap changes
- Pricing changes for Mastercard Managed Sender Pricing Model
- Deletion of Corridors
- Mandated report version changes prior to automatic migration date/ cut over date

Existing customers may contact crossborder.services.support@mastercard.com to request changes.

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Chapter 9: Fees and Collection

This section provides information on fees and collection

9.1 Transaction Fees

Mastercard collects transaction fees at the time of settlement and details are reflected in the Settlement Reconciliation File. Therefore, Participating Customers are not billed for transaction fees via the Mastercard Consolidated Billing System (MCBS).

9.2 Other Fees

Note: These other fees may not be applicable and depend on market/region. If they are applicable, they are billed through the Mastercard Consolidated Billing System and are not part of the Cross-Border Settlement Reconciliation File.

- ICA Fees- A Participating Customer who requests a new ICA to be used exclusively for Cross-Border Services transactions will be required to pay a set-up fee and monthly fee per ICA through MCBS. A Participating Customer may elect to do this if they want to separate their Cross-Border Services settlement activity from other Mastercard activity.
- Settlement Account Fees - There is an option for a Participating Customer to expand the currencies and/or accounts used to settle with Mastercard. An Originating Institution that wants to use additional settlement currencies or accounts will be required to pay a monthly fee per currency and/or account to Mastercard through MCBS.
- Implementation Service Fees - A one-time set-up fee and/or monthly implementation fee may be charged for setup, testing, and support of implementing this service through MCBS. Check with your Mastercard Regional Office or your Mastercard Representative to determine if Implementation Service Fees will apply.

All ICA, Settlement, and Implementation Service Fees are available in the regional Mastercard Consolidated Billing Systems manual available in Mastercard Connect/Publications.

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Chapter 10: Customer Support

This section provides information on customer support

10.2 Customer Site Application

A Cross-Border self-service application is available through Mastercard's enterprise customer portal, Mastercard Connect. The *Cross-Border Services Customer Site, soon to be named, Cross-Border Services Portal* applications (MTF and Production) give OIs the ability to research transactions, download reports and trace Transaction files from the past 180 days at their discretion.

To get access to these free applications:

1. If you do not already have a Mastercard Connect account, you will need to navigate to Mastercard Connect: www.mastercardconnect.com to sign up with your applicable ICA and CID # to open an account (contact your Mastercard Account Manager for these numbers).
2. Order the ***Mastercard Cross-Border Customer Site*** *and/or* ***Mastercard Cross-Border Customer Site MTF*** applications from the *Store* or *My Items*. **Note:** These applications will be renamed Mastercard Cross-Border Services.

   Every Participating Customer has their own assigned system administrator who approves or declines application requests for users at their institution. They will receive an automated notification to permit access to the applications. If you need to know who the assigned administrator is, contact your Mastercard account manager.
3. Request access to the 'masendxbsearch' role. Once approved, you will have access to:
   - Research Transaction
   - View Transaction message details
   - Download reports
   - View Payment Files (if opted in for this service)
4. Refer to **Appendix C** for step-by-step instructions on gaining access to the application.

10.3 Customer Support Overview

If the self-service resources do not provide the assistance needed, Mastercard provides a Full Service, 24 x 7 support staff to assist.

Processes and communication channels have been implemented within Mastercard's customer support organization to ensure that a timely and accurate response is provided each time an Originating Institution contacts Customer Support. The goal is to ensure satisfaction with the help that is provided.

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Customer Support Team Overview

This team is always the first point of contact at Mastercard by phone or email. Here's a summary of the process:

1. Participating Customer contacts the team by phone or email
2. The Customer Support team will record the customer request into a customer tracking system, where every new inquiry is assigned a unique case number/service request
    - A response acknowledging the issue including the case number will be sent within 24 hours of the email inquiry. This information will also be provided for issues communicated by phone to Customer Support
    - The case number should be referenced in the subject line of all correspondence between the Participating Customer and Mastercard
3. The service request is assigned a priority based on the level of impact
4. The Customer Support team will engage all necessary teams to resolve the issue
5. The expected communication response time from Mastercard to the customer will depend on the priority and level of impact
6. The Participating Customer will be notified when the issue is resolved

Note: For urgent requests, a phone call is required to ensure the issue is responded to immediately.

The Customer Support team can answer most questions and resolve most issues. If the first level support team cannot address the question or issue, there is a full escalation path that will include second and third tier support teams if required.

Some examples of the anticipated types of questions or issues that can be handled by the Customer Support team include:

- The Beneficiary has not received the funds, or the amount of funds received was the wrong amount
- The transaction is pending longer than expected
- Transactions are being submitted but they are failing with reject codes that are not understood
- I need to cancel a Transaction or request a refund

Before each Originating Institution moves to production, a transition meeting will be held to review the most common inquiries received, best practices and solutions, and contact information, including a local phone number for Originating Institutions to call for support.

General Contact Information

Email: crossborder.services.support@Mastercard.com

Phone: 1-800-999-0363 or 636-722-6176

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Canada Region: 1-800-455-9233

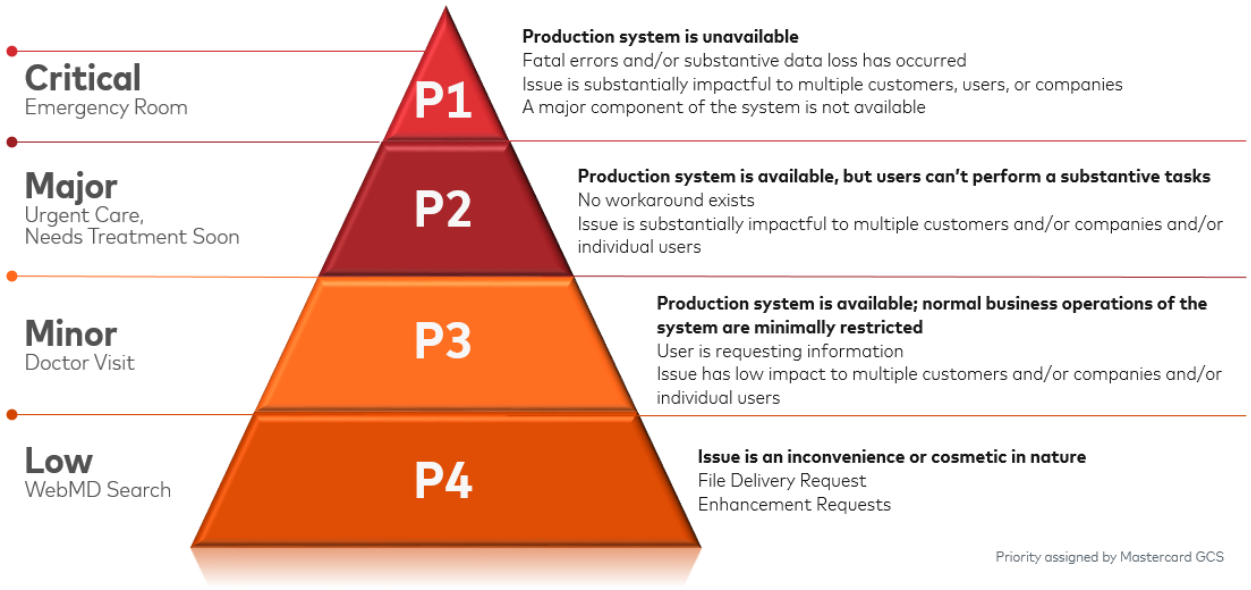
Europe Region: +32 2 352 54 03

Spanish Language: 1-636-722-6292

Select option 5 then option 3

Note: Please listen to options prior to selection, as they may be subject to change

Service Request Priority Levels



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Customer Service Expectations

The target response timeframe is defined as the time between the receipt of an inquiry until the first response is provided. Subsequent updates will continue to be provided until a resolution, a work-around, or a target completion date is identified. Response times are dependent on severity and impact of the issue. The Priority level definitions of Critical, Major, Minor, Other, and Future are:

Target Response Timeframe for Service Requests		
Priority	**Initial Response Time**	**Follow Up Response Time**
Critical*	Provided on the inbound phone call	Every 3 hours or as determined by the call
Major	1 Business Day	Every Business Day
Minor	2 Business Days	2 Business Days

*Participating Customers should call Global Customer Service for immediate attention to all critical issues

10.4 Returns

Returns may be requested by contacting Customer Support. Where possible, Mastercard will make every effort to request a return from the Receiving Institution; however, the completion of a return cannot be guaranteed. As a best practice, Participating Customers should manage these requests on a limited basis with a set timeframe to minimize manual processes.

Note: When a payment is returned or rejected to a sender, the sender must receive an accurate description of the reason for the return or reject.

Additional information can be found in the Recalls, Returns and Cancellations Standards section of this guide.

10.4.1 10.3.1 Originating Institution Initiated Returns

A recall request is a sender-initiated request to return a previously submitted payment instruction. The Originating Institution (OI) needs to contact the Mastercard Cross-Border Services Customer Support team where a ticket will be created and associated to the request. The transaction details (originating transaction reference identifier, payment creation timestamp, beneficiary amount) should be provided, accompanied with the reason of the recall.

After an OI has submitted a payment and Cross-Border Services has transmitted the payment to the Receiving Institutions, the payment is considered final and it can only be recalled on a best-effort basis. This means Mastercard will take all reasonable steps to recall the payment without guarantee it will successful.

For a valid recall, there should be certain conditions met as defined by Mastercard:

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- Duplicate transaction initiated by the sender or OI due to a system processing error
- Payments made to a beneficiary different than the one intended
- Payments made for an amount different than the one intended
- Payments made towards unknown beneficiaries due to fraud (detailed explanation is required at intake of this request). It is helpful to provide police or other reports if available as supporting documentation.

Any recall request for a different reason than the ones listed above will be rejected by Cross-Border Services Customer Support.

Payments must have been made within **forty-five days** prior to the request (except for SEPA schemes as outlined below).

For requests where the payment is in 'Success' status but the funds have not arrived on the beneficiary account within the normal funds delivery time, Cross-Border Services Customer Support will attempt to verify proof of payment from the Receiving Institution by asking for the RI's payment reference ID, which can be provided to the beneficiary to locate the payment.

Regulatory and clearing system rules

Each pay-out country applies different rules for a recall process. Table 1 presents the period allowed for a sender to initiate a recall request for certain markets. If the sender requests a recall outside of the allowed period, the recall request will be rejected by Cross-Border Services Customer Support.

Country/Region	Clearing scheme	Maximum period to accept a recall
SEPA Zone	Near-real time or non-real time	10 calendar days for duplicate or fraudulent entries 13 months for sender -initiated recalls
Other	Local	45 calendar days after payment creation

If the recall request fits in the criteria of a valid recall, Cross-Border Services Customer Support will contact the Receiving Institutions and request the recall to be processed.

Recall process at the beneficiary bank

The beneficiary's bank is generally required to obtain the beneficiary's consent prior to debiting the beneficiary account for the recall amount. If consent is given, the recall will be processed. However, if the beneficiary does not agree, the recall request will be rejected by the beneficiary bank.

Where possible, the sender should attempt to inform the beneficiary of the recall request with the reason of the recall when the request is made by the Originating Institution. This will expedite the recall process at the beneficiary's bank.

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There are certain markets where regulatory authorities or the clearing system mandate the beneficiary's bank to provide positive or negative feedback to the recall request within a certain timeframe.

Country/Region	Clearing scheme	Maximum period for beneficiary bank to answer a recall request
SEPA Zone	Not real-time	10 banking business days
SEPA Zone	Near real-time	15 banking business days
Other	Local	Not defined

Return of the funds

Once the recall is processed by the beneficiary's bank, the funds will be returned to Mastercard, who will return them to the Originating Institution. The beneficiary's bank may charge a fee for the processing of the recall. Therefore, the returned amount could be different than the amount instructed with the original payment transaction.

Mastercard is not responsible for any delays in the returning of the funds. Delays are tied to actions of the beneficiary and their bank actions that are outside of Mastercard's control. Mastercard will credit back the funds to the Originating Institution as soon as they have been returned by the beneficiary's bank.

Communication to OI

Cross-Border Services Customer Support follows up every week with the receiving partner.

In case a response is provided by the receiving partner (positive or negative) the Originating Institution shall be notified within one business day. In the event the receiving partner has not been provided with a response from the ultimate beneficiary bank, the ticket at Mastercard will be closed after 30 calendar days. If the payment is reversed after this period, the transaction shall be automatically refunded on the Mastercard platform. The return shall appear in the next day's settlement report to the Originating Institution.

10.4.2 10.3.2 Receiving Institution Initiated Returns

In some circumstances a Receiving Institution may return a transaction after it was processed by Cross-Border Services. The reason for the return may be due to erroneous data, such as account number, and/or missing Sender or Beneficiary information. In such instances, Cross-Border Services will return the funds to the Sender with the same exchange rate and amount by which it was sent. This is shown within the Settlement Reconciliation Report as a credit back to the OI. The transaction will include an identifier of the originating transaction for reconciliation purposes.

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10.5 Customer Communication Information

Cross-Border Services will provide customer communications for enhancements, production issues, etc. via email when applicable, including:

- **Daily Credit Cap Threshold Alert** – notifies the Participating Customer and transaction originator when the daily target percentage threshold is met.
- **New Product Features** – sent prior to Cross-Border Services production releases, notifying Participating Customers of new enhancements to the Cross-Border Services. Examples include new fields, reporting enhancements, etc. This information is also archived on the Mastercard Developers site.
- **RI Changes** - Data field requirement changes by Corridor imposed by the network partner (e.g. mandatory data requirement changes, new RIs, etc.).
- **Planned Maintenance** – notifies Participating Customers when planned maintenance is scheduled such as routing changes, etc.
- **Unplanned Outage /Incidents**– notifies Participating Customers of network outages, large amounts of transaction declines, interchange issues, file delays, etc.
- **Settlement Failures** – notifies the Participating Customer if settlement has not been received by 2 PM CT or if there is a delay in sending advisements, etc.
- **Corridor Data Changes** - notifies customers of data (TEG) changes or business (BEG) changes
- **Key Expiration** – developer site notifies customer prior to their key expiring (30 days, 15 days, 1 day, 0 days)
- **FX Rate Update** – Notifies customer of delay in delivery of FX rate file information

Mastercard will ask for contact details for the above communications during the onboarding process. All of the above communications (with the exception of the daily credit cap notifications, which are set up during onboarding) are sent from either *Mastercard Service Event Management no-reply@mastercard-email.com or Mastercard.Send.Cross.Border@mastercard.com.* Please ensure email messages from these Senders are not blocked or marked as junk mail.

10.5.1 Managing Customer Contacts

Your organization's system administrator should regularly review and update the *Cross-Border Services* contact in the My Company Manager application from Mastercard Connect.

Sign Up for Mastercard Connect

All customers must sign up for Mastercard Connect. This site is accessible from www.mastercardconnect.com. See **Appendix C** for more details.

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Sign Up for My Company Manager

Once you have access to Mastercard Connect, you can request the My Company Manager application to view and update your contact information. By default, you have read only access to the Company Contact Management application. To become a Company Contact Administrator, access must be requested through the Store.

The "Contact" tab inside the application contains the Company Contact Management (CCM) application that enables customers to manage contacts while providing Mastercard the ability to more efficiently communicate with all customers.

Please click here to access The Company Contact (CCM) Manual on Publications. If you have any questions about CCM, how to update your contact information, etc., please contact List Management Services via email at lists@mastercard.com.

10.6 Requests for Information (RFI)

In some circumstances, a Receiving Institution may require additional information before further processing the Transaction. This is typically when Sender or Beneficiary information is missing, or the Receiving Institutions needs additional information to clear the Transaction from its risk-assessment queue. When this occurs, a Request for Information (RFI) may be initiated. The RFI must be resolved before the Transaction can be completed.

The most common information requested is:

- Full first and/or last name, or organization name (most common)
- Full address (most common)
- Date of birth (applicable to personal Transactions)
- Copy of passport or other ID
- Relationship to other party
- Purpose of Transaction
- Source of funds
- Copy of invoice/contract

If the information is not received in a timely manner (usually within 15 days), the transaction is usually rejected. Receipt of the RFI information does not guarantee a successful Transaction, as the Transaction may still be rejected.

To reduce RFIs and avoid delays in Transaction processing, the following guidelines are recommended:

- When originating to/from individuals, always provide full names, first and last. Do not provide initials in either the first or last name fields
  - Do not allow 'and' in the first or last name field. The Transaction should be sent to a single person, not multiple people
  - Provide a full middle name if one is required. Do not provide initials
- When originating to/from a business, always provide the full organization name
- Always provide a full and valid address. Do not provide abbreviations. Do not provide PO Box as an address

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Historically, the majority of RFIs could have been avoided by adhering to these guidelines.

An Originating Institution will be made aware of RFI requests though a formal and secure tracking process which allows an Originating Institution to view new requests, provide responses, and track RFI statuses. Formal RFI process training will be conducted at the time of onboarding. The tool used in this process is a secure email encryption method that has been approved by Mastercard Information Security for sharing highly classified information. Participating Customers are expected to monitor emails and respond accordingly. This service is not considered a system of record for any data. Record retention must be done outside this service.

When working with RFIs, please be aware of the following:

- All RFIs need to be responded to, even if the response states the inability to provide the information. This allows the compliance team and/or the Receiving Institutions to quickly decide on the transaction.
- An RFI request will remain open for no longer than 15 calendar days, at which time it will expire. It is recommended a response be provided as quickly as possible to avoid potential rejection of the Transaction and any potential blocking of the Sender and/or Beneficiary due to lack of information. Normally if a complete response is not received, the Transaction is rejected.
- Cross-Border Services and/or the Receiving Institutions may perform blocking on the Sender and/or Beneficiary based on the assessed risk level of the generated RFI case. If blocking occurs, future Transactions will be rejected unless or until the RFI is resolved.

Refer to **Appendix D** for step-by-step instructions for the RFI process.

10.7 Credit Cap Change Process

Participating Customers can request a change due to anticipated or unanticipated volume increases (prior to the 50% threshold) by calling or emailing the Customer Support team with the proposed daily credit cap amount. The Customer Support team will review the request based on the Participating Customers current exposure and collateral to approach the request in one of the following ways:

1. Normal priority (the request is not urgent, and the credit cap increase is not linked to an immediate expected volume increase).
2. Urgent (the credit cap increase is needed for soon to follow Transaction volume increases).
3. Urgent/Emergency (the increase needs to be done ASAP and the Participating Customer cannot wait 8 hours) otherwise Transactions will likely reject. Management will be notified immediately. **Note:** this is an exception to the norm and should rarely occur. These requests will still take time to: review, decide, and engage the right team for implementation.

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Appendix A: Definitions

The following terms will have the meanings ascribed below. Any capitalized terms not defined herein have the meaning ascribed in the Definitions appendix of the Account-based Program Standards or this Program Guide. If there is a conflict between the definition of a term set forth herein and the definition of a term set forth in the Account-based Program Standards, then the definition set forth herein applies. Any reference to a section of the Mastercard Rules included in this Program Guide are deemed to include any successor provision(s) to such section.

"**Applicable Law**": All applicable laws of the country (or any subdivision thereof) in which an Entity is organized or principally engaged in business (including common law), codes, statutes, ordinances, rules, regulations, authoritative interpretations, regulatory bulletins, authoritative interpretations or guidance by, or any binding memorandum of understanding, cease-and-desist order, consent order, legal settlement, written agreement or other agreement with, or enforcement order of, any Governmental Authority, as may be amended and in effect from time to time and must include (but is not limited to) all laws and regulations applicable to Mastercard, including the sanctions laws and regulations enacted by United States sanctions authorities (including OFAC and the United States Department of State).

"**Application Programming Interface (API)**": A set of routines, protocols, and tools for building software applications. The messaging interface of Cross-Border Services utilizes API routines.

"**Beneficial Owner**": In the case of a Sender that is a corporate Entity, a natural person who ultimately owns or controls the Sender or the natural person on whose behalf a transaction or activity is being conducted. The threshold for ownership or control of such corporate Entity is 20% unless otherwise provided under Applicable Law. "Beneficial Ownership" will be construed accordingly.

"**Beneficiary**": The Beneficiary (as defined in the *Account-based Program Standards*) which is the intended recipient of funds transferred, as specified by a Sender, using Cross-Border Services.

"**Beneficiary Account**" means the Beneficiary Account (as defined in the *Account-based Program Standards*), onto which the funds relating to a Transaction are transmitted or intended to be transmitted.

"**Beneficiary Institution**": The Beneficiary Institution (as defined in the *Account-based Program Standards*) which is the Entity where the Beneficiary has the Beneficiary Account.

"**Child Partner**": Partner IDs that fall under a Parent Partner in the TPP reporting hierarchy.

"**Corridor**": A selected Originating Territory and the corresponding Receiving Territory in relation to a Transaction. For example, if a Participating Customer intends to send funds for a Sender from country X, to a Beneficiary in country Y, the Corridor is

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country X to country Y. Each receiving endpoint, Transaction Type, and channel denotes a separate Corridor.

"**Cross-Border Service API**": A set of web services available on the Mastercard Developers that allows Originating Institutions to quickly launch Cross-Border Services. APIs are also available to Participating Customers who choose to leverage on-behalf-of services.

"**Cross-Border Services**": The service that is provided by Mastercard that enables Participating Customers to transfer funds internationally, as more particularly described in this Product Guide.

"**Cross-Border Services Standards**": Comprises all provisions applicable to Cross-Border Services, including those in the Standards, this Product Guide, the Participating Customer's Enrollment Form and other specifications, guides, documentation or materials relating to Cross-Border Services, as may be modified from time to time by Mastercard.

"Enrollment Form": An agreement between Mastercard and a Participating Customer granting the Participating Customer the right to participate in the Mastercard Cross-Border Services. An Enrollment Form is the Participation Agreement as defined in the Account-based Program Standards.

"**Entity**": An organization or group for purpose of conducting business.

"**False Positive**": A screening result that shows a potential match which requires further investigation and following such investigation, turns out to be wrong.

"**Foreign Exchange (FX)**": The conversion of money from one currency into another.

"**Funding Account**": The Sender's Account (as defined in the *Account-based Program Standards*), which is used to fund a Transaction.

"**Global File Transfer (GFT)**": A series of Mastercard file exchange services used to exchange files with Participating Customers.

"**Governmental Authority**": Any government, any state or any political subdivision thereof and any Entity exercising executive, legislative, judicial, regulatory, or administrative functions of or pertaining to government, whether federal, state, local or territorial.

"**ICA**": A unique number assigned by Mastercard to identify a Customer in relation to the Cross-Border Services.

"**Distinct**": A person acting on their own behalf, separate and distinct from a group.

"**Intellectual Property Rights**": All trade secrets, patents and patent applications, copyrights, moral rights, database rights, design rights, know-how, rights in confidential information, rights in inventions (whether patentable or not) and all other intellectual property and proprietary rights (whether registered or unregistered, and any application for any of the foregoing rights), and all other equivalent or similar rights which may arise or exist anywhere in the world.

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"**"Know Your Customer" Due Diligence Requirements**": Identifying and verifying the identity of a person or Entity and ensuring an understanding of the purpose of the transactions carried out by that person or Entity, including: (i) screening against relevant and current lists or databases of politically exposed persons or senior foreign political figures, their families, and their associates, where these requirements should at least include the daily screening (including resolving of False Positives) of the names of such person or Entity in accordance with Applicable Laws or taking a risk based approach; (ii) taking appropriate measures for any Transaction involving any Senders, Beneficial Owners or Beneficiaries that are identified as falling within (i) above or are a family member or a close associate of them, and establishing the source of the funds and the purpose of such Transactions, in order to mitigate the risk that the relevant Transactions were used for any unlawful or corrupt activity, including but not limited to, paying or facilitating the payment of bribes to these individuals.

"**Losses**": Any and all losses, liabilities, costs, and expenses (including reasonable fees and expenses for attorneys, experts and consultants, reasonable out-of-pocket costs, interest and penalties), settlements, equitable relief, judgments, damages (including liquidated, special, consequential, punitive and exemplary damages), claims (including counter and cross-claims, and allegations whether or not proven), demands, offsets, defenses, actions, or proceedings.

"**Mastercard Brand Guidelines**": The specifications, policies and guidelines for using Mastercard's Brand Marks, as made available by Mastercard from time to time (currently available at http://www.Mastercard.us/trademarks.html and http://www.Mastercardbrandcenter.com/us/index.shtml) as may be amended by Mastercard from time to time.

"**Mastercard Developers**": An online portal that connects partners and developers to expanding list of Mastercard payment and payment-related services through Application Programming Interfaces (APIs).

"**Mastercard Intellectual Property**":(a) the Mastercard Technology and Cross-Border Services, and any and all software, websites, programs and other applications provided or made available by Mastercard in connection with any of the foregoing, and the user experience and look and feel of any of the foregoing; (b) the Mastercard Specifications and all documentation, manuals, computer software, processes, procedures, systems, sales materials, technical materials, checklists and any other documentation issued or made available by Mastercard; (c) the Mastercard Brand Marks; and (d) any and all improvements, enhancements, modifications, alterations, or derivative works of or to any of the items mentioned in (a), (b) and (c) herein.

"**Mastercard Specifications**": The specifications and other documentation provided by Mastercard from time to time related to the use of Mastercard System, as may be modified from time to time.

"**Mastercard Technology**": The Mastercard System and all other Technology that is owned, conceived, reduced to practice, authored, or otherwise created or developed by Mastercard, whether developed prior to, during, or subsequent to launch of Cross-Border Services.

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"**OFAC**": The US Department of the Treasury's Office of Foreign Assets Control.

"Originating Territory" means a country set forth in the Originating Institution's Enrollment Form for which Mastercard has approved for the origination of Transactions with the Cross-Border Service.

"**Originating Institution**" or "**OI**": When used in this Product Guide, means an "Originating Institution", as defined in the *Account-based Program Standards,* that is a Participating Customer.

"**Originating Institution Settlement Account**": the bank account held by the Originating Institution (where the Principal Participating Customer or the Association Participating Customer may be acting on its behalf or on behalf of an Affiliate) and designated to fund and complete settlement of all approved Transactions.

"**Parent Partner**": In the TPP reporting hierarchy, Originating Institutions who send from multiple countries are assigned Partner IDs for each country. A "parent" Partner ID (Parent Partner) can be designated to receive centralized reporting for all of these and their "Child" Partner IDs (Child Partner).

"**Participating Customer**": An Originating Institution that Participates in Cross-Border Services. Receiving Institutions are not Participating Customers and will be a party to an agreement with the Corporation.

"Payment Type": Identifies the payment flow associated to the transaction. Valid payment types are B2P, B2B, G2P, P2P, and P2B.

"**Product Guide**": This document setting out specific details, features and description of Cross-Border Services, including instructions and requirements applicable to Participating Customer's use and Mastercard's provision of Cross-Border Services, as may be updated from time to time.

"**Prohibited Business Activities**": Without prejudice to any prohibited practices that may be applicable to the Participating Customer under the Standards, any activities which are, at any time, unlawful, illegal, unauthorized (by virtue of being carried out without requisite permits, licenses, approvals, consents or otherwise) or are otherwise in violation of Applicable Law, including, but not limited to, activities that create unacceptable business risk for Mastercard.

"**Receiving Institution**" or "**RI**": The Receiving Institution (as defined in the *Account-based Program Standards*) which is an Entity that receives a Transaction in connection with Cross-Border Services and may be the Beneficiary Institution or may forward it to the Beneficiary Institution for posting to the Beneficiary Account (possibly through one or more intermediaries, such as the local Automated Clearing House network).

"Receiving Territory": a country set forth in the Originating Institution's Enrollment Form for which Mastercard has approved for the receipt of Transactions with Mastercard Cross-Border Services.

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"Required Licenses": all permits, licenses, governmental approvals and registrations required by Applicable Law in each Originating Territory related to participation in the relevant Program.

"Recall": Sender or originator-initiated request initiated to reverse a previously submitted payment transaction. When a sender raises a recall request, the Originating Institution (OI) needs to contact the Cross-Border Services Customer Support team where a ticket will be created and associated to the request.

"Return": A payment transaction that was in a previous status of success but later returned.

"Reversal": A payment transaction that settled in "Pending" state and later "Rejected."

"Sectoral Sanctions Identifications List (SSI)": A list published by OFAC of persons, companies, and entities in sectors of the Russian economy (especially energy, finance, and armaments), prohibiting certain types of activity with these individuals or entities by United States persons, wherever located.

"**Sender**": The Sender (as defined in the *Account-based Program Standards*), which originates a Transaction. The Sender may be a natural person, a business, a governmental body or organization, or a not-for-profit organization. The Sender is a customer of the Originating Institution (or is a customer of such Originating Institution's Transaction Originator, as applicable).

"**Settlement Account Management (SAM)**": Mastercard's Settlement Account Management system.

"Specially Designated Nationals and Blocked Persons (**SDN)"**: Individuals and Entities located throughout the world that are blocked pursuant to the various sanctions programs administered by OFAC. SDNs can be front companies, parastatal entities, or individuals determined to be owned or controlled by, or acting for or on behalf of, targeted countries or groups.

"**Technology**": Any information, designs, drawings, specifications, schematics, software programs (including source and object codes), manuals and other documentation, data, databases, technical or business processes, methods of operation, or methods of production.

"**Transaction**": When used in this Product Guide, means a Transaction, as defined in the *Account-based Program Standards*, that is affected pursuant to Cross-Border Services.

"**Transaction Originator**": An Entity that: (a) holds all Required Licenses and (b) maintains a direct relationship with the Sender to enable the Sender to request a transfer of funds, and uses the services of an Originating Institution (where such Originating Institution is (i) a Principal and not an Affiliate and (ii) duly engaged in a contractual relationship with the Transaction Originator in connection with the provision of certain Originating Institution's services to it) to enable Transactions for the Transaction Originator's Senders. For the avoidance of doubt Transaction Originators are not Participating Customers.

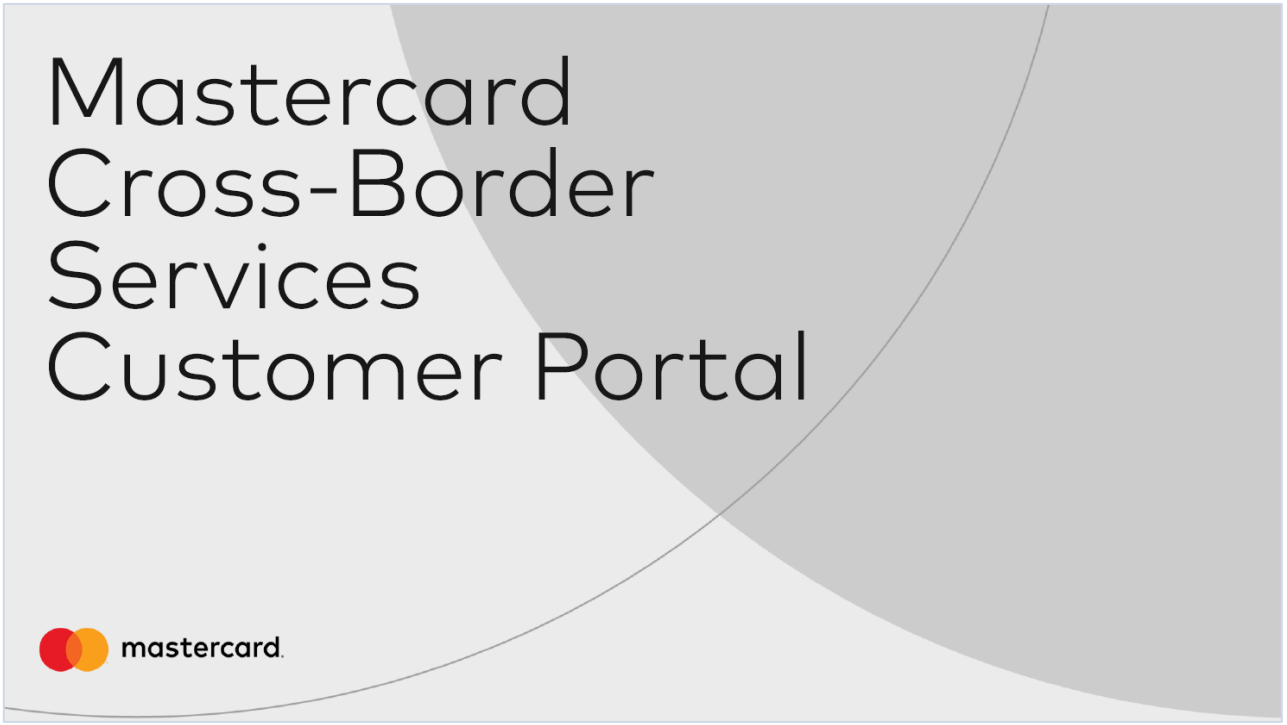
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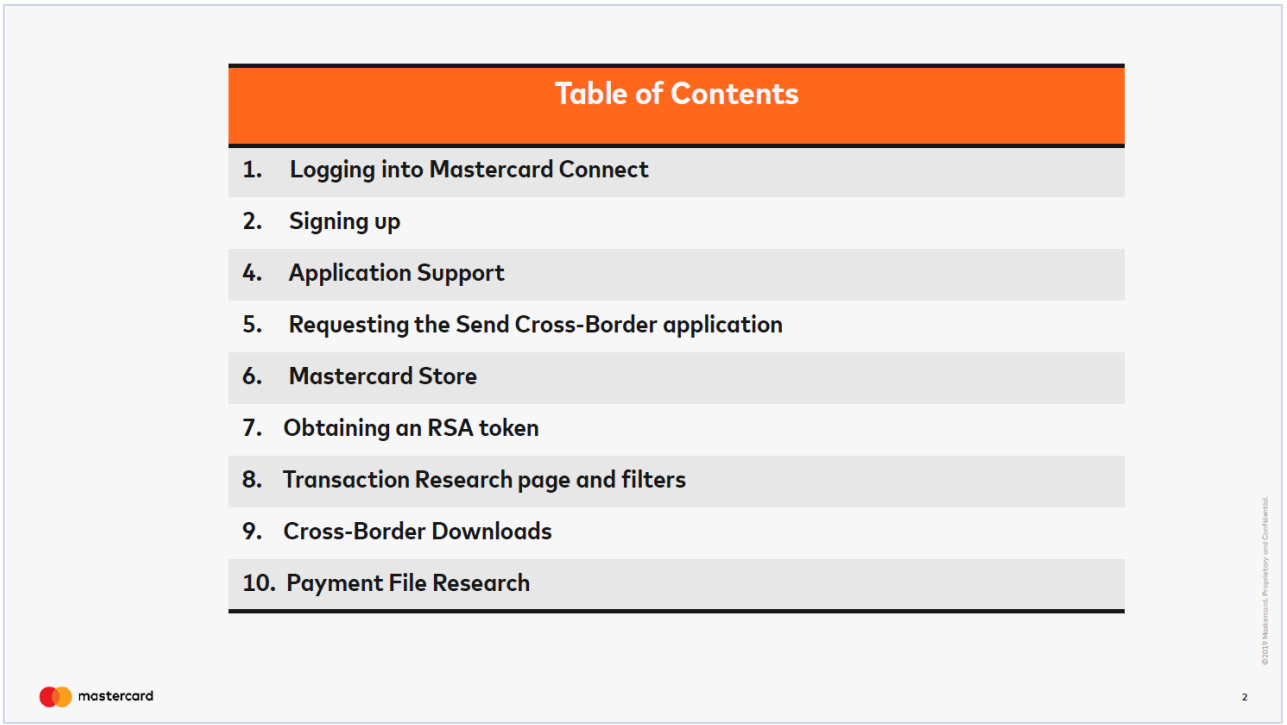
"**Third-Party Processor"**: An Entity not affiliated with specific banks or merchant services providers that give businesses without a merchant account for direct debit or credit settlement the ability to accept transactions.

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Appendix B: Customer Portal

The following presentation provides instructions on how to sign up for the Cross-Border Services Customer Site.





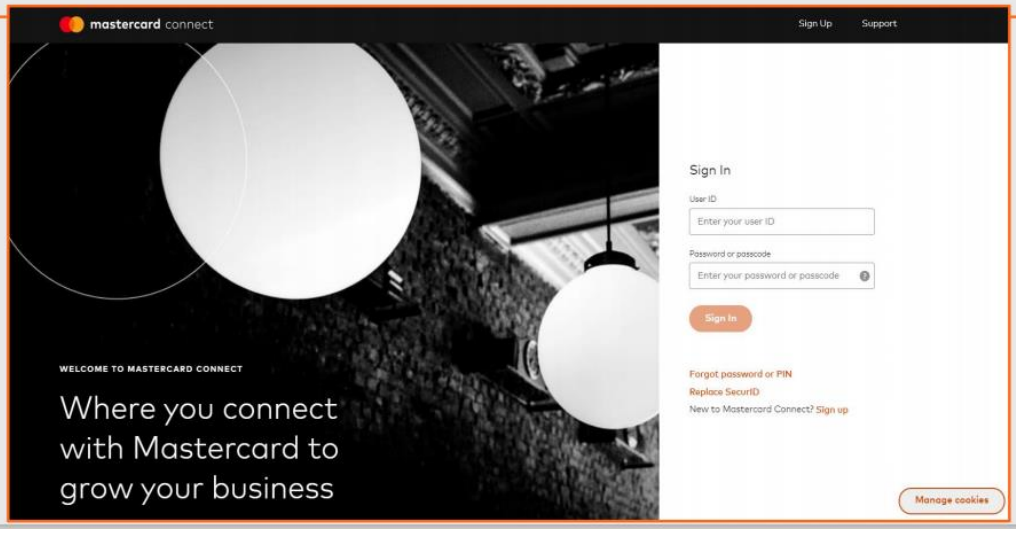
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Log into Mastercard Connect

You must log in to Mastercard Connect in order to request access the Mastercard Send Customer Site application.

www.mastercardconnect.com

If you do not have a Mastercard Connect account, please register using the 'Sign Up' link on the Mastercard Connect home page.

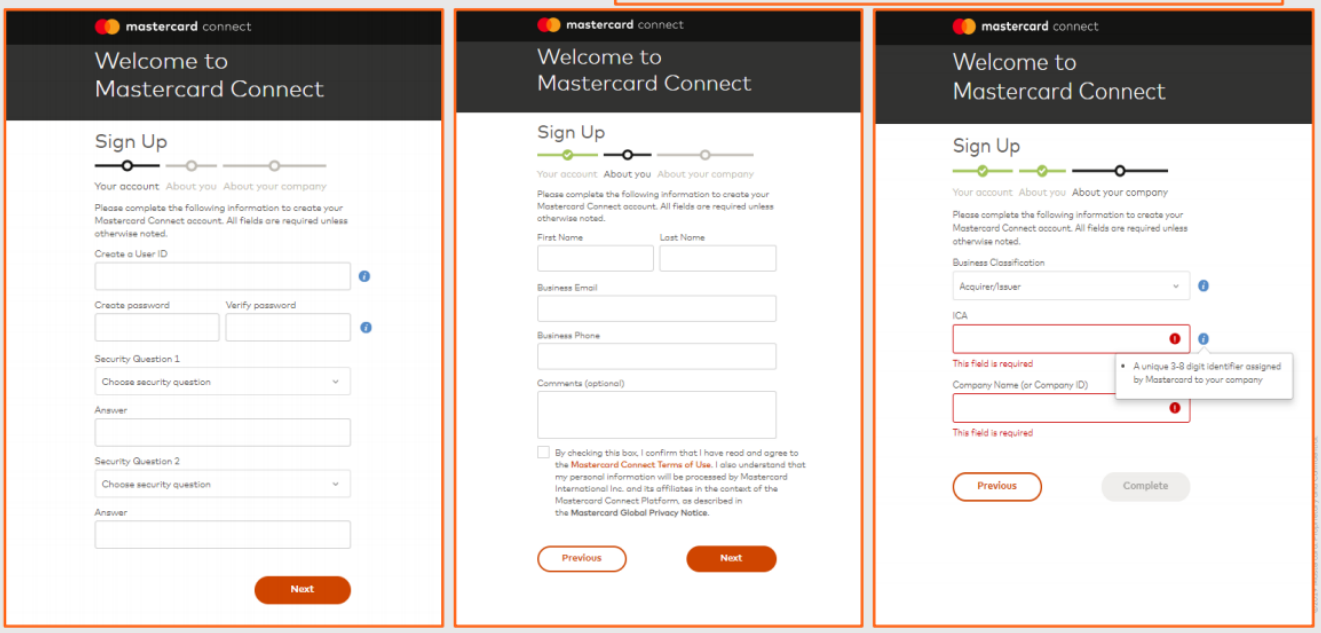


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Sign up to Mastercard Connect

You must use your Cross-Border ICA on the last Sign Up page



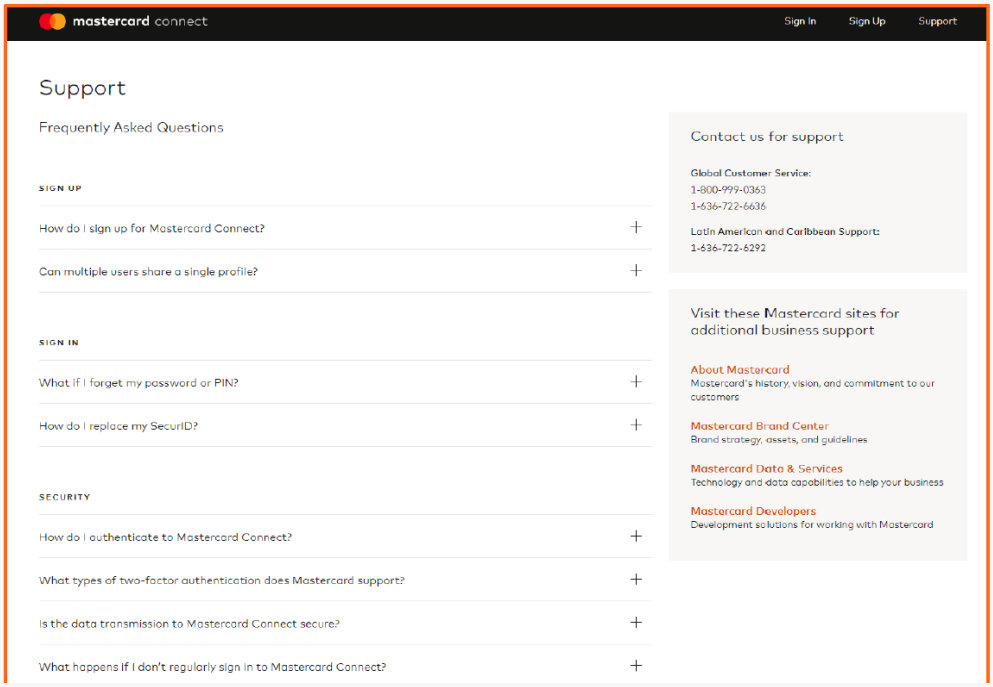
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Application Support

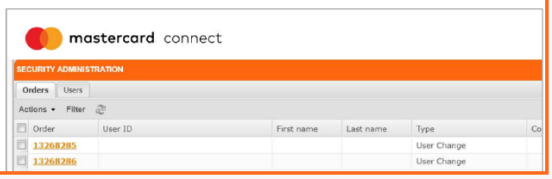
The Support page provides valuable self-service information and contact numbers



Security and Business Administrator roles are being replaced by one simpler and more flexible role called "Access Manager". Theses names will be shared with you during onboarding. Your Security Administrator will send you an email approving or declining your access request

Security Administration

An application used to manage users and what they have access to.



Note: Security Administration will be replaced by **Access Manager**

How it works

Security Administration is used by Security Administrators to review and manage:

- Orders
  - Users requests for Store items (application, report, etc) and data access
  - User Profile changes
  - New user Sign Up requests
- Users and their access, including
  - Create new user accounts
  - Push access changes
  - Delete, Suspend, and Restore user accounts
- Additional Security Administrators

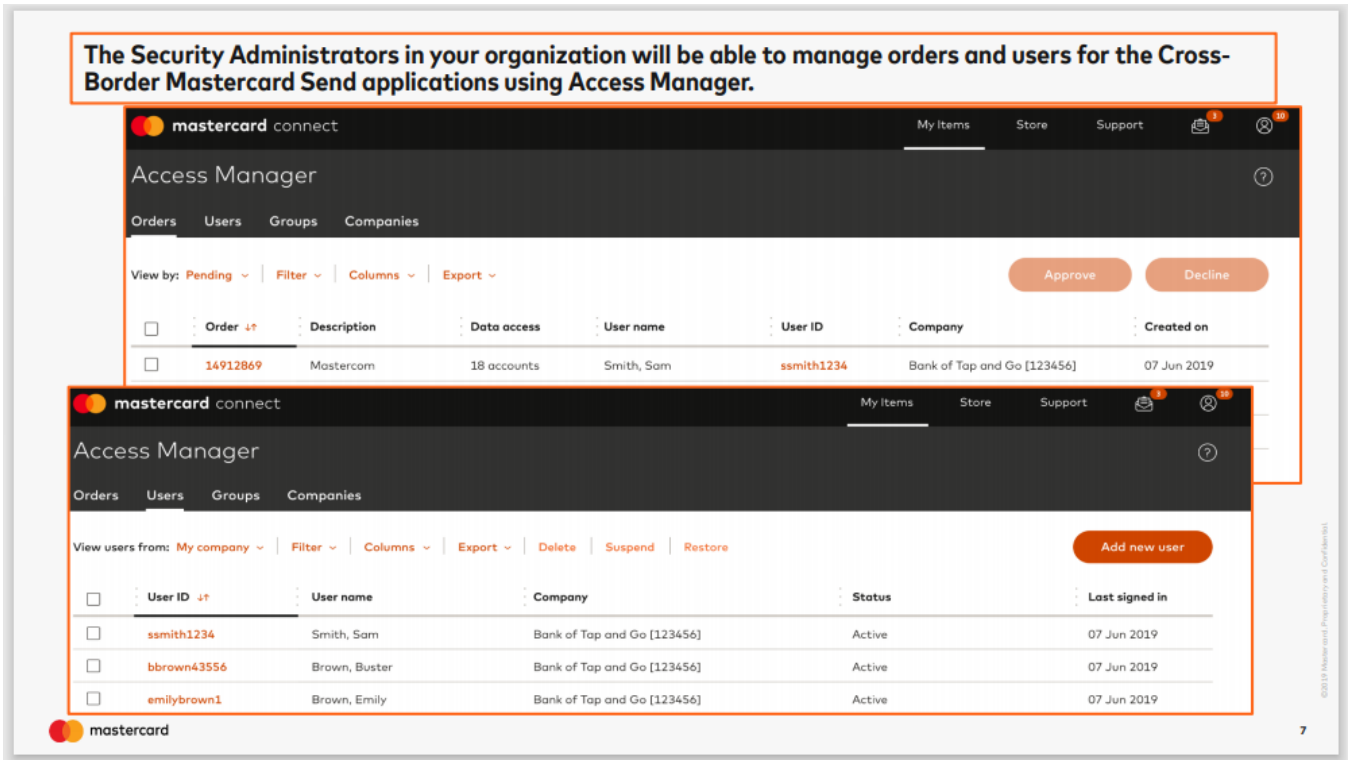
Access is managed by individual user in the current tool.

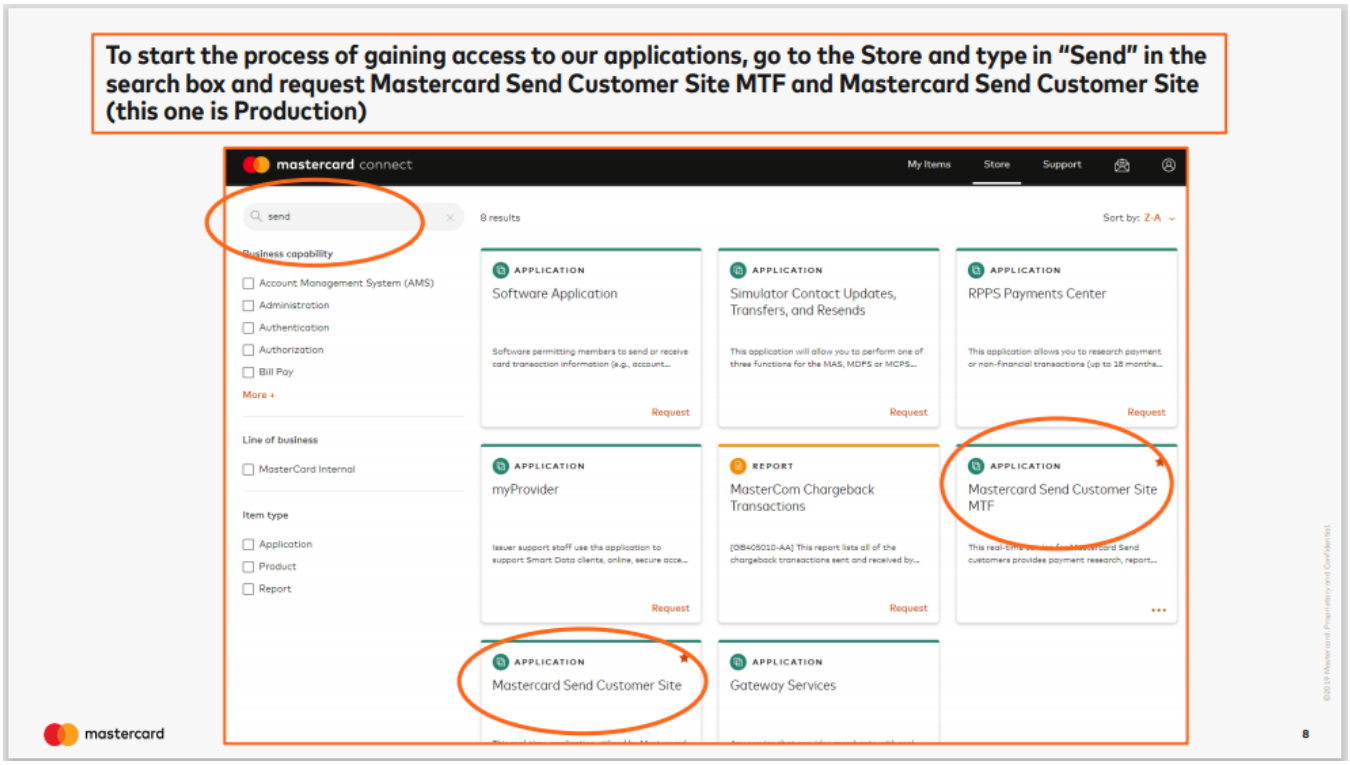
Why use it?

Security Administration is a key element of the overall Connect provisioning system for the management of users and their access.

Internal users (support teams, function owners, and other customer-facing teams) also use the Security Administration to support customers, approve orders for select items with contract-based usage limits, distribute secure tokens, and research users and provisioning related issues.

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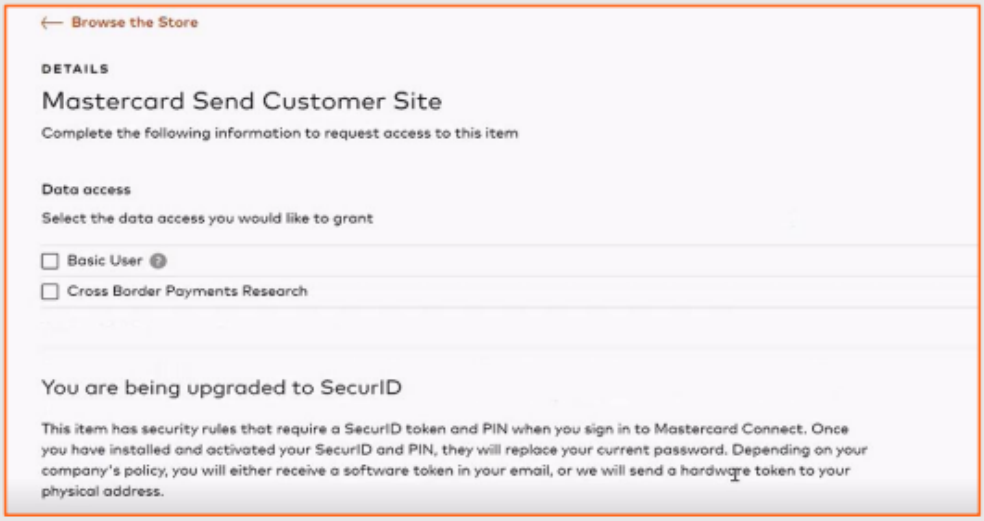




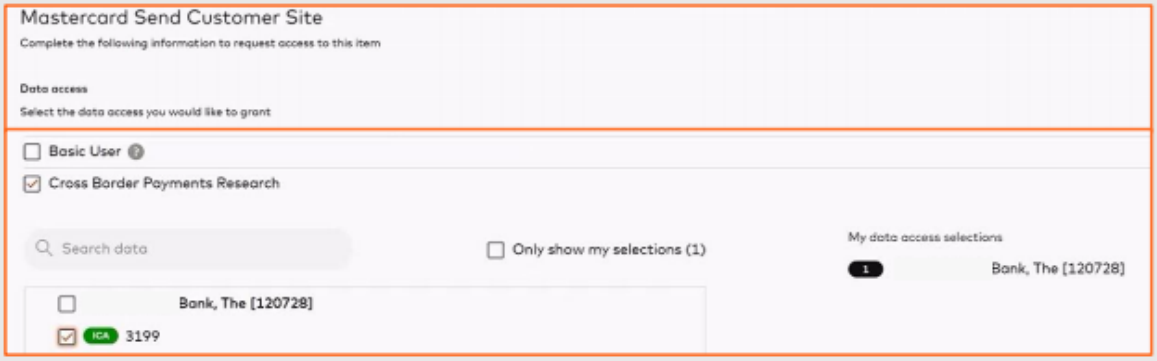
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After ordering from the Store you will be taken to this screen and will check the "Cross Border Payments Research" box.

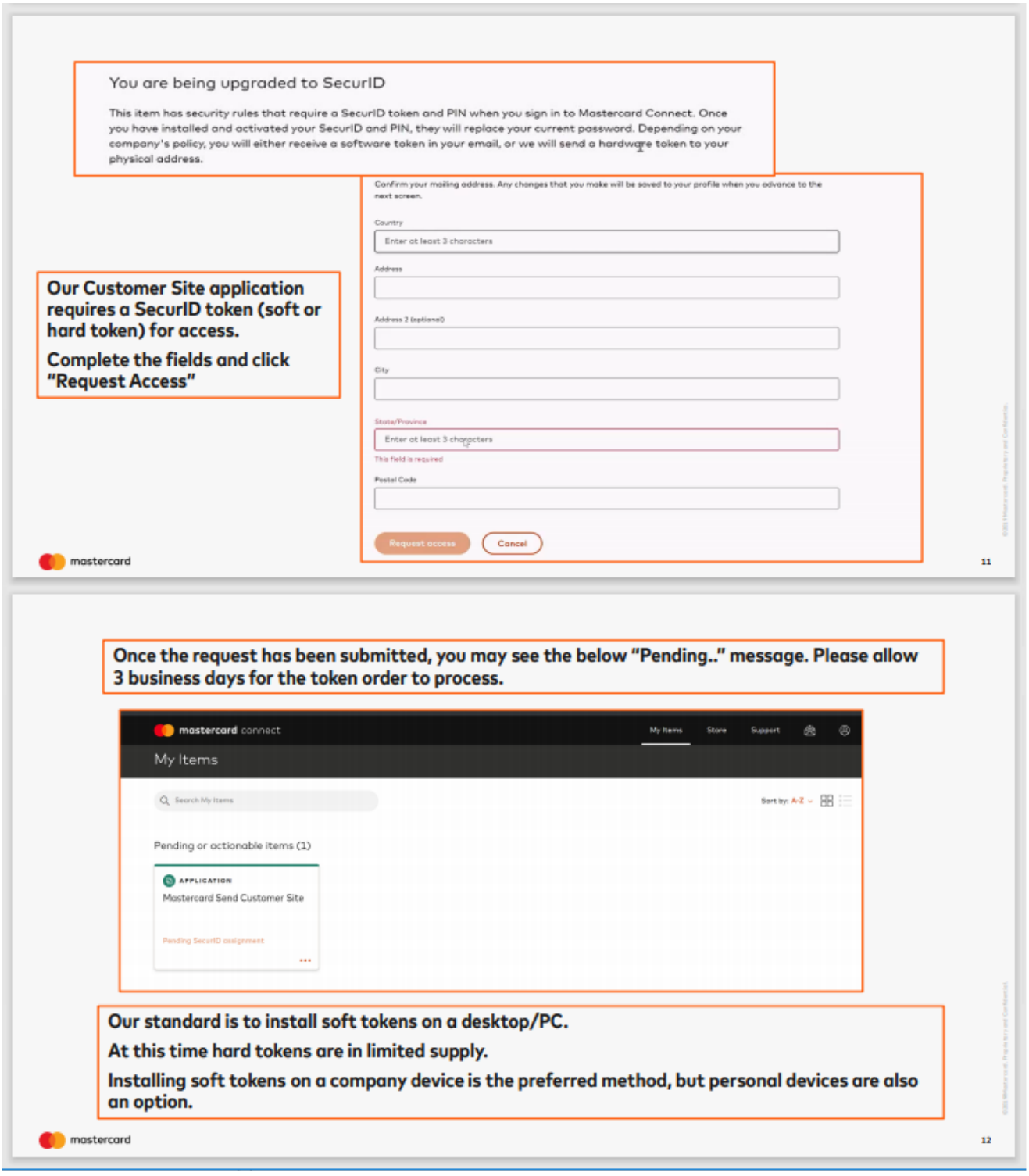
DO NOT check "Basic User", that option is strictly for the Domestic Mastercard Send product and will cause an application access error when trying to connect to the Cross-Border Mastercard Send application.



Next, check the correct ICA (the one to be used for Cross-Border settlement)



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After approval from the pending stage, Mastercard's Information Security Team will issue a RSA Software Token and provide sign-up instructions in an email to your Security Administrator. Upon completion, users will login to Mastercard Connect and click on 'Open' to launch the application.

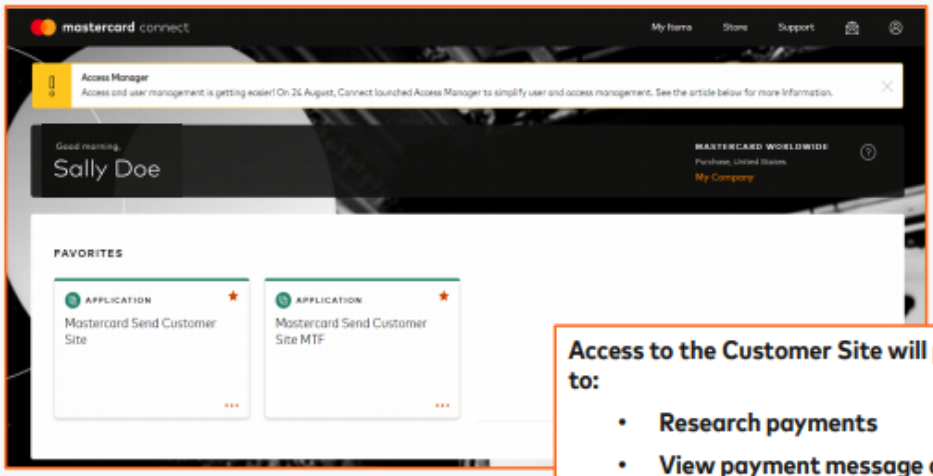




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13

Once the process is complete, the applications will be visible on your home screen



Access to the Customer Site will provide you the ability to:

- **Research payments**
- **View payment message details**
- **Download canned Reports like Daily Transaction, Status Change and Settlement Reconciliation**
- **Payment File Processing (if opted in for this service)**

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14

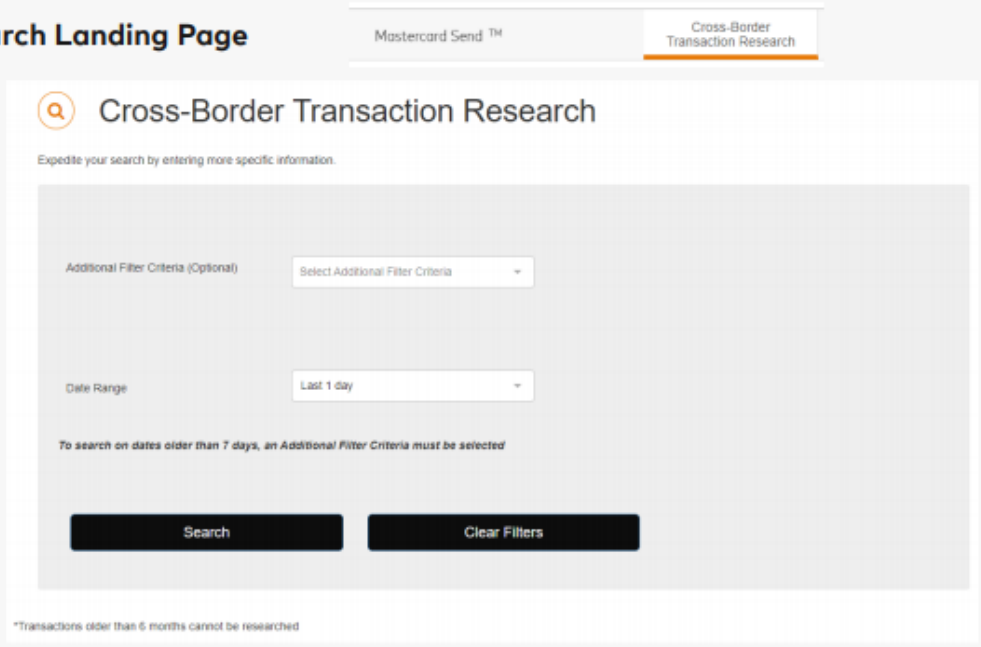
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Cross-Border Application Pages

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Transaction Research Landing Page

When you first launch the Customer Site, you will be presented with the 'Transaction Research screen'.



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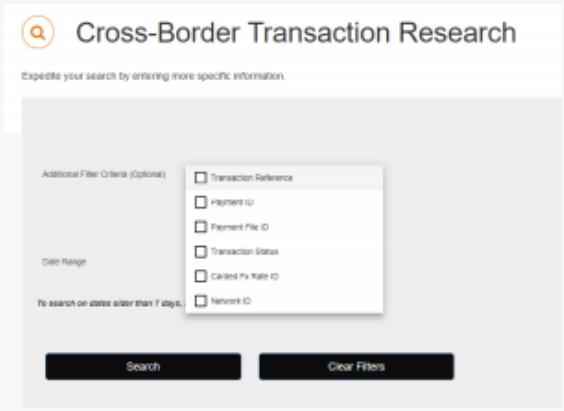
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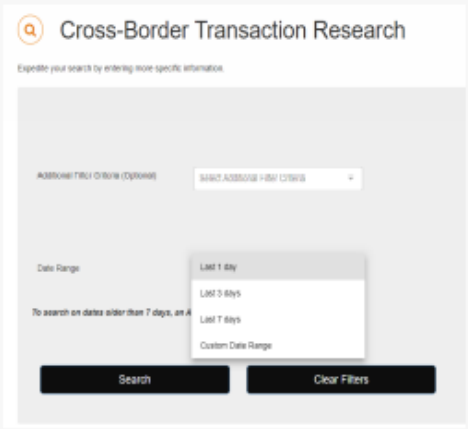
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Transaction Research Filters

This feature allows you to research initiated payments by Program/Customer

- Additional Filter Criteria (IDs and Status) provides the ability to choose multiple selections
- When choosing multiple selections, the date range expands





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17

Transaction Research Search Results

Once you perform a Search, scroll down to view the results



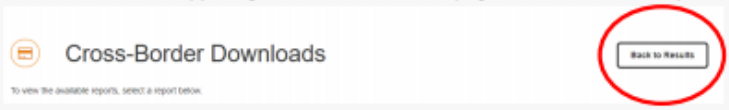
Clicking on the 'Details' link takes you to another screen on the Customer Site that shows a number of data points on the transaction itself as well as Sender and Recipient information.

Clicking on the 'Reports' link will take you to the Downloads page, where you can view/download all reports for that specific transaction.

Clicking on the 'Files' link will take you to the Payment File Research page, where you can view/download all the files for that specific transaction.

If there are no reports or files to view, you will be presented with **"No results match the search criteria"**.

After viewing the report or file click the "Back to Results" in the upper right-hand corner of the page and this will return you to the Transaction Research summary results.

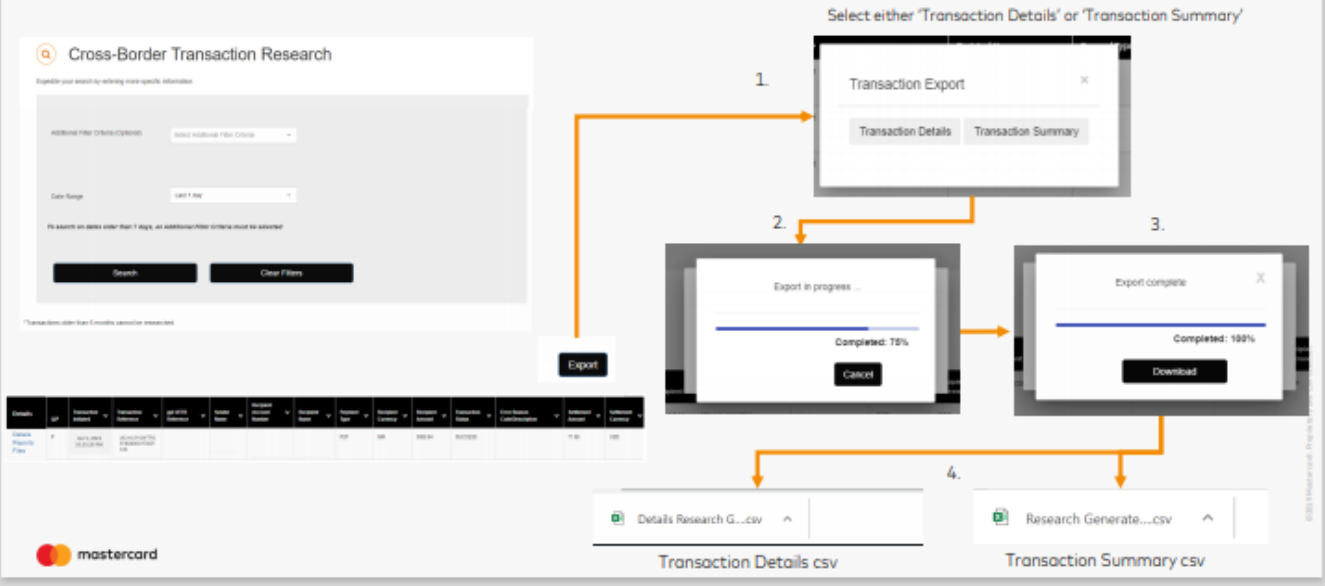


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Transaction Research Search Results

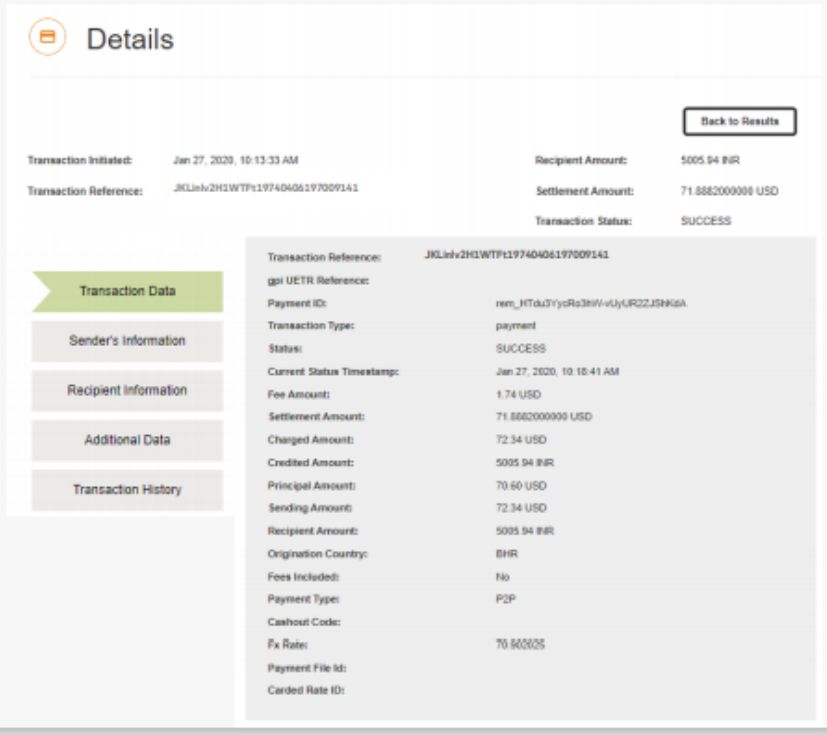
Once your search results are populated, the option to Export the data is available



Details Navigation

The navigation menu provides you the ability to quickly research all parts of a transaction and includes:

- Transaction Data
- Sender's Information
- Recipient Information
- Additional Data
- Transaction History



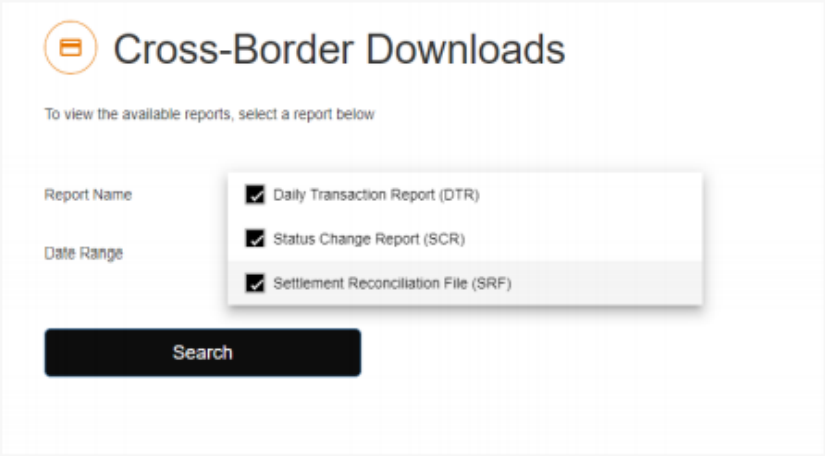
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Cross-Border Downloads

Mastercard Send ™ | Cross-Border Transaction Research | Cross-Border Downloads

This feature allows you to view and download:

- Daily Transaction Reports
- Status Change Reports
- Settlement Reconciliation Files



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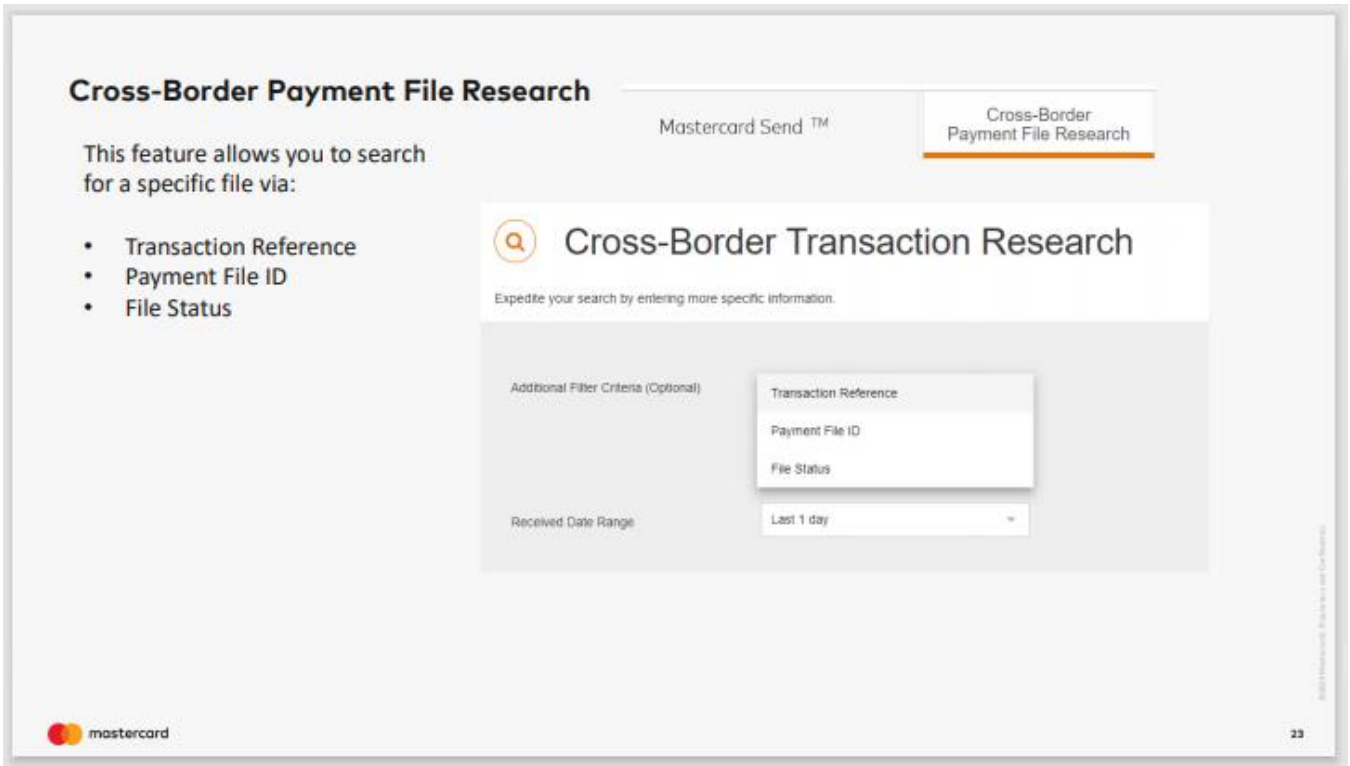
Cross-Border Downloads: Search Results

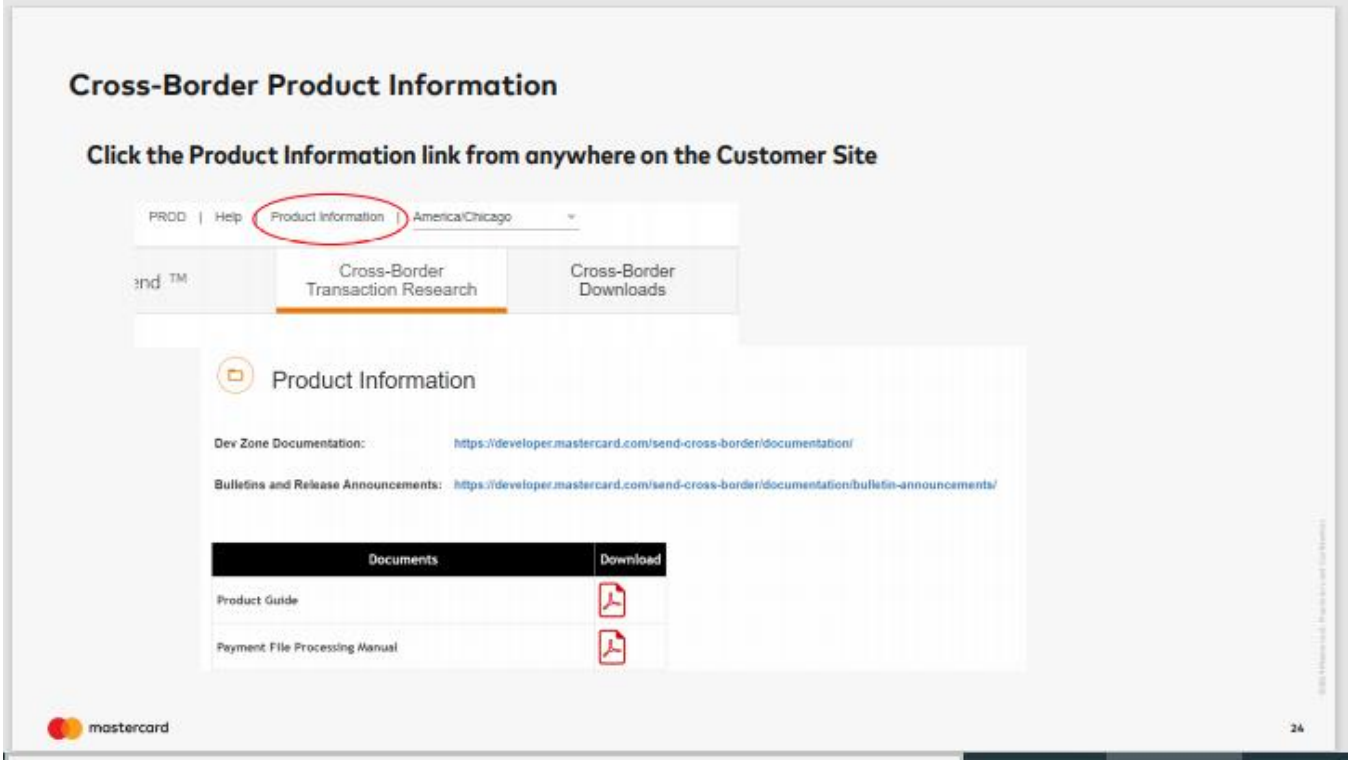
- Once you perform a Search, scroll down to view the results
- The DTR and SCR files export as .csv files
- The SRF file exports as a compressed Batch file



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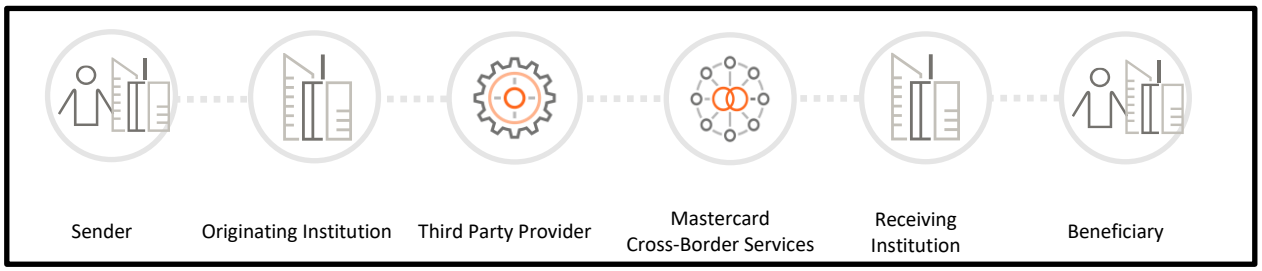


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Appendix C: TPP Technical Integrator Appendix

This appendix is written for TPPs and OIs who connect using a TPP as a technical integrator. It consolidates the nuances around the TPP setup and processing, including onboarding, reporting, and customer support that are described in the main body of the Cross-Border Service Product Guide.

Third Party Processor (TPP) Technical Integrator Diagram



Originating Institutions (OIs) may opt to use a TPP to technically integrate into the Cross-Border Services platform. TPP processing variances are highlighted and summarized for the impacted entities below:

Originating Institutions:

- Holds relationship with end user
- Manages end-user pricing
- Conducts sanction screening and complies with KYC/AML regulations
- Contracts with Mastercard
- Registers the TPP with Mastercard
- Leverages the TPPs payment messaging format and UI
- Works with the TPP for payment research and support
- Settles with Mastercard
- Provides customer service for end user

Third Party Processor Technical Integrator:

- Has a contractual relationship with the Originating Institution
- Develops and maintains proprietary API or payment file format for processing
- Translates and connects to Mastercard APIs and/or payment file processing
- Provides support for OI customer care for operational issues
- Interfaces with Mastercard customer support
- Manages exception payments (RFIs, recalls) on behalf of OI

Cross-Border Services:

- Settles with the OIs
- Provides technical interface to the TPP

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- Provides wholesale FX rate
- Provides support to the TPP for operational items
- Provides support to the OI for settlement and billing
- Provides connectivity to receiving endpoints
- Provides reporting
- Sends communication regarding releases, planned maintenance, outages, or delays pertaining to settlement

Onboarding Items At-A-Glance

The below table provides nuances when setting up a project using a TPP.

Cross-Border Services Item	OI needs for:	TPP needs for:
Product Guide, Account-based Standards Guide	Services consumed directly from Cross-Border Services	Services consumed directly from Cross-Border Services
Scope Document	Program onboarding	Program onboarding
ICA	System identification	System identification
Mastercard Developers/ Payment File Processing Manual	N/A	API specifications, including error codes, and/or Payment File Specifications, depending on which service is used
API or Payment File Connectivity	N/A. The OI connects to the TPP	Sending payments
FX Rates	Optional receipt of rate files directly from Cross-Border Services	Payment processing and fees
Payment Test Environment	N/A. The OI connects to the TPP	Testing payments. To be used with the OI's partner ID or TPP's partner ID, depending on use case
Payment Production Environment	N/A. The OI connects to the TPP	Submission of payments on behalf of an OI using an OI's partner ID
Settlement Service	Settlement by originating currency	N/A
Settlement Reconciliation File	Reconciling settlement amounts	Optional. Reconciling settlement amounts
Transaction Reports	N/A. Usually, the TPP is the source of transaction information to the OI	Transaction information
Enrollment Form	Contract	N/A (a separate TPP sponsorship form or contract may be needed depending on the use case, but not an Enrollment form)
Scope Document	System setup	System setup mirrors OI's scope specifications

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Cross-Border Services Item	OI needs for:	TPP needs for:
Business Endpoint Guide	Varies – TPP to decide if they pass this info directly to the OI or provide their own document	Corridor limit, cutoff times, payout timing, etc.
Technical Endpoint Guide	Varies – TPP to decide if they pass this info directly to the OI or provide their own document	Setting each onboarded OI with their own payment parameters.
AML Questionnaire	Due Diligence	Performance of KYC/AML function on behalf of the OI, if any are performed
Credit Cap	System safety measure	System safety measures. A mock credit cap can be set up in the MTF for the TPP to test scenarios
RSP Approvals	To send funds to corridors	N/A
MastercardConnect.com Customer Site Tool	N/A	Transaction research, reports, publications, RFI Tool, contact management
Ongoing Communications	Optional inclusion for direct communications	System updates, corridor outages, and enhancements including RSP data requirement changes
Mastercard Customer Support	Any services consumed directly from Cross-Border services, such as file transfer or settlement issues. Not used for payment research.	Support with issues that may arise after Production launch

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System Identification – TPP and OI

Mastercard assigns a series of IDs to both the TPP and the OI to identify them in processing and reporting:

1. API Client ID – Technical connection
2. Partner ID – Cross-Borders Services Platform Identity
3. ICA – General Mastercard system identification

ID Type	Usage
API Client ID	If connecting to any of the Cross-Border Services API, the TPP maintains a central **API Client ID** for all of their API processing, even when sending payments on behalf of their OIs.
Partner ID	To separate individual activity, a unique **Partner ID** is given to the TPP and each OI.
TPP Partner ID	• Used in the test environment when the TPP wants to test its own platform with the Cross-Border services platform and not impact any of their OI processing directly. • Seen in test and production to identify them as a receiver in reporting and non-payment files (such as for the settlement reconciliation and FX rate files, if applicable).
OI Partner ID	• Used when the TPP is onboarding and certifying the OI in test. • Used when the TPP is sending payments on behalf of the OI in production. • Seen in test and production to identify them as a receiver in reporting files (such as for the settlement reconciliation and FX rate files, if applicable).
ICA	The Mastercard Franchise assigns ICAs to entities who use their services. Both TPPs and OI can use existing ICAs, or a new one can be assigned (fees may apply).
TPP ICA	• File transfer • Mastercard Connect Application
OI ICA	• Settlement • Billing • File transfer (if applicable)

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Onboarding

The onboarding and configuration of an OI behind a TPP follows a process, and a project plan is providing during implementation.

10.7.1 Project Governance

During the project, there are topics that Mastercard will need to validate with the TPP, with the OI, or with both entities. Meetings may be held jointly or separately, according to the project groups preferences. The below table provides commonly discussed topics and may not be all-inclusive.

Joint TPP and OI Topics	TPP Topics	OI Topics
•Project Scope •Testing (Aligning TPP and MA MTF Testing) •Corridor limits and Credit Cap •Product updates and management • Exception Processing (RFIs)	•Connectivity and APIs •Data requirements (endpoint guide) management •Error Code Management •Customer support for product operations •Reports and file transfer	•Registering TPP •Enrollment form •Settlement and Reporting •Customer support for billing and settlement •File Transfer (if needed for reports/files)

10.7.2 TPP Decision Matrix

Throughout the onboarding process, the TPP will need to make some decisions specific to a TPP setup. A Mastercard representative will walk through the following with the TPP during onboarding.

Item	Decision	Product Guide Location
Reporting	Should any of the reports be sent directly to an OI? Most TPPs do not send the DTR and SCR transaction reports to the OIs as they are in the Mastercard format and nomenclature. Some OIs may require the SRF directly for timely reconciliation of settlement.	Chapter 7
FX Management	Should FX rates be sent to the TPP, the OI, or both?	Chapter 4
Payment Status Change Updates	How will the TPP inform the OI of payment status changes, including how to manage RFIs?	See Chapter 7 of the Product Guide for the Status Change report descriptions.

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Item	Decision	Product Guide Location
	The Cross-Border Services platform provides a report as well as an API.	See Chapter 6 of the Product Guide for information on the Status Change API.
Ongoing product communications	If the TPP opts to have these communications also sent directly to the OI, the OI e-mail contacts should be added during production turnover of the PVT phase.	See Chapter 10 "Customer Communication Information" of the Product Guide for a list of types of data that are regularly sent.

10.7.3 Enrollment Form and Scope Document

An OI must always submit an Enrollment Form and Scope Document specific to their program.

The first the TPP in onboarded to the Cross-Border Services platform, the TPP will use the OI's Enrollment form, but they need to have their own Scope Document that reflects that same corridors and pricing that is will be used by their OI, but contains what is unique to the TPP in the other sections. This ensures that the processing environments are set up to mirror the OI's payment processing while also confirming what should uniquely be set for the TPP, like reporting hierarchy, FX rate delivery, etc.

Note: Unless the TPP is actually performing KYC/AML functions on behalf of the OI, they do not need to submit that AML questionnaire as noted in the Scope Document.

10.7.4 RSP Approvals

Each Receiving Service Provider (based on the corridor the OI is sending to) must perform due diligence on every new OI, even if they use the same TPP.

Settlement

All transactions submitted into production must be submitted by an OI who is licensed to operate in the jurisdiction from where they are submitting the transactions. As TPPs are not licensed entities, they cannot be part of the funds flow associated to payment processing. Given this, settlement is designed to be between the OI and Mastercard Cross-Border Services directly. The settlement process, timing, currency options, etc., for an OI are the same whether they are behind a TPP or connected directly to our service. The only difference is that the OI behind a TPP can chose to have their settlement reconciliation report delivered to themselves (the OI), them and the TPP, or the TPP only.

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Request for Information (RFIs)

Note: *This description is for a new tool that is launching in May 2021 that will replace existing processes. The current Product Guide does not have details but will be updated in May 2021 with the new tool information.*

Mastercard Cross-Border Services offers an automated Request for Information (RFI) workflow management tool. The RFI tool is a way for the network Compliance team or the RSP compliance teams to request additional information that will allow them to process the payment. The data can be transactional data, information to help clearly identify the sender or beneficiary, or other required information. Additionally, the RFI tool has Documentation Exchange functionality that allows an OI to provide information at the same time as submitting the payment that might be required for specific transactions into some corridors (copy of invoice, etc.).

All TPPs will have access to the RFI tool and will be able to forward the information to OIs as needed. However, this is one tool that from a best practice perspective would probably be best used by the OI directly. Direct OI use will help reduce the number of handoffs and time associated with answering and closing each RFI.

Report Hierarchy

Partner IDs are assigned to TPPs and Originating Institutions (OIs) during onboarding. Where a hierarchy of reporting exists, opting for consolidated or individual reports depends on parameters set with the TPP.

Some reasons for a customer to have multiple Partner IDs:

- **Centralizing processing activity.** A TPP may have multiple OI relationships and wish to centralize their processing activity.
- **Managing reporting needs of Parent/Child Partners.** Originating Institutions who send from multiple countries are assigned Partner IDs for each country. A "parent" Partner ID (Parent Partner) can be designated to receive centralized reporting for all of these and their "Child" Partner IDs (Child Partner).
- **Managing to multiple Partner IDs.** An OI may have multiple Partner IDs if they need separate out their processing activity. For example, an OI may want to separate out their personal and corporate activity under different Partner IDs. In this case, the Partner ID assigned to the OI is considered the Parent Partner, and the Partner IDs assigned to the payment activity types are Child Partners.
- **Using a proprietary format:** A TPP or parent partner OI may want to map data for use with their proprietary database and reporting platform instead for all of their entities instead of sending Cross-Border Services reporting directly to them.

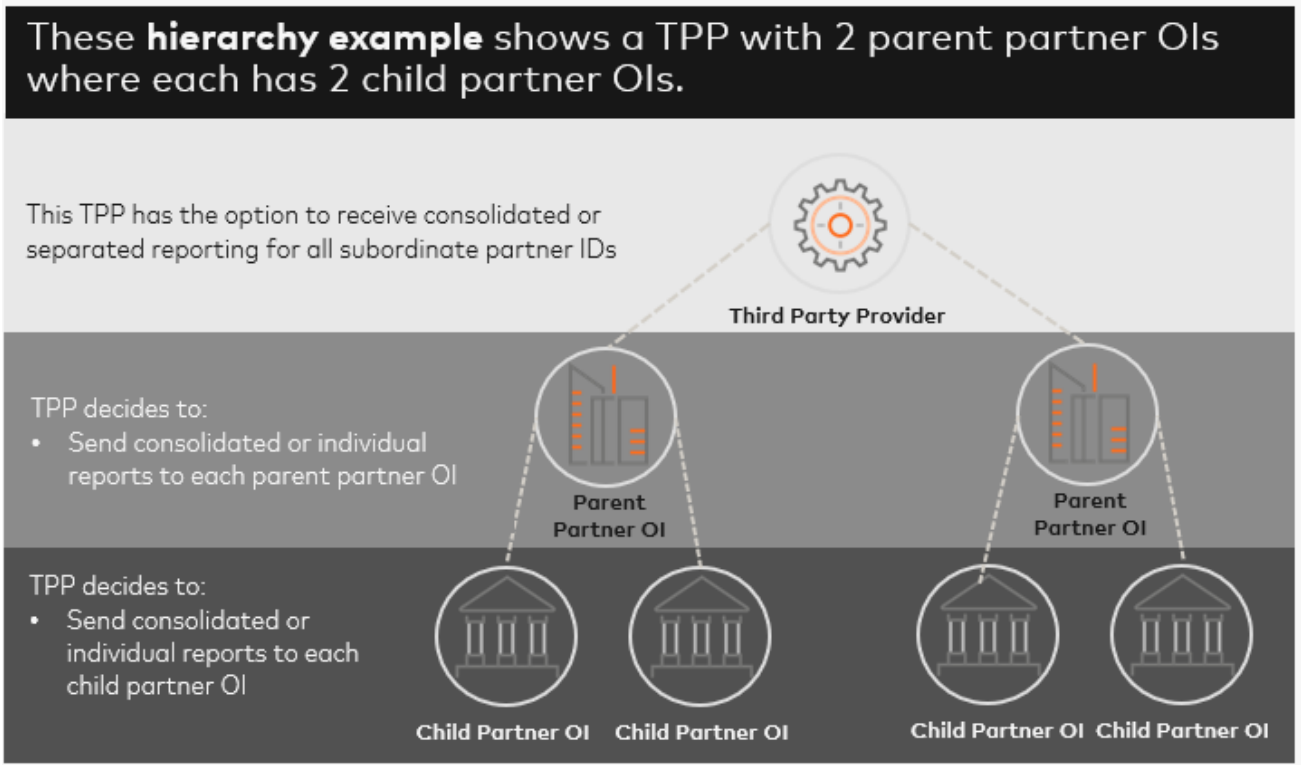
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The "TPP," "Parent Partner" and "Child Partner" nomenclature is indicated in respective batches in the Cross-Border Services reporting.

10.7.5 Consolidation Options

TPPs and parent partner OIs have the option to receive consolidated reporting for all Partner IDs they process for, or the reporting can be separated individually per entity.

TPPs and parent partner OIs can choose which (if any) Cross-Border Services reports to also send to their subordinate OIs. These reports can be consolidated or individual, independent of how the TPP or Parent Partner is set up for reports. The flexibility is set up by the Partner ID assigned in the system.



10.7.6 TPP Reporting Delivery - Examples

For each example, TPP processes for 2 Parent Partners, which include 2 Child Partner IDs each:

Example 1: Same entities with a single report set-up

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- The TPP opts to receive consolidated reports that contains data for all 6 entities (6 batches in one report).
- They opt not to send reports from the Cross-Border Services platform to any of the OI they process for.

Example 2: Same entities, different report setups selected

- The TPP opts to receive consolidated reports that contains data for all 6 entities (6 batches in one report).
- One Parent Partner is sent individual reports.
    - They will get one report with the Parent Partner's data, and two more reports with the Child Partners' data (once batch in each of 3 reports for the 3 entities).
    - The Children OIs are not sent any reporting from the Cross-Border Services platform.
- The other Parent Partner opts to receive consolidated reports for itself and both of its Child Partners.
    - It receives one report with 3 batches for the 3 entities.
    - The Children OIs are not sent any reporting from the Cross-Border Services platform.

Note: Consolidated reporting is not supported in version 1 (V1) of the **Daily Transaction and Status Change (DTR and SCR) Reports**. Customers must use V2 or later.

10.7.7 Consolidated Report Layouts

This section highlights key fields used to identify different entities in consolidated reporting samples. The Product Guide provides samples of individual reports. Version 2 of both the **DTR and SCR** contain hierarchical fields, which are indicated by record numbers as displayed below.

- The **101 record** indicates who the report is **being sent to.** If a report is being sent to a TPP, the TPP info will be display in the 101 record. If the report is being sent to an OI, the OI info will be displayed in the 101 record.
- The rest of the record numbers indicate batch data for either a Parent Partner or Child Partner.
- If an OI does not have any Child Partners, no child partner batches (400-800 records) exist.
- If a partner has no activity, their line records are still created, and amounts will show zero, as seen in the below example.

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100	Headers for Line 101
101	**Report Recipient**
110	Headers for 111
111	**Parent Partner Group Header**
200	Header for 201
201	**Parent Partner Header**
202	**Parent Partner Transaction Details**
300	Header for 301
301	**Parent Batch Count**
400	Headers for Line 401
401	**Child Partner Header**
402	**Child Partner Transaction Details**
500	Header for line 501
501	**Child Batch Count**
800	Header for Line 801
801	**Parent Partner Group Batch Count**
900	Header for Line 901
901	**Total Batch Count**

```
"100","Report Name","Report Destination Partner Name","Report Destination Partner ID","Thi
"101","Cross Border Daily Transaction Report","TPP ","TPP_abcd12","TPP ","TPP_abcd12","202
"110","Parent Partner Name","Parent Partner ID"
"111","Parent Partner 1","Parent_Partner_1_abcdef"
"200","Partner Name","Partner ID","Reference ID","Quote Proposal ID","Transaction Type","P
"201","Parent Partner 1","Parent_Partner_1_abcdef"
"202","Parent Partner 1","Parent_Partner_1_abcdef","09330d59a12f024ab29b449","91D7cyYEh+kC
....(Transactions Removed)
"202","Parent Partner 1","Parent_Partner_1_abcdef","06916203f994bc4c1c8ab0b",,"PAYMENT","P
"300","Partner Batch Count","Partner Batch Checksum"
"301","13","30267.80"
"400","Child Partner Name","Child Partner ID","Reference ID","Quote Proposal ID","Transact
"401","Child Partner 1A","Child_Partner_1A_abcdef"
"402","Child Partner 1A","Child_Partner_1A_abcdef","06b21dc8d4b7b842109ab78",,"PAYMENT","P
......(Transactions Removed)
"500","Child Partner Batch Count","Child Partner Batch Checksum"
"501","14","8603.06"
"800","Parent Partner Batch Count","Parent Partner Batch Checksum"
"801","27","38870.86"
"110","Parent Partner Name","Parent Partner ID"
"111","Parent Partner 2","Parent_Partner_2_abcd"
"200","Partner Name","Partner ID","Reference ID","Quote Proposal ID","Transaction Type","P
"201","Parent Partner 2","Parent_Partner_2_abcd"
"300","Partner Batch Count","Partner Batch Checksum"
"301","0","0"
"400","Child Partner Name","Child Partner ID","Reference ID","Quote Proposal ID","Transact
"401","Child Partner 2A","Child_Partner_2A_abc123"
"500","Child Partner Batch Count","Child Partner Batch Checksum"
"501","0","0"
"800","Parent Partner Batch Count","Parent Partner Batch Checksum"
"801","0","0"
"900","File Count","File Checksum"
"901","27","38870.86"
```

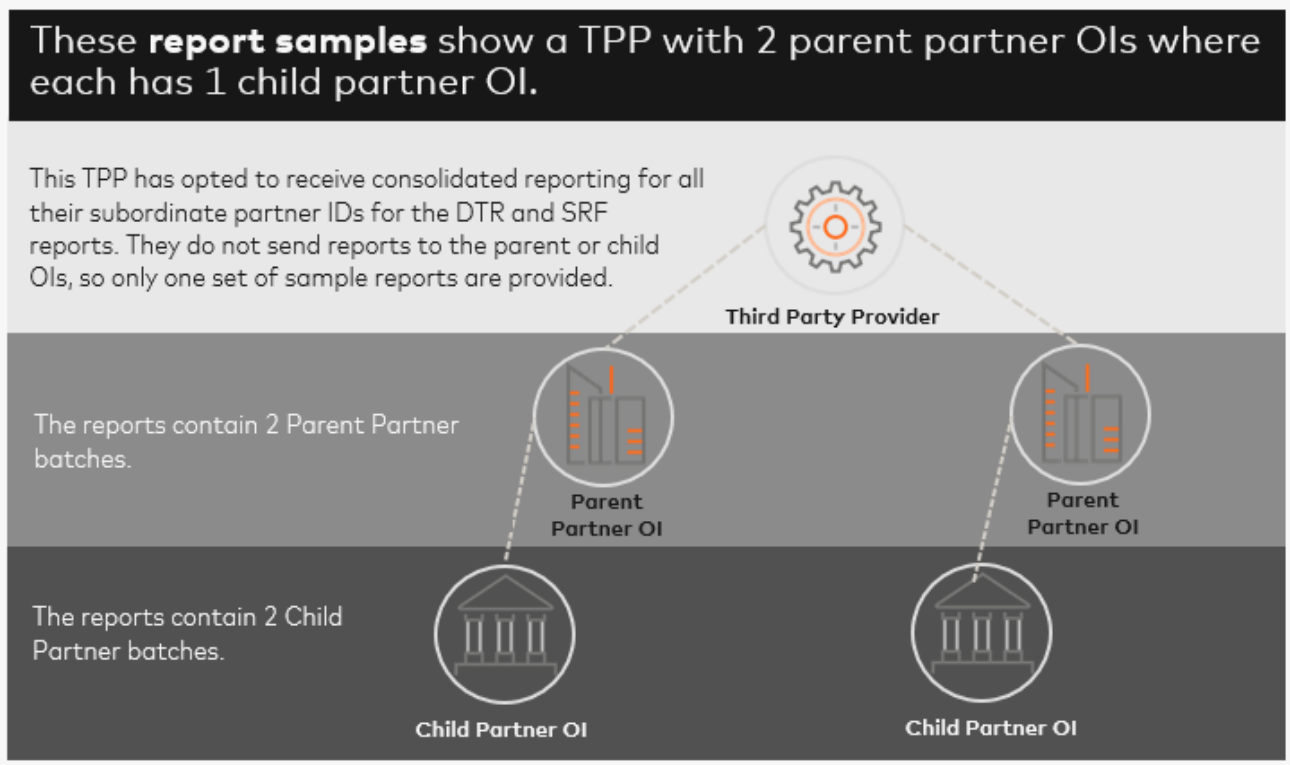
The **Settlement Reconciliation File (SRF)** structure for consolidated TPP reporting is grouped in the below format. Like the other reports, the report recipient in indicated in the beginning, and then batches show volume for any applicable parent and Child Partners based on the report consolidation option.

1 File Header	Report Recipient
2 Group Header	
3 Account Identifier	
16 Transaction Detail	These group records will be displayed for each entity (Parent or Child).
88 Continuation Record	
49 Account Trailer	
98 Group Trailer	
99 File Trailer	Marks the end of a file and provides file control totals

```
01,Mastercard Send Cross Border,TPP_abcd12,210115,0135,32202,,,2/
02,Parent_Partner_1_abcdef;18997,Mastercard Send Cross Border,1,210115,0135,USD,/
03,Parent_Partner_1_abcdef;18997,USD,400,+18500,,,100,+3400,,/
16,699,+1700,,,067d254607574a401b8781b,;210114;0723;LKR;1500;200;0;0;0;0;;/
16,699,+1700,,,06728e330643a143a58378b,;210114;0720;LKR;1500;200;0;0;0;0;;/
...(Transactions Removed)
49,+43800,15/
98,+43800,1,17/
02,Child_Partner_1A_abcdef;18997,Mastercard Send Cross Border,1,210115,0135,EUR,/
03,Child_Partner_1A_abcdef;18997,EUR,400,+8050,,,100,+1610,,/
16,699,+1610,,,06272362662099 4a67ab577,;210114;0805;PLN;1310;300;0;0;0;0;;/
16,699,+1610,,,064a6f130e191445e19dae3,;210114;0801;PLN;1310;300;0;0;0;0;;/
...(Transactions Removed)
49,+19320,8/
98,+19320,1,10/
02,Child_Partner_1A_abcdef;18997,Mastercard Send Cross Border,1,210115,0135,USD,/
03,Child_Partner_1A_abcdef;18997,USD,400,+6766,,,100,+1700,,/
16,399,+1700,,,0633cd41ff1d0f4375aba8e,;210114;0743;LKR;1500;200;0;0;0;021;RTN/
...(Transactions Removed)
16,699,+1700,,,06b0df435dd8864eac81d73,;210114;0746;LKR;1500;200;0;0;0;0;;/
49,+16932,7/
98,+16932,1,9/
02,Parent_Partner_2_abcd;0,Mastercard Send Cross Border,1,210115,0135,,/
03,Parent_Partner_2_abcd;0,,,,,,,,,/
49,+0,2/
98,+0,1,4/
02,Child_Partner_2A_abc123;19790,Mastercard Send Cross Border,1,210115,0135,,/
03,Child_Partner_2A_abc123;19790,,,,,,,,,/
49,+0,2/
98,+0,1,4/
99,+80052,5,46/
```


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10.7.8 Sample Report Files



For further examples of DTR and SRF reports, see Chapter 7, or contact your representative for a sample file.

Customer Support Responsibilities

In production, the TPP will work with Mastercard for all inquiries other than settlement and any service the OI consumes directly from Mastercard, for example.

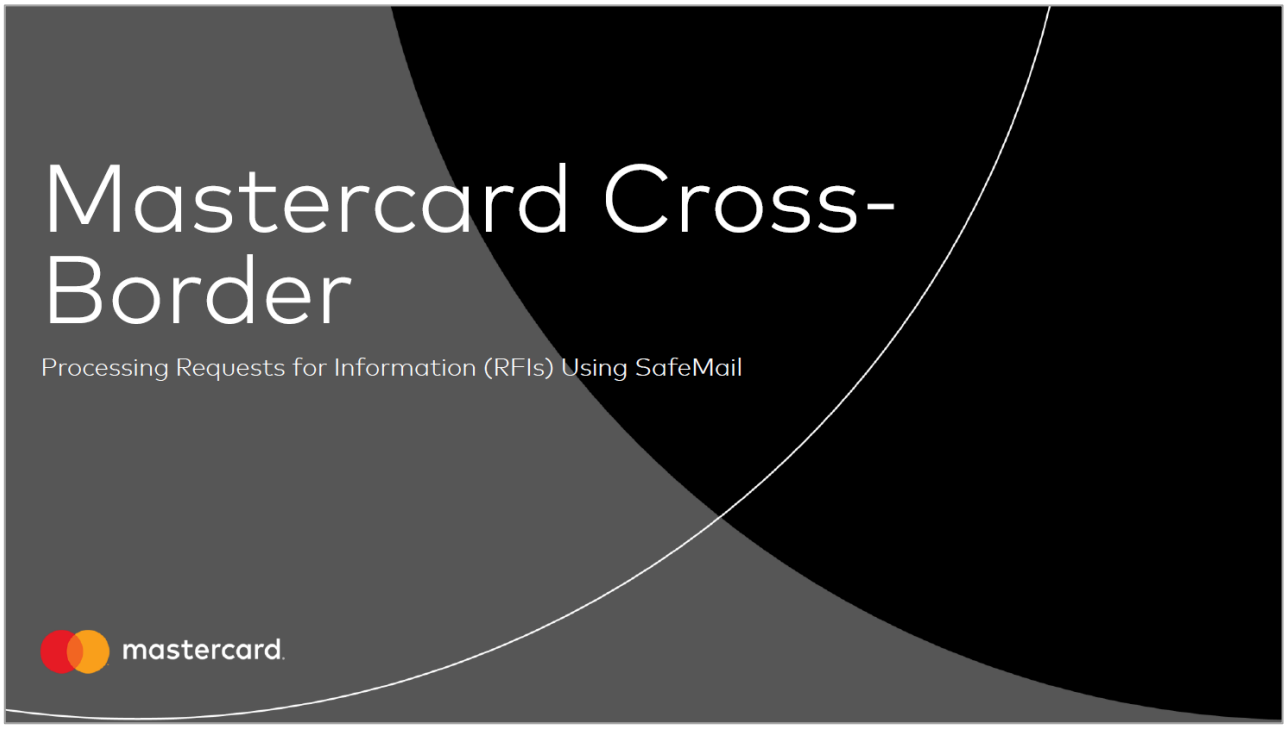
Customer Support Examples (TPP goes to Mastercard)	Settlement and Billing Examples (OI goes to Mastercard)
•General payment research •Payment cancellation or reversal request •API Questions •Reporting Questions •Request for Information (RFI) cases	•There was no settlement for a specific transaction •Non-receipt of bulk files from Mastercard (if applicable)

The TPP will develop client facing documentation along with developing and maintaining a master Endpoint Guide. TPP's will also be responsible to relay/map all Error Code messaging so that reject and return reasons are clearly understood by an OI.

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Appendix D: Request for Information (RFI) Process

The following presentation provides information for processing RFIs using SafeMail.



What is an RFI Request?

- A Request for Information (RFI) is when the Receiving Service Provider (RSP) requires additional information before further processing the payment.
- The payment will remain in a Pending status until the required information is provided, or the RFI expires in which case the payment is rejected.
- An RFI is typically generated by the RSP when required sender or beneficiary data is missing or the RSP needs additional information to clear a payment from its risk assessment queue.
- Information may be required on either the Sender or Beneficiary of the payment. Examples include but are not limited to the following:
  - Full first and/or last name, or organization name (most common)
  - Full address (most common)
  - Date of birth (applicable to personal payments)
  - Copy of passport or other ID
  - Relationship to other party
  - Purpose of payment
  - Source of funds
  - Copy of invoice/contract

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2

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How to reduce RFI Requests

- To reduce RFIs and avoid delays in payment processing, here are some guidelines:
  - When originating to/from individuals, always provide full names, first and last. Do not provide initials in either the first or last name fields.
    - Do not allow 'and' in the first or last name field. The payment should be sent to a single person, not multiple people.
    - Provide a full middle name if one is required. Do not provide initials.
  - When originating to/from a business, always provide the full organization name.
- Always provide a full and valid address. Do not provide abbreviations. Do not provide PO Box as an address.
- Historically, approximately 67% of RFIs could have been avoided by providing the full first name, last name, and proper address.

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How RFIs are Processed

- Customers will receive their RFI Tracker via encrypted email (SafeMail).
- The RFI Tracker contains details of all RFI requests.
- The RFI Tracker could be sent up to 3 times per day. Times of tracker updates are approximately (in CST/St. Louis time) 2:30 am, 5:00 am, & 7:30 am. These are the general times when trackers are checked for new RFI activity.
- Customers will send the RFI response back by replying to a previously received SafeMail encrypted email. By replying to a SafeMail email, this ensures the response is being transmitted securely.
- The RFI response is entered directly into the email reply. The email will contain a recommended template for providing the response information.
- Refer to the document 'How to use encrypted email' for details on registering for and replying to SafeMail.

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Example of SafeMail Email

- The email containing the tracker will contain a message similar to the sample below.

Email Subject: RFI Tracker

Email Body:

Attached find your updated RFI tracker. Please review the open/new RFI requests, as well as any extended requests, and kindly provide the requested information.

Using the 'Reply' button in this email will ensure your response is sent securely. Provide your response directly into the reply email. If an image was requested, please also paste the image directly into the reply email. For your convenience, a recommended template is provided below. If you choose to provide your response in a different format, please be sure to indicate the payment reference ID associated with that response. Multiple responses can be provided in the same email as long as the associated reference ID is clearly indicated.

Once we receive the information, we will work to process this transaction to completion.

Originating Reference ID	
Requested Sender Information	
Requested Sender Images	
Requested Beneficiary Information	
Requested Beneficiary Images	

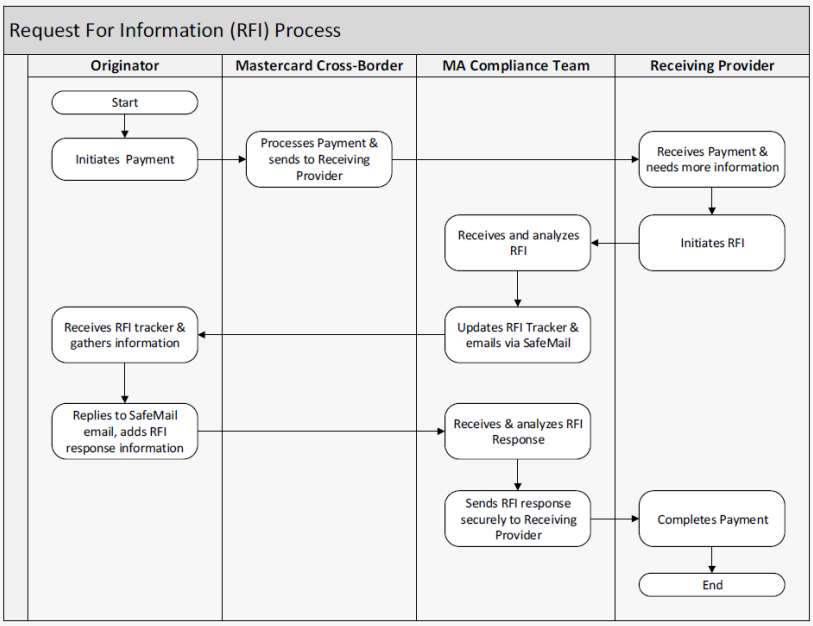
If you are not able to provide the information requested, please also reply with that comment. This will be shared with the receiving provider so the receiving provider can quickly make a decision on the transaction.

Please reply to this email address only for responses and questions related to the RFI requests. For any other queries, the Digital Support team continue to be your point of contact.

Note: An RFI request will remain open for a period of time before it is automatically cancelled. This period of time will vary depending on the receiving market and receiving provider. It could be as short as 5 days or as long as 15 days. It is recommended a response be provided as quickly as possible to avoid cancellation of the payment.

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RFI Process



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Using SafeMail for RFIs

How to Use the RFI Tracker

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Using the RFI Tracker

In order to view any new RFIs or check on the status of an RFI, you can open the latest tracker received via SafeMail.

Note that the RFI Tracker can be updated up to 3 times per day. This means that an RFI request designated as 'New' in the first tracker for the day would be designated as 'Ongoing' in the next version, and so on.

Sample image of the tracker →

	A	B	C	
1	RFI Status	Last action performed	Payment Status	Payment creat
2	New	RFI initiated by RSP	Pending	
3	New	RFI submitted to OI	Pending	
4	Ongoing	RFI response provided by OI	Pending	
5	Ongoing	RFI response submitted to RSP	Pending	
6	Closed	RFI closed by RSP	Successful	

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8

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Explaining the RFI Tracker

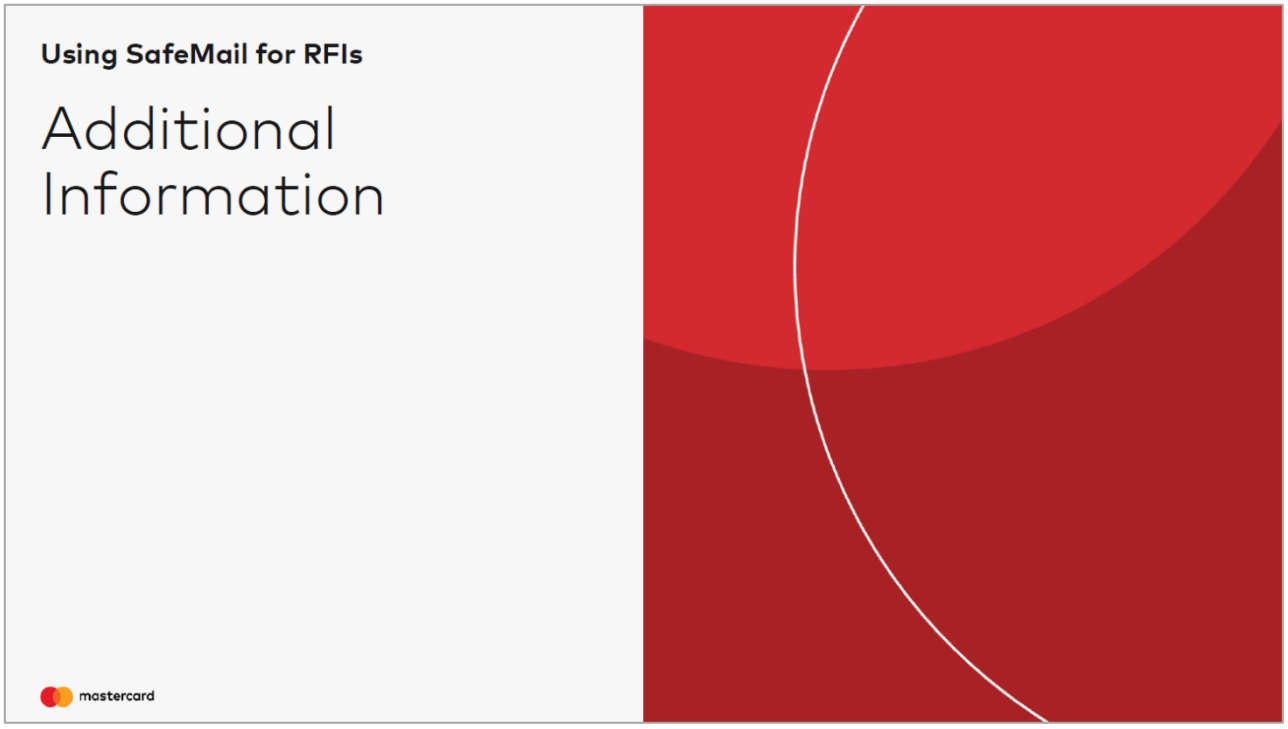
The RFI Tracker has the following columns of data:

Column	Description
RFI Status	New, Ongoing or Closed
Last action performed	Shows last action performed related to the RFI request.
Payment Status	Shows the status of the transaction. For active RFIs, this will generally be Pending. For closed RFIs, this should be Successful, Cancelled or Declined.
Payment creation date (UTC)	Date/time of the original transaction in UTC
Originating ID	Reference ID of the payment transaction from the originator
Requested Sender Information	Information to be provided related to the Sender
Requested Beneficiary Information	Information to be provided related to the Beneficiary
RFI Submitted to OI date (UTC)	The date the RFI was added to the RFI tracker and emailed via SafeMail
RFI response provided by OI date [UTC]	The date the RFI response was emailed via SafeMail.
RFI submitted to OI date [UTC] - Extended request	If additional information was needed, the date the subsequent request was added to the RFI tracker and emailed via SafeMail
RFI response provided by OI date [UTC] - Extended request	If additional information was needed, the date the response was emailed via SafeMail
RFI closed by RSP date [UTC]	The date the RFI was closed
RFI Total TAT (New -> Closed)	The total turnaround time of the request

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Support & Frequently Asked Questions

Question	Answer
What if I am unable to obtain the requested information?	If information is not able to be provided, state this on the response form and upload it as normal. The inability to respond will be shared with the RSP. In most cases, the payment will be rejected.
How long do RFIs take to process?	Once all requested information is received, the RFI is normally processed by our RFI team within 1 business day. Once sent to the RSP, it normally takes only 1-2 business days before a decision is made on the payment. The sooner the information can be provided, the sooner the payment can be completed.
What is an extended request?	Occasionally when the initial RFI information is provided, the RSP may request additional information such as copy of a passport.
What if the payment has already been cancelled before I send the RFI information?	The RFI information should still be provided. The RSP will retain this information and could use it for a future payment, thus avoiding an RFI on the future payment.
Why are there multiple payments in a single RFI request?	Occasionally the same sender and beneficiary will be in multiple payments. The same information may be required for all the payments. When this occurs, only one response is needed as the same response will apply to all the payments. Reference the first OI Reference ID in the response.

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Support & Frequently Asked Questions

Question	Answer
What if I am denied access to SafeMail?	You may need to request of your technical or security team to have the SafeMail URL unblocked. The URL is : https://safemail1.mastercard.com
How do I get the current copy of my tracker?	Send an email to MASend_Cross_Border_RFI@mastercard.com (or reply to a previous SafeMail email) and request your current tracker be sent to you.
If there are no new RFIs, will I get a tracker daily?	No. An updated tracker will only be sent if there is new RFI activity.
What if I have a question?	For questions specific to the RFI request, reply to the SafeMail email with your question. For non-RFI questions, continue to contact digital.support@mastercard.com

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How to use Mastercard SafeMail for sending and receiving encrypted emails

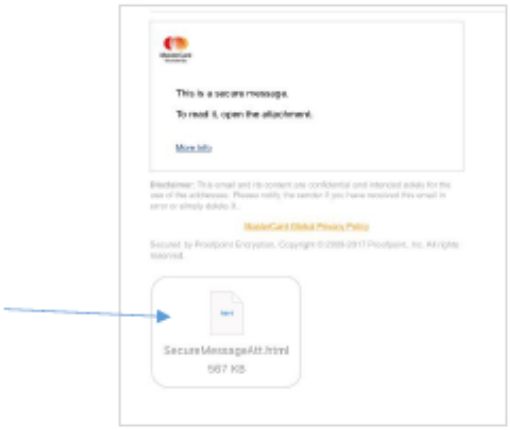
Overview

Mastercard SafeMail is an email encryption technology that enhances the protection of sensitive data send via email from Mastercard locations to members and third parties. Mastercard SafeMail will be used when receiving and responding to Requests for Information (RFIs) regarding Mastercard Send Cross-Border payment transactions.

It is recommended a shared mailbox is used to ensure access to RFI requests by teams and/or multiple individuals.

Registration Process

For email recipients who have not previously registered, the one-time registration process will need to be completed. When a Mastercard SafeMail encrypted email is received and opened, the recipient will see a message similar to the following. Click on the attachment to begin the process. *Note that the actual message presentation may vary based on the recipient's email client.*



A display similar to the image below will be displayed. Click on 'Click to read message'.

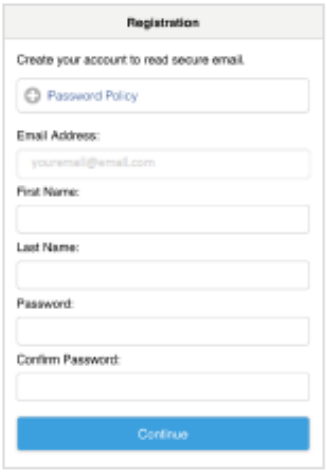


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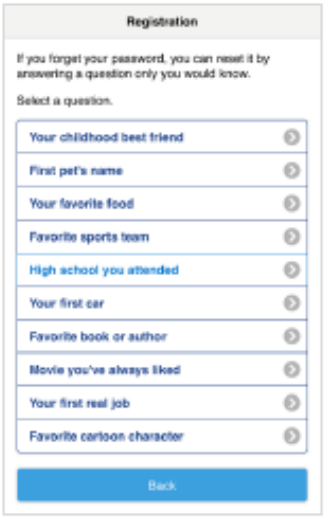
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How to use Mastercard SafeMail for sending and receiving encrypted emails

The recipient will then need to complete the one-time registration process which will create a Mastercard SafeMail ID profile. A screen similar to the one shown below will be displayed. The recipient must complete all the fields shown and click 'Continue'.



The recipient will then need to select a recovery question and provide an answer.

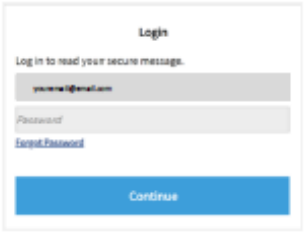


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How to use Mastercard SafeMail for sending and receiving encrypted emails

Once the process is successfully completed, the recipient is registered for Mastercard SafeMail. When future Mastercard SafeMail encrypted emails are received, the recipient will need to enter their password before being allowed to read the email.



Replying to a Mastercard SafeMail encrypted email

When needing to reply to a Mastercard SafeMail encrypted email, use the 'Reply' feature that is available in the Mastercard SafeMail tool. This will ensure the response is also send in a secure, encrypted fashion.



Additional Mastercard SafeMail Password Parameters

If a registered recipient incorrectly enters their Mastercard SafeMail ID password into the system five consecutive times, the Mastercard SafeMail system will lock out the recipient from reading the encrypted email. The recipient will need to contact Mastercard GCS team for assistance.

Mastercard SafeMail ID passwords expire after 90 calendar days. When choosing a new password, the registered recipient must not enter a password that the recipient has used in the previous two password resets.

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Please contact your representative for documents specific to your organization.

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Appendix E: Onboarding Document Samples

The following group of documents represent forms and information required in the onboarding process. Your Mastercard representative will work with you to provide specific documents and guidance for your organization.

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E.1: Onboarding Document Samples – AML Compliance Memo

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Mastercard Send Cross-Border:

AML Compliance Memo

Disclaimer

This document is intended to provide general information about the compliance procedures relating to the Mastercard Send Cross Border service, for initial cooperation between Mastercard International Inc. (by itself or through its affiliate companies, "Mastercard") and the recipient who is or is in the process of becoming a Mastercard Customer and a Mastercard Send Originating Institution in order to initiate cross border payments on behalf of its customers.

This document does not constitute a binding commitment or obligation of either Party, nor shall it be construed as a contract and under no circumstances shall either Party be bound in any manner whatsoever. Any binding commitments between Mastercard and the recipient in connection with the Mastercard Send Cross Border service, shall be set out in a written agreement to be entered into between them at the appropriate time.

Confidentiality

This document is intended for Customer's internal use only. The information contained in this document is proprietary and confidential to HomeSend and Mastercard. This document may not be copied, duplicated, published or disclosed, in whole or in part, without the prior written permission of HomeSend or Mastercard.

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1. **Roles**

Customer Role	Description
Participant	Any type of Originating Institution or Receiving Institution that participates in the transfer of funds enabled through the Mastercard Send Cross-Border service. (Does not include Senders and Beneficiaries).
Originating Institution	A Customer that initiates or requests a cross-border payment via the Mastercard Send Cross-Border service.
Receiving Institution	The entity that receives and approves a cross-border request from the Mastercard Send Cross-Border service and is responsible for delivering the payment to the Beneficiary's account (potentially via indirect participants to the network, reached through a local payment system for instance).
Client	An entity that uses the services of a Mastercard Customer (where such Mastercard Customer is duly engaged in a contractual relationship with the Client in connection with the provision of certain Mastercard Customer's services to it) in order to enable Transactions for the Client's Senders.
Sender	The end-user that is a customer of the Originating Institution that sends funds to a Beneficiary.
Beneficiary	The end-user who will receive the funds from the Sender (customer of the Receiving Institution or customer of an indirect participant in the network).

2. **Mastercard Framework**

Mastercard is committed to preventing its products and services from being used in a manner that facilitates criminal purposes, including handling the proceeds of crime, participating in a money laundering scheme, facilitating support for financing terrorism, or evading or violating economic sanctions.

The Mastercard Anti-Money Laundering, Counter-Terrorism Financing, and Economic Sanctions Policy ("Mastercard AML/Sanctions Policy") applies to Mastercard, its wholly owned subsidiaries and majority-owned investments and their respective businesses and the services provided by them.

The Mastercard AML/Sanctions Policy is designed to ensure compliance with applicable laws and regulations, and governs all AML and Sanctions activities within Mastercard. Mastercard is headquartered in the United States and is primarily subject to United States money laundering regulations under the Bank Secrecy Act and Sanctions regulations administered by the United States Department of Treasury's Office of Foreign Assets Control ("OFAC").

The Mastercard Send Cross-Border service enables Mastercard Customers in their capacity as

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Originating Institutions to send cross-border payments for various payment types including person-to-person payments (P2P), business-to-person disbursements (B2P), and business-to-business payments (B2B). Mastercard Send Cross-Border enables cross-border payments as an intermediary payment service that supports a variety of payout options, including bank accounts, mobile money accounts, consumer cards, and retail cash pick-up, to countries all around the world.

The receiving endpoints for the Mastercard Send Cross-Border service that are reached through a Receiving Institution, are enabled and managed by HomeSend. HomeSend, headquartered in Belgium, is a majority- owned joint venture between Mastercard and eServGlobal SAS that enables cross-border payments. HomeSend is a Payment Institution under the European Payment Services Directive and is subject to European payment service regulations. HomeSend is supervised by the National Bank of Belgium.

Mastercard and HomeSend have in place AML and Sanctions Programs, with designated AML and Sanctions Compliance Officers that are specific to each of them.

3. Roles and Responsibilities of Mastercard

- Employs a designated, ACAMs certified, AML/Sanctions Compliance Officer.
- Has established AML/Sanctions Policies and Procedures (Global as well as specific to Mastercard Send)
- Performs thorough due diligence and on-going monitoring of all Network Customers, which are primarily financial institutions.
- Performs initial and daily sanction screening of all Network Customers, including ultimate beneficial owners or shareholders and directors.
- Assures additional due diligence and monitoring of all Originating Institutions prior to inclusion to the Mastercard Send Cross-Border service.
- Provides regular AML/Sanctions training of all employees, including targeted training to specific roles.
- Retains proper records in accordance with local laws and regulations.
- Is subject to regularly scheduled audit of the AML/Sanctions program.

4. Mastercard Send Cross-Border Originating Institutions must:

- Be a licensed and registered Mastercard Customer in good standing.
- Hold all necessary licenses, authorizations and approvals in their country or countries of operation.
- Comply with applicable laws and regulations in the countries of operation.
- Have AML/Sanctions Policies and Procedures that meet the standards required by the Mastercard AML/Sanctions Policy.
- Adhere to Mastercard Rule 1.2 regarding AML / Sanctions compliance that includes.
    - Thorough Sender and Client identification
    - Thorough Sender and Client due diligence
    - Record-keeping of such identification and due diligence

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- Appropriate limitations on anonymous activities
- Client activity monitoring to detect suspicious activity
- Steps to be taken when suspicious activity is detected
- An audit process to test controls
- Compliance with U.S. sanctions programs, which require that:
  - Each client is checked against the Specially Designated
  - Nationals and Blocked Persons List (the "SDN List") issued by the U.S. Treasury
  - Department's Office of Foreign Assets Control ("OFAC"), at the time the relationship is established and on an ongoing basis. Any Activity with a person or entity found to be on the SDN List is immediately terminated;
  - No Activity is conducted in a country subject to OFAC sanctions programs that impact payment services, or with the government of such a country

5. Roles and Responsibilities of HomeSend

- Employs a designated Compliance Officer.
- Has an AML/Sanctions Policy ("HomeSend AML/Sanctions Policy") and Procedures aligned to the Mastercard AML/Sanctions Policy.
- Performs thorough due diligence and monitoring of all Receiving Institution, including but not limited to:
  - Assurance that Receiving Institutions hold all necessary licenses, authorizations and approvals in their country or countries of operation.
  - Determination of the Receiving Institution regulatory status.
  - Contractually requires that all Receiving Institution comply with applicable laws and regulations in the countries of operation.
  - Assurance that Receiving Institutions have AML/Sanctions Policies and Procedures that are aligned to the Mastercard AML/Sanctions Policy and the HomeSend AML/Sanctions Policy.
- Provides regular, comprehensive AML/Sanctions training of all employees, including targeted training to specific roles.
- Retains proper records in accordance with local laws regulations.
- Is subject to regularly scheduled audit of the AML/Sanctions program.

6. HomeSend Receiving Institutions must:

- Hold all necessary licenses, authorizations and approvals in their country or countries of operation.
- Comply with applicable laws and regulations in the countries of operation.
- Have AML/Sanctions Policies and Procedures that meet the standards required by the Mastercard AML/Sanctions Policy and the HomeSend AML/Sanctions Policy.
- Perform thorough customer (End User) due diligence.
- If located in Non-Equivalent Third Countries (as defined below), meet HomeSend specifications concerning End User due diligence and related record retention

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requirements pursuant to contractual obligations agreed to by them.

- Allow on-site visits by the HomeSend compliance function.
- Where relevant, disclose the name of all the indirect participants that they intend to activate through the HomeSend System and ensure that those also comply with the above requirements.

7. Compliance Risk Mitigation through Mastercard Send Cross-Border

The Mastercard Send Cross-Border service seeks to mitigate the compliance risk exposure of the different Participants in a cross-border transfer of funds.

Mastercard or HomeSend enters into written agreements with each of the Participants (as appropriate) within a contractual framework that supports the operation of a payment network. Through these agreements, the Mastercard Send Cross-Border compliance program and the HomeSend AML/Sanctions Policy, Mastercard and HomeSend aim to impose uniform AML obligations on the different Originating Institutions and Receiving Institutions.

If the Participant is located in a jurisdiction where the Mastercard Send Cross-Border or HomeSend services haven't been offered previously, a regulatory scan is performed to determine if there are local licensing requirements to do so or other regulatory restrictions.

Mastercard ensures that the information on the Sender and Beneficiary of funds is transferred within the payment message until it reaches the Receiving Institution. The Mastercard Send Cross-Border service detects and rejects transactions that do not include the mandatory information of the Sender and Beneficiary.

Additionally, the Mastercard Send Cross-Border service operates under an "opt-in" model. Under this model, each Originating Institution must approve of the Receiving Institutions before being permitted to send transactions.

If there is a suspicion of money laundering or terrorist financing, a clear framework is established for requesting further information from and sharing end-user due diligence records with other Participants involved in the fund transfer.

8. Mastercard CDD/KYC Process Overview

The majority of Mastercard Send customers that are expected to participate in Mastercard Send Cross-Border are Mastercard Licensed financial institutions that have been previously on-boarded and vetted by the Global Mastercard AML Compliance Team. Mastercard Send will accept the KYC / CDD and monitoring efforts of the Global AML Team as its own. Where applicable, Mastercard Send will confirm that an applicant is in good standing as a Mastercard License holder prior to approval as a Mastercard Send customer.

No applicant that is not a licensed Mastercard Customer will be approved for participation to the Mastercard Send Cross-Border service without being reviewed and approved by the Mastercard Send Compliance Team. Each applicant will required to complete an application and

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to submit detailed information regarding its corporate structure, regulatory status, owners, directors, senior executives and relevant lines of business.

Mastercard Send's AML Team applies a risk based approach and employs a software solution hosted by Bureau van Dijk, (BVD), a third-party vendor, to assist in the verification of customer information and the application of a Customer Risk Rating (CRR).

The BVD solution leverages a vast, searchable, database of global corporate entities. BVD provides detailed information regarding entities legal names, owners, directors, shareholders, DBA information, et al. BVD also sanctions screens (including PEP lists) all such entities, owners, directors and controlling shareholders against various watch lists including but not limited to the OFAC SDN list and the EU Consolidated Lists. BVD uses various web-based services to constantly update its list of corporate entities and related information.

BVD applies weighted values to customer profile data to establish a CRR for each entity entered to the tool. Risk ratings are based upon geographic location, product, the existence of PEPs to a corporate structure, relevant adverse media, regulatory status, tenure of incorporation, et al. BVD provides a CRR of Low, Moderate or High for each entity entered and calculates a CRR refresh / review date per the Mastercard AML/Sanctions Policy.

In the event a corporate entity is not found in the BVD database and system fields do not auto-populate, users can research and manually enter the missing data. The solution processes the manually entered information, including sanctions / PEP screening, adverse media scans, et al.

BVD monitors Mastercard Send's customer portfolio and notifies the AML Team of any changes to a customer's corporate structure, potential sanctions matches, relevant adverse media etc. per an alert system. AML alerts are automatically generated and emailed to AML Team members in the event any such change or sanctions issue is detected. Alerts dispositions are housed in BVD with a clear audit trail.

Mastercard Send's AML/Sanctions Policy and Procedure have established KYC processes for all Low, Moderate and High risk customers including Enhanced Due Diligence procedures for High risk customers. In instances where an Originating Institution is considered High risk, Mastercard Send will review the AML and Sanctions Policies and Procedures of the OI, with focus on the KYC / CDD of Clients on whose behalf they initiate payments.

9. HomeSend KYC / CDD Process Overview

Information gathering

HomeSend uses the findings from its business-wide risk assessment and what it knows about the applicant, its reputation and the nature of the business relationship to inform its decision on the appropriate level and type of initial CDD that it applies to individual business relationship. This allows HomeSend to identify the level of information that has to be collected from the customer and to provide the applicant with tailored risk-based due diligence questionnaires and

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requests for information during the initial due diligence process.

The information and supporting documents collected during initial due diligence process includes at the minimum the minimum customer identification information, and all other information about the customer, and the nature and purpose of the business relationship, to allow HomeSend to identify and assess the risk factors and inherent risks of the applicant, to weight the inherent risk.

Initial risk assessment

Based on the information collected from the applicant during initial due diligence, HomeSend performs screening of the applicant and its beneficial owners against:

- internal blacklists maintained by HomeSend,
- other screening databases, including international and Belgian sanction lists as set out in the Sanctions policy and procedures schedule and Politically Exposed Persons (PEP) lists.
- The objective is to ascertain if the customer or its Beneficial owners has one of the following profiles:
    - PEP,
    - criminals,
    - terrorists,
    - sanctions targets,
    - is incorporated, has its business or intends to use HomeSend to make or receives fund transfers from jurisdictions HomeSend is not allowed to do business with pursuant to UN, EU and/or OFAC Sanctions Programs,
    - is reported in media to be involved in any activity that is adverse in nature.

Once the information has been collected from the applicant and initial name screening has been performed, HomeSend identifies and assesses the relevant risk factors and assesses the mitigating measures and controls in order to derive the residual risk associated with a particular business relationship that will be the basis for the customer acceptance decision, as depicted below.



Acceptance decision

Based on this information, HomeSend will then decide whether or not it will accept the Receiving Institution, and under which conditions. Customer acceptance is based on a risk-conscious approach based on a balance between strategic objectives and the amount of risk that the HomeSend is willing to take on pursuit of value and profit.

Ongoing monitoring

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In addition to review for admission, Receiving Institutions are subject to ongoing monitoring throughout the course of their participation in the HomeSend services. The monitoring of existing Receiving Institutions is performed by the HomeSend compliance function under the direction and oversight of the Compliance Officer.
On a continuous basis, the HomeSend compliance function:

- monitors the customer's transactions to ensure that they are in line with the customer's risk profile and business and, where necessary, examines the source of funds, to detect possible ML/FT.
- conducts ongoing due diligence of the customer relationship, including periodical reviews and ad hoc reviews.

10. HomeSend KYC / CDD Requirements on Receiving Institutions

The due diligence process also confirms that all Receiving Institutions have an AML/CFT compliance program that, at a minimum, includes the following:

- Risk based, initial and on-going KYC and Customer Due Diligence (CDD) using reliable, independent source documents, data or information, before or during the course of establishing a business relationship.
- Risk based due diligence on agents and indirect participants
- Initial and on-going sanction list screening of all customers, beneficial owners and directors per local laws and regulations, including screening against the OFAC SDN and FSE lists.
- Transaction monitoring of all funds sent or received via HomeSend.
- Retention of all KYC / CDD records for a minimum of five (5) years after the termination of a customer relationship.
- An audit process to test controls.

Furthermore, Receiving Institutions are contractually required to:

- provide relevant KYC / CDD records to the HomeSend compliance function when requested.
- make available the transaction records and CDD information to competent authorities upon request.
- comply with FATF Recommendation 16 on wire transfers.
- apply appropriate limitations on anonymous activities, customer activity monitoring to detect suspicious activity, and steps to be taken when suspicious activity is detected.

11. Transactional Controls

Mastercard Send Cross-Border and HomeSend employ the following automated monitoring systems:

Single transaction and cumulative amounts checks

Fund transfers which exceed the thresholds defined in the platform for the transferred

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amount for a single fund transfer or, the cumulated transferred amount by/to a payee/payer over a given period of time. When these limits are reached, the fund transfer is rejected. Thresholds are risk-based.

Missing information on the Sender and the Beneficiary

For each fund transfer, the HomeSend system automatically checks that the fields relating to the information on the payer and the payee in the HomeSend system have been completed, in compliance with the FATF recommendation 16..

Internal backlist on end-users

For each fund transfer, the HomeSend system automatically checks that the payer and the payee unique ID in the HomeSend system does not belong to a person or entity listed on the internal blacklist for the intended transfer. If it does, the fund transfer is rejected.

Sanctioned jurisdictions

HomeSend implemented a real-time control on originating jurisdictions of the transaction as communicated by the customer. With regard to the control on the termination country, this is controlled by HomeSend at corridor set-up: the HomeSend system configuration results in an automatic verification that the requested fund transfers are not terminating into a prohibited jurisdiction.

AML Net

Mastercard Send Cross-Border employs a transaction monitoring tool that employs network level AML examine all transactions initiated via the Mastercard Send Cross-Border service. Mastercard Send Cross-Border's AML Team uses system generated alerts to investigate the existence of potential abnormalities in payment velocities, amounts and volumes to detect potential money laundering or terrorist finance activity at the network level. Mastercard Send Cross-Border Originating Institutions can purchase user rights to AML Net including both system generated and custom AML rules to monitor all transactions initiated by their Customers. Mastercard Send Cross-Border transactional system data is part of the AML Net subscription with no coding or set up requirements on the part of its users.

In addition to the (real time) automated monitoring systems, HomeSend performs an ex-post transaction monitoring, based on the expected transaction profile drawn up for every customer at the commencement of the customer relationship, applying to all accounts and to all transactions of the customers. Each month a report is drafted with all identified issues, a list of the issues that required further investigation, and the issues reported to the Compliance Officer after investigation.

12. Sanction list screening of end users

Originating Institutions are required to ensure that no funds are sent to/from a sanctioned individual or to/from a country that is the subject of a comprehensive sanctions program (embargoed country). Since Mastercard does not have any contact with the End-users (Senders and Beneficiary's), the "first line" transaction screening is the contractual responsibility of Originating Institutions.

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The first line screening and blocking requirements imposed on Originating Institutions includes initial and on-going screening of the Sender and the Beneficiary of funds against the SDN List and the relevant United Nations and European Union lists prior to initiating transactions through the Mastercard Send Cross-Border Service.

Receiving Institutions are also required to perform transaction screening against local and international sanctions lists (OFACS SDN list, the EU Consolidated list, UN Lists) as follows:

- Receiving Institutions that are the bank of the Beneficiary are at a minimum required to screen the name of the holder of the account on which the funds are credited against the local and international sanctions lists (OFACS SDN list, the EU Consolidated list, UN Lists) on a daily basis.
- Receiving Institutions that route the payment to the Beneficiary bank through the local payment system, another paying bank, or directly to the Beneficiary bank are required to ensure that at a minimum the name of the account holder on which the funds are credited against is screened against the local and international sanctions lists, on a daily basis or to inform Mastercard of the specific sanctions list screening obligations applicable to the specific corridor, which may be carried out via bilateral agreements or local payment system requirements.

Prior to opening up a corridor between an Origination Institution and a Receiving Institution, Mastercard performs due diligence to ensure both parties to each transaction (Sender and Beneficiary) are screened, ensuring full regulatory compliance.

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E.2: Onboarding Document Samples - AML Questionnaire

Mastercard Anti-Money Laundering (AML) Compliance Program Periodic Customer Review Questionnaire and Certification for Mastercard Send Cross Border

Introduction. Mastercard International Incorporated ("Mastercard") administers an Anti-Money Laundering Compliance Program ("AML Program") for the purpose of helping to ensure compliance with its own regulatory obligations and to protect against the use of its systems for money laundering and terrorist financing activities. In accordance with Mastercard Standards, each Customer at all times must be in compliance with the AML Program. This questionnaire and certification facilitates Mastercard's ability to determine that your institution ("Customer") is in compliance with the AML Program. Mastercard reserves the right to amend the AML Program from time to time and at any time.

Instructions.
This questionnaire and certification must be completed accurately, truthfully and in its entirety in English and then submitted to MasterCard. You may complete this form electronically or other means, provided that a copy of the completed form is then printed and signed by an authorized officer of Customer and returned to Mastercard in a PDF format. You may also provide a response to any question or additional responsive information by attaching an appendix to this form or by providing a URL link to the information.

SAMPLE

I. Customer Information

Legal Name of Customer: _____

1. Customer legal name changes during past 2 years: _____
2. Abbreviated, Commercial or Doing Business As (dba) Name: _____
3. Street Address: _____ Town/City: _____
   State/Country: _____ Website Address: _____
5. AML Compliance Officer contact details:
   Name: _____ Email: _____
6. List the country(ies) in which the Customer will carry out Masetercard Send Cross Border services.
   _____
7. Provide Customer's current asset size. _____
8. Kindly indicate Customer's entity type: Financial Institution ☐ Payment Institution ☐ Emoney institution ☐ Association ☐ Post Office ☐ Telco ☐ Credit Union ☐ Government ☐ Other ☐ :_____
9. Does Customer operate under an International/ Offshore Banking License and thus, prohibited from conducting banking activities with the citizens or currency of the jurisdiction which issued its license? ☐ Yes ☐ No
10. Is Customer an institution **without physical presence** (For this purpose, "physical presence" means a fixed place of business maintained by the Customer; that the Customer is located at an address (other than solely an electronic, post office or accommodation address) in the country in which the Customer is authorized to conduct banking activities; it employs at that location one or more fulltime individuals; it maintains at that location operating records related to banking activities; and it is subject to inspection by the banking authority which licensed the Customer to conduct banking activities) in any country? ☐ Yes ☐ No

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11. Please complete the charts below by listing each individual or legal entity owning a 20% or greater interest in Customer. Please note, **holding company names and shell corporations are not acceptable ownership information.**
Note: If there are no owners with 20% ownership or more, identify the owner with the largest interest. If additional lines are necessary, please attach a separate sheet to this application.

Ownership – Individuals						
First Name	Second Name	Last Name	Address	Year of Birth	Country of Birth	% of Ownership

Ownership – Legal Entities			
Entity Name	Entity dba and/or abbreviated name (s)	Address	% of Ownership

Also, provide all requested information for each individual having management and/or control of the Applicant's business.
If additional lines are necessary, please attach a separate sheet to this application. Please do not provide initials as a first name.

Control and Executives							
First Name	Second Name	Last Name	Street Address	Year of Birth	Country of Birth	Years with Company	Years with Industry
CEO (or equivalent title)							
Executive Level Management (direct reports to CEO)							
Board of Directors							

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II. Anti-Money Laundering (AML) Program Questions

1. Has the Customer received any regulatory enforcement action currently or within the past two years? ☐ Yes ☐ No
   If yes, has the regulatory enforcement action resulted in fines or penalties being assessed? ☐ Yes ☐ No
   If yes, please provide brief description of the regulatory enforcement action and the amount of the fines or penalties:
   _____
2. Is Customer subject to periodic regulatory supervision for its MasterCard related activities? ☐ Yes ☐ No
   If yes, provide date of last examination, the outcome and details of any remediation taken (if necessary):
   _____
3. In its jurisdiction(s), is Customer required to comply with AML or anti-terrorist financing legislation? ☐ Yes ☐ No
4. Does Customer have an AML Policy and Program designed to prevent money laundering and terrorist financing? ☐ Yes ☐ No
5. Does Customer have a Risk Assessment Process designed to successfully and accurately identify and apply appropriate risk management controls? ☐ Yes ☐ No
6. Does Customer provide AML compliance related training to all employees? ☐ Yes ☐ No
7. Kindly provide the total number of employees performing AML and Sanctions responsibilities within the organization: _____
8. List the location(s) of the employees performing AML and Sanctions responsibilities: _____
9. Does Customer have an internal audit function or other independent third party that assesses their AML Program on a regular basis?
   ☐ Yes ☐ No
   If yes: a) Date of last audit: _____
   b) Has internal audit/independent third party had any negative AML-related findings? ☐ Yes ☐ No
   If yes, please describe the findings and remediation plan to address the issues:
   _____
10. Does Customer outsource any AML or Sanctions responsibilities (KYC, Due Diligence, Transaction Monitoring, Sanction Screening, etc.) to third parties and or to other entities? ☐ Yes ☐ No
    If yes, please specify which function/s is outsourced and the name of the entity performing the function.
    _____
11. Does Customer maintain an oversight process which monitors, audits and performs quality assurance testing over the entity and or third party performing the outsourced function on Customer's behalf? ☐ Yes ☐ No
12. Is the oversight process documented within procedures? ☐ Yes ☐ No
13. Does Customer have an executed legal contract(s) or agreement(s) detailing the outsourcing of the AML and Sanctions responsibilities with the third party or entity? ☐ Yes ☐ No
14. Does Customer verify the identity conduct due diligence on individuals and businesses to whom they provide services to ensure Customer complies with all applicable laws and regulations? ☐ Yes ☐ No
15. Does Customer screen parties related to its Mastercard business (i.e. Senders and Receivers) against Watch Lists to ensure that these individuals and businesses are not linked to AML or Terrorist Financing?
    ☐ Yes ☐ No All OFAC, EU, and UN Sanctions Lists (including OFAC's SDN, FSE and other non-SDN Lists)
    ☐ Yes ☐ No Politically Exposed Persons (PEP)
    ☐ Yes ☐ No Other : _____
16. Describe the frequency of ongoing Sanctions (OFAC) screening ☐ Upon Registration of the Customer
    ☐ Each time there is a list update ☐ Upon Registration and at a defined Frequency (Please Specify): _____
    ☐ Other (Please Explain): _____

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17. Scope of Send XB Sanctions Screening: Sender/Payer ☐
Beneficiary/Payee ☐
Screening takes Place Before Transaction ☐
Screening of all outgoing transactions against sanctions lists maintained in destination countries? ☐

18. If the Sanctions and PEP screening process is automated, please provide the name of the vendor.

_____

19. If the Sanctions and PEP screening process is manual, please provide a description of the process.

_____

20. Does Customer take action to not do business with or terminate a relationship with an individual or business identified on an official list?
☐ Yes ☐ No

If no, please explain:

_____

21. Does Customer conduct any MasterCard related business in Crimea (region of), Cuba, Iran, North Korea, Sudan or Syria?
☐ Yes ☐ No

If yes, please explain:

_____

22. Does Customer have record retention policies and procedures to comply with applicable law? ☐ Yes ☐ No

23. Does Customer have procedures in place to monitor accounts and transactions in order to prevent and detect suspicious activity?
☐ Yes ☐ No

24. Does Customer have procedures in place to report suspicious activity? ☐ Yes ☐ No

If yes, please list the regulator(s) and/or agencies to which the report is provided:

_____

25. Please describe any changes made to Customer's AML and Sanctions Compliance Program over the past 12 months:

_____

_____

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AML Certification

Customer certifies to Mastercard that Customer has implemented and maintains a written AML and Sanctions Compliance program (the "Compliance Program") which includes practices, policies, procedures, and controls necessary and sufficient to safeguard the Corporation and the Interchange System from and against the use of the Interchange System for money laundering and/or terrorist financing. Customer's Compliance Program(s) at all times and on an ongoing basis must be of such nature and scope so as to be commensurate with Customer's AML risk profile and must be fully implemented and maintained in accordance with Rule 1.2.1 and local regulatory requirements. As used in this portion of the application, the following terms have the meanings set forth in the definitions portion of the Mastercard Rules: Activity; Acquirer; Cardholder; Corporation; Customer; Interchange System; Issuer; Mastercard; Rule; Service Provider; Third Party Processor.

As set forth in Rule 1.2.1, a Customer's AML Program must address, in a manner satisfactory to the Corporation, all Activity and include, at a minimum, all of the following:
1. A process to ensure thorough client identification and due diligence;
2. Sufficient controls, resources, and monitoring systems for the prompt detection and reporting of suspicious activity;
3. Compliance with all applicable regulatory record-keeping and reporting requirements;
4. Risk assessment processes designed to successfully and accurately identify and apply appropriate risk management controls;
5. A training program for all personnel whose duties require knowledge of the AML program and requirements; and
6. An audit process to periodically test controls

As further set forth in Rule 1.2.2 each Applicant or Customer, as the case may be and regardless of where situated, must ensure that all Activity is in compliance with the sanctions laws and regulations enacted by United States sanctions authorities (including, the United States Office of Foreign Assets Control ["OFAC"] and the United States Department of State), as well as all applicable other sanctions regulations where the Activity is taking place. Applicant or Customer, as the case may be, agrees and acknowledges that it is prohibited from engaging in Activity with any person, including any legal entity or government, or in any geography in contravention of any regulation or other requirement promulgated by the United States sanctions authorities, as well as any applicable other sanctions authority. Applicant or Customer, as the case may be, engaging in or proposing to engage in Activity certifies that it will have and maintain on an ongoing basis a written sanctions compliance program (the "Sanctions Compliance Program") that includes a policy, practices, procedures, and controls commensurate with its risk profile. The Sanctions Compliance Program must address, to the satisfaction of the Corporation, all Activity and include, at a minimum, all of the following:

SAMPLE

Screening
1. An Issuer must screen each of its Cardholders and Service Providers and each other representative and agent (including, but not limited to, a Card program manager) at the time of onboarding and regularly thereafter on an ongoing basis, against applicable sanctions lists, including, but not limited to, OFAC sanctions lists (such as, the Specially Designated Nationals and Blocked Persons List [the "SDN List"]).
2. An Acquirer must screen each of its Merchants and Service Providers and each other representative and agent (including, but not limited to, each Third Party Processor at the time of onboarding, and regularly thereafter on an ongoing basis, against applicable sanctions lists, including, but not limited to, OFAC sanctions lists (such as, the SDN List).

Prohibited Activity
1. No Activity may be conducted in a geography (country or region or other geographic area) that is the subject of applicable sanctions, such as those identified by OFAC.
2. No Activity may be conducted with a person, entity, or government on the OFAC sanctions lists (such as, the SDN List), A Customer must immediately cease any Activity with a person, entity, or government listed on any of the OFAC sanctions lists.

NOTE: Activity with an entity listed on OFAC's Sectoral Sanctions Identifications List ("SSI List") may only be conducted in compliance with the limitations and conditions established by OFAC.

As a Mastercard Customer, all Rules and other Standards, including those applicable to AML and Sanctions Compliance, are applicable and enforced on an ongoing basis to Customer and all of Customer's Activity including, but not limited to, any Mastercard-branded program (such as Mastercard, Maestro, or Cirrus).
Customer certifies to Mastercard that Customer is not and at no time will be in breach of any applicable law or regulation, or Mastercard Rule or other Standard, and that Customer will promptly will provide any information Mastercard may request in connection with this Certification. Customer acknowledges and agrees that, should this Customer Certification be inaccurate in any respect at any time, or should Customer fail to address any risk associated with Activity or arising from such Activity to Mastercard's satisfaction, Mastercard may refuse to grant Customer any license or may suspend, condition or terminate any license granted, as the case may be.

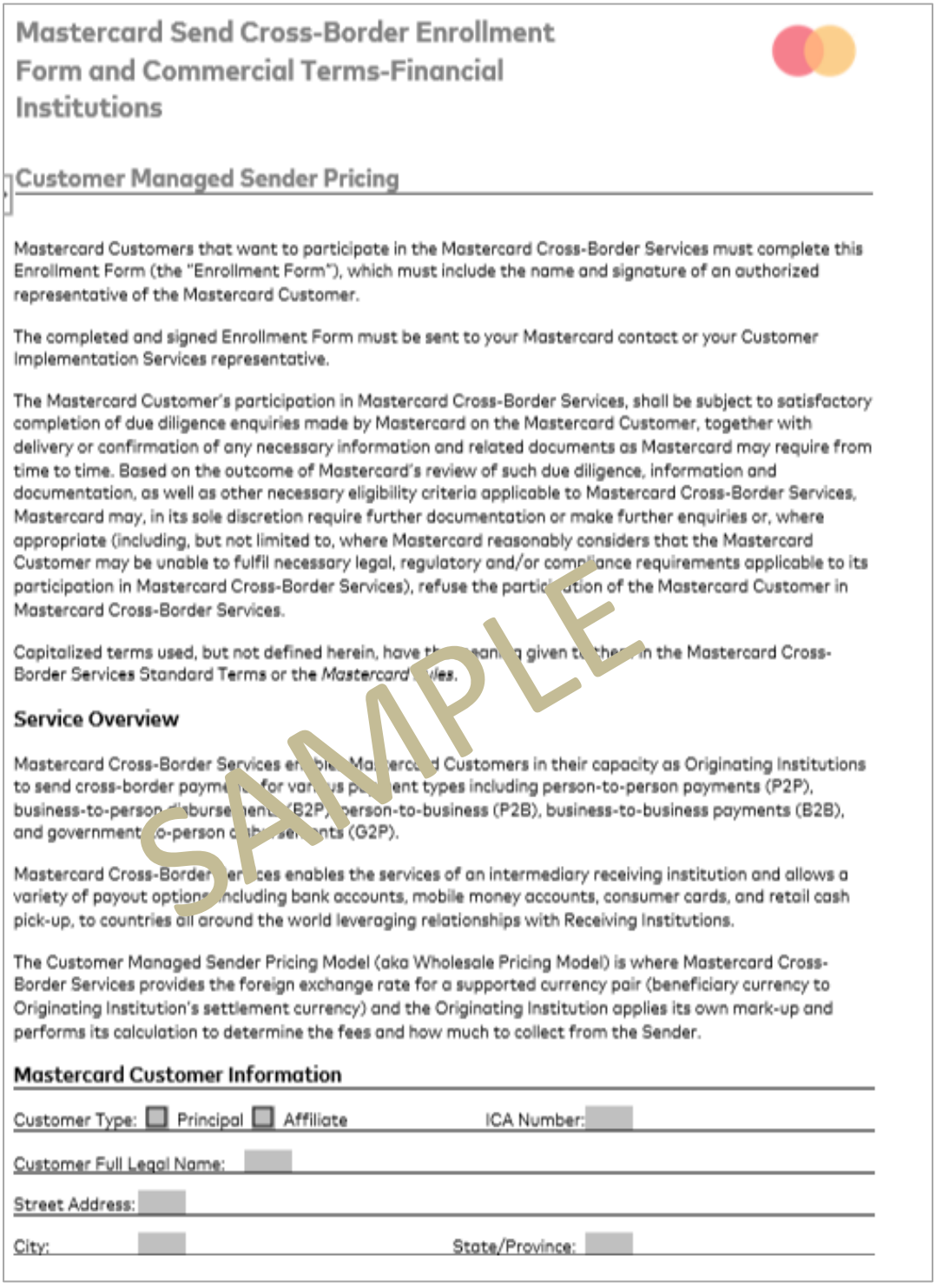
By signing, Customer certifies the above information relating to Anti-Money Laundering and Sanctions is current, true and accurate:

_____ _____
AML Officer Date

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E.3: Onboarding Document Samples - Enrollment Forms

Sample Forms Only: Please contact your account representative to request the latest version.



Mastercard Send Cross-Border Enrollment Form and Commercial Terms-Financial Institutions

Customer Managed Sender Pricing

Mastercard Customers that want to participate in the Mastercard Cross-Border Services must complete this Enrollment Form (the "Enrollment Form"), which must include the name and signature of an authorized representative of the Mastercard Customer.

The completed and signed Enrollment Form must be sent to your Mastercard contact or your Customer Implementation Services representative.

The Mastercard Customer's participation in Mastercard Cross-Border Services, shall be subject to satisfactory completion of due diligence enquiries made by Mastercard on the Mastercard Customer, together with delivery or confirmation of any necessary information and related documents as Mastercard may require from time to time. Based on the outcome of Mastercard's review of such due diligence, information and documentation, as well as other necessary eligibility criteria applicable to Mastercard Cross-Border Services, Mastercard may, in its sole discretion require further documentation or make further enquiries or, where appropriate (including, but not limited to, where Mastercard reasonably considers that the Mastercard Customer may be unable to fulfil necessary legal, regulatory and/or compliance requirements applicable to its participation in Mastercard Cross-Border Services), refuse the participation of the Mastercard Customer in Mastercard Cross-Border Services.

Capitalized terms used, but not defined herein, have the meaning given to them in the Mastercard Cross-Border Services Standard Terms or the *Mastercard Rules*.

SAMPLE

Service Overview

Mastercard Cross-Border Services enables Mastercard Customers in their capacity as Originating Institutions to send cross-border payments for various payment types including person-to-person payments (P2P), business-to-person disbursements (B2P), person-to-business (P2B), business-to-business payments (B2B), and government-to-person disbursements (G2P).

Mastercard Cross-Border Services enables the services of an intermediary receiving institution and allows a variety of payout options including bank accounts, mobile money accounts, consumer cards, and retail cash pick-up, to countries all around the world leveraging relationships with Receiving Institutions.

The Customer Managed Sender Pricing Model (aka Wholesale Pricing Model) is where Mastercard Cross-Border Services provides the foreign exchange rate for a supported currency pair (beneficiary currency to Originating Institution's settlement currency) and the Originating Institution applies its own mark-up and performs its calculation to determine the fees and how much to collect from the Sender.

Mastercard Customer Information

Customer Type: ☐ Principal ☐ Affiliate ICA Number:

Customer Full Legal Name:

Street Address:

City: State/Province:

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Country: ZIP/Postal Code

If Affiliate, indicate Principal Customer Name:

Primary Point of Contact	Secondary Point of Contact
Name:	Name:
Title:	Title:
Street Address:	Street Address:
Phone:	Phone:
Email:	Email:

Additional Mastercard Customer Contact Information

Contact Type	Name	Phone	Email
Technical			
Customer Support			
Other			

Receiving Endpoint Selection and Pricing

Receiving Countries and Receiving Channels in any Receiving Country, will only be implemented with the prior agreement of the relevant Receiving Institution and subject to agreement of any particular provisions relating to such Receiving Countries and Receiving Channels.

Action	Sending Country	Receiving Country	Receiving Channel[1]	Beneficiary Currency[2]	Settlement Currency[3]	Payment Type(s)[4]	MA Transaction Fee[5]	MA Variable Fee % (when OI Settlement Currency EQUALS Beneficiary Currency)
Select One								
Select One								
Select One								
Select One								
Select One								
Select One								
Select One								
Select One								
Select One								

SAMPLE

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Select One								

1. Receiving Channels=Bank Account/Mobile Money Account/Payment Card/Cash-Out.
2. Applies to corridors that support multiple beneficiary currencies.
3. Customer must leverage an existing Mastercard Settlement Service. If adding a new Mastercard Regional Settlement Service, a Net Settlement Information Form (NSIF) must also be completed.
4. Payment Types=P2P/B2P/B2B/G2P/P2B

Mastercard and Mastercard Customer acknowledge and agree that the fees and pricing set out herein, have been determined based on certain underlying assumptions and conditions (including any volume expectations or projections provided by Mastercard Customer) which affect the fees that Mastercard must charge for Mastercard Cross-Border Services. In the event that such underlying assumptions and conditions change, Mastercard may revise the aforementioned fees and pricing. Any such revisions in fees and pricing will be reviewed at the end of a [x] day period, at the latest, and each [X]-day period thereafter until Mastercard reasonably considers the underlying assumptions and conditions to be sufficiently satisfied to allow the original fees and pricing to apply again.

With respect to the US endpoint(s), the Mastercard Customer acknowledges and agrees that:

a. It will not submit any instructions or payments or initiate any transactions using the Mastercard Cross-Border Service, that violate US law; and

b. It will comply with the Operating Rules of the National Automated Clearing House Association (NACHA), which manages and governs the ACH network for the electronic movement of money and data in the USA, in its capacity as a "nested Third Party Sender", as referred to therein.

SAMPLE

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Optional Sending Transaction Limits

If no information is provided by the Mastercard Customer, Mastercard will apply default limits across all corridors as specified in the Mastercard Cross-Border Services Business Endpoint Guide.

Note: **In cases where the below declared maximum transaction limits is higher than allowed by a Receiving Institution, the Receiving Institution limit shall apply.**

Threshold Parameter	Account Type of Sender	Applicable for Payment Types	Maximum Value[1] *(In OI settlement currency)*	Period *(Only select one period)*
Transferred amount for a unique payment	Individual	P2P and P2B		Not applicable
	Business	B2B and B2P		Not applicable
Cumulative amount allowed during the period	Individual	P2P and P2B		☐ Calendar week ☐ Calendar month ☐ Moving period of 7 days ☐ Moving period of 30 days
	Business	B2B and B2P		☐ Calendar week ☐ Calendar month ☐ Moving period of 7 days ☐ Moving period of 30 days
Maximum number of payments allowed during the period	Individual	P2P and P2B		☐ Calendar week ☐ Calendar month ☐ Moving period of 7 days ☐ Moving period of 30 days
	Business	B2B and B2P		☐ Calendar week ☐ Calendar month ☐ Moving period of 7 days ☐ Moving period of 30 days

1 There is a minimum send limit of 1 USD, or its equivalent, for every corridor. Payments submitted with a payment amount of less than 1 USD, or its equivalent, will be rejected. The minimum send limit of 1 USD, or its equivalent, applies to the amount collected from the OI in the designated settlement currency. When the OI settlement currency is not USD, a reference rate will be used to calculate the equivalent amount in USD.

SAMPLE

By executing and delivering this Enrollment Form, Mastercard Customer acknowledges and agrees as follows:

Mastercard Customer Acknowledgement

1. Mastercard Customer (whether a Principal or Affiliate Customer) acknowledges that it has all licenses, permits, registrations, and other governmental approvals, and satisfies all other requirements necessary for participation in Mastercard Cross-Border Service for cross-border payments in accordance with applicable legal and regulatory requirements, including money transmitter laws.

2. Mastercard Customer understands and agrees that its use of the Mastercard Cross-Border Services for cross-border payments is subject to (i) the terms and conditions set forth herein; (ii) the Mastercard Cross-Border Services Product Guide and Standard Terms; (iii) as applicable through incorporation by reference in the Mastercard Cross-Border Services Product Guide and Standard Terms, the Mastercard Rules and Standards as amended from time to time (such Mastercard Rules and

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Standards being deemed to apply to an Affiliate Mastercard Customer as if it was a Principal Mastercard Customer); and (iv) in respect of an Affiliate Mastercard Customer only, its direct connection into the Mastercard Cross-Border Services APIs in its capacity as an Originating Institution.

3. This Enrollment Form shall commence upon the date that Mastercard executes this Enrollment Form, following the prior execution by the Mastercard Customer (and the Principal Mastercard Customer, if the Mastercard Customer is an Affiliate), and shall continue in full force and effect for an initial term of [ ] years (the "Initial Term"). Following such Initial Term, this Enrollment Form shall automatically renew for consecutive twelve (12) month periods (each twelve (12) month period shall be referred to as an "Extension Term").

4. This Enrollment Form and the Mastercard Customer's (or the Principal and Affiliate Mastercard Customer's, where applicable) rights and obligations hereunder, may be terminated pursuant to the Standard Terms or if either party provides written notice of non-renewal to the other party at least three (3) months prior to the end of the Initial Term or any Extension Term thereafter. For the avoidance of doubt, if this Enrollment Form is entered into by both the Principal and Affiliate Mastercard Customers, any termination by either the Principal Mastercard Customer or the Affiliate Mastercard Customer, shall be deemed to be termination by both of the Mastercard Customers.

5. The parties agree that the limitation of liability applicable to the parties hereunder, as referred to under Rule 2.3 of the Mastercard Rules and as specified in the Mastercard Cross-Border Services Product Guide and Standard Terms, applies, in the case of Mastercard, to any and all liability of Mastercard to both the Principal and Affiliate Mastercard Customers in aggregate; unless otherwise prohibited by law. For the avoidance of doubt, Mastercard shall not be liable to both the Principal and Affiliate Mastercard Customers in respect of the same or similar claim that may be brought against Mastercard by either of them, whether under this Enrollment Form or the Mastercard Rules or otherwise.

6. Termination will be without any additional liability to the party seeking termination but without prejudice to accrued liabilities, including for breach.

7. This Enrollment Form, together with the documents specified herein, constitutes the entire agreement between Mastercard and the Mastercard Customer and supersedes and extinguish all previous communications, arrangements, contracts or agreements between them, whether oral or written, in relation to the Mastercard Customer's participation in Mastercard Cross-Border Services for cross-border payments.

Governing Law and Jurisdiction

8. This Enrollment Form shall be governed by and construed in accordance with the laws of _____, without regard to its conflicts of laws principles.

   Each party irrevocably consents to the exclusive jurisdiction of the courts in _____, in connection with all proceedings related to this Enrollment Form.

IN WITNESS WHEREOF, Mastercard Customer and Mastercard have each executed this Enrollment Form as of the date(s) set forth below.

SAMPLE

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Enter Mastercard Legal Entity Name	Enter Mastercard Customer Name
By:	By:
Name:	Name:
Title:	Title:
Date:	Date:

Principal Customer (only applicable if Affiliate Customers are par to this nrollment Form):

In respect of the Affiliate Mastercard Customer's use of t Ma ercard Cross-border Services for cross-border payments, the Principal Mastercard Custom will: D nsure Affiliate Mastercard Customer complies with its obligations hereunder and be res ible nd liable for the acts and omissions of the Affiliate Mastercard Customer in its cap as a Ma ercard Customer and also as if the Affiliate Mastercard Customer was a Clie f the Prin Mastercard Customer; and (ii) comply with the provisions of the Mastercard Cr s-b der Services Product Guide and Standard Terms and the Mastercard Rules and St dards as mend from time to time (to the extent applicable and relevant to the settlement requirements r Mastercard Cross-Border Services for cross-border payments).

Acknowledgement and Agreed b Principal Customer (only applicable for Affiliate Customers) by signing below.

Full Legal Name of Principal Customer:	
Signature:	
Name of Signatory above:	
Title:	
Date:	

THIS ENROLLMENT FORM IS APPROVED AS TO LEGAL FORM BY THE MASTERCARD LAW DEPARTMENT FOR USE WITHOUT ANY MODIFICATIONS OF THE TERMS AND CONDITIONS

SAMPLE

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Mastercard Send Cross-Border Enrollment Form and Commercial Terms-Financial Institutions

Mastercard Managed Sender Pricing

Mastercard Customers that want to participate in Mastercard Cross-Border Services or make changes to their existing service must complete this Enrollment Form (the "Enrollment Form"), which must include the name and signature of an authorized representative of the Mastercard Customer.

The completed and signed Enrollment Form must be sent to your Mastercard contact or your Customer Implementation Services representative.

The Mastercard Customer's participation in Mastercard Cross-Border Services, shall be subject to satisfactory completion of due diligence enquiries made by Mastercard on the Mastercard Customer, together with delivery or confirmation of any necessary information and related documents as Mastercard may require from time to time. Based on the outcome of Mastercard's review of such due diligence, information and documentation, as well as other necessary eligibility criteria applicable to Mastercard Cross-Border Services, Mastercard may, in its sole discretion require further documentation or make further enquiries or, where appropriate (including, but not limited to, where Mastercard reasonably considers that the Mastercard Customer may be unable to fulfil necessary legal, regulatory and/or compliance requirements applicable to its participation in Mastercard Cross-Border Services), refuse the participation of the Mastercard Customer in Mastercard Cross-Border Services.

Capitalized terms used, but not defined herein, have the meaning given to them in the Mastercard Cross-Border Services Standard Terms or the *Mastercard Rules*.

SAMPLE

Service Overview

Mastercard Cross-Border Services enables Mastercard Customers in their capacity as Originating Institutions to send cross-border payments for various payment types including person-to-person payments (P2P), business-to-person disbursements (B2P), person-to-business (P2B), business-to-business payments (B2B), and government-to-person disbursements (G2P).

Mastercard Cross-Border Services enables the services of an intermediary receiving institution and allows a variety of payout options, including bank accounts, mobile money accounts, consumer cards, and retail cash pick-up, to countries all around the world leveraging relationships with Receiving Institutions.

Mastercard Managed Sender Pricing (aka Retail Pricing Model) is where Mastercard will perform the calculation for the amount to charge the sender or the amount to be delivered to the beneficiary based on an agreed upon Originating Institution Customer margin that will be added into the calculation.

Mastercard Customer Information

Customer Type: ☐ Principal ☐ Affiliate ICA Number:

Customer Full Legal Name:

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Street Address:

City: State/Province:

Country: ZIP/Postal Code

If Affiliate, indicate Principal Customer Name:

Primary Point of Contact **Secondary Point of Contact**

Name: Name:

Title: Title:

Street Address: Street Address:

Phone: Phone:

Email: Email:

SAMPLE

Additional Mastercard Customer Contact Information

Contact Type	Name	Phone	Email
Technical			
Customer Support			
Other			

Receiving Endpoint Selection and Pricing

Receiving Countries and Receiving Channels in any Receiving Country, will only be implemented with the prior agreement of the relevant Receiving Institution and subject to agreement of any particular provisions relating to such Receiving Countries and Receiving Channels.

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Action	Sending Country	Receiving Country	Receiving Channel[1]	Beneficiary Currency[2]	Settlement Currency[3]	Payment Type[4]	Sender Currency[5]	MA Pricing Components			OI Pricing Components				
								MA Transaction Fee[6]	MA Variable Fee[7]	MA FX Mark Up[8]	Transaction Tiers[9]	OI Fixed Fee[10]	Retail Fixed Fee[11]	OI Variable Fee[12]	OI FX Mark Up[13]
Select One															
Select One															
Select One															
Select One															
Select One															
Select One															
Select One															
Select One															

Image provided to demonstrate information required. The total rows of field information available is greater than what is shown here.

SAMPLE

1. Receiving Channel=Bank Account, Mobile Money Account, Payment Card, or Cash-
2. Beneficiary Currency applies to corridors that support multiple beneficiary currencies.
3. Customer must leverage an existing Mastercard Settlement Service. Adding a new Mastercard Regional Settlement Service, a Net Settlement Information Form (NSIF) must also be completed.
4. Payment Types=P2P, B2P, B2B, G2P, or P2B
5. Sender Currency is the currency of the sender's account with the OI
6. MA Transaction Fee is expressed in the OI Settlement Currency
7. MA Variable Fee is expressed as a % of the payment amount and only applies if Sender currency equals Beneficiary currency. (Does not apply if the MA FX Mark Up is applied.)
8. MA FX Mark Up is expressed as a % and only applies if OI settlement currency equals Beneficiary currency (and Sender currency differs from OI settlement currency). (Does not apply if the MA Variable Fee is applied.)
9. Transaction Tiers is optional. Specify transaction tiers in Sender Currency if applicable.
10. OI Fixed Fee is expressed in the Sender Currency. (Does not apply if Retail Fixed Fee is applied.)
11. Retail Fixed Fee is expressed in Sender Currency and is what's presented to the sender. (Does not apply if OI Fixed Fee is applied. OI net revenue on Fixed fee = Retail Fixed Fee minus MA Transaction Fee)
12. OI Variable fee is expressed as a % of the payment amount and only applies if Sender Currency equals Beneficiary Currency.
13. OI FX Mark Up is expressed as a % and only applies if Sender Currency differs from Beneficiary Currency. (OI FX Mark up to be applied)

Note: The fees do not include Mastercard implementation fees; those will be communicated separately in the Implementation Plan.

Mastercard and Mastercard Customer acknowledge and agree that the fees and pricing set out herein, have been determined based on certain underlying assumptions and conditions (including any volume expectations or projections provided by Mastercard Customer) which affect the fees that Mastercard must charge for Mastercard Cross-Border Services. In the event that such underlying assumptions and conditions change, Mastercard may revise the aforementioned fees and pricing. Any such revisions in fees and pricing will be reviewed at the end of a [x] day period, at the latest, and each [X]-day period thereafter until Mastercard reasonably considers the underlying assumptions and conditions to be sufficiently satisfied to allow the original fees and pricing to apply again.

With respect to the US endpoint(s), the Mastercard Customer acknowledges and agrees that:

a. It will not submit any instructions or payments or initiate any transactions using Mastercard Cross-Border Services that violate US law; and

b. It will comply with the Operating Rules of the National Automated Clearing House Association (NACHA), which manages and governs the ACH network for the electronic movement of money and data in the USA, in its capacity as a "nested Third Party Sender", as referred to therein.

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Optional Sending Transaction Limits

If no information is provided by the Mastercard Customer, Mastercard will apply default limits across all corridors as specified in the Mastercard Cross-Border Services Business Endpoint Guide.

Note: In cases where the below declared maximum transaction limits is higher than allowed by a Receiving Institution, the Receiving Institution limit shall apply.

Threshold Parameter	Account Type of Sender	Applicable for Payment Types	Maximum Value[1] *(in sender currency)*	Period *(Only select one period)*
Transferred amount for a unique payment	Individual	P2P and P2B		Not applicable
	Business	B2B and B2P		Not applicable
Cumulative amount allowed during the period	Individual	P2P and P2B		☐ Calendar week ☐ Calendar month ☐ Moving period of 7 days ☐ Moving period of 30 days
	Business	B2B and B2		☐ Calendar week ☐ Calendar month ☐ Moving period of 7 days ☐ Moving period of 30 days
Maximum number of payments allowed during the period	Individu	P2P and P2B		☐ Calendar week ☐ Calendar month ☐ Moving period of 7 days ☐ Moving period of 30 days
	Busi ss	B2B and B2P		☐ Calendar week ☐ Calendar month ☐ Moving period of 7 days ☐ Moving period of 30 days

1 There is a minimum send limit of USD 1.00, or its equivalent, for every corridor. Payments submitted with a payment amount of less than USD1.00, or its equivalent, will be rejected. The minimum send limit of 1 USD, or its equivalent, applies to the principal amount (excluding fees) using a reference rate.

By executing and delivering this Enrollment Form, Mastercard Customer acknowledges and agrees as follows:

Mastercard Customer Acknowledgement

1. Mastercard Customer (whether a Principal or Affiliate Customer) acknowledges that it has all licenses, permits, registrations, and other governmental approvals, and satisfies all other requirements necessary for participation in Mastercard Cross-Border Services for cross-border payments in accordance with applicable legal and regulatory requirements, including money transmitter laws.

2. Mastercard Customer understands and agrees that its use of the Mastercard Cross-Border Services for cross-border payments is subject to (i) the terms and conditions set forth herein; (ii) the Mastercard Cross-Border Services Product Guide and Standard Terms; (iii) as applicable through incorporation by reference in the Mastercard Cross-Border Services Product Guide and Standard Terms, the Mastercard Rules and Standards as amended from time to time (such Mastercard Rules and Standards being deemed to apply to an Affiliate Mastercard Customer as if it was a Principal Mastercard Customer); and (iv) in respect of an Affiliate Mastercard Customer only, its direct connection into the Mastercard Cross-Border Services APIs in its capacity as an Originating Institution.

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3. This Enrollment Form shall commence upon the date that Mastercard executes this Enrollment Form, following the prior execution by the Mastercard Customer (and the Principal Mastercard Customer, if the Mastercard Customer is an Affiliate), and shall continue in full force and effect for an initial term of [ ] years (the "Initial Term"). Following such Initial Term, this Enrollment Form shall automatically renew for consecutive twelve (12) month periods (each twelve (12) month period shall be referred to as an "Extension Term").

4. This Enrollment Form and the Mastercard Customer's (or the Principal and Affiliate Mastercard Customer's, where applicable) rights and obligations hereunder, may be terminated pursuant to the Standard Terms or if either party provides written notice of non-renewal to the other party at least three (3) months prior to the end of the Initial Term or any Extension Term thereafter. For the avoidance of doubt, if this Enrollment Form is entered into by both the Principal and Affiliate Mastercard Customers, any termination by either the Principal Mastercard Customer or the Affiliate Mastercard Customer, shall be deemed to be termination by both of the Mastercard Customers.

5. The parties agree that the limitation of liability applicable to the parties hereunder, as referred to under Rule 2.3 of the Mastercard Rules and as specified in the Mastercard Cross-Border Services Product Guide and Standard Terms, applies, in the case of Mastercard, to any and all liability of Mastercard to both the Principal and Affiliate Mastercard Customers in aggregate; unless otherwise prohibited by law. For the avoidance of doubt, Mastercard shall not be liable to both the Principal and Affiliate Mastercard Customers in respect of the same or similar claim that may be brought against Mastercard by either of them, whether under this Enrollment Form or the Mastercard Rules or otherwise.

6. Termination will be without any additional liability to the party seeking termination but without prejudice to accrued liabilities, including for breach.

7. This Enrollment Form, together with the documents specified herein, constitutes the entire agreement between Mastercard and the Mastercard Customer and supersedes and extinguish all previous communications, arrangements, contracts or agreements between them, whether oral or written, in relation to the Mastercard Customer's participation in Mastercard Cross-Border Services for cross-border payments."

Governing Law and Jurisdiction

8. This Enrollment Form shall be governed by and construed in accordance with the laws of , without regard to its conflicts of laws principles.

Each party irrevocably consents to the exclusive jurisdiction of the courts in , in connection with all proceedings related to this Enrollment Form.

IN WITNESS WHEREOF, Mastercard Customer and Mastercard have each executed this Enrollment Form as of the date(s) set forth below.

Enter Mastercard Legal Entity Name	Enter Mastercard Customer Name
By: _____	By: _____
Name: _____	Name: _____

SAMPLE

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Title: _____ Title: _____

Date: _____ Date: _____

Principal Customer (only applicable if Affiliate Customers are party to this Enrollment Form):

In respect of the Affiliate Mastercard Customer's use of the Mastercard Cross-Border Services for cross-border payments, the Principal Mastercard Customer will: (i) ensure the Affiliate Mastercard Customer complies with its obligations hereunder and be responsible and liable for the acts and omissions of the Affiliate Mastercard Customer in its capacity as a Mastercard Customer and also as if the Affiliate Mastercard Customer was a Client of the Principal Mastercard Customer; and (ii) comply with the provisions of the Mastercard Cross-Border Services Product Guide and Standard Terms and the Mastercard Rules and Standards as amended from time to time (to the extent applicable and relevant to the settlement requirements relating to Mastercard Cross-Border Services for cross-border payments).

Acknowledgement and Agreed by Principal Customer (only applicable for Affiliate Customers) by signing below.

SAMPLE

Full Legal Name of Principal Customer: _____

Signature: _____

Name of Signatory above: _____

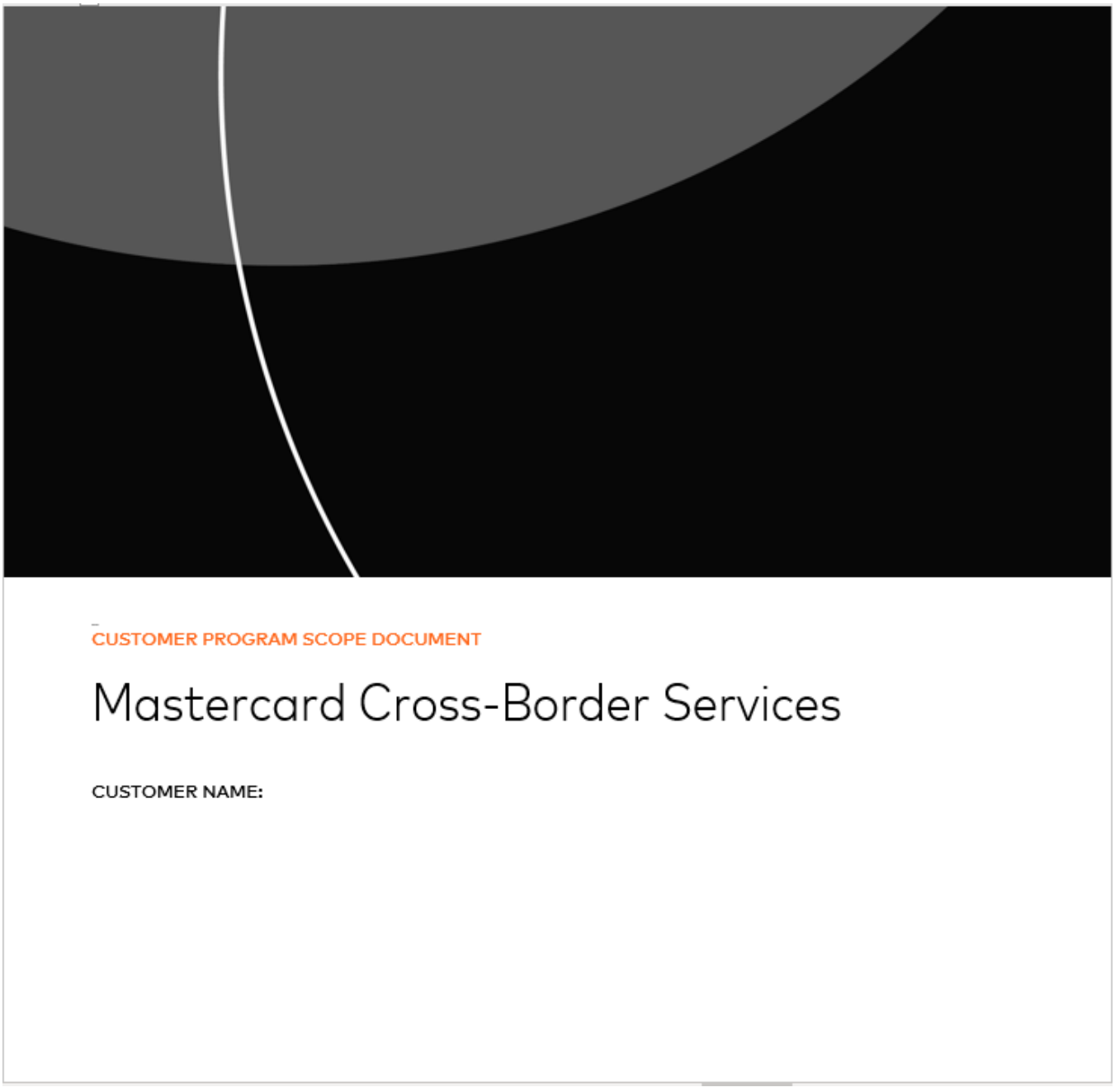
Title: _____

Date: _____

THIS ENROLLMENT FORM IS APPROVED AS TO LEGAL FORM BY THE MASTERCARD LAW DEPARTMENT FOR USE WITHOUT ANY MODIFICATIONS OF THE TERMS AND CONDITIONS

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E.4: Onboarding Document Samples - Customer Program Scope Document



CUSTOMER PROGRAM SCOPE DOCUMENT

Mastercard Cross-Border Services

CUSTOMER NAME:

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Document Purpose

This document is being provided solely to the customer of Mastercard specified herein. The purpose of this document is to outline the project scope, describe how the customer will use the Cross-Border Services payments service, and document the necessary information in order to begin the implementation process. This document should not be used for any other purpose without the prior written consent of Mastercard.

This document has been prepared by Mastercard on the basis of information which, as far as Mastercard is aware, is complete and accurate but is subject to change from time to time. Mastercard makes no representations or warranties of any kind herein, express or implied, with respect to the contents of this document and no responsibility or liability is or will be accepted by Mastercard or by any of its directors, officers or employees as to or in relation to the completeness or accuracy of this document or for any reliance placed on this document by any person.

The precise terms of the customer's use of the Cross-Border Services payments service, and the respective rights and obligations of Mastercard and the customer in connection therewith, shall be subject to the terms of a separate written agreement to be entered into between Mastercard and the Customer.

Customer Acknowledgement

The undersigned acknowledge that they have reviewed this document and understand the information presented. Changes to this document will be coordinated with and approved by the undersigned or their designated representatives.

Name:

Signature:

Date:

SAMPLE

Change History

Version	Description	Date
1.0	Initial Version	
2.0	Added Report Hierarchy, Rate and Status Change APIs, Payment File Processing options, payload encryptions, FX rate management, and Expired Rate to section 9	March 2020
3.0	Fixed formatting, added sections, and re-organized sections to improve flow	March 2021
3.1	Removed payload encryption option as it is mandatory effective May 1, 2021	April 2021

Statement of Confidentiality

This document and the information contained in this document is proprietary and confidential to Mastercard and is intended to be for the use of the customer designated above only. By accepting this document, the customer agrees that this document may not be copied, duplicated, published or disclosed, in whole or in part, without the prior written permission of Mastercard. Any disclosure, reproduction, distribution or other use of this document or any information within this document, in whole or in part, is prohibited.

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Contents

Project Information 3
1. Project Description 3
2. Customer Information 3
4. Corridor Information 4
Reference Documentation 5
5. Project Team Members 5
Existing and New Payment Application Flows 6
6. Existing cross-border applications 6
7. Mastercard Cross-Border Services Application 6
8. Screenshots and/or Payment Process Flows for the Existing Application 7
9. Screenshots and/or Payment Process Flows for the New Application 7
10. Graphical Representation of the Technical Integration 7
Payment Services 8
11. Cross-Border API Web Services 8
12. Payload-Level Encryption (Optional Service) 8
13. Payment File Processing 8
FX Rates Management 9
14. FX Rate Delivery 9
15. Expired Rate and Expired Quote*(Optional Service) 9
Pricing Management 10
16. Pricing Model Used 10
Settlement Process 11
17. Settlement currency & Process 11
18. Settlement Risk Management 11
19. Credit Cap Notification 11
20. Transaction Limits 11
Reporting 12
21. Reporting 12
22. Processing/Reporting Hierarchy 12
Production Support 13
23. Customer Servicing and Support 13
Project Key Milestones 14

SAMPLE

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Sections 1-10 [up to Payment Services] **are required** to complete Due Diligence and Receiving Service Provider Approvals. The remaining sections **are required** to begin testing and can be submitted before the implementation project kickoff.

Project Information

1. Project Description

A brief summary of the project and the customer's objectives.

2. Customer Information

Full Bank Legal Name	**Click here to enter text.**
Country of Incorporation	Click here to enter text.
Link to Regulator Website That Demonstrates Bank is a Licensed Financial Institution	Click here to enter text.
Bank ID # (can be either National Clearing System #, SWIFT/BIC Code, Bank's IBAN #)	Click here to enter text.
Bank ID # Type (01=National Clearing System #, 02=SWIFT/BIC Code, 03=Bank's IBAN)	Click here to enter text.
Country Where Service is Offered (Country of Origination)	Click here to enter text.
Total Customer Base	Click here to enter text.
Mastercard ICA#	**Click here to enter text.**
Customer ID#	

SAMPLE

3. AML/KYC Compliance Information

As part of the Mastercard suite of Products, Cross-Border Services Payments relies upon its Originating Institutions to comply with Mastercard Rule 1.2, the Cross-Border Services Payments Product Guide and all Terms and Conditions including those that govern AML and sanctions controls as applied to accounts that transact using the cross-border service.

Please complete and sign the Mastercard Send Cross-Border AML questionnaire and certification (separate document).

Please note: Some Receiving Institutions may request additional AML or sanctions information that is not addressed in this form (Mastercard will act as an intermediary to any such request).

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4. Corridor Information

Below information is intended to represent the destinations the customer will go live with and estimated volume projections, which is needed for Mastercard to perform a settlement credit risk assessment. Please note, Receiving Countries and Receiving Channels in any Receiving Country, will only be implemented with the prior agreement of the relevant Receiving Institution and subject to agreement of any provisions relating to such Receiving Countries and Receiving Channels.

Sending Country	Destinations					Year 1 Volume Projections		
	Receiving Country	Receiving Channel	Payment Types	Payment Currency	Settle-ment Currency	Total # of Payments Per Day	Total GDV Amount Per Day	Average Payment Amount in USD
TOTAL								

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Reference Documentation

- **Product Guide** – detailed product information including AML, legal, and regulatory considerations, implementation activities, API resources, transaction flows, settlement, and reporting. The Payment File Processing Guide is available to customers using File Processing formats.
- **Business Endpoint Guide** – provides information on the available receiving endpoints including countries, channels, beneficiary payout currencies, and transaction limits
- **APIs** - https://developer.mastercard.com/documentation/mastercard-send-cross-border.
    - **Technical Endpoint Guide** – unique to your program requirements that will include specific information about the fields required vs. optional based on the destination endpoints you have selected and will be made available after the signed Enrollment Form and this completed scope document. The Currency Guide is available to customers using File Processing formats.
- **Payments File Processing Guide** – detailed information about how to send payments over file transfer
    - **Currency Guide** - unique to your program requirements that will include specific information about the fields required vs. optional based on the destination endpoints you have selected and will be made available after the signed Enrollment Form and this completed scope document. The Technical Endpoint Guide is available to customers using The API.
    - **Mapping Document** - helps users map the different terminology between the industry ISO 2002 and MT 103 formats to the proprietary Cross-Border Services API format and reports
- **Mastercard Connect** – Once onboarded into the test environment, this portal can be used to access the Customer Site (to research payments, download reports, etc.), to manage Request For Information messages, to update which contacts should receive product communications in the My Company Manager tool, and to access Mastercard publications. See section 10 of the Product Guide.

5. Project Team Members

Name	Responsibility	Company
	Account Management Lead	Mastercard
	Regional Product Market Lead	Mastercard
	Regional Product Management Lead	Mastercard
	Global Product Management Lead	Mastercard
	Overall Product Owner	Customer Name
	Overall Project Manager	Customer Name
	Technical Manager	Customer Name
	Test Engineer	Customer Name
	Account Manager	Customer Name

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Existing and New Payment Application Flows

6. EXISTING CROSS-BORDER APPLICATIONS

Existing Cross-Border Channels & Applications		
Is there an existing application for cross-border payments?	Yes ☐	No ☐
Which originating channels are supported currently?		
• Online Banking	Yes ☐	No ☐
• Mobile Banking	Yes ☐	No ☐
• Branch Banking	Yes ☐	No ☐
• Phone Banking	Yes ☐	No ☐
• ATM Banking	Yes ☐	No ☐

7. MASTERCARD CROSS-BORDER SERVICES APPLICATION

Cross-Border Services Payment Channels & Applications			
Will existing applications be upgraded to use Cross-Border Services OR will these be new applications?		Existing ☐	New ☐
Which **originating channels** will be supported for Cross-Border Services payments?			
• Internet Banking	Link to Service Website Click here to enter text.	Yes ☐	No ☐
• Mobile Banking		Yes ☐	No ☐
• Branch Banking	Hours of Operation Click here to enter text.	Yes ☐	No ☐

From which **originating instruments** will Senders be able to initiate a Cross-Border Services payment?
Note: Representation of the origination instrument and corresponding identifier must correspond with the Sender Account URI scheme within the transaction. Example: A Bank Account origination instrument means that the transaction URI will include the bank account number.

Sender Account URI Scheme			
Bank Account	Yes ☐	No ☐	Click here to enter text.
Credit Card	Yes ☐	No ☐	Click here to enter text.
Debit Card	Yes ☐	No ☐	Click here to enter text.
Prepaid Card	Yes ☐	No ☐	Click here to enter text.
Mobile Wallet	Yes ☐	No ☐	Click here to enter text.
E-Wallet	Yes ☐	No ☐	Click here to enter text.
Cash-In	Yes ☐	No ☐	Click here to enter text.
Others (please list)	Click here to enter text.		

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Will you be submitting payments on behalf of any Transaction Originator as defined in the Product Guide section 2.1.2?	Yes ☐	No ☐
If Yes, please explain:		
Routing between Mastercard Send & Existing /Alternative cross-border solutions		
How will payments be routed Mastercard Send?	Application logic ☐	Client Choice ☐
If payments are routed using application logic, which criteria will be used?		
• Destination country	Yes ☐	No ☐
• Transaction value	Yes ☐	No ☐
• Pricing	Yes ☐	No ☐
Supported Functionality		
Data element capture in the application screens aligned with required data elements for the selected destination	Yes ☐	No ☐
"Add beneficiary" function in the transaction process	Yes ☐	No ☐
"Select existing beneficiary" function in the transaction process	Yes ☐	No ☐
Allow the sender to specify the destination amount and the application will calculate the originating amount	Yes ☐	No ☐
Allow the sender to specify the sending amount and the application will calculate the destination amount	Yes ☐	No ☐

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8. Screenshots and/or Payment Process Flows for the Existing Application

*Please add screenshots and/or payment process flows of the existing cross-border applications showing **the payment user experience** and flow here.*

9. Screenshots and/or Payment Process Flows for the New Application

*Please add screenshots and/or payment process flows of the new cross-border applications showing the **payment user experience** and flow here.*

10. Graphical Representation of the Technical Integration

Please add a description of how the customer will integrate to the APIs and/or send (ISO20022/MT103) Payment Files, and if there will be third-party vendors involved in the integration.

/

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Payment Services

11. Cross-Border API Web Services

If integrating to the Cross-Border **API** web services, which calls will be used:
☐ Quote ☐ Payment ☐ Retrieve Payment (*only to be used a maximum of every 30 minutes for PENDING payments*) ☐ Cancel Payment (*only usable for cash-out and some mobile wallet providers*) ☐ Carded Rate Pull API ☐ Status Change API

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12. Payment File Processing

Will the customer use Payment File Processing?	☐ Yes	☒ No
If Yes, please complete the below table.		
Inbound (to Mastercard) Delivery Type: ☐ GFT ☐ SWIFT FIN Originating Institution BIC _____ ☐ SWIFT FileAct		
Outbound (from Mastercard) Delivery Type: ☐ GFT ☐ SWIFT FileAct		
File Format: ☐ MT103 Format, *Sending* SWIFT BIC _____ Ex: BNKBGB123KP ☐ ISO 20022 (PAIN.001.001.09) ☐ Other Version(conversion fee will apply)		

If MT103 Format:	Acknowledgement Type: √ E-mail	Outbound Status Response Format: √ Comma-Separated Values (CSV)	
If ISO 20022 Format:	Acknowledgement Type (one or both can be selected): ☐ PAIN.002.001.10 ☐ E-mail	Parsing: ☐ Strict parsing ☐ Lenient parsing	Outbound Status Response: PAIN.002.001.10

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FX Rates Management

13. FX Rate Delivery

Please select at least one delivery option:
☐ Quote API (proposal ID is sent with the payment) ***Note:*** *The Quote API should not be used to fetch general corridor FX rates, but only to be used in conjunction with individual payments using the proposal_ID.* ☐ Near Real-Time (*no proposal or rate ID submitted; prevailing FX rate at time of processing is applied*) ☐ Carded Rate APIs (*Push and Pull*) ☐ Carded Rate File
If a carded rate option is selected, at what interval will the OI receive rates? Please select one: ☐ Hourly ☐ Every 4 hours ☐ Every 12 hours ☐ Every 24 hours

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14. Expired Rate and Expired Quote (Optional Service)

**Originating Institutions who use Expired Rate (with Carded Rates) or Expired Quote (with Quote API) are automatically enrolled in both services, and any variable threshold or grace periods used apply to both services.*

Will the Expired Rate and Expired Quote* (Optional Service) be used?	☐ Yes	☐ No
If yes, please indicate if the related options will also be used:		
Variable Percentage Threshold ☐ None ☐ __% difference in the charged amount after new rate is applied ***Note:*** *If no percentage is defined, the default is 100% difference in the charged amount*		
Expiration Grace Period: ☐ None ☐ __ days/hours after the original expiry time which FX rate IDs will be rejected again ***Note:*** *If no grace period is defined, the default is 30 days.*		

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Pricing Management

15. PRICING MODEL USED

How will pricing management be handled? Please select one.

☐ **Customer Managed Sender Pricing (aka Wholesale Pricing Model) –**
Mastercard Send Cross-Border provides the foreign exchange rate for a supported currency pair (beneficiary currency to Originating Institution's settlement currency) and the Originating Institution applies its own mark-up and performs its calculations to determine fees and how much to collect from the Sender. Please indicate how FX rates will be obtained.

- ☐ Via an individual quote prior to every payment
- ☐ Via a generic quote at various times each day using carded rate APIs
- ☐ Via the payment response after the payment is initiated

☐ **Mastercard Managed Sender Pricing (aka Retail Pricing Model) –**
Mastercard Send Cross-Border will perform the calculation for the amount to charge the Sender or the amount to be delivered to the beneficiary based on an agreed upon Originating Institution margin that will be added into the calculation.

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Settlement Process

16. Settlement Currency & Process

Which Mastercard Settlement Services and Currencies will be used to settle payments? Is the customer already using these?

17. Settlement Risk Management

To manage settlement risk, Mastercard may require collateral and will establish a daily allowable credit cap, which limits the aggregate daily volume each Customer can process through the Cross-Border Services payments service.

Daily Allowable Credit Cap (Monday-Thursday):	
Daily Allowable Credit Cap (Friday-Sunday):	

18. Credit Cap Notification

Customer's contact details for notifications when approaching credit cap:

Notification Type	Contact Person	Email Address	Mobile Number
Credit Cap Notification			
Credit Cap Notification			
Credit Cap Notification			
Credit Cap Notification			

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19. Transaction Limits

A description of how the customer will manage and apply transaction limits.

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Reporting

20. REPORTING

Mastercard will make available to the customer the following reports/files as outlined in the Mastercard Send Cross-Border Product Guide.

Report Name	Description	File Transfer Bulk ID	Occurrence or Timing
Settlement Reconciliation File	Provides all information necessary to reconcile Mastercard Send settled transactions. Pending or declined transactions not included.	Test: TX39 Production: TX37	Once per day when there are settled transactions. All transactions will be grouped by currency but included in one file
Daily Transaction Report	Provides detailed transaction information for transactions aligning to the cutoff for the previous day	Test: T6J6 Production: T6J4	Daily around 9:30 pm (CT) Contains transactions from 8 PM previous day through 7:59 PM current day
Status Change Report	Provides detailed transaction information for transactions where a status has changed since the initial transaction status was reported.	Test: T6J2 Production: T6J0	Daily at 4 intervals 5 am, 11 am, 5 pm and 11 pm (CT)
Net Settlement Advisement	Provides net settlement positions by ICA via Mastercard Connect, Email or Fax (not necessary for this product)	N/A	N/A

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21. PROCESSING/REPORTING HIERARCHY

*The Cross-Border service provides individual and/or consolidated reporting. Please **select one** for your processing/reporting hierarchical structures:*

☐ I am a parent **Originating Institution (OI)** which processes and needs reporting for my own entity only.

☐ I am or have a parent **OI with child Partner ID(s).**
for example different child Partner Ids will be used for corporate vs. retail volumes under a parent Partner ID; or, several child Partner IDs are being processed under a single parent Partner ID (such as when the same financial institution has entities in different countries that process under the parent, but settle individually)

Please list the parent and child entity(s):

_____

Please indicate if the parent Partner ID should receive:

☐ one consolidated report for all child Partner IDs

or

☐ individual reports for all child Partner IDs

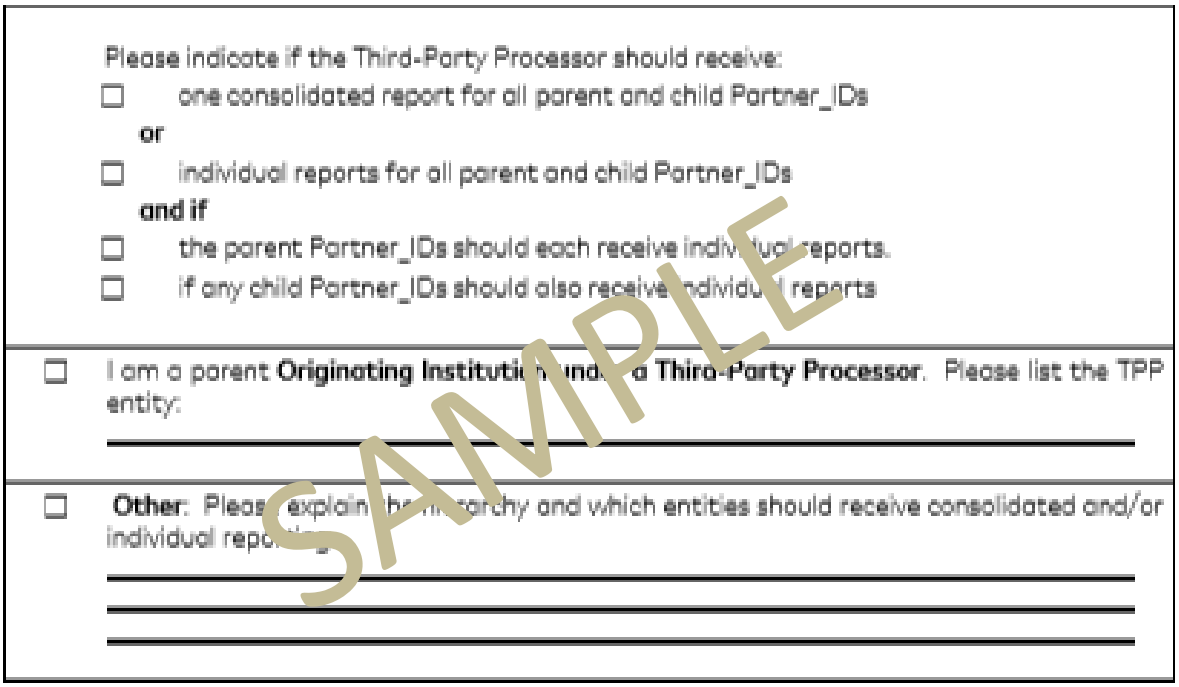
and if

☐ the child Partner IDs should also each receive individual reports.

☐ I am a **Third-Party Processor (TPP)** that wants to receive reporting for all the entities for which I process.
Please list all the child entities that should be listed in the reports:

_____

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Please indicate if the Third-Party Processor should receive:

☐ one consolidated report for all parent and child Partner_IDs

or

☐ individual reports for all parent and child Partner_IDs

and if

☐ the parent Partner_IDs should each receive individual reports.

☐ if any child Partner_IDs should also receive individual reports

☐ I am a parent **Originating Institution and a Third-Party Processor**. Please list the TPP entity:

☐ **Other**: Please explain the hierarchy and which entities should receive consolidated and/or individual reporting

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Production Support

22. CUSTOMER SERVICING AND SUPPORT

A description of how the customer will provide servicing and support to their end-user customers.

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Project Key Milestones

Deliverables without durations are not in control of Mastercard as their completion either depend on customer or other external entities. The durations specified are only representative of an average situation and can vary under certain conditions.

Milestone No.	Milestones	Deliverables	Duration (Days)	Dependencies	Owner
1.	Pre-Implementation	a. Enrollment b. Scoping c. Due Diligence	5-20 (varies)		MC: Product, AM Customer
		d. Project Kick-Off	3-5	1(a), (b)	MC: Product, AM, PD Customer
		e. Share initial Technical Endpoint Guide	3-5	1(a), (b)	MC: Product
		f. Sandbox Testing & Development	20		Customer
2.	Implementation	a. Open CIS Project & Assign Testing Resources	5	1(d), (e), (f)	MC: CIS, PD Customer
		b. Implementation Kick-Off	5	1(d), (e), (f), 2(a)	MC: CIS, PD Customer
		c. Development	TBD	1(d), (e), (f), 2(a)	Customer
		d. Program Configuration - MTF	15-30 (based on complexity)	2b	MC: CIS
		e. Test Planning	10	2b	MC: CIS, PD Customer
		f. MTF Testing	30	2a	MC: CIS, PD Customer
		g. Program Configuration – Production	15-30 (based on complexity)	2d	MC: CIS
		h. Production Validation	10	2e	MC: CIS, PD Customer
3.	Soft Launch	Friends & Family Launch	10	2c	MC: CIS, PD, Product Customer

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E.5: Onboarding Document Samples - Customer Implementation Checklist

Cross-Border Services

Customer Implementation Checklist

Task #	Task Name	Comments	Documents Needed from Customer
Pre-Implementation/Qualification Stage			
1	Customer Program Scope Document - (includes program details, credit cap, settlement details) and Customer AML Questionnaire	Pre-requisite: Completed Enrollment Form, (signature is not required until testing phase is reached).	Enrollment Form, Customer Program Scope Document, Customer AML Questionnaire
2	Complete Due Diligence (Mastercard Risk Management)		Enrollment Form, Customer Program Scope Document, AML Questionnaire
3	Complete Receiving Institution approval process	Pre-requisite: Enrollment Form and Customer Program Scope Document (sections 1-4) + AML Questionnaire. Some RIs will request documentation in addition to the Scoping Document and will reach out individually.	Enrollment Form, Customer Program Scope Document, AML Questionnaire; possibly RI-specific documentation
4	Customer develops and tests against sandbox (including development of Customer UI)	The Cross-Border API site provides steps for setting up keys.	Process to set up keys is completed in the Cross-Border MC Developers website.
5	Review all principal documents: Product Guide, Business Endpoint Guide, MC Developers>Cross-Border API, Technical Endpoint Guide (preliminary)	The Business Endpoint Guide can be provided to you during the sales process. The Technical Endpoint guide is created based on the info provided in the Scoping Document.	
6	Attend Product Deep Dive meeting	The Mastercard Team will review the operations and onboarding flo	Customer Questions Log (optional) to track all open and closed questions.
7	Assign resources to manage project and identify all stakeholders		(update Customer Program Scope Document with pertinent contacts)
8	Receive and review the Business and Technical Endpoint Guides		
9	Gather impacts from all teams: UI develo[illegible] back-office, accounting/fin[illegible]e, FX, custo[illegible]er support,		
10	Conduct resource planning of all impac[illegible]d teams	This is to align assignment of resources when they are needed.	
11	Enrollment Form and Scoping Document Sign-off	(If not already received)	
Implementation Stage			
15	Attend Kick-off with all stakeholders	This is held with the Mastercard Customer Implementation Team. A Test Plan and Test Cases will be provided.	
16	Align on implementation milestone dates		

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Task #	Task Name	Comments	Documents Needed from Customer
17	Complete Sandbox unattended testing and entrance criteria for Mastercard Test Facility (MTF)	Criteria *Customer has successfully made test requests for test scenarios in the Sandbox and its application has appropriately handled the responses. *Customer has performed the necessary development against the specifications as provided in the Technical Endpoint Guide for selected destination endpoints. *Customer has received and reviewed both the Test Plan and Test Cases. *Customer has formatted its requests according to the API Specifications using the test scenarios provided. *Customer has reviewed the API responses and modified its application as necessary.	
18	Sign up for Mastercard Connect and Cross-Border Applications	Cross-Border Applications include the Customer Site (MTF and Prod), Publications, My Company Manager; and possibly other file transfer apps that your MC implementation manager suggests.	Process is completed via Mastercard Connect.
19	Walk through of Implementation Plan		
20	Review Test Plan and test scripts provided by Mastercard		
21	Implementation Plan sign-off		
22	Receive Partner ID from Mastercard		
23	Obtain Test Account info for MTF testing		
24	Conduct testing of program - includes API, reports and UI testing		
25	Confirm operational readiness (reporting, settlement, call center)		
26	Validate testing results with Mastercard	Testing completed	
28	Determine Production Validation Testing Plan (validates at the RI level and moves settlement funds)	The Mastercard Customer Implementation Team will help identify the subset of Corridors to validate The customer may provide production accounts to validate. If the customer cannot provide accounts, Mastercard will work to source accounts. PVT transactions cannot be reversed and will not be reimbursed.	
29	Gate to Production - Verify all entrance criteria is met prior to approving Customer for Production access	Criteria *Customer has successfully completed all MTF test cases and all error codes identified. This includes validation of the frontend user interface screens for Mastercard Managed Sender Pricing or Customer Managed Sender Pricing and reconciliation * All issues and defects have been resolved * Customer has generated a production key and provided the key to its assigned Mastercard implementation manager for configuration * Mastercard has completed all configuration in the Production environment * Joint Mastercard and Customer agreement on the scheduled implementation, go-live date * Production Validation Testing plan has been developed and agreed to by both Customer and Mastercard * Request for Information (RFI) actions complete * Customer confirms MC Connect Customer Site access in place * Customer provides updated volume projections by Corridor for PVT and commercial launch	

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Task #	Task Name	Comments	Documents Needed from Customer
		* Customer and Mastercard have created and agreed to the customer end-user support plan * Mastercard confirmation of Anti Money Laundering, Sanction Screening and Credit Cap with Customer	
30	Promote Project to Production in MC Developers site - ensure there is a Production Key	Move to Production action - see link within Mastercard Developers for more details: https://developer.mastercard.com/send-crossborder/documentation/guide-move-to-production/	
31	Identify PVT Account info for live production validation by Corridor		Customer may be required to complete a privacy consent form to use production accounts.
32	Determine Communications Plan for PVT		
33	Coordinate Production Validation time and plan with Mastercard	Engage at least 5 business days' notice to Mastercard	
34	Conduct 'attended' PVT (including settlement)		
35	Validate PVT results	PVT Complete	
36	Provide product training with support teams, including the Request For Information training and process	Mastercard will provide train-the-trainer training as needed prior to launch	
37	Execute Marketing/Communications Plans for commercial launch		
38	Commercial launch - live	Requires at least 5 business days notice to Mastercard	
39	Monitor transactions		
40	Report production status and progress		
41	Verify Key Performance Indicators		

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Appendix F: Legacy Reports

F.1 (Legacy) Settlement Reconciliation File Layout (V3.0)

Note: This file layout will be retired in January 2020 when all new customers are expected to have migrated to the new Version 4 outlined in the Reporting chapter.

Settlement reconciliation file has a fixed length record format and consists of the following record types.

File Header Record (FHDR)

Field	Position	Data Type	Description
Record Type	1–4	A-4	Indicates that the entry represents the header info for the reconciliation file. This field will contain the value 'FHDR' for file header.
Settlement Date	5–10	N-6	Format: MMDDYY
Settlement ICA	11–20	N-10	Settlement ICA
Record Size	21–23	N-3	Indicates the maximum length of a record. The maximum limit is set to 250
File Type	24	AN-1	Valid Values: M - Member Testing File (MTF) P - Production File
Version	25–34	AN-10	Current version number of the Settlement Reconciliation File format. The value may increment with changes implemented on a per-release basis. Current value 'V3.0'
Filler	35-250	AN-216	Reserved for future use

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Settlement Header Record (SHDR)

There will be a Settlement Header Record for each settlement currency supported by the OI and that has settlement on that given settlement day. There can be 1 to many SHDR sections per reconciliation file.

Field	Position	Data Type	Description
Record Type	1–4	A-4	Indicates that the entry represents the details of the corresponding reconciliation file. This field will contain the value 'SHDR' for settlement header
Settlement Service Cycle	5–7	N-3	Mastercard-assigned settlement identifier
Intra-currency Agreement Number	8–11	AN-4	Reserved for future use
Settlement Currency Code	12–14	A-3	Indicates OI Settlement currency Code
Implied Decimal-Settlement	15	N-1	Implied decimal positions of the currency this section is for
Customer Type	16	A-1	Will always be O
Filler	17-250	AN-234	Reserved for future use

Money Transfer Remittance Record (MTRE)

This record type contains details of the money transfer. The Money Transfer Remittance Record captures details corresponding to different types of transactions (indicated by Transaction Type in MTRE layout as a Transaction or Reversal/Return). There will be an MTRE for each transaction within the SHDR section on the reconciliation file. There can be 1 to many MTRE records within each SHDR section.

Field	Position	Data Type	Description
Record Type	1–4	AN-4	Indicates that this record contains the entry represents the details of the transactions to be settled. This field will always contain the value 'MTRE'
Settlement Path	5-7	AN-3	Indicates the internal settlement path for the program. Will contain the value 'HS'
Transaction Reference ID	8-47	AN-40	For Transaction Type 1, this will be the value provided by the OI as part of the payment API. For Transaction Type 2, this will be an internal value that will be correlated to the OI provided value in the adjustment record

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Field	Position	Data Type	Description
Transaction Date	48-53	N-6	This date reflects the actual date the Transaction occurred. Format: MMDDYY
Transaction Time	54-59	N-6	This time reflects the actual time the Transaction occurred. Format: HHMMSS
Internal Settlement indicator	60	AN -1	Value will always be "2"
Transaction Type	61	AN-1	Indicates the Record Type of the transaction. 1=Payment 2=Reversal/Return
Reserved for Future use	62-64	AN-3	Not provided
FX Rate to convert Sending Currency to OI Settlement Currency	65-82	N-18.9	FX Rate to calculate Origination currency
Transaction Currency (Beneficiary)	83-85	AN-3	Transaction Currency
Principal Amount in Local Currency	86-98	N-13.2	Origination Principal Amount in service provider currency
Charges in Local Currency	99-111	N-13.2	Origination Charges in service provider currency
Variable Fees in Local Currency	112-124	N-13.2	Variable fees charged (that are not included within the rate markup), expressed in local currency. Only provided for transactions sent to a Corridor set up for like –to- like settlement
FX Rate in USD Currency	125-142	N-13.9	This is the factor used to convert the settlement amount to USD. If the settlement currency is USD, this factor will be 1.0
Principal Amount in USD	143-155	N-13.2	The principal amount of the transaction in terms of USD
Charges in USD	156-168	N-13.2	The charges in terms of USD
Variable Fees in USD	169-181	N-13.2	Variable fees (that are not included within the rate markup) charged, expressed in local currency. Only provided for transactions sent to a Corridor set up for like –to- like settlement.
Reserved for future use	182-199	N-18.9	Always zero
Principal Amount in Settlement Currency	200-212	N-13.2	The principal amount of the transaction in terms of the settlement currency

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Field	Position	Data Type	Description
Charges in Settlement Currency	213-225	N-13.2	The charges in terms of the settlement currency
Variable Fees in Settlement Currency	226-238	N-13.2	Variable fees (that are not included within the rate markup) charged, expressed in settlement currency. Only provided for transactions sent to a Corridor set up for like –to- like settlement.
Filler	239-250	AN-12	Filled with blanks and reserved for future use

Money Transfer Adjustment Addendum (MTAJ)

MTAJ addendum is a conditional record type and is only present if a Transaction is being reversed/returned to the OI.

Field Description	Position	Attribute	Values/Description
Record Type	1–4	AN-4	Indicates that the entry represents an adjustment addendum. It will contain the value 'MTAJ'
Transaction Reference ID	5-44	AN-40	Reference ID of the original Transaction that is being reversed/returned
Reserved for Future Use	45-53	AN-9	blank
Reserved for Future Use	54-54	AN-1	blank
Reserved for Future Use	55-56	AN-2	blank
Reversal/Return Transaction Reference ID	57-86	AN-30	Reference ID assigned to the reversal/return transaction (could be the same as the Original Reference ID in this record) – only used for Mastercard internal processing purposes
Original transaction Date	87-92	N-6	Date of the original Transaction being Reversed/Returned Format: MMDDYY
Transaction Adjustment Type Code	93-95	AN-3	Txn Adjustment Type Code 020: Credit Adjustment for Rejected transaction. When a transaction with a Pending Status has settled, and is later Rejected 021: Credit Adjustment for Returned transaction. When a transaction with a Success has settled and is later Returned.

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Field Description	Position	Attribute	Values/Description
Transaction Adjustment Reason Code	96-98	AN-3	Txn Adjustment Reason Code REJ: Rejected RTN: Returned
Filler	99-250	AN-162	blank

Daily Activity Commission Record (DACR)

DACR record types will be provided for all Transactions (not return/reversals) to be settled but will only contain values other than 0's when the OI is participating in the Mastercard Managed Pricing business model. This record indicates the amount and types of commission that has been calculated by Mastercard on the OI's behalf. These values represent the OI's commission or profits for each transaction.

Field Description	Position	Attribute	Values/Description
Record Type	1–4	AN-4	Indicates that the entry represents the Daily Activity Commission Record. It will have value 'DACR'
Transaction Reference	5–44	AN-40	Reference ID provided on the transaction by the OI
Variable Commission	45–57	N-13.2	The OI's variable commission amount expressed in the settlement currency
Fixed Commission	58–70	N-13.2	The OI's total fixed commission amount expressed in the settlement currency
Total Commission	71-83	N-13.2	The OI commission amount expressed in the settlement currency. This will be an amount equal to the variable + fixed commission amounts
Filler	84-250	AN-167	Reserved for Future Use

Settlement Trailer Record (STRL)

This record is mandatory in a complete file and is the trailer for the settlement header.

Field Description	Position	Attribute	Values/Description
Record Type	1–4	AN-4	Indicates that the entry represents the trailer for settlement header. It will have value 'STRL'
Settlement Cycle	5–7	N-3	Mastercard-assigned settlement cycle identifier
Reserved for future use	8–11	AN-4	Reserved for future use
Settlement Currency Code	12–14	A-3	Settlement Currency Code Format: Alpha

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Field Description	Position	Attribute	Values/Description
Implied Decimal-Settlement	15	N-1	Implied decimal of the currency that the acquirer has selected as their settlement currency
Customer Type	16	AN-1	Value will always be O
Reserved for future use	17-19	N-3	Reserved for future use
Total Principal Amount in Settlement Currency	20 -33	N-14.2	Sum of principal amount in local currency
Total Fixed Charges in Settlement Currency	34-47	N-14.2	Sum of fixed charges in Service Provider currency
Total Variable Charges in Local Currency	48-61	N-14.2	Total variable fees (that is not in rate mark-up) in Local Currency
Total Principal Amount in USD	62-75	N-14.2	Sum of principal amount in USD. Used for internal purposes
Total Fixed Charges in USD	76-89	N-14.2	Sum of charges in USD. Used for internal purposes
Total Variable Charges in USD	90 -103	N-14.2	Total variable fees (that is not in rate mark-up) in USD
Total Debit Amount	104-117	N-14.2	Total amount of all debit records
Total Debit Count	118-125	N-8	Total count of debit records
Total Credit Amount	126-139	N-14.2	Total amount of all credit records
Total Credit Count	140-147	N-8	Total count of credit records
Total Net settlement	148-161	N-14	Total amount to be settled for this settlement cycle
Total Net settlement Indicator	162	AN-1	Indicates if net settlement amount is due to Mastercard or due to OI Debit (D) if net settlement amount is a debit Credit (C) if net settlement amount is a credit
Total Principal Amount in Settlement Currency	163-176	N-14.2	Total principal amount in settlement currency
Total Fixed Charges in Settlement Currency	177-190	N-14.2	Total charges in settlement currency
Total Variable Charges in Settlement Currency	191-204	N-14.2	Total variable fees (that is not in rate mark-up) in Settlement currency
Filler	205-250	AN-46	Reserved for future use

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File Trailer Record

Field Description	Position	Attribute	Values/Description
Record Type	1–4	A-4	Indicates that the entry represents the trailer for file. It will have value 'FTRL'
Settlement ICA	5–14	N-10	Same as File Header Record (FHDR)
Total Recon Count	15–25	N-11	Total number of all records including header records, trailer records, addendum records, and remittance records.
Filler	26–250	AN-225	Reserved for future use

10.7.9 F.1.1 (Legacy) Settlement Reconciliation File Example

```
FHDR092617601101    250MV2.0

SHDR04     CAD2O

MTREHS 13ng9gff24b4z106settlement42-309251716482521
00000001.000000000CAD0000000131.630000000001.340000000000.0000000000.79154000
00000000101.000000000001.500000000000.0000000000.0000000000000000131.630000000
001.340000000000.00

MTREHS 23ng9gff24b4z106settlement42-309251716482521
00000001.000000000CAD0000000040.000000000001.340000000000.0000000000.79154000
00000000101.000000000001.500000000000.0000000000.0000000000000000040.000000000
001.340000000000.00

MTREHS 18ng9gff24b4z106settlement42-309251716482521
00000001.000000000CAD0000000040.000000000001.340000000000.0000000001.12589663
60000000101.000000000001.500000000000.0000000000.0000000000000000040.000000000
001.340000000000.00

STRL04     CAD2O
00000000211.6300000000004.0200000000000.0000000000303.0000000000004.5000000000
000.0000000000215.653       00000000000.000
00000000215.65D00000000211.6300000000004.0200000000000.00

SHDR04     EUR2O

MTREHS 20ng9gff24b4z106settlement42-309251717293521
00000001.000000000EUR0000000004.710000000000.630000000000.0000000001.000000000
0000000005.580000000000.750000000000.0000000000.0000000000000000004.7100000000
00.630000000000.00
```


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MTREHS 14ng9gff24b4z106settlement42-309251717101621
00000001.000000000EUR0000000004.050000000000.630000000000.0000000000.791076655
0000000004.790000000000.750000000000.0000000000.000000000000000000004.0500000000
00.630000000000.00

MTREHS 17ng9gff24b4z106settlement42-309251717293521
00000001.000000000EUR0000000004.710000000000.630000000000.0000000000.791076655
0000000005.580000000000.750000000000.0000000000.000000000000000000004.7100000000
00.630000000000.00

MTREHS 22ng9gff24b4z106settlement42-309251717101621
00000001.000000000EUR0000000004.050000000000.630000000000.0000000001.000000000
0000000004.790000000000.750000000000.0000000000.000000000000000000004.0500000000
00.630000000000.00

STRL04 EUR2O
00000000017.5200000000002.5200000000000.0000000000020.7400000000003.0000000000
000.0000000000020.044 00000000000.000
00000000020.04D00000000017.5200000000002.5200000000000.00

SHDR04 INR2O

MTREHS 12ng9gff24b4z106settlement42-309251716482521
00000001.000000000INR0000009714.000000000001.340000000000.0000000066.534500000
0000000150.000000000001.500000000000.0000000000.000000000000009714.0000000000
01.340000000000.00

MTREHS 21ng9gff24b4z106settlement42-309251716482521
00000001.000000000INR0000000500.000000000001.340000000000.0000000066.534500000
0000000007.830000000001.500000000000.0000000000.000000000000000500.0000000000
01.340000000000.00

MTREHS 19ng9gff24b4z106settlement42-309251716482521
00000001.000000000INR0000000500.000000000001.340000000000.0000000001.125896636
0000000007.830000000001.500000000000.0000000000.000000000000000500.0000000000
01.340000000000.00

STRL04 INR2O
00000010714.0000000000004.0200000000000.0000000000165.6600000000004.5000000000
000.0000000010718.023 00000000000.000
00000010718.02D00000010714.0000000000004.0200000000000.00

FTRL601101 18

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Payment entry – Customer Managed Pricing model

The example below includes highlights, which are explained in order below.

```
MTREHS 0500967406608030472          0307181503052 1
00000001.000000000USD0000000001.040000000001.400000000000.0000000001.0000000
0000000000001.040000000001.400000000000.0000000000.00000000000000000001.040000000
00001.400000000000.00

DACR0500967406608030472          0000000000.000000000000.000000000000.00
```

MTRE fields for Payment

1st highlight = OI transaction reference for the transaction

2nd highlight = Date and time of transaction

3rd highlight = Identification transaction is a payment (debit)

4th highlight = FX rate used to calculate settlement amount

5th highlight = Identification transaction is settling in USD

6th highlight = Principal amount in settlement currency (1.04 USD in this example)

7th highlight = Charges in settlement currency (1.40 USD in this case)

Note: Principal and Charge amounts are added together to equal the amount of settlement for that transaction (1.04 + 1.40 = 2.44 in the example)

DACR fields

Not utilized for payments in Customer Managed pricing model.

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Return/Reversal entry – Both Pricing Models

The example below includes highlights, which are explained in order below.

MTREHS 97jvwxntwy4qy1u218uy3zzhtm-9 03091815550022
00000001.000000000USD0000000002.220000000002.000000000000.0000000001.0000000
000000000002.220000000002.000000000000.0000000000.00000000000000000002.2200000
00002.000000000000.00

MTAJ61qxyg2jx9zgvm1r4xexxu9ama3-9 97jvwxntwy4qy1u218uy3zzhtm-9 021318

MTRE fields for Return/Reversal:

1st highlight = Internal transaction reference for the transaction

2nd highlight = Date and time of transaction

3rd highlight = Identification transaction is a return/reversal (credit)

4th highlight = FX rate used to calculate settlement amount

5th highlight = Identification transaction is settling in USD

6th highlight = Principal amount in settlement currency (USD in this example)

7th highlight = Charges in settlement currency (USD in this case)

Note: Principal and Charge amounts added together equal the amount of settlement for that transaction (2.22 + 2.00 = 4.22 in the example)

MTAJ fields

1st green highlight = OI transaction reference of the original Transaction being returned/reversed

1st yellow highlight = Internal transaction reference for the return/reversal (note same as first highlight in MTRE line

2nd green highlight = transaction date of the original Transaction being returned/reversed

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F.2 (Legacy) Daily Transaction and Status Change Reports (Version 1)

The following table describes names and specifications for the report fields.

Note: This file and format is VARIABLE length, so any lengths provided are to show maximum length, it does not mean that the value provided will always be that length.

Field	Specification
File Header	Header begins with a 100 record and the details for the header will start with a 101 record. Header will contain the following fields: Report Name – "Cross-Border Status Change Report" or "Cross-Border Daily Transaction Report" [alphanumeric, max length: 40] Parent Partner Name – Name of the Customer for which the report is being generated [alphanumeric, max length: 100] Provider Assigned ID – ID of the Originating Institution (OI) for which the report is being generated [alphanumeric, max length: 40] Generated Date – Date when the report was generated [timestamp in St. Louis Missouri, USA time] Format: YYYY-MM-DDTHH:MM:SS±hh[:mm] or YYYY-MM-DDTHH:MM:SSZ Example: 2015-03-18T14:18:55-05:00
Batch Header	Batch header begins with a 200 record and contains the headers for the fields mentioned below until the batch trailer
Batch Record Indicators	Batch records start with a 201 record
Parent Partner Name	Name of OI as registered during onboarding [alphanumeric special, max length: 100] Example: Bank Send
Provider Assigned ID	[alphanumeric special, max length: 80] Example: CAN_CUSTOMER_yFS8
Reference ID **Note:** The Reference ID column in this report contains an ID that is assigned by the OI. This reference ID is carried through from the Quote API or payment.	Unique transaction ID provided by the OI [alphanumeric special, max length: 40] Example: 999999034810154000

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Field	Specification
Quote Proposal ID	Proposal ID provided as part of the Quote response, proposal used to create Transaction example: prp_AFO0lQZlOfo-DmbP4cZfoDzh_1 [alphanumeric special, max length: 40]
Transaction Type	Captures the type of transaction. The system supports only PAYMENT today. [alpha, length 7] example: PAYMENT
Payment Type	Identifies the Transaction flow associated to the transaction. Valid Payment types are: B2P, B2B, G2P, P2P, P2B Value: P2P [alphanumeric, length: 3]
Local Date/Time	Date / Time provided by OI MMDDYYHHMM [alphanumeric, length: 10] Example: 1231142230
Send Processed Date/Time	Cross-Border Services Processed Date/Time [timestamp in St. Louis Missouri, USA time, Format: YYYY-MM-DDTHH:MM:SS±hh[:mm] or YYYY-MM-DDTHH:MM:SSZ Example: 2015-03-18T14:18:55-05:00
Sending Account URI	Sender Account. All account URI types are supported. Examples: pan:XXXXXXXXXXXX6005;exp=2017-02 iban:CH5108686001256515001 ewallet:user011;sp=ewallet1 ban:300560011401140001111111;bic=CCFRFRPP tel:+3312345678 [alphanumeric special, max length: 200]
Receiving Account URI	Receiving Account. All account URI types are supported. Examples: pan:XXXXXXXXXXXX6005;exp=2017-02 iban:CH5108686001256515001 ewallet:user011;sp=ewallet1 ban:300560011401140001111111;bic=CCFRFRPP tel:+3312345678 [alphanumeric special, max length: 200]

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Field	Specification
Quote Type	Forward or Reverse Indicates how fees will be paid. Valid values: Forward, Reverse, spaces [alpha special, max length: 7] Example: Forward
Fees Included	Indicates whether fees are included. If True' fees are subtracted from Sender amount. If 'False' then the Sender will pay the fees in addition to the Sender amount. If Quote Type is Reverse, this field will always be 'False'. Valid Values: True or False [alpha, max length: 5] Example: True
Original Transaction Status	Original status of transaction Valid values: Success, Rejected, Pending [alpha, max length: 100] Example: Rejected
Original Status Timestamp	Timestamp of the original status as an ISO 8601 Timestamp. Format: YYYY-MM-DDTHH:MM:SS±hh[:mm] or YYYY-MM-DDTHH:MM:SSZ Example: 2015-03-18T14:18:55-05:00
Current Transaction Status	Current status of transaction. Valid values: Success, Rejected, Pending, Canceled (valid only for Cancel Payment resource responses), and Returned Format: [alpha, max length: 100] Example: Rejected
Current Status Timestamp	Timestamp of the current status as an ISO 8601 Timestamp. Format: YYYY-MM-DDTHH:MM:SS±hh[:mm] or YYYY-MM-DDTHH:MM:SSZ example: 2015-03-18T14:18:55-05:00 **For transactions on the Daily Transaction Report, Current Status Timestamp will be equal to the Original Status Timestamp.**

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Field	Specification
Current Pending Stage	An identifier showing the current transaction's pending stage • Stages of Pending are provided on the Mastercard Developers website • Associated with the Current Transaction Status • Only returned if the status is PENDING *A compliant OI MUST be able to accept any other value in addition to those listed on Mastercard Developers. Even if such a value can't be explicitly understood, the sending system must consider it as if it was in the "Processing" stage. [alpha special, maximum length 30] Example: Processing
Pending Max Completion Date	For Mastercard Internal Use Only. Only returned on pending/ ISO 8601 timestamp of the format YYYY-MM-DDTHH:MM:SS±hh[:mm] example: "2014-09-11T17:41:08.301-05:00"
Charged Amount	Amount charged to or provided by the Sender for Mastercard Managed Sender Pricing Model (Retail) Amount charged to the OI (settlement amount) for the Customer Managed Sender Model (Wholesale) [numeric, max length: 30, up to 5 digits after decimal Example: 1000.00
Charged Amount Currency	Currency of the Charged Amount [alphanumeric, max length: 3] Example: CAD
Principal Amount	Amount used (possibly minus fees) to calculate the Charged or Credited amount, depending on the quote type [numeric, max length: 30 up to 5 digits after decimal] Example: 900.00
Principal Amount Currency	Currency of the Principal Amount [alphanumeric, max length: 3] Example: CAD
Credited Amount	Amount to be applied to the Receiving Account [numeric, max length: 30 up to 5 digits after decimal] Example: 5000.00
Credited Amount Currency	Currency of the Principal Amount [alphanumeric, max length: 3] Example: CAD
Fees Amount	Amount of the Fee [numeric, max length: 30 up to 5 digits after decimal] Example: 2.00

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Field	Specification
Fees Currency	Currency of the Fees Amount [alphanumeric, max length: 3] Example: CAD
Sending Currency	Only provided when the Forward or Reverse Quote indicator is set to Reverse [alphanumeric, max length: 3] Example: CAD
Payment Originating Country	Country from which the funds originate A three-letter ISO country code representing the Sender's home address country [alpha, max length: 3] Example: CAN
Sender First Name	Sender first name [alphanumeric special, max length: 140] example: John
Sender Middle Name	Sender middle name [alphanumeric special, length: 140] example: A
Sender Last Name	Sender last name [alphanumeric special, max length: 140] example: Smith
Sender Organization Name	Sender Organization Name [alphanumeric special, max length: 140] example: Smith
Sender Address line 1	First line of Sender's address [alphanumeric special, max length: 500] example: 123 Main
Sender Address line 2	Second line of Sender's address [alphanumeric special, max length: 500] example: Apt A
Sender City	Sender's city [alphanumeric special, max length: 35] example: Toronto
Sender Country/Subdivision	Sender's state or province [alphanumeric special, max length: 35] Example: ON
Sender Postal Code	Sender's postal code [alphanumeric special, max length: 16] example: M3C 0C2

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Field	Specification
Sender Country	Sender's country A three-letter ISO country code representing the Sender's home address country. [alpha, max length: 3] Example: CAN
Sender Gov. ID	Information about the identification of the Sender [alphanumeric special, max length: 256] There may be multiple instances of Sender Gov. ID Example: ppn:123456789;expiration-date=2019-05-27;issue-date=2011-07-12;country=USA
Sender DOB	Sender's date of birth [Date, YYYY-MM-DD, alphanumeric, max length: 10] example: 1985-06-24
Recipient First Name	Recipient first name [alphanumeric special, max length: 140] example: John
Recipient Middle Name	Recipient middle name [alphanumeric special, max length: 140] example: A
Recipient Last Name	Recipient last name [alphanumeric special, max length: 140] example: Smith
Recipient Organization Name	Recipient Organization Name [alphanumeric special, max length: 140] example: Smith
Recipient Address line 1	First line of Recipient's address [alphanumeric special, max length: 500] example: 123 Main
Recipient Address line 2	Second line of Recipient's address [alphanumeric special, max length: 500] example: Apt A
Recipient City	Recipient's city [alphanumeric special, max length: 35] example: Toronto
Recipient Country/Subdivision	Recipient's state or province [alphanumeric special, max length: 35] Example: ON

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Field	Specification
Recipient Postal Code	Recipient's postal code [alphanumeric special, max length: 16] example: M3C 0C2
Recipient Country	Recipient's country A three-letter ISO country code representing the Recipient's home address country. [alpha, max length: 3] Example: CAN
Recipient Gov. ID	Information about the identification of the Recipient [alphanumeric special, max length: 256] may be multiple instances of Recipient Gov. ID
Recipient Nationality	Country where the Recipient resides Recipient's nationality, as an ISO 3166 Alpha-3 country code, in uppercase. [Details- string, length: 3] example: FRA
Recipient Phone	Phone number of Recipient [alphanumeric special, max length: 30] Example: 4195458614
Purpose of Remittance	Purpose of the Transaction [alphanumeric special, max length: 100] Example: Family Maintenance
Settlement Amount for Transaction	Amount to be settled [numeric, max length: 22, up to 10 digits after decimal] Example: 102.00
Settlement Currency for Transaction	Currency of the Settlement Amount for the Transaction [alpha, max length: 3] Example: CAD
Receiving Bank Name	Name of the Bank holding the receiving account [alphanumeric special, max length: 140] Example: Bank Receive
Receiving Bank Branch Name	Name of the Bank Branch holding the receiving account [alphanumeric special, max length: 140] Example: Quad Cities
Receiving Bank Code	Bank code associated with the Bank Name and BIC provided by the OI [alphanumeric, max length: 225] Example: NS02

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Field	Specification
Source of Income	Sender's identification of the source of the funds being submitted [alphanumeric special, max length: 35] Example: Salary
Sender Nationality	Sending consumer's nationality A three-letter ISO country code representing the Recipient's home address country [alpha, max length: 3] Example: CAN
Recipient Email	Email address of the Beneficiary [alphanumeric special, max length: 1000] Example: customer@gmail.com
File Identifier	Identifies the Transaction file in which this specific Transaction was submitted by the originator [alphanumeric special, max length: 35] Example: AH20765345_873
Payment Cash-out Code	Code or phrase passed by cash out Receiving Institutions. May be present when the receiving institution is a cash-out location. [alphanumeric special, max length: 30] Example: Peaches
FX Rate	The FX rate used for the given transaction [numeric, max length: 16 with up to 6 digits after decimal] Example: 15.121351
Error Code	Provides error code if applicable [alphanumeric special, max length: 10] Example: 130113
Error Description	Provides description of error code [alphanumeric special, max length: 600] Example: DECLINE: Unable to support the recipient account provided

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Field	Specification
Return Message	The following is a list of available return reasons that would populate this field: Returned per sending service provider's request Beneficiary Account is not valid or unable to locate account Beneficiary Account is inactive Beneficiary name does not match account Invalid account type Credit refused by Beneficiary Unspecified reason Beneficiary Account is not authorized to receive deposits Beneficiary Account currency does not match payout currency Beneficiary Account is frozen [alphanumeric special, max length: 100]
reserved04*	No data available. Reserved for future use.
reserved05*	No data available. Reserved for future use.
reserved06	No data available. Reserved for future use.
reserved07	No data available. Reserved for future use.
reserved08	No data available. Reserved for future use.
reserved09	No data available. Reserved for future use.
reserved10	No data available. Reserved for future use.
reserved11	No data available. Reserved for future use.
reserved12	No data available. Reserved for future use.
reserved13	No data available. Reserved for future use.
reserved14	No data available. Reserved for future use.
reserved15	No data available. Reserved for future use.
Additional Data	Additional data and value Additional data name followed by additional data value associated with that additional data name; pipe (|) delimited Multiple name values pairs can be present in the same transaction depending on the requirements for the transaction. *A compliant OI MUST be able to accept any number of name value pairs from the report Example: 400='ABC'|401='BCX' where 400 and 401 are the field names and ABC and BCX are the values associated with those names [alphanumeric special, no max length]

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Field	Specification
Batch Trailer	Batch trailer begins with a 300 and the details for the batch trailer will start with a 301 record. Batch trailer will contain the following fields: Batch Count—Number of total detail (201) records in batch [numeric min value: 1, max value: 999999999999] Batch Checksum—Absolute value of the transaction totals within a batch to confirm complete transmission of batch data
File Trailer	File trailer begins with a 900 and the details for the file trailer will start with a 901 record. File trailer will contain the following fields: Total Record Count—Number of total detail (201) records in file [numeric min value: 1, max value: 999999999999] File Checksum—Absolute value of all the batch transaction totals to confirm complete transmission of file data

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F.2.1 (Legacy) Status Change Report v1 Example

100	Report Name	Parent Partner Name	Provider Assigned ID	Generated Date					
101	Cross Border Status Change Report	ABC Bank	SANDBOX_1234567	2017-10-04T05:11:25-05:00					
200	Partner Name	Provider Assigned ID	Reference ID	Quote Proposal ID	Transaction Type	Payment Type	Local Date/Time	Send Processed Date/Time	
201	ABC Bank	SANDBOX_1234567	500967427712380000		PAYMENT	P2P	1231142230	2017-10-04T02:08:09-05:00	
201	ABC Bank	SANDBOX_1234567	500967427712402000	BwWY/k+2tTsmXJlEk11lXircW+A=	PAYMENT	P2P	1231142230	2017-10-04T02:10:31-05:00	
201	ABC Bank	SANDBOX_1234567	500967427712413000	jYof04RC6El/ht4xArB5dBHIOyA=	PAYMENT	P2P	1231142230	2017-10-04T02:11:33-05:00	
201	ABC Bank	SANDBOX_1234567	500967427617280000		PAYMENT	P2P	1231142230	2017-10-04T02:11:58-05:00	
201	ABC Bank	SANDBOX_1234567	500967419915033000		PAYMENT	P2P	1231142230	2017-10-04T04:12:27-05:00	
300	Batch Count	Batch Checksum							
301	5	1409.64							
900	File Count	File Checksum							
901	5	1409.64							

Sending Account URI	Receiving Account URI	Quote Type	Fees Included	Original Transaction Status	Original Status Timestamp	Current Transaction Status	Current Status Timestamp	Current Pending Stage	Pending Max Completion Date	Charged Amount
tel:+254108989	ban:201530030747;bic=HDFC00000	FORWARD	TRUE	PENDING	2017-10-04T02:08:09-05:00	REJECTED	2017-10-04T02:08:12-05:00			7
tel:+2130000	ban:201530030747;bic=HDFC00000	REVERSE	FALSE	PENDING	2017-10-04T02:10:31-05:00	SUCCESS	2017-10-04T02:10:33-05:00			1.341
tel:+2130000	ban:201530030747;bic=HDFC00000	REVERSE	TRUE	PENDING	2017-10-04T02:11:33-05:00	SUCCESS	2017-10-04T02:11:35-05:00			5
tel:+254108989	ban:201530030747;bic=HDFC00000	FORWARD	TRUE	PENDING	2017-10-04T02:11:58-05:00	SUCCESS	2017-10-04T02:12:01-05:00			7
tel:+2130000	ban:201530030747;bic=HDFC00000	REVERSE	TRUE	PENDING	2017-10-04T04:12:27-05:00	SUCCESS	2017-10-04T04:12:30-05:00			4.5

Principal Amount	Principal Amount Currency	Credited Amount	Credited Amount Currency	Fees Amount	Fees Currency	Sending Currency	Payment Originating Country	Sender First Name	Sender Middle Name	Sender Last Name	Sender Organization Name	Sender Address line 1	Sender Address line 2	Sender City	Sender Country/ Subdivision	Sender Postal Code	Sender Country	Sender Gov. ID
5.726	EUR	436.99	INR	1.331	EUR	EUR	FRA	John	Lee	Doe		123MainS	#5A	Arlington	VA	22207	FRA	
0.067	EUR	5.12	INR	1.275	EUR	EUR	FRA	John	L	Doe		123MainS	#5A	Arlington	VA	22207	FRA	
3.726	EUR	284.35	INR	1.311	EUR	EUR	FRA	John	Lee	Doe		123MainS	#5A	Arlington	VA	22207	FRA	
5.726	EUR	436.99	INR	1.331	EUR	EUR	FRA	John	Lee	Doe		123MainS	#5A	Arlington	VA	22207	FRA	
3.226	EUR	246.19	INR	1.306	EUR	EUR	FRA	John	L	Doe		123MainS	#5A	Arlington	VA	22207	FRA	

Sender DOB	Recipient First Name	Recipient Middle Name	Recipient Last Name	Recipient Organization Name	Recipient Address line 1	Recipient Address line 2	Recipient City	Recipient Country/ Subdivision	Recipient Postal Code	Recipient Country	Recipient Gov. ID	Recipient Nationality	Recipient Phone	Purpose of Remittance	Settlement Amount for Transaction	Settlement Currency for Transaction	Receiving Bank Name
########	Lee	Mee	Cardholder		123MainS	#5A	Arlington	VA	22207	IND		IND	16400000000	Education	0		XYZ Bank
########	Lee	M	Cardholder		123MainS	#5A	Arlington	VA	22207	USA		USA		Education	0		XYZ Bank
########	Lee	Mee	Cardholder		123MainS	#5A	Arlington	VA	22207	IND		IND	16400000000	Education	0		XYZ Bank
########	Lee	Mee	Cardholder		123MainS	#5A	Arlington	VA	22207	IND		IND	16400000000	Education	0		XYZ Bank
########	Lee	M	Cardholder		123MainS	#5A	Arlington	VA	22207	USA		USA		Education	0		XYZ Bank

Receiving Bank Branch Name	Receiving Bank Code	Source of Income	Sender Nationality	Recipient Email	File Identifier	Payment Cashout Code	FX Rate	Error Code	Error Description	Reserved 03	Reserved 04	Reserved 05	Reserved 06	Reserved 07
Quad Cities	NP021	SAL	FRA	customer@			64.8252	130113	DECLINE:Unable to support the recipient account provided					
Quad Cities		SAL	FRA		123000000		64.8252							
Quad Cities		SAL	FRA	customer@			64.8252							
Quad Cities	NP021	SAL	FRA	customer@			64.8252							
Quad Cities		SAL	FRA		123000000		64.8252							

Reserved 08	Reserved 09	Reserved 10	Reserved 11	Reserved 12	Reserved 13	Reserved 14	Reserved 15	Additional Data

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F.2.2 (Legacy) Daily Transaction Report Example

100	Report Name		Parent Partner Name		Provider Assigned ID		Generated Date									
101	Cross Border Daily Transaction Report		ABC Bank		SANDBOX_1234567		2017-10-04T21:30:26-05:00									
200	Partner Name		Provider Assigned ID		Reference ID		Quote Proposal ID			Transaction Type	Payment Type	Local Date/Time	Send Processed Date/Time	Sending Account URI		
201	ABC Bank		SANDBOX_1234567		500967427712380000					PAYMENT	P2P	1231142230	2017-10-04T	tel:+25410		
201	ABC Bank		SANDBOX_1234567		500967427712382000					PAYMENT	P2P	1231142230	2017-10-04T	tel:+25410		
201	ABC Bank		SANDBOX_1234567		500967427712402000		BwWY/k+2tTsmXJlEk11lXircW+A=			PAYMENT	P2P	1231142230	2017-10-04T	tel:+21300		
201	ABC Bank		SANDBOX_1234567		500967427712403000		LppQdMWSUmLXfmNLoQQSBnNrPbs=			PAYMENT	P2P	1231142230	2017-10-04T	tel:+21300		
201	ABC Bank		SANDBOX_1234567		500967427712413000		jYof04RC6El/ht4xArB5dBHIOyA=			PAYMENT	P2P	1231142230	2017-10-04T	tel:+21300		
201	ABC Bank		SANDBOX_1234567		500967427712413000		GfPQI3FTtWiCqN27joDTe5iia2g=			PAYMENT	P2P	1231142230	2017-10-04T	tel:+21300		
201	ABC Bank		SANDBOX_1234567		500967427617280000					PAYMENT	P2P	1231142230	2017-10-04T	tel:+25410		
201	ABC Bank		SANDBOX_1234567		500967427617285000					PAYMENT	P2P	1231142230	2017-10-04T	tel:+25410		
201	ABC Bank		SANDBOX_1234567		500967427713345000					PAYMENT	P2P	1231142230	2017-10-04T	tel:+21300		
201	ABC Bank		SANDBOX_1234567		500967419915033000					PAYMENT	P2P	1231142230	2017-10-04T	tel:+21300		
201	ABC Bank		SANDBOX_1234567		500967419915034000					PAYMENT	P2P	1231142230	2017-10-04T	tel:+21300		
300	Batch Count		Batch Checksum													
301		11		4648.64												
900	File Count		File Checksum													
901		11		4648.64												

Quote Type	Fees Included	Original Transaction Status	Original Status Timestamp	Current Transaction Status	Current Status Timestamp	Current Pending Stage	Pending Max Completion Date	Charged Amount	Charged Amount Currency	Principal Amount	Principal Amount Currency	Credited Amount	Credited Amount Currency	Fees Amount	Fees Currency	Sending Currency	Payment Originating Country
FORWARD	TRUE	PENDING	2017-10-0	SUCCESS	2017-10-04T02:08:12-05:00			7	EUR	5.726	EUR	436.99	INR	1.331	EUR	EUR	FRA
REVERSE	TRUE	SUCCESS	2017-10-0	SUCCESS	2017-10-04T02:08:22-05:00			9	GBP	8.12	GBP	1104.66	KES	0.96	GBP	GBP	GBP
REVERSE	FALSE	REJECTED	2017-10-0	REJECTED	2017-10-04T02:10:33-05:00			1.341	EUR	0.067	EUR	5.12	INR	1.275	EUR	EUR	FRA
REVERSE	FALSE	SUCCESS	2017-10-0	SUCCESS	2017-10-04T02:10:34-05:00			0.939	GBP	0.059	GBP	8	KES	0.88	GBP	GBP	GBR
REVERSE	TRUE	PENDING	2017-10-0	SUCCESS	2017-10-04T02:11:35-05:00			5	EUR	3.726	EUR	284.35	INR	1.311	EUR	EUR	FRA
REVERSE	FALSE	SUCCESS	2017-10-0	SUCCESS	2017-10-04T02:11:35-05:00			5.003	GBP	4.123	GBP	560.9	KES	0.92	GBP	GBP	GBR
FORWARD	TRUE	PENDING	2017-10-0	SUCCESS	2017-10-04T02:12:01-05:00			7	EUR	5.726	EUR	436.99	INR	1.331	EUR	EUR	FRA
REVERSE	TRUE	SUCCESS	2017-10-0	SUCCESS	2017-10-04T02:19:48-05:00			9	GBP	8.12	GBP	1104.66	KES	0.96	GBP	GBP	GBP
REVERSE	TRUE	SUCCESS	2017-10-0	SUCCESS	2017-10-04T03:05:35-05:00			8.5	USD	5.35	USD	267.78	PHP	3.25	USD	USD	USA
REVERSE	TRUE	PENDING	2017-10-0	SUCCESS	2017-10-04T04:12:30-05:00			4.5	EUR	3.226	EUR	246.19	INR	1.306	EUR	EUR	FRA
REVERSE	TRUE	SUCCESS	2017-10-0	SUCCESS	2017-10-04T04:31:03-05:00			7	USD	3.86	USD	193	PHP	3.22	USD	USD	USA

Sender First Name	Sender Middle Name	Sender Last Name	Sender Organization Name	Sender Address line 1	Sender Address line 2	Sender City	Sender Country/ Subdivision	Sender Postal Code	Sender Country	Sender Gov. ID	Sender DOB	Recipient First Name	Recipient Middle Name	Recipient Last Name	Recipient Organization Name	Recipient Address line 1	Recipient Address line 2
John	Lee	Doe		123MainS	#5A	Arlington	VA	22207	FRA		########	Lee	Mee	Cardholder		123MainS	#5A
John	Lee	Doe		123MainS	#5A	Arlington	VA	22207	FRA		########	Lee	Mee	Cardholder		123MainS	#5A
John	L	Doe		123MainS	#5A	Arlington	VA	22207	FRA		########	Lee	M	Cardholder		123MainS	#5A
Matt	M	Cardholder		123MainS	#5A	Arlington	VA	22207	GBR		########	Lee	M	Cardholder		123MainS	#5A
John	Lee	Doe		123MainS	#5A	Arlington	VA	22207	FRA		########	Lee	Mee	Cardholder		123MainS	#5A
John	Lee	Doe		123MainS	#5A	Arlington	VA	22207	GBR		########	Lee	Mee	Cardholder		123MainS	#5A
John	Lee	Doe		123MainS	#5A	Arlington	VA	22207	FRA		########	Lee	Mee	Cardholder		123MainS	#5A
John	Lee	Doe		123MainS	#5A	Arlington	VA	22207	FRA		########	Lee	Mee	Cardholder		123MainS	#5A
John	L	Doe		123MainS	#5A	Arlington	VA	22207	USA		########	Lee	M	Cardholder		123MainS	#5A
John	L	Doe		123MainS	#5A	Arlington	VA	22207	FRA		########	Lee	M	Cardholder		123MainS	#5A
John	L	Doe		123MainS	#5A	Arlington	VA	22207	USA		########	Lee	M	Cardholder		123MainS	#5A

Recipient City	Recipient Country/ Subdivision	Recipient Postal Code	Recipient Country	Recipient Gov. ID	Recipient Nationality	Recipient Phone	Purpose of Remittance	Settlement Amount for Transaction	Settlement Currency for Transaction	Receiving Bank Name	Receiving Bank Branch Name	Receiving Bank Code	Source of Income	Sender Nationality	Recipient Email	File Identifier
Arlington	VA	22207	IND		IND	1.64E+10	Education	0		XYZ Bank	Quad Citie	NP021	SAL	FRA	customer(	
Arlington	VA	22207	IND		USA	1.64E+10		0		XYZ Bank	Quad Citie	NP021		USA	customer(	
Arlington	VA	22207	USA		USA		Education	0		XYZ Bank	Quad Cities		SAL	FRA		123456789
Arlington	VA	22207	USA		USA			0						GBR		
Arlington	VA	22207	IND		IND	1.64E+10	Education	0		XYZ Bank	Quad Cities		SAL	FRA	customer(	
Arlington	VA	22207	USA		USA			0		XYZ Bank	Quad Cities			GBR		
Arlington	VA	22207	IND		IND	1.64E+10	Education	0		XYZ Bank	Quad Citie	NP021	SAL	FRA	customer(	
Arlington	VA	22207	IND		USA	1.64E+10		0		XYZ Bank	Quad Citie	NP021		USA	customer(	
Arlington	VA	22207	USA		USA			0						USA		
Arlington	VA	22207	USA		USA		Education	0		XYZ Bank	Quad Cities		SAL	FRA		123456789
Arlington	VA	22207	USA		USA	1.64E+10		0						USA	customer(	

Payment Cashout Code	FX Rate	Error Code	Error Description	Reserved 03	Reserved 04	Reserved 05	Reserved 06	Reserved 07	Reserved 08	Reserved 09	Reserved 10	Reserved 11	Reserved 12	Reserved 13	Reserved 14	Reserved 15	Additional Data
	64.8252																
	120.1519																
	64.8252	130113	DECLINE:Unable to support the recipient account provided														
	120.1519																
	64.8252																
	120.1519																
	64.8252																

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