SWIFT Certified Applications

Alliance Access Integration – MQ Host Adaptor

Technical Qualification Test 2018

This document lists the tests for application providers that integrate their back-office application or middleware with Alliance Access using MQ Host Adaptor

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Legal Notices

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1 Preface

1.1 Purpose

This document describes the test scenarios that a financial application has to pass to be compliant with Alliance Access using MQ Host Adaptor (MQHA).

The purpose of the MQHA qualification is to verify the capacity of an application to correctly integrate with SWIFTNet via Alliance Access MQ Host Adapter.

1.2 Audience

The target audience for this document is both Partners considering the certification of a product, and SWIFT Users that look after an overview of the SWIFT Certification contents. The audience should be familiar with SWIFT portfolio from a technical and a business perspective.

1.3 SWIFT Certified Application Programme

The SWIFT Certified Application programme covers the entire financial application chain, from Trade, Treasury and Payment, to Corporate and Securities segments.

Each SWIFT Certification defines a set of criteria, which are reviewed every year to ensure that the application remains aligned with the financial market evolution and with customer needs.

These criteria are designed to reflect the capability of a financial application to provide message processing automation in a SWIFT context, and to support straight through processing (STP) in order to increase customer value, limit customisation needs and cost, and reduce time to market.

1.4 Related Documents

The following documents can be found over swift.com:

- Alliance Access 7.2
- WebSphere MQ Interface - For Alliance Access 7.2 Migrating to the MQ Host Adapter
- Alliance access system management guide
- WebSphere MQ Interface 7.2 User Guide
- sam_aaccess_headers

2 Introduction

Alliance access supports two interfaces for exchanging SWIFT messages with back office applications through IBM WebSphere MQ:

- WebSphere MQ Interface for Alliance Access software application (**MQSA**), which is built using functions of the Alliance Developer Kit (ADK).
- Alliance Access MQ Host Adapter (**MQHA**), which is embedded in the Application Interface. It does not require the installation of any ADK software

Alliance Access comes with a licensable option that supports interactive communications between Alliance Access and IBM's WebSphere MQ. The WebSphere MQ middleware uses a central message queuing mechanism to temporarily store messages from data providers that can be picked up by a data consumer at its own speed, while introducing a transparency layer for operating system and communications protocol.

The MQHA is using the standard mechanism of message partner definition available in Alliance Access, including routing rules and profile definition. Each WebSphere MQ queue is associated to a defined message partner, and linked to a security profile. Routing rules must also be defined to integrate each MQ based message partner inside the Alliance Access routing scheme. MQHA functionality is aligned with the way all other message partner works in Alliance Access.

2.1 SWIFT Certified Application Validation

Support of MQHA is one of the qualification criteria for granting the SWIFT Certification to a financial application.

The Partners who deployed the SWIFT Alliance connectivity to SWIFT ITB can perform these tests independently. Test environment configuration is described in **section 3**.

As an alternative, Wipro Testing Services offers a test service for connecting to SWIFT ITB. Using this service, the Partner can connect to SWIFT ITB. Currently, the testing service allows testing application connectivity with Alliance Access AFT, SOAPHA and MQHA. Please go to **section 4**, if you wish to use this service.

3 Alliance Access configuration

This set-up is applicable for Partners that deployed an ITB environment and connect to Alliance Access **from their premises**.

3.1 Alliance Access

To prepare for the tests, the Alliance Access system must be installed and configured at Partner premises.

Alliance Access must be upgraded to release 7.2. It is necessary to get acquainted with the Alliance Access - System Management Guide and alliance access 7.2 Guide to further configure the interface for test purpose. The Application Interface module of Alliance Access provides all the functions necessary to manage Message Partner profiles. Using Application Interface application, the Partner needs to set up the connection profiles that are used by Alliance Access to connect with external message partners. The Application Interface allows exchanging messages with external back-office systems or "Message Partners".

3.2 Message Partner configuration

The MQHA communication session is set up and controlled with a dedicated Message Partner configuration in Alliance Access. Using the procedure described in the Alliance Access System Management Guide – WebSphere MQ Connection Method, create a Message Partner for the MQ queue.

- Specify the connection method as WebSphere MQ
- Specify the direction of message transfer (from Message Partner and To Message Partner)
- Configure the other parameter

For detailed procedure for creating message partner profile for every MQ Queue, please refer to the procedure described in the Alliance Access System Management Guide – WebSphere MQ Connection Method.

The Partner must ensure that:

- The Alliance Access Server must be running and the message partner enabled
- Alliance Access must be able to connect the Queue Manager. The connection is made through WebSphere MQ environment variables (MQSERVER or MQCHLTAB and MQCHLLIB)

Please refer to System Management Guide – Alliance Access for additional information for configuring and managing Message Partner Profiles. A screenshot of sample Message Partner is provided in section 7.

3.3 Exchanging messages using Message Partner

- The MQHA supports MT, MX and FileAct messages. MT test messages can be exchanged using MQ-MT format and XML v2 format, while MX and FileAct test messages can only be sent in XMLv2 format. The application provider will prepare and route the messages in to WebSphere MQ queue for Alliance Access to process.
- The messages being sent must be the message types supported by the partner application.
- All messages entering Alliance through the Application Interface are queued at one single point of entry – _AI_from_APPLI (AI Inbound Queue), before being routed onwards.
- The successfully processed messages will be stored by Alliance Access in the _SI_to_SWIFT Queue [MT messages) or _SI_to_SWIFTNet (MX and FileAct messages) Queue
- SWIFT Network returns Notification messages for technical reconciliation and response messages, since the test messages were used for “self transfers”, meaning, the sender and receiver BIC are the same.

- The application must download the Network notifications and messages sent in “Output from SWIFT” direction

4 Wipro Testing Service

- The vendor needs to liaise with Wipro to enrol into Wipro Testing Services and test the exchange of messages through this service
- The MQ application can be downloaded free of charge from www.ibm.com download server
- The vendor will be provided with a PIC (Partner ID Code)This PIC must be used in the sender and receiver block for exchanging messages over ITB
- The vendor needs to configure the MQ Configuration parameter details provided by Wipro in the application
- The connectivity is very similar when you connect from within vendor environment, except for the reason that this connectivity is established outside vendor’s internal network environment and hence necessary permission need to be obtained upfront from vendor’s IT Security team for using Port 1414 (for MQ) over internet
- Once the connectivity is established, the outgoing messages can be pushed into the designated outbound MQ Queue
- SWIFT Network returns Notification messages for technical reconciliation and response messages, since the test messages were used for “self transfers”, meaning, the sender and receiver BIC are the same
- The application must download the Network notifications and messages sent in “Output from SWIFT” direction

5 MQHA Test preparation

MQHA supports the exchange of messages in the following data formats:

- **MQ-MT ASCII (MT messages only)**
  - MQHA supports ASCII character encoding only. The EBCDIC character encoding is not supported. Therefore, IBM WebSphere MQ must perform the conversion between EBCDIC and ASCII, if it is required. In that case, for messages being sent, the Format field of the MQ Descriptor must be set to the value MQFMT_STRING. For messages received by the partner application, the get message option MQGMO_CONVERT must be used.
- **XML version 2 (MX and MT messages, and files for FileAct service)**
  - MQHA does not support XML version 1. The Partner must use XML version 2, with revision Original, 1 to 7 as described is Alliance Access System Guide for MT and MX.
  - For FileAct messages, XML version 2, revision 2 or 3 must be used

For more information about these formats, see the Alliance Access System Management Guide – Message Formats Used in AI". Sample messages of MT in MQ-MT format and XML v2 format is provided in section 7. The file of FileAct is not shown in the examples in Section 7. Please refer to sam_aaccess_headers.pdf document for messages samples exchanged with Alliance Access, in scope of the SWIFT solution.

For SWIFT Certified Application validation, at least one of the following file formats will be tested:

- MQ-MT (for MT message only)
- XML v2 format for MT or MX or FileAct messages

5.1 Reconciliation of Delivery Notification

When the messages are sent to Alliance Access, the application can optionally request for a delivery notification. This will result in Alliance Access receiving a message about the message delivery, which can be reconciled with the original message.

In MQHA the reconciliation of delivery notification can be achieved in two ways:

a) Delivery Notification system message contains MIR of the original message
b) Alliance Access Traffic Reconciliation (TR_REC)

The Partner must demonstrate the capability of their application to process the Delivery Notification Message and to reconcile it with the original message.

A sample Delivery Notification message is provided in section 7.

5.2 Transmission Notification

A transmission notification is a message representing the result of transmission to SWIFT network. SWIFT performs full syntax and semantic checks before it returns an acknowledgement (ACK). Other checks, such as validity of the sender and the receiver, are also performed. These checks can cause a message to be rejected and a negative acknowledgement (NAK) is returned in response.

The Partner must demonstrate their application capability to process the Transmission Notification Message and reconcile with the original message.

5.3 Alliance Access Information

MQHA can transmit Alliance Access information either in the MQ Description or in MQ Message Data part. Brief explanation about WebSphere MQ Data Parts is provided in the following section. For more information about WebSphere MQ Data Parts, please refer to WebSphere MQ Interface 7.2 User Guide.

5.3.1 WebSphere MQ Data Parts

Each data item exchanged over WebSphere MQ consists of two parts:

- Message Descriptor
- Message Data

Message Descriptor holds the WebSphere MQ defined fields, of which some of the fields can be set by the financial application.

Message Data contains the message exchanged between applications.

Vendor must configure their Alliance Access to transmit Alliance Access information in the Message Data part. This can be done by checking “Transfer SAA Information” and not selecting “Use MQ Descriptor”. When this information is transmitted in Message Data part, Alliance Access transmits the information as below:

- In MQ-MT format – the Alliance Access Information is transmitted in S-Block.
- In XML v2 format – the Alliance Access Information is transmitted through the new Alliance Access Info XML element.

The Partner must demonstrate their application capability to process the Alliance Access information contained in S-Block in MQ-MT format and in the XML element in XML v2 format.

5.3.2 Alliance Access Info in S-Block

MQHA always transmits the S-Block in MQ-MT format. S-Block is always placed at the end of the transmission notification.

ACK or NAK	MQHA Format
With Original Message	<ACK><MT-Blocks 1,2,3,4,5><S-block>
Without Original Message	<ACK><MT-Blocks 1,2,3,5><S-block>. (There is no Block 4)

S-Block includes the following information:

- the Alliance Access instance name followed by /
- either:
  - exit point that the message was taken from (emission profile) – messages sent from partner application to Alliance Access
  - the routing point where the message ended reception profiles (reception profile) – messages sent by Alliance Access to partner application
- the owner of the Alliance Access instance
- the unit to which the message belongs

The partner application need to capture the ACK or NAK received back from SWIFT and reconcile with the original message. The partner application should be able to handle the S-Block positioned at the end of the transmission notification message and the additional tags sent back by MQHA.

A sample Acknowledgement message with original message and without original message is provided in section 7

5.3.3 Alliance Access Information in SAA XML Element

MQHA transmits Alliance Access information in a separate XML element in the ACK, Delivery Notification and Output message sent from Alliance Access to partner application. The Alliance Access information includes the following:

- the Alliance Access instance name followed by /
- either:
  - exit point that the message was taken from (emission profile) – messages sent from partner application to Alliance Access

  - the routing point where the message ended reception profiles (reception profile) – messages sent by Alliance Access to partner application
- the owner of the Alliance Access instance
- the unit to which the message belongs

The partner application need to capture the ACK and Delivery Notification messages received from SWIFT that contains the Alliance Access Info XML element in the DataPDU.

A sample Network Acknowledgement, Delivery Notification and Output from SWIFT messages with Alliance Access Info XML element is provided in section 7

6 SWIFT Certified Application MQHA testing

To be qualified as MQHA compliant, Partners need to send MT / MX messages /FileAct files (depending on the label category), and act upon received messages including Ack/Nack and delivery notifications.

1. The Partner application prepares the MT MX and FileAct message types required in the SWIFT Certified Application criteria document. The “From” session is started and the test messages are created in the WebSphere MQ queue configured in Message Partner Profile in the Alliance Access server.
2. Partners having their own ITB environment must use their PIC in the sender and receiver fields of the message. The Partner using Wipro Testing Services for connecting to ITB must use the PIC provided by Wipro in the sender and receiver field of the message.
3. If the partner application supports only MT messages, the test messages can be sent in either MQ-MT ASCII format or in XML v2 format If the partner application supports SWIFT Solutions, then the only format Alliance can read is XML v2 format
4. For individual label requirements, the vendor application must exchange application supported SWIFT Messages. Vendor should refer to label specific technical validation guide for the in-scope SWIFT MT, MX and FileAct Messages.
5. The partner application must include delivery notification instructions while generating the test messages. MQHA will transmit the delivery notification either through system message or through Traffic Reconciliation message. The partner application must receive the delivery notification information and reconcile with the original message sent to Alliance Access
6. Alliance Access must be configured to return Alliance Access information. When receiving messages from Alliance Access in MQ-MT format, the partner application must accept this information from S-Block and when receiving XML V2 messages, the partner application must accept this information from Alliance Access Info XML element. When using Wipro Testing Services for connecting to ITB, the message format and acknowledgement format for receiving Alliance Access information must be agreed in advance.
7. The acknowledgement of transmission is sent through transmission notification message. The partner application needs to capture the ACK and NAK received back from SWIFT and reconciled in the partner application. Evidences of reconciliation mechanism (screen dump, event log, dataset extract) will be handled back to SWIFT Qualification service provider.

6.1 Test Evidence

The Partner will extract the following evidences covering the testing period and send them via email to the Validation Service provider for Technical Validation of MQHA connectivity test.

Partners with own ITB connectivity

- Alliance Access Event Journal report
- Message File report
- Message Partner Configuration details
- Samples of ASCII (MT) and XMLv2 files (MT, MX FileAct)
- Screenshots / Log File / Dataset extract / Reports generated from the Partner application evidencing the test execution through Partner application and the reconciliation mechanism against delivery notification and transmission notification for ACK and NAK

Partners testing through Wipro Testing Service

- Alliance Access Event Journal report, Message File and Message Partner configuration reports will be generated by Wipro
- The Partner to provide samples of ASCII (MT) and XMLv2 files (MT,MX and FileAct)
- Screenshots / Log File / Dataset extract / Reports generated from the Partner application evidencing the test execution through Partner application and the reconciliation mechanism against delivery notification and transmission notification for ACK and NAK

7 Annexure

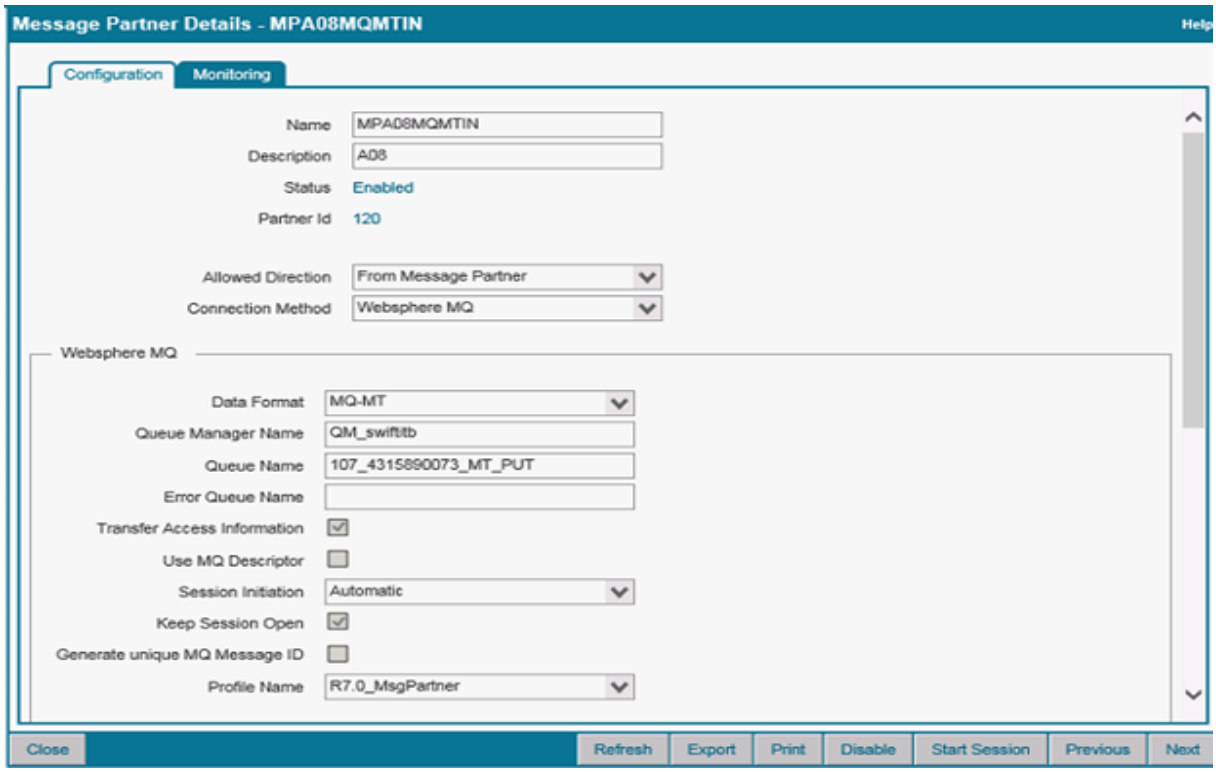
7.1 Checklist for MQHA Connectivity Test

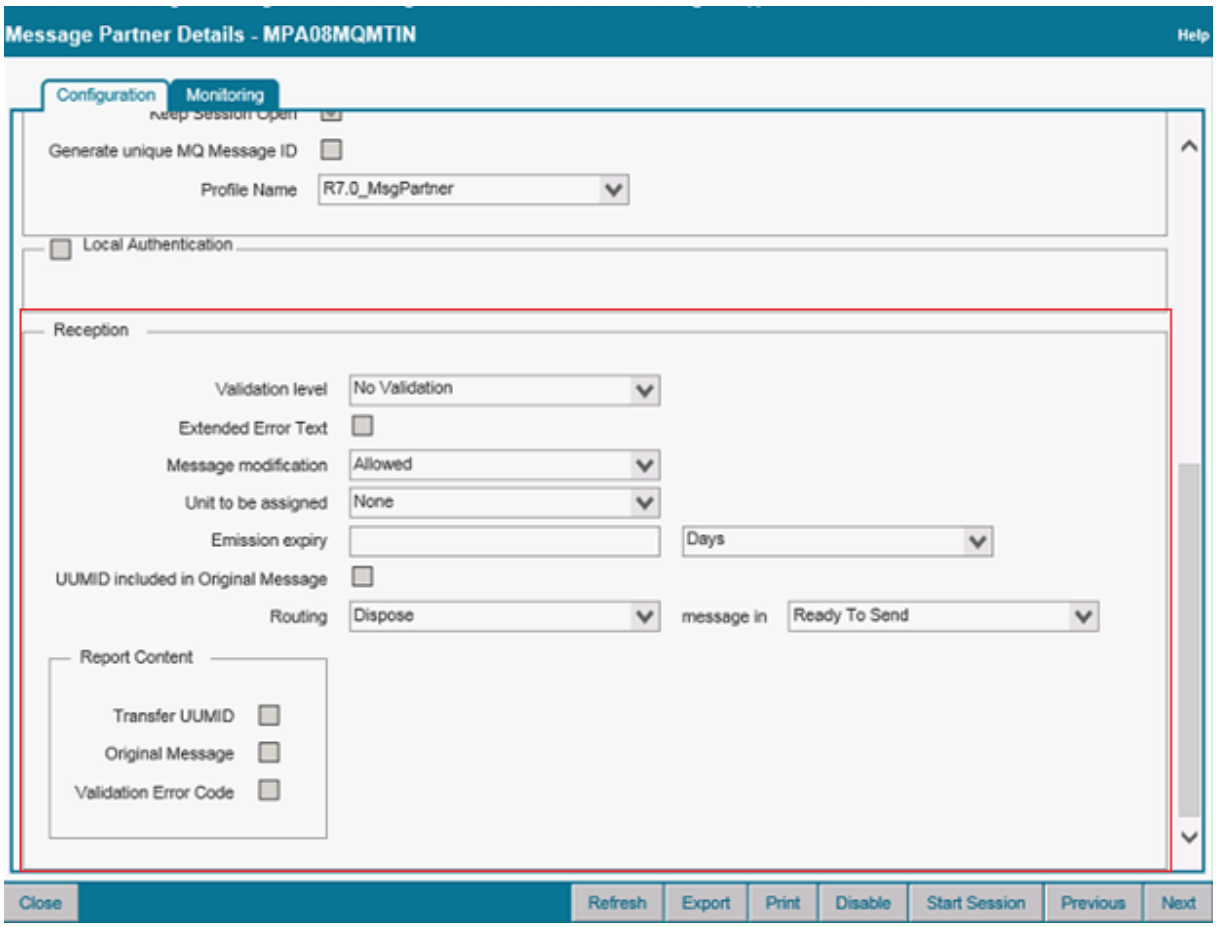
Checklist for MQHA Configuration Test			
#	**Description**	**Partner Response**	**Remarks**
1	Alliance Access is upgraded to 7.2		
2	The additional license package 13:AI MQS Adapter is installed for MQHA		
3	The application exchanges MX messages, 19:AI FILE XML license package is installed		
4	The application is updated to support XML format v2		
5	Partner application supports Alliance Access Info in the Message Data Part		
6	Handling of the messages that fail due to Bad LAU		
7	The partner application handles Delivery Notification system message returned by Alliance Access. If so, please provide the screenshots of the Reconciliation with Original Message updated in the partner application (using either MIR of the original message or Alliance Access traffic reconciliation – TR_REC)		
8	Provide a sample of SWIFT Acknowledgement message (FIN MT) to partner application **with** the complete Original Message and screenshots of the reconciliation with Original Message updated in the partner application		
9	Provide a sample of SWIFT Acknowledgement message (FIN MT) to partner application **without** the complete Original Message and screenshots of the reconciliation with Original Message updated in the partner application		
10	The partner application supports XML format v2. If so, send a copy of XML format V2 message exchanged by financial application to Alliance Access direction		
11	The partner application process transmission notification messages MT05 Quit ACK. If so, provide a sample of MT05 message and also the screen shot of how the transmission notification message was processed by the partner application		
Configuration Parameter for Input Message Partner			
12	Specify the Error Queue Name.		
13	Send a copy of MQ-MT format message exchanged by financial application to Alliance Access direction		
14	What is the validation Level set for Input Message Partner – Messages sent from Application to Alliance Access direction? Specify the Message Type and the validation assigned. If validation is set to ***"None"***, the reason for the same may be provided		
15	Confirm if **"Validation Error Code"** is selected for MQ-MT data format		

7.2 Sample Message Partner Configuration

Direction: From Message Partner to Alliance Access

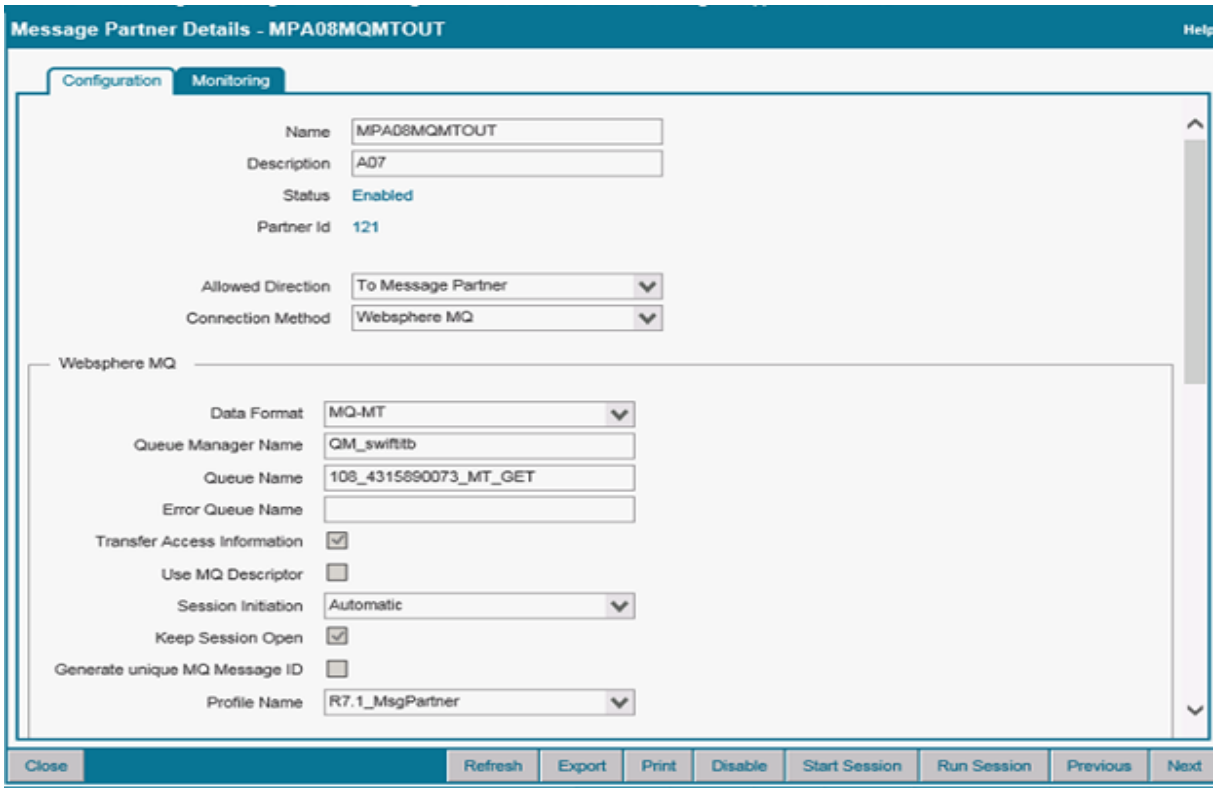
Format: MQ-MT

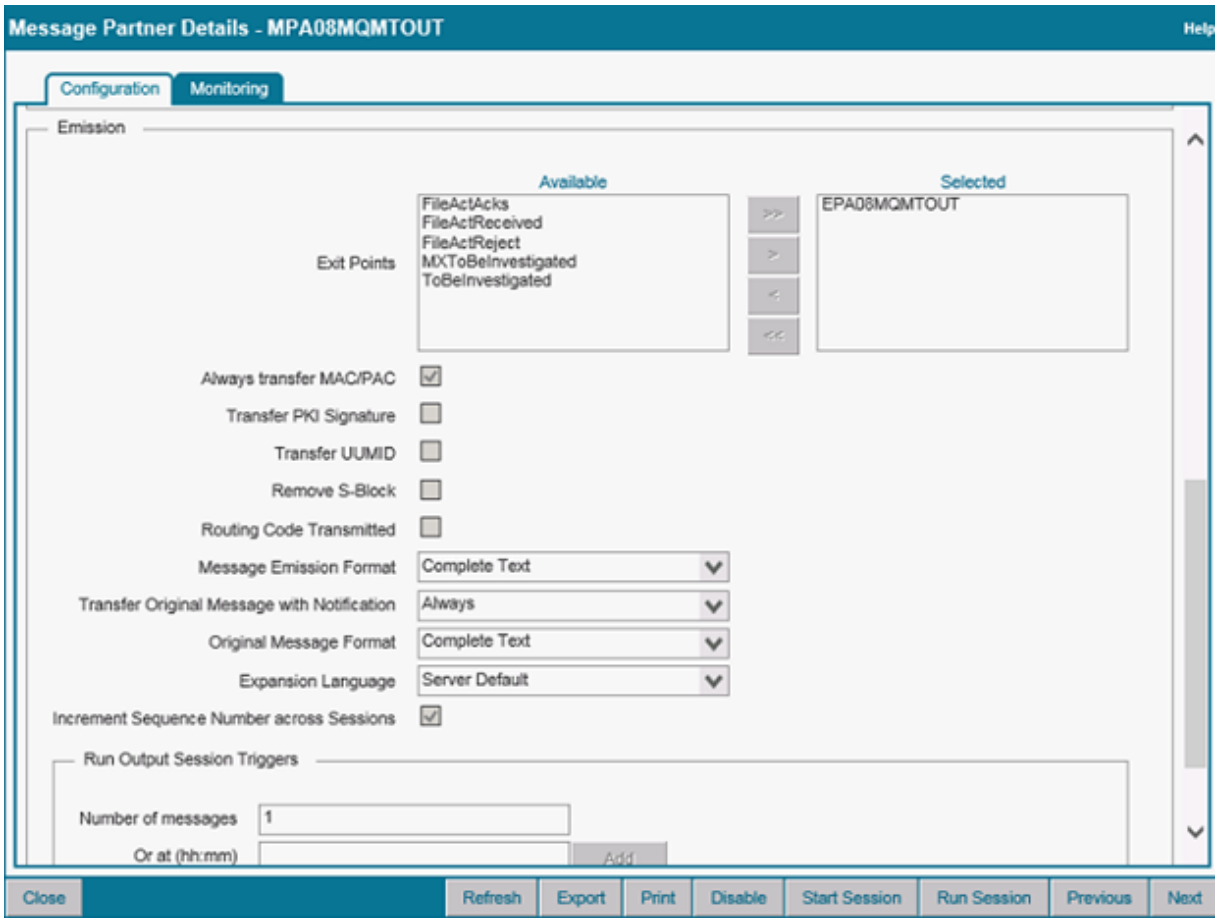




Direction: From Alliance Access to Message Partner

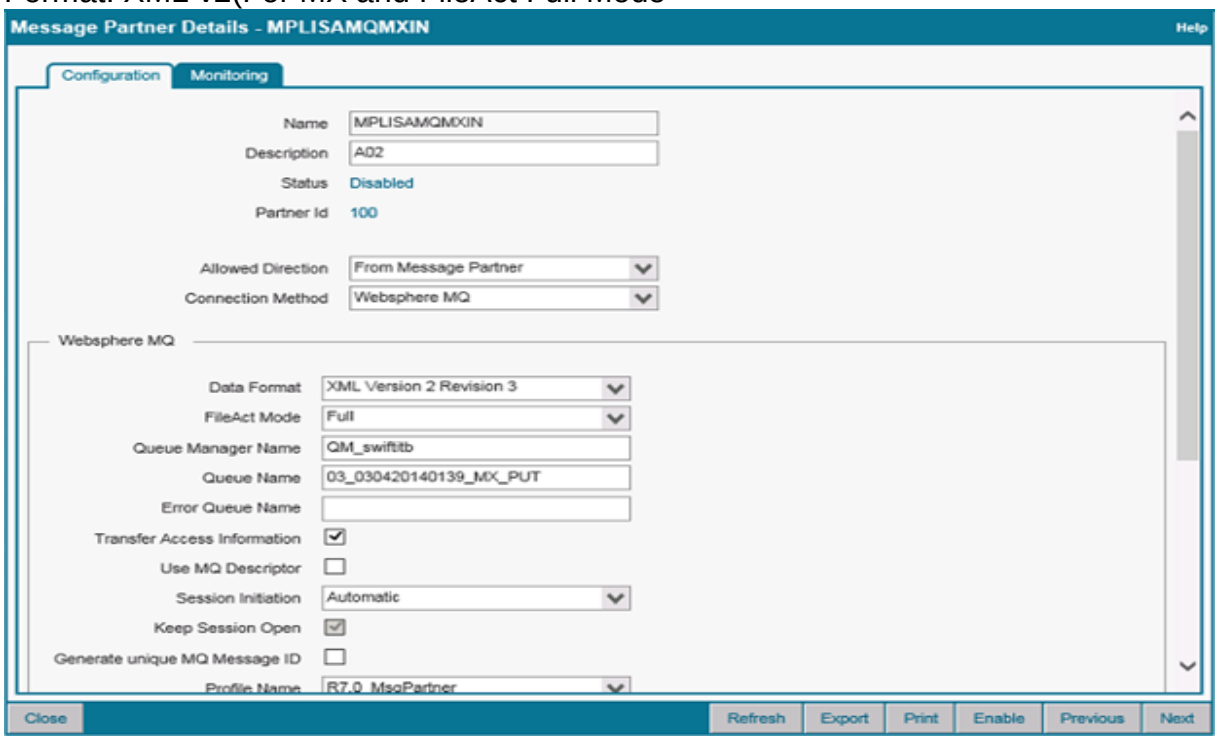
Format: MQ-MT



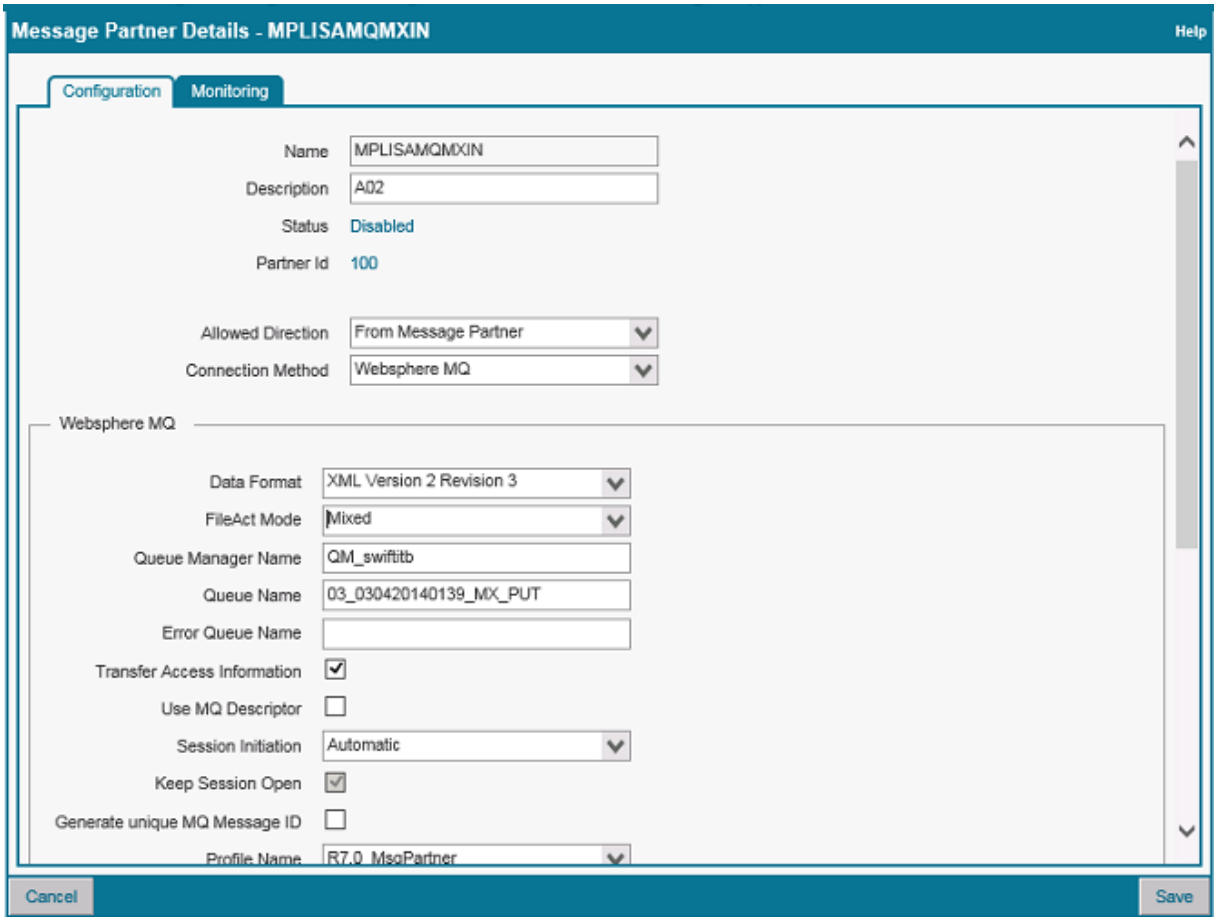


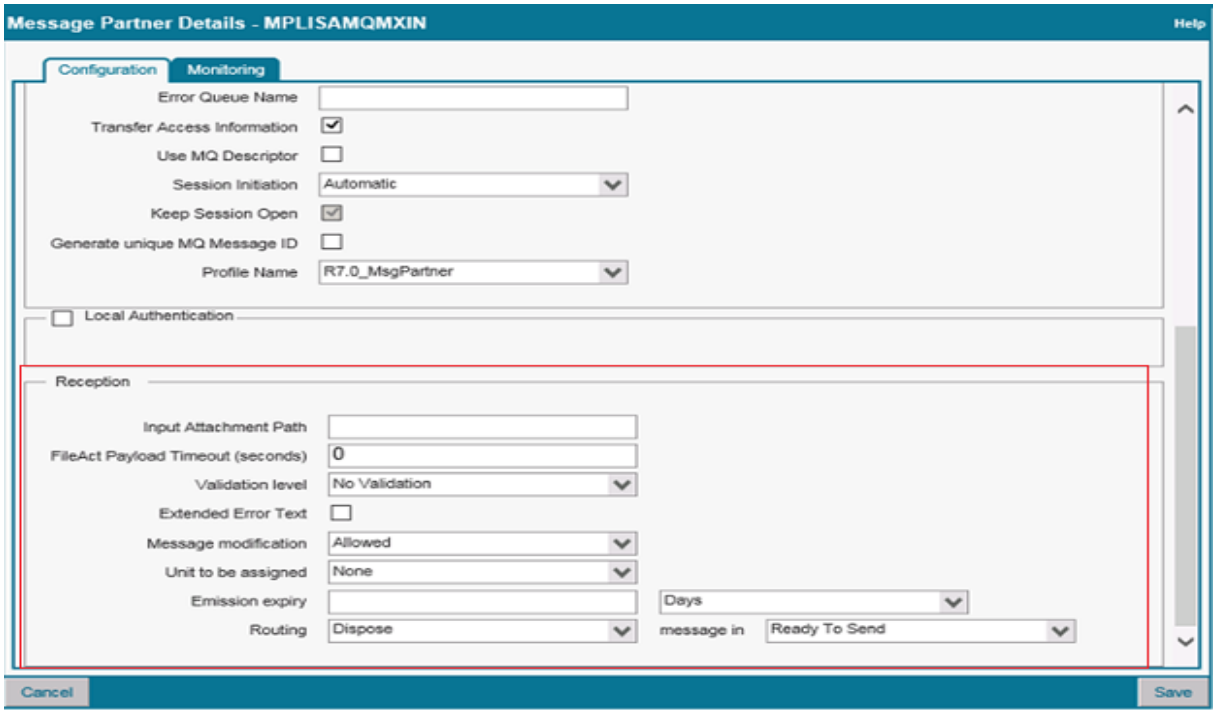
Direction: From Message Partner to Alliance Access

Format: XML v2(For MX and FileAct Full Mode



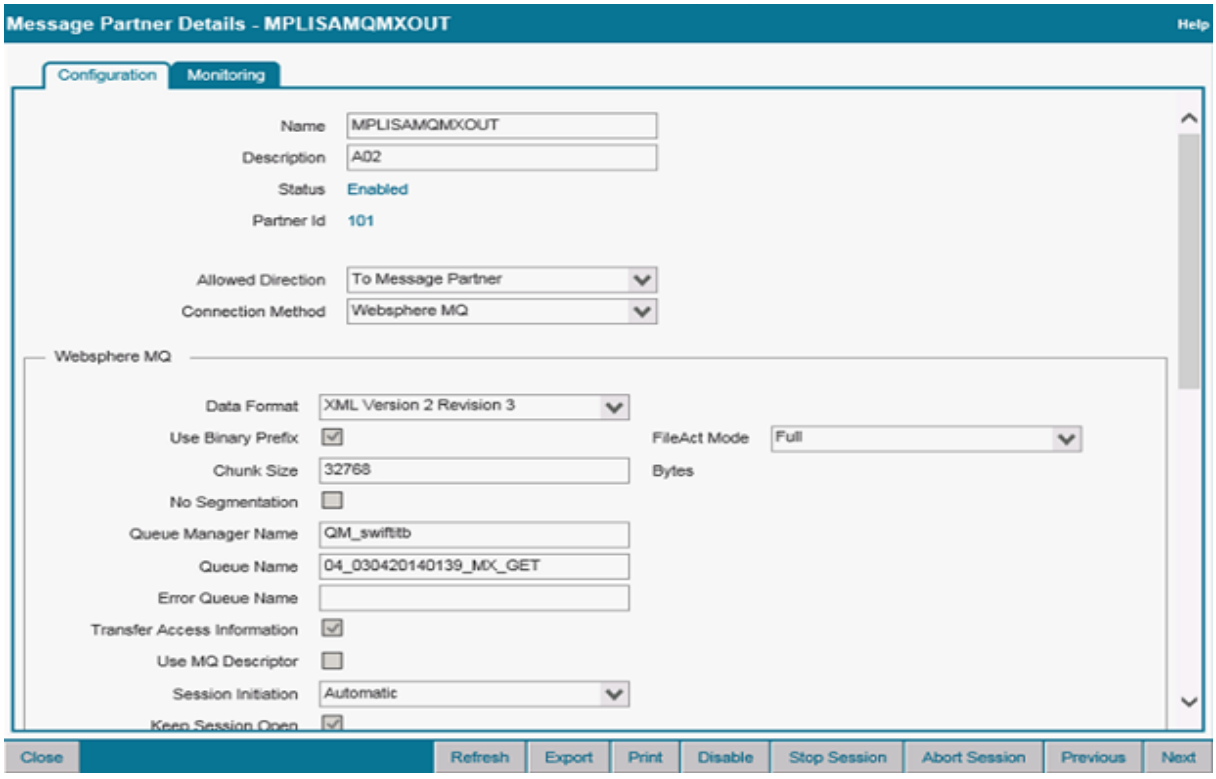
Format: XML v2(For FileAct Mixed Mode)



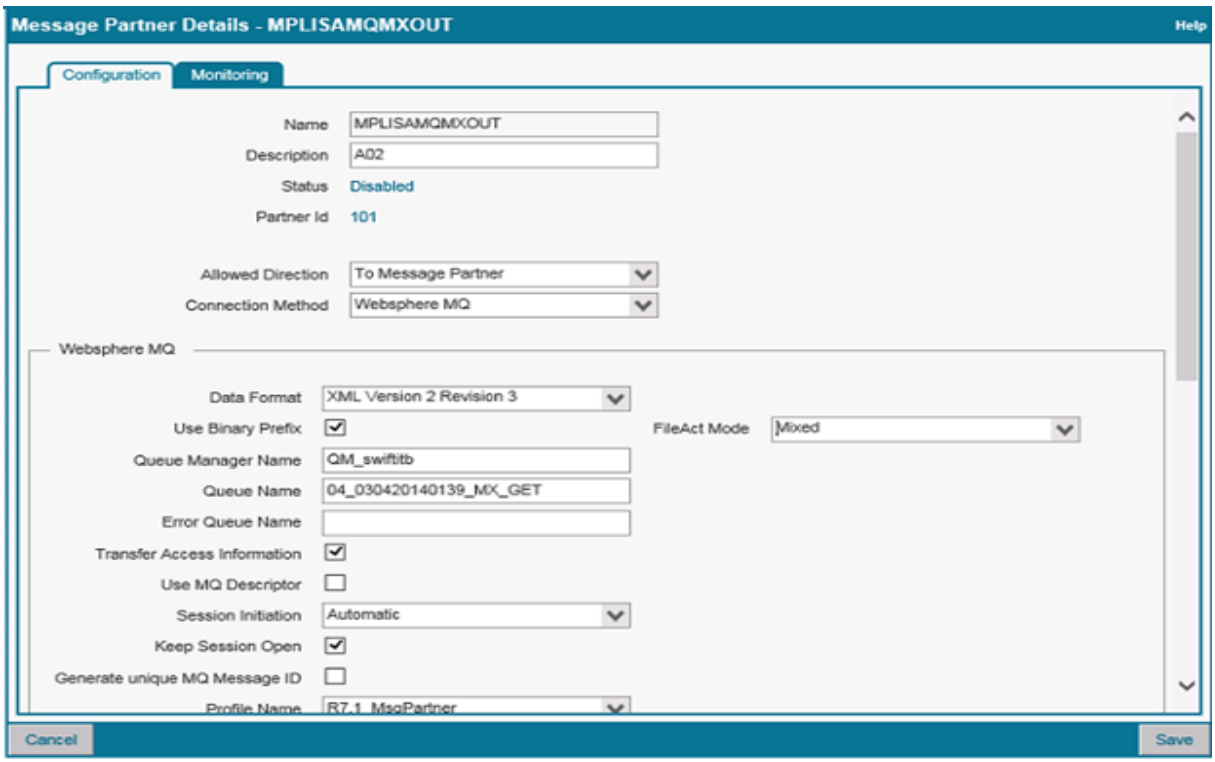


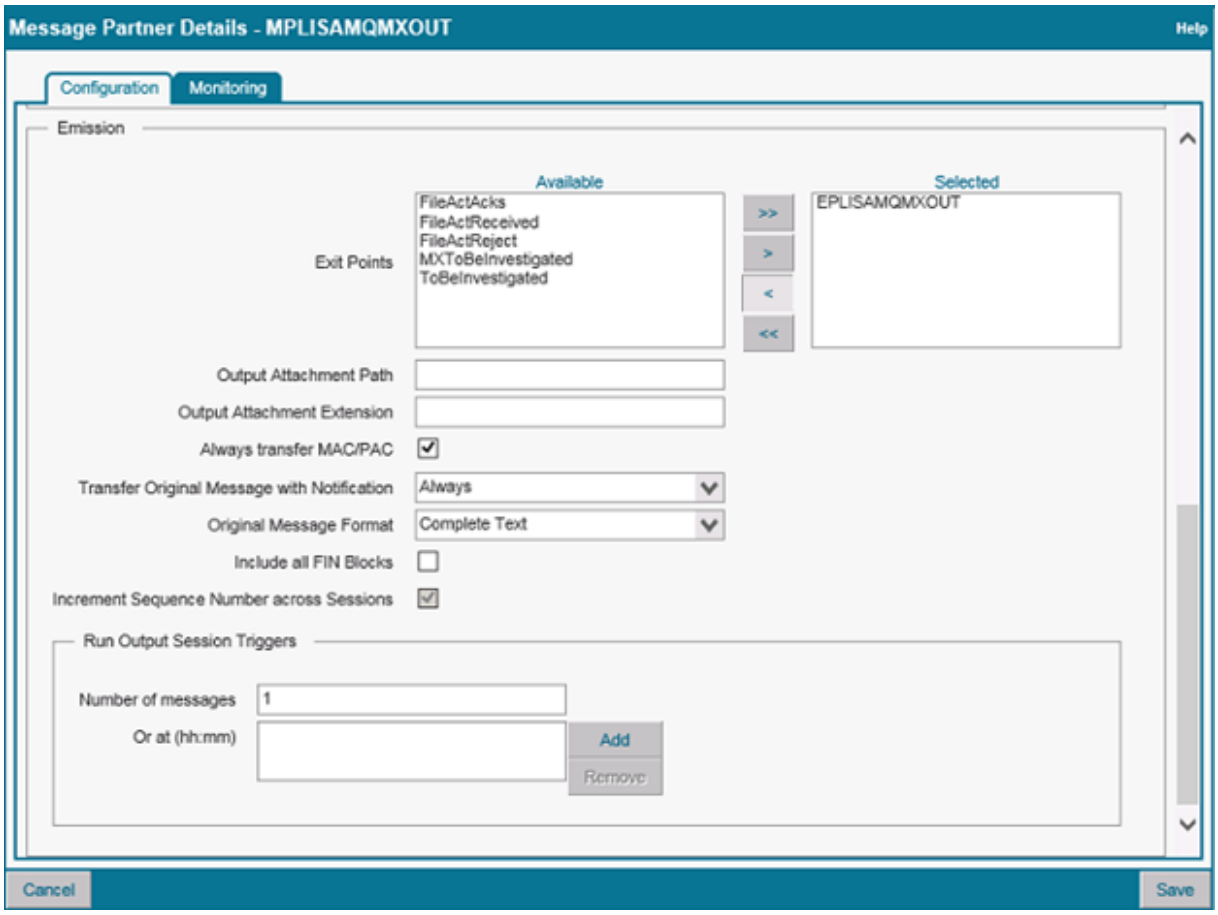
Direction: From Alliance Access to Message Partner

Format: XML v2(For MX and FileAct Full mode)



Format: XML v2(For MX and FileAct Mixed mode)





7.3 Input MT Message in MQ-MT format

{1:F01SPXAINJJAXXX0001000455}{2:I569SPXAINJJXXXXN2}{3:{108:16-569-SR-P001}}{4:
:001/LAST
:20C::SEME//16-569-ACK-P026
:23G:CANC
:98C::PREP//20140202100000
:22F::STBA//EOSP
:22H::REPR//PROV
:16R:COLLPRTY
:95Q::CLPA//PARTY NAME CLT
:97A::SAFE//123456
:16S:COLLPRTY
:16R:LINK
:20C::PREV//569001
:16S:LINK
:16S:GENL
:16R:SUMM
:19A::COVA//USD10000000,
:19A::TEXA//USD9000000,
:19A::MARG//USD270000,
:19A::TCOR//USD11000000,
:92A::MARG//3,0
:25D::GCST//DEFI
:98A::VALN//20140202
:16S:SUMM
:16R:SUME
:22F::COLA//OPTN
:19A::COVA//USD10000000,
:19A::TEXA//USD9000000,
:19A::TCOR//USD11000000,
:92A::MARG//3,0
:25D::GETS//DEFI
:16R:SUMC
:13B::ELIG//1234PROF145
:95P::PTYB//SWHQBEBB
:19A::COVA//USD10000000,
:19A::TEXA//USD9000000,
:19A::TCOR//USD11000000,
:19A::MARG//USD270000,
:92A::MARG//3,0
:25D::GCOS//FLAT
:16R:TRANSDET
:20C::CLTR//CLN00102AB235
:98A::TERM//20140202
:98A::EXRQ//20140202
:19A::COVA//USD10000000,
:19A::TEXA//USD9000000,
:19A::TRAA//USD9000000,
:19A::TCOR//USD11000000,
:22F::MICO//A013
:92A::MARG//5,1
:16R:VALDET
:17B::COLL//Y
:17B::SECU//Y
:98A::SETT//20140202
:19A::MVPF//USD10000000,
:19A::LICO//USD9000000,
:19A::MVBF//USD9000000,
:92B::EXCH//USD/GBP/2,0
:92A::VAFC//2,
:22F::MICO//A013
:16R:SECDET
:35B:ISIN US0000123456
:36B::SECV//UNIT/10000,
:95L::ALTE//LEGALENTIDENTIFIER45
:95P::ACOW//SWHQBEBB
:97B::SAFE//DVPA/234-87-65767

```
:25D::SETT//PEND
:11A::DENO//USD
:90A::MRKT//PRCT/2,0
:94B::RATS//VEND
:70C::RATS//AAA+
:16S:SECDET
:16S:VALDET
:16S:TRANSDET
:16S:SUMC
:16S:SUME
-}
```

7.4 Input MT Message in XML v2 format

```
_001440_____________________<?xml version="1.0" encoding="utf-8" ?>
<DataPDU xmlns="urn:swift:saa:xsd:saa.2.0">
   <Header>
      <Message>
         <SenderReference>FT09083100390P08</SenderReference>
         <MessageIdentifier>fin.103</MessageIdentifier>
         <Format>MT</Format>
         <Sender>
            <BIC12>SPXAINJJAXXX</BIC12>
         </Sender>
         <Receiver>
            <BIC12>SPXAINJJXXXX</BIC12>
         </Receiver>
         <InterfaceInfo>
            <UserReference>17-103-NVR-0057</UserReference>
         </InterfaceInfo>
         <NetworkInfo>
            <Service>swift.fin!p</Service>
         </NetworkInfo>
      </Message>
   </Header>

<Body>DQo6MjA6MTAtMTAzLU5WUi0wMDU3DQo6MTNDOi9DTFNUSU1FLzA5NDUrMDEwMA0KOjIzQjpDUkVED
Qo6MjNFOkNIUUINCjozMkE6MDkxMTIwVVNEMTUwMDAsMDANCjozM0I6VVNEMTUxMDAsMDANCjo1MEs6LzEy
MzQ1Njc4DQpPUkRFUklORyBDVVNUT01FUiBOQU1FDQo6NTJBOi9ELzIzNDU2Nzg5DQpTV0hRQkVCQg0KOjU
zRDpTRU5ERVJTIENPUlJFU1BPTkRFTlQNCk5FVyBZT1JLIEJSQU5DSA0KOjU2QzovL0NQMTIzNA0KOjU3QT
pTV0hRQkVCQg0KOjU5QTpTV0hRQkVCQg0KOjcwOi9JTlYvMDcwNzE3LCAxMjM0NSwgSU5WT0lDRQ0KTlVNQ
kVSUyAyNDU3OCwgNTQ3ODksDQozNTQ3ODksIDU0NTg4NCwgNTc4ODIyDQo6NzFBOkJFTg0KOjcxRjpVU0Qx
MDAsMDANCjo3MjovQUNDL0lOU1RSVUNUSU9OUyBBUkUgRk9SDQovL0FDQ09VTlQgV0lUSCBJTlNUSVRVVEl
PTg0KLy9UTyBFWEVDVVRFDQo6NzdCOi9PUkRFUlJFUy9VUy8vQURESVRPTkFMIElORk8NCi8vQ09OVElOVU
FUSU9OIE9GIEFEREIUSU9OQUwgSU5GTw0KLy9DT05USU5VQVRJT04=</Body>

</DataPDU>
```

7.5 Output MT Message in MQ-MT format

```
{1:F01SPXAINJJAXXX0063040302}{2:O5640519110728SPXAINJJAXXX006312302011072805l9N}{3:
{108:16-564-SR-N002}}{4:
:16R:GENL
:20C::CORP//CORPBIDS
:20C::SEME//16-564-SR-N002
:23G:NEWM
:22F::CAEV//BIDS
:22F::CAMV//VOLU
:25D::PROC/DSS/COMU
:16S:GENL
:16R:USECU
:35B:ISIN GBP00000ALL7
:16R:ACCTINFO
:97A::SAFE//5200
:93B::ELIG//UNIT/5000,
:16S:ACCTINFO
```

```
:16S:USECU
:16R:CADETL
:98B::GUPA//UKWN
:98A::ECPD//20180716
:98B::LAPD//UKWN
:92K::PTSC//ANYA
:16S:CADETL
:16R:CAOPTN
:13A::CAON//001
:22F::CAOP//CASH
:17B::DFLT//N
:98C::MKDT//20180717100000
:98C::RDDT//20180716010000
:92M::ESOF//USD12,00/10,
:90F::OFFR//ACTU/GBP5,/UNIT/1,
:16S:CAOPTN
:16R:CAOPTN
:13A::CAON//002
:22F::CAOP//NOAC
:17B::DFLT//Y
:16S:CAOPTN
-
}{5:{MAC:00000000}{CHK:7EC6BD3BAE9E}}{S:{SAC:}{COP:P}{INS:access/EPEXAMENMQMTOUT}{U
NT:None}{USR:Administrator}}
```

7.6 Delivery Notification Message with S-Block

```
{1:F01SPXAINJJAXXX0063040303}{2:O0110420110728DYDYXXXXHXXX000113890911072805205}{4:
{175:0519}{106:110728SPXAINJJAXXX0063123020}{108:16-564-SR-
N002}{175:0519}{107:110728SPXAINJJAXXX0063040302}}{5:{CHK:ED662E0AE8D9}{SYS:}}{S:{C
OP:P}{INS:access/EPEXAMENMQMTOUT}{UNT:None}{USR:Administrator}}
```

7.7 ACK Message with Original Message with S-Block

```
{1:F21SPXAINJJAXXX0063123020}{4:{177:1107280519}{451:0}{108:16-564-SR-
N002}}{1:F01SPXAINJJAXXX0063123020}{2:I564SPXAINJJXXXXN2}{3:{108:16-564-SR-
N002}}{4:
:16R:GENL
:20C::CORP//CORPBIDS
:20C::SEME//16-564-SR-N002
:23G:NEWM
:22F::CAEV//BIDS
:22F::CAMV//VOLU
:25D::PROC/DSS/COMU
:16S:GENL
:16R:USECU
:35B:ISIN GBP00000ALL7
:16R:ACCTINFO
:97A::SAFE//5200
:93B::ELIG//UNIT/5000,
:16S:ACCTINFO
:16S:USECU
:16R:CADETL
:98B::GUPA//UKWN
:98A::ECPD//20180716
:98B::LAPD//UKWN
:92K::PTSC//ANYA
:16S:CADETL
:16R:CAOPTN
:13A::CAON//001
:22F::CAOP//CASH
:17B::DFLT//N
:98C::MKDT//20180717100000
:98C::RDDT//20180716010000
:92M::ESOF//USD12,00/10,
:90F::OFFR//ACTU/GBP5,/UNIT/1,
```

```
:16S:CAOPTN
:16R:CAOPTN
:13A::CAON//002
:22F::CAOP//NOAC
:17B::DFLT//Y
:16S:CAOPTN
-
}{5:{MAC:00000000}{CHK:7EC6BD3BAE9E}}{S:{INS:access/EPEXAMENMQMTOUT}{UNT:None}{USR:
Administrator}}
```

7.8 ACK Message without Original Message with S-Block

```
{1:F21SPXAINJJAXXX0063123021}{4:{177:1107280608}{451:0}{108:16-564-SR-
N002}}{1:F01SPXAINJJAXXX0063123021}{2:I564SPXAINJJXXXXN2}{3:{108:16-564-SR-
N002}}{5:{MAC:00000000}{CHK:7EC6BD3BAE9E}}{S:{CON:}{INS:access/EPEXAMENMQMTOUT}{UNT
:None}{USR:Administrator}
```

7.9 Input MX Message in XML v2 format

```
_001571_____________________<?xml version="1.0" encoding="UTF-8"
standalone="no"?><DataPDU xmlns="urn:swift:saa:xsd:saa.2.0">
       <Header>
              <Message>

       <SenderReference>PPTEI00000001013</SenderReference><MessageIdentifier>camt.03
4.001.02</MessageIdentifier><Format>MX</Format><Sender>
                     <DN>o=spxainjj,o=swift</DN><FullName>
                            <X1>SPXAINJJA05</X1></FullName></Sender><Receiver>
                     <DN>o=spxainjj,o=swift</DN><FullName>
                            <X1>SPXAINJJXXX</X1></FullName></Receiver><InterfaceInfo>

       <UserReference>PPTEI00000001013</UserReference></InterfaceInfo><NetworkInfo>
                     <IsNotificationRequested>true</IsNotificationRequested>
                     <Service>swift.eni!x</Service></NetworkInfo><SecurityInfo>
                     <SWIFTNetSecurityInfo/></SecurityInfo></Message></Header><Body>
              <AppHdr xmlns="urn:swift:xsd:$ahV10">
              <MsgRef>2010100700001572</MsgRef><CrDate>2018-10-
07T12:28:39+05:30</CrDate></AppHdr><DOC:Document
xmlns:DOC="urn:swift:xsd:swift.eni$camt.034.001.02"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
              <DOC:camt.034.001.02><DOC:Assgnmt>
       <DOC:Id>2010100700001572</DOC:Id><DOC:Assgnr>CHASUS33XXX</DOC:Assgnr><DOC:Ass
gne>ABNANL2AXXX</DOC:Assgne><DOC:CreDtTm>2018-10-
07T12:28:39+05:30</DOC:CreDtTm></DOC:Assgnmt><DOC:Case><DOC:Id>20181007IRVTUS3NXXX0
03</DOC:Id><DOC:Cretr>IRVTUS3NXXX</DOC:Cretr><DOC:ReopCaseIndctn>false</DOC:ReopCas
eIndctn></DOC:Case><DOC:DplctData><DOC:Tp>MT202</DOC:Tp><DOC:Cntnt>:20:ENI201010060
0462//:21:PPT2010100600126//:32A:101006EUR2000,0//:59A:IRVTUS3NXXX</DOC:Cntnt></DOC
:DplctData></DOC:camt.034.001.02></DOC:Document></Body></DataPDU>
```

7.10 ACK Message in XML v2 for MX with SAA Info

```
_007159_____________________<?xml version="1.0" encoding="UTF-8" ?>
<Saa:DataPDU xmlns:Saa="urn:swift:saa:xsd:saa.2.0" xmlns:Sw="urn:swift:snl:ns.Sw"
xmlns:SwInt="urn:swift:snl:ns.SwInt" xmlns:SwGbl="urn:swift:snl:ns.SwGbl"
xmlns:SwSec="urn:swift:snl:ns.SwSec">
<Saa:Revision>2.0.7</Saa:Revision>
<Saa:Header>
<Saa:TransmissionReport>
<Saa:SenderReference>PPTEI00000001013</Saa:SenderReference>
<Saa:ReconciliationInfo>swi00001-2018-02-
11T09:58:50.21466.2744520Z</Saa:ReconciliationInfo>
<Saa:NetworkDeliveryStatus>NetworkAcked</Saa:NetworkDeliveryStatus>
<Saa:OriginalInstanceAddressee>
<Saa:X1>SPXAINJJXXX</Saa:X1>
</Saa:OriginalInstanceAddressee>
```

```
<Saa:ReportingApplication>SWIFTNetInterface</Saa:ReportingApplication>
<Saa:NetworkInfo>
<Saa:Priority>Normal</Saa:Priority>
<Saa:IsPossibleDuplicate>false</Saa:IsPossibleDuplicate>
<Saa:IsNotificationRequested>true</Saa:IsNotificationRequested>
<Saa:Service>swift.eni!x</Saa:Service>
<Saa:Network>SWIFTNet</Saa:Network>
<Saa:SessionNr>000015</Saa:SessionNr>
<Saa:SeqNr>000000001</Saa:SeqNr>
<Saa:SWIFTNetNetworkInfo>
<Saa:RequestType>camt.034.001.02</Saa:RequestType>
<Saa:SWIFTRef>swi00001-2018-02-11T09:58:50.21466.2744520Z</Saa:SWIFTRef>
<Saa:SNLRef>SNL02013-2018-02-11T09:58:43.4700.006171Z</Saa:SNLRef>
<Saa:Reference>6eeb9cc9-04ec-44d7-bf86-a1ded2b5e597</Saa:Reference>
<Saa:SnFInputTime>0114:2018-02-11T09:58:50</Saa:SnFInputTime>
<Saa:ResponsePayloadAttributes>
<Saa:PayloadAttribute>
<Saa:Name>type</Saa:Name>
<Saa:Value>swift.emptyresponse</Saa:Value>
</Saa:PayloadAttribute>
</Saa:ResponsePayloadAttributes>
<Saa:FileStartTime>20180211152843</Saa:FileStartTime>
<Saa:FileEndTime>20180211152851</Saa:FileEndTime>
</Saa:SWIFTNetNetworkInfo>
</Saa:NetworkInfo>
<Saa:SAAInfo>
<Saa:InstanceName>access/EPEXAMENMQMXOUT</Saa:InstanceName>
<Saa:UserName>Administrator</Saa:UserName>
<Saa:Unit>None</Saa:Unit>
</Saa:SAAInfo>
<Saa:Interventions>
<Saa:Intervention>
<Saa:IntvCategory>TransmissionReport</Saa:IntvCategory>
<Saa:CreationTime>20180211152843</Saa:CreationTime>
<Saa:OperatorOrigin>SYSTEM</Saa:OperatorOrigin>
<Saa:Contents>
<AckNack>
<PseudoAckNack>{1:F21SPXAINJJAA05000015000000001}{4:{177:1102111528}{451:0}{311:ACK
}{108:PPTEI00000001013}}</PseudoAckNack>
</AckNack>
</Saa:Contents>
</Saa:Intervention>
</Saa:Interventions>
<Saa:IsRelatedInstanceOriginal>true</Saa:IsRelatedInstanceOriginal>
<Saa:MessageCreator>ApplicationInterface</Saa:MessageCreator>
<Saa:IsMessageModified>false</Saa:IsMessageModified>
<Saa:MessageFields>HeaderAndBody</Saa:MessageFields>
<Saa:Message>
<Saa:SenderReference>PPTEI00000001013</Saa:SenderReference>
<Saa:MessageIdentifier>camt.034.001.02</Saa:MessageIdentifier>
<Saa:Format>MX</Saa:Format>
<Saa:SubFormat>Input</Saa:SubFormat>
<Saa:Sender>
<Saa:DN>o=spxainjj,o=swift</Saa:DN>
<Saa:FullName>
<Saa:X1>SPXAINJJA05</Saa:X1>
</Saa:FullName>
</Saa:Sender>
<Saa:Receiver>
<Saa:DN>o=spxainjj,o=swift</Saa:DN>
<Saa:FullName>
<Saa:X1>SPXAINJJXXX</Saa:X1>
</Saa:FullName>
</Saa:Receiver>
<Saa:InterfaceInfo>
<Saa:UserReference>PPTEI00000001013</Saa:UserReference>
<Saa:MessageCreator>ApplicationInterface</Saa:MessageCreator>
<Saa:MessageContext>Report</Saa:MessageContext>
<Saa:MessageNature>Financial</Saa:MessageNature>
```

```
</Saa:InterfaceInfo>
<Saa:NetworkInfo>
<Saa:Priority>Normal</Saa:Priority>
<Saa:IsPossibleDuplicate>false</Saa:IsPossibleDuplicate>
<Saa:IsNotificationRequested>true</Saa:IsNotificationRequested>
<Saa:Service>swift.eni!x</Saa:Service>
<Saa:Network>SWIFTNet</Saa:Network>
<Saa:SessionNr>000015</Saa:SessionNr>
<Saa:SeqNr>000000001</Saa:SeqNr>
<Saa:SWIFTNetNetworkInfo>
<Saa:RequestType>camt.034.001.02</Saa:RequestType>
<Saa:SWIFTRef>swi00001-2018-02-11T09:58:50.21466.2744520Z</Saa:SWIFTRef>
<Saa:SNLRef>SNL02013-2018-02-11T09:58:43.4700.006171Z</Saa:SNLRef>
<Saa:Reference>6eeb9cc9-04ec-44d7-bf86-a1ded2b5e597</Saa:Reference>
<Saa:SnFInputTime>0114:2018-02-11T09:58:50</Saa:SnFInputTime>
<Saa:ResponsePayloadAttributes>
<Saa:PayloadAttribute>
<Saa:Name>type</Saa:Name>
<Saa:Value>swift.emptyresponse</Saa:Value>
</Saa:PayloadAttribute>
</Saa:ResponsePayloadAttributes>
<Saa:FileStartTime>20180211152843</Saa:FileStartTime>
<Saa:FileEndTime>20180211152851</Saa:FileEndTime>
</Saa:SWIFTNetNetworkInfo>
</Saa:NetworkInfo>
<Saa:SecurityInfo>
<Saa:SWIFTNetSecurityInfo>
<Saa:SignerDN>cn=fin1spxainjj,o=spxainjj,o=swift</Saa:SignerDN>
<Saa:NRType>SvcMand</Saa:NRType>
<Saa:SignatureValue>
<SwSec:Signature>
<SwSec:SignedInfo>
<Sw:Reference>
<Sw:DigestValue>bkiMbh8yxc2aLwz3rdkiNnN/znVW9lSZwZjvbHILybQ=</Sw:DigestValue>
</Sw:Reference>
</SwSec:SignedInfo>
<SwSec:SignatureValue>PEMF@Proc-Type: 4,MIC-ONLY
Content-Domain: RFC822
EntrustFile-Version: 2.0
Originator-DN: cn=fin1spxainjj,o=spxainjj,o=swift
Orig-SN: 1276265533
MIC-Info: SHA256, RSA,
 nQWkUcvW4qJo8vSn/7RR/uY6Dqotvx2PR9O7O44mQ4WgX+AF4aQaeh1fXLycCYAA
 U1UFph1GafZ9i8mJ6WdNEAs/PWKJdZia56AGpQwaMfYvlH07NL8nXN97TvNx5WR9
 WVWM9yphOyLTh32VLOqAttdewmBV2s/tgBIVm6BERFmOF4i8/LYFnmbruoqFqHfZ
 t6PYKw68ag97dfjJd7G/lG7o9SzAHi6rUN2uvgpHi+j9NNSMP4BEagoD6fgaZLLQ
 bUzyQOW9cC5lbrncrvycrBDjObcrAxJenRM2EL5Sch7IZ77iSdU5lbk/xws+3M6P
 Pi4fywQSGk+WVIR2IWZFwQ==
</SwSec:SignatureValue>
<SwSec:KeyInfo>
<SwSec:SignDN>cn=fin1spxainjj,o=spxainjj,o=swift</SwSec:SignDN>
<SwSec:CertPolicyId>1.3.21.6.2</SwSec:CertPolicyId>
</SwSec:KeyInfo>
<SwSec:Manifest>
<Sw:Reference>
<Sw:DigestRef>Sw.RequestHeader and RequestPayload</Sw:DigestRef>
<Sw:DigestValue>MPaXFn9EaoSKdlaBr/XP5IBLZnbmRBIA5c6Gcn8bVMI=</Sw:DigestValue>
</Sw:Reference>
<Sw:Reference>
<Sw:DigestRef>Sw.E2S</Sw:DigestRef>
<Sw:DigestValue>j+qPXV05z97UJboVnYVMdGtERq7YQtZDssm3v+YxFGQ=</Sw:DigestValue>
</Sw:Reference>
<Sw:Reference>
<Sw:DigestRef>Sw.NRS</Sw:DigestRef>
<Sw:DigestValue>ZkMBoPzT3/Uc28F3f7/3R2ce0exgZW26gKsiFUvt6h8=</Sw:DigestValue>
</Sw:Reference>
</SwSec:Manifest>
</SwSec:Signature>
</Saa:SignatureValue>
```

```
</Saa:SWIFTNetSecurityInfo>
</Saa:SecurityInfo>
<Saa:SAAInfo>
<Saa:InstanceName>access/EPEXAMENMQMXOUT</Saa:InstanceName>
<Saa:UserName>Administrator</Saa:UserName>
<Saa:Unit>None</Saa:Unit>
</Saa:SAAInfo>
</Saa:Message>
</Saa:TransmissionReport>
</Saa:Header>
<Saa:Body>
                <AppHdr xmlns="urn:swift:xsd:$ahV10">
                <MsgRef>2010100700001572</MsgRef>
<CrDate>2018-2-07T12:28:39+05:30</CrDate>
</AppHdr>
<DOC:Document xmlns:DOC="urn:swift:xsd:swift.eni$camt.034.001.02"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
                <DOC:camt.034.001.02>
<DOC:Assgnmt>
        <DOC:Id>2018100700001572</DOC:Id>
<DOC:Assgnr>CHASUS33XXX</DOC:Assgnr>
<DOC:Assgne>ABNANL2AXXX</DOC:Assgne>
<DOC:CreDtTm>2018-2-07T12:28:39+05:30</DOC:CreDtTm>
</DOC:Assgnmt>
<DOC:Case>
<DOC:Id>20101007IRVTUS3NXXX003</DOC:Id>
<DOC:Cretr>IRVTUS3NXXX</DOC:Cretr>
<DOC:ReopCaseIndctn>false</DOC:ReopCaseIndctn>
</DOC:Case>
<DOC:DplctData>
<DOC:Tp>MT202</DOC:Tp>
<DOC:Cntnt>:20:ENI2010100600462//:21:PPT2010100600126//:32A:101006EUR2000,0//:59A:I
RVTUS3NXXX</DOC:Cntnt>
</DOC:DplctData>
</DOC:camt.034.001.02>
</DOC:Document>
</Saa:Body>
</Saa:DataPDU>
```

7.11 Delivery Notification Message in XML v2 for MX with SAA Info

```
_001567_____________________<?xml version="1.0" encoding="UTF-8" ?>
<Saa:DataPDU xmlns:Saa="urn:swift:saa:xsd:saa.2.0" xmlns:Sw="urn:swift:snl:ns.Sw"
xmlns:SwInt="urn:swift:snl:ns.SwInt" xmlns:SwGbl="urn:swift:snl:ns.SwGbl"
xmlns:SwSec="urn:swift:snl:ns.SwSec">
<Saa:Revision>2.0.7</Saa:Revision>
<Saa:Header>
<Saa:DeliveryNotification>
<Saa:ReconciliationInfo>swi00001-2018-02-
11T09:58:50.21466.2744520Z</Saa:ReconciliationInfo>
<Saa:ReceiverDeliveryStatus>RcvDelivered</Saa:ReceiverDeliveryStatus>
<Saa:MessageIdentifier>Delivery Notification</Saa:MessageIdentifier>
<Saa:InterfaceInfo>
<Saa:MessageCreator>SWIFTNetInterface</Saa:MessageCreator>
<Saa:MessageContext>Original</Saa:MessageContext>
<Saa:MessageNature>Network</Saa:MessageNature>
</Saa:InterfaceInfo>
<Saa:NetworkInfo>
<Saa:Priority>Normal</Saa:Priority>
<Saa:IsPossibleDuplicate>false</Saa:IsPossibleDuplicate>
<Saa:Network>SWIFTNet</Saa:Network>
<Saa:SessionNr>002164</Saa:SessionNr>
<Saa:SeqNr>000000140</Saa:SeqNr>
</Saa:NetworkInfo>
<Saa:SAAInfo>
<Saa:InstanceName>access/EPEXAMENMQMXOUT</Saa:InstanceName>
<Saa:UserName>Administrator</Saa:UserName>
<Saa:Unit>None</Saa:Unit>
```

```
</Saa:SAAInfo>
</Saa:DeliveryNotification>
</Saa:Header>
<Saa:Body>
<Sw:NotifySnFRequestHandle>
<Sw:SnFRef>swi00001-2018-02-11T09:58:50.21466.2744520Z</Sw:SnFRef>
<Sw:SnFRefType>InterAct</Sw:SnFRefType>
<Sw:AcceptStatus>Accepted</Sw:AcceptStatus>
<Sw:AckSwiftTime>2018-02-11T09:58:54Z</Sw:AckSwiftTime>
<Sw:AckInfo>Acked</Sw:AckInfo>
</Sw:NotifySnFRequestHandle>
</Saa:Body>
</Saa:DataPDU>
```

7.12 Output Message in XML v2 for MX with SAA Info

```
_004865_____________________<?xml version="1.0" encoding="UTF-8" ?>
<Saa:DataPDU xmlns:Saa="urn:swift:saa:xsd:saa.2.0" xmlns:Sw="urn:swift:snl:ns.Sw"
xmlns:SwInt="urn:swift:snl:ns.SwInt" xmlns:SwGbl="urn:swift:snl:ns.SwGbl"
xmlns:SwSec="urn:swift:snl:ns.SwSec">
<Saa:Revision>2.0.7</Saa:Revision>
<Saa:Header>
<Saa:Message>
<Saa:SenderReference>OSPXAINJJXXX034PPTEI00000001013</Saa:SenderReference>
<Saa:MessageIdentifier>camt.034.001.02</Saa:MessageIdentifier>
<Saa:Format>MX</Saa:Format>
<Saa:SubFormat>Output</Saa:SubFormat>
<Saa:Sender>
<Saa:DN>o=spxainjj,o=swift</Saa:DN>
<Saa:FullName>
<Saa:X1>SPXAINJJXXX</Saa:X1>
</Saa:FullName>
</Saa:Sender>
<Saa:Receiver>
<Saa:DN>o=spxainjj,o=swift</Saa:DN>
<Saa:FullName>
<Saa:X1>SPXAINJJXXX</Saa:X1>
</Saa:FullName>
</Saa:Receiver>
<Saa:InterfaceInfo>
<Saa:UserReference>PPTEI00000001013</Saa:UserReference>
<Saa:MessageCreator>SWIFTNetInterface</Saa:MessageCreator>
<Saa:MessageContext>Copy</Saa:MessageContext>
<Saa:MessageNature>Financial</Saa:MessageNature>
</Saa:InterfaceInfo>
<Saa:NetworkInfo>
<Saa:Priority>Normal</Saa:Priority>
<Saa:IsPossibleDuplicate>true</Saa:IsPossibleDuplicate>
<Saa:Service>swift.eni!x</Saa:Service>
<Saa:Network>SWIFTNet</Saa:Network>
<Saa:SessionNr>002148</Saa:SessionNr>
<Saa:SeqNr>000000037</Saa:SeqNr>
<Saa:SWIFTNetNetworkInfo>
<Saa:RequestType>camt.034.001.02</Saa:RequestType>
<Saa:SWIFTRef>swi00001-2018-02-11T09:58:50.21466.2744520Z</Saa:SWIFTRef>
<Saa:SNLRef>SNL02013-2018-02-11T09:58:43.4700.006171Z</Saa:SNLRef>
<Saa:Reference>831cbd44-d7c7-4fc5-8e15-ad16058f510c</Saa:Reference>
<Saa:SnFQueueName>spxainjj_msg!x</Saa:SnFQueueName>
<Saa:SnFInputTime>0114:2018-02-11T09:58:50</Saa:SnFInputTime>
<Saa:SnFDeliveryTime>2011-02-11T09:58:50Z</Saa:SnFDeliveryTime>
<Saa:ValidationDescriptor>
                <SwInt:ValResult>Success</SwInt:ValResult>
            </Saa:ValidationDescriptor>
<Saa:FileEndTime>20180211152851</Saa:FileEndTime>
</Saa:SWIFTNetNetworkInfo>
</Saa:NetworkInfo>
```

```
<Saa:SecurityInfo>
<Saa:SWIFTNetSecurityInfo>
<Saa:SignerDN>cn=fin1spxainjj,o=spxainjj,o=swift</Saa:SignerDN>
<Saa:NRType>SvcMand</Saa:NRType>
<Saa:SignatureResult>Success</Saa:SignatureResult>
<Saa:SignatureValue>
<SwSec:Signature>
<SwSec:SignedInfo>
<Sw:Reference>
<Sw:DigestValue>bkiMbh8yxc2aLwz3rdkiNnN/znVW9lSZwZjvbHILybQ=</Sw:DigestValue>
</Sw:Reference>
</SwSec:SignedInfo>
<SwSec:SignatureValue>PEMF@Proc-Type: 4,MIC-ONLY
Content-Domain: RFC822
EntrustFile-Version: 2.0
Originator-DN: cn=fin1spxainjj,o=spxainjj,o=swift
Orig-SN: 1276265533
MIC-Info: SHA256, RSA,
 nQWkUcvW4qJo8vSn/7RR/uY6Dqotvx2PR9O7O44mQ4WgX+AF4aQaeh1fXLycCYAA
 U1UFph1GafZ9i8mJ6WdNEAs/PWKJdZia56AGpQwaMfYvlH07NL8nXN97TvNx5WR9
 WVWM9yphOyLTh32VLOqAttdewmBV2s/tgBIVm6BERFmOF4i8/LYFnmbruoqFqHfZ
 t6PYKw68ag97dfjJd7G/lG7o9SzAHi6rUN2uvgpHi+j9NNSMP4BEagoD6fgaZLLQ
 bUzyQOW9cC5lbrncrvycrBDjObcrAxJenRM2EL5Sch7IZ77iSdU5lbk/xws+3M6P
 Pi4fywQSGk+WVIR2IWZFwQ==
</SwSec:SignatureValue>
<SwSec:KeyInfo>
<SwSec:SignDN>cn=fin1spxainjj,o=spxainjj,o=swift</SwSec:SignDN>
<SwSec:CertPolicyId>1.3.21.6.2</SwSec:CertPolicyId>
</SwSec:KeyInfo>
<SwSec:Manifest>
<Sw:Reference>
<Sw:DigestRef>Sw.RequestHeader and RequestPayload</Sw:DigestRef>
<Sw:DigestValue>MPaXFn9EaoSKdlaBr/XP5IBLZnbmRBIA5c6Gcn8bVMI=</Sw:DigestValue>
</Sw:Reference>
<Sw:Reference>
<Sw:DigestRef>Sw.E2S</Sw:DigestRef>
<Sw:DigestValue>j+qPXV05z97UJboVnYVMdGtERq7YQtZDssm3v+YxFGQ=</Sw:DigestValue>
</Sw:Reference>
<Sw:Reference>
<Sw:DigestRef>Sw.NRS</Sw:DigestRef>
<Sw:DigestValue>ZkMBoPzT3/Uc28F3f7/3R2ce0exgZW26gKsiFUvt6h8=</Sw:DigestValue>
</Sw:Reference>
</SwSec:Manifest>
</SwSec:Signature>
</Saa:SignatureValue>
</Saa:SWIFTNetSecurityInfo>
</Saa:SecurityInfo>
<Saa:SAAInfo>
<Saa:InstanceName>access/EPEXAMENMQMXOUT</Saa:InstanceName>
<Saa:UserName>Administrator</Saa:UserName>
<Saa:Unit>None</Saa:Unit>
</Saa:SAAInfo>
</Saa:Message>
</Saa:Header>
<Saa:Body>
                <AppHdr xmlns="urn:swift:xsd:$ahV10">
                <MsgRef>2018100700001572</MsgRef>
<CrDate>2018-10-07T12:28:39+05:30</CrDate>
</AppHdr>
<DOC:Document xmlns:DOC="urn:swift:xsd:swift.eni$camt.034.001.02"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
                <DOC:camt.034.001.02>
<DOC:Assgnmt>
        <DOC:Id>2018100700001572</DOC:Id>
<DOC:Assgnr>CHASUS33XXX</DOC:Assgnr>
<DOC:Assgne>ABNANL2AXXX</DOC:Assgne>
<DOC:CreDtTm>2018-10-07T12:28:39+05:30</DOC:CreDtTm>
</DOC:Assgnmt>
<DOC:Case>
```

```
<DOC:Id>20181007IRVTUS3NXXX003</DOC:Id>
<DOC:Cretr>IRVTUS3NXXX</DOC:Cretr>
<DOC:ReopCaseIndctn>false</DOC:ReopCaseIndctn>
</DOC:Case>
<DOC:DplctData>
<DOC:Tp>MT202</DOC:Tp>
<DOC:Cntnt>:20:ENI2010100600462//:21:PPT2010100600126//:32A:101006EUR2000,0//:59A:I
RVTUS3NXXX</DOC:Cntnt>
</DOC:DplctData>
</DOC:camt.034.001.02>
</DOC:Document>
</Saa:Body>
</Saa:DataPDU>
```

7.13 Input Message for FileAct fullmode

```
_001197_____________________<?xml version="1.0" encoding="UTF-8" standalone="no"
?>
<Saa:DataPDU xmlns:Saa="urn:swift:saa:xsd:saa.2.0" xmlns:Sw="urn:swift:snl:ns.Sw"
xmlns:SwGbl="urn:swift:snl:ns.SwGbl" xmlns:SwInt="urn:swift:snl:ns.SwInt"
xmlns:SwSec="urn:swift:snl:ns.SwSec">
  <Saa:Revision>2.0.7</Saa:Revision>
  <Saa:Header>
    <Saa:Message>
      <Saa:SenderReference>MAHESH-FEB-14-1</Saa:SenderReference>
      <Saa:MessageIdentifier>camt.007.002.02</Saa:MessageIdentifier>
      <Saa:Format>File</Saa:Format>
      <Saa:Sender>
        <Saa:DN>o=spxainjj,o=swift</Saa:DN>
        <Saa:FullName>
          <Saa:X1>SPXAINJJXXX</Saa:X1>
        </Saa:FullName>
      </Saa:Sender>
      <Saa:Receiver>
        <Saa:DN>o=spxainjj,o=swift</Saa:DN>
        <Saa:FullName>
          <Saa:X1>SPXAINJJXXX</Saa:X1>
        </Saa:FullName>
      </Saa:Receiver>
      <Saa:InterfaceInfo>
        <Saa:UserReference>EI-B2C-FTAcamt007-08FEB-1</Saa:UserReference>
      </Saa:InterfaceInfo>
      <Saa:NetworkInfo>
        <Saa:Service>swift.generic.fast!x</Saa:Service>
      </Saa:NetworkInfo>
    </Saa:Message>
  </Saa:Header>
  <Saa:Body>EI-B2C-FTAcamt007-08FEB-1.in</Saa:Body>
</Saa:DataPDU>
```

7.14 ACK Message for FileAct Fullmode with SAA Info

```
_004256_____________________<?xml version="1.0" encoding="UTF-8" ?>
<Saa:DataPDU xmlns:Saa="urn:swift:saa:xsd:saa.2.0" xmlns:Sw="urn:swift:snl:ns.Sw"
xmlns:SwInt="urn:swift:snl:ns.SwInt" xmlns:SwGbl="urn:swift:snl:ns.SwGbl"
xmlns:SwSec="urn:swift:snl:ns.SwSec">
<Saa:Revision>2.0.7</Saa:Revision>
<Saa:Header>
<Saa:TransmissionReport>
<Saa:SenderReference>MAHESH-FEB-14-1</Saa:SenderReference>
<Saa:ReconciliationInfo>SNL02013D11329207789043817C</Saa:ReconciliationInfo>
<Saa:NetworkDeliveryStatus>NetworkAcked</Saa:NetworkDeliveryStatus>
<Saa:OriginalInstanceAddressee>
```

<Saa:X1>SPXAINJJXXX</Saa:X1>
</Saa:OriginalInstanceAddressee>
<Saa:ReportingApplication>SWIFTNetInterface</Saa:ReportingApplication>
<Saa:NetworkInfo>
<Saa:Priority>Normal</Saa:Priority>
<Saa:IsPossibleDuplicate>false</Saa:IsPossibleDuplicate>
<Saa:Service>swift.generic.fast!x</Saa:Service>
<Saa:Network>SWIFTNet</Saa:Network>
<Saa:SessionNr>000071</Saa:SessionNr>
<Saa:SeqNr>000000025</Saa:SeqNr>
<Saa:SWIFTNetNetworkInfo>
<Saa:RequestType>camt.007.002.02</Saa:RequestType>
<Saa:SNLRef>SNL02018-2018-02-14T08:23:11.4236.000022Z</Saa:SNLRef>
<Saa:Reference>f263161c-ead5-498a-8ce9-8a670a30ba6f</Saa:Reference>
<Saa:SnFInputTime>0139:2018-02-14T08:23:48</Saa:SnFInputTime>
<Saa:TransferRef>SNL02013D11329207789043817C</Saa:TransferRef>
<Saa:FileStartTime>20180214135308</Saa:FileStartTime>
<Saa:FileEndTime>20180214135318</Saa:FileEndTime>
</Saa:SWIFTNetNetworkInfo>
</Saa:NetworkInfo>
<Saa:SAAInfo>
<Saa:InstanceName>access/EPEXAMENMQMXOUT</Saa:InstanceName>
<Saa:UserName>swiftproject</Saa:UserName>
<Saa:Unit>None</Saa:Unit>
</Saa:SAAInfo>
<Saa:Interventions>
<Saa:Intervention>
<Saa:IntvCategory>TransmissionReport</Saa:IntvCategory>
<Saa:CreationTime>20180214135308</Saa:CreationTime>
<Saa:OperatorOrigin>SYSTEM</Saa:OperatorOrigin>
<Saa:Contents>
<AckNack>
<PseudoAckNack>{1:F21SPXAINJJAXXX000071000000025}{4:{177:1202141353}{451:0}{311:ACK}{
108:EI-B2C-FTAcamt007-08FEB-1}}</PseudoAckNack>
</AckNack>
</Saa:Contents>
</Saa:Intervention>
</Saa:Interventions>
<Saa:IsRelatedInstanceOriginal>true</Saa:IsRelatedInstanceOriginal>
<Saa:MessageCreator>ApplicationInterface</Saa:MessageCreator>
<Saa:IsMessageModified>false</Saa:IsMessageModified>
<Saa:MessageFields>HeaderAndBody</Saa:MessageFields>
<Saa:Message>
<Saa:SenderReference>MAHESH-FEB-14-1</Saa:SenderReference>
<Saa:MessageIdentifier>camt.007.002.02</Saa:MessageIdentifier>
<Saa:Format>File</Saa:Format>
<Saa:SubFormat>Input</Saa:SubFormat>
<Saa:Sender>
<Saa:DN>o=spxainjj,o=swift</Saa:DN>
<Saa:FullName>
<Saa:X1>SPXAINJJXXX</Saa:X1>
</Saa:FullName>
</Saa:Sender>
<Saa:Receiver>
<Saa:DN>o=spxainjj,o=swift</Saa:DN>
<Saa:FullName>
<Saa:X1>SPXAINJJXXX</Saa:X1>
</Saa:FullName>
</Saa:Receiver>
<Saa:InterfaceInfo>
<Saa:UserReference>EI-B2C-FTAcamt007-08FEB-1</Saa:UserReference>

<Saa:MessageCreator>ApplicationInterface</Saa:MessageCreator>
<Saa:MessageContext>Report</Saa:MessageContext>
<Saa:MessageNature>Financial</Saa:MessageNature>
</Saa:InterfaceInfo>
<Saa:NetworkInfo>
<Saa:Priority>Normal</Saa:Priority>
<Saa:IsPossibleDuplicate>false</Saa:IsPossibleDuplicate>
<Saa:Service>swift.generic.fast!x</Saa:Service>
<Saa:Network>SWIFTNet</Saa:Network>
<Saa:SessionNr>000071</Saa:SessionNr>
<Saa:SeqNr>000000025</Saa:SeqNr>
<Saa:SWIFTNetNetworkInfo>
<Saa:RequestType>camt.007.002.02</Saa:RequestType>
<Saa:SNLRef>SNL02018-2018-02-14T08:23:11.4236.000022Z</Saa:SNLRef>
<Saa:Reference>f263161c-ead5-498a-8ce9-8a670a30ba6f</Saa:Reference>
<Saa:SnFInputTime>0139:2018-02-14T08:23:48</Saa:SnFInputTime>
<Saa:TransferRef>SNL02013D11329207789043817C</Saa:TransferRef>
<Saa:FileStartTime>20180214135308</Saa:FileStartTime>
<Saa:FileEndTime>20180214135318</Saa:FileEndTime>
</Saa:SWIFTNetNetworkInfo>
</Saa:NetworkInfo>
<Saa:SecurityInfo>
<Saa:SWIFTNetSecurityInfo>
<Saa:SignerDN>self-or-descendant(o=spxainjj,o=swift)</Saa:SignerDN>
<Saa:NRType>SvcOpt</Saa:NRType>
<Saa:FileDigestAlgorithm>SHA-1</Saa:FileDigestAlgorithm>
<Saa:FileDigestValue>LD9jXcmHYT4SAiDx8y78BNzy2ss=</Saa:FileDigestValue>
</Saa:SWIFTNetSecurityInfo>
</Saa:SecurityInfo>
<Saa:SAAInfo>
<Saa:InstanceName>access/EPEXAMENMQMXOUT</Saa:InstanceName>
<Saa:UserName>swiftproject</Saa:UserName>
<Saa:Unit>None</Saa:Unit>
</Saa:SAAInfo>
<Saa:FileLogicalName>QU1RIFFNX3N3aWZ0aXRiIIK2Ak8hCU0C</Saa:FileLogicalName>
</Saa:Message>
</Saa:TransmissionReport>
</Saa:Header>
</Saa:DataPDU>

7.15 Output Message of FileAct Fullmode with SAA Info

_004434_____<?<?xml version="1.0" encoding="UTF-8" ?>

<Saa:DataPDU xmlns:Saa="urn:swift:saa:xsd:saa.2.0" xmlns:Sw="urn:swift:snl:ns.Sw"
xmlns:SwInt="urn:swift:snl:ns.SwInt" xmlns:SwGbl="urn:swift:snl:ns.SwGbl"
xmlns:SwSec="urn:swift:snl:ns.SwSec">

<Saa:Revision>2.0.7</Saa:Revision>

<Saa:Header>

<Saa:Message>

<Saa:SenderReference>OSPXAINJJXXX007EI-B2C-FTAcamt007-08FEB-
1$12021434251</Saa:SenderReference>

<Saa:MessageIdentifier>camt.007.002.02</Saa:MessageIdentifier>

<Saa:Format>File</Saa:Format>
<Saa:SubFormat>Output</Saa:SubFormat>
<Saa:Sender>
<Saa:DN>o=spxainjj,o=swift</Saa:DN>
<Saa:FullName>
<Saa:X1>SPXAINJJXXX</Saa:X1>
</Saa:FullName>
</Saa:Sender>
<Saa:Receiver>
<Saa:DN>o=spxainjj,o=swift</Saa:DN>
<Saa:FullName>
<Saa:X1>SPXAINJJXXX</Saa:X1>
</Saa:FullName>
</Saa:Receiver>
<Saa:InterfaceInfo>
<Saa:UserReference>EI-B2C-FTAcamt007-08FEB-1</Saa:UserReference>
<Saa:MessageCreator>SWIFTNetInterface</Saa:MessageCreator>
<Saa:MessageContext>Original</Saa:MessageContext>
<Saa:MessageNature>Financial</Saa:MessageNature>
</Saa:InterfaceInfo>
<Saa:NetworkInfo>
<Saa:Priority>Normal</Saa:Priority>
<Saa:IsPossibleDuplicate>false</Saa:IsPossibleDuplicate>
<Saa:Service>swift.generic.fast!x</Saa:Service>
<Saa:Network>SWIFTNet</Saa:Network>
<Saa:SessionNr>006088</Saa:SessionNr>
<Saa:SeqNr>000000100</Saa:SeqNr>
<Saa:SWIFTNetNetworkInfo>
<Saa:RequestType>camt.007.002.02</Saa:RequestType>
<Saa:SNLRef>SNL02013-2018-02-14T08:23:11.4236.000022Z</Saa:SNLRef>
<Saa:Reference>f263161c-ead5-498a-8ce9-8a670a30ba6f</Saa:Reference>
<Saa:SnFQueueName>spxainjj_file!x</Saa:SnFQueueName>
<Saa:SnFInputTime>0139:2018-02-14T08:23:48</Saa:SnFInputTime>
<Saa:SnFDeliveryTime>2018-02-14T08:23:48Z</Saa:SnFDeliveryTime>
<Saa:TransferRef>SNL02013D11329207798044401C</Saa:TransferRef>
<Saa:StoredTransferRef>SNL02013D11329207789043817S</Saa:StoredTransferRef>
<Saa:FileStartTime>20180214135318</Saa:FileStartTime>
<Saa:FileEndTime>20180214135326</Saa:FileEndTime>

```
</Saa:SWIFTNetNetworkInfo>
</Saa:NetworkInfo>
<Saa:SecurityInfo>
<Saa:SWIFTNetSecurityInfo>
<Saa:SignerDN>cn=fin1spxainjj,o=spxainjj,o=swift</Saa:SignerDN>
<Saa:NRType>SvcOpt</Saa:NRType>
<Saa:SignatureResult>Success</Saa:SignatureResult>
<Saa:SignatureValue>
    <SwInt:RequestPayload type="swift.FileAct.secsecureddata">
<Sw:FileRequestHeader>
<SwInt:Requestor>o=spxainjj,o=swift</SwInt:Requestor>
<SwInt:Responder>o=spxainjj,o=swift</SwInt:Responder>
<SwInt:Service>swift.generic.fast!x</SwInt:Service>
<SwInt:RequestType>camt.007.002.02</SwInt:RequestType>
<SwInt:Priority>Normal</SwInt:Priority>
<SwInt:RequestRef>EI-B2C-FTAcamt007-08FEB-1</SwInt:RequestRef>
</Sw:FileRequestHeader>
<Sw:TransferRef>SNL02013D11329207789043817</Sw:TransferRef>
<Sw:Digest>
<Sw:DigestAlgorithm>SHA-1</Sw:DigestAlgorithm>
<Sw:DigestValue>LD9jXcmHYT4SAiDx8y78BNzy2ss=</Sw:DigestValue>
</Sw:Digest>
</SwInt:RequestPayload>
    <SwSec:Crypto>
      <SwSec:CryptoInternal>

<SwSec:CipherKey>UEVNRkBQcm9jLVR5cGU6IDQsTUlDLU9OTFkNCkNvbnRlbnQtRG9tYWluOiBS
RkM4MjINCkVudHJ1c3RGaWxlLVZlcnNpb246IDIuMA0KT3JpZ2luYXRvci1ETjogY249ZmluMXNweG
FpbmpqLG89c3B4YWluamosbz1zd2lmdA0KT3JpZy1TTjogMTMwNzEzNjk2Mw0KTUlDLUluZm86IFNI
QTI1NiwgUlNBLA0KIFBHdUcxVW5tZGhseVg4RWU5eC80K29IVkpvYWdkU3Qzbm4yUXBUUFk3ZVh
nUm1Yb3hCYTN5SWpYMzFNaUU0QzQNCiBCdEFrZTdFWUF3SSszWjA2ZW9FZytIVnN4T3pkdWJ
GendJVzJ1ajNUaVNqTWZoQmFGc0phVDNVUjJjQUVua01JDQogZStFbnlOQ25kOTVybk42R2hnNE
ZQZTJkZzZoSGt5enU2by9wSTI5bDJsTVI4QWdhbFJhRytHdDE5WC9FS3JSVg0KIHdHbTk4N0doQ0
FBbXZWN1hKTUNsbjdDdVJTajQrekxUNERoS204cFZKWWZXT1RtWTJyMDJURVQ4MWZGUkVaRk
MNCiBwcHR1ZHRZR2V4UDF1TUY0dnNZa1JvZ2ZBWlJCdThBd0IzVllxako4TThFdTFnS3k4cTdOM0t
BWW00amFlUVlVDQogZVVPUlRJVXJpU1ZuN2haSzFaMDBIUT09DQo=</SwSec:CipherKey>

        <SwSec:CryptoProtocol>4.0:3.0</SwSec:CryptoProtocol>
      </SwSec:CryptoInternal>
      <SwSec:CryptoInfo>
        <SwSec:MemberRef>RequestPayload</SwSec:MemberRef>
        <SwSec:SignDN>cn=fin1spxainjj,o=spxainjj,o=swift</SwSec:SignDN>
```

```
        </SwSec:CryptoInfo>
      </SwSec:Crypto>
   </Saa:SignatureValue>
<Saa:FileDigestAlgorithm>SHA-1</Saa:FileDigestAlgorithm>
<Saa:FileDigestValue>LD9jXcmHYT4SAiDx8y78BNzy2ss=</Saa:FileDigestValue>
</Saa:SWIFTNetSecurityInfo>
</Saa:SecurityInfo>
<Saa:SAAInfo>
<Saa:InstanceName>access/EPEXAMENMQMXOUT</Saa:InstanceName>
<Saa:UserName>swiftproject</Saa:UserName>
<Saa:Unit>None</Saa:Unit>
</Saa:SAAInfo>
<Saa:FileLogicalName>QU1RIFFNX3N3aWZ0aXRiIIK2Ak8hCU0C</Saa:FileLogicalName>
</Saa:Message>
</Saa:Header>
</Saa:DataPDU>
```

7.16 Delivery Notification Message in XML v2 for MX with SAA Info

```
_001434_____<?<?xml version="1.0" encoding="UTF-8" ?>
<Saa:DataPDU xmlns:Saa="urn:swift:saa:xsd:saa.2.0" xmlns:Sw="urn:swift:snl:ns.Sw"
xmlns:SwInt="urn:swift:snl:ns.SwInt" xmlns:SwGbl="urn:swift:snl:ns.SwGbl"
xmlns:SwSec="urn:swift:snl:ns.SwSec">
<Saa:Revision>2.0.7</Saa:Revision>
<Saa:Header>
<Saa:DeliveryNotification>
<Saa:ReconciliationInfo>SNL02013D11329207789043817C</Saa:ReconciliationInfo>
<Saa:ReceiverDeliveryStatus>RcvDelivered</Saa:ReceiverDeliveryStatus>
<Saa:MessageIdentifier>Delivery Notification</Saa:MessageIdentifier>
<Saa:InterfaceInfo>
<Saa:MessageCreator>SWIFTNetInterface</Saa:MessageCreator>
<Saa:MessageContext>Original</Saa:MessageContext>
<Saa:MessageNature>Network</Saa:MessageNature>
</Saa:InterfaceInfo>
<Saa:NetworkInfo>
<Saa:Priority>Normal</Saa:Priority>
<Saa:IsPossibleDuplicate>false</Saa:IsPossibleDuplicate>
<Saa:Network>SWIFTNet</Saa:Network>
<Saa:SessionNr>006068</Saa:SessionNr>
```

<Saa:SeqNr>000000542</Saa:SeqNr>
</Saa:NetworkInfo>
<Saa:SAAInfo>
<Saa:InstanceName>access/EPEXAMENMQMXOUT</Saa:InstanceName>
<Saa:UserName>swiftproject</Saa:UserName>
<Saa:Unit>None</Saa:Unit>
</Saa:SAAInfo>
</Saa:DeliveryNotification>
</Saa:Header>
<Saa:Body>
<Sw:NotifySnFRequestHandle>
<Sw:SnFRef>SNL02013D11329207789043817C</Sw:SnFRef>
<Sw:SnFRefType>FileAct</Sw:SnFRefType>
<Sw:AcceptStatus>Accepted</Sw:AcceptStatus>
<Sw:AckSwiftTime>2018-02-14T08:24:02Z</Sw:AckSwiftTime>
</Sw:NotifySnFRequestHandle>
</Saa:Body>
</Saa:DataPDU>

***** End of Document *****