SOA SERVICES – ACTION ON PAYMENTS

Technical - Overview

Integration Team

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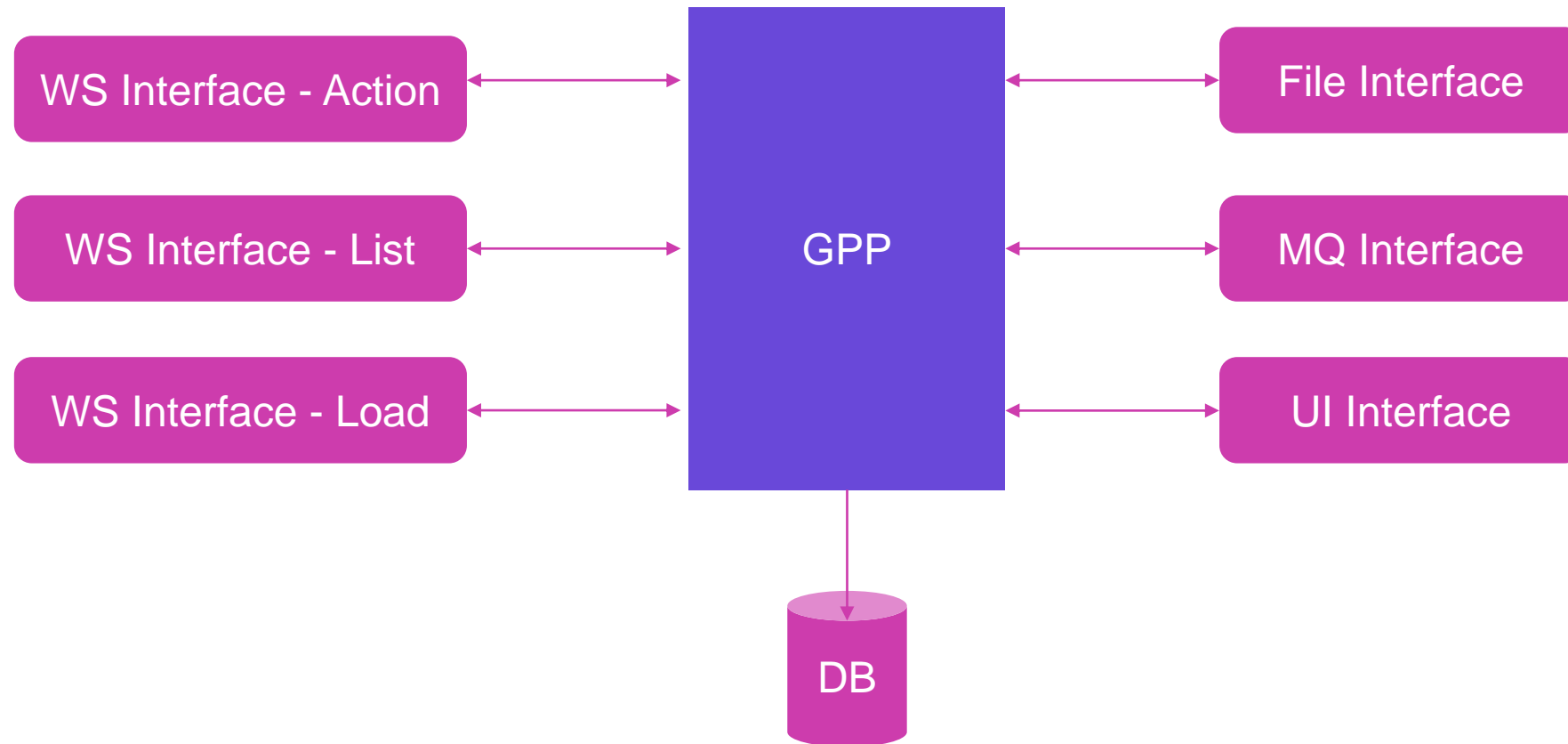# AGENDA

❯ Overview

❯ Types of Services

❯ Samples

" GPP processes and manages payments. To be able to handle payments outside of GPP, there are various SOA services provided those can be invoked from external sources"

GPP SOA Guide Action On Payments

FNDT MESSAGE IN PAYMENT FLOW

SERVICES

> **QueueListService - Provides a list of payments which meet a given selection criteria and are filtered by user restrictions**

> **MessageLoadService - Loads a specific payment, i.e. the third party application gets all payment details**

> **MessageSubmitService - Takes a manual action on a specific payment, such as Submit or Cancel**

> **Requests are processed immediately and response is given back.**

> **Additionally it returns processing status as successful/failure.**

These services are exposed as Web Services over SOAP and they are based a Service-Oriented Architecture (SOA). This enables 3rd party applications to interact with GPP.

MESSAGELOADSERVICE- EXAMPLE

```xml
1  <?xml version="1.0" encoding="UTF-8"?>
2  <soapenv:Envelope>
3      <soapenv:Header>
4          <q1:credentials>
5              <q1:UserID>SERVICES</q1:UserID>
6              <q1:Role>ADMIN</q1:Role>
7          </q1:credentials>
8      </soapenv:Header>
9      <soapenv:Body>
10         <q0:PerformMessageLoadRequest>
11             <q1:credentials>
12                 <q1:UserID>audit3</q1:UserID>
13             </q1:credentials>
14             <q1:P_MID>10801N3428AO0448</q1:P_MID>
15             <q0:fndtMsgSubset>
16                 <q1:document id="X_FNDT_MSG_EXT">
17                     <q1:field id="X_EXTN_PRS_PERIST_INF">
18                         <q1:field id="P_MSG_STS" />
19                         <q1:field id="P_BASE_AMT" />
20                     </q1:field>
21                     <q1:field id="X_EXTN_CREDIT_SIDE">
22                         <q1:field id="P_CDT_ACCT_CCY" />
23                         <q1:field id="P_CDT_ACCT_NB" />
24                     </q1:field>
25                     <q1:field id="X_EXTN_DEBIT_SIDE">
26                         <q1:field id="P_DBT_ACCT_NB" />
27                         <q1:field id="P_DBT_AMT" />
28
29                     </q1:field>
30                 </q1:document>
31             </q0:fndtMsgSubset>
32         </q0:PerformMessageLoadRequest>
33     </soapenv:Body>
34 </soapenv:Envelope>
```

User and Role

Payment to Load

Fields to Load

MESSAGELOADSERVICE- RESPONSE

```
Envelope >
oap:Body>
  <FndtMsg>
    <Msg>
      <soap:Envelope>
        <soap:Body>
          <ns1:FndtMsg>
            <Header>
              <P_MID>1042984940CK0208</P_MID>
            </Header>
            <Msg>
              <Pmnt>
                <swif:SWIFT MT="103" xmlns:swif="urn:fundtech/scl/SWIFT">
                  <swif:Header>
                    <swif:Create_Date_Time xmlns="urn:fundtech/scl/SWIFT">2008-06-25T
                    <swif:Msg_ID xmlns="urn:fundtech/scl/SWIFT">CTv422-001</swif:Msg_
                  </swif:Header>
                  <swif:Data xmlns="urn:fundtech/scl/SWIFT">
                    <F32A>
                      <Date>2010-05-02</Date>
                      <Currency>USD</Currency>
                      <Amount>755.00</Amount>
                    </F32A>
                    . . .
                  </swif:Data>
                </swif:SWIFT>
              </Pmnt>
              <Extn>
                <ProcessingPersistentInfo>
                  <P_MSG_STS>WAIT_CONFIRMATION</P_MSG_STS>
                  <P_BASE_AMT>636.36</P_BASE_AMT>
                  <P_BASE_CCY>USD</P_BASE_CCY>
                  <P_PROC_DT>2010-04-20</P_PROC_DT>
                  . . .
              </Extn>
            </Msg>
            <ResponseDetails>
              <returnCode>0</returnCode>
              <description />
            </ResponseDetails>
          </FndtMsg>
soap:Body>
:Envelope>
```

Payment Fields

Extension Fields

Response Code

QUEUELISTSERVICE - EXAMPLE

```
1  <soap:Envelope >
2    <soap:Header>
3      <q1:FndtHeader>
4        <q1:credentials>
5          <q1:UserID>ANDREW</q1:UserID>
6          <q1:Role>ALL2</q1:Role>
7        </q1:credentials>
8      </q1:FndtHeader>
9    </soap:Header>
10   <soap:Body>
11     <que:QueueListReques>
12       <stat:header>
13         <stat:UserID>RPP_MY</stat:UserID>
14       </stat:header>
15       <que:ColumnsRequired>
16         <que:column>P_MID</que:column>
17         <que:column>P_MSG_STS</que:column>
18         <que:column>X_INSTD_AGT_BIC_2AND</que:column>
19         <que:column>P_DBT_ACCT_CCY</que:column>
20         <que:column>P_ORIG_MSG_TYPE</que:column>
21         <que:column>P_DBT_MOP</que:column>
22         <que:column>P_CDT_MOP</que:column>
23       </que:ColumnsRequired>
24       <que:PageDirection>F</que:PageDirection>
25       <que:PageSize>10</que:PageSize>
26     <que:SortOrder>P_TIME_STAMP</que:SortOrder>
27       <que:Mode>SHOW</que:Mode>
28       <que:FilterOption>USER</que:FilterOption>
29       <que:FilterConditions>
30       <ns3:cond>
31          <ns3:leftVal value="P_MSG_TYPE" CT="Field"/>
32           <ns3:op>=</ns3:op>
33           <ns3:rightVal value="Pacs_003" CT="Value"/>
34         </ns3:cond>
35       </que:FilterConditions>
36     </que:QueueListRequest>
37   </soap:Body>
38 </soap:Envelope>
```

message header

Response field list

Sorting/Paging Preferences

List condition

The illustration shows how payment list can be retrieved using **server**.

QUEUELISTSERVICE - RESPONSE

```
1  <soap:Envelope >
2      <soap:Header>
3          <q1:FndtHeader>
4              <q1:credentials>
5                  <q1:UserID>ANDREW</q1:UserID>
6                  <q1:Role>ALL2</q1:Role>
7              </q1:credentials>
8          </q1:FndtHeader>
9      </soap:Header>
10     <soap:Body>
11         <que:QueueListReques>
12             <stat:header>
13                 <stat:UserID>RPP_MY</stat:UserID>
14             </stat:header>
15             <que:ColumnsRequired>
16                 <que:column>P_MID</que:column>
17                 <que:column>P_MSG_STS</que:column>
18                 <que:column>X_INSTD_AGT_BIC_2AND</que:column>
19                 <que:column>P_DBT_ACCT_CCY</que:column>
20                 <que:column>P_ORIG_MSG_TYPE</que:column>
21                 <que:column>P_DBT_MOP</que:column>
22                 <que:column>P_CDT_MOP</que:column>
23             </que:ColumnsRequired>
24             <que:PageDirection>F</que:PageDirection>
25             <que:PageSize>10</que:PageSize>
26         <que:SortOrder>P_TIME_STAMP</que:SortOrder>
27             <que:Mode>SHOW</que:Mode>
28             <que:FilterOption>USER</que:FilterOption>
29             <que:FilterConditions>
30         <ns3:cond>
31                 <ns3:leftVal value="P_MSG_TYPE" CT="Field"/>
32                  <ns3:op>=</ns3:op>
33                  <ns3:rightVal value="Pacs_003" CT="Value"/>
34             </ns3:cond>
35         </que:FilterConditions>
36     </que:QueueListRequest>
37     </soap:Body>
38 </soap:Envelope>
```

message header

Response field list

Sorting/Paging Preferences

List condition

MESSAGESUBMITSERVICE - EXAMPLE

FINASTRA

› **Performs various activities.**

› **Submit – Submits new payment for processing**

› **Action - Takes a manual action on a specific payment, such as Cancel, Approve, Reject and Repair etc.**

› **Similar to Button press function.**

› **Accepts partial payment for amendment.**

MESSAGESUBMITSERVICE - EXAMPLE

```
1  <?xml version="1.0" encoding="UTF-8"?>
2  <soapenv:Envelope >
3      <soapenv:Header>
4          <q1:FndtHeader>
5              <q1:credentials>
6                  <q1:UserID>SERVICES</q1:UserID>
7                  <q1:Role>ADMIN</q1:Role>
8              </q1:credentials>
9          </q1:FndtHeader>
10     </soapenv:Header>
11     <soapenv:Body>
12         <q0:MessageSubmitRequest>
13             <q0:MsgBatch>
14                 <q1:FndtHeader>
15                     <q1:credentials>
16                         <q1:UserID>audit3</q1:UserID>
17                     </q1:credentials>
18                 </q1:FndtHeader>
19                 <q1:FndtPmntTxInf>
20                     <q1:FndtMsg>
21                         <q1:Msg>
22                             <q1:Pmnt>
23                                 ...
24                             </q1:Pmnt>
25                             <q1:Extn>
26                                 <q1:ProcessingPersistentInfo>
27                                     <q1:P_OFFICE>US1</q1:P_OFFICE>
28                                     <q1:P_DEPARTMENT>PSV</q1:P_DEPARTMENT>
29                                 </q1:ProcessingPersistentInfo>
30                                 <q1:OperationalSection>
31                                     <q1:D_BUTTON_ID>Submit</q1:D_BUTTON_ID>
32                                 </q1:OperationalSection>
33                             </q1:Extn>
34                         </q1:Msg>
35                     </q1:FndtMsg>
36                 </q1:FndtPmntTxInf>
37             </q0:MsgBatch>
38         </q0:MessageSubmitRequest>
39     </soapenv:Body>
40 </soapenv:Envelope>
```
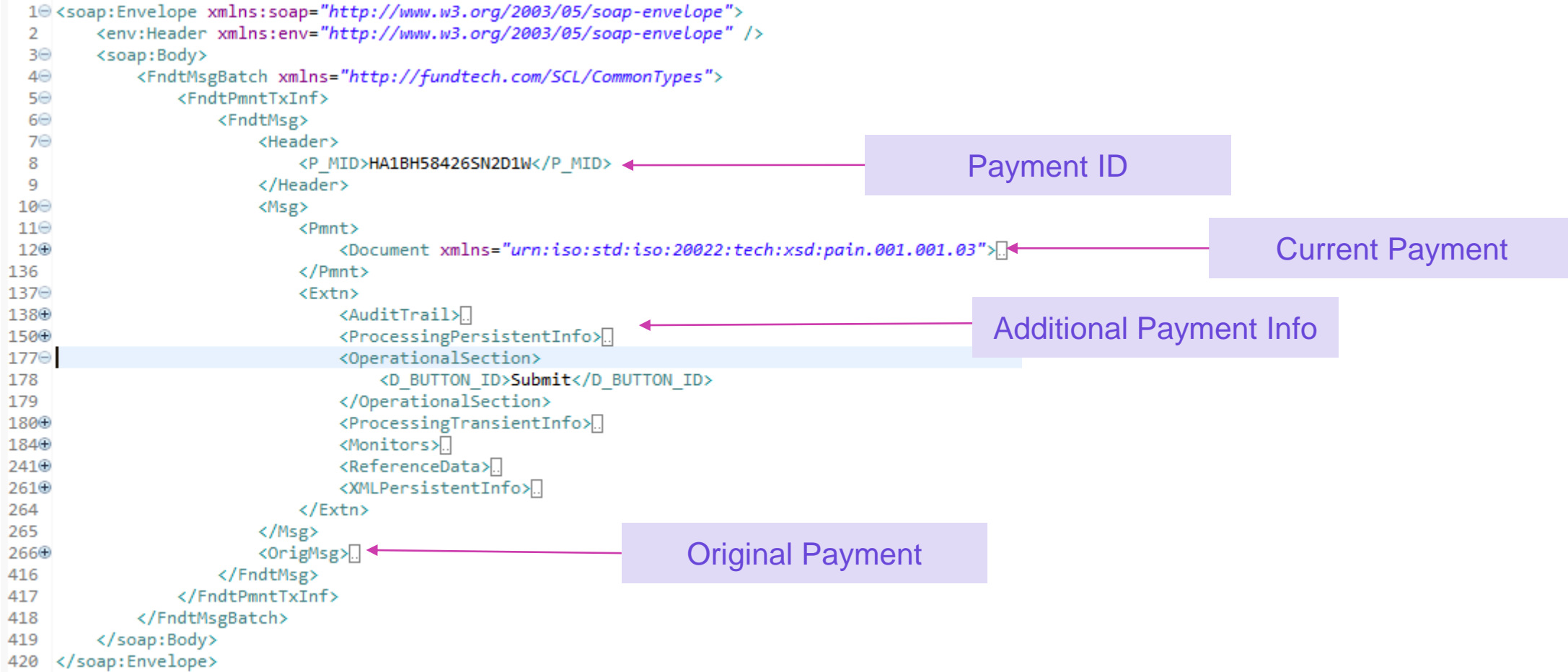
message header

Actual Payment

Additional Info

Action

MESSAGESUBMITSERVICE - RESPONSE

```
1⊖ <soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
2      <env:Header xmlns:env="http://www.w3.org/2003/05/soap-envelope" />
3⊖     <soap:Body>
4⊖         <FndtMsgBatch xmlns="http://fundtech.com/SCL/CommonTypes">
5⊖             <FndtPmntTxInf>
6⊖                 <FndtMsg>
7⊖                     <Header>
8                          <P_MID>HA1BH58426SN2D1W</P_MID>
9                      </Header>
10⊖                    <Msg>
11⊖                        <Pmnt>
12⊕                            <Document xmlns="urn:iso:std:iso:20022:tech:xsd:pain.001.001.03">⎕
136                        </Pmnt>
137⊖                       <Extn>
138⊕                            <AuditTrail>⎕
150⊕                            <ProcessingPersistentInfo>⎕
177⊖                            <OperationalSection>
178                                  <D_BUTTON_ID>Submit</D_BUTTON_ID>
179                              </OperationalSection>
180⊕                            <ProcessingTransientInfo>⎕
184⊕                            <Monitors>⎕
241⊕                            <ReferenceData>⎕
261⊕                            <XMLPersistentInfo>⎕
264                        </Extn>
265                    </Msg>
266⊕                    <OrigMsg>⎕
416                </FndtMsg>
417            </FndtPmntTxInf>
418        </FndtMsgBatch>
419    </soap:Body>
420 </soap:Envelope>
```

Payment ID

Current Payment

Additional Payment Info

Original Payment

POSSIBLE ACTIONS

Button Id	Description
Submit	Performs validations and processes the payment either for a new message created via the service, or after update of an existing message. Returns all errors or a successful response
Reject	Prompts a rejection (PACS 002) for a payment
Validate	Returns all errors, and optionally additional computed, derived and enriched information, without saving the payment
Approve	Prefix used if there is more than one way to receive specific data. *Example: OX_CDTR_AGT_BIC_1OR or OX_CDTR_AGT_BIC_2AND. GPP copies the data into OC_CDTR_AGT_BIC to facilitate determining whether creditor agent BIC was provided or not. Relevant only for originally received attributes.*
Send to Repair	Sends the payment to Repair status
Save	Saves payment without performing validation (set payment status to Timed Hold)
AcceptDupex	Confirms the payment is not a duplicate for payments that are waiting in possible duplicate queue
Cancel Request	Initiates the cancellation process. That is, changing message status to Pending cancellation request from which a user can either RefuseCancel or Cancel the payment.

Thank you

Rajesh Badiye
Integration Team

Rajesh.badiye@finastra.com

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