



Midcontinent Independent System Operator

Financial Transmission Rights System

**API Definitions for FTR Secondary Market
Data Exchange with MISO Customers**

Version 0.1



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1 INTRODUCTION

1.1 Revision History

Date	Version	Description	Author
08/15/2013	0.1	- First Version	Nexant

1.2 Purpose

This is draft document. None of the information should be considered 'FINAL'. The purpose of this document is to give members a forward look at the Nexant i-HEDGE™ FTR System interfaces for Secondary Market FTR Transactions. This document should only serve as a planning tool. In this document, only the high level API definitions are described without considering the actual message structure.

1.3 SOAP Message Structure

The SOAP message structure used in the Nexant i-HEDGE FTR System is compliant with version 1.1 of the WS-I Basic Profile specification¹. Therefore, the WSDL 1.1 schema and XML 1.0 (second edition) are used.

1.4 References

Document Name	Version	Description	Author
SecondaryMarketSchema_v1_0.xsd	1.0.0	XML schema definitions for FTR Secondary market APIs	Nexant
SecondaryMarketService_v1_0.wsdl	1.0.0	Web Service definitions for FTR Secondary market APIs	Nexant
NexantCommonStructuresSchema_v1_0.xsd	1.0.0	XML schema defintions for FTR and some common simpleType Service Exceptions	Nexant

¹ <http://www.ws-i.org/Profiles/BasicProfile-1.1.html>

2 API DEFINITIONS

The SOAP 1.1 based Web Service provides a programmatic means of interacting with the MUI Subsystem of the Nexant i-HEDGE FTR System. The interface is backed by XML Schema definitions (XSDs). The input SOAP requests and the corresponding SOAP responses adhere to the defined XSD. The error responses containing the validation error messages would be provided as SOAP Fault messages following the standard SOAP based communication mechanism.

In general, all the operations will have a success and an error response messages backed by an XSD.

- Success - A message along with any uniquely generated IDs are provided as the response
- Error - A message along with invalid requests and detailed error message are provided as the response. The error message would match with the MUI Web interface error report in its content.

When a MISO customer desires to participate in a FTR Secondary Market, the processes involve creating one or multiple sell or buy secondary market requests based on the approved protocols. Based on whether the request is a public or a private request, either all the members in the FTR market or the pre-selected market participant can submit a response. The Credit Evaluation is also involved to finalize any secondary market trade even though it is a bilateral agreement between the two trading market participants. Once the credit worthiness of the buying market participant is verified, the secondary market trade is ratified within the FTR system based on the MISO Secondary Market protocols. This section addresses the services for all of these FTR Secondary Market data exchange functionalities.

2.1 Creation of Secondary Market Public Request

2.1.1 API Description

postSmPublicRequest(public request data) This API is for posting a Buy request or a Sell request that's viewable by all MPs. The public request data include request type (BUY/SELL), FTR ID if the request type is SELL, source name, sink name, TOU name, start date, end date, MW, contact information and the initiating MP. On successful request, the Request Identifier will be issued.

The response of this API, ***postSmPublicRequestResponse***, is the request identifier that's generated by the FTR System and the status of the request. The generated unique request identifier must be used to refer to this particular Secondary market in the other API invocations. The various statuses of a Request are

- POSTED: This status indicates that the request has been successfully initiated by the requesting AO.
- APPROVED: This status indicates that the Secondary Market trade has been approved and the ownership of the specified dates and MW of the FTR has been changed.
- DISAPPROVED: This status indicates that the trade has been rejected based on the insufficient credit of the buying MP.
- RETRACTED: This status indicates that the request has been successfully deleted
- ERROR: This status indicates that the request (if it has not been responded) or the response (if the responding MP has responded to the request) is invalid.



When some of the requests do not pass any of validations, the response will also include a description field which contains a compressed file of detailed error messages.

2.1.2 Schema Description

The schema descriptions in the tables 1 - 2 are for posting a public secondary market request.

Table 1: Public Secondary Market Request

Element Name	Element Description	Required/ Optional	Data Type
publicSmRequest	Container element for a new secondary market request		
requestType	BUY for Buy request and SELL for Sell request.	Required	String (4 characters max)
ftrId	For a SELL, the originating FTR ID	Optional	Long
source	Name of source (settlement location) of the Secondary Market request	Required	String (40 characters max)
sink	Name of sink (settlement location) of the Secondary Market request	Required	String (40 characters max)
tou	Time-of-use (PEAK and OFF-PEAK)	Required	TimeOfUse (PEAK or OFF-PEAK)
startDate	Start Date of the Secondary Market trade request	Required	Date
endDate	End Date of the Secondary Market trade request	Required	Date
mw	MW requested	Required	Decimal
contactInfo	Contact Information of the requesting asset owner	Required	ContactInfo
description	Secondary market offer request description. This can be used to store any user's unique identifier or the secondary market request ID defined by the user (which is not system generated requestId).	Required, Can be empty	String (50 characters max)
initiatingAoName	The name of the asset owner initiating the public secondary market request	Required	String (40 characters max)

Table 2: Contact Information

Element Name	Element Description	Required/Optional	Data Type
contactInfo	Container element for a new Contact Information		
name	Name of the market participant initiating the secondary market request	Required	String (256 characters max)
phone	Contact number of the market participant initiating the secondary market request	Required	String (256 characters max)
email	Email of the market participant initiating the secondary market request	Required	String (256 characters max)
address	Address of the market participant initiating the secondary market request	Optional	String (256 characters max)

Table 3: Request Status

Element Name	Element Description	Required/Optional	Data Type
requestStatus	Container element for a request status		
requestId	Element for identifier of buy or sell offer request	Required	requestId
status	Element for status of the request	Required	smRequestStatusType (POSTED, PENDING_MP_RESPONSE, APPROVED, DISAPPROVED, RETRACTED, ERROR)
errorMessage	An error message of secondary market requests.	Optional	String (1000 characters max)

Table 4: Request ID

Element Name	Element Description	Required/Optional	Data Type
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Element Name	Element Description	Required/Optional	Data Type
requestId	Container element for a buy/sell offer request ID		
id	Identifier of buy or sell offer request issued as part of a postPublicSmRequest() or postPrivateSmRequest()	Required	Long

2.1.3 Fault Response

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

SPT0003: Source "xxxx" does not exist in the system.
 SPT0004: Sink "xxxx" does not exist in the system.
 SMT0003: End date is invalid. It must be later than or the same as start date.
 SMT0006: FTR ID "xxx" in the sell offer does not belong to the asset owner "yyy".
 SMT0007: The FTR ID must be specified for a sell offer.
 SMT0008: A BUY offer request should not have FTR ID.
 SMT0011: Sell offer and FTR ID "xxx" must have the same TOU, source and sink.
 SMT0014: Public offer must not have responding AO specified during posting.
 SMT0015: MW value must be numeric and ≥ 0.1

2.1.4 Sample of Public Secondary Market Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/ftr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <postSmPublicRequest>
      <request>
        <requestType>BUY</requestType>
        <source>A</source>
        <sink>B</sink>
        <tou>PEAK</tou>
        <startDate>03/01/2012</startDate>
        <endDate>03/31/2012</endDate>
        <mw>10</mw>
        <contactInfo>
          <name>john</name>
          <phone>345-876-3453</phone>
          <email>john@xyz.com</email>
        </contactInfo>
      </request>
    </postSmPublicRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

```
<description>March Buy From A To B</description>
<initiatingAoName>John AO</initiatingAoName>
</request>
</postSmPublicRequest>
</soapenv:Body>
</soapenv:Envelope>
```

2.1.5 Sample of Public Secondary Market Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <postSmPublicRequestResponse xmlns:ns2="http://api.miso.org/schema/fttr/SecondaryMarket/v1"
xmlns="http://api.miso.org/schema/fttr/Common/v1">
      <return>
        <requestId>
          <id>123213</id>
        </requestId>
        <status>POSTED</status>
      </return>
    </postSmPublicRequestResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

2.1.6 Sample of Fault Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <soap:Fault>
      <faultcode>soap:Server</faultcode>
      <faultstring>Record "March Buy From A To B" - Source "LSE 0" does not exist in the
        system.</faultstring>
      <detail>
        <fttrServiceException xmlns="http://api.miso.org/schema/fttr/Common/v1"
xmlns:ns2="http://api.miso.org/schema/fttr/SecondaryMarket/v1">
          <severity>ERROR</severity>
          <description>Source "LSE 0" does not exist in the system.</description>
          <errorCode>SPT0003</errorCode>
          <serviceVersion>1.0.0</serviceVersion>
        </fttrServiceException>
      </detail>
    </soap:Fault>
  </soap:Body>
</soap:Envelope>
```



```
</detail>
</soap:Fault>
</soap:Body>

</soap:Envelope>
```

2.2 Creation of Secondary Market Private Request

2.2.1 API Description

postSmPrivateRequest(private request data) is an API for posting a Buy request or a Sell request that's viewable only by the selected MP. The public request data include request type (BUY/SELL), FTR identifier (if the request type is SELL), source name, sink name, TOU name, start date, end date, MW, contact information, target MP name and initiating AO name. On successful request, the Request Identifier will be issued

The response of this API, **postSmPrivateRequestResponse**, is the request identifier that's generated by the FTR Systems and the status of the request. The generated unique request identifier must be used to refer to this particular Secondary market in the other API invocations. When some of the requests do not pass any of validations, the response will also include a description field which contains a compressed file of detailed error messages.

2.2.2 Schema Description

The schema descriptions in the table below are for an private secondary market request

Table 5: A Private Secondary Market Request

Element Name	Element Description	Required/Optional	Data Type
privateSmRequest	Container element for a new secondary market request		
requestType	BUY for Buy request and SELL for Sell request.	Required	String (4 characters max)
ftrId	For a SELL, the originating FTR ID	Optional	Long
source	Name of source (settlement location) of the Secondary Market request	Required	String (40 characters max)
sink	Name of sink (settlement location) of the Secondary Market request	Required	String (40 characters max)

Element Name	Element Description	Required/Optional	Data Type
tou	Time-of-use (PEAK and OFF-PEAK)	Required	TimeOfUse (PEAK or OFF-PEAK)
startDate	Start Date of the Secondary Market trade request	Required	Date
endDate	End Date of the Secondary Market trade request	Required	Date
mw	MW requested	Required	Decimal
contactInfo	Contact Information of the requesting asset owner	Optional	ContactInfo
targetMpName	The MP Name who is targeted to respond to the request	Required	String(40 characters max)
initiatingAoName	The name of the asset owner initiating the public secondary market request	Required	String(40 characters max)
description	Secondary market offer request description. This can be used to store any user's unique identifier or the secondary market request ID defined by the user (which is not system generated requestId).	Required, Can be empty	String (50 characters max)

2.2.3 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

SMT0013: Private offer must have responding AO specified during posting.
See other fault responses in 2.1.3

Sample of fault response is provided in 2.1.6.

2.2.4 Sample of Private Secondary Market Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/fttr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <postSmPublicRequest>
      <request>
```

```

    <requestType>BUY</requestType>
    <source>A</source>
    <sink>B</sink>
    <tou>PEAK</tou>
    <startDate>03/01/2012</startDate>
    <endDate>03/31/2012</endDate>
    <mw>10</mw>
    <contactInfo>
      <name>john</name>
      <phone>345-876-3453</phone>
      <email>john@xyz.com</email>
    </contactInfo>
    <targetMpName>ABCD</targetMpName>
    <initiatingAoName>John AO</initiatingAoName>
    <description>A_to_B_Buy_from_ABCD</description>
  </request>
</postSmPublicRequest>
</soapenv:Body>
</soapenv:Envelope>

```

2.2.5 Sample of Private Secondary Market Response

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <sec:postSmPrivateRequestResponse
      xmlns:ns2="http://api.miso.org/schema/ftr/SecondaryMarket/v1"
      xmlns="http://api.miso.org/schema/ftr/Common/v1">
      <sec:return>
        <sec:requestId>
          <sec:id>123214</sec:id>
        </sec:requestId>
        <sec:status>POSTED</sec:status>
      </sec:return>
    </sec:postSmPrivateRequestResponse>
  </soapenv:Body>
</soapenv:Envelope>

```

2.3 Retract a Secondary Market Request

2.3.1 API Description

retractSmRequest(request identifier) is an API for retracting (deleting) a secondary market buy/sell request which is in either POSTED or ERROR status. On successful request, the status will be set to RETRACTED and cannot be submitted again as part of any future invocations.

2.3.2 Schema Description

Request ID: See Table 4

2.3.3 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

ATH0002: Asset owner "xxx" does not have privilege to perform this function.

SMT0016: The request ID "xxx" does not exist in the system.

SMT0064: Only requests in POSTED or ERROR status can be retracted.

Sample of fault response is provided in 2.1.6.

2.3.4 Sample of Retract Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/fttr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <retractSmRequest>
      <requestId>
        <id>123345</id>
      </requestId>
    </retractSmRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

2.3.4 Sample of Portfolio of Retract Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" >
  <soapenv:Body>
    <retractSmRequestResponse xmlns:ns2="http://api.miso.org/schema/fttr/SecondaryMarket/v1"
xmlns="http://api.miso.org/schema/fttr/Common/v1">
      <return>
        <requestId>
          <id>123345</id>
```

```

    </requestId>
    <status>RETRACTED</status>
  </return>
</retractSmRequestResponse>
</soapenv:Body>
</soapenv:Envelope>

```

2.4 Retrieve Public Secondary Market Requests based on Status

2.4.1 API Description

getAllMySmPublicRequests(request status type) This API is for getting a list of secondary market public requests initiated by a given MP for a given request status. Refer section 2.1.1 for the list of status.

2.4.2 Schema Description

The schema descriptions in the table below are for retrieving public Secondary Market requests initiated by the given market participant.

Table 6: An existing Public Secondary Market Request

Element Name	Element Description	Required/Optional	Data Type
existingPublicSmRequest	Container element for existing public secondary market request		
requestId	Identifier of request	Required	Long
requestType	BUY for Buy request and SELL for Sell request.	Required	String (4 characters max)
ftrId	For a SELL, the originating FTR ID	Optional	Long
source	Name of source (settlement location) of the Secondary Market request	Required	String (40 characters max)
sink	Name of sink (settlement location) of the Secondary Market request	Required	String (40 characters max)
tou	Time-of-use (PEAK and OFF-PEAK)	Required	TimeOfUse (PEAK or OFF-PEAK)

Element Name	Element Description	Required/Optional	Data Type
startDate	Start Date of the Secondary Market trade request	Required	Date
endDate	End Date of the Secondary Market trade request	Required	Date
mw	MW requested	Required	Decimal
contactInfo	Contact Information of the requesting asset owner	Required	ContactInfo
targetMpName	The MP Name who is targeted to respond to the request	Required	String(40 characters max)
status	Element for status of the request	Required	smRequestStatusType (POSTED, PENDING_AO_RESPONSE, PENDING_CREDIT_CHECK, APPROVED, DISAPPROVED, RETRACTED, ERROR)
description	Secondary market offer request description. This can be used to store any user's unique identifier or the secondary market request ID defined by the user (which is not system generated requestId).	Required, Can be empty	String (50 characters max)

2.4.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

Sample of fault response is provided in 2.3.3

2.4.3 Sample of Public Secondary Market Request Status Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/ftr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <getAllMySmPublicRequests>
      <statusType>POSTED</statusType>
```



```
</getAllMySmPublicRequests>
</soapenv:Body>
</soapenv:Envelope>
```

2.4.4 Sample of Public Secondary Market Request Status Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <getAllMySmPublicRequestsResponse
      xmlns:ns2="http://api.miso.org/schema/ftr/SecondaryMarket/v1"
      xmlns="http://api.miso.org/schema/ftr/Common/v1">
      <!--Zero or more repetitions:-->
      <return>
        <requestId>123345</requestId>
        <requestType>BUY</requestType>
        <source>A</source>
        <sink>B</sink>
        <tou>PEAK</tou>
        <startDate>2013-09-13Z</startDate>
        <endDate>2013-09-14Z</endDate>
        <mw>10</mw>
        <contactInfo>
          <name>John</name>
          <phone>234-234-3242</phone>
          <email>john@xyz.com</email>
        </contactInfo>
        <targetMpName>MP John</targetMpName>
        <status>PENDING_MP_RESPONSE</status>
        <description/>
      </return>
    </getAllMySmPublicRequestsResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

2.5 Retrieve Private Secondary Market Requests based on Status

2.5.1 API Description

getAllMySmPrivateRequests(request status type) This API is for getting a list of secondary market private requests initiated by a given MP for a given request status. Refer section 2.1.1 for the list of status.

2.5.2 Schema Description

The schema descriptions in the table below are for retrieving private Secondary Market requests initiated by the given market participant.

Table 7: An Existing Private Secondary Market Request

Element Name	Element Description	Required/Optional	Data Type
existingPrivateS mRequest	Container element for existing private secondary market request		
requestId	Identifier of request	Required	Long
requestType	BUY for Buy request and SELL for Sell request.	Required	String (4 characters max)
ftrId	For a SELL, the originating FTR ID	Optional	Long
source	Name of source (settlement location) of the Secondary Market request	Required	String (40 characters max)
sink	Name of sink (settlement location) of the Secondary Market request	Required	String (40 characters max)
tou	Time-of-use (PEAK and OFF-PEAK)	Required	TimeOfUse (PEAK or OFF-PEAK)
startDate	Start Date of the Secondary Market trade request	Required	Date
endDate	End Date of the Secondary Market trade request	Required	Date
mw	MW requested	Required	Decimal
contactInfo	Contact Information of the requesting asset owner	Optional	ContactInfo
targetMpName	The MP Name who is targeted to respond to the request	Required	String(40 characters max)

Element Name	Element Description	Required/Optional	Data Type
status	Element for status of the request	Required	smRequestStatusType (POSTED, PENDING_MP_RESPONSE, APPROVED, DISAPPROVED, RETRACTED, ERROR)
description	Secondary market offer request description. This can be used to store any user's unique identifier or the secondary market request ID defined by the user (which is not system generated requestId).	Required, Can be empty	String (50 characters max)

2.5.3 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

Sample of fault response is provided in 2.3.3

2.5.4 Sample of Private Secondary Market Request Status Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/fttr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <getAllMySmPrivateRequests>
      <statusType>PENDING_MP_RESPONSE</statusType>
    </getAllMySmPrivateRequests>
  </soapenv:Body>
</soapenv:Envelope>
```

2.5.5 Sample of Private Secondary Market Request Status Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <getAllMySmPrivateRequestsResponse
xmlns:ns2="http://api.miso.org/schema/fttr/SecondaryMarket/v1"
xmlns="http://api.miso.org/schema/fttr/Common/v1">
      <!--Zero or more repetitions:-->
```

```

<return>
  <requestId>200001</requestId>
  <requestType>SELL</requestType>
  <ftrId>708005</ftrId>
  <source>A</source>
  <sink>B</sink>
  <tou>PEAK</tou>
  <startDate>2013-09-13Z</startDate>
  <endDate>2013-09-14Z</endDate>
  <mw>10</mw>
  <targetMpName>John</targetMpName>
  <status>PENDING_MP_RESPONSE</status>
  <description/>
</return>
</getAllMySmPrivateRequestsResponse>
</soapenv:Body>
</soapenv:Envelope>

```

2.6 Retrieve All Secondary Market Requests Pending for My Response

2.6.1 API Description

getAllSmRequestsPendingForMyResponse() This API is for getting a list of secondary market public and private requests initiated by other AOs and targeted to the given MP. The response of this API returns a list of smRequestPendingResponse described in the schema description (section 2.6.2).

2.6.2 Schema Description

The schema descriptions in the table below are for retrieving Secondary Market requests which are initiated by other AOs and targeted to the given market participant.

Table 8: A Secondary Market Request pending for MP Response

Element Name	Element Description	Required/Optional	Data Type
smRequestPendingResponse	Container element for existing secondary market request which is in pending for AO response status		
requestId	Identifier of request	Required	Long
postType	PUBLIC for Public request and PRIVATE for Private request	Required	String (7 characters max)

Element Name	Element Description	Required/Optional	Data Type
requestType	BUY for Buy request and SELL for Sell request.	Required	String (4 characters max)
source	Name of source (settlement location) of the Secondary Market request	Required	String (40 characters max)
sink	Name of sink (settlement location) of the Secondary Market request	Required	String (40 characters max)
tou	Time-of-use (PEAK and OFF-PEAK)	Required	TimeOfUse (PEAK or OFF-PEAK)
startDate	Start Date of the Secondary Market trade request	Required	Date
endDate	End Date of the Secondary Market trade request	Required	Date
mw	MW requested	Required	Decimal
initiatingMpName	The MP Name who initiates the request	Required	String(40 characters max)
contactInfo	Contact Information of the requesting asset owner	Optional	ContactInfo

2.6.3 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

Sample of fault response is provided in 2.3.3

2.6.4 Sample of All Secondary Market Request Status Pending for My Response Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/ftr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <getAllSmPublicRequestsPendingForMyResponse>
      </getAllSmPublicRequestsPendingForMyResponse>
    </soapenv:Body>
```

```
</soapenv:Envelope>
```

2.6.5 Sample of AllSecondary Market Request Status Pending for My Response Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <getAllSmPublicRequestsPendingForMyResponseResponse
      xmlns:ns2="http://api.miso.org/schema/ftr/SecondaryMarket/v1"
      xmlns="http://api.miso.org/schema/ftr/Common/v1">
      <!--Zero or more repetitions:-->
      <return>
        <requestId>1234</requestId>
        <postType>PUBLIC</postType>
        <requestType>BUY</requestType>
        <source>A</source>
        <sink>B</sink>
        <tou>PEAK</tou>
        <startDate>2013-09-13Z</startDate>
        <endDate>2013-09-14Z</endDate>
        <mw>10</mw>
        <initiatingMpName>MP John</initiatingMpName>
        <contactInfo>
          <name>John</name>
          <phone>234-234-3242</phone>
          <email>john@xyz.com</email>
        </contactInfo>
      </return>
    </getAllSmPublicRequestsPendingForMyResponseResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

2.7 Retrieve a Public Secondary Market Request based on a Request ID

2.7.1 API Description

getSmPublicRequest(request identifier) This API is for getting a secondary market public request initiated by a given market participant/asset owner for a given request identifier. The response of this API returns an existing public request using a schema described in table 7.

2.7.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

Sample of fault response is provided in 2.3.3

2.7.3 Sample of Public Secondary Market Request ID Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/ftr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <getSmPublicRequest>
      <requestId>
        <id>1234</id>
      </requestId>
    </getSmPublicRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

2.7.4 Sample of Public Secondary Market Request ID Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" >
  <soapenv:Body>
    <getSmPublicRequestResponse xmlns:ns2="http://api.miso.org/schema/ftr/SecondaryMarket/v1"
xmlns="http://api.miso.org/schema/ftr/Common/v1">
      <return>
        <requestId>1234</requestId>
        <requestType>BUY</requestType>
        <source>A</source>
        <sink>B</sink>
        <tou>PEAK</tou>
        <startDate>2013-09-13Z</startDate>
        <endDate>2013-09-14Z</endDate>
        <mw>10</mw>
        <contactInfo>
          <name>John</name>
          <phone>234-234-3242</phone>
          <email>john@xyz.com</email>
        </contactInfo>
        <targetMpName>MP James</targetMpName>
        <status>PENDING_MP_RESPONSE</status>
        <description/>
      </return>
    </getSmPublicRequestResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

2.8 Retrieve a Private Secondary Market Request based on a Request ID

2.8.1 API Description

getSmPrivateRequest(request identifier) This API is for getting a secondary market private request initiated by a given market participant for a given request ID. The response of this API returns an existing private request using a schema described in table 8.

2.8.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

Sample of fault response is provided in 2.3.3

2.8.3 Sample of Private Secondary Market Request ID Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/ftr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <getSmPrivateRequest>
      <requestId>
        <id>200001</id>
      </requestId>
    </getSmPrivateRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

2.8.4 Sample of Private Secondary Market Request ID Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <getSmPrivateRequestResponse xmlns:ns2="http://api.miso.org/schema/ftr/SecondaryMarket/v1"
xmlns="http://api.miso.org/schema/ftr/Common/v1">
      <return>
        <requestId>200001</requestId>
        <requestType>SELL</requestType>
        <ftrId>708005</ftrId>
        <source>A</source>
        <sink>B</sink>
        <tou>PEAK</tou>
        <startDate>2015-09-01Z</startDate>
      </return>
    </getSmPrivateRequestResponse>
  </soapenv:Body>
</soapenv:Envelope>
```



```
<endDate>2015-12-01Z</endDate>
<mw>10</mw>
<targetMpName>WXYZ</targetMpName>
<status>PENDING_MP_RESPONSE</status>
<description/>
</return>
</getSmPrivateRequestResponse>
</soapenv:Body>
</soapenv:Envelope>
```

2.9 Retrieve Secondary Market Request Status based on a Request ID

2.9.1 API Description

getSmRequestStatus(request identifier) This API is for checking the status of a public or private secondary market request initiated for a given request identifier. The API returns the status of the secondary market trade, using the schema described in table3, if the request is initiated by the given AO.

2.9.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

Sample of fault response is provided in 2.3.3

2.9.3 Sample of Secondary Market Request Status Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/ftr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <getSmRequestStatus>
      <requestId>
        <id>234456</id>
      </requestId>
    </getSmRequestStatus>
  </soapenv:Body>
</soapenv:Envelope>
```

2.9.4 Sample of Private Secondary Market Request ID Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
```

```
<getSmRequestStatusResponse xmlns:ns2="http://api.miso.org/schema/ftr/SecondaryMarket/v1"
xmlns="http://api.miso.org/schema/ftr/Common/v1">
  <return>
    <requestId>
      <id>234456</id>
    </requestId>
    <status>RETRACTED</status>
  </return>
</getSmRequestStatusResponse>
</soapenv:Body>
</soapenv:Envelope>
```

2.10 Target Public Secondary Market Request to an MP

2.10.1 API Description

targetSmPublicRequestToMp (request identifier, target market participant name)

This API is for the initiator of the specified public secondary market request to specify a corresponding market participant name who will send a response later to the request. The API returns the status of the secondary market trade, using the schema described in table 3, if the request is initiated by the given MP. Once it's successfully targeted, the status of the request is PENDING_MP_RESPONSE.

2.10.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

Sample of fault response is provided in 2.3.3

2.11.3 Sample of Target Secondary Market Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/ftr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <targetSmPublicRequestToMp>
      <requestId>
        <id>123345</id>
      </requestId>
      <targetMpName>WXYZ</targetMpName>
    </targetSmPublicRequestToMp>
  </soapenv:Body>
</soapenv:Envelope>
```

2.10.4 Sample of Target Secondary Market Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <targetSmPublicRequestToMpResponse
      xmlns:ns2="http://api.miso.org/schema/ftr/SecondaryMarket/v1"
      xmlns="http://api.miso.org/schema/ftr/Common/v1">
      <return>
        <requestId>
          <id>123345</id>
        </requestId>
        <status>PENDING_MP_RESPONSE</status>
      </return>
    </targetSmPublicRequestToMpResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

2.11 Post Secondary Market Response to a Request

2.11.1 API Description

postSmResponse (request identifier, response data)

This API is for sending a response to match a Buy/Sell request (either public or private request) by giving the request identifier and response data. The response data, as described in schema description 2.12.2, include response type, FTR identifier (if the response is to the buy request), source name, sink name, TOU, start date, end date, MW, initiating MP name and description. This API returns secondary market status using the schema described in table 10. If the trade passes all validations include credit check for the buying MP, the status will be set to APPROVED. If the trade fails one of the validations, the trade will be set to DISAPPROVED status. On a successful response, a response identifier is assigned to the response. The responding MP can use the response id to verify the status of the trade whereas the initiating MP will use the request identifier to verify the status.

2.11.2 Schema Description

The schema descriptions in the table below are for posting Secondary Market response to a specific request ID.

Table 9: A Secondary Market Response to a Request

Element Name	Element Description	Required/Optional	Data Type
smResponse	Container element for secondary market response		

Element Name	Element Description	Required/Optional	Data Type
responseType	BUY for responding to a Buy request and SELL for responding to a Sell request.	Required	String (4 characters max)
ftrId	For responding to a buy request, the originating FTR ID	Optional	Long
source	Name of source (settlement location) of the Secondary Market request	Required	String (40 characters max)
sink	Name of sink (settlement location) of the Secondary Market request	Required	String (40 characters max)
tou	Time-of-use (PEAK and OFF-PEAK)	Required	TimeOfUse (PEAK or OFF-PEAK)
startDate	Start Date of the Secondary Market trade request	Required	Date
endDate	End Date of the Secondary Market trade request	Required	Date
mw	MW requested	Required	Decimal
initiatingMpName	The Mp Name who initiates the request	Required	String(40 characters max)
assetOwner	The AO name who responding MP defines	Required	String(40 characters max)
description	Secondary market offer response description. This can be used to store any user's unique identifier or the secondary market response ID defined by the user (which is not system generated responseId).	Required, Can be empty	String (50 characters max)

Table 10: Response Status

Element Name	Element Description	Required/Optional	Data Type
responseStatus	Container element for a response status		

Element Name	Element Description	Required/Optional	Data Type
responseld	Element for identifier of a response to a buy or sell offer request	Required	responseld
status	Element for status of the response	Required	smResponseStatusType (PENDING_MP_RESPONSE, APPROVED, DISAPPROVED, RETRACTED, ERROR)
errorMessage	An error message of secondary market requests.	Optional	String (1000 characters max)

2.11.3 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

Sample of fault response is provided in 2.3.3

2.11.4 Sample of Post Secondary Market-Response Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/fttr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <postSmResponse>
      <requestId>
        <id>123345</id>
      </requestId>
      <response>
        <responseType>BUY</responseType>
        <fttrId>6456</fttrId>
        <source>A</source>
        <sink>B</sink>
        <tou>PEAK</tou>
        <startDate>03/01/2012</startDate>
        <endDate>03/31/2012</endDate>
        <mw>10</mw>
        <initiatingMpName>FRED</initiatingMpName>
        <assetOwner>MIKE</assetOwner>
        <description>ResponseToRequest123345</description>
      </response>
    </postSmResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

```

</response>
</postSmResponse>
</soapenv:Body>
</soapenv:Envelope>

```

2.11.5 Sample of Post Secondary Market-Response Response

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <postSmResponseResponse xmlns:ns2="http://api.miso.org/schema/ftr/SecondaryMarket/v1"
      xmlns="http://api.miso.org/schema/ftr/Common/v1">
      <return>
        <responseId>
          <id>7567566</id>
        </responseId>
        <status>APPROVED</status>
      </return>
    </postSmResponseResponse>
  </soapenv:Body>
</soapenv:Envelope>

```

2.12 Retrieve Secondary Market Response based on a Response ID

2.12.1 API Description

getSmResponse (response identifier) This API is for downloading a response by a given response identifier. The API returns secondary market response data, using schema described in table 11, if the response is posted by the given MP.

2.12.2 Schema Description

The schema descriptions in the table below are for retrieving a Secondary Market response by a given response ID.

Table 11: An existing Secondary Market Response

Element Name	Element Description	Required/Optional	Data Type
existingSmResponse	Container element for existing secondary market response		
responseId	Identifier of response	Required	Long

Element Name	Element Description	Required/Optional	Data Type
responseType	BUY for responding to a Buy request and SELL for responding to a Sell request.	Required	String (4 characters max)
ftrId	For responding to a buy request, the originating FTR ID	Optional	Long
source	Name of source (settlement location) of the Secondary Market request	Required	String (40 characters max)
sink	Name of sink (settlement location) of the Secondary Market request	Required	String (40 characters max)
tou	Time-of-use (PEAK and OFF-PEAK)	Required	TimeOfUse (PEAK or OFF-PEAK)
startDate	Start Date of the Secondary Market trade request	Required	Date
endDate	End Date of the Secondary Market trade request	Required	Date
mw	MW requested	Required	Decimal
initiatingMpName	The MP Name who initiates the request	Required	String(40 characters max)
assetOwner	The AO name who responding MP defines	Required	String(40 characters max)
status	Element for status of the response	Required	smResponseStatusType (PENDING_MP_RESPONSE, APPROVED, DISAPPROVED, RETRACTED, ERROR)
description	Secondary market offer response description. This can be used to store any user's unique identifier or the secondary market response ID defined by the user (which is not system generated responseId).	Required, Can be empty	String (50 characters max)

2.12.3 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

Sample of fault response is provided in 2.3.3

2.12.4 Sample of Retrieving Secondary Market Response by Response ID Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:sec="http://api.miso.org/schema/fttr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <getSmResponse>
      <responseId>
        <id>7567566</id>
      </responseId>
    </getSmResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

2.12.5 Sample of Retrieving Secondary Market Response by Response ID

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <getSmResponseResponse xmlns:ns2="http://api.miso.org/schema/fttr/SecondaryMarket/v1"
xmlns="http://api.miso.org/schema/fttr/Common/v1">
      <return>
        <responseId>7567566</responseId>
        <requestId>123345</requestId>
        <responseType>BUY</responseType>
        <fttrId>6456</fttrId>
        <source>A</source>
        <sink>B</sink>
        <tou>PEAK</tou>
        <startDate>03/01/2012</startDate>
        <endDate>03/31/2012</endDate>
        <mw>10</mw>
        <initiatingMpName>MIKE</initiatingMpName>
        <assetOwner>AO1</assetOwner>
        <status>DISAPPROVED</status>
        <description>ResponseToRequest123345</description>
      </return>
    </getSmResponseResponse>
```



```
</soapenv:Body>  
</soapenv:Envelope>
```

2.13 Retrieve All Secondary Market Responses

2.13.1 API Description

getAllMySmResponses(response status type) This API is for downloading a list of responses made by a given market participant and by a given response status type. The API returns secondary market response data using schema described in table 11 if there is any existing response for the specific status type.

2.13.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

Sample of fault response is provided in 2.3.3

2.13.3 Sample of Retrieving All Secondary Market Response by Response Type Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"  
  xmlns:sec="http://api.miso.org/schema/ftr/SecondaryMarket/v1">  
  <soapenv:Header/>  
  <soapenv:Body>  
    <getAllMySmResponses>  
      <statusType>APPROVED</statusType>  
    </getAllMySmResponses>  
  </soapenv:Body>  
</soapenv:Envelope>
```

2.13.4 Sample of Retrieving Secondary Market Response by Response ID Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">  
  <soapenv:Body>  
    <getAllMySmResponsesResponse xmlns:ns2="http://api.miso.org/schema/ftr/SecondaryMarket/v1"  
      xmlns="http://api.miso.org/schema/ftr/Common/v1">  
      <return>  
        <responseId>7567566</responseId>  
        <requestId>123345</requestId>  
        <responseType>BUY</responseType>  
        <ftrId>6456</ftrId>  
        <source>A</source>  
        <sink>B</sink>  
        <tou>PEAK</tou>
```

```

    <startDate>2015-08-02Z</startDate>
    <endDate>2015-08-08Z</endDate>
    <mw>10</mw>
    <initiatingMpName>MIKE</initiatingMpName>
    <assetOwner>AO1<assetOwner>
    <status>APPROVED</status>
    <description>ResponseToRequest123345</description>
  </return>
</getAllMySmResponsesResponse>
</soapenv:Body>
</soapenv:Envelope>

```

2.14 Retrieve Secondary Market Response Status

2.14.1 API Description

getSmResponseStatus(response ID) This API is for downloading a response made by a given market participant for a given response ID. The API returns secondary market response status using schema described in table 10.

2.14.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

Sample of fault response is provided in 2.3.3

2.14.3 Sample of Retrieving Status of Secondary Market Response by Response ID Request

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:sec="http://api.miso.org/schema/ftr/SecondaryMarket/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <getSmResponseStatus>
      <responseld>
        <id>7567566</id>
      </responseld>
    </getSmResponseStatus>
  </soapenv:Body>
</soapenv:Envelope>

```

2.14.4 Sample of Retrieving Secondary Market Response by Response ID Response

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>

```

```
<getSmResponseResponse xmlns:ns2="http://api.miso.org/schema/ftr/SecondaryMarket/v1"
xmlns="http://api.miso.org/schema/ftr/Common/v1">
  <return>
    <responseId>7567566</responseId>
    <status>APPROVED</status>
  </return>
</getSmResponseResponse>
</soapenv:Body>
</soapenv:Envelope>
```

2.15 Miscellaneous

2.15.1 Version of Web Service for Secondary Market

getFtrSeconadaryMarketServiceVersion() is an API used to check version number of FTR Secondary Market Web Service artifact. The response will contain the current version in <Major>.<Minor>.<Patch>.

2.15.2 Ping

ping() is an API used to check connectivity. It returns true if the service can be reached.