

AutoCert+ CME Margin Service API

User Manual

24 Aug 2016

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Getting Started

The AutoCert+ tool is an automated testing tool for validating application functionality. It provides an easy-to-use web interface for walking through CME Group certification scenarios.

To facilitate the process of connecting a customer application to Margin Services API, CME Group provides a dedicated certification environment to allow customers to test their systems before they complete certification.

The AutoCert+ Margin Service API test suite verifies Portfolio Tests, Transaction Tests, Margin Tests and ALL-IN-ONE Call Tests.



To run and navigate AutoCert+:

- 1. Log into the automated certification tool.
- 2. Review general AutoCert+ test suite navigation and general interview information.
- 3. Complete the Interview for this test suite.
- 4. Complete applicable test cases.
- 5. Complete the certification process from the Post Certification tab.

What's New

The list below illustrates the updates made to the AutoCert+ Margin Service API Help system.

Date	Author	Topic	Description
24 August 2016	EE		Converted online Webhelp to HTML5 format.
13 October 2014	JJ		Added Feedback feature
31 May 2014	JK	All	New Help System

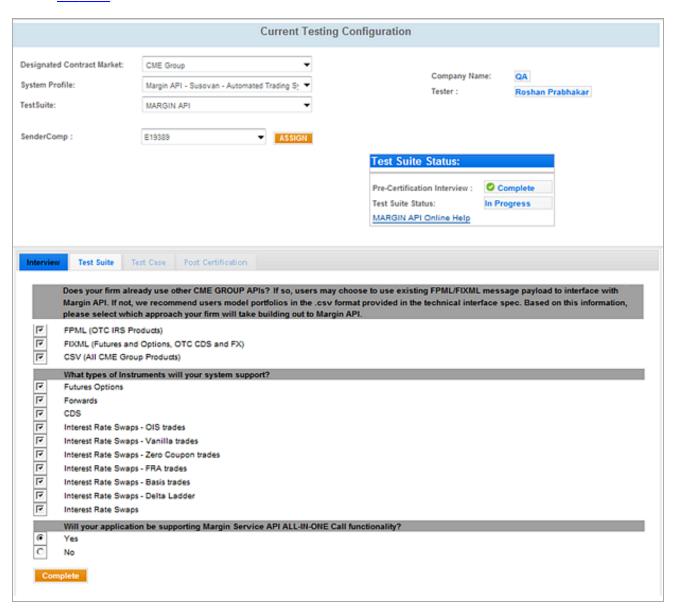
Interview

The interview consists of a series of questions about your application. You must complete the pre-certification interview before running the test cases.

All scenarios / test cases are required, however, the message structure and format will change based on the Instruments selected by the client.

See also:

- Scenarios / Test Cases
- Test Suite



Answer each interview question and click **Complete** when finished.



To complete the interview process:

1. For the question "Does your firm already use other CME GROUP APIs?" select one or more options.

- 2. For the question "What type of instruments will your system support?" select one or more options. The response determines how many tests will be required for the **Transaction—Add** and **Margin Service API ALL-IN-ONE Call** test sequences.
- 3. For the question "Will your application be supporting Margin Service API ALL-IN-ONE Call functionality?" select "Yes" or "No."

Scenarios / Test Cases

The f ollowing Scenarios/ Test cases are mandatory irrespective of the instrument selected by the client. However, the message structure and format will change based on the Instruments selected by the client.

- 1. Portfolio
 - Add
 - Delete
 - Get
 - Update
 - List
- 2. Transactions
 - Add
 - Delete
 - Get
 - Update
 - List
- 3. Margins
 - Calcualte
 - Get
 - List
- 4. ALL-IN-ONE Call

Test Suite

Certification test sequence for AutoCert+ Margin Services API.

Interview Test Suit	te Test Case	Post Certification				
		MARGIN API Certification Tests	Retest	Flag	Status (Mandatory/Optional
Margin Service API - P	ortfolio - Add				Not Tested	Mandatory
Margin Service API - P	ortfolio - Delete				Not Tested	Mandatory
Margin Service API - P	ortfolio - Get				Not Tested	Mandatory
Margin Service API - P	ortfolio - List				Not Tested	Mandatory
Margin Service API - P	ortfolio - Update				Not Tested	Mandatory
Margin Service API - T	ransaction - Add -	Futures_			Not Tested	Mandatory
Margin Service API - T	ransaction - Add -	FX Forwards			Not Tested	Mandatory
Margin Service API - T	ransaction - Add B	ulk Transactions			Not Tested	Mandatory
Margin Service API - T	ransaction - Add -	FRA.			Not Tested	Mandatory
Margin Service API - T	ransaction - Add - \	Vanilla_			Not Tested	Mandatory
Margin Service API - T	ransaction - Add - I	Basis.			Not Tested	Mandatory
Margin Service API - T				0	Not Tested	Mandatory
Margin Service API - T				- 0	Not Tested	Mandatory
Margin Service API - T	ransaction - Add -	Zero Coupon			Not Tested	Mandatory
Margin Service API - T					Not Tested	Mandatory
Margin Service API - T					Not Tested	Mandatory
Margin Service API - T				-	Not Tested	Mandatory
Margin Service API - T					Not Tested	Mandatory
Margin Service API - T				-	Not Tested	Mandatory
Margin Service API - T				-	Not Tested	Mandatory
Margin Service API - T				-	Not Tested	Mandatory
Margin Service API - T				-	Not Tested	Mandatory
		_			Not Tested	Mandatory
Margin Service API - T		<u>u</u>		-	Not Tested	Mandatory
Margin Service API - T					Not Tested	Mandatory
Margin Service API - T				-	Not Tested	Mandatory
Margin Service API - N					NetTested	Handalan
Margin Service API - N				-	Not Tested Not Tested	Mandatory
Margin Service API - N				_		
		ALL-IN-ONE Call - CDS ALL-IN-ONE Call - Delta Ladder		-	Not Tested Not Tested	Mandatory Mandatory
		ALL-IN-ONE Call - IRS		-	Not Tested	Mandatory
					Not Tested	
		ALL-IN-ONE Call - Foreign Exchange				
		ALL-IN-ONE Call - Futures and Options			Not Tested	
		ALL-IN-ONE Call - Zero Coupon				
		ALL-IN-ONE Call - Vanilla VNS			Not Tested	
		ALL-IN-ONE Call - FRA				
		ALL-IN-ONE Call - Basis			Not Tested	
Margin Service API - I	Margin Service API	ALL-IN-ONE Call - Vanilla		-	1101 169160	manuatory

Portfolio Tests

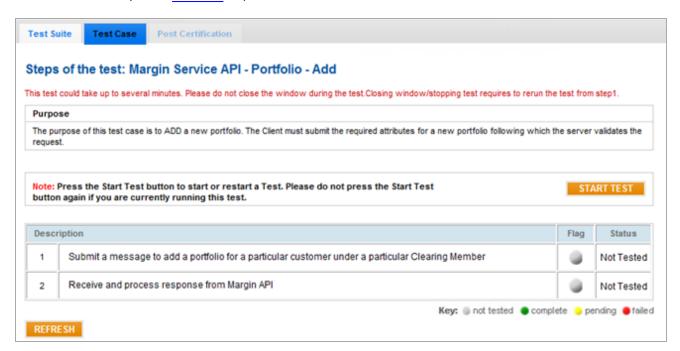
Perform tests for these portfolio functions:

- Add
- Delete
- Get
- <u>List</u>
- Update

Portfolio - Add

This test verifies <u>adding a new</u> portfolio. The required attributes for a new portfolio are submitted, and followed by server validatation of the request.

This test is mandatory for all Interview responses.





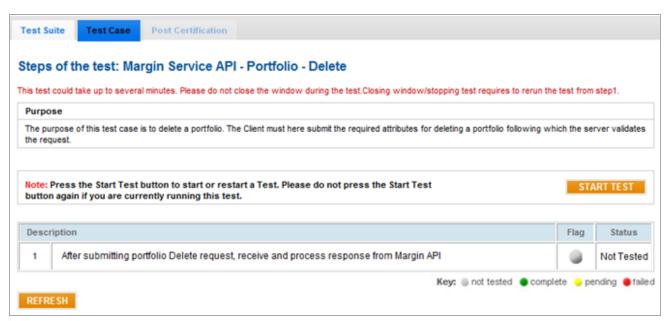
To test Portfolio – Add:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add a portfolio.
- 4. Receive and process response.
- 5. Click **Refresh** to review results.

Portfolio - Delete

This test verifies portfolio deletion.

This test is mandatory for all <u>Interview</u> responses.



To test Portfolio - Delete:

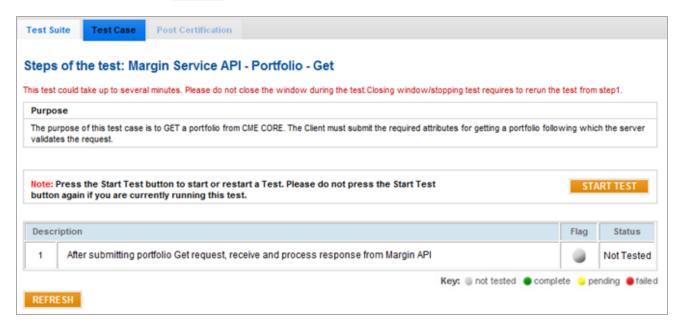
- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Following submission of a Delete request, receive and process the response.

Note: Submitted request is not an xml message, it is an HTTPS call.

Portfolio - Get

This test verifies a client can get a portfolio.

This test is mandatory for all **Interview** responses.





To test Portfolio – Get:

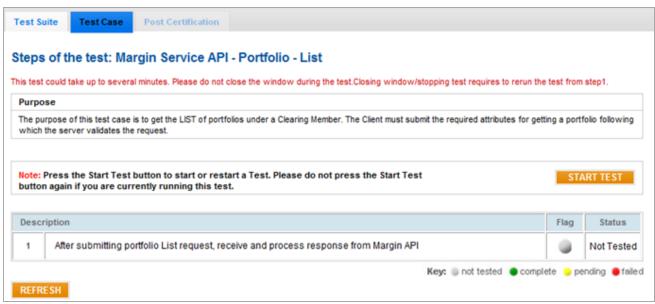
- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Following submission of a Get request, receive and process the response.

Note: Submitted request is not an xml message, it is an HTTPS call.

Portfolio - List

This test verifies a client can obtain the list of portfolios under a Clearing Member.

This test is mandatory for all Interview responses.





To test Portfolio – List:

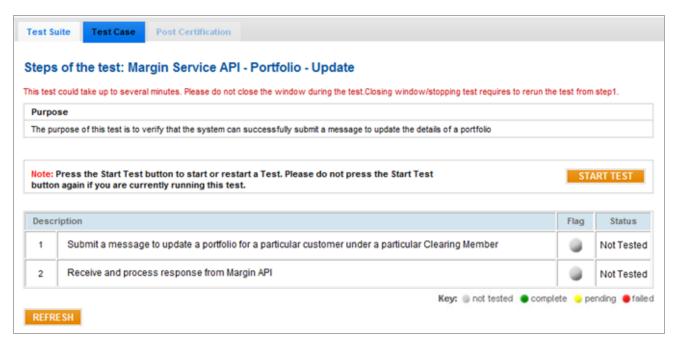
- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Following submission of a List request, receive and process the response.

Note: Submitted request is not an xml message, it is an HTTPS call.

Portfolio - Update

This test verifies a client can update a portfolio.

This test is mandatory for all **Interview** responses.





To test Portfolio – Update:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to update a portfolio.
- 4. Receive and process response.
- 5. Click **Refresh** to review results.

Transaction Tests

Perform tests for these transaction functions:

- Add Utilizing FIXML Format
- Add Bulk Transaction
- Add Utilizing FpML Format
- Add CDS (Utilizing FIXML)
- Add Utilizing CSV Format
- Delete
- Update
- Get
- List

Transaction – Add Utilizing FIXML

Perform tests for Transaction – Add utilizing FIXML:

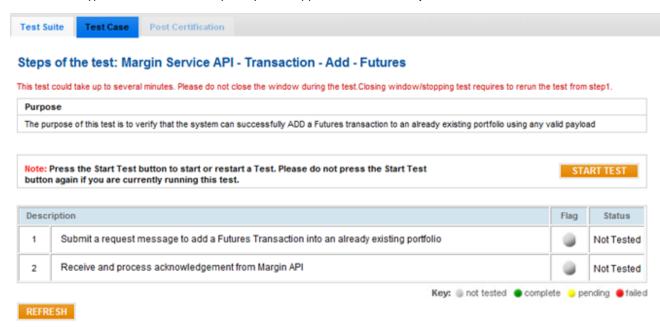
- Futures and Options
- FX Forwards

Transaction – Add Utilizing FIXML Format – Futures and Options

This test verifies successful addition of a Futures and Options transaction to an existing portfolio using any valid payload.

This test is mandatory when the **Interview** responses are:

- Does your firm already use other CME GROUP APIs? FIXML (Futures and Options, OTC CDS and FX)
- What types of Instruments will your system support? Futures and Options





- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add a Futures and Options transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

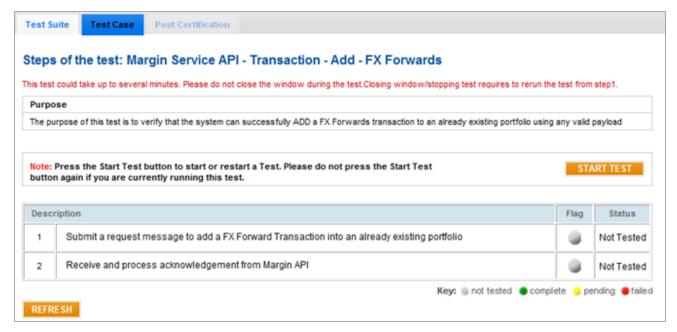
- Request
- Response

Transaction – Add Utilizing FIXML Format – FX Forwards

This test verifies successful addition of an FX Forwards transaction to an existing portfolio using any valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? FIXML (Futures and Options, OTC CDS and FX)
- What types of Instruments will your system support? Forwards





To test Transaction – Add FX Forwards utilizing FIXML:

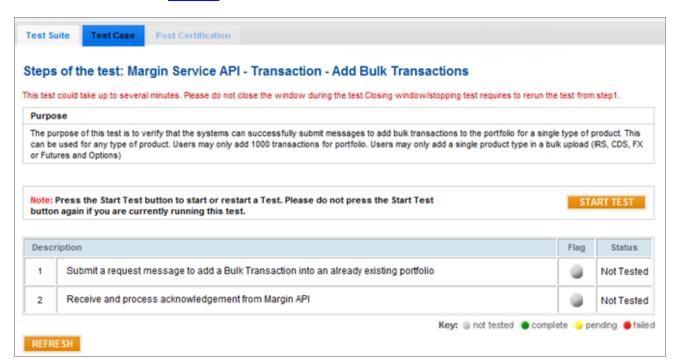
- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add an FX Forwards transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click **Refresh** to review results.

- Request
- Response

Transaction – Add – Bulk Transaction

This test verifies successful submission of messages to add bulk transactions to the portfolio for a single type of product. Any type of product can be used. Users may add up to 1000 transactions per portfolio. Users may only add a single product type in a bulk upload (IRS, CDS, FX or Futures and Options).

This test is mandatoryfor all Interview responses.





To test Transaction – Add for Bulk Transactions:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add Bulk Tranactions into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

Example:

• Add Bulk Transactions.

Transaction – Add Utilizing FpML

Perform tests for Transaction – Add utilizing FpML:

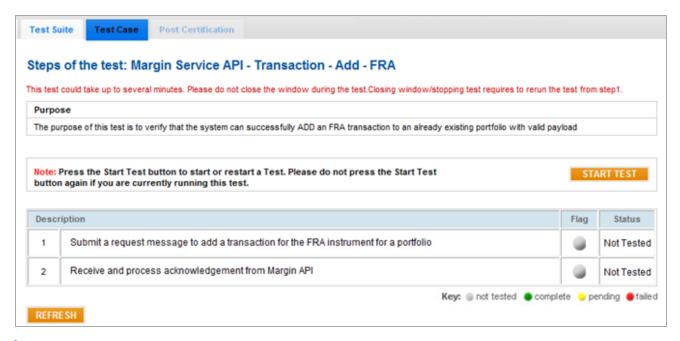
- <u>FRA</u>
- <u>Vanilla</u>
- Basis
- <u>OIS</u>
- Vanilla VNS
- Zero Coupon

Transaction – Add Utilizing FpML Format – FRA

This test verifies successful addition of an FRA transaction to an existing portfolio with valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? FPML (OTC IRS Products)
- What types of Instruments will your system support? Interest Rate Swaps -FRA trades





To test Transaction – Add FRA utilizing FpML:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add an FRA transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click **Refresh** to review results.

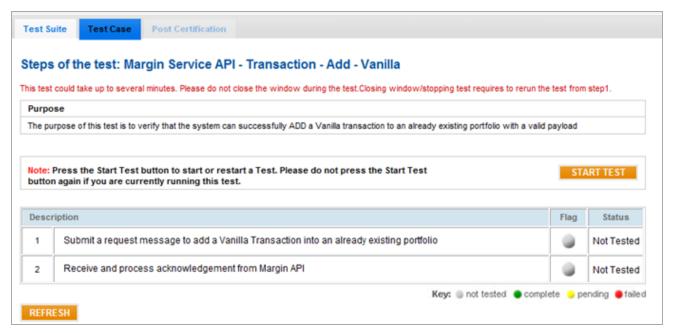
- Multiple transactions in FpML format:
 - Request
 - Response
- Product:
 - Request

Transaction – Add Utilizing FpML Format – Vanilla

This test verifies successful addition of a Vanilla transaction to an existing portfolio with valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? FPML (OTC IRS Products)
- What types of Instruments will your system support? Interest Rate Swaps Vanilla trades





To test Transaction – Add Vanilla utilizing FpML:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add a Vanilla transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

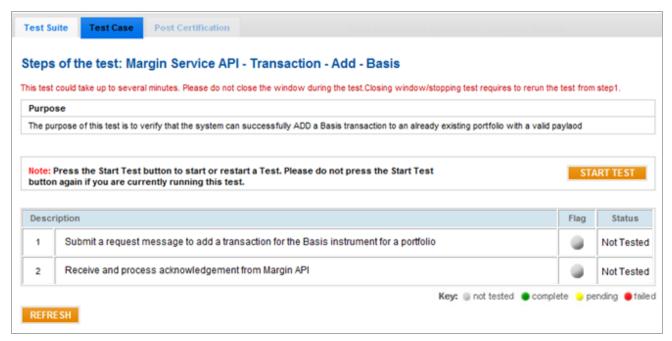
- Multiple transactions in FpML format:
 - Request
 - Response
- Product:
 - Request

Transaction – Add Utilizing FpML Format – Basis

This test verifies successful addition of a Basis transaction to an existing portfolio with valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? FPML (OTC IRS Products)
- What types of Instruments will your system support? Interest Rate Swaps Basis trades





To test Transaction – Add Basis utilizing FpML:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add a Basis transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

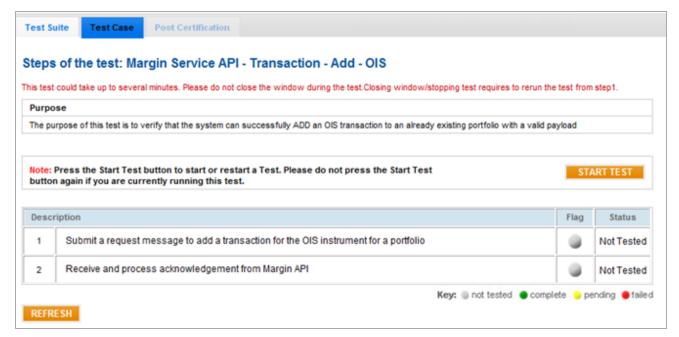
- Multiple transactions in FpML format:
 - Request
 - Response
- Product:
 - Request

Transaction – Add Utilizing FpML Format – OIS

This test verifies successful addition of an OIS transaction to an existing portfolio with valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? FPML (OTC IRS Products)
- What types of Instruments will your system support? OIS





To test Transaction – Add OIS utilizing FpML:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add an OIS transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

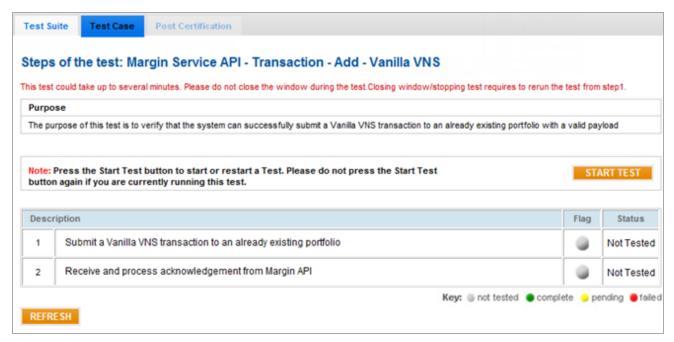
- Multiple transactions in FpML format:
 - Request
 - Response
- Product:
 - Request

Transaction – Add Utilizing FpML Format – Vanilla VNS (Variable Notional Swap)

This test verifies successful addition of a Vanilla VNS transaction to an existing portfolio with valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? FPML (OTC IRS Products)
- What types of Instruments will your system support? Vanilla VNS





To test Transaction – Add Vanilla VNS utilizing FpML:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a <u>request</u> to add a Vanilla VNS transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

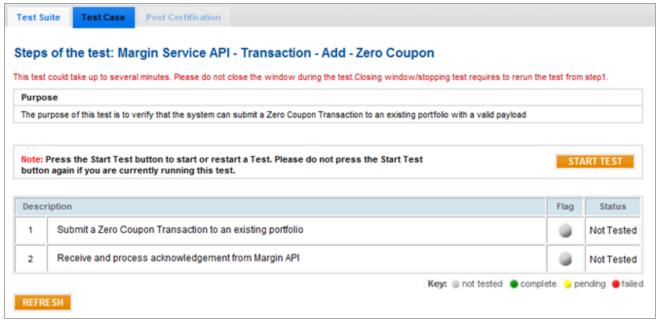
- Multiple transactions in FpML format:
 - Request
 - Response
- Product:
 - Request

Transaction – Add Utilizing FpML Format – Zero Coupon

This test verifies successful addition of a Zero Coupon transaction to an existing portfolio with valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? FPML (OTC IRS Products)
- What types of Instruments will your system support? Interest Rate Swaps Zero Coupon trades



To test Transaction – Add Zero Coupon utilizing FpML:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request too add a Zero Coupon transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

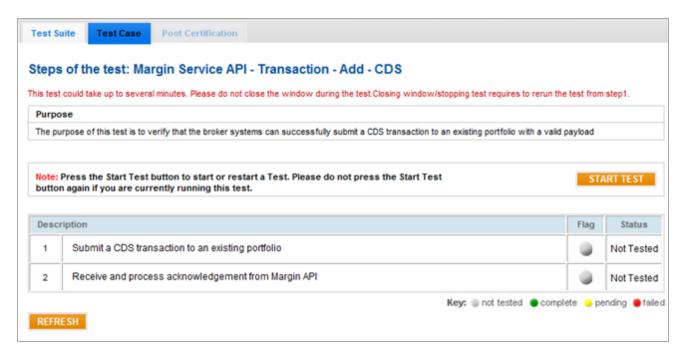
- Multiple transactions in FpML format:
 - Request
 - Response
- Product:
 - Request

Transaction – Add Utilizing FIXML Format – CDS

This test verifies successful addition of a CDS transaction to an existing portfolio using any valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? FIXML (Futures and Options, OTC CDS and FX)
- What types of Instruments will your system support? CDS





To test Transaction – Add CDS utilizing FIXML:

- 1. Select SenderComp that matches assigned Margin API login..
- 2. Click Start Test.
- 3. Submit a request to add a CDS transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

- Request
- Response

Transaction - Add Utilizing CSV

Perform tests for Transaction - Add utilizing CSV:

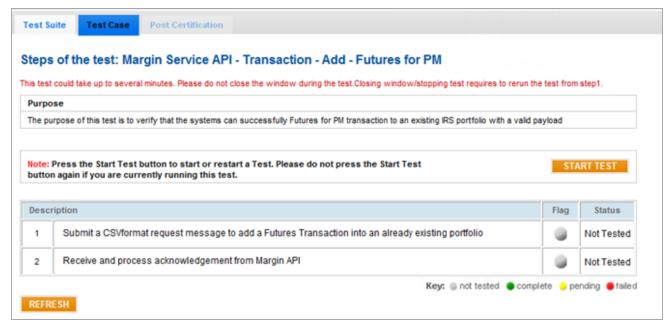
- Futures for PM (Portfolio Management)
- IRS for PM (Portfolio Management)
- CDS
- OTC FX (Forwards)
- IRS Delta Ladder
- Trade Register for IRS

Transaction - Add Utilizing CSV Format - Futures for Portfolio Management

This test verifies successful addition of a Futures for Portfolio Management (PM) transaction to an existing portfolio with a valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? CSV (All CME Group Products)
- What types of Instruments will your system support? Futures and Options





To test Transaction – Add Futures for PM utilizing CSV:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add a Futures for PM transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

Example:

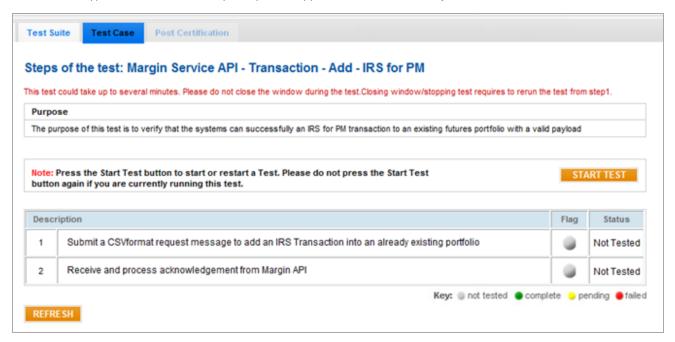
Request

Transaction – Add Utilizing CSV Format – IRS for Portfolio Management

This test verifies successful addition of an IRS for Portfolio Management (PM) transaction to an existing portfolio with a valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? CSV (All CME Group Products)
- What types of Instruments will your system support? Interest Rate Swaps





To test Transaction – Add IRS for PM utilizing CSV:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add an IRS for PM transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click **Refresh** to review results.

Example:

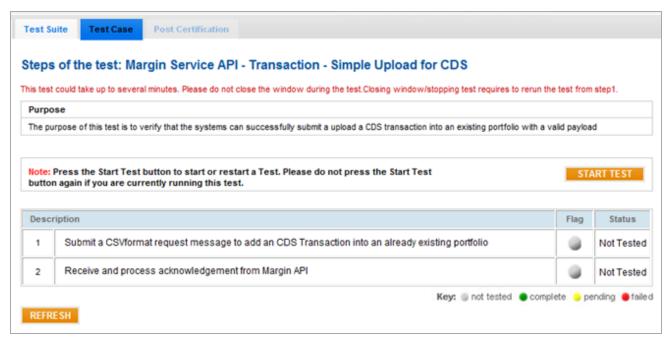
Request

Transaction – Add Utilizing CSV Format – Simple Upload for CDS

This test verifies successful addition of a CDS transaction to an existing portfolio using any valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? CSV (All CME Group Products)
- What types of Instruments will your system support? CDS





To test Transaction - Add CDS utilizing CSV:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add a CDS transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

Example:

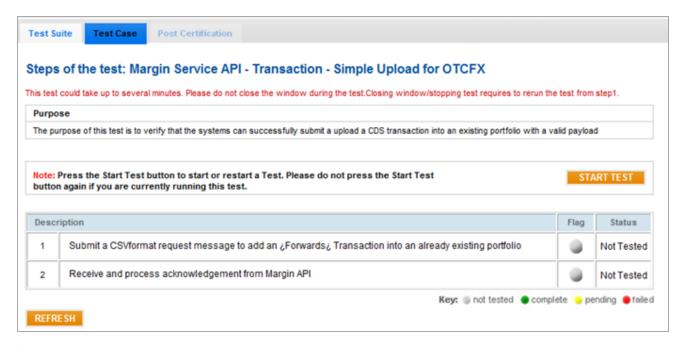
• Request

Transaction – Add Utilizing CSV Format – Simple Upload for OTC FX (Forwards)

This test verifies successful addition of an OTC FX (Forwards) transaction to an existing portfolio using any valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? CSV (All CME Group Products)
- What types of Instruments will your system support? Forwards



To test Transaction – Add OTC FX (Forwards) utilizing CSV:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add an OTC FX (Forwards) transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

Example:

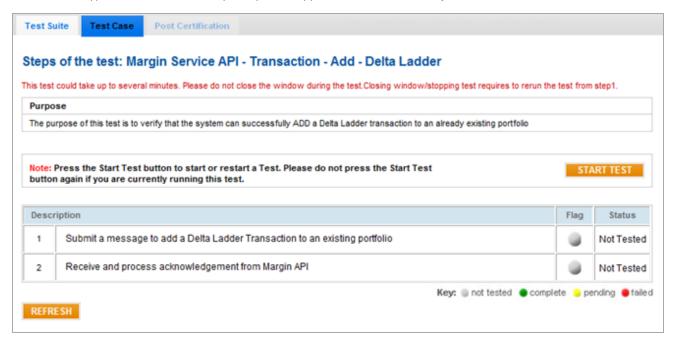
Request

Transaction – Add Utilizing CSV Format – Delta Ladder

This test verifies successful addition of a Delta Ladder transaction to an existing portfolio using any valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? CSV (All CME Group Products)
- What types of Instruments will your system support? Interest Rate Swap Delta Ladder





To test Transaction – Add Delta Ladder utilizing CSV:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to add a Delta Ladder transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click Refresh to review results.

Example:

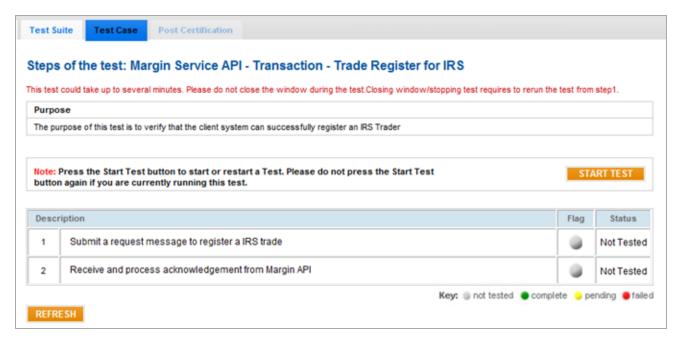
Request

Transaction – Add Utilizing CSV Format – Trade Register for IRS

This test verifies successful addition of a Trade Register for IRS transaction to an existing portfolio using any valid payload.

This test is mandatory when the Interview responses are:

- Does your firm already use other CME GROUP APIs? CSV (All CME Group Products)
- What types of Instruments will your system support? Interest Rate Swap





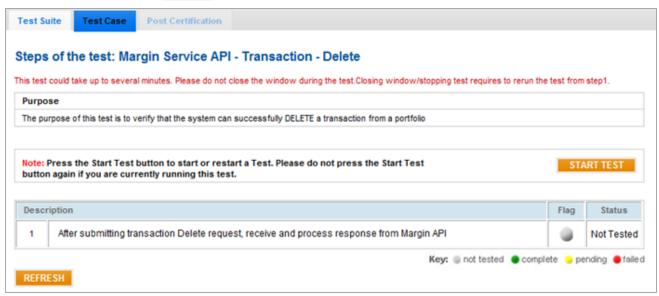
To test Transaction – Add Trade Register for IRS utilizing CSV:

- 1. Select SenderComp that matches assigned Margin API login.
- Click Start Test.
- 3. Submit a request to add a Trade Register for IRS transaction into an existing portfolio.
- 4. Receive and process response.
- 5. Click **Refresh** to review results.

Transaction - Delete

This test verifies transaction deletion from a portfolio.

This test is mandatory for all Interview responses.





To test Transaction - Delete:

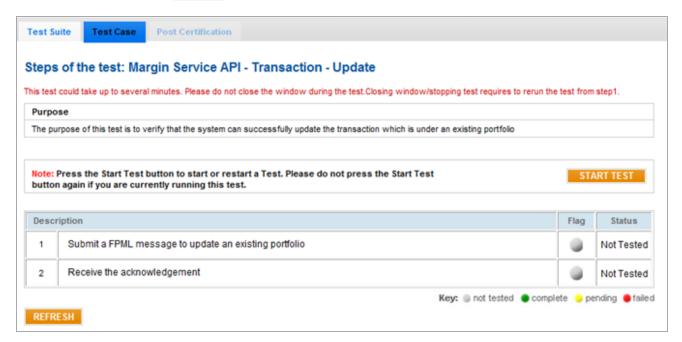
- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Following submission of a transaction Delete request, receive and process the response.

Note: Submitted request is not an xml message, it is an HTTPS call.

Transaction - Update

This test verifies transaction update under a portfolio.

This test is mandatory for all **Interview** responses.





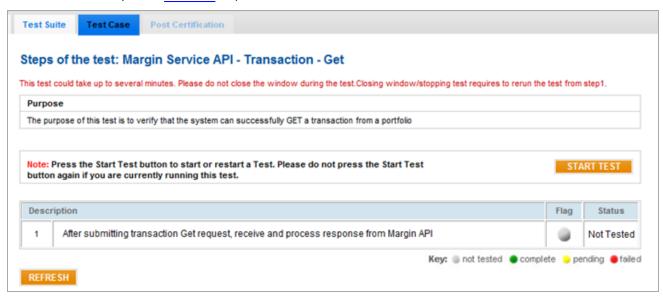
To test Transaction – Update:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a request to update a transaction under a portfolio.
- 4. Receive and process response.
- 5. Click **Refresh** to review results.

Transaction – Get

This test verifies a client can get a transaction from a portfolio.

This test is mandatory for all Interview responses.





To test Transaction - Get:

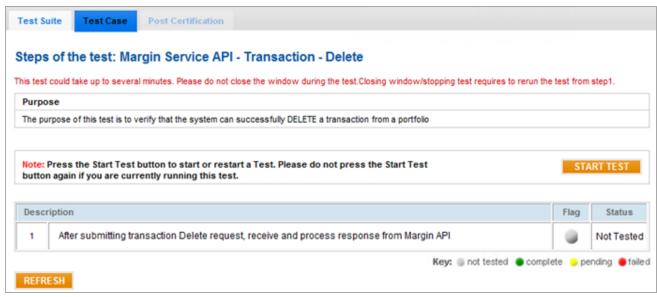
- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Following submission of a transaction Get request, receive and process the response.

Note: Submitted request is not an xml message, it is an HTTPS call.

Transaction – List

This test verifies a client can obtain a list of transactions under a portfolio.

This test is mandatory for all Interview responses.





To test Transaction - List:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Following submission of a List request, receive and process the response.

Note: Submitted request is not an xml message, it is an HTTPS call.

Margin Tests

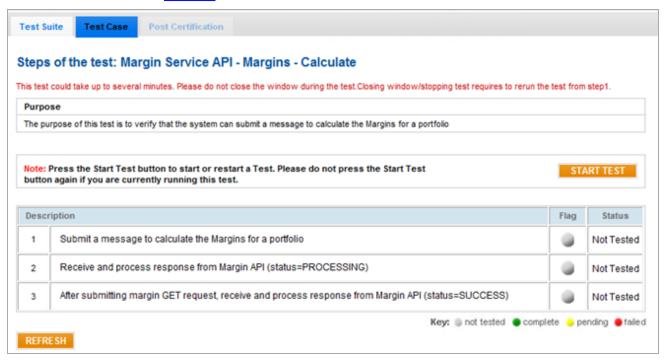
Perform tests for these margin functions:

- <u>Calculate</u>
- Get
- List

Margin - Calculate

This test verifies the system can submit a message to calculate margins for a portfolio.

This test is mandatory for all Interview responses.



To test Margin - Calculate:

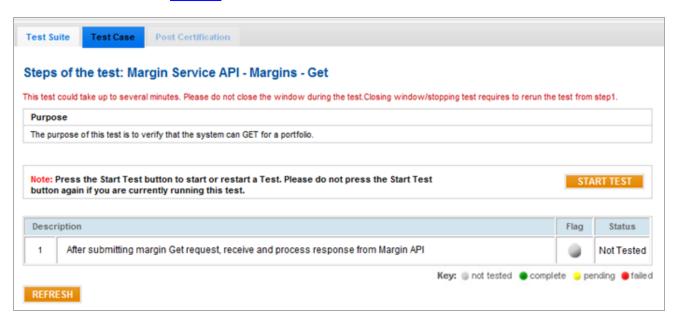
- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit a message to Calculate margins for a portfolio.
- 4. Receive and process response.
- 5. Following a Margin Get request submission, receive and process response.

Note: Get request is not an xml message, it is an HTTPS call.

Margin – Get

This test verifies the system can get the status and results for a portfolio.

This test is mandatory for all Interview responses.





To test Margin – Get:

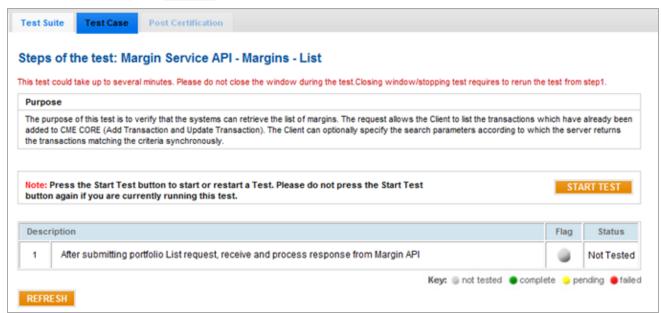
- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Following submission of a Get request, receive and process the response.

Note: Submitted request is not an xml message, it is an HTTPS call.

Margin - List

This test verifies the system can get the List of portfolios under a Clearing Member.

This test is mandatory for all **Interview** responses.





To test Margin – List:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Following submission of a List request, receive and process the response.

Note: Submitted request is not an xml message, it is an HTTPS call.

ALL-IN-ONE Call Tests

Perform tests for these all-in-one instrtuments:

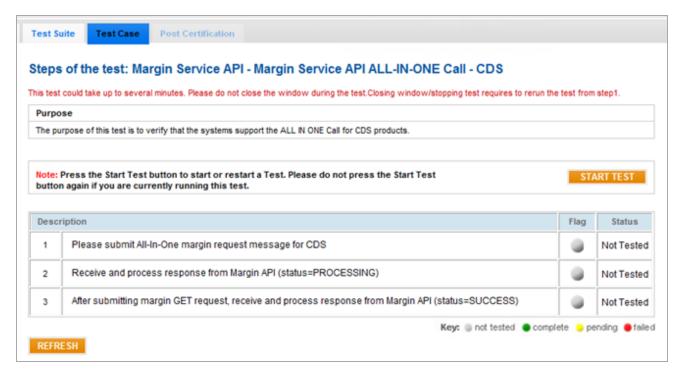
- CDS
- Delta Ladder
- IRS
- Forwards (FX)
- Futures and Options
- Zero Coupon
- Vanilla VNS
- FRA
- Basis
- Vanilla

All-IN-ONE Call - CDS

This test verifies the system supports All in One calls for CDS products.

This test is mandatory when the Interview responses are:

- What types of Instruments will your system support? CDS
- Will your application be supporting Margin Service API ALL-In-ONE Call functionality? Yes



To test ALL-IN-ONE Call for CDS:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit ALL-IN-ONE margin request message.
- 4. Receive and process the response.
- 5. Following submission of a Get request, receive and process the response.

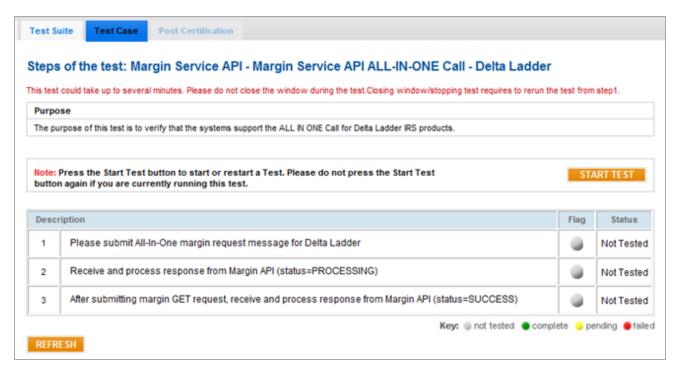
Note: Submitted request is not an xml message, it is an HTTPS call.

All-IN-ONE Call - Delta Ladder

This test verifies the system supports All in One calls for Delta Ladder products.

This test is mandatory when the Interview responses are:

- What types of Instruments will your system support? Interest Rate Swaps Delta Ladder
- Will your application be supporting Margin Service API ALL-In-ONE Call functionality? Yes



To test ALL-IN-ONE Call for Delta Ladder:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit ALL-IN-ONE margin request message.
- 4. Receive and process the response.
- 5. Following submission of a Get request, receive and process the response.

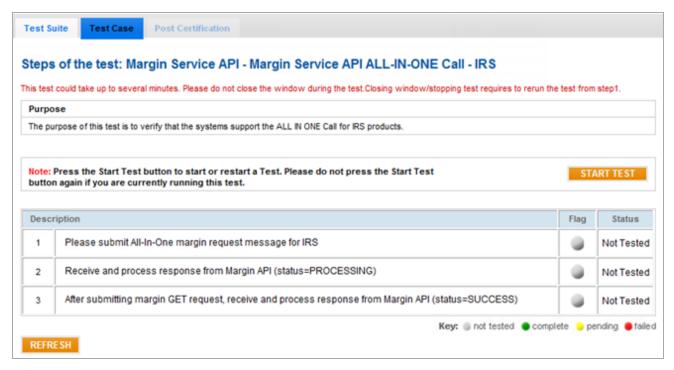
Note: Submitted request is not an xml message, it is an HTTPS call.

All-IN-ONE Call – Interest Rate Swaps (IRS)

This test verifies the system supports All in One calls for IRS products.

This test is mandatory when the Interview responses are:

- What types of Instruments will your system support? Interest Rate Swaps
- Will your application be supporting Margin Service API ALL-In-ONE Call functionality? Yes





To test ALL-IN-ONE Call for IRS:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit <u>ALL-IN-ONE margin request</u> message.
- 4. Receive and process the response.
- 5. Following submission of a Get request, receive and process the response.

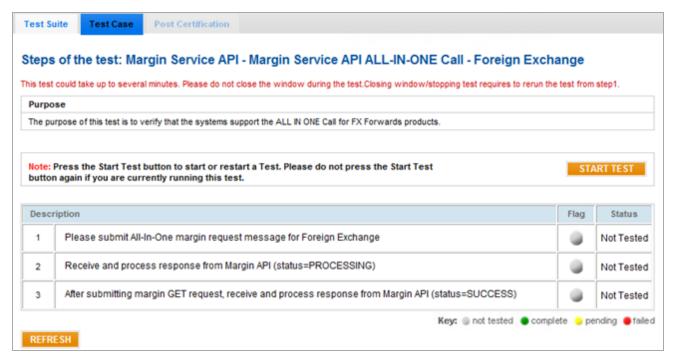
Note: Submitted request is not an xml message, it is an HTTPS call.

All-IN-ONE Call – Forwards (FX)

This test verifies the system supports ALL-IN-ONE calls for Forwards (FX) products.

This test is mandatory when the Interview responses are:

- What types of Instruments will your system support? Forwards
- Will your application be supporting Margin Service API ALL-In-ONE Call functionality? Yes





To test ALL-IN-ONE Call for Forwards:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit ALL-IN-ONE margin request message.
- 4. Receive and process the response.
- 5. Following submission of a Get request, receive and process the response.

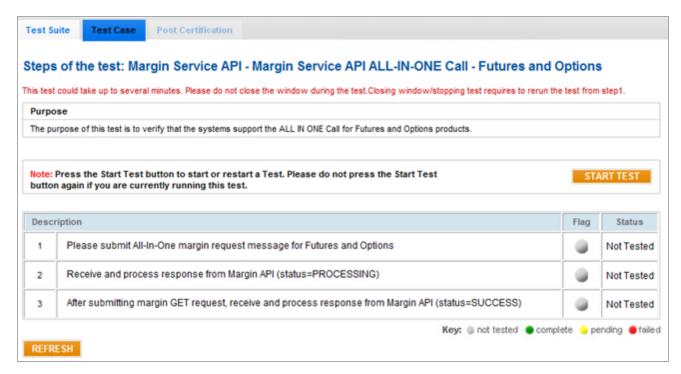
Note: Submitted request is not an xml message, it is an HTTPS call.

All-IN-ONE Call – Futures and Options

This test verifies the system supports ALL-IN-ONE calls for Futures and Options products.

This test is mandatory when the Interview responses are:

- What types of Instruments will your system support? Futures Options
- Will your application be supporting Margin Service API ALL-In-ONE Call functionality? Yes





To test ALL-IN-ONE Call for Futures and Options:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit ALL-IN-ONE margin request message.
- 4. Receive and process the response.
- 5. Following submission of a Get request, receive and process the response.

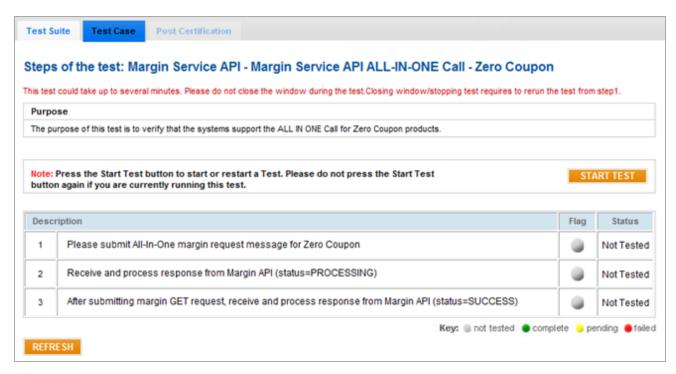
Note: Submitted request is not an xml message, it is an HTTPS call.

All-IN-ONE Call – Zero Coupon

This test verifies the system supports ALL-IN-ONE calls for Zero Coupon products.

This test is mandatory when the Interview responses are:

- What types of Instruments will your system support? Interest Rate Swaps Zero Coupon trades
- Will your application be supporting Margin Service API ALL-In-ONE Call functionality? Yes



To test ALL-IN-ONE Call for Zero Coupon:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit ALL-IN-ONE margin request message.
- 4. Receive and process the response.
- 5. Following submission of a Get request, receive and process the response.

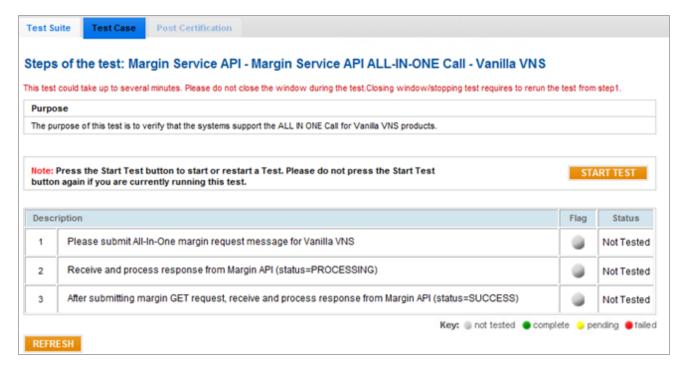
Note: Submitted request is not an xml message, it is an HTTPS call.

All-IN-ONE Call – Vanilla VNS

This test verifies the system supports ALL-IN-ONE calls for Vanilla VNS products.

This test is mandatory when the Interview responses are:

- What types of Instruments will your system support? Interest Rate Swaps Vanilla VNS trades
- Will your application be supporting Margin Service API ALL-In-ONE Call functionality? Yes





To test ALL-IN-ONE Call for Vanilla VNS:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit ALL-IN-ONE margin request message.
- 4. Receive and process the response.
- 5. Following submission of a Get request, receive and process the response.

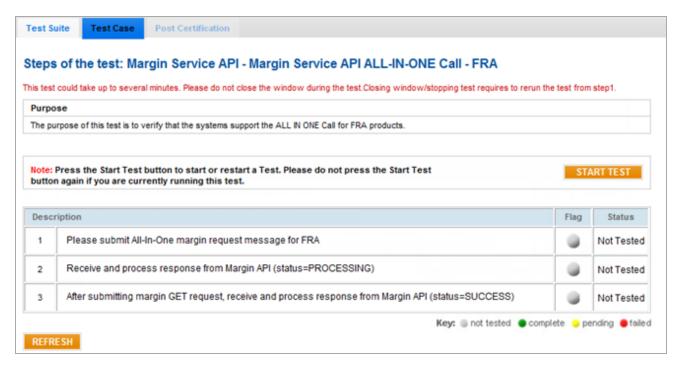
Note: Submitted request is not an xml message, it is an HTTPS call.

All-IN-ONE Call - FRA

This test verifies the system supports ALL-IN-ONE calls for FRA products.

This test is mandatory when the Interview responses are:

- What types of Instruments will your system support? Interest Rate Swaps FRA trades
- Will your application be supporting Margin Service API ALL-In-ONE Call functionality? Yes





To test ALL-IN-ONE Call for FRA:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit ALL-IN-ONE margin request message.
- 4. Receive and process the response.
- 5. Following submission of a Get request, receive and process the response.

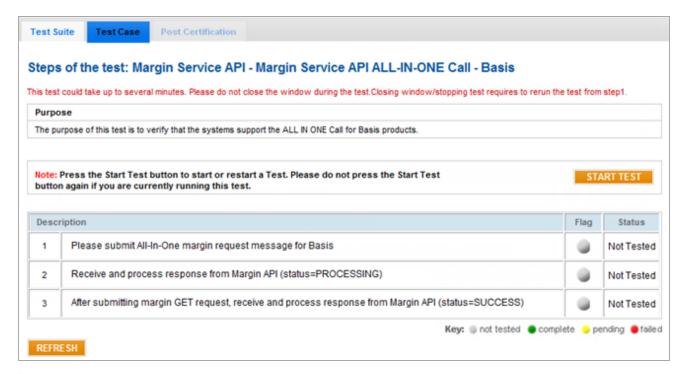
Note: Submitted request is not an xml message, it is an HTTPS call.

All-IN-ONE Call — Basis

This test verifies the system supports All in One calls for Basis products.

This test is mandatory when the Interview responses are:

- What types of Instruments will your system support? Interest Rate Swaps Basis trades
- Will your application be supporting Margin Service API ALL-In-ONE Call functionality? Yes





To test ALL-IN-ONE Call for Basis:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit ALL-IN-ONE margin request message.
- 4. Receive and process the response.
- 5. Following submission of a Get request, receive and process the response.

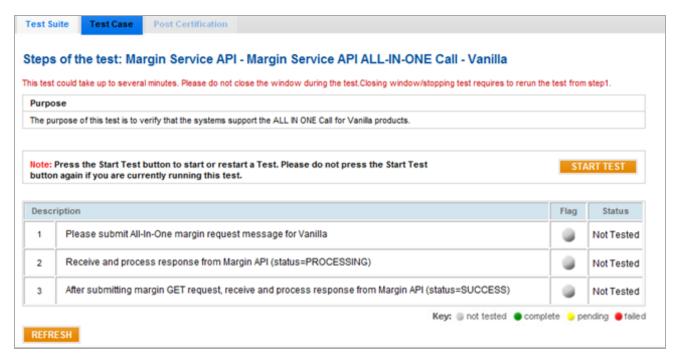
Note: Submitted request is not an xml message, it is an HTTPS call.

All-IN-ONE Call - Vanilla

This test verifies the system supports ALL-IN-ONE calls for Vanilla products.

This test is mandatory when the Interview responses are:

- What types of Instruments will your system support? Interest Rate Swaps Vanilla trades
- Will your application be supporting Margin Service API ALL-In-ONE Call functionality? Yes





To test ALL-IN-ONE Call for Vanilla:

- 1. Select SenderComp that matches assigned Margin API login.
- 2. Click Start Test.
- 3. Submit <u>ALL-IN-ONE margin request</u> message.
- 4. Receive and process the response.
- 5. Following submission of a Get request, receive and process the response.

Note: Submitted request is not an xml message, it is an HTTPS call.