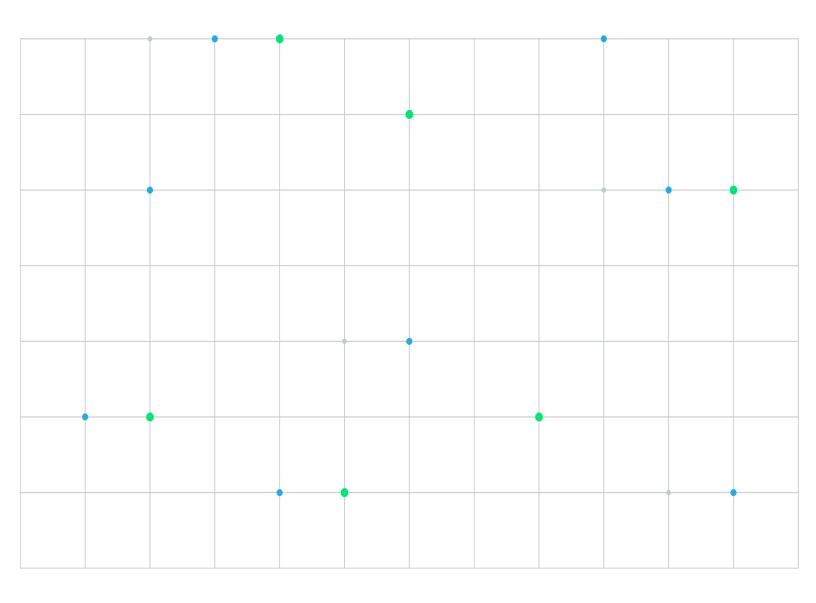


AutoCert+ AMS API User Manual

12 Dec 2020



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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, CME Group provides a dedicated certification environment to allow customers to test their systems before they complete certification.

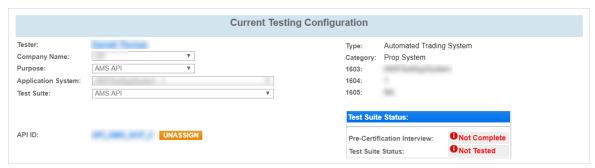
This user manual accompanies the AutoCert+ AMS API test suite.

Running and Navigating AutoCert+



To run and navigate AutoCert+:

- 1. Access the automated certification tool.
- 2. Review general AutoCert+ test suite navigation and general interview information.
- 3. Navigate to the AutoCert+ AMS API test suite:



- a. Select a Company Name.
- b. From the Purpose drop-down, select "AMS API."
- c. Select an Application System
- d. From the Test Suite drop-down, select "AMS API."
- 3. Complete the Interview for this test suite.
- 4. Complete the applicable test cases.
- 5. Complete the certification process from the Post Certification tab.

What's New

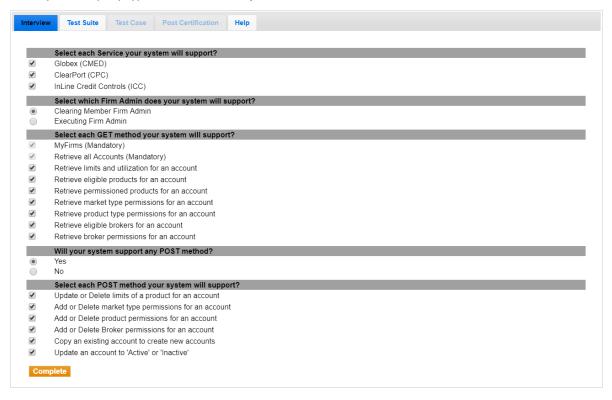
The list below illustrates the updates made to the AutoCert+ AMS API Help system.

Date	Author	Торіс	Description
21 Oct 2019	DT	POST - Update the Execution Firm Status of an ICC Account	Added chapter for new test.
07 Aug 2019	DT	All	Initial release

Interview

You must complete the pre-certification interview before running the test case.

Select your company type and click the **Complete** button.



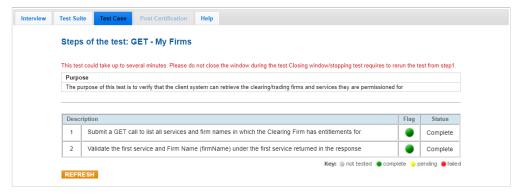
GET Tests

GET tests consist of the following:

- GET My Firms
- GET Retrieve all Accounts
- GET Retrieve Limits and Utilization for an Account using the CMED or CPC service
- . GET Retrieve Limits and Utilization for an Account using the ICC service
- GET Retrieve Market Type Permissions for an Account
- · GET Retrieve eligible products for an Account
- GET Retrieve permissioned products for an Account
- GET Retrieve Eligible Brokers for an Account
- GET Retrieve Broker Permissions for an Account

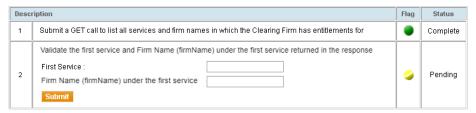
GET - My Firms

The purpose of this test is to verify that the client system can retrieve the clearing/trading firms and services for which they are permissioned.



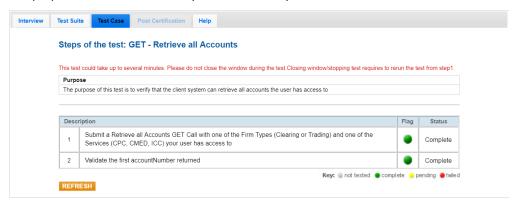
• Specification: CME ClearPort (CPC) and CME Direct (CMED) (Globex)

- - To run the GET My Firms test
 - Select a SenderCompID.
 - 2. Click **START TEST**.
 - 3. Click **REFRESH**.
 - Note: To restart the test, click START TEST and then click REFRESH.
 - 4. Submit a GET call to list all services and firm names for which the Clearing Firm has entitlements.
 - 5. Validate the first service and first clearing ID (clearingid) under the first service returned in the response.



GET - Retrieve all Accounts

The purpose of this test is to verify that the client system can retrieve all accounts to which the user has access.



Specifications:

- Inline Credit Controls (ICC) Specifications
- CME ClearPort (CPC) and CME Direct (CMED) (Globex)

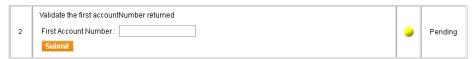


To run the GET - Retrieve all Accounts test

- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.

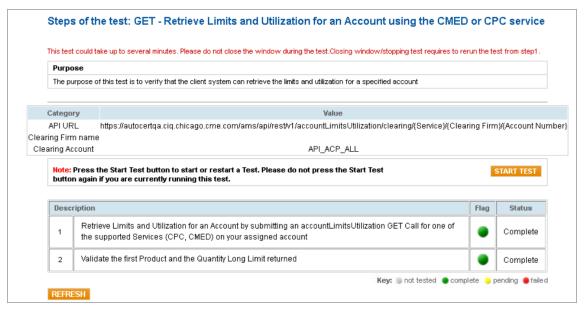


- 4. Submit a Retrieve all Accounts GET Call with one of the Firm Types (Clearing or Trading) and one of the Services (CPC, CMED, ICC) to which your user has access.
- 5. Validate the first AccountNumber returned.



GET - Retrieve Limits and Utilization for an Account Using the CMED or CPC Service

The purpose of this test is to verify that the client system can retrieve the limits and utilization for a specified account.



Specification: <u>CME ClearPort (CPC) and CME Direct (CMED) (Globex)</u>



To run the GET - Retrieve Limits and Utilization for an Account Using the CMED or CPC service test

- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.

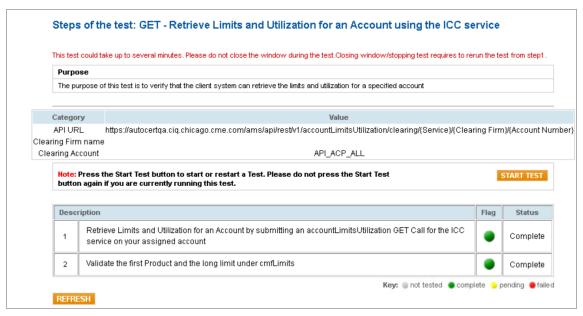


- 4. Retrieve Limits and Utilization for an Account by submitting an accountLimitsUtilization GET Call for one of the supported Services (CPC, CMED) on your assigned account.
- 5. Validate the first Product and the Quantity Long Limit returned.



GET - Retrieve Limits and Utilization for an Account Using the ICC Service

The purpose of this test is to verify that the client system can retrieve the limits and utilization for a specified account.



• Specification: Inline Credit Controls (ICC) Specifications

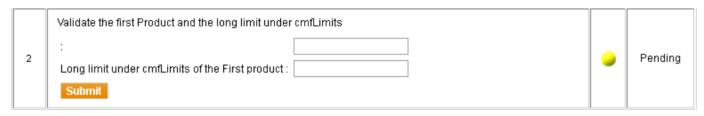


To run the GET - Retrieve Limits and Utilization for an Account using the ICC service test

- 1. Select a SenderCompID.
- 2. Click START TEST.
- Click REFRESH.

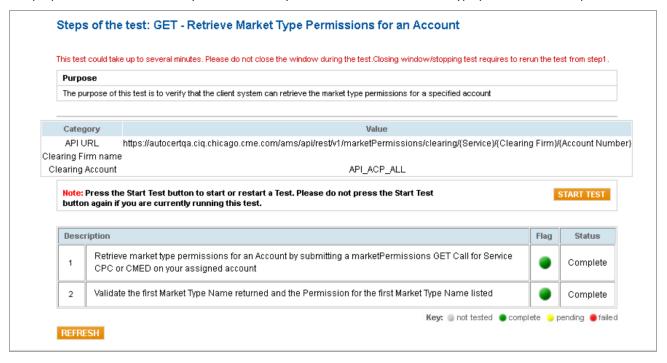


- 4. Retrieve Limits and Utilization for an Account by submitting an accountLimitsUtilization GET Call for the ICC service on your assigned account.
- 5. Enter the values for the:
- 6. Product and the long limit under cmfLimits.



GET - Retrieve Market Type Permissions for an Account

The purpose of this test is to verify that the client system can retrieve the market type permissions for a specified account.



• Specification: CME ClearPort (CPC) and CME Direct (CMED) (Globex)



To run the GET - Retrieve Market Type Permissions for an Account test

- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.

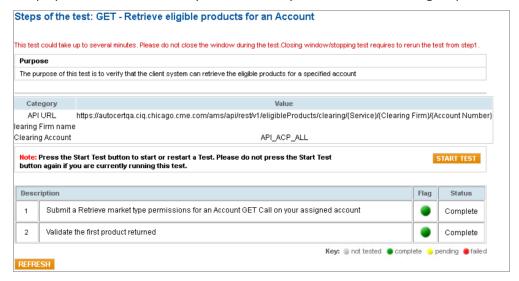


- 4. Retrieve market type permissions for an Account by submitting a marketPermissions GET Call for Service CPC or CMED on your assigned account.
- 5. Validate the first Market Type Name returned and the Permission for the first Market Type Name listed.



GET - Retrieve Eligible Products for an Account

The purpose of this test is to verify that the client system can retrieve the eligible products for a specified account.



Specifications:

- CME ClearPort (CPC) and CME Direct (CMED) (Globex)
- Inline Credit Controls (ICC) Specifications

To run the GET - Retrieve Eligible Products for an Account test

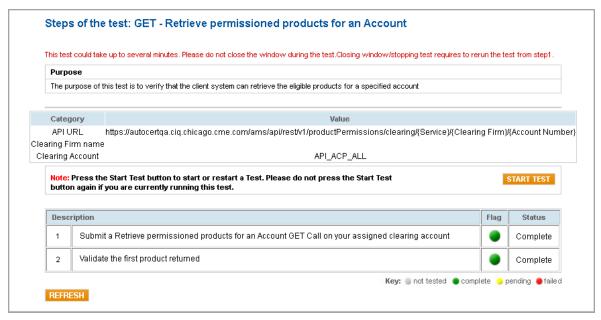
- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.
 - 0

- 4. Submit a Retrieve market type permissions for an Account GET Call on your assigned account.
- 5. Validate the first product returned (print exact name as returned)



GET - Retrieve Permissioned Products for an Account

The purpose of this test is to verify that the client system can retrieve the eligible products for a specified account.



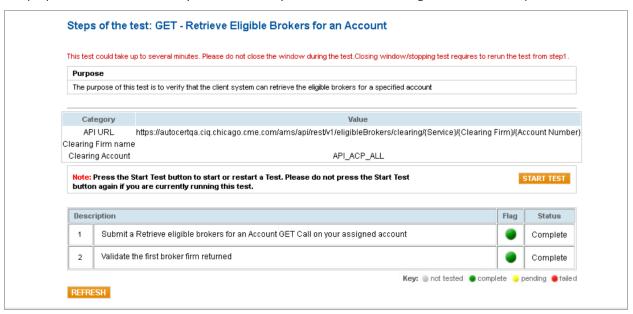
• Specification: CME ClearPort (CPC) and CME Direct (CMED) (Globex)

- To run the GET Retrieve Permissioned Products for an Account test
 - 1. Select a SenderCompID.
 - 2. Click START TEST.
 - 3. Click REFRESH.
 - Note: To restart the test, click START TEST and then click REFRESH.
 - 4. Submit a Retrieve permissioned products for an Account GET Call on your assigned clearing account.
 - 5. Validate the first product returned (print exact name as returned)



GET - Retrieve Eligible Brokers for an Account

The purpose of this test is to verify that the client system can retrieve the eligible brokers for a specified account.



• Specification: CME ClearPort (CPC) and CME Direct (CMED) (Globex)



To run the GET - Retrieve Eligible Brokers for an Account test

- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.

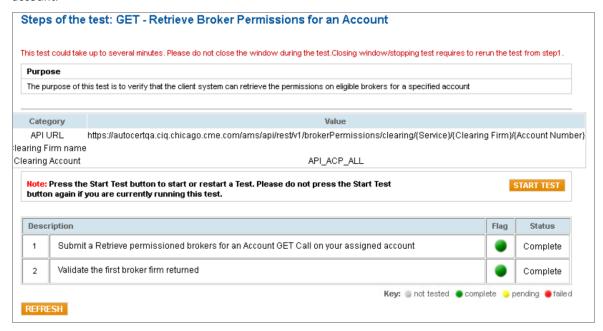


- 4. Submit a Retrieve eligible brokers for an Account GET Call on your assigned account.
- 5. Validate the first broker firm returned (shortName)



GET - Retrieve Broker Permissions for an Account

The purpose of this test is to verify that the client system can retrieve the permissions on eligible brokers for a specified account.



• Specification: CME ClearPort (CPC) and CME Direct (CMED) (Globex)



To run the GET - Retrieve Broker Permissions for an Account test

- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.



- 4. Submit a Retrieve permissioned brokers for an Account GET Call on your assigned account.
- 5. Validate the first broker firm returned (shortName)



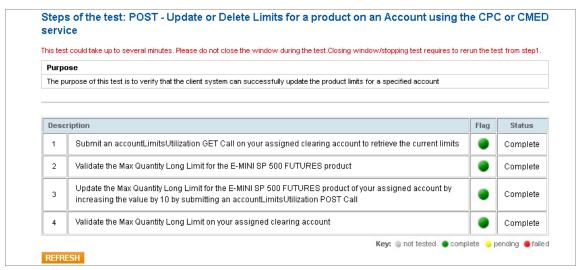
POST Tests

POST tests consist of the following:

- POST Update or Delete Limits for a product on an Account using the CPC or CMED service
- · POST Update or Delete Limits for an Account on service ICC
- POST Update or Delete Market Types for an Account
- POST Update or Delete Product Permissions for an Account
- POST Update and Delete Broker Permissions for an Account
- POST Copy an Existing Account to Create a New Account
- POST Update an Account to Active and Inactive
- POST Update the Execution Firm Status of an ICC Account

POST - Update or Delete Limits for a Product on an Account Using the CPC or CMED Service

The purpose of this test is to verify that the client system can successfully update the product limits for a specified account.



• Specification: CME ClearPort (CPC) and CME Direct (CMED) (Globex)



To run the POST - Update or Delete Limits for a Product on an Account Using the CPC or CMED Service test

- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click **REFRESH**.



- 4. Submit an accountLimitsUtilization GET Call on your assigned clearing account to retrieve the current limits.
- 5. Validate the Max Quantity Long Limit for the E-MINI S&P 500 FUTURES product.



- 6. Update the Max Quantity Long Limit for the E-MINI S&P 500 FUTURES product of your assigned account by increasing the value by 10 by submitting an accountLimitsUtilization POST Call.
- 7. Validate the Max Quantity Long Limit on your assigned clearing account.



POST - Update or Delete Limits for an Account on Service ICC

The purpose of this test is to verify that the client system can successfully update the limits for a specified account.



• Specification: Inline Credit Controls (ICC) Specifications



To run the POST - Update or Delete Limits for an Account on Service ICC test

- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.



- 4. Retrieve Limits and Utilization for an Account by submitting an accountLimitsUtilization GET Call for the ICC service on your assigned account.
- 5. Validate the first Product and the long limit under cmfLimits.

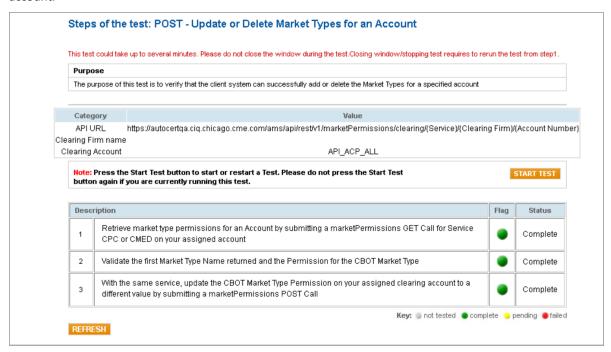


- 6. Increase the CMF Long Credit Limit of your assigned account by 10 by submitting an Update Limits for an Account POST Call.
- 7. Validate the updated Credit Limit for your assigned account.

	Validate the updated Credit Limit for your assigned account	
4	Long limit under cmfLimits of the First product :	Pending
	Submit	

POST - Update or Delete Market Types for an Account

The purpose of this test is to verify that the client system can successfully add or delete the Market Types for a specified account.



• Specification: CME ClearPort (CPC) and CME Direct (CMED) (Globex)

To run the POST - Update or Delete Market Types for an Account test

- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.



Note: To restart the test, click START TEST and then click REFRESH.

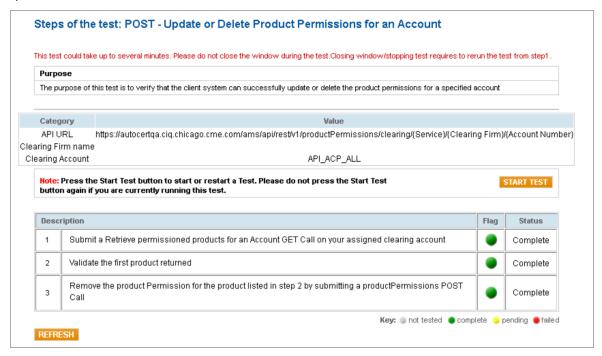
- 4. Retrieve market type permissions for an Account by submitting a marketPermissions GET Call for Service CPC or CMED on your assigned account.
- 5. Validate the first Market Type Name returned (print exact name as returned) and the permission for the CBOT Market Type.



6. With the same service, update the CBOT Market Type Permission on your assigned clearing account to a different value by submitting a marketPermissions POST Call.

POST - Update or Delete Product Permissions for an Account

The purpose of this test is to verify that the client system can successfully update or delete the product permissions for a specified account.



Specification: <u>CME ClearPort (CPC) and CME Direct (CMED) (Globex)</u>

To run the POST - Update or Delete Product Permissions for an Account test

- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.



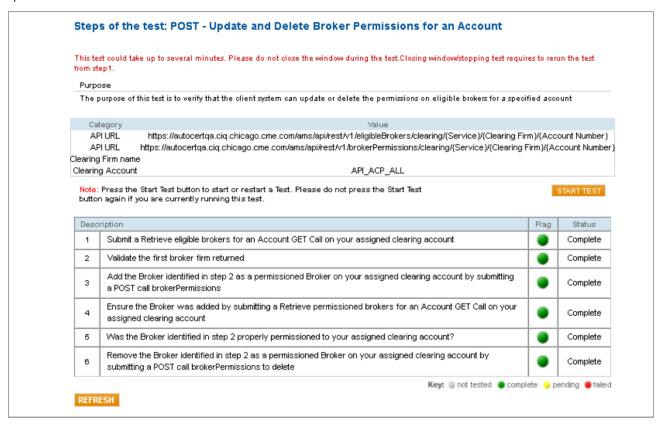
- 4. Submit a Retrieve permissioned products for an Account GET Call on your assigned clearing account.
- 5. Validate the first product returned (print exact name as returned)



6. Remove the product Permission for the product listed in step 2 by submitting a productPermissions POST Call.

POST - Update and Delete Broker Permissions for an Account

The purpose of this test is to verify that the client system can update or delete the permissions on eligible brokers for a specified account.







To run the POST - Update and Delete Broker Permissions for an Account test

- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.



- 4. Submit a Retrieve eligible brokers for an Account GET Call on your assigned clearing account.
- 5. Validate the first broker firm returned (shortName)

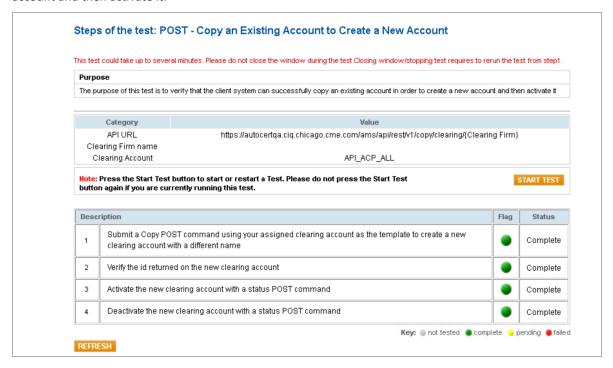


- 6. Add the Broker identified in step 2 as a permissioned Broker on your assigned clearing account by submitting a POST call brokerPermissions
- 7. Ensure the Broker was added by submitting a Retrieve permissioned brokers for an Account GET Call on your assigned clearing account.

- 8. Was the Broker identified in step 2 properly permissioned to your assigned clearing account?
- 9. Remove the Broker identified in step 2 as a permissioned Broker on your assigned clearing account by submitting a POST call brokerPermissions to delete.

POST - Copy an Existing Account to Create a New Account

The purpose of this test is to verify that the client system can successfully copy an existing account in order to create a new account and then activate it.



Specification: <u>CME ClearPort (CPC) and CME Direct (CMED) (Globex)</u>

To run the POST - Copy an Existing Account to Create a New Account test

- Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.



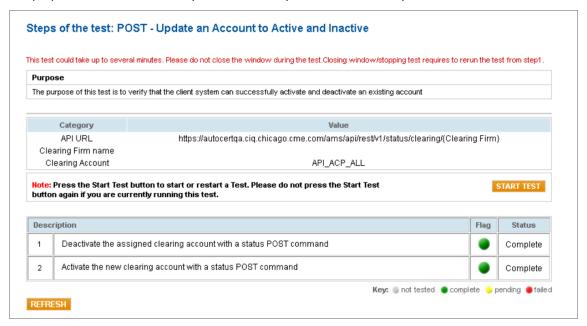
- 4. Submit a Copy POST command using your assigned clearing account as the template to create a new clearing account with a different name.
- 5. Verify the ID returned on the new clearing account.



- 6. Activate the new clearing account with a status POST command.
- 7. Deactivate the new clearing account with a status POST command.

POST - Update an Account to Active and Inactive

The purpose of this test is to verify that the client system can successfully activate and deactivate an existing account.



Specifications:

- Inline Credit Controls (ICC) Specifications
- CME ClearPort (CPC) and CME Direct (CMED) (Globex)



To run the POST - Update an Account to Active and Inactive test

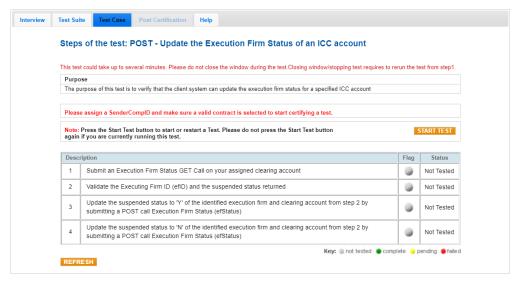
- 1. Select a SenderCompID.
- 2. Click START TEST.
- 3. Click REFRESH.



- 4. Deactivate the assigned clearing account with a status POST command.
- 5. Activate the new clearing account with a status POST command.

POST - Update the Execution Firm Status of an ICC Account

The purpose of this test is to verify that the client system can update the execution firm status for a specified ICC account.



• Specification: Inline Credit Controls (ICC) Specifications

To run the POST - Update the Execution Firm Status of an ICC Account test

- 1. Submit an Execution Firm Status GET Call on your assigned clearing account.
- 2. Validate the Executing Firm ID (efID) and the suspended status returned.



- 3. Update the suspended status to 'Y' of the identified execution firm and clearing account from step 2 by submitting a POST call Execution Firm Status (efStatus).
- 4. Update the suspended status to 'N' of the identified execution firm and clearing account from step 2 by submitting a POST call Execution Firm Status (efStatus).