

The <u>T2testing@dtcc.com</u> mailbox has received numerous questions about test environment setups, T+2 functional changes and CTS Re-write functional changes over the course of the industry testing windows for these two significant initiatives.

In response, DTCC has created the following cheat sheet, which covers a range of related questions received into the T2testing mailbox. DTCC will expand upon this document, as necessary.

1: What do I need to test for T+2?

It is not mandatory for firms to conduct T+2 testing, though it is strongly encouraged.

For firms that plan to conduct T+2 testing, there is no one-size-fits-all response to this question. Firms should consider the processes that will be impacted by T+2 functional changes and determine their test plans accordingly.

DTCC has published resources to help firms determine the scope of their individual T+2 test plans, in particular:

- The <u>Shortened Settlement (T+2) DTC, NSCC and OMGEO Functional Changes Document</u> (the "T+2 Functional Changes Document"), which discusses the functional changes DTCC is making to support the industry's migration to T+2 settlement.
- The <u>T+2 Test Approach: Detailed Testing Whitepaper</u> ("the T+2 Detailed Testing Whitepaper"), which discusses all aspects of T+2 testing, including:
 - Applications available in the PSE U (T+2) test environment
 - Instructions for firms to request various components of test setup
 - Sample test scenarios to assist firms in planning their individual T+2 tests

Both documents are posted to the Industry Documentation Section of the UST2.com website, which provides a wealth of information on many subjects related to the T+2 initiative.

2: How do I access DTCC's PSE U (T+2) test environment?

There is no single point of entry to the PSE U (T+2) test environment. The answer is unique to every firm, depending upon the functionality it needs to execute its individual test plans and the type of network connectivity the firm uses.

As a first step, firms should determine the full scope of their individual T+2 test plans (please see FAQ #1, above).

Once scope is determined, firms must assess their existing test capabilities against what they will need to conduct their T+2 testing and submit setup requests to DTCC for any missing components.



In terms of test setup requests, there are three main considerations, discussed below and in the <u>T+2 Detailed</u> Testing Whitepaper:

- A. NETWORK CONNECTIVITY
- **B. SUBSCRIPTIONS TO TEST FILES**
- C. SUBSCRIPTIONS TO DTCC'S WEB PRODUCTS

A. NETWORK CONNECTIVITY

- Firms must establish network connectivity to DTCC's PSE U (T+2) test environment, as well as to the specific applications they need for their T+2 testing, either directly and/or through a service provider.
- By design, many firms already have network connectivity to DTCC's PSE U (T+2) test environment.
- However, if a firm builds a new test environment of their own for T+2 testing, then it must take steps to connect the new test environment to DTCC's PSE U (T+2) test environment.
- If the firm utilizes a service provider, then the service provider is responsible for establishing network connectivity to DTCC's PSE U (T+2) test environment; the firm does not need to submit connectivity requests to DTCC.
- If a firm is unsure if it already has network connectivity to DTCC's PSE U (T+2) test environment for any/all test applications, it should contact T2testing@dtcc.com.
- DTCC's connectivity experts will work with the firm to make a determination about any existing connectivity.
- Firms that must establish new network connectivity to the PSE U (T+2) test environment, or specific applications within the test environment, should kick-off the process by completing a Request for Router Exchange Form, located on the T+2 Test Forms Page, and submitting it to T2testing@dtcc.com.
- On the form, firms must specify the type of network connectivity they use: BT Radianz, SMART or SFTI.
- Firms that want to establish new MQ interactive messaging in the PSE U (T+2) test environment should also complete an MQ Page 1 Form on the T+2 Test Forms Page and submit it to T2testing@dtcc.com.

Please be advised:

- Establishing network connectivity and MQ messaging may take up to several weeks and is typically an iterative process worked out between the firm's IT team and DTCC's connectivity experts.
- Firms should direct any questions about test setups and test results to T2testing@dtcc.com, rather than any other DTCC mailbox (e.g. the PIP Request Mailbox).

T2 testing is responsible for routing the questions to the appropriate support teams and doing otherwise can significantly slow down the resolution process.

B. TEST FILE SUBSCRIPTIONS

- DTC, NSCC and Omgeo offer test input and output files in the PSE U (T+2) test environment, including files for T+2 testing of Corporate Action events.
- DTCC also offers MQ messaging for some products.
- Firms that are not already subscribed to all of the test files they will need to conduct their T+2 testing must request them, by completing the applicable Subscription form(s) on the <u>T+2 Test Forms Page</u> and submitting them to <u>T2testing@dtcc.com</u>.
- There are four Subscription request forms on the T+2 Test Forms Page:
 - Subscriptions to DTC Inputs and Outputs form
 - Subscriptions to NSCC Inputs and Outputs form
 - Subscriptions to Omgeo Outputs form



 Subscriptions to Corporate Actions Inputs and Outputs form (which is an instructional document and not an editable request form, as the other forms are)

The forms require firms to specify the environment(s) in which they would like to obtain the inputs and outputs.

• The Subscriptions to NSCC Inputs and Outputs form also requires firms to specify NDM Destination Nodes and File Names for each AutoRoute file requested. NSCC files cannot be set up without this information.

C. ENTITLEMENTS TO WEB PRODUCTS

- DTCC supports two Web interfaces:
 - The DTCC Web Portal
 - The Participant Terminal System / Participant Browser System (PTS/PBS), which is an interface to DTCC's mainframe applications
- Some of DTCC's Web products are located on the DTCC Web Portal, while others are located on PTS/PBS.

Information about the web products available on each interface are specified in:

- DTCC's T+2 Detailed Testing Whitepaper
- The Subscriptions to Corporate Actions Inputs and Outputs document on the T+2 Test Forms Page.
- DTCC manages access to web products through a Super Access Coordinator (SAC) model:
 - 1. Firms designate certain employees to be SACs.
 - 2. SACs obtain "entitlements" to DTCC's web products from DTCC.
 - 3. SACs can then assign the entitlements and underlying "roles" to individual users at their firms.
- Individuals who need access to a DTCC web product, but do not know the identity of their firm's SAC for that product, should contact T2testing@dtcc.com.
- As of March 29, 2017, all SACs for PTS/PBS web products can provision individuals at their firms with entitlements to PTS/PBS web products, without having to obtain the entitlements from DTCC beforehand.
- SACs for DTCC's Web Portal products, however, must continue to request web entitlements from DTCC.

To obtain entitlements to DTCC's Web Portal products, Web Portal SACs should email <u>T2testing@dtcc.com</u> and state the following information:

- 1. Their name
- 2. Stating that they are an SAC
- 3. Their firm's name
- 4. Their firm's DTCC account number(s)
- 5. The entitlements they need
- 6. The environments in which they need them (Production and/or Test)



- Once DTCC has provisioned SACs with entitlements, the SACs must add them to their Operator Profile in the Customer Registration System (CRS) in order to assign them to individuals at their firms.
- The CRS is located on DTCC's Production Web Portal (www.portal.dtcc.com). SACs who need assistance should contact T2testing@dtcc.com, which will engage DTCC's web team to provide guidance.
- Firms that do not have SACs should complete a <u>DTCC Super Access Coordinator Authorization Form</u>, located on the <u>T+2 Test Forms Page</u> and submit it to <u>T2testing@dtcc.com</u>.
 - Page 1 of this form must be signed by one of the firm's Authorized Signers. Individuals who do not know
 the identity of their firm's Authorized Signers should contact T2testing@dtcc.com.
 - To complete the table on Page 3 of this form, state the following information:
 - a) The entitlements to any/all DTCC Web Portal products that the SAC(s) needs.
 - b) The environment(s) in which they need them: Production and/or PSE (Test).

Please see FAQ #4 below for important information about the Clearing Dashboard, which is a new DTCC Web Portal product.

3: What is the CTS Re-write and how is it related to T+2 testing?

- The Consolidated Trade Summary (CTS) Re-write is a multi-year initiative that is resulting in the launch of a new CTS report for NSCC Members on June 23, 2017.
- Given the testing periods for the CTS Re-write and the T+2 initiatives largely overlap, T2testing@dtcc.com is the central hub for questions about both initiatives, including questions regarding test setups and test results.
- CTS rewrite output will replace legacy CTS output on June 23, 2017. As a result, all NSCC Member Firms
 that use this data must subscribe to the new CTS report in Production and/or obtain entitlements to the
 Clearing Dashboard CTS Web (see FAQ #4), prior to June 23, 2017.
- Firms also have the option to test the new CTS report in DTCC's test environments the PSE U (T+2) and the PSE A (T+3) test environments.
- The process for subscribing to the new CTS reports is no different than subscribing to other NSCC files. Firms
 can subscribe to them by following the steps in the FAQ #2 B above (the Subscriptions to NSCC Inputs and
 Outputs form lists all CTS files available in DTCC's Production and Test environments).
- All NSCC Member firms must familiarize themselves with the requirements of the CTS Re-write and how the new CTS report will differ from the legacy report in Production today.

Firms can obtain all relevant information about the CTS Re-write from the <u>CTS portion of the DTCC Learning</u> Website, including:

- CTS Re-write Customer Business Requirements
- Important Notices
- CTS Re-write Industry Group Meeting Minutes
- CTS Re-write File Layout
- User Guides
- FAQs, which include an explanation of the key differences between the legacy and new CTS report.

Access to the CTS portion of the DTCC Learning Website requires a brief registration process.



4: What is the Clearing Dashboard?

The NSCC Clearing Dashboard is a new DTCC Web Portal product, which is a landing page that contains three underlying web products:

A. CTS WEB

B. UTC WEB

C. CNS WEB

As with other DTCC Web Portal products, access is managed via the SAC model discussed in FAQ#2C above.

Please be advised that since the Clearing Dashboard functions as a landing page, SACs must request entitlements to both the Clearing Dashboard and any/all underlying web products they need.

A. CTS WEB

- The CTS Web is an inquiry tool that enables firms to query their CTS transaction data.
- The CTS Web is currently available in DTCC's test environments and will become available in the Production environment upon the launch of the CTS Re-write, on June 23, 2017.

SACs should request entitlements to both the Clearing Dashboard and the CTS Web.

B. UTC WEB

The Transaction Management Tool (TMT), which firms can use to submit test transactions directly into the
test environments (as opposed to submitting them through one of the participating exchanges), is available
through the Clearing Dashboard – UTC Web in DTCC's Test environments.

SACs should request entitlements to both the Clearing Dashboard and the UTC Web.

- Firms must use the TMT file upload template to submit test transactions via the TMT.
- The file upload template and a User Guide are at the bottom of the T+2 Test Forms page.
- See the "File Format" tab for guidance on the field definitions, values and to determine the conditions under which fields are required.
- The TMT file upload template is based upon FIX protocol. Additional information about UTC is available in the UTC User Specification Guide.

C. CNS WEB

- The CNS Web was deployed in Production in November 2016, with limited functionality, and will be expanded
 to include a number of functions that are currently available on DTCC Web Direct.
- The additional functionality will be launched into Production on June 23, 2017.

SACs should request entitlements to both the Clearing Dashboard and the CNS Web.

Additional information is available in this Important Notice.



5: Do I need to find a test partner for T+2 testing?

In general, firms have a few options for submitting test transactions.

For equity test transactions, firms can:

- Find test partners and coordinate testing with them.
- Firms that want to volunteer as a test partner can make their contact information public, by completing a <u>T+2</u> Test Counterparty Request Form.
- Firms that are looking for test partners should contact <u>T2testing@dtcc.com</u> to obtain information about the firms that have volunteered.
- Submit test transactions against DTCC's test accounts (122 and 123)
- If the firm has multiple test accounts, they can submit test transactions using one of their accounts versus another of their accounts.

For CMU and Omgeo test transactions:

- Firms must find test partners and coordinate testing with them.
- If a firm has two or more DTCC accounts, it can submit test transactions using two of its accounts as test counterparties.

DTCC kindly asks firms to submit test transactions versus the DTCC test accounts (122 and 123), if they have not coordinated testing with a test counterparty. Doing otherwise can disrupt other firms' planned tests and negatively impact their expected test results.

