DTCC | *Important Notice*
The Depository Trust Company

B #:	3742-16
Date:	July 26, 2016
To:	All Clients
Category:	Settlement /Asset Servicing
From:	Settlement Product Management
Attention:	Managing Directors/Vice President/Directors/Managers
Subject:	MMI Finality Through Optimization – User Testing

Today, Issuing and Paying Agents (IPA) banks, who act on behalf of issuers, can instruct DTC to issue a Refusal to Pay (RTP) for the issuer's maturing obligations up to 3:00 P.M. EST when the IPA has not received adequate funding from the issuer. This RTP poses intraday risk to DTC, its clients and the larger financial industry as a whole as the RTP action effectively reverses all valued transactions processed for the designated acronym on the current business day. To mitigate the credit and liquidity risk of RTPs, DTC withholds the benefit of the two Largest Provisional Net Credits (LPNC) from each client. DTC has worked closely with clients and various industry groups to develop structural changes to the MMI settlement service that simultaneously increase settlement finality and eliminate DTC's need to withhold LPNCs from clients.

The purpose of this notice is to alert clients of upcoming MMI testing availability in DTC's UTOR environment as outlined below.

Beginning August 22, 2016, clients can test their MMI processing through the new IPA Decision Making Application (DMA) functionality on DTC's Settlement Web U user interface. IPAs, Dealers and Custodians who will test in UTOR should request for the same functionality that they currently have in production. See Appendix 1 for the user testing roles. During this test, clients are encouraged to work with their counterparts to test all scenarios during an MMI processing life cycle. In addition, all clients will be able to test existing and new messaging that will be available in the MQ and ISO format. In preparation for this testing and based on your testing requirements, please ensure your firm has access to the necessary systems to perform your testing. We recommend to clients to test at minimum the following functionality and scenarios.

- For IPA: IPA DMA, Funding acknowledgement messages, new and existing Settlement Input/Output, review the changes to the Risk Management Control Inquiry (RMCI) Screen, Pending Issuer Funding Messages Output, Refusal to Pay Functionality, New IPA Funding Profile Screens, and changes associated with Unknown Rate Processing.
- For Broker/Dealer & Custodian: New and existing Settlement Input/Output, review the changes to the RMCI Screen, New Reason Codes, and Pending Issuer Funding Messages Output.

Settlement Web U/PTS Testing
- First, ensure the accounts you would like to test with have Settlement Web/PTS connectivity to the "U" test region by emailing MMITEST@dtcc.com with your participant account details. If necessary, participants may be required to complete a router form and establish connectivity (please note that this step will take approximately three weeks to complete after DTCC has received a correctly completed form).
- Next, verify that you have a Super Access Coordinator (SAC) for the Settlement Web U (clients can click on the "Click here to find Access Coordinator at your company") on the portal menu page or contact Registration Support at webrsg@dtcc.com and PTS products (MMII, MMIQ and MMUW) by contacting the Registration Support Group at entitlements@dtcc.com
- If it is determined that you have a SAC for Settlement Web U, please request for the following IPA roles in Appendix 1. To see a description of these roles see Appendix 3.
- Then have your access coordinator provision the user IDs you will be using to test with the proper roles.
- If needed, DTCC's Connectivity Activation Production Support group can assist participants with testing in the UTOR test region. They can be reached at MMITEST@dtcc.com.

Corporate Actions Web/PTS/PBS Testing

All IPAs should test in conjunction with a Broker/Dealer or Custodian Interest payments and Maturity Presentments for the Distributions and Redemptions event type groups on MMI securities. These activities will be available on CA Web. Broker/Dealers and Custodians interested in doing end to end testing should contact IPAs to coordinate their testing. The CA Web will also include availability of announcement information, including rate changes on MMI securities. Entitlements/Allocations for Maturity Presentments for Corporate Reorganizations will be available on the Reorg/Redemption/Dividend Allocations on PBS/SDAR on PTS. Issuing Paying Agents will be able to use the Paying Agent Money Market Information on PBS/PAMM on PTS.

- To connect to CA Web in the "U" test region to view Entitlement and Allocation details on Distribution and Redemption events, customers should have their appointed SAC use the Customer Registration System (CRS) to provision the proper roles
  - If customers are unaware of who their firm SAC is or if the SACs need instruction as to how to use the CRS application, they should reach out to webrsg@dtcc.com for further instruction.
- If it is determined that you have a SAC for CA Web, please request for the following IPA roles in Appendix 1.
- To connect to PTS/PBS to view Allocations on Reorganization Maturity Presentments on the Reorg/Redemption/Dividend Allocations (PBS) / SDAR and Issuing Paying Agents Money Market Information (PBS) / PAMM (PTS) functions in the "U" test region, users should have their firm's SAC send a request to entitlements@dtcc.com to request the function.
  - Similarly with regards to connecting Settlement Web in the "U" test region, firms should send an e-mail to MMITEST@dtcc.com to request connectivity to PTS/PBS.
- All requests to receive automated transmissions via the ISO 20022 or Corporate Actions CCF file mediums in the "U" test region should be sent via e-mail to MMITEST@dtcc.com.
  - It is important to note that requests to setup MQ channels and SWIFT DNs for ISO 20022 messaging in the "U" test region may take upwards of four-weeks once the correctly completed forms have been submitted.

Automated Messaging

By using MQ/ISO, clients can send and receive automated messages which can be found in the MMI Finality Technical Document (link below) in DTC's UTOR region to test new or amended file layouts before they are introduced into production. To process automated messaging in the UTOR test region, clients should complete the following steps:

- Determine if your participant number has MQ/ISO connectivity to DTC's UTOR environment by emailing MMITEST@dtcc.com.
- Please include your participant number and contact details. If it is determined that you do not have MQ/ISO connectivity, please follow the steps in Appendix 4 prior to moving to the next step.
- Request the output that you would like to receive. Included in the request should be:
  - The participant numbers for which you would like to receive output
  - Your name, email and phone number
  - Your Queue Manager Alias and Queue Name you would like DTC to write to (if available)
- Note that clients will not need to request input permission for the UTOR region; messages can simply be sent once MQ/ISO connectivity is established.

Clients with any questions regarding the above can reach out to DTCC's Connectivity Activation Production Support group at 888-382-2721, option 5, option 3.

Testing Schedule

Please refer to the testing schedule below to test the following scenarios.

Date	Test Availability
August 22, 2016	IPA DMA functionality – Full funding scenarios, Profiles, Risk Management Controls Inquiry screen New MQ/ISO messaging
September 19, 2016	IPA DMA functionality – Partial funding scenarios, Refusal to Pay
September 26, 2016	Unknown rates and multiple IPA scenarios

Acronym Activation (IPA only)

Once connectivity has been established, check that the acronyms and associated CUSIP bases you wish to test with are in DTC's UTOR region. IPAs can check these items using the MMUW function. If the acronym is not in DTC's UTOR region, please send the list of acronyms you wish to test to DTC's Settlement Operations Group at testacrsetup@dtcc.com. Please include the participant number, contact details and the subject line 'MMI Finality – Acronym Testing.' Clients can choose any active acronym in their database to test.

Once the IPA has confirmed the active acronyms with the Settlement Operations Group, they must send the list of acronyms and associated CUSIPs they would like to be eligible to DTC's Underwriting group at MMIUpdates@dtcc.com. Please include the participant number, contact details and the subject line 'MMI Finality – Acronym Eligibility.' IPAs will be able to send issuance instructions through the PTS MMII function as well as sending MQ/ISO messages.

Important Links
Technical Specifications:
http://www.dtcc.com/matching-settlement-and-asset-services/mmi-finality-through-optimization

Detailed Service Description:
http://www.dtcc.com/~/media/Files/Downloads/WhitePapers/MMI-Service-Description.pdf

Participants requiring further assistance with the coordination of this effort should contact their Relationship Manager.

Appendix 1 – User Testing Roles

Industry Role	Settlement Web U	Corporate Actions Web	PTS	PBS	MQ/ISO (Automation only)
IPA	- CORE Role 8: Inquiry Plus Transaction Update PLUS Approval PLUS Profile Management - Sensitive Function 2: Deliver Order Input - Sensitive Function 3: Payment Order Input - Sensitive Function 5: Memo Segregation Input - Sensitive Input 8: IPA inquiry Privileges - IPA Inquiry Privileges Plus Update - IPA Update Privileges Plus Approval - IPA Update Privileges Plus Profile Management	- Customer - DTC Or Customer Admin – DTC - Entitlements /Allocations - Dashboard	- MMII, MMIQ, MMUW, SDAR, PAMM	- Reorg /Redemption/Dividend Allocations and Paying Agents Money Market Information	- See full list of inputs/outputs in Appendix 2
Broker/Dealer & Custodian	- Core Role 2: Inquiry plus Transaction Update - Sensitive Function 2: Deliver Order Input	- Customer - DTC Or Customer Admin – DTC - Entitlements /Allocations - Dashboard	- SDAR	- Reorg /Redemption/Dividend Allocations	- See full list of inputs/outputs in Appendix 2

Appendix 2 – MQ/ISO Input and Output

The link below will take clients to the new and revised file specifications for the MMI Finality Through Optimization Initiative.
http://www.dtcc.com/matching-settlement-and-asset-services/mmi-finality-through-optimization

Industry Role	Messaging Changes
Issuing and Paying Agent	Funding Messages, Settlement Input/ Output, Optimization Process
Broker/Dealer	Settlement Input/Output, Optimization Process
Custodian	Settlement Input/Output, Optimization Process

Change to	Changes	Impact	Format	Links
Settlement Input	1. New Reason Code	1. Clients can use the new reason code to indicate secondary transactions that are not reliant on funding for an acronym	Proprietary ISO Settlement Web	**INPUT – PROPRIETARY** DOI 1&5 DOX 1&5 and NDO 1&5 DAYDOS and NDO via CF2 **INPUT – ISO** ISO DO Input (MT542 and MT543)
Settlement Output	1. Start of Day Messaging	1. Clients can receive their start of day obligations	Proprietary ISO Settlement Web	**INPUT - PROPRIETARY** MQ DO Output MQ MMI Start of Day Acronym Status **INPUT – ISO** MT598 – Acronym Status Proprietary Message Output
Funding Messages (Staging Area)	1. Profile 2. Fully Fund 3. Partially Fund 4. Refusal to Pay 5. None 6. Pending 7. Secondary Approval	1. Clients can Fully Fund and/or Partially Fund an acronym based on a pre-set profile 2. Clients can Fully Fund an acronym 3. Clients can Partially Fund an acronym 4. Clients can submit a Refusal to Pay for an acronym 5. Clients have not made a funding decision 6. Acronyms are awaiting a funding decision by multiple IPAs or awaiting a rate to be updated 7. Clients will receive status messages/alerts on their funding decisions	Proprietary ISO Settlement Web	**INPUT – PROPRIETARY** MQ Input and Output for MMI Funding Messages **INPUT – ISO** MT530 - Transaction Commands **OUTPUT – PROPRIETARY** MQ DO Output MQ MMI Start of Day Acronym Status MQ Input and Output for MMI Funding Messages **OUTPUT – ISO** MT548 - IPA Participant Confirmation MT598 - Acronym Status Proprietary Message Output

| Optimization Process (Status) | 1. Pending Issuer Funding | 1. Clients will receive an update on their acronym | Proprietary ISO Settlement Web | **OUTPUT – PROPRIETARY**
MQ DO Output
RAD Drop Output DO and Pledge
DTFPART

OUTPUT – ISO
MT598 – Acronym Status Proprietary Message (Optimization Process Status)
MT548 – Long Version for MMI Optimization Participant Status
MT548 – Long Version Accounting for MMI Optimization Participant Status
MT548 – Short Version for MMI Optimization Participant Status |

Appendix 3 – Settlement Web U IPA roles

About Core Roles

As outlined in previous notices, there are 4 primary types of access within the Settlement Web: Inquiry, Transaction Update, Approval and Profile Management. Each of these affords different levels of functionality. In order to provide clients with each possible combination of access, we've created 8 "Core Roles". CRS Access Coordinators should assign a single core role (select one from the right) for each user based on the appropriate level of access. The table below provides an explanation of each access type and lists examples of the functionality that each provides. At the industry's request, transaction input roles are governed by Sensitive Functions.

Inquiry	Provides inquiry access to all functions within the Settlement Web	**Core Role 1:** Inquiry Only Access
Transaction Update	Transaction update refers to taking an action on an existing instruction. Common examples include: canceling a pending delivery, holding and releasing a pending delivery, canceling or approving a transaction in RAD, or reclaiming a receive.	**Core Role 2:** Inquiry plus Transaction Update
		Core Role 3: Inquiry plus Approval
		Core Role 4: Inquiry plus Profile Management
Approval	Provides the ability to approve transactions that are subject to secondary approval and applicable profile creations and modifications. An example includes approving RAD limit profile.	**Core Role 5:** Inquiry plus Transaction Update plus Profile Management
		Core Role 6: Inquiry plus Approval plus Transaction Update
Profile Management	Provides the ability to create or modify settlement related profiles. An example is creating a bilateral RAD limit profile.	**Core Role 7:** Inquiry plus Profile Management plus Approval
		Core Role 8: Inquiry plus Transaction Update plus Approval plus Profile Management

Sensitive Functions

Additional roles have been created to govern access to sensitive or specific functionality in the Settlement Web. The roles are outlined below:

ROLE	DESCRIPTION
SENSITIVE FUNCTION 2 - Deliver Order Input (Add-on to any of the above core roles)	This add-on to the Core Roles will allow a user to submit Deliver Orders via screen or upload in the Settlement Web.

SENSITIVE FUNCTION 3 - Payment Order Input (Add-on to any of the above core roles)	This add-on to the Core Roles will allow a user to submit Security Payment Orders (SPOs) or Premium Payment Orders (PPOs) via screen or upload in the Settlement Web.
SENSITIVE FUNCTION 5 - Memo Segregation Input (Add-on to any of the above core roles)	This add-on to the Core Roles will allow a user to add, delete or overlay their memo segregation counter via screen or upload in the Settlement Web.
SENSITIVE FUNCTION 8 – IPA Inquiry Privileges (Add-on to any of the above core roles)	This add-on to the Core Roles will allow IPA user to inquire on Money Market activity.

IPA Functions

Additional roles have been created to govern access to IPA functionality in the Settlement Web. The roles are outlined below:

IPA Inquiry Privileges Plus Update	This role will allow IPA users to inquire on IPA activity and perform updates, e.g., funding decisions.
IPA Update Privileges Plus Approval	This role will allow IPA users to perform updates and secondary approve funding decisions.
IPA Update Privileges Plus Profile Management	This role will allow IPA users to perform updates and secondary approve funding decisions plus the ability to create, modify/secondary approve settlement related profiles, e.g., Full/Partial funding profiles.

Appendix 4 – MQ/ISO Connectivity

To set up a DTCC Smart connection:

- Verify if a new circuit is needed by contacting MMITEST@dtcc.com. As most customers have a circuit in place, this step should not be required.
  - Upon receipt of the completed request form, DTCC will begin the circuit order/install process. A circuit generally takes 6 to 8 weeks to get ordered and installed.
  - If a new circuit is needed in order to setup the MQ/ISO channel, then a circuit request form must be completed by the customer.

In order to allow MQ/ISO to an existing/new circuit:

- Complete a SMART Router Exchange Form (REF) and an MQ/ISO Page One for the PSE/UAT environment and return them to MMITEST@dtcc.com.
- When confirmed complete and correct, these forms will be assigned a PIP Connection Request Number (which will be provided to the customer). Both the REF and MQ/ISO requests are processed in parallel and are usually completed within 10 business days.
- Once the above MQ/ISO request has been completed, DTCC will return an MQ/ISO Page Two which contains information needed to complete the channel(s) setup on the customer's side.