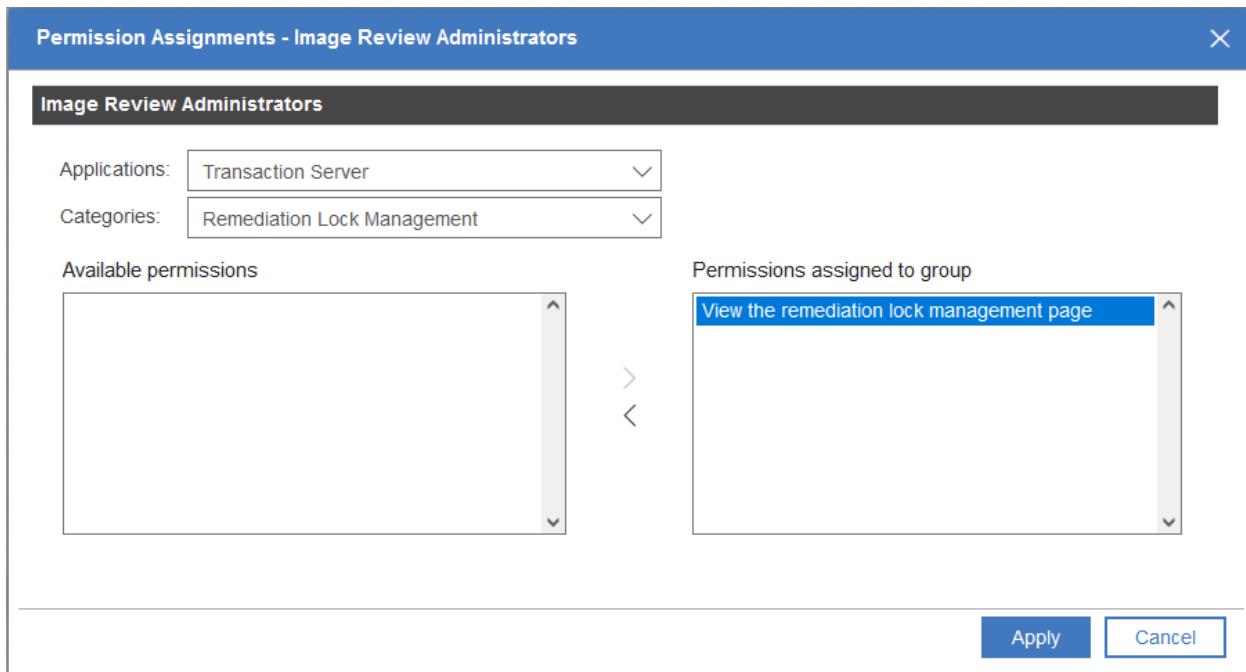


## 27221 – Image Review integration into Payment Repair

Over the years, many features have been added to Payment Repair that were not added to Image Review. To solve this problem, Image Review and Payment Repair have been merged to give Image Review additional functionality.

### Permissions

The Lock Management screen permissions for Payment Repair and Image Review will now be used on the generic Lock Management Screen. Note that to see the Remediation Lock Management screen, view permission must be given under the Transaction Server application as shown below.



Permission Assignments - Image Review Administrators X

Image Review Administrators

Applications: Image Compliance ▼

Categories: Lock Management ▼

Available permissions

Permissions assigned to group

View Review Lock Management  
Unlock Review Lock Management

Default group for Image Review users

Permission Assignments - Payment Repair Administrators X

Payment Repair Administrators

Applications: Payment Repair ▼

Categories: Manage Locks ▼

Available permissions

Permissions assigned to group

Unlock items

Apply Cancel

Apply Cancel

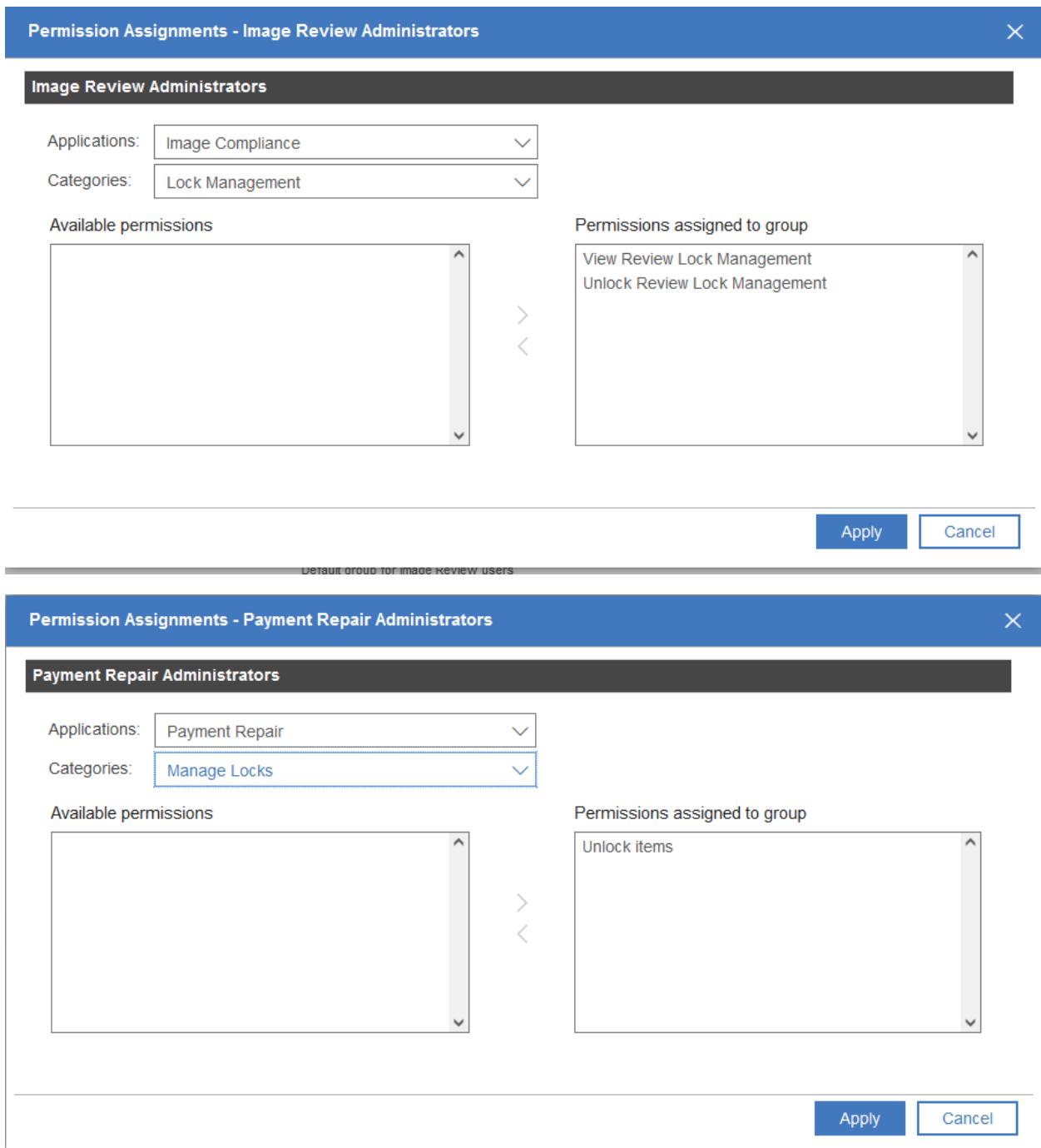


Image Review will now support hotkey mappings, which can be configured on the generic hotkey mappings screen. Note that to see the screen, view permission must be given under the Admin application.

Permission Assignments - Image Review Administrators X

Image Review Administrators

Applications: Admin ▼

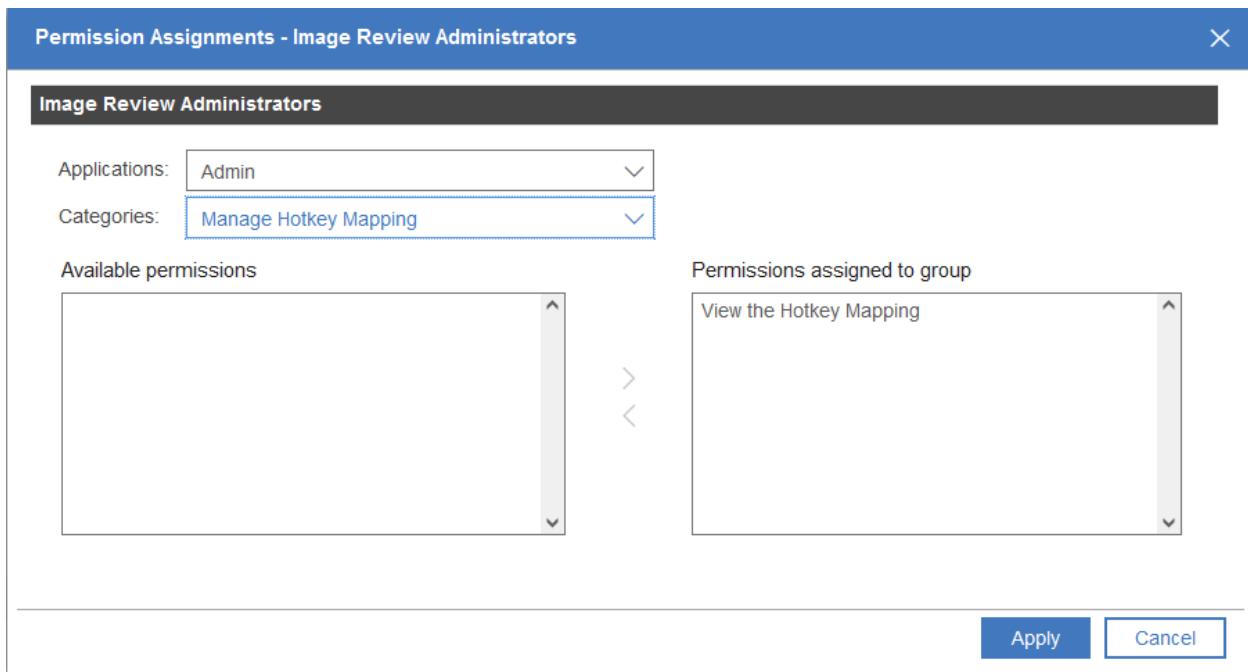
Categories: Manage Hotkey Mapping ▼

Available permissions

Permissions assigned to group

View the Hotkey Mapping

Apply Cancel



Permission Assignments - Image Review Administrators X

Image Review Administrators

Applications: Image Compliance ▼

Categories: Hot Key Mappings ▼

Available permissions

Permissions assigned to group

View hotkey mappings  
Edit hotkey mappings  
Create hotkey mappings  
Delete hotkey mappings

Apply Cancel

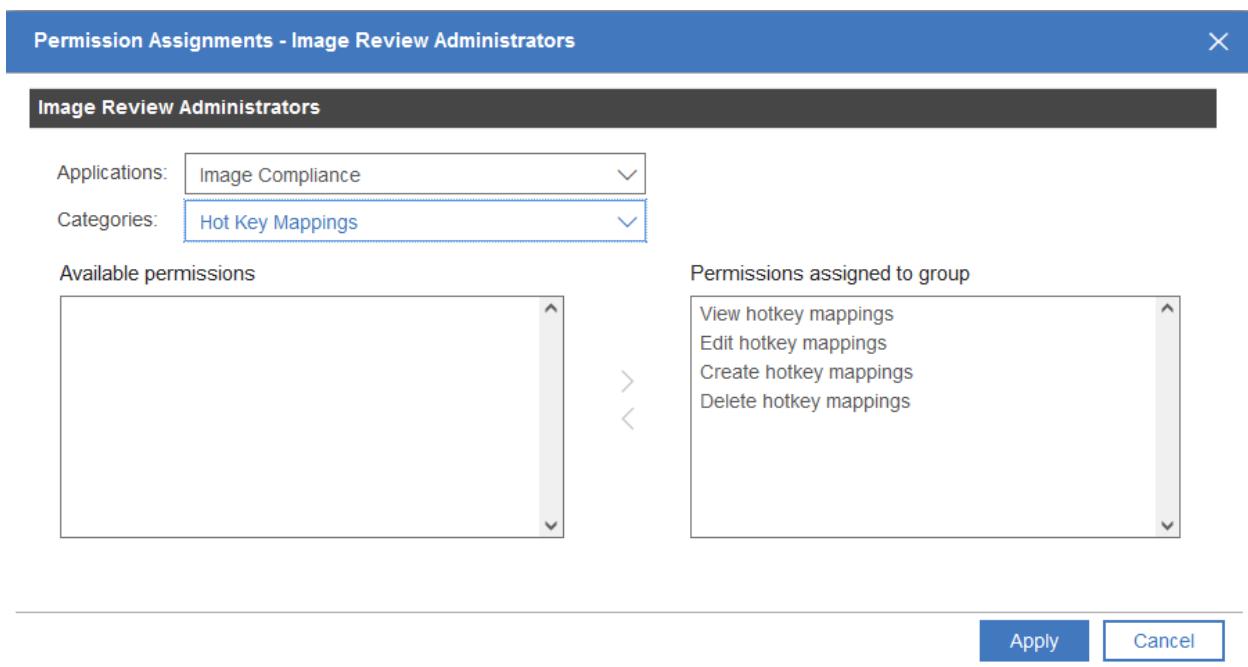


Image Review screen sizes will be configured under the generic screen. Note that to see the screen, the view permission must be given under the Admin application.

Permission Assignments - Image Review Administrators X

**Image Review Administrators**

Applications: Admin ▼

Categories: Screen Sizes ▼

Available permissions

Permissions assigned to group

View the Screen Size screen ^

Apply Cancel

Permission Assignments - Image Review Administrators X

**Image Review Administrators**

Applications: Image Compliance ▼

Categories: Screen Size ▼

Available permissions

Permissions assigned to group

View Screen Size page ^

Edit Screen Size page

Apply Cancel

Permission Assignments - Payment Repair Administrators X

Payment Repair Administrators

Applications: Payment Repair ▼

Categories: Screen Size ▼

Available permissions

Permissions assigned to group

View Screen Size page  
Edit Screen Size page

> <

---

Apply Cancel

Priority Management will now be handled under the generic Priority Control Configuration screen. Note that to see the Priority Control Configuration screen, the user must have the View permission under the Admin component shown below.

Permission Assignments - Image Review Administrators X

Image Review Administrators

Applications: Admin ▼

Categories: Manage Priority Control ▼

Available permissions

Permissions assigned to group

View the Priority Control

> <

---

Apply Cancel

### Permission Assignments - Image Review Administrators

**Image Review Administrators**

Applications: Image Compliance ▼

Categories: Priority Management ▼

Available permissions

Permissions assigned to group

- View the Image Review Priority Control
- Edit the Image Review Priority Control
- Create the Image Review Priority Control
- Delete the Image Review Priority Control

Apply Cancel

### Permission Assignments - Payment Repair Administrators

**Payment Repair Administrators**

Applications: Payment Repair ▼

Categories: Manage Forward Payment Repair Priority Control ▼

Available permissions

Permissions assigned to group

- View the Forward Priority Control
- Edit the Forward Priority Control
- Create the Forward Priority Control
- Delete the Forward Priority Control

Apply Cancel

Permission Assignments - Payment Repair Administrators X

Payment Repair Administrators

Applications: Payment Repair ▼

Categories: Manage Return Payment Repair Priority Control ▼

Available permissions

Permissions assigned to group

View the Return Priority Control  
Edit the Return Priority Control  
Create the Return Priority Control  
Delete the Return Priority Control

---

Apply Cancel

A permission has been added for the new Review UOW Status screen.

Permission Assignments - Image Review Administrators X

Image Review Administrators

Applications: Image Compliance ▼

Categories: Review UOW Status ▼

Available permissions

Permissions assigned to group

View Review UOW Status

---

Apply Cancel

A permission has been added for the new Review Worklists screen.

Permission Assignments - Image Review Administrators X

**Image Review Administrators**

Applications: Image Compliance ▼

Categories: Review Worklists ▼

Available permissions

Permissions assigned to group

View Review Worklists

---

Apply Cancel

A new permission has been added for Image Review to control saving of rotated images on the Operator Review / Deferred Item Review screens.

Permission Assignments - Payment Repair Administrators X

**Payment Repair Administrators**

Applications: Image Compliance ▼

Categories: Permissions for Saving Rotated Image ▼

Available permissions

Save Rotated Image

Permissions assigned to group

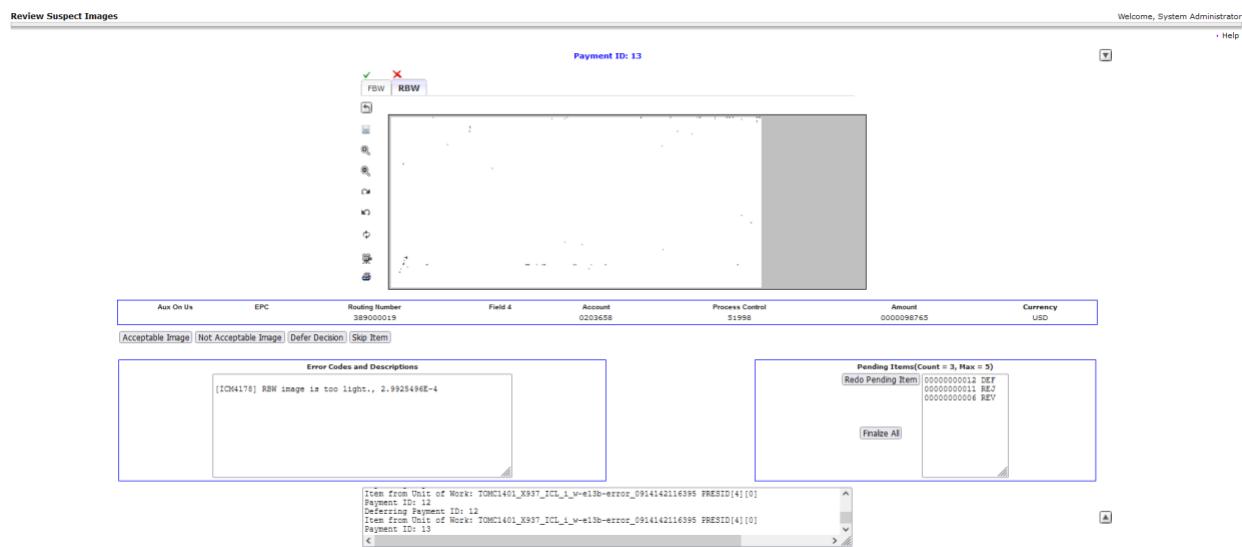
---

Apply Cancel

## Operator Review screen

Now located at Processing & Remediation -> Image Review -> Operator Review

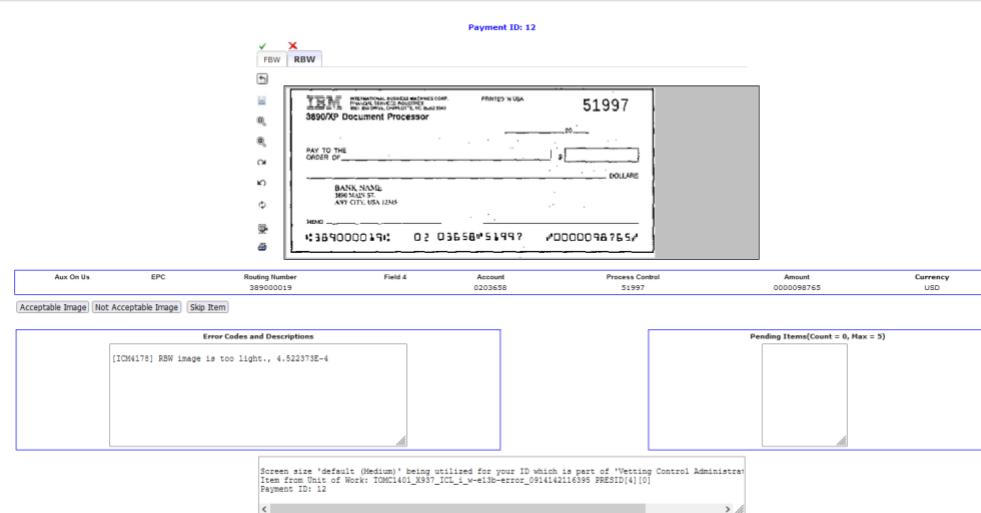
The new Operator Review screen will look very similar to the existing Payment Repair screen. Operators will be able to accept, reject, defer, and skip reviewing images for each payment and call recall previously decisioned items by click Redo Pending Item in the bottom right. Error codes and a log will be displayed to give additional information. Images that need review will be displayed with an X above the name and will automatically be selected. Images that are accepted will change to a check mark. When all images have been reviewed, the next item will be displayed. Skipped items will not display for this user again for the given session.



## Deferred Item Review screen

Now located at Processing & Remediation -> Image Review -> Deferred Item Review

This screen functions identically to the Operator Review screen but displays items that have been deferred. Users will be unable to defer items on this screen.



## Item Count screen

Now located at Processing & Remediation -> Monitoring -> Item Counts

The item counts screen has been combined into one. Payment Repair and Image Review item counts can be viewed on this screen. Payment Repair and Image Review have separate view permissions for this item counts screen, controlling what counts are visible.

Auto-refresh interval(seconds):  [Refresh](#)

Data as of 9/14/21, 7:44:24 PM GHT

### Forward Repair

| Business Day And Category | Repaired | Deferred | Rejected | Awaiting Repair |
|---------------------------|----------|----------|----------|-----------------|
| 0, 2021-09-15, CHECK      | 0        | 0        | 0        | 1               |
| 0, 2021-09-14, CHECK      | 0        | 0        | 0        | 6               |
| <b>Total</b>              | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>        |

### Return Repair

| Business Day And Category | Repaired | Deferred | Rejected | Awaiting Repair |
|---------------------------|----------|----------|----------|-----------------|
| <b>Total</b>              | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>        |

### Image Review

| Business Day And Category | Image Review | Deferred | Rejected | Awaiting Review |
|---------------------------|--------------|----------|----------|-----------------|
| 0, 2021-09-15, CHECK      | 1            | 1        | 1        | 21              |
| 0, 2021-09-14, CHECK      | 0            | 0        | 0        | 5               |
| <b>Total</b>              | <b>1</b>     | <b>1</b> | <b>1</b> | <b>26</b>       |

## Lock Management screen

Now located at Processing & Remediation -> Monitoring -> Lock Management

Image Review and Payment Repair items can be unlocked on the Lock Management screen. Payment Repair and Image Review have separate permissions to control viewing and unlocking of items.

Home Lock Management X

Remediation Lock Management Help

More Clear filter

**Total: 5**

| Application      | Work Type | Business Date | Category | Transaction Id | Message Standard | Message Type | Amount         | Currency Code | System Amount (USD) | Transaction Type | User Id | Locked Time              |
|------------------|-----------|---------------|----------|----------------|------------------|--------------|----------------|---------------|---------------------|------------------|---------|--------------------------|
| Image Compliance | Review    | Sep 14, 2021  | CHECK    | 17             | Check            | X9           | \$346.41       | USD           | \$346.41            | Debit            | fxadmin | Sep 14, 2021, 7:48:10 PM |
| Image Compliance | Review    | Sep 14, 2021  | CHECK    | 18             | Check            | X9           | \$183.11       | USD           | \$183.11            | Debit            | fxadmin | Sep 14, 2021, 7:48:10 PM |
| Image Compliance | Review    | Sep 14, 2021  | CHECK    | 19             | Check            | X9           | \$1,484,957.36 | USD           | \$1,484,957.36      | Debit            | fxadmin | Sep 14, 2021, 7:48:10 PM |
| Image Compliance | Review    | Sep 14, 2021  | CHECK    | 20             | Check            | X9           | \$913,031.36   | USD           | \$913,031.36        | Debit            | fxadmin | Sep 14, 2021, 7:48:10 PM |
| Image Compliance | Review    | Sep 14, 2021  | CHECK    | 21             | Check            | X9           | \$346.41       | USD           | \$346.41            | Debit            | fxadmin | Sep 14, 2021, 7:48:10 PM |

Total: 5 Selected: 0 100 | 250 | 500 +

## Forward UOW Status screen

Now located at Processing & Remediation -> Monitoring -> Forward UOW Status.

## Return UOW Status screen

Now located at Processing & Remediation -> Monitoring -> Return UOW Status.

## Review UOW Status screen

Located at Processing & Remediation -> Monitoring -> Review UOW Status.

A new Image Review screen has been added to view the status of Image Review items.

Home Review UOW Status X

Review UOW Status Welcome, System Administrator Help

Auto-refresh interval(seconds):  Refresh

Business Day Filter 0, 2021-09-14, CHECK (Active) -- No Filter -- Go

Data as of 9/14/21, 7:52:18 PM GMT

| Unit of Work Name      | Business Day         | Number of Unrepaired Items (Deferred) | Value of Unrepaired Items | Total rows: 2 |
|------------------------|----------------------|---------------------------------------|---------------------------|---------------|
| trCode6w_0914142127678 | 0, 2021-09-14, CHECK | 2 (0)                                 | \$529.52                  |               |
| trCodeGz_0914142136529 | 0, 2021-09-14, CHECK | 3 (0)                                 | \$2,398,335.13            |               |

Legend Unrepaired value is approximate due to invalid data in amount fields

## Forward Worklist screen

Now located at Processing & Remediation -> Monitoring -> Forward Worklists.

### Return Worklist screen

Now located at Processing & Remediation -> Monitoring -> Return Worklists.

### Review Worklist screen

Now located at Processing & Remediation -> Monitoring -> Review Worklists.

A new Image Review screen has been added to see what items are in the worklist for a given priority control configuration.

| PCC Line | Payment ID | Holdover? | RT Number |
|----------|------------|-----------|-----------|
| 1        | 12         | N         | 389000019 |
| 1        | 29         | N         | 389000019 |
| 1        | 30         | N         | 389000019 |
| 1        | 31         | N         | 389000019 |
| 1        | 37         | N         | 389000019 |
| 1        | 38         | N         | 389000019 |
| 1        | 39         | N         | 389000019 |
| 1        | 40         | N         | 389000019 |
| 1        | 41         | N         | 389000019 |
| 1        | 47         | N         | 389000019 |
| 1        | 48         | N         | 389000019 |
| 1        | 49         | N         | 389000019 |
| 1        | 50         | N         | 389000019 |
| 1        | 51         | N         | 389000019 |
| 1        | 52         | N         | 021300420 |

### Priority Control Configuration screen

Located at Configuration -> System -> Priority Control.

Payment Repair and Image Review have been added to the generic priority control configuration screen. The old Payment Repair and Image Review priority management screens have been removed.

Priority Configuration Details

Welcome, System Administrator [Help](#)

Application Name : ImageCompliance  
Type : Review  
Name : Default Image Compliance Review PCC  
Description : Default Image Compliance Review PCC to assign work to all Image Review groups

Filtering Criteria Set

auth for (Image Review Administrators, Image Review Supervisors, Image Review Users)

OK

Legend Change to edit mode

Priority Configuration Details

Welcome, System Administrator [Help](#)

Application Name : PaymentRepair  
Type : Forward  
Name : Default Payment Repair Forward PCC  
Description : Default Payment Repair Forward PCC to assign work to all Payment Repair groups

Filtering Criteria Set

auth for (Payment Repair Administrators, Payment Repair Supervisors, Payment Repair Users)

OK

Legend Change to edit mode

## Hotkey Mapping screen

Located at Configuration -> System -> Hot Key Mapping

Payment Repair and Image Review have been added to the generic hotkey mapping screen.  
The old Payment Repair hotkey mapping screen has been removed.

**Create Keyboard Mapping**

Application : **Image Compliance** \*

Mapping Name : **Example Key Mapping**

Target Page:

**Page Functions**

- Defer
- Finalize All
- Flip 180
- Print Window
- Redo
- Reverse Video
- Rotate Counter-clockwise
- Rotate Clockwise
- Save Image
- Skip

**Modifiers**

Shift key :  Control key :  Alt key :

**Keys**

**Shift a**

**Mapped Keys**

Shift b : Skip  
Shift a : Redo

**Legend**  
\* Required field

**Create Keyboard Mapping**

Application : **Payment Repair** \*

Welcome, System Administrator [Help](#)

Mapping Name : **Example Key Mapping**

Target Page:

**Page Functions**

- Defer
- Finalize All
- Flip 180
- Page Bottom
- Page Top
- Print Window
- Fill Code Line Data
- Fill Focus Field Data
- Redo
- Reject

**Modifiers**

Shift key :  Control key :  Alt key :

**Keys**

**Shift a**

**Mapped Keys**

Shift a : Defer

**Legend**  
\* Required field

## Screen size screen

Located at Configuration -> System -> Screen Size.

Payment Repair and Image Review have been added to the generic screen size screen. The old Payment Repair screen sizes screen has been removed.

Screen Size

Welcome, System Administrator [Help](#)

**Application Name:** Image Compliance

**Screen Size Group Assignments:**

- Small (selected)
- Medium
- Large

**Assigned User Groups:**

- Group 1
- Group 2
- Group 3

**Legend:**

- Change to edit mode

## Image Compliance Properties screen

The Image Compliance core properties screen has been updated to be more in line with Payment Repair so that it can support the new features.

Configure system properties

Welcome, System Administrator [+ Hide Description](#) [+ Help](#)

| Property name            | Description  | Default | Custom |
|--------------------------|--|---------|--------|
| Fetch Payments in groups | Fetch Payments in groups (If Y, Preload Buffer Size must be set to 20 or above)              | N       |        |
| Review Retry             | Optional number of times that a review request will be resent                                | 0       |        |
| Review Timeout           | Optional time interval (milliseconds) image review waits before resending a review request   | 0       |        |
| Pending Buffer Size      | Number of items in the pending buffer  | 5       |        |
| Shuffle Items            | Shuffle Items  | N       | N      |
| Task Time Interval       | Review UI task time interval (WebSphere Application Server restart required)                 | 20      |        |
| Worklist Timeout         | Optional time interval (milliseconds) image review waits before resending a worklist request | 0       |        |
| Height of Large          | Height of a check image when LARGE is preferred  | 360     |        |
| Width of Large           | Width of a check image when LARGE is preferred   | 1000    |        |
| Maximum Lock Time        | Review UI lock expiry time interval (WebSphere Application Server restart required)          | 10      |        |
| Height of Medium         | Height of a check image when MEDIUM is preferred   | 280     |        |
| Width of Medium          | Width of a check image when MEDIUM is preferred  | 760     |        |
| Transaction Server Id    | Preferred Transaction Server Id for RMI image access   |         |        |
| Buffer Size              | Number of items preloaded to a browser   | 20      |        |
| Height of Small          | Height of a check image when SMALL is preferred  | 220     |        |
| Width of Small           | Width of a check image when SMALL is preferred   | 610     |        |
| Front Image Name         | Name of the front payment view   |         |        |
| Rear Image Name          | Name of the rear payment view  |         |        |

**Legend:**

- Change to edit mode

## Exposure Limit Monitoring screen

Now located at Processing & Remediation -> Monitoring -> Exposure Limit Monitoring.

## Task Activity screen

Now located at Processing & Remediation -> Monitoring -> Task Activity.

## Lock Expiration Task

Image Compliance will now have its own lock expiration task which will expire locks that have been held for too long without being worked. This helps prevent work from being stuck or held up. This task is automatically scheduled.

## Transaction Server Scheduler Updates

With the integration of Image Review into the Payment Repair structure, some scheduler events needed modification.

For the Image Review Business Day close event (Image Compliance Review - Business Day Close) changed from BDAY\_STATUS\_CHANGE to CLOSE\_BUSINESS\_DAY\_REQUEST

For the Image Review Business Day close event (Image Compliance Review - Business Day Reactivate) changed from BDAY\_STATUS\_CHANGE to  
REACTIVATE\_BUSINESS\_DAY\_REQUEST

The Image Review Business Day purge event (Image Compliance Review - Business Day Purge) is no longer supported. Data purging for Image Review items is handled automatically.

## **123062      Improved efficiency and consistency with HTTP probes for JSE components**

FTM comes with probes (readiness and liveness) and PreStop hooks for managing pod lifecycle events. In this release, the JSE probes are changed from scripted probes to HTTP probes.

The HTTP probes provide the huge performance improvements, future integrations with external monitoring tools, set the framework for removing RMI communication and so on.

## **123986 Allow customization of jvm.options in Liberty containers**

Users can provide additional JVM options to the JEE components. The JVM options for every JEE component can be configured separately. It can be done by providing the customized jvm.options file.

Overriding the default JVM settings is useful at many situations, like during the troubleshooting sessions, enabling memory dumps, identifying performance issues, enable profiling and so on.

#### **122332 DB2U: Incorporate the use of a standard DB2 container**

The FTM offerings running on RedHat® OpenShift® can be combined with Db2 on Red Hat OpenShift to get the convenience of the operator capabilities. Db2® can be deployed in a RedHat OpenShift cluster as a containerized micro-service, or pod, managed by Kubernetes. This robust operator allows us to utilize the stateful behavior and provides features like HA to get maximum performance and reliability in production.

For more information see [Financial Transaction Manager: Install, configure, and deploy Db2 on Red Hat OpenShift](#)

#### **127271 Allow customization of JVM options for JSE applications in OCP**

Users can provide additional JVM options to the JSE components. The JVM options for every JSE component (Gateway Server, Transaction Server, Business Rules Server, Business Rules Manager) can be configured independently. These can be provided from the instance yaml of your FTM offering.

Overriding the default JVM settings is useful at many situations, like during the troubleshooting sessions, enabling memory dumps, identifying performance issues, enable profiling and so on.

#### **126196 FTM Logging**

FTM applications running on OpenShift adhere to the basic principle of writing logs to the console (stdout and stderr) so that financial institutions can easily integrate these logs with the appropriate logging service supported by OpenShift.

#### **122881 Upgrade Liberty to 21.0.0.6**

The Liberty server has been upgraded to 21.0.0.6.

Following are the list of the server versions and jars upgrade as a result.

wlp-base-all-21.0.0.6.jar

wlp-base-embeddable-21.0.0.6.zip

com.ibm.websphere.appserver.api.basics\_1.4.53.jar  
com.ibm.websphere.appserver.api.kernel.service\_1.0.53.jar  
com.ibm.websphere.appserver.api.security\_1.3.53.jar  
com.ibm.websphere.appserver.api.ssl\_1.4.53.jar  
com.ibm.websphere.javaee.jsp.tld.2.2\_1.2.53.jar

## **FTM Web Services**

IBM provides a library of RESTful web services allowing financial institutions to easily integrate with the Financial Transaction Manager (FTM) solution to meet certain business or processing requirements. These web services are typically used for integrating the banks user interface or mobile applications for payment processing but can be used for other business usage.

The FTM web service interfaces are built on the Java EE platform using the Representational State Transfer (REST) architecture. This platform and architecture allow the FTM web services to take advantage of the industry standard specifications supported by Java EE and MicroProfile (an optimized set of features around microservices architecture) with ease of integration provided by the RESTful standards.

Since the FTM web services are built on the Java EE platform, these services are hosted using IBM's Liberty Application Server(s).

FTM uses the OpenAPI specification for API documentation. The OpenAPI specification is an industry standard API description format (available in YAML and JSON) providing the financial institution detailed information about our services, including:

- Available endpoints
- Available operations for each endpoint
- Operation parameters (inputs and outputs for each operation)
- Model Structures including
  - Data Types
  - Descriptions
  - Constraints
- Examples

**126724 Replace remaining RMI communication to ITS with direct database access**

RMI communication between GW & ITS is no longer supported. Gateway will directly access the database.

Following configuration entries in Gateway properties file has been made obsolete:

```
# ITSEnable      = true
# ITSServer      =
# ITSPort        =
# ITSToken       =
# ITSTimeout     = 30000
# ITSServerListFile =
# ITSServersSelectionClass =
com.ibm.icpcs.utilities.samples.SampleTransactionServersSelection
```

**125641 Removed Ecs support**

The EcsEODScheduledTask is no longer provided.

**124939 Removed the "ITS" migration option from 4.0.x Check**

The ITS migration configuration, where a new Transaction Server could be configured to call an older Transaction Server is not supported in an OpenShift platform.

**124872 CPCS online interface support has been removed**

Online interfaces to CPCS have been removed. This includes the following...

Control Center

Administration > Components > Control

Option to "Verify host" has been removed from drop down menu for Transaction Server

The following diagnostic commands have been removed for Transaction Server:

- list syncqueue
- restart syncqueue

The 'vs' diagnostic command has been removed for Business Rules Server.

Administration > Component > Validation Rules > Properties

The Create CPCS property is not longer available to be managed.

Configuration > Validations Rules > Releases

- Activation and
- Reactivation

will no longer present the CreateCPCS Check box.

Gateway Server

Removed serializationPath gateway configuration property.

Gateway now uses database information instead of serialization data

- 1) Gets sent file information from file tracking database table.
- 2) Gets end of day business day information from business day database table.
- 3) Image sorter information from image sorter list database table.

#### **124726 Remove CBIS and VLF support from Check 4.0.x code and documentation**

Support for ingesting .bis and .vlf files has been removed

#### **125305 Updated Control Center CPCS Entries page content**

For CPCS Entries page (Origination & Receipt > CPCS Entries), these columns no longer appear:

Resolve Check Extract

Zelle Complete

Zelle Reconciliation

For CPCS Entries page (Origination & Receipt > CPCS Entries), these columns now appear as optional:

ACH Decision Requested (change Ach to ACH)

ACH Decision Response (change Ach to ACH)

Admin Returns Extract

Auxiliary Extract 1

Cross Reference Extract

Endorsement Extract

Pass

Pocket History

## **119738 Sample Reports: Cognos Reporting**

Supported version of Cognos Analytics is v11.1.7.

The sample reports were developed using IBM® Cognos®. The Cognos sample report packages are .zip files that contain data sources and report definitions. To import and run the reports, a Cognos Analytics server must be installed and running. Installation and configuration of the Cognos Analytics server is the responsibility of the customer. Refer to [IBM Cognos Analytics documentation in IBM Documentation](#) for more information.

The reports support the following Cognos output formats:

- PDF
- XML
- CSV

The capabilities for each format may vary.

## **119738 Sample Reports: Crystal Reporting**

Supported version of Crystal Server is SAP Crystal Server 2020.

Many FTM for Check sample reports were developed using Crystal Reports. To install and execute the reports, a Crystal Reports server must be installed and running. Installation and configuration of this server is the responsibility of the customer.

## **65272 Settlement Support for multi-threading**

You are now able to run Settlement on multiple servers. Also, you are now able to specify multiple MDB threads on Settlement listener port.

## **64781 Create tagging for FTM Check V4 to support usage metering+**

FTM Metering has been updated to store and report usage counts to the IBM License server for FTM Check installs on Open Shift. This will include 2 counts per each day, Base count & Check count. Both counts will be same and Only Master Transactions are counted.

### **Usage count metering differentiates between production and non-production environments**

The FTM metering application, which is in the OAC pod, differentiates between production and non-production usage counts. The differentiation is made based on the "Environment type" variable under "License" category of IBM FTM Base operator.

- Customers should set this variable to "Production" or "NonProduction" based on the type of environment they are building during the operator installation.
- Regardless of "Environment type" value, all usage counts are calculated and stored in the database.
- Only production mode usage counts are reported to the IBM License Server, which is in the "ibm-common-services" namespace and is shared across all projects.

## **Participant Directory replaces Partner Profile**

A participant is a financial institution or service provider that performs one or more roles as payments move through FTM. The various Payment Feature Services components use the attributes for a participant, which are defined in the configuration for the participant, to determine how payments are processed. Multiple versions of a participant may be defined, but only one version of the participant is effective at any given time.

The effective date for a participant version cannot be both a business date and a calendar date. Therefore, a participant version becomes effective at one of the following times.

- The start of the processing for a specific business day. It is a date without a specific time.
- An explicit calendar date and time. This is also referred to as a calendar date.

Additional information is available in the FTM IBM Documentation: [Participants](#)

### **82111 Reporting and Analytics database to use IBM InfoSphere Data Replication CDC**

Instructions and configuration to create a replicated database for the tables used for reports and dashboards.

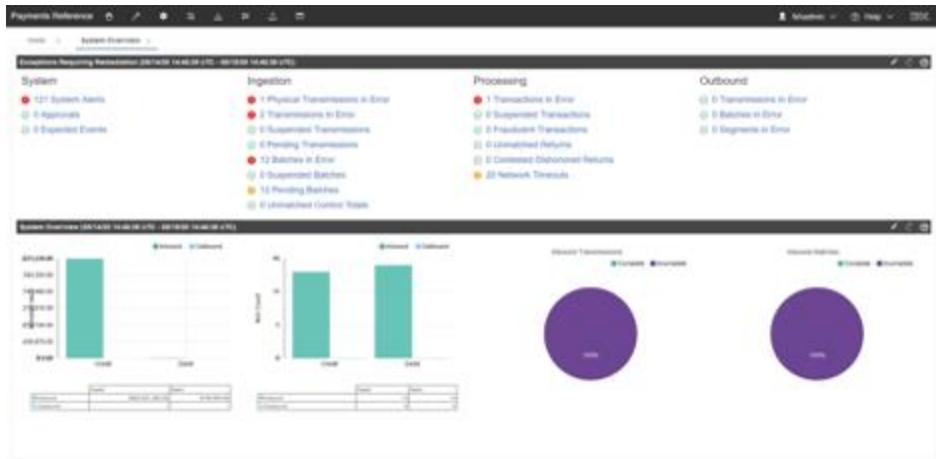
### **97349 Include Origin Name as part of Gateway Duplicate detection for file**

Gateway File Duplicate detection has been enhanced to include Origin Name from the File Header Record as part of duplicate detection criteria.

### **99394 UI: Include System Overview Information**

To provide a centralized location locating exception items, a new screen has been introduced to FTM. This screen, System Overview, includes links to various existing screens for viewing and correcting exception items. Graphs have also been included to provide a general overview of the health of the system. A link to this screen is located at System Management -> System Overview.

System Overview screen:



Three symbols will be displayed next to every link. A green check mark indicates that no exception items were found. A red exclamation mark indicates errors are found, while non-errors are indicated by a yellow exclamation mark.

### Refreshing

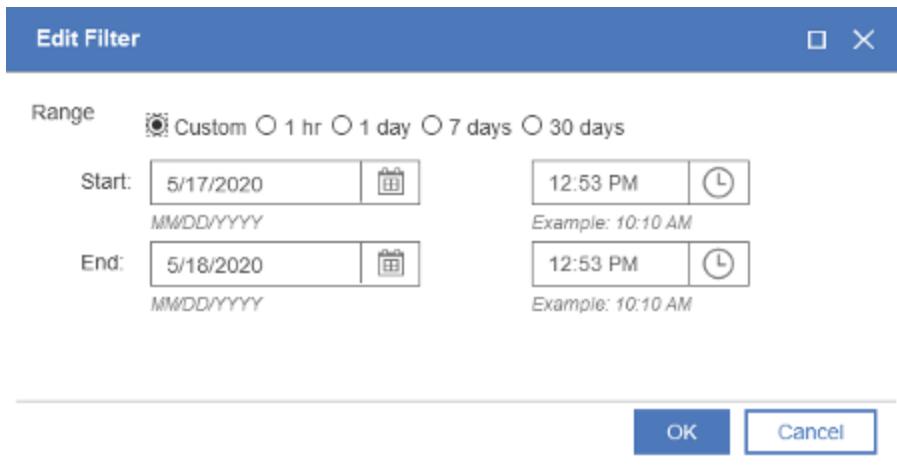
The screen can be refreshed by clicking the refresh symbol on the title bar. This will reapply the currently selected filter and update the exception counts.

Auto-refresh functionality can be enabled at Administration -> Components -> Payment Feature Services -> Properties -> System overview refresh rate. Note that the value is specified in seconds, and defaults to disabled (empty).

### Filtering

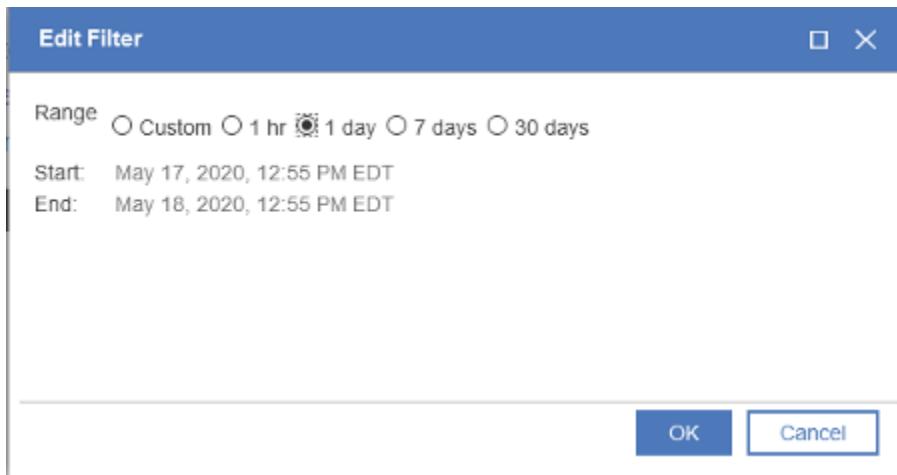
Both sections of the screen have separate filtering capability, configurable by clicking the pencil/edit icon on the title bar. Selecting this icon will display a dialog box that allows the configuration of the start and end dates for filtering. The default filter is 1 day.

Range filter with custom selected:



If Custom is selected, date ranges may be specified. The filter range will not be updated on refresh.

Range filter with 1 day selected:



If any value except custom is selected, a moving date range will be used. For example, if the above screenshot were the current date and time, pressing okay would filter from 12:55 PM yesterday to 12:55 PM today. If you were to refresh the screen in 5 minutes, the filter would update to be 1:00 PM yesterday to 1:00 PM today. This applies to 1 hr, 1 day, 7 days, and 30 days.

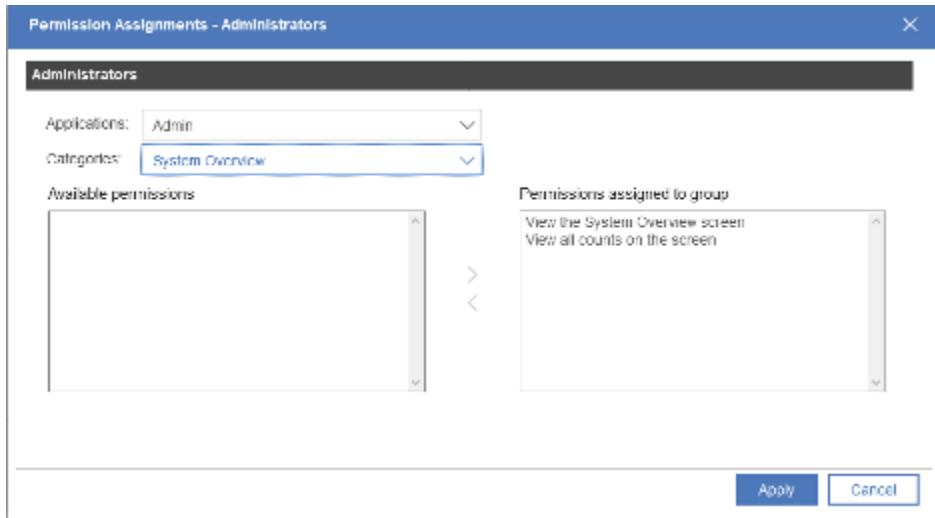
## System Overview graphs

The bar graphs display the monetary value and item count for both inbound and outbound batches. The pie charts display the complete and incomplete counts for the inbound transmissions and batches.

## Permissions

New permissions have been added for viewing the system overview screen, and for overriding the hiding of counts when the user does not have view permission to an exception item's screen.

Permission screen:



## Links

Selecting a link will open the screen for viewing or correcting the exception items.

- System Alerts -> System Alerts
- Approvals -> Approvals
- Expected Event Issues -> Expected Events
- Transmissions in Error -> Inbound Transmissions
- Pending Transmissions -> Inbound Transmissions
- Suspended Transmissions -> Risk Review UI
- Batches in Error -> Inbound Batches
- Pending Batches -> Inbound Batches
- Suspended Batches -> Risk Review UI
- Transactions in Error -> Inbound Transactions
- Suspended Transactions -> Risk Review UI
- Unmatched Returns -> Inbound Transactions
- Network Timeouts -> Inbound Transactions
- Fraudulent Transactions -> Inbound Transactions
- Unmatched Control Totals -> Control Totals

- Contested Dishonored Returns -> Inbound Transactions
- Transmissions in Error -> Outbound Transmissions
- Batches in Error -> Outbound Batches
- Segments in Error -> Outbound Segments

## Homepage

With the addition of the system overview screen, the graphs that previously existed on the home page were no longer needed. It has been simplified and modelled after the login screen.



## Outbound Transmissions screen

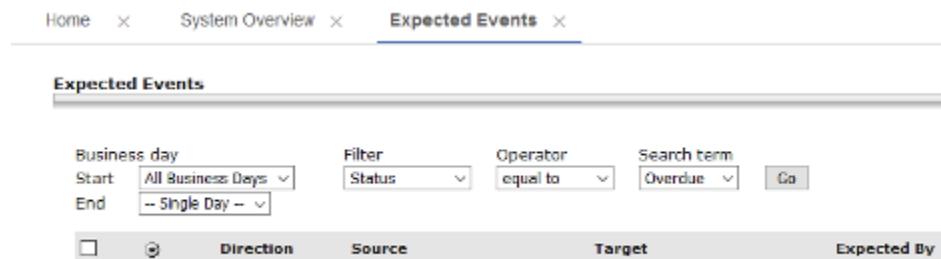
A new business day range has been added to support filtering screens after clicking the link on the System Overview screen. If no end business date is specified, only a single business day will be displayed. If an end business date is specified, all business days between the start date and the end date will be displayed.

A screenshot of the 'Outbound Transmissions' screen. At the top, there is a search bar with fields for 'Business day' (Start: 0, 2020-05-14, NACHA (Active), End: -- Single Day --), 'Filter' (Status: =, Operator: Any Error), 'Search term' (Any Error), and a 'Go' button. Below the search bar is a link 'Expand extended filter'. The main area contains a table with columns: Business Day, Status, Bank, Transmission Definition, Payment Scheme, Receiver, Message Standard, and Cutoff. The first row of the table is highlighted in yellow.

## Expected Events screen

A new business day range has been added to support filtering screens after clicking the link on

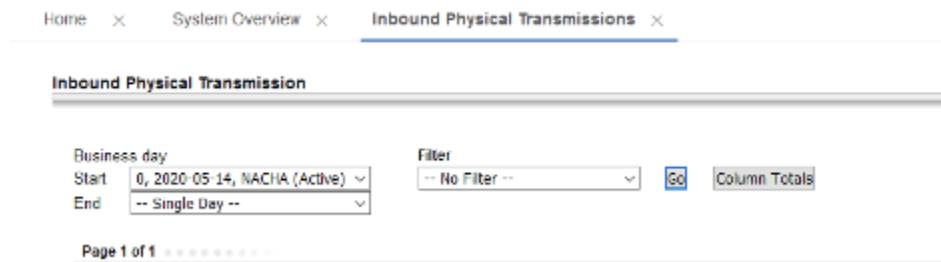
the System Overview screen. If no end business date is specified, only a single business day will be displayed. If an end business date is specified, all business days between the start date and the end date will be displayed.



The screenshot shows the 'Expected Events' screen. At the top, there are navigation links: 'Home', 'System Overview', and 'Expected Events'. Below these are filtering options: 'Business day' (Start: 'All Business Days', End: 'Single Day'), 'Filter' (Status: 'Overdue'), 'Operator' (equal to), and 'Search term' (Overdue). A 'Go' button is also present. The table header below the filters includes columns: 'Direction', 'Source', 'Target', and 'Expected By'.

## Inbound Physical Transmission screen

A new business day range has been added to support filtering screens after clicking the link on the System Overview screen. If no end business date is specified, only a single business day will be displayed. If an end business date is specified, all business days between the start date and the end date will be displayed.



The screenshot shows the 'Inbound Physical Transmissions' screen. At the top, there are navigation links: 'Home', 'System Overview', and 'Inbound Physical Transmissions'. Below these are filtering options: 'Business day' (Start: '0, 2020-05-14, NACHA (Active)', End: 'Single Day'), 'Filter' (No Filter), and a 'Go' button. A 'Column Totals' checkbox is also present. The table header below the filters includes a 'Page 1 of 1' indicator.

## Suspended Work screen

A new business day range has been added to support filtering screens after clicking the link on the System Overview screen. If no end business date is specified, only a single business day will be displayed. If an end business date is specified, all business days between the start date and the end date will be displayed.

Home  System Overview  Suspended

**Suspended Work**

Business day  
 Start  Filter  Search term   Go  
 End

| <input type="checkbox"/> Business Day               | Monitor Date | Level | Identifier Originator | Company Name |
|---|--------------|-------|-----------------------|--------------|
| Sort: <input type="button" value="Suspended work"/> |              |       |                       |              |

## Outbound Segments screen

A new business day range has been added to support filtering screens after clicking the link on the System Overview screen. If no end business date is specified, only a single business day will be displayed. If an end business date is specified, all business days between the start date and the end date will be displayed.

**Outbound Segments**

Business day  
 Start  Filter  Operator  Search term  Go  
 End

| <input type="checkbox"/> Business Day | Identifier | Bank | Endpoint / Sidepoint | Distribution Type | Payment Scheme | <input type="button" value="E"/> |
|---------------------------------------|------------|------|----------------------|-------------------|----------------|----------------------------------|
|---------------------------------------|------------|------|----------------------|-------------------|----------------|----------------------------------|

## Inbound Transaction screen

A new column has been added to the inbound transaction screen. This was required to filter the transactions by the Transmission's received time. This field is filterable and sortable. The forward / return field is also now filterable.

| Transmission | Received                 | Forward / Return |
|--------------|--------------------------|------------------|
|              | May 14, 2020, 3:13:04 PM | Forward          |
|              | May 14, 2020, 3:13:04 PM | Forward          |
|              | May 14, 2020, 3:13:04 PM | Forward          |

## 103552 Payment Scheme

To clearly identify, sort, filter, etc. transactions based upon the payment scheme that the transaction is participating in, payment scheme has been introduced to FTM. The payment scheme will affect multiple components through configuration updates. Payment schemes will define if Saturdays and Sundays are considered workdays as well as allowing holidays to be defined by payment scheme. Holidays can be configured globally for the system or holidays can now be associated to specific payment schemes. Inbound payment schemes will be defined by the payment scheme associated with the inbound Transmission Type. Outbound payment schemes will be defined by the payment scheme associated with the outbound Transmission Definition.

Any module that performs business day “math” to determine next or previous business days will be affected and will use the assigned payment scheme when performing these calculations. Before the use of payment schemes were introduced, business day calculations were always done using the defined holidays as well as treating Saturday and Sunday as non-workdays. These calculations will now use the supplied payment scheme to determine what holidays to use and if Saturdays and Sundays are workdays.

### Product configuration

The Payment Scheme values that are defined for the system are defined in the ProductConfiguration DSU spreadsheet and are defined as

### Payment Scheme:

| Payment Scheme Id | Name               | Description  |
|-------------------|--------------------|--|
| 0                 | Default            | Default scheme                                     |
| 1                 | Check              | Check X9 Files                                     |
| 2                 | NACHA              | NACHA  |
| 3                 | EDI                | EDI  |
| 4                 | Fedwire            | Fedwire  |
| 5                 | SWIFT              | SWIFT  |
| 6                 | CPA AFT            | Payments Canada - Automated Funds Transfer         |
| 7                 | TCH RTP            | TCH Real Time Payment                              |
| 8                 | ZELLE              | Zelle Network                                      |
| 9                 | Interac e-Transfer | Interac e-Transfer                                 |
| 20                | Posting File       | Posting File                                       |
| 30                | Target2            | Real Time Gross Settlement System for the Eurozone |

### Calendar Group:

| Identification | Name               | Description   | Time Zone | Modifier | Last Modified |
|----------------|--------------------|---|-----------|----------|---------------|
| 0              | Default            | Calendar group for Default scheme                                     | EST       | DSU      | 2020-01-01    |
| 1              | Check              | Calendar group for Check 29 Fixx                                      | EST       | DSU      | 2020-01-01    |
| 2              | NADIA              | Calendar group for NADIA  | LST       | DSU      | 2020-01-01    |
| 3              | EDI                | Calendar group for EDI  | EST       | DSU      | 2020-01-01    |
| 4              | Fedwire            | Calendar group for Fedwire  | EST       | DSU      | 2020-01-01    |
| 5              | SWIFT              | Calendar group for SWIFT  | EST       | DSU      | 2020-01-01    |
| 6              | CPA AII            | Calendar group for Payments Canada - Automated Funds Transfer         | LST       | DSU      | 2020-01-01    |
| 7              | TCH RTP            | Calendar group for TCH Real Time Payment                              | EST       | DSU      | 2020-01-01    |
| 8              | ZFILF              | Calendar group for ZFILF Network                                      | EST       | DSU      | 2020-01-01    |
| 9              | Interac e-Transfer | Calendar group for Interac e-Transfer                                 | EST       | DSU      | 2020-01-01    |
| 20             | Posting File       | Calendar group for Posting File                                       | EST       | DSU      | 2020-01-01    |
| 30             | Target2            | Calendar group for Real Time Gross Settlement System for the Eurozone | EST       | DSU      | 2020-01-01    |

## Schedule Entry:

| Identification | Calendar Group Id | Open Time | Close Time | [Monday Flag] | [Tuesday Flag] | [Wednesday Flag] | [Thursday Flag] | [Friday Flag] | [Saturday Flag] | [Sunday Flag] | Type Code              | Modifier   | Last Modified |
|----------------|-------------------|-----------|------------|---------------|----------------|------------------|-----------------|---------------|-----------------|---------------|------------------------|------------|---------------|
| 0              | 0                 | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR01_000 | 2020-01-01 |               |
| 1              | 1                 | 00:00     | 22:59      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR02_000 | 2020-01-01 |               |
| 2              | 2                 | 00:00     | 00:00      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR03_000 | 2020-01-01 |               |
| 3              | 3                 | 00:00     | 00:00      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR04_000 | 2020-01-01 |               |
| 4              | 4                 | 00:00     | 23:59      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR05_000 | 2020-01-01 |               |
| 5              | 5                 | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR06_000 | 2020-01-01 |               |
| 6              | 6                 | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR07_000 | 2020-01-01 |               |
| 7              | 7                 | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR08_000 | 2020-01-01 |               |
| 8              | 8                 | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR09_000 | 2020-01-01 |               |
| 9              | 9                 | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR10_000 | 2020-01-01 |               |
| 10             | 10                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR11_000 | 2020-01-01 |               |
| 11             | 11                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR12_000 | 2020-01-01 |               |
| 12             | 12                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR13_000 | 2020-01-01 |               |
| 13             | 13                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR14_000 | 2020-01-01 |               |
| 14             | 14                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR15_000 | 2020-01-01 |               |
| 15             | 15                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR16_000 | 2020-01-01 |               |
| 16             | 16                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR17_000 | 2020-01-01 |               |
| 17             | 17                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR18_000 | 2020-01-01 |               |
| 18             | 18                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR19_000 | 2020-01-01 |               |
| 19             | 19                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR20_000 | 2020-01-01 |               |
| 20             | 20                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR21_000 | 2020-01-01 |               |
| 21             | 21                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR22_000 | 2020-01-01 |               |
| 22             | 22                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR23_000 | 2020-01-01 |               |
| 23             | 23                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR24_000 | 2020-01-01 |               |
| 24             | 24                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR25_000 | 2020-01-01 |               |
| 25             | 25                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR26_000 | 2020-01-01 |               |
| 26             | 26                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR27_000 | 2020-01-01 |               |
| 27             | 27                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR28_000 | 2020-01-01 |               |
| 28             | 28                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR29_000 | 2020-01-01 |               |
| 29             | 29                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR30_000 | 2020-01-01 |               |
| 30             | 30                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR31_000 | 2020-01-01 |               |
| 31             | 31                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR32_000 | 2020-01-01 |               |
| 32             | 32                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR33_000 | 2020-01-01 |               |
| 33             | 33                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR34_000 | 2020-01-01 |               |
| 34             | 34                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR35_000 | 2020-01-01 |               |
| 35             | 35                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR36_000 | 2020-01-01 |               |
| 36             | 36                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR37_000 | 2020-01-01 |               |
| 37             | 37                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR38_000 | 2020-01-01 |               |
| 38             | 38                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR39_000 | 2020-01-01 |               |
| 39             | 39                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR40_000 | 2020-01-01 |               |
| 40             | 40                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR41_000 | 2020-01-01 |               |
| 41             | 41                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR42_000 | 2020-01-01 |               |
| 42             | 42                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR43_000 | 2020-01-01 |               |
| 43             | 43                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR44_000 | 2020-01-01 |               |
| 44             | 44                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR45_000 | 2020-01-01 |               |
| 45             | 45                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR46_000 | 2020-01-01 |               |
| 46             | 46                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR47_000 | 2020-01-01 |               |
| 47             | 47                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR48_000 | 2020-01-01 |               |
| 48             | 48                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR49_000 | 2020-01-01 |               |
| 49             | 49                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR50_000 | 2020-01-01 |               |
| 50             | 50                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR51_000 | 2020-01-01 |               |
| 51             | 51                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR52_000 | 2020-01-01 |               |
| 52             | 52                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR53_000 | 2020-01-01 |               |
| 53             | 53                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR54_000 | 2020-01-01 |               |
| 54             | 54                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR55_000 | 2020-01-01 |               |
| 55             | 55                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR56_000 | 2020-01-01 |               |
| 56             | 56                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR57_000 | 2020-01-01 |               |
| 57             | 57                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR58_000 | 2020-01-01 |               |
| 58             | 58                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR59_000 | 2020-01-01 |               |
| 59             | 59                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR60_000 | 2020-01-01 |               |
| 60             | 60                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR61_000 | 2020-01-01 |               |
| 61             | 61                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR62_000 | 2020-01-01 |               |
| 62             | 62                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR63_000 | 2020-01-01 |               |
| 63             | 63                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR64_000 | 2020-01-01 |               |
| 64             | 64                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR65_000 | 2020-01-01 |               |
| 65             | 65                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR66_000 | 2020-01-01 |               |
| 66             | 66                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR67_000 | 2020-01-01 |               |
| 67             | 67                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR68_000 | 2020-01-01 |               |
| 68             | 68                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR69_000 | 2020-01-01 |               |
| 69             | 69                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR70_000 | 2020-01-01 |               |
| 70             | 70                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR71_000 | 2020-01-01 |               |
| 71             | 71                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR72_000 | 2020-01-01 |               |
| 72             | 72                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR73_000 | 2020-01-01 |               |
| 73             | 73                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR74_000 | 2020-01-01 |               |
| 74             | 74                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR75_000 | 2020-01-01 |               |
| 75             | 75                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR76_000 | 2020-01-01 |               |
| 76             | 76                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR77_000 | 2020-01-01 |               |
| 77             | 77                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR78_000 | 2020-01-01 |               |
| 78             | 78                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR79_000 | 2020-01-01 |               |
| 79             | 79                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR80_000 | 2020-01-01 |               |
| 80             | 80                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR81_000 | 2020-01-01 |               |
| 81             | 81                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR82_000 | 2020-01-01 |               |
| 82             | 82                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR83_000 | 2020-01-01 |               |
| 83             | 83                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR84_000 | 2020-01-01 |               |
| 84             | 84                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR85_000 | 2020-01-01 |               |
| 85             | 85                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR86_000 | 2020-01-01 |               |
| 86             | 86                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR87_000 | 2020-01-01 |               |
| 87             | 87                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR88_000 | 2020-01-01 |               |
| 88             | 88                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR89_000 | 2020-01-01 |               |
| 89             | 89                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR90_000 | 2020-01-01 |               |
| 90             | 90                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR91_000 | 2020-01-01 |               |
| 91             | 91                | 00:00     | 23:49      | N             | N              | N                | N               | N             | N               | N             | SCHM-MI_CPF1_TAR92_000 | 2020-01-01 |               |
| 92             |                   |           |            |               |                |                  |                 |               |                 |               |                        |            |               |

### Calendar - New Years Day

A calendar that will be used by participants that match the configuration. [Learn more](#)

\* Date:   Working Day:  

MM/DD/YYYY

\* Description:  

\* Scope 

Scope:  Global  Participant  Location data  Schema

\* Participant:   

Payment scheme:   

### Calendar - New Years Day

A calendar that will be used by participants that match the configuration. [Learn more](#)

\* Date:   Working Day:  

MM/DD/YYYY

\* Description:  

\* Scope 

Scope:  Global  Participant  Location data  Schema

Country:   

Region:   

State/Province:   

Payment scheme:   

Calendar - New Years Day

A calendar that will be used by participants that match the configuration. [Learn more](#)

\* Date:   Working Day:

\* Description:

\* Scope

Scope:  Global  Participant  Location data  Schema

\* Payment scheme:

Check

NACHA

EDI

Fedwire

SWIFT

CPA AFT

TCH RTP

ZELLE

Interac e-Transfer

Posting File

## Message Types

Payment message types has been expanded to include details by payment scheme. In order to provide these optional detail fields, a payment scheme must be supplied.

The payment scheme value for the message types will be displayed on all the message type screens. The grid screen will display the Payment Scheme by default. A new Add Details action has been added. This action will be used when new payment scheme details need to be added to a payment message type.

## Message types grid:

### Message Type Details:



The add message type screen now contains a payment scheme drop down which will contain all available payment schemes. Payment scheme is required when filling in any non-required/detail fields.

### Add Message Type:



The add details screen is nearly identical to the Add Message Type screen, with the exception that you can add a new payment scheme to an already existing message type. The Message types dropdown will contain all available message types.

### Add Details by Payment Scheme:



### Transmission Types

The payment scheme value for the transmission types will be displayed on the transmission types screen accessible through Configuration -> Inbound -> Transmission Types menu. The grid screen will display the Payment Scheme by default.

### Transmission Types grid:

## Manage Transmission Types

» Add Transmission Type • Help

| Name                 | Payment Scheme | Business Rule Workflow Name | Transmission Validation Rule | Batch / ICL Rule Set | Provider | Total Rows: 13  |
|----------------------|----------------|-----------------------------|------------------------------|----------------------|----------|---|
| JTH_DP               | ---            | TCHWorkflow                 | TCH IP Trans                 | TCH IP Batch         | Customer |   |
| TOH                  | TOH RTP        | TCHWorkflow                 | TCH IP Trans                 | TCH IP Batch         | Customer |   |
| WAC50001             | TOH RTP        | TCHWorkflow                 | TCH IP Trans                 | TCH IP Batch         | Customer |   |
| ZELLE                | ZELLE          | ZelleWorkflow               | ZELLE                        | ZELLE Batch          | Product  |   |
| NACHA                | NACHA          | AchWorkflow                 | NACHA Int Trans              | NACHA Int Batch      | Product  |   |
| NACHA RETURN         | NACHA          | AchWorkflow                 | NACHA Int Trans              | NACHA Int Batch      | Product  |   |
| NACHA NOC            | NACHA          | AchWorkflow                 | NACHA Int Trans              | NACHA Int Batch      | Product  |   |
| NACHA RETURN         | NACHA          | AchWorkflow                 | NACHA Int Trans              | NACHA Int Batch      | Product  |   |
| MMI RETURN           | NACHA          | AchWorkflow                 | NACHA                        | NACHA Batch          | Product  |   |
| FAILED BANK REVERSAL | NACHA          | AchWorkflow                 | NACHA                        | NACHA Batch          | Product  |   |
| NACHA REVERSAL       | NACHA          | AchWorkflow                 | ZELLE                        | ZELLE Batch          | Product  |   |
| Vita Debit           | ZELLE          | ZelleWorkflow               | ZELLE                        | ZELLE Batch          | Product  |   |
| Mastercard Debit     | ZELLE          | ZelleWorkflow               | ZELLE                        | ZELLE Batch          | Product  |   |
| BSA                  | ZELLE          | ZelleWorkflow               | ZELLE                        | ZELLE Batch          | Product  |   |
| NACHA                | NACHA          | AchWorkflow                 | NACHA                        | NACHA Batch          | Product  |   |

## Legend

-  Where Used
-  View details
-  Delete Transmission Type

Related details screen in view and edit modes (note the dropdown payment scheme selection list in edit mode).

Details:

## Transmission Type Details

|   |   |
|---|---|
|  | <b>Name:</b> NACHA                                      |
|   | <b>Transmission Type ID:</b> 10                         |
|   | <b>Provider:</b> Product                                |
|   | <b>Payment Scheme:</b> NACHA                            |
|   | <b>Transmission Validation Rule:</b> NACHA              |
|   | <b>Batch / ICL Rule Set:</b> NACHA Batch                |
|   | <b>Business Rule Workflow Name:</b> AchWorkflow         |
|   | <b>Send Acknowledgment:</b> Yes                         |
|   | <b>Acknowledgment Type:</b> Transmission Acknowledgment |

## Ingest then Pend Options

|                   |    |
|-------------------|----|
| Ingest then Pend: | No |
|-------------------|----|

OK

## Legend

-  Change to edit mode

Edit Mode:

**Edit Transmission Type**

|  |   |
|--|---|
|  <b>Name:</b> | NACHA   |
| <b>Transmission Type ID:</b>   | 10  |
| <b>Provider:</b>   | Product   |
| <b>Payment Scheme:</b>   | <input style="width: 150px; border: 1px solid #ccc; border-radius: 5px; padding: 2px 5px; margin-right: 10px;" type="text" value="NACHA"/> <span style="color: red;">*</span> |
| <b>Transmission Validation Rule:</b>   | Default   |
| <b>Batch / ICL Rule Set:</b>   | Check   |
| <b>Business Rule Workflow Name:</b>  | <input style="width: 150px; border: 1px solid #ccc; border-radius: 5px; padding: 2px 5px; margin-right: 10px;" type="text" value="NACHA"/> <span style="color: red;">*</span> |
| <b>Send Acknowledgment:</b>  | EDI   |
| <b>Acknowledgment Type:</b>  | Fedwire   |
| <b>Ingest then Pend Options</b>  |   |
| <b>Ingest then Pend:</b>   | <input style="width: 150px; border: 1px solid #ccc; border-radius: 5px; padding: 2px 5px; margin-right: 10px;" type="text" value="NACHA"/> <span style="color: red;">*</span> |
| <input style="float: right; margin-right: 10px;" type="button" value="Cancel"/>                |   |

**Legend**

-  Required field
-  Cancel edit mode

## Transmission Definitions

The payment scheme value for the transmission definitions will be displayed on the transmission definition screen. The grid screen will display the Payment Scheme by default.

Transmission definitions grid:

Home  

Manage Transmission definitions  

Filter  

Page 1 of 4           Total Rows: 32

| Beginning  | End   | Page                                      | Forward 1 Page | Forward 10 Pages | End   |
|--|-------|---|----------------|------------------|---|
|  <a href="#">B42 Extract</a>                      | ASCII | Extract                                   | NACHA          | 0                |  |
|  <a href="#">Control Total Email Notification</a> | ASCII | Control Total Email Notification          | NACHA          | 0                |  |
|  <a href="#">DFI Distribution</a>                 | ASCII | DFI Game Day                              | NACHA          | 1                |  |
|  <a href="#">DFI Origination</a>                  | ASCII | DFI Clearing                              | NACHA          | 1                |  |
|  <a href="#">DFI Returns from FOB</a>             | ASCII | SMB Returns                               | NACHA          | 1                |  |
|  <a href="#">DFI Returns from SNS</a>             | ASCII | EGS Returns                               | NACHA          | 1                |  |
|  <a href="#">E-Mail</a>                           | ASCII | E-Mail                                    | NACHA          | 0                |  |
|  <a href="#">Electronic Payments Network</a>      | ASCII | NACHA EPN                                 | NACHA          | 1                |  |
|  <a href="#">Email Transmission Ack</a>           | ASCII | Email Transmission Acknowledgment         | NACHA          | 0                |  |
|  <a href="#">Email Transmission Processed</a>     | ASCII | Email Transmission Processed Notification | NACHA          | 0                |  |

Legend:  View details  Delete Transmission Definition

Associated details screen in view and edit mode (note the drop-down selection list for the payment scheme in edit mode):

### Transmission Definition Details

#### Step 1 of 2 (Transmission Definition information)

|                               |   |
|-------------------------------|---|
| Name:                         | DFI Distribution  |
| Channel:                      | ACHSameDay  |
| Encoding:                     | ASCII   |
| Max Size(bytes):              | unlimited   |
| Max Debit Currency Value:     | unlimited   |
| Max Credit Currency Value:    | unlimited   |
| Max Batch Count:              | unlimited   |
| Max Number Of Transactions:   | unlimited   |
| Payment Scheme:               | NACHA   |
| Transmission Format:          | NACIA   |
| Assembly Option:              | Commingled  |
| Missing Image Percent:        | 0   |
| Test File Indicator:          | T   |
| File Name Pattern:            | FedACH_ToDFI%PT%,R%PID1-8%,N%PID5-8%,D%DTyyMMdd%,T%DThhmmssSSS% |
| Data File Extension:          |   |
| Route File Formatter Class:   |   |
| Route File Schema Name:       |   |
| Time Zone:                    | America/New_York  |
| Sender Routing Transit:       |   |
| Sender Name:                  |   |
| Custom Descriptor:            | DFI Distrib Desc  |
| File to File:                 | No  |
| Sequence Number Required:     | No  |
| Use Original Data:            | Yes   |
| Sub Type:                     |   |
| Single Transaction:           | No  |
| Companion Document Indicator: | No  |
| Message Type Configurations:  | 0   |

Next OK

Edit Mode:

### Edit Transmission definition

#### Step 1 of 2 (Transmission Definition information)

|                               |   |
|-------------------------------|---|
| Name:                         | DFI Distribution  |
| Channel:                      | ACHSameDay  |
| Encoding:                     | ASCII   |
| Max Size(bytes):              | -1  |
| Max Debit Currency Value:     | -1  |
| Max Credit Currency Value:    | -1  |
| Max Batch Count:              | -1  |
| Max Number Of Transactions:   | -1  |
| Payment Scheme:               | NACHA   |
| Transmission Format:          | Default   |
| Assembly Option:              | Check   |
| Missing Image Percent:        | NACHA   |
| Test File Indicator:          | EDI   |
| File Name Pattern:            | Fedwire   |
| Data File Extension:          | SWIFT   |
| Route File Formatter Class:   | CPA AFT   |
| Route File Schema Name:       | TCH RTP   |
| Time Zone:                    | ZELLE   |
| Sender Routing Transit:       | Interac e-Transfer  |
| Sender Name:                  | Posting File  |
| Custom Descriptor:            | DFI L10N010 D8SC  |
| File to File:                 | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| Sequence Number Required:     | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| Use Original Data:            | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Sub Type:                     |   |
| Single Transaction:           | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| Companion Document Indicator: | No  |

Next Cancel

## Inbound processing screens

The payment scheme value for each transmission, batch, segment (when applicable), and transaction will be displayed in the various grid and transmission hierarchy UI screens. Each of the grid screens will display the Payment Scheme by default.

### Inbound Transmission Grid:

| Inbound Transmissions  |                         |                     |                         |                  |                |                         |                        |                           |           |             |         |
|--|-------------------------|---------------------|-------------------------|------------------|----------------|-------------------------|------------------------|---------------------------|-----------|-------------|---------|
| Inbound Transmissions  |                         |                     |                         |                  |                |                         |                        |                           |           |             |         |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> More <span style="float: right;">Help</span> |                         |                     |                         |                  |                |                         |                        |                           |           |             |         |
| No filter applied  |                         |                     |                         |                  |                |                         |                        |                           |           |             |         |
| Transmission ID  | Received                | FTN Transmission ID | Sender                  | Message Standard | Payment Scheme | Processor               | Inbound Batches / ICUs | Processing Batches / ICUs | Condition | Overridable | Pending |
| 25   | Mar 6, 2020, 1:41:14 PM | 14001               | Financial Institution 3 | NACHA            | NACHA          | First Global Bank (FGB) | 8                      | 8                         | Accepted  | No          | No      |

## Inbound Batch Grid:

| Inbound Batches / ICLs |            |          |          |          |                        |              |                     |            |              |                      |           |             |          |                 |              |              |            |                |            |
|------------------------|------------|----------|----------|----------|------------------------|--------------|---------------------|------------|--------------|----------------------|-----------|-------------|----------|-----------------|--------------|--------------|------------|----------------|------------|
| Inbound Batches / ICLs |            |          |          |          |                        |              |                     |            |              |                      |           |             |          |                 |              |              |            |                |            |
| Filter                 |            | Search   |          | Mass     | List                   |              |                     |            |              |                      |           |             |          |                 |              |              |            |                |            |
|                        |            |          |          |          |                        |              |                     |            |              |                      |           |             |          |                 |              |              |            |                |            |
| Batch ID               | Batch Name | Category | EMI Rule | Workflow | Transmission Condition | Batch to ICL | Avail. for Download | State      | Batch to ECI | Transmission Pending | Category  | Originator  | ESR      | Message Counter | Message Type | Message Date | Request ID | Download Count | Downloaded |
| 101                    | Inv-1.2000 | WaCH     | 1000     | 10       | Accepted               | Success      | Complete            | Complete   | No           | No                   | CORPORATE | EMC-Imports | 1000.000 | 1000            | IN-CH        | PRE          | WaCH       | 000            | 00:00:00   |
| 102                    | Inv-1.2010 | WaCH     | 1000     | 10       | Accepted               | Accepted     | Complete            | Complete   | No           | No                   | IN-CH     | EMC-Imports | 1000.000 | 1000            | IN-CH        | PRE          | WaCH       | 000            | 00:00:00   |
| 103                    | Inv-1.2015 | WaCH     | 1000     | 10       | Accepted               | Accepted     | Complete            | Complete   | No           | No                   | IN-CH     | EMC-Imports | 1000.000 | 1000            | IN-CH        | PRE          | WaCH       | 000            | 00:00:00   |
| 104                    | Inv-1.2016 | WaCH     | 1000     | 10       | Accepted               | Accepted     | Complete            | Complete   | No           | No                   | IN-CH     | EMC-Imports | 1000.000 | 1000            | IN-CH        | PRE          | WaCH       | 000            | 00:00:00   |
| 105                    | Inv-1.2017 | WaCH     | 1000     | 10       | Accepted               | Accepted     | Complete            | Complete   | No           | No                   | IN-CH     | EMC-Imports | 1000.000 | 1000            | IN-CH        | PRE          | WaCH       | 000            | 00:00:00   |
| 106                    | Inv-1.2018 | WaCH     | 1000     | 10       | Accepted               | Accepted     | Complete            | Complete   | No           | No                   | IN-CH     | EMC-Imports | 1000.000 | 1000            | IN-CH        | PRE          | WaCH       | 000            | 00:00:00   |
| 107                    | Inv-1.2019 | WaCH     | 1000     | 10       | Accepted               | Accepted     | Complete            | Complete   | No           | No                   | IN-CH     | EMC-Imports | 1000.000 | 1000            | IN-CH        | PRE          | WaCH       | 000            | 00:00:00   |
| 108                    | Inv-1.2020 | WaCH     | 1000     | 10       | Accepted               | Accepted     | Complete            | Complete   | No           | No                   | IN-CH     | EMC-Imports | 1000.000 | 1000            | IN-CH        | PRE          | WaCH       | 000            | 00:00:00   |
| 109                    | Inv-1.2021 | WaCH     | 1000     | 10       | Accepted               | Success      | No                  | Processing | No           | No                   | DEMO/CP   | POG-Imports | 1000.000 | 1000            | IN-CH        | PRE          | WaCH       | 000            | 00:00:00   |

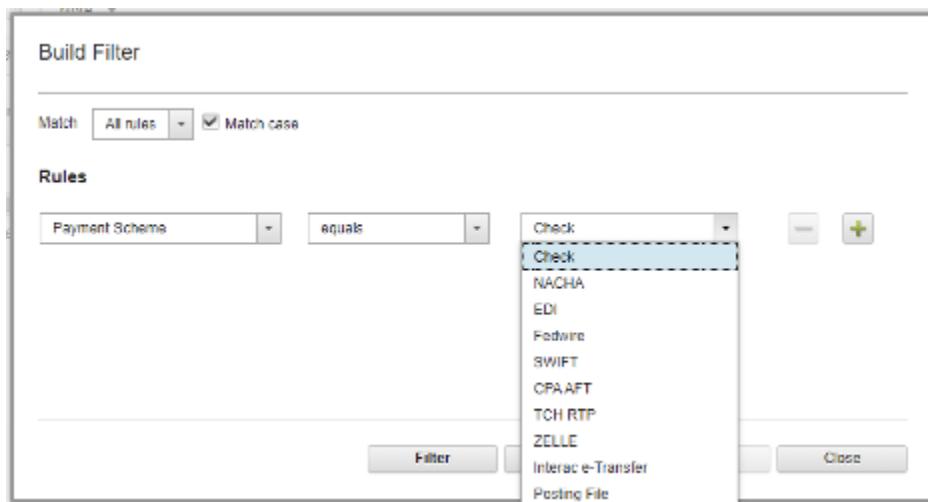
### Inbound Segments Grid:

### Transaction Grid:

| Transaction ID | Transacted Date | Business Date | Category | Status   | Internal Transaction ID | Internal Batch ID | Processing Batch ID | On Hold | Transmitter Type | FIM Processor ID | Company | Sender                | Message Version | Message Type | Payment Scheme | Internal Currency | Internal Amount | Processor               |
|----------------|-----------------|---------------|----------|----------|-------------------------|-------------------|---------------------|---------|------------------|------------------|---------|-----------------------|-----------------|--------------|----------------|-------------------|-----------------|-------------------------|
| 100            | 2020-03-06      | 2020-03-06    | NACHA    | Approved | 24                      | 901               | 102                 | On Hold | Case             | 10004            | CORPODO | Financial Institute 3 | NACHA           | 200          | NACHA          | USD               | 51.00           | First Global Bank (POB) |
| 100            | 2020-03-06      | 2020-03-06    | NACHA    | Approved | 25                      | 901               | 102                 | On Hold | Case             | 10004            | CORPODO | Financial Institute 3 | NACHA           | 200          | NACHA          | USD               | 916.00          | First Global Bank (POB) |
| 100            | 2020-03-06      | 2020-03-06    | NACHA    | Approved | 26                      | 901               | 102                 | On Hold | Case             | 10004            | CORPODO | Financial Institute 3 | NACHA           | 200          | NACHA          | USD               | 1100.00         | First Global Bank (POB) |
| 100            | 2020-03-06      | 2020-03-06    | NACHA    | Approved | 27                      | 901               | 102                 | On Hold | Case             | 10004            | CORPODO | Financial Institute 3 | NACHA           | 200          | NACHA          | USD               | 1440.00         | First Global Bank (POB) |
| 100            | 2020-03-06      | 2020-03-06    | NACHA    | Approved | 28                      | 901               | 102                 | On Hold | Case             | 10004            | CORPODO | Financial Institute 3 | NACHA           | 200          | NACHA          | USD               | 32.0000         | First Global Bank (POB) |
| 100            | 2020-03-06      | 2020-03-06    | NACHA    | Approved | 29                      | 901               | 102                 | On Hold | Case             | 10004            | CORPODO | Financial Institute 3 | NACHA           | 200          | NACHA          | USD               | 47.0000         | First Global Bank (POB) |

The Payment Scheme will be sortable and filterable on each of these screens. The payment scheme filter will provide the user with a dropdown of available payment schemes to choose.

Payment Scheme Filter:



Each level of the Transmission Hierarchy details UI will also display the Payment Scheme assigned to that transmission, batch, segment (when applicable), and transaction.

Transmission details:

Inbound Transmission Hierarchy

Transmission Hierarchy

Transmission

Calculated Credit: 5 Calculated Debit: 5 Calculated Credit Amount: \$3,013,111.00 Calculated Debit Amount: \$1,111.00 Calculated Net Amt: \$3,013,000.00

Received: Mar 6, 2015, 1:41:14 PM

General Parties Status History Revaluation

Financial Information

- Control Credit Amount: \$3,013,111.00
- Control Debit Amount: \$744.49
- Control Credit Item: 7
- Control Debit Item: 8
- System Credit Amount: \$3,013,111.00
- System Debit Amount: \$744.49
- Inbound Currency: USD

Total Item/Address Count: 14 Rejected Count: 0 Batch Count: 0

Attributes

|                       |                          |                         |       |
|-----------------------|--------------------------|-------------------------|-------|
| Identifier:           | 26                       | File ID:                | 25    |
| Counter:              | 11202                    | Overridden:             | No    |
| FTM Transmission ID:  | 14051                    | Overridden by:          | —     |
| Condition:            | ACI_Batch                | Pending:                | No    |
| Name:                 | ACK_Finex02_030804114012 | Released by:            | —     |
| Original Name:        | ACK_Finex02              | Archivable:             | No    |
| Business Date:        | 2015-03-09               | Rejects and Warnings:   | 1     |
| Source:               | ACI                      | Total Validation Count: | 14    |
| Payment Scheme:       | NACHA                    | Adjusted Credit:        | —     |
| Message Number:       | 1000001                  | Transmission Type:      | NACHA |
| Customer Reference:   | —                        | Channel Name:           | FILE  |
| ISIN From Origin:     | No                       | Locked By:              | —     |
| Connection Owner:     | —                        | Channel Type:           | FILE  |
| Connection:           | —                        | Customer Unique ID:     | —     |
| Customer Description: | —                        | File ID Modifier:       | A     |
| Test Indicator:       | —                        | Priority:               | 45    |

## Batch details:

Inbound Transmission Hierarchy

Transmission Hierarchy

Transmission

Calculated Credit: 5 Calculated Debit: 5 Calculated Credit Amount: \$1,111.00 Calculated Debit Amount: \$1,111.00 Calculated Net Amt: \$0.00

Batch Details

Business Day: 2015-03-06 Category: NACHA Status: Active

General Parties Status History Accumulation

Financial Information

- Calculated Credit Amount: \$1,111.00
- Calculated Debit Amount: \$1,111.00
- Calculated Credit Count: 1
- Calculated Debit Count: 1
- Control Credit Amount: \$1,111.00
- Control Debit Amount: \$0.00
- Control Credit Count: 1
- Control Debit Count: 0
- Adjusted Credit Amount: \$0.00
- Adjusted Debit Amount: \$0.00
- Adjusted Credit Count: 0
- Adjusted Debit Count: 0
- System Credit Amount: \$1,111.00
- System Debit Amount: \$0.00
- Inbound Currency: USD

Transactions

|                         |                         |
|-------------------------|-------------------------|
| Transmission ID:        | 26                      |
| FTM Transmission ID:    | 14051                   |
| Name:                   | ACK_Finex02             |
| Original Name:          | ACK_Finex02             |
| Business Date:          | 2015-03-09              |
| Received:               | Mar 6, 2015, 1:41:14 PM |
| Test Acknowledgment:    | —                       |
| Condition:              | Accepted                |
| Overridden:             | No                      |
| Rejects and Warnings:   | 1                       |
| Total Validation Count: | 14                      |

Attributes

|                                    |                         |                         |               |
|------------------------------------|-------------------------|-------------------------|---------------|
| Identifier:                        | 26                      | Batch Number:           | 1000001       |
| FTM Batch ID:                      | 14051                   | Business Rule Workflow: | Administrator |
| Type:                              | ACI-Batch               | Fixed Billing:          | 0             |
| Message Type:                      | FILE                    | Variable Billing:       | 0             |
| Payment Scheme:                    | NACHA                   | Product Code:           | ACI           |
| Message Number:                    | 1000001                 | Condition:              | Accepted      |
| Forward / Return:                  | Forward                 | Status:                 | Complete      |
| Entry Date:                        | Mar 6, 2015             | Pending:                | No            |
| Approval Date:                     | Mar 6, 2015, 1:41:14 PM | Overridden:             | No            |
| Business Rule Acknowledgment Date: | Mar 6, 2015             | Rejects and Warnings:   | 0             |
| Collection:                        | Received                | Total Validation Count: | 14            |
| Bank:                              | —                       | Rejected Items:         | 0             |
| Ready For Distribution:            | Complete                | Channel Type:           | FILE          |
| Total Item/Address Count:          | 14                      |                         |               |

## Transaction details:

| Transmission Hierarchy  |  | Transmission   |                   | Batch                    |                   |
|---|--|--|-------------------|--------------------------|-------------------|
|   |  | Calculated Credit:   | Calculated Debit: | Calculated Credit:       | Calculated Debit: |
|   |  | 7  | 8                 | 9                        | 10                |
|   |  | Calculated Credit Amount:  | \$3,915,111.00    | Calculated Debit Amount: | \$744,412.00      |
|   |  |  |                   | Year-Credit Difference:  | \$0.00            |
|   |  |  |                   | Year-Debit Difference:   | \$0.00            |
| No filter applied   |  | Credit Details   |                   |                          |                   |
|   |  | General  |                   |                          |                   |
|   |  | Parties  | Address           | Versions                 | Raw Data          |
|   |  | History  | Accumulators      |                          |                   |
|   |  |  |                   |                          |                   |
| Transmission (26)   |  | Inbound  |                   |                          |                   |
| Bank (15)   |  | Outbound   |                   |                          |                   |
| Processing Details (72)   |  | Payment Scheme: <b>Initial</b>                                   |                   |                          |                   |
| Credit (18)   |  | Message Header: <b>14000000000000000000000000000000</b>          |                   |                          |                   |
| Message Type: <b>14000000000000000000000000000000</b>               |  | Message Type: <b>14000000000000000000000000000000</b>            |                   |                          |                   |
| Transaction Type: <b>Credit</b>                                     |  | Financial Institution: <b>14000000000000000000000000000000</b>   |                   |                          |                   |
| Amount: <b>\$112,00</b>   |  | Financial Institution: <b>14000000000000000000000000000000</b>   |                   |                          |                   |
| Sender ID: <b>#11000000000000000000000000000000</b>                 |  | Financial Institution: <b>14000000000000000000000000000000</b>   |                   |                          |                   |
| Sender ID: <b>#11000000000000000000000000000000</b>                 |  | Financial Institution: <b>14000000000000000000000000000000</b>   |                   |                          |                   |
| Originator ID: <b>CCRP-100001</b>                                   |  | Financial Institution: <b>14000000000000000000000000000000</b>   |                   |                          |                   |
| Originator ID: <b>CCRP-100001</b>                                   |  | Financial Institution: <b>14000000000000000000000000000000</b>   |                   |                          |                   |
| Destination Account Number: <b>14000000000000000000000000000000</b> |  | Identification Number: <b>1</b>                                  |                   |                          |                   |
| Access Type: <b>DEA</b>   |  | On Us/Third: <b>Transit</b>                                      |                   |                          |                   |
| Investigation Number: <b>1</b>                                      |  | Recipient Account: <b>01400000000000000000000000000000</b>       |                   |                          |                   |
| Batch ID/CL: <b>102</b>   |  | Batch ID: <b>IC-12</b>   |                   |                          |                   |
| Transmission ID: <b>25</b>  |  | Transmission ID: <b>25</b>                                       |                   |                          |                   |
| Original Settlement Date: <b>Mar 6, 2020</b>                        |  | Original Transaction ID: <b>14000000000000000000000000000000</b> |                   |                          |                   |
| Original Account Number: <b>14000000000000000000000000000000</b>    |  | Original Settlement Date: <b>Mar 6, 2020</b>                     |                   |                          |                   |
| Bank (15)   |  |  |                   |                          |                   |
| Bank (15)   |  |  |                   |                          |                   |

## Outbound processing screens

The payment scheme value for each outbound transmission, batch, segment (when applicable) will be displayed in the various outbound grid and detail screens. Each of the grid screens will display the Payment Scheme by default.

### Outbound transmission grid:

### Outbound transmission details:

Business Days X Outbound Transmissions X Outbound Batches / ICL X **Outbound Transmission Details** X

---

|          |         |
|----------|---------|
| City:    | Atlanta |
| State:   | GA      |
| Zipcode: | 30309   |

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**Financial Information**

|                        |             |
|------------------------|-------------|
| Control debit amount:  | \$744.49    |
| Control credit amount: | \$12,010.00 |
| Number debits:         | 6           |
| Number credits:        | 3           |
| System debit amount:   | \$744.49    |
| System credit amount:  | \$12,010.00 |
| Outbound Currency:     | USD         |

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**Transmission Information**

|                            |              |
|----------------------------|--------------|
| FTM Transmission Id:       | --           |
| Single Transaction Id:     | --           |
| Transmission definition:   | FedACH       |
| Message Standard:          | NACHA        |
| <b>Payment Scheme:</b>     | <b>NACHA</b> |
| Format:                    | ACH          |
| Total transactions:        | 9            |
| Size (bytes):              | 0            |
| Addenda count:             | 0            |
| Transmission name:         | --           |
| Location:                  | --           |
| File Created:              | --           |
| Released:                  | --           |
| Transmitted:               | --           |
| Notification requested:    | No           |
| Notification sent:         | --           |
| Accounted:                 | --           |
| Billed:                    | --           |
| Summary of Data Delivered: | --           |
| Archivable:                | --           |
| Archived:                  | No           |
| Distribution Type:         | Endpoint     |
| Cancelation Type Override: | --           |

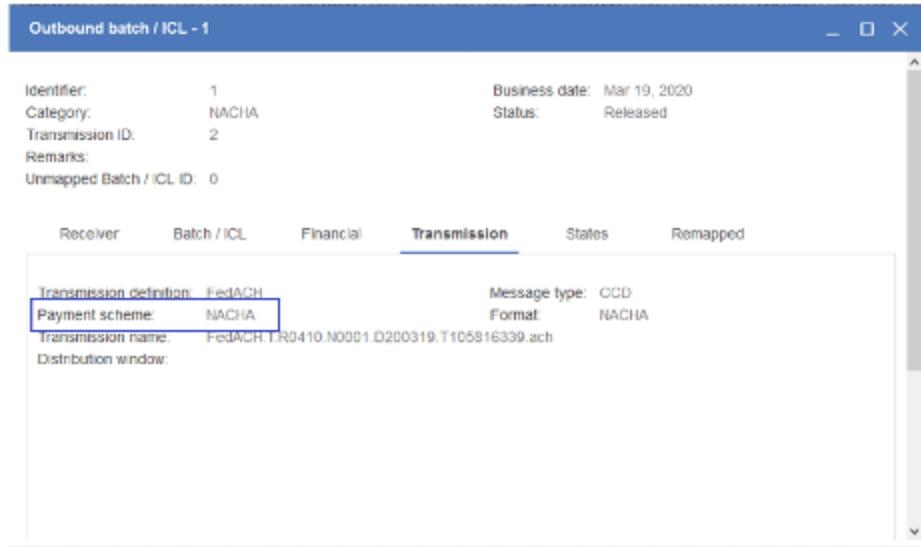
---

**Routing Information**

|                               |           |
|-------------------------------|-----------|
| Release Trigger               | --        |
| Connection                    | --        |
| Connection Owner              | --        |
| Receiver Routing              | 041000014 |
| Immediate Destination Routing | 041000014 |
| Immediate Origin Routing      | 123456780 |
| Routing Data                  | --        |

Outbound batch grid:

### Outbound batch details:



## Services Framework task updates

There are a few Services Framework tasks that have been updated to allow for an optional payment scheme value. Here are the tasks that were updated:

### Business Day Open and Activate Task

#### Parameter: Payment Scheme

Description: Payment scheme to use during open and/or activation process. If the payment scheme parameter is left blank, default payment scheme will be used for business days to open and/or activate. Valid value for payment scheme should already be defined in the system.

Example: Check, NACHA, TCH RTP, etc.

### Business Day Close And End Task

#### Parameter: Payment Scheme

Description: An optional payment scheme used to filter the possible business days the action is executed against. If the payment scheme parameter is left blank, all business days that match the time interval will be acted upon.

Example: Check, NACHA, TCH RTP, etc.

### Performance Monitor Purge Task

Parameter: Payment Scheme

Description: An optional payment scheme used during the process. If the payment scheme parameter is left blank during the process, the default payment scheme, defined in the Payment Feature Services component property called System Payment Scheme will be used. If payment scheme parameter is specified, it should already be defined in the system.

Example: Check, NACHA, TCH RTP, etc.

File Tracking Purge Task

Parameter: Payment Scheme

Description: An optional payment scheme used during the process. If the payment scheme parameter is left blank during the process, the default payment scheme, defined in the Payment Feature Services component property called System Payment Scheme will be used. If payment scheme parameter is specified, it should already be defined in the system.

Example: Check, NACHA, TCH RTP, etc.

**107035**

**Dynamically generate Action Menu for the Inbound Transaction UI Grid**

The inbound transactions screens will now have a dynamic action menus based on the inbound and outbound schemes. If the inbound and outbound schemes are different, then the action menus are union of both.

**76892 Inbound and Outbound Raw Data Views**

Enhanced the inbound and outbound raw data views so that the current inbound and outbound views are more legible.

**99381 Gateway Duplicate Checking by Transmission/File Type**

### **Configuration > Inbound > Transmission Types UI**

The Gateway Duplicate File Table field has been added to the Transmission Type details screen. This will allow for payment schemes or Transmission/File Types to use a separate gateway duplicate file table with a custom unique constraint in addition to the default gateway duplicate file table. If a transmission type is to use a secondary gateway duplicate file table, the table name will be added to the field. A blank field value will default to the product gateway duplicate file table. Note that after any changes to the Gateway Duplicate File Table field of a transmission type are made, gateway server must be restarted if it's running. The secondary gateway duplicate file table must be built and present in the database before adding it to the Transmission Type in the UI.

### **119046 UTF-8 Support for all Emoji characters in Business Rules ISF Parsing**

Implemented UTF-8 character support for DSU, Business Rules Manager and Business Rules Server.

- DSU allows to import/export configuration with UTF-8 characters.
- Operator is be able to activate release (build and validate TBL file)
- Business Rules server successfully receives the activated descriptors/file and process the activated releases.
- Business rules server is able to process transmission/transaction which includes UTF-8 characters.

### **50268 Support SSL RMI communication.**

Resolution:

Added SSL RMI communication for Distribution Manager, Gateway Server, Transaction Server RMI interfaces.

Setting up SSL connection for RMI between these applications and WebSphere Application Server:

The following new properties were added to Distribution Manager, Gateway Server, and Transaction Server.

remoteSSLEnabled - true/false, whether to enable SSL for RMI or not

remoteKeyStore - location of a keystore for the application

remoteKeyStorePassword - password for the keystore

remoteKeyStoreFormat - JKS, which is a keystore format

remoteTrustStore - location of a truststore for the application

remoteTrustStorePassword - password for the truststore

remoteTrustStoreFormat - JKS, which is a truststore format

Example:

remoteSSLEnabled = true

remoteKeyStore = c:/IBM/Key/server/keyStore.jks

remoteKeyStorePassword = server

remoteKeyStoreFormat = JKS

remoteTrustStore = c:/IBM/Key/server/trustStore.jks

remoteTrustStorePassword = server

remoteTrustStoreFormat = JKS

Note: If you prefer to use different keystore and truststore files for the individual applications, make sure to add all extracted certificates to the WebSphere truststore.

For more information, refer to the Financial Transaction Manager documentation.

## Support Db2 11.5.5

Before Db2 version 11.5, the Db2 installation installed the db2jcc.jar and db2jcc4.jar driver files. Starting with Db2 11.5, the Db2 installation no longer installs the db2jcc.jar. However, a slight behavior change between these two drivers affects FTM. The columnName and columnLabel values retrieved from database queries are equivalent when the db2jcc driver is used. When the db2jcc4 driver is used, these two values might be different.

For example, consider this query: SELECT COLUMN1 AS MY\_VALUE FROM XYZ

When the db2jcc.jar is used, the getColumnName and getColumnLabel APIs return the same

value ("MY\_VALUE").

When the db2jcc4.jar is used, the getColumnLabel API returns "COLUMN1" and the getColumnLabel API returns "MY\_VALUE".

FTM was updated to ensure that existing queries are processed correctly, regardless of which database driver is used.

To use the db2jcc4 driver, the configuration and installation of the WebSphere FTM JDBC providers were updated to be "DB2 Using IBM JCC Driver" (uses "{DB2\_JCC\_DRIVER\_PATH}" class path variable) instead of "DB2 Universal JDBC Driver Provider" (uses "{DB2UNIVERSAL\_JDBC\_DRIVER\_PATH}" class path variable)

All of the J2SE applications class paths were updated to use db2jcc4.jar.

#### **121399 Inbound Transaction page: Added received time to its default filter**

To provide performance improvements on the Inbound Transactions page, the following changes were made. The FTM user interface Inbound Transactions page now includes two criteria in its default filter:

- 'Business Date' equal to current business day
- 'Transmission Received' in the 'past five minutes'

This filter returns transactions that were received within the past five minutes of loading the page. The following screen capture shows how the new default filter appears in the user interface.

Build Filter

Match   Match case

**Rules**

|                       |        |          |                                  |                                  |                                  |
|-----------------------|--------|----------|----------------------------------|----------------------------------|----------------------------------|
| Business Date         | equals | 6/4/2021 | <input type="button" value="-"/> | <input type="button" value="+"/> |                                  |
| Transmission Received | past   | 5        | minutes                          | <input type="button" value="-"/> | <input type="button" value="+"/> |

Before this change, the Inbound Transactions default filter contained only business date and looked like the following screen capture.

Build Filter

Match   Match case

**Rules**

|               |        |          |                                  |                                  |
|---------------|--------|----------|----------------------------------|----------------------------------|
| Business Date | equals | 6/4/2021 | <input type="button" value="-"/> | <input type="button" value="+"/> |
|---------------|--------|----------|----------------------------------|----------------------------------|

### **Improved reliability of the Business Rules Server rules activation**

The Business Rules Server uses a database polling mechanism to load business rules upon activation by utilizing the ENVIRONMENT database table settings.

### **Improved security of communication between FTM components**

FTM communication between components is now more secure with TLS encryption.

IBM MQ and Db2 communications are running over TLS.

The J2EE, J2SE, and IBM App Connect Enterprise client applications connect over a TLS protocol.

The procedure to generate (if self-signed certificates) and configure TLS certificates used by all the FTM components is documented by FTM. The default CipherSuite/CipherSpec used by IBM MQ and all the clients is

SSL\_RSA\_WITH\_AES\_128\_CBC\_SHA256/TLS\_RSA\_WITH\_AES\_128\_CBC\_SHA256. This default can be customized during deployment with the Operator Instance YAML.

### **LPTA Keys by default**

No customization is required. LTPA keys are managed by the individual J2EE Liberty server instances. The default configuration is used and LTPA keys are created when the application pod starts.

### **Readiness and Liveness health check probes and prestop pod lifecycle event**

FTM comes with health check probes (readiness and liveness) and prestop pod lifecycle events implemented.

Readiness and liveness probes: During the rolling upgrades, the new version Pod gets created and when it becomes ready, then OpenShift deletes the old pod. OpenShift runs the Readiness probe to decide whether the pod is Ready or not. Unless the probe returns success, it does not mark the new Pod in ready state.

Liveness probes are run periodically, like the readiness probe. If liveness probe fails, OpenShift restarts the container.

Prestop pod lifecycle event: OpenShift allows adding the PreStop hook to be run inside the container before OpenShift deletes the container. This script is called by OpenShift before it deletes the container.

### **Allow customization of config files and server.xml files by using configMap**

FTM operator supports a ConfigMap-based approach to let user provide custom server.xml or other configuration files in addition to the persistent volume-based approach. Separate ConfigMaps are created for each FTM component, and the customer can place all the

customized files in those ConfigMaps. This method is useful for the customers who do not use persistent volumes (PV) or do not have easy access to the PVs from outside. This method is supported for JSE and Java EE components.