



# Nasdaq Calypso

## Reuters RFA Release Notes

Revision 57.0

April 2025

Approved

**This document describes functionality changes in the Reuters RFA module.**

▶ Please refer to the Calypso Reuters RFA Integration Guide for information on installing the Reuters RFA Interface.

## Document History

| Revision | Published      | Summary of Changes |
|----------|----------------|--------------------|
| 1.0      | April 2012     | Version 1.13.0     |
| 2.0      | April 2012     | Version 1.14.0     |
| 3.0      | July 2012      | Version 1.15.0     |
| 4.0      | November 2012  | Version 1.13.1     |
| 5.0      | May 2013       | Version 1.16.0     |
| 6.0      | May 2013       | Version 1.15.1     |
| 7.0      | May 2013       | Version 1.15.2     |
| 8.0      | May 2013       | Version 1.15.3     |
| 9.0      | June 2013      | Version 1.16.1     |
| 10.0     | June 2013      | Version 1.15.5     |
| 11.0     | September 2013 | Version 1.15.5     |
| 12.0     | December 2013  | Version 1.15.6     |
| 13.0     | February 2014  | Version 1.16.1.1   |
| 14.0     | March 2014     | Version 1.15.7     |
| 15.0     | March 2014     | Version 1.16.2     |
| 16.0     | June 2014      | Version 1.16.3     |
| 17.0     | February 2015  | Version 1.16.4     |

| Revision | Published      | Summary of Changes                                                    |
|----------|----------------|-----------------------------------------------------------------------|
| 18.0     | March 2015     | Version 1.17.1                                                        |
| 19.0     | April 2015     | Version 1.17.2                                                        |
| 20.0     | April 2015     | Version 1.18.0                                                        |
| 21.0     | May 2015       | Version 1.18.1                                                        |
| 22.0     | May 2015       | Version 2.0.0                                                         |
| 23.0     | August 2015    | Version 2.0.1                                                         |
| 24.0     | September 2015 | Version 2.0.2                                                         |
| 25.0     | October 2015   | Version 2.1.0                                                         |
| 26.0     | January 2016   | Version 2.1.1                                                         |
| 27.0     | February 2016  | Version 2.1.2                                                         |
| 28.0     | May 2016       | Version 2.3.0                                                         |
| 29.0     | April 2018     | Versions 2.13, 2.1.4, 5.1.0, 2.1.5, 2.0.3, 5.2.0, 5.2.1, 5.3.0, 5.3.2 |
| 30.0     | May 2018       | Version 5.3.4                                                         |
| 31.0     | September 2018 | Version 5.3.5                                                         |
| 32.0     | November 2018  | Version 5.4.0                                                         |
| 33.0     | November 2018  | Version 1.16.5                                                        |
| 34.0     | November 2018  | Version 5.4.1                                                         |
| 35.0     | April 2019     | Version 5.4.2                                                         |

| Revision | Published     | Summary of Changes                               |
|----------|---------------|--------------------------------------------------|
| 36.0     | July 2019     | Version 5.4.3                                    |
| 37.0     | November 2019 | Version 5.4.4                                    |
| 38.0     | November 2020 | Version 5.5.0                                    |
| 39.0     | February 2021 | Version 2.3.2                                    |
| 40.0     | July 2021     | Version 5.3.6                                    |
| 41.0     | June 2022     | Version 5.6.0, 6.1.0                             |
| 42.0     | July 2022     | Version 5.5.1, 5.7.0                             |
| 43.0     | October 2022  | Version 5.5.3                                    |
| 44.0     | November 2022 | Version 5.8.0, 6.2.0, 6.2.1                      |
| 45.0     | November 2023 | Version 6.3.0, 6.3.1                             |
| 46.0     | January 2024  | Version 7.1.0 - 7.1.9 – Version 18 compatibility |
| 47.0     | February 2024 | Version 6.4.0                                    |
| 48.0     | March 2024    | Version 6.4.1, 7.1.10                            |
| 49.0     | June 2024     | Version 6.5.0                                    |
| 50.0     | July 2024     | Version 6.6.0, 7.3.0                             |
| 51.0     | August 2024   | Version 6.7.0 – <i>Technical release only</i>    |
| 52.0     | October 2024  | Version 6.8.0, 7.4.0                             |
| 53.0     | November 2024 | Version 7.5.0                                    |

| Revision | Published     | Summary of Changes                            |
|----------|---------------|-----------------------------------------------|
| 54.0     | January 2025  | Version 6.9.0                                 |
| 55.0     | February 2025 | Version 6.10.0                                |
| 56.0     | March 2025    | Version 7.6.0 – <i>Technical release only</i> |
| 57.0     | April 2025    | Version 7.7.0                                 |

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## Dependency and Installation

- Calypso, version 11.x-16.x1
- Reuters Robust Foundation API (RFA) Library, Java Edition
  - Version 6.5.0 for Calypso 11.x
  - Version 7.2.0 for Calypso 12.x
  - Version 7.6.0 for Calypso 13.x and 14.x
  - Version 8.0.x and 8.1.x for Calypso 14.x - 16.x (Calypso Reuters RFA version 5.1.0 onwards), and 8.2.x for Calypso 16.1 (Calypso Reuters RFA version 5.5.0 onwards)

**Calypso-RFA module version 5.1.0 onwards only RFAJ version 8.0.x and above is supported.**

Please refer to the *Calypso Reuters RFA Integration Guide* for installation instructions.

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<sup>1</sup> The Open DACS functionality is supported by Calypso Reuters RFA Module installed on Calypso version 12 or later.

## Known Issues

Issue was reported (Subscription fails after Feed Window is closed once) when the module is used on Solaris, SASS3 connection, with native DACS is enabled (DACS entitlement configured in RFA configuration XML).

It is suggested that this is a limitation of the RFA library 7.2.0 and users should avoid such usage on RFA library 7.2.0 or upgrade to RFA library 7.6.0.

# Release Notes – Version 1 Suite

## 3.1 Changes in 1.13.0

- RFA-5 Getting NullPointerException while reading rates from REUTERS
- RFA-6 Reuters RFA Upgrade to 7.2
- RFA-8 Subscribing to Reuters GEN\_TEXT16 for Date throws an exception and delivers the wrong date result

## 3.2 Changes in 1.14.0

- RFA-5 Getting NullPointerException while reading rates from REUTERS
- RFA-6 Reuters RFA Upgrade to 7.2
- RFA-8 Subscribing to Reuters GEN\_TEXT16 for Date throws an exception and delivers the wrong date result

## 3.3 Changes in 1.15.0

- RFA-11 Reuters Market Data Feed - Support for Open DACS

## 3.4 Changes in 1.13.1

- RFA-14 Remove and reload node OpenDACSCConfig
- RFA-19 Item Name required for CBE check

## 3.5 Changes in 1.16.0

- RFA-22 RFA - Module - V14 Release

### **3.6 Changes in 1.16.1**

- RFA-28 Market data server does not listen to changes/additions of feed address mappings

### **3.7 Changes in 1.16.1.1**

- RFA-32 Update service API to use CalypsoServiceException instead of RemoteException
- RFA-35 Date field not updated in Reuters Feed
- RFA-37 ReutersOpenDACSEngine: Invalid feed address found when checking subscription

### **3.8 Changes in 1.16.2**

- RFA-44 Handle auto reconnect with DACS server
- RFA-48 Correctly propagate RFA subscription errors

### **3.9 Changes in 1.16.3**

- RFA-57 Reuters RFA Enhancements (May 2014)
- RFA-60 Add additional logging to investigate if MDS is connected to the Reuters and receiving real time feed

### **3.10 Changes in 1.16.4**

- RFA-74/HD118396 (Patch) RIC code mapping Issue in v11  
Incoming feed cannot be processed when price fields in Calypso Quotes is mapped to a String field in Reuters Market Data Feed (the Reuters field is carrying price data in String format).
- RFA-228 (Patch) Issue - Quotes from Reuters are altered and saved with epsilon in the system

### **3.11 Changes in 1.16.5**

- RFA-273 – (HD 169531) – Reuters Open DACS engine does not start in multitenancy environment. Changes made to handle retrieval of entitlement service in multi tenancy configuration.

### **3.12 Changes in 1.15.1**

- RFA-21 All third party software or build artifacts should be stored in Nexus rather than SVN

### **3.13 Changes in 1.15.2**

- RFA-14 Remove and reload node OpenDACSCConfig
- RFA-19 Item Name required for CBE check

### **3.14 Changes in 1.15.3**

- REL-7528 Changed POM file to replace references to Saturn by Nexus

### **3.15 Changes in 1.15.4**

- RFA-22 RFA - Module - V14 Release

### **3.16 Changes in 1.15.5**

- RFA-27 Market data server does not listen to changes/additions of feed address mappings
- RFA-34 Date field not updated in Reuters Feed

### **3.17 Changes in 1.15.6**

- RFA-38 ReutersOpenDACSEngine: Invalid feed address found when checking subscription

### **3.18 Changes in 1.15.7**

- RFA-44 Handle auto reconnect with DACS server
- RFA-48 Correctly propagate RFA subscription errors

### **3.19 Changes in 1.17.1**

- RFA-72 (Patch) Make the module more user friendly - Feed cannot be initialized

Add validation on Reuters RFA namespace and session name in Feed Configuration Window to make sure the values are valid with respect to the RFA configuration file.

Make error message more meaningful when feed cannot be initialized in Quote Window (because of wrong namespace or session name defined).

Include a sample RFA configuration file in release ZIP for reference.

- RFA-74 (Patch) RIC code mapping Issue in v11

Some RIC carries price information in the field CTB\_2A\_1LL in String format. The module now supports mapping CTB\_2A\_1LL (when it carries a price in String format) to Calypso Quote Price.

### **3.20 Changes in 1.17.2**

- HD118990/RFA-87 (Patch) DTS quotes blocked even if user is authorized

If the service does not supply a DACS lock with the market data item, then the system will allow the item to the user.

### 3.21 Changes in 1.18.0

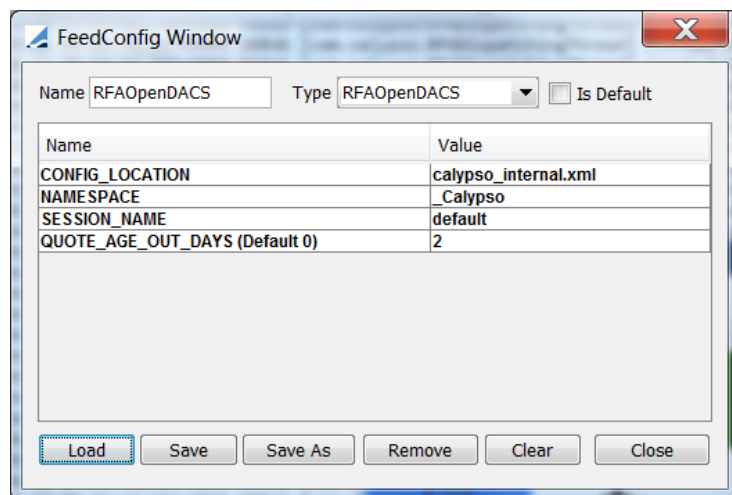
- HD120971/RFA-89 (Patch) Use the configured PrincipalIdentityBuilder for the Open DACS login  
If DACS user location is not defined in user attribute, it will be taken from principal identity, then local host IP.
- HD120976/RFA-90 (Patch) FeedWindow will only show quotes from IDN\_RDF service to users with more entitlements  
Add support on Subject Based Entitlement (SBE).
- RFA-96 (Patch) Move Open DACS Entitlement Service (Reuters Open DACS Engine) from Engine Server to Entitlement Server  
Adapt to infrastructure changes in Calypso version 14.3.

### 3.22 Changes in 1.18.1

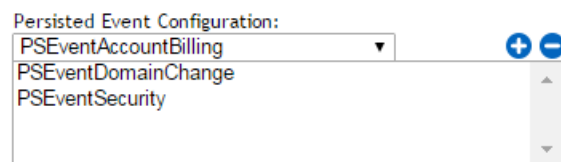
- HD121691/RFA-102 (Patch) Changing feed address does not take effect on Reuters Open DACS Engine before EngineServer restart (for Calypso 14.x or later only)  
Changes on feed address mapping will be reflected on Reuters Open DACS Engine without restarting the Engine.
- HD121874/RFA-103 (Patch) DACS permissions - No historic quotes visible and useable  
Allow the users to specify an age out day, so that quotes after the specific number of days will be available to all Calypso users without entitlement check.

### Configuration Changes

Before starting the Reuters Open DACS Engine, in the Feed Configuration Window, specify the QUOTE\_AGE\_OUT\_DAYS (a positive integer). Quotes saved at a time before current time minus QUOTE\_AGE\_OUT\_DAYS will be available to all Calypso users and do not require entitlement check.



(For Calypso 14.x or later only) The Reuters Open DACS Engine should listen to PSEventDomainChange as well.



## Release Notes – Version 2 Suite

### 4.1 Changes in 2.0.0

- RFA-96 (Patch) Move Open DACS Entitlement Service (Reuters Open DACS Engine) from Engine Server to Entitlement Server (for Calypso 14.3 or later only)

Reuters Open DACS Entitlement Service will be handled on Calypso Entitlement Server instead of on Reuters Open DACS Engine

### 4.2 Changes in 2.0.1

- RFA-108 Changing RIC allows access to non-entitled quotes

When the entitlement service performs check on saved quotes, the RIC saved along with the quotes will be submitted for checking. The RIC in feed address mapping is used when RIC in the saved quote is absent.

- RFA-110 Improper log message in Entitlement Server

Fix improper error log, which is shown when there are more than one feed defined under *EntitlementCheckFeed* domain value and the RFA Open DACS feed is not the first one in the list.

### 4.3 Changes in 2.0.2

- RFA-54 Freeze in Feed Server when two client threads access the same "HashMap feedAddresses"
- RFA-125 NullPointerException when creating new FeedAddress mapping

Fix the Null Pointer Exception issue in Reuters Open DACS Engine/Entitlement Server when a new Feed Address is added.

### 4.4 Changes in 2.0.3

- RFA-224 (Patch) DATE Mapping for SETTLEDATE for commodities not working correctly

#### **4.5 Changes in 2.1.0**

- RFA-116 Review Open DACS Performance
- RFA-118 Handling exceptions returned from RFAJ during subscription gracefully
- RFA-119 Review Service Bean - Data Server Clustering Project
- RFA-135 Reuters Open DACS login process blocks all users from login into OpenDACS and getting market data

#### **4.6 Changes in 2.1.1**

- RFA-156 (Patch) Fix Potential NPE in Reuters Open DACS Server when Feed Address Mapping is changed

#### **4.7 Changes in 2.1.2**

- RFA-164 (Patch) Fix potential security and memory issue in UserDefault cache

#### **4.8 Changes in 2.1.3**

- RFA-170 (Patch) Feed Window not showing entitlement status

#### **4.9 Changes in 2.1.4**

- RFA-185 (Patch) Fix the user login/logoff and entitlement check process in Open DACS Engine
- RFA-187 (Patch) Fix the Open DACS cache initialization issue

#### **4.10 Changes in 2.1.5**

- RFA-213 (Patch) Fix Reconnection Timer Issue in Entitlement Service
- RFA-217 (Patch) Guard against the NPE

#### 4.11 Changes in 2.3.0

- RFA-171 (Patch) Feed Window not showing entitlement status
- RFA-186 (Patch) Fix the user login/logoff and entitlement check process in Open DACS Engine
- RFA-173 (Patch) Add module-upgrade-[module\_name].mxml to support new executeSQL
- RFA-188 (Patch) Fix the Open DACS cache initialization issue

#### 4.12 Changes in 2.3.1, 2.3.2

| Component         | HelpDesk | Issue   | Type | Description                                                                                                                                                                                                                                                                                      |
|-------------------|----------|---------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 2.3.2 |          | RFA-192 | Enh  | Issue - Move schema files under core.                                                                                                                                                                                                                                                            |
| Reuters RFA 2.3.2 | 00006800 | RFA-315 | Enh  | <p>Issue – Zero quote values are not captured / saved.</p> <p>Fix – Added domain “ReutersRFA.DisableHintBlankValueCheck”. Add Value = true to disable HINT_BLANK_VALUE check in RFA application. It is false by default.</p> <p>When true, a 0 quote is stored as 0. Otherwise, it is empty.</p> |

# Release Notes – Version 5 Suite

## 5.1 Changes in 5.1.0

- RFA-209 (Patch) Enable OMM and Market Data Interface Processing (with RFAJ 8.0.x)

## 5.2 Changes in 5.2.0

- RFA-215 (Patch) Fix Reconnection Timer Issue in Entitlement Service
- RFA-219 (Patch) Guard against the NPE

## 5.3 Changes in 5.2.1

- RFA-240 (Patch) Cannot load feed data for ReutersRFA without setting up RFAOpenDACS feed

## 5.4 Changes in 5.3.0

- RFA-240 (Patch) Cannot load feed data for ReutersRFA without setting up RFAOpenDACS feed
- RFA-228 (Patch) Issue - Quotes from Reuters are altered and saved with epsilon in the system
- RFA-237 (Patch) Supporting rfa.jar 8.1 on Calypso version 14.0.0.22.SP2  
Reuters RFA module is compatible with RFAJ 8.1.x
- RFA-242 (Patch) RFA interface - support for connection via proxy  
HTTP/HTTPS proxy support added for Reuters RFA. Refer integration guide for configuration details.

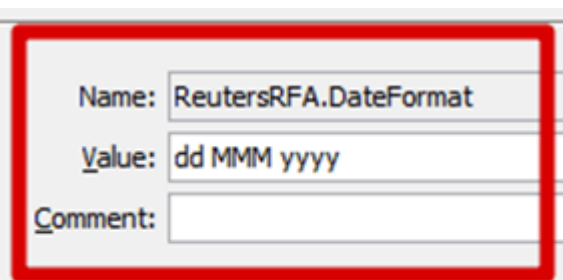
## 5.5 Changes in 5.3.2

- RFA-246 (Patch) Cannot subscribe to Reuters RFA using calypso-reuters-rfa-5.2.1

## 5.6 Changes in 5.3.4

- RFA-258 (HD 162109) – Add support for US Bond price format.
- Format 1/256 is now converted to decimal representation.
- RFA-255 (HD 162050) – Date format not supported when subscribing to market data from Reuters TREP-RT.

The date format must be specified in the domain “ReutersRFA.DateFormat”:



|          |                       |
|----------|-----------------------|
| Name:    | ReutersRFA.DateFormat |
| Value:   | dd MMM yyyy           |
| Comment: |                       |

## 5.7 Changes in 5.3.5

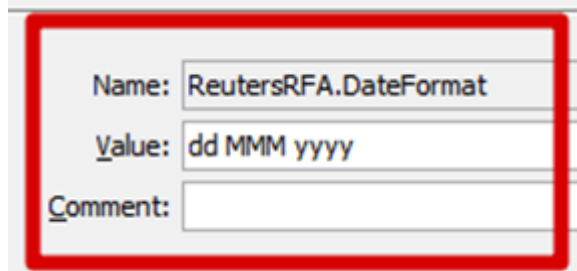
- RFA-266 – (HD 166643, HD 168194, HD 174408) - Logs show NPE during logout request from scheduled task SAVE\_QUOTES, Feed window.

## 5.8 Changes in 5.3.6

| Component            | HD/Case                      | RPM | Issue   | Type  | Description                                                                                                                                                                                             |
|----------------------|------------------------------|-----|---------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA<br>5.3.6 | 186087<br>186662<br>00009146 |     | RFA-322 | Issue | Issue - Quote date is set to previous business day due to DATE field not properly managed.<br><br>Fix - Corrected Reuters RFA behavior to set quote date from quote feed in case of Market Data Server. |

## 5.9 Changes in 5.4.0

- RFA-265 - (HD 166643, HD 168194, HD 174408) - Logs show NPE during logout request from scheduled task SAVE\_QUOTES, Feed window.
- RFA-257 - (HD 162109) - Add support for US Bond price format.  
Format 1/256 is now converted to decimal representation.
- RFA-254 - (HD 162050) - Date format not supported when subscribing to market data from Reuters TREP-RT.  
The date format must be specified in the domain "ReutersRFA.DateFormat":



|          |                       |
|----------|-----------------------|
| Name:    | ReutersRFA.DateFormat |
| Value:   | dd MMM yyyy           |
| Comment: |                       |

- RFA-247 - (HD 160299, HD 162074) - Cannot subscribe to Reuters RFA using calypso-reuters-rfa-5.2.1.

## 5.10 Changes in 5.4.1

- RFA-278 - (HD 170749) - Quotes from Reuters with exponential values are saved as 0 in Calypso.
- RFA-274 - (HD 169531) - Reuters Open DACS engine does not start in multitenancy environment.  
Changes made to handle retrieval of entitlement service in multi tenancy configuration.

## 5.11 Changes in 5.4.2

- RFA-283 - (HD 176536) - ReutersOpenDACSEngine does not work when started as a startup engine.  
Using direct ReutersOpenDACSEntitlement object instead of getting service from engine context.

## 5.12 Changes in 5.4.3

- RFA-290 – (HD 180371) - RFAOpenDACSFeedHandler fails when connecting to DACS server.  
Changes made to handle connection to Reuters DACS server when multiple connections are made simultaneously.
- RFA-287 – (HD 176941) - Entitlement Check: NPE with Reuters DACS.

## 5.13 Changes in 5.4.4

| Version | Component   | HelpDesk         | Issue   | Type  | Description                                                                                                                                                                                             |
|---------|-------------|------------------|---------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.4.4   | Reuters RFA | 186087<br>186662 | RFA-298 | Issue | Issue - Quote date is set to previous business day due to DATE field not properly managed.<br><br>Fix - Corrected Reuters RFA behavior to set quote date from quote feed in case of Market Data Server. |

## 5.14 Changes in 5.5.0

| Component         | HelpDesk                     | Issue   | Type  | Description                                                                                                                                                                                             |
|-------------------|------------------------------|---------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 5.5.0 |                              | RFA-309 | Enh   | Issue - Upgrade javassist library to version 3.24.0.                                                                                                                                                    |
| Reuters RFA 5.5.0 | 186087<br>186662<br>00009146 | RFA-297 | Issue | Issue - Quote date is set to previous business day due to DATE field not properly managed.<br><br>Fix - Corrected Reuters RFA behavior to set quote date from quote feed in case of Market Data Server. |

## 5.15 Changes in 5.5.1

| Component         | HelpDesk             | Issue   | Type  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|----------------------|---------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 5.5.1 | 00028951<br>00032133 | RFA-350 | Issue | <p>Issue - Multiple Connections to RFA using LPC causing issues.</p> <p>Fix – Added ability to use multiple RFA configs. You can use the feed attribute PARENT_FEED_NAME to define multiple feed configs that all point to the same feed address mapping.</p> <p>When PARENT_FEED_NAME is set on a feed config, the feed config uses the feed address mappings and quotes of the parent feed config.</p> <p>Note that when PARENT_FEED_NAME is set, the child feed config only uses the feed address mappings and quotes of the parent feed config. It does not use any feed address mapping or quote specified at the child level if any.</p> <p>Example: FeedConfig1 has feed address mappings and quotes.</p> <p>On FeedConfig2, PARENT_FEED_NAME = FeedConfig1 – When using FeedConfig2, it uses feed address mappings and quotes of FeedConfig1.</p> <p>The environment property RFA_FEED_SUBSCRIPTION_TIMEOUT has also been added for the Feed window. It allows specifying a timeout in milliseconds after which the feed is unsubscribed and no longer provides quotes. This allows releasing the connection to the feed.</p> |

## 5.16 Changes in 5.5.3

| Component         | Introduced In | Capability Group | Capability        | Asset Class | HelpDesk | RPM      | Issue   | Type | Description                                                                           |
|-------------------|---------------|------------------|-------------------|-------------|----------|----------|---------|------|---------------------------------------------------------------------------------------|
| Reuters RFA 5.5.3 |               | Cross Functional | System Operations | IRD         | 00029664 | RPM-9419 | RFA-360 | Enh  | Issue - Reuters Multi Quote Feed Mapping does not create proper quote value mappings. |

| Component | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM                   | Issue | Type | Description                                                              |
|-----------|---------------|------------------|------------|-------------|----------|-----------------------|-------|------|--------------------------------------------------------------------------|
|           |               |                  |            |             |          | RPM-10023<br>RPM-9402 |       |      | Fix – Added support for Multiple Fallback Quote Mappings for ReutersRFA. |

## 5.17 Changes in 5.6.0

| Component         | HelpDesk | RPM      | Issue   | Type | Description                                                                                                                                                                                                                                  |
|-------------------|----------|----------|---------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 5.6.0 |          | RPM-4573 | RFA-319 | Enh  | Issue – Update RFA library to v8.2.0 and make necessary changes<br><br>Fix – Added new version of library 8.2.0 for the OMM interface. There are no new features added in this release except for the Namespace and Name rebranding changes. |
| Reuters RFA 5.6.0 |          |          | RFA-339 | Enh  | Issue – Update calypso_internal.xml in RFA                                                                                                                                                                                                   |
| Reuters RFA 5.6.0 |          |          | RFA-332 | Enh  | Issue – e.printStackTrace() needs to be removed                                                                                                                                                                                              |

## 5.18 Changes in 5.7.0

| Component         | HelpDesk | RPM                               | Issue   | Type | Description                                                                                                                                                                                                                                                |
|-------------------|----------|-----------------------------------|---------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 5.7.0 |          | RPM-9419<br>RPM-10023<br>RPM-9402 | RFA-352 | Enh  | Issue - Feed Address Window - Add ability to load multiple quotes for a given feed address.<br><br>Fix - Added Range field to Feed Address Window. When checked, you can enter the From and To numbers representing the number of quotes you want to load. |

| Component | HelpDesk | RPM | Issue | Type | Description                                                                                                                                                                                                  |
|-----------|----------|-----|-------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |          |     |       |      | <p>For example, if Bid = PRIMACT_1 and Range is From 1 To 5, the quotes PRIMACT_1, PRIMACT_2, PRIMACT_3, PRIMACT_4, PRIMACT_5 are loaded.</p> <p>This field only applies to the ReutersFRA feed handler.</p> |

## 5.19 Changes in 5.8.0

| Component         | Introduced In | Capability Group | Capability              | Asset Class | HelpDesk             | RPM | Issue   | Type  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|---------------|------------------|-------------------------|-------------|----------------------|-----|---------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 5.8.0 |               | Integration      | Market Data Integration | Cross       | 00028951<br>00032133 |     | RFA-348 | Issue | <p>Issue - Multiple Connections to RFA using LPC causing issues.</p> <p>Fix – Added ability to use multiple RFA configs. You can use the feed attribute PARENT_FEED_NAME to define multiple feed configs that all point to the same feed address mapping.</p> <p>When PARENT_FEED_NAME is set on a feed config, the feed config uses the feed address mappings and quotes of the parent feed config.</p> <p>Note that when PARENT_FEED_NAME is set, the child feed config only uses the feed address mappings and quotes of the parent feed config. It does not use any feed address mapping or quote specified at the child level if any.</p> <p>Example: FeedConfig1 has feed address mappings and quotes.</p> |

| Component         | Introduced In | Capability Group | Capability        | Asset Class | HelpDesk | RPM                               | Issue   | Type | Description                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------|---------------|------------------|-------------------|-------------|----------|-----------------------------------|---------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |               |                  |                   |             |          |                                   |         |      | <p>On FeedConfig2, PARENT_FEED_NAME = FeedConfig1 – When using FeedConfig2, it uses feed address mappings and quotes of FeedConfig1.</p> <p>The environment property RFA_FEED_SUBSCRIPTION_TIMEOUT has also been added for the Feed window. It allows specifying a timeout in milliseconds after which the feed is unsubscribed and no longer provides quotes. This allows releasing the connection to the feed.</p> |
| Reuters RFA 5.8.0 |               | Cross Functional | System Operations | IRD         | 00029664 | RPM-9419<br>RPM-10023<br>RPM-9402 | RFA-362 | Enh  | <p>Issue – Reuters Multi Quote Feed Mapping does not create proper quote value mappings.</p> <p>Fix – Added support for Multiple Fallback Quote Mappings for ReutersRFA.</p>                                                                                                                                                                                                                                         |

## Release Notes – Version 6 Suite

### 6.1 Changes in 6.1.0

| Component         | HelpDesk | RPM      | Issue   | Type | Description                                                                                                                                                                                                                                                                                                          |
|-------------------|----------|----------|---------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 6.1.0 |          | RPM-9402 | RFA-342 | Enh  | Issue – Enhanced Reuters Feed Handler to Support Multiple Feed Mapping for a Quote Address.<br><br>Fix – Enhanced the Reuters RFA Feed Handler to read the new "Range" flag from the Quote Feed Address Mapping config and create multiple subscriptions by appending the index for each Bid/Ask/Close/Date mapping. |
| Reuters RFA 6.1.0 |          |          | RFA-340 | Enh  | Issue – Update calypso_internal.xml in RFA                                                                                                                                                                                                                                                                           |
| Reuters RFA 6.1.0 |          |          | RFA-334 | Enh  | Issue – e.printStackTrace() needs to be removed                                                                                                                                                                                                                                                                      |

### 6.2 Changes in 6.2.0

| Component         | Introduced In | Capability Group | Capability              | Asset Class | HelpDesk             | RPM | Issue   | Type  | Description                                                                                                                                                                                                                                            |
|-------------------|---------------|------------------|-------------------------|-------------|----------------------|-----|---------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 6.2.0 |               | Integration      | Market Data Integration | Cross       | 00028951<br>00032133 |     | RFA-349 | Issue | Issue - Multiple Connections to RFA using LPC causing issues.<br><br>Fix – Added ability to use multiple RFA configs. You can use the feed attribute PARENT_FEED_NAME to define multiple feed configs that all point to the same feed address mapping. |

| Component | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM | Issue | Type | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|---------------|------------------|------------|-------------|----------|-----|-------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |               |                  |            |             |          |     |       |      | <p>When PARENT_FEED_NAME is set on a feed config, the feed config uses the feed address mappings and quotes of the parent feed config.</p> <p>Note that when PARENT_FEED_NAME is set, the child feed config only uses the feed address mappings and quotes of the parent feed config. It does not use any feed address mapping or quote specified at the child level if any.</p> <p>Example: FeedConfig1 has feed address mappings and quotes.</p> <p>On FeedConfig2, PARENT_FEED_NAME = FeedConfig1 – When using FeedConfig2, it uses feed address mappings and quotes of FeedConfig1.</p> <p>The environment property RFA_FEED_SUBSCRIPTION_TIMEOUT has also been added for the Feed window. It allows specifying a timeout in milliseconds after which the feed is unsubscribed and no longer provides quotes. This allows releasing the connection to the feed.</p> |

### 6.3 Changes in 6.2.1

| Component         | Introduced In | Capability Group | Capability        | Asset Class | HelpDesk | RPM                               | Issue   | Type | Description                                                                                                                                                           |
|-------------------|---------------|------------------|-------------------|-------------|----------|-----------------------------------|---------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 6.2.1 |               | Cross Functional | System Operations | IRD         | 00029664 | RPM-9419<br>RPM-10023<br>RPM-9402 | RFA-359 | Enh  | Issue – Reuters Multi Quote Feed Mapping does not create proper quote value mappings.<br><br>Fix – Added support for Multiple Fallback Quote Mappings for ReutersRFA. |

### 6.4 Changes in 6.3.0, 6.3.1

| Component         | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM                                | Issue   | Type | Description                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|---------------|------------------|------------|-------------|----------|------------------------------------|---------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 6.3.1 |               |                  |            |             |          | APL-3921,<br>APL-4001,<br>APL-7263 | RFA-376 | Enh  | Issue – Added support for EMA library in RFA module.<br><br>Fix – Added support for Refinitiv API for getting market data using web service-based API. This provides a way for the application to directly connect to Refinitiv without the need of the intermediary device (TREP)<br><br>Also implemente support for CIAM (Client Identity Access Management) authentication and Open DACS entitlement check. |

## 6.5 Changes in 6.4.0

| Component         | Introduced In | Capability Group | Capability              | Asset Class | HelpDesk | RPM | Issue   | Type | Description                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------|---------------|------------------|-------------------------|-------------|----------|-----|---------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 6.4.0 |               | Integration      | Market Data Integration | Cross       | 00101202 |     | RFA-385 | Enh  | <p>Issue - Added following libraries in module distribution:</p> <p>"com.refinitiv.ema:ema:3.7.0.0"</p> <p>"com.refinitiv.eta:eta:3.7.0.0"</p> <p>"com.refinitiv.eta.json.converter:etaJsonConverter:3.7.0.0"</p> <p>"com.refinitiv.eta.valueadd:etaValueAdd:3.7.0.0"</p> <p>Fix - Added calypso_internal.xml and calypso_ema_config.xml to resources folder of rfa module distribution.</p> |

## 6.6 Changes in 6.4.1

| Component         | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM | Issue   | Type  | Description                                                                                                                                                                                     |
|-------------------|---------------|------------------|------------|-------------|----------|-----|---------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 6.4.1 | 17.0.MR.Nov23 |                  |            |             |          |     | RFA-412 | Issue | <p>Issue - RIC invalid issue popup shown in case of range enabled checkbox for RFA and EMA.</p> <p>Impact analysis - Fixed RIC invalid quote popup coming in case of Range for EMA and RFA.</p> |

## 6.7 Changes in 6.5.0

| Component         | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM                  | Issue   | Type | Description                                                                                                                                    |
|-------------------|---------------|------------------|------------|-------------|----------|----------------------|---------|------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 6.5.0 |               |                  |            |             |          | APL-9961<br>APL-9977 | RFA-420 | Sec  | Issue - Upgrade third-party libraries *org.bitbucket.b_c:jose4j-0.9.1 to 0.9.6 and org.apache.commons:commons-configuration2 2.8.0 to 2.10.1*. |

## 6.8 Changes in 6.6.0

| Component         | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM                    | Issue   | Type | Description                                                                                                                                                                                                                                                   |
|-------------------|---------------|------------------|------------|-------------|----------|------------------------|---------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 6.6.0 |               |                  |            |             |          | APL-10503<br>APL-10494 | RFA-439 | Enh  | Issue – Added support to specifying region for EMA in calypso user properties.<br><br>Fix - If calypso.logging.ema-logging-level = trace property is provided, the application should dynamically update the calypso_ema_config.xml specified in feed config. |

## 6.9 Changes in 6.8.0

| Component         | Introduced In | Capability Group | Capability              | Asset Class | HelpDesk | RPM | Issue   | Type  | Description                                                                                                                                                                            |
|-------------------|---------------|------------------|-------------------------|-------------|----------|-----|---------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 6.8.0 |               | Integration      | Market Data Integration | Cross       | 00127700 |     | RFA-455 | Issue | Issue - Can't subscribe to EMA.<br>Impact Analyiss - Added ActiveSession enhancement support to check for EMA before subscription.                                                     |
| Reuters RFA 6.8.0 |               | Integration      | Market Data Integration | Cross       | 00131336 |     | RFA-459 | Issue | Issue - Market Data Manager window should automatically reconnect to EMA Feed and restore broken connection.<br>Impact Analysis - Bug fixed for default value for retryCount property. |
| Reuters RFA 6.8.0 |               |                  |                         |             |          |     | RFA-467 | Sec   | Issue - Security: Upgrade third-party library<br>spring from 5.3.34 to 5.3.37<br>commons-io from 2.11.0 to 2.16.1                                                                      |

## 6.10 Changes in 6.9.0

| Component         | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM       | Issue   | Type | Description                                                                              |
|-------------------|---------------|------------------|------------|-------------|----------|-----------|---------|------|------------------------------------------------------------------------------------------|
| Reuters RFA 6.9.0 |               |                  |            |             |          | APL-11565 | RFA-464 | Enh  | Issue - Exception Tasks to be created for EMA Errors.<br>Fix - Enhanced logging for EMA. |

**6.11      Changes in 6.10.0**

| Component          | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM       | Issue   | Type | Description                                                                 |
|--------------------|---------------|------------------|------------|-------------|----------|-----------|---------|------|-----------------------------------------------------------------------------|
| Reuters RFA 6.10.0 |               |                  |            |             |          | APL-12883 | RFA-477 | Sec  | Issue – Security: Upgraded third-party library for xstream 1.4.20 to 1.4.21 |

## Release Notes – Version 7 Suite

### 7.1 Changes in 7.1.9

| Component         | HelpDesk | RPM | Issue   | Type  | Description                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|----------|-----|---------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 7.1.9 |          |     | RFA-386 | Issue | Issue - Added following libraries in module distribution:<br>"com.refinitiv.ema:ema:3.7.0.0"<br>"com.refinitiv.eta:eta:3.7.0.0"<br>"com.refinitiv.eta.json.converter:etaJsonConverter:3.7.0.0"<br>"com.refinitiv.eta.valueadd:etaValueAdd:3.7.0.0"<br>Fix - Added calypso_internal.xml and calypso_ema_config.xml to resources folder of rfa module distribution. |
| Reuters RFA 7.1.9 |          |     | RFA-390 | Issue | Issue - When running SAVE_QUOTES scheduled task for EMA feed, it is unable to find the calypso_ema_config.xml in Cloud environment.<br>Impact analysis - Added ema config file at the backend.                                                                                                                                                                    |
| Reuters RFA 7.1.9 |          |     | RFA-395 | Issue | Issue - Added Proxy support for EMA.<br>Impact analysis - Proxy details can be specified via following calypso user properties :<br>HTTP_PROXY_HOST<br>HTTP_PROXY_PORT<br>HTTP_PROXY_USER<br>HTTP_PROXY_PASSWORD                                                                                                                                                  |
| Reuters RFA 7.1.9 |          |     | RFA-397 | Issue | Issue - Added missing fallback rates support for EMA feed type.                                                                                                                                                                                                                                                                                                   |

## 7.2 Changes in 7.1.10

| Component          | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM | Issue   | Type  | Description                                                                                                                                                                              |
|--------------------|---------------|------------------|------------|-------------|----------|-----|---------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 7.1.10 | 17.0.MR.Nov23 |                  |            |             |          |     | RFA-413 | Issue | Issue - RIC invalid issue popup shown in case of range enabled checkbox for RFA and EMA.<br><br>Impact analysis - Fixed RIC invalid quote popup coming in case of Range for EMA and RFA. |

## 7.3 Changes in 7.3.0

| Component         | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM                    | Issue   | Type | Description                                                                                                                                                                                                                                                   |
|-------------------|---------------|------------------|------------|-------------|----------|------------------------|---------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 7.3.0 |               |                  |            |             |          | APL-10503<br>APL-10494 | RFA-434 | Enh  | Issue – Added support to specifying region for EMA in calypso user properties.<br><br>Fix - If calypso.logging.ema-logging-level = trace property is provided, the application should dynamically update the calypso_ema_config.xml specified in feed config. |

## 7.4 Changes in 7.4.0

| Component         | Introduced In | Capability Group | Capability              | Asset Class | HelpDesk | RPM | Issue   | Type  | Description                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|---------------|------------------|-------------------------|-------------|----------|-----|---------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 7.4.0 |               | Integration      | Market Data Integration | Cross       | 00127700 |     | RFA-456 | Issue | Issue - Can't subscribe to EMA.<br>Impact Analyiss - Added ActiveSession enhancement support to check for EMA before subscription.                                                                                                                                                                                                                                               |
| Reuters RFA 7.4.0 |               | Integration      | Market Data Integration | Cross       | 00131336 |     | RFA-460 | Issue | Issue - Market Data Manager window should automatically reconnect to EMA Feed and restore broken connection.<br>Impact Analysis - Bug fixed for default value for retryCount property.                                                                                                                                                                                           |
| Reuters RFA 7.4.0 |               |                  |                         |             |          |     | RFA-463 | Sec   | Issue - Security: Upgraded the following third-party libraries:<br>spring: 6.1.6 to 6.1.11<br>json from 20231013 to 20240303<br>springboot-*: 3.2.2 to 3.3.1<br>spring-cloud-dependencies from 2023.0.0 to 2023.0.3<br>tomcat-embed-*:10.1.23 to 10.1.26<br>spring-security from 6.2.2 to 6.3.1<br>spring-security-kberos-client: 2.0.0 to 2.1.1<br>commons-io: 2.15.1 to 2.16.1 |

## 7.5 Changes in 7.5.0

| Component         | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM       | Issue   | Type | Description                                                                              |
|-------------------|---------------|------------------|------------|-------------|----------|-----------|---------|------|------------------------------------------------------------------------------------------|
| Reuters RFA 7.5.0 |               |                  |            |             |          | APL-11565 | RFA-473 | Enh  | Issue - Exception Tasks to be created for EMA Errors.<br>Fix - Enhanced logging for EMA. |

## 7.6 Changes in 7.7.0

| Component         | Introduced In | Capability Group | Capability | Asset Class | HelpDesk | RPM       | Issue   | Type | Description                                                                                                               |
|-------------------|---------------|------------------|------------|-------------|----------|-----------|---------|------|---------------------------------------------------------------------------------------------------------------------------|
| Reuters RFA 7.7.0 |               |                  |            |             |          | APL-13635 | RFA-483 | Sec  | Issue – Security - The following third-party library has been upgraded:<br>org.springframework:spring-* to version 6.1.16 |