## Operations Center 5.7 Release Notes

December 2016



#### Legal Notice

For information about NetIQ legal notices, disclaimers, warranties, export and other use restrictions, U.S. Government restricted rights, patent policy, and FIPS compliance, see https://www.netiq.com/company/legal/.

Copyright (C) 2016 NetIQ Corporation. All rights reserved.

## Contents

	About This Guide		
1	Abo	ut Operations Center	7
	1.1 1.2 1.3	Product Overview	. 8
2	Wha	t's New	9
	2.1	Supported Operating Systems, Databases, and Client Platforms	. 9
	2.2	New Management System & Discovery Tool Integrations	. 9
	2.3	Security Management Enhancements	. 9
		2.3.1 Key Manager Utility	10
		2.3.2 SSL Certificates Support Aliases and Wildcards	
	2.4	Service Configuration Manager Enhancements.	10
		2.4.1 Do Not Include Links to Source Elements When Creating Service Configuration	
		Definitions	
	2.5	2.4.2 Improvements to Managing Multiple Definitions	
	2.5	2.5.1 Enable or Disable Time Interval and Calendar Options at Administrative Level	
		2.5.2 Support for Latest Liferay and Tomcat Versions	
		2.5.3 Database Migration Tool	
	2.6	Adapter Enhancements	
		2.6.1 Automatic Prompt to Create Adapter	11
		2.6.2 Discover QDBs for AppManager Adapter	
		2.6.3 Server-side Alarm Filters for AppManager Control Center	
		2.6.4       Right-click Option to add Agents to AppManager Elements         2.6.5       Add Custom Fields to AppManager Alarms	
		2.6.5 Add Custom Fields to AppManager Alarms	12
3	Tech	nnical Considerations 1	13
	3.1	Installing and Patching Operations Center.	13
		3.1.1 Installing Operations Center	13
		3.1.2 Patches for v5.6	
	3.2	Technical Considerations in Operations Center v5.7	
	3.3	Technical Considerations in Operations Center v5.6	16
		3.3.1 Dashboard Considerations	16
4	Disc	ontinued Support 1	17
	4.1	Dashboard Chart Builder Portlet Discontinuation Announcement	17
	4.2	Dashboard Performance Portlet Discontinuation Announcement	
	4.3	Java Runtime Environment (JRE) Discontinuation Announcement	
	4.4	Spectrum 8 Adapter Discontinuation Announcement.	
	4.5	Discontinued Product Components	
		4.5.1 Discontinued in Operations Center 5.0, March 2014 Patch Release	
		4.5.2 Discontinued in Operations Center 5.0	
	4.6	Retired Adapters	
	4.7	Software Signing Certificates	19

5 Enhancements and Resolved Issues

## **About This Guide**

The *Release Notes* provides specific information about the latest Operations Center release including a look at new currency and features, technical considerations, what's no longer supported and a listing of enhancements and resolved issues.

- Chapter 1, "About Operations Center," on page 7
- Chapter 2, "What's New," on page 9
- Chapter 3, "Technical Considerations," on page 13
- Chapter 4, "Discontinued Support," on page 17
- Chapter 5, "Enhancements and Resolved Issues," on page 21

#### Audience

This guide is intended for Operations Center system administrators and installers.

#### Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the **User Comments** feature at the bottom of each page of the online documentation.

#### **Additional Documentation & Documentation Updates**

This guide is part of the Operations Center documentation set. For the most recent version of the *Release Notes* and a complete list of publications supporting Operations Center, see the Operations Center 5.7 Documentation page.

The Operations Center documentation set is also available as PDF files on the installation CD or ISO; and is delivered as part of the online help accessible from multiple locations in Operations Center depending on the product component.

Next, you may wish to refer to:

- Operations Center Getting Started Guide
- Operations Center Server Installation Guide
- Operations Center User Guide
- Operations Center Server Configuration Guide

#### **Additional Resources**

We encourage you to use the following additional resources on the Web:

NetIQ User Community (https://www.netiq.com/communities/): A Web-based community with a variety of discussion topics.

- NetIQ Support Knowledgebase (https://www.netiq.com/support/kb/ ?product%5B%5D=Operations\_Center): A collection of in-depth technical articles.
- NetIQ Support Forums (https://forums.netiq.com/forumdisplay.php?26-Operations-Center): A Web location where product users can discuss NetIQ product functionality and advice with other product users.

#### **Technical Support**

You can learn more about the policies and procedures of NetIQ Technical Support by accessing its Technical Support Guide (https://www.netiq.com/Support/process.asp#\_Maintenance\_Programs\_and).

Use these resources for support specific to Operations Center:

- Telephone in Canada and the United States: 1-800-858-4000
- Telephone outside the United States: 1-801-861-4000
- E-mail: support@netiq.com (support@netiq.com)
- Submit a Service Request: http://support.novell.com/contact/ (http://support.novell.com/contact/)

#### **Documentation Conventions**

A greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path. The > symbol is also used to connect consecutive links in an element tree structure where you can either click a plus symbol (+) or double-click the elements to expand them.

When a single pathname can be written with a backslash for some platforms or a forward slash for other platforms, the pathname is presented with a forward slash to preserve case considerations in the UNIX\* or Linux\* operating systems.

A trademark symbol (®, ™, etc.) denotes a NetIQ trademark. An asterisk (\*) denotes a third-party trademark.

## **About Operations Center**

NetIQ Operations Center provides a platform that integrates information captured by multiple management system to provide a single view of the technology environment.

The following sections provide more information about Operations Center components, and information about product documentation and support:

- Section 1.1, "Product Overview," on page 7
- Section 1.2, "About Operations Center Documentation," on page 8
- Section 1.3, "Contacting Technical Support," on page 8

### 1.1 **Product Overview**

To integrate information and make it meaningful for your business, Operations Center provides the following tools:

- Service Level Manager (SLM): measures service levels and agreement health and compliance, both in real time and historically.
- Service Configuration Manager (SCM): enables you to create service models for managing and monitoring your entire service cycle.

In addition to the Operations Center console, the following Web clients/interfaces are available:

- Dashboard: a Web portal that allows users to receive custom content from Operations Center as well as other sources.
- Configuration Management System (CMS): a Web application that combines Web 2.0 and structured social networking principles to build and maintain CMDB projects.

To integrate Operations Center with other third-party applications and to expand its reporting capabilities, Operations Center provides the following:

- **SQL Views:** provides functionality in Operations Center that allows for third-party applications to have read access to Operations Center data for reporting purposes.
- Operations Center Web Services Application Programmer Interface: an integration point for customer or third-party applications to interact with data warehoused in the Operations Center server for query, insert, update, and delete functions.
- Web 2.0 Connect: a tool for developers of Rich Internet Applications to access and utilize Operations Center resources (data and/or functions) in their applications.

To gather technology and information, Operations Center uses adapters that connect to and communicate with third-party management systems. In addition, Operations Center provides the following management applications for data collection:

- Data Integrator: mines data such as business metrics and service configuration items (CI) and change data from databases; including service CIs, sales totals, help desk metrics, and analytics from business intelligence tools.
- Experience Manager: proactively monitors Web site and application availability in real time, from the user perspective.

- Event Manager: gathers and processes line-oriented ASCII (American Standard Code for Information Interchange) data, sometimes referred to as "raw events," which are alarms or informational messages that can originate from many different sources.
- **F/X adapter:** provides the capability to distribute file and XML-based data collection, parsing, processing, and alarm generation using F/X Monitors into multiple Operations Center servers.
- **Guard adapter:** a special purpose adapter developed to meet the need for secure exchange of infrastructure and service management information between networks within Multi-Level Security environments.
- SNMP adapter: allows you to poll, gather, and view data available on your SNMP agents.

## **1.2 About Operations Center Documentation**

The release notes briefly describe:

- New and enhanced functionality for Operations Center
- Discontinued support for third-party software and previous Operations Center versions and features
- Technical considerations, particularly for upgrading from previous versions
- A list of resolved issues by Unity/Bugzilla ID number

**NOTE:** Beginning with v5, the product name has changed from Managed Objects to Operations Center. All documents in this version refer to the Operations Center v5 product. However, in this document and others, references to specific v4 releases refer to the Managed Objects product name.

Additional Operations Center documentation is available on the Operations Center server in the html/docs directory. Refer to this documentation for more information about installation, configuration, and product features.

- If you are new to Operations Center and just getting started, for an overview of functionality, tools, and an introduction to planning your installation, see the *Operations Center Getting Started Guide*.
- For information regarding supported versions of third-party management systems, databases, and other software relevant to Operations Center, see the *Operations Center Getting Started Guide*.

## 1.3 Contacting Technical Support

Access our award winning support Web site (https://www.netiq.com/support/) for a number of selfhelp resources and to register and check on service requests. For high severity issues, we recommend you call Technical Support directly. Visit the Submit a Service Request Web page (https:/ /www.netiq.com/ContactsOffices/contacts\_offices.jsp) to find the phone numbers for your region. You can open a service request on the Submit a Service Request Web page (https://www.netiq.com/ support/eServiceCreateSR.asp).

# **2** What's New

Operations Center v5.7 contains the functionality and enhancements described in the following topics:

- Section 2.1, "Supported Operating Systems, Databases, and Client Platforms," on page 9
- Section 2.2, "New Management System & Discovery Tool Integrations," on page 9
- Section 2.3, "Security Management Enhancements," on page 9
- Section 2.4, "Service Configuration Manager Enhancements," on page 10
- Section 2.5, "Dashboard Enhancements," on page 11
- Section 2.6, "Adapter Enhancements," on page 11

# 2.1 Supported Operating Systems, Databases, and Client Platforms

Operations Center officially supports the following operating systems:

- Microsoft Windows Server 2012
- RedHat Enterprise Linux 6.6
- Sybase ASE 15.7
- Google Chrome

For information about other requirements, see the Operations Center Getting Started Guide.

## 2.2 New Management System & Discovery Tool Integrations

Operations Center officially integrates to the following discovery tools and management systems:

- Computer Associates (CA) Spectrum 10
- NetIQ AppManager 9.1
- SolarWinds Orion 10.7

## 2.3 Security Management Enhancements

Operations Center 5.7 provides the following enhancements to security management:

- Section 2.3.1, "Key Manager Utility," on page 10
- Section 2.3.2, "SSL Certificates Support Aliases and Wildcards," on page 10

## 2.3.1 Key Manager Utility

The Operations Center Configuration Manager and the dashboard Configuration Manager include a utility, Key Manager, that guides you through the process of generating a self-signed certificate and establishing trust or, if you choose to use a CA certificate, creating a certificate signing request that you can submit to your CA.

In addition, you now have the ability to change the default keystore password, and Operations Center creates a secure directory that contains the keystore and keystore password files so that administrators can more easily manage and secure keystores.

For more information, see Keystore and Trust Store Configuration Details in the Operations Center Security Management Guide.

### 2.3.2 SSL Certificates Support Aliases and Wildcards

You can now use server name aliases and wildcard characters when generating SSL certificates.

## 2.4 Service Configuration Manager Enhancements

Operations Center 5.7 provides the following enhancements to the Service Configuration Manager:

- Section 2.4.1, "Do Not Include Links to Source Elements When Creating Service Configuration Definitions," on page 10
- Section 2.4.2, "Improvements to Managing Multiple Definitions," on page 10

#### 2.4.1 Do Not Include Links to Source Elements When Creating Service Configuration Definitions

When creating service configuration definitions, a new option, **Do not link to source elements**, allows you to create definitions that do not include links to the source elements in the structure. When you select this option, the structure includes the source elements but does not link back to them. Including links to the source elements can result in unnecessary data.

For more information, see STEP 5: Select Generation Options in the *Operations Center Service Modeling Guide*.

#### 2.4.2 Improvements to Managing Multiple Definitions

Definition right-click menu options allow you to change the order of definitions and to enable, disable, or remove them.

For more information, see Managing Multiple Definitions in the Operations Center Service Modeling Guide.

## 2.5 Dashboard Enhancements

Operations Center 5.7 provides the following enhancements to the dashboard:

- Section 2.5.1, "Enable or Disable Time Interval and Calendar Options at Administrative Level," on page 11
- Section 2.5.2, "Support for Latest Liferay and Tomcat Versions," on page 11
- Section 2.5.3, "Database Migration Tool," on page 11

#### 2.5.1 Enable or Disable Time Interval and Calendar Options at Administrative Level

When configuring the Charting portlet, administrators can control whether users have the ability to select time intervals and date ranges when creating charts. For more information, see Configuring the Charting Portlet in the *Operations Center Dashboard Guide*.

#### 2.5.2 Support for Latest Liferay and Tomcat Versions

The dashboard now supports Apache Tomcat version 7.0.62 for the Web server.

The dashboard now supports Liferay version 6.2.6203 for the dashboard database.

#### 2.5.3 Database Migration Tool

The Liferay Database Migration tool makes it easier for you to switch from using the default Hypersonic SQL embedded database to upgrade to an Oracle or SQL Server database. If you have been using the dashboard with the embedded database, it is possible to upgrade your database and preserve existing data.

For more information, see Upgrading from the Dashboard Embedded Database to Oracle or SQL Server in the *Operations Center Dashboard Guide*.

## 2.6 Adapter Enhancements

Operations Center 5.7 includes the following adapter enhancements:

- Section 2.6.1, "Automatic Prompt to Create Adapter," on page 11
- Section 2.6.2, "Discover QDBs for AppManager Adapter," on page 12
- Section 2.6.3, "Server-side Alarm Filters for AppManager Control Center," on page 12
- Section 2.6.4, "Right-click Option to add Agents to AppManager Elements," on page 12
- Section 2.6.5, "Add Custom Fields to AppManager Alarms," on page 12

#### 2.6.1 Automatic Prompt to Create Adapter

For ease of use, when you start the Operations Center console, Operations Center automatically prompts you to create an adapter if you have not already done so.

For more information, see Creating an Adapter in the Operations Center Adapter and Integration Guide.

#### 2.6.2 Discover QDBs for AppManager Adapter

For easier setup of the Control Center environment, when you create the AppManager Control Center adapter, you can choose to have Operations Center discover the AppManager repositories (QDBs) that are connected to Control Center and create the required NetIQ AppManager adapters.

For more information, see Creating and Configuring AppManager Adapters in the NetIQ AppManager Operations Portal Getting Started Guide.

### 2.6.3 Server-side Alarm Filters for AppManager Control Center

You now have the ability to create server-side alarm filters for AppManager Control Center elements.

#### 2.6.4 Right-click Option to add Agents to AppManager Elements

It is now possible to right-click the AM Manager and Master View elements to add AppManager agents to the elements.

This functionality is also available from the Information tab for AppManager elements.

#### 2.6.5 Add Custom Fields to AppManager Alarms

You can add custom fields to Operations Center alarms that are derived from AppManager events by configuring the AppManager adapter to call a custom script during adapter startup that registers an event listener with the adapter. Each time the adapter receives an event from AppManager, it invokes the event listener to read information about the event and add custom fields to the event.

For more information, see Adding Custom Fields to Alarms in the Operations Center Adapter and Integration Guide.

## **Technical Considerations**

The following sections provides Operations Center v5.7 and v5.6 software upgrade and patch information as well as details about technical considerations, including known issues with the product functionality, and calls attention to changes in the default behavior of the product.

- Section 3.1, "Installing and Patching Operations Center," on page 13
- Section 3.2, "Technical Considerations in Operations Center v5.7," on page 14
- Section 3.3, "Technical Considerations in Operations Center v5.6," on page 16

## 3.1 Installing and Patching Operations Center

The following sections highlight important notes regarding implementing product upgrades, applying patches, and uninstalling products:

- Section 3.1.1, "Installing Operations Center," on page 13
- Section 3.1.2, "Patches for v5.6," on page 14

For more detailed information, see the Operations Center Server Installation Guide.

#### 3.1.1 Installing Operations Center

For information about Operations Center and Operation Center component requirements, see *Supported Versions and Hardware Requirements* in the *Operations Center Getting Started Guide*.

For specific installation instructions, see the following documentation:

- **Operations Center:** See Installation Requirements and Operations Center Server Installation in the Operations Center Server Installation Guide.
- Dashboard: See Dashboard Installation in the Operations Center Dashboard Guide.
- CMS: See Installing or Upgrading CMS in the Operations Center Configuration Management System (CMS) Guide.
- AppManager Operations Portal See Installing and Configuring the AppManager Operations Portal in the NetIQ AppManager Operations Portal Getting Started Guide.

The following sections contain additional information about installing Operations Center:

- "JREs" on page 13
- "License File Management" on page 14

#### JREs

Operations Center v5.7 requires JRE 8 and has been certified with 1.8.0\_102 for the client and 1.8.0\_65 for the server.

**NOTE:** For information about an issue with using JRE 8 to run the installation program, see Section 3.2, "Technical Considerations in Operations Center v5.7," on page 14.

Operations Center v5.6 requires JRE 7 and has been certified with 1.7.0\_60 for the server and the client.

The April 2013 Patch Release for Operations Center version 5.0 was the last release to support JRE 1.6.0\_21.

For more information about JRE requirements, see Java Runtime Environment in the Operations Center Getting Started Guide.

#### License File Management

During the installation process, the specified license key is placed in the / *OperationsCenter\_installation\_path*/config directory. When a new license is issued, it must be manually saved to the same directory.

For existing installations where Managed Objects is installed or upgraded to Operations Center, the license key is located in the *ManagedObjects\_install\_path/config directory*.

#### 3.1.2 Patches for v5.6

NetIQ releases patch bundles to update v5.6. These patch bundles are installed using an automated installation process. For more information on understanding release numbers and installing v5.6 patches, see the *Operations Center Server Installation Guide*.

Patch release versions are included as part of the software version number. You can check for the software version in the following places:

- On the Operations Center server Web page, usually accessed at http:// server\_name:port\_number.
- From the About dialog in the Operations Center console. Click Help and select About Operations Center.
- In the Operations Center formula.trc log file.
- For CMS, on the CMS login dialog.
- For the Operations Center Dashboard, in the dashboard.trc log file.

When a user guide requires documentation updates for a patch release, updates are summarized in a **Documentation Updates** appendix and organized by patch release date.

**IMPORTANT:** Patch levels for Operations Center, CMS, and the Operations Center Dashboard must be updated to the same patch level or the software will not run properly.

# 3.2 Technical Considerations in Operations Center v5.7

#### Operations Center Server and Dashboard Installations on Windows 2012 R2 Require JRE 1.8.0\_51 or Earlier

If you are installing the Operations Center Server or dashboard on Microsoft Windows 2012 R2, you must use JRE 1.8.0\_51 or earlier to run the installation program. After installation, you must use JRE 1.8.0\_65 for the server and the dashboard.

#### MaxPermSpace in Java 1.8

With Java 1.8, the MaxPermSpace runtime option is no longer supported and is replaced with the – XX:MaxMetaSpaceSize option. When you install Operations Center, the setup program automatically sets the appropriate option based on the Java version that you are using.

#### **Duplicate Index Entries in Liferay after Upgrade**

If you upgrade from Operations Center v5.6 to v5.7, the first time you start the Operations Center server, the Liferay database attempts to create indexes that already exist and generates warnings similar to the following:

WARN com.liferay.portal.dao.db.BaseDB - The CREATE UNIQUE INDEX statement terminated because a duplicate key was found for the object name 'dbo.MBDiscussion' and the index name 'IX\_F7AAC799'. The duplicate key value is (<NULL>, <NULL>).: create unique index IX\_F7AAC799 on MBDiscussion (uuid\_, groupId);

It is safe to ignore these warnings.

#### Lock Table Does Not Exist Warning after Upgrade

If you upgrade from Operations Center v5.6 to v5.7, the first time you start the Operations Center server, the Liferay database attempts to clear locks and generates warnings similar to the following:

WARN com.liferay.portal.events.StartupAction - Unable to clear locks because Lock table does not exist

It is safe to ignore these warnings.

#### Liferay 6 Does Not Support 2-1 (30/70) Page Layout

Liferay 6 does not support the 2-1 (30/70) page layout. If you configured a page with the 2-1 (30/70) page layout, to avoid losing the portlet, change the page to use any other layout before you upgrade to Operations Center v5.7.

#### New Default File Encoding for Tomcat Java Virtual Machine on Windows

The default file encoding for Tomcat Java Virtual Machine on Microsoft Windows platforms is now UTF-8. If you are upgrading from Operations Center v5.6 to v5.7, you must use the Dashboard Configuration Manager to add the command line option -Dfile.encoding=UTF8 to the Java Runtime Options field.

#### Unique Constraint Error after Upgrade for Dashboard with Oracle Database

If you upgrade from Operations Center v5.6 to v5.7 and you are using an Oracle database with the Dashboard, the first time you start the Operations Center server, Operations Center generates an error similar to the following:

2016-08-04 15:19:12,283 ERROR org.hibernate.util.JDBCExceptionReporter - ORA-00001: unique constraint (SYSTEM.IX\_C7057FF7) violated

It is safe to ignore this error.

#### Custom Themes Not Upgraded from Liferay 5.2.3 to Liferay 6.2

If you upgrade from Operations Center v5.6 to v5.7 and you are using custom themes, the custom theme content is not upgraded from Liferay Portal Standard Edition 5.2.3 to Liferay Portal Community Edition 6.2 CE GA4. After you upgrade to v5.7, you must manually upload and install the custom themes.

For information about uploading and installing custom themes, see Installing Additional Themes in the *Operations Center Dashboard Guide*.

# 3.3 Technical Considerations in Operations Center v5.6

#### Formula.properties Virtual Database Property

The default setting for the virtualdb.host property has changed from 0.0.0.0 to localhost in the Formula.properties file. Note that remote machines cannot connect to MOSQL unless this property is defined to a hostname or IP address of a network interface that the remote machine can access. Add the new value to the Formula.custom.properties file.

#### 3.3.1 Dashboard Considerations

Please consider the following technical considerations for the dashboard:

#### Portlet Rendering After Upgrade in Internet Explorer 11

After you upgrade from Operations Center 5.5 to 5.6, on Web pages where you previously added portlets, the portlet sizes are skewed in Internet Explorer 11.

# 4 Discontinued Support

To meet the ever changing business needs, Operations Center is continually enhanced, including the inclusion of new adapters for connecting to other management systems. As a result, older versions of the product, as well as specific features, are periodically retired.

For information regarding supported versions of third-party management systems, databases, and other software relevant to Operations Center, see the *Operations Center Getting Started Guide*.

This section contains information about the discontinued support of operating systems, client platforms, databases, Operations Center releases, and certificates:

- Section 4.1, "Dashboard Chart Builder Portlet Discontinuation Announcement," on page 17
- Section 4.2, "Dashboard Performance Portlet Discontinuation Announcement," on page 17
- Section 4.3, "Java Runtime Environment (JRE) Discontinuation Announcement," on page 17
- Section 4.4, "Spectrum 8 Adapter Discontinuation Announcement," on page 18
- Section 4.5, "Discontinued Product Components," on page 18
- Section 4.6, "Retired Adapters," on page 18
- Section 4.7, "Software Signing Certificates," on page 19

#### 4.1 Dashboard Chart Builder Portlet Discontinuation Announcement

The Chart Builder portlet is being discontinued from the Operations Center Dashboard. Operations Center 5.7 is the last release version to support the Chart Builder portlet.

## 4.2 Dashboard Performance Portlet Discontinuation Announcement

The Performance portlet is being discontinued from the Operations Center Dashboard. Operations Center 5.6 is the last release version to support the Performance Portlet, after which the Performance portlet will be removed from the Dashboard and no longer available in subsequent releases. The Charting portlet replaces the functionality provided in the Performance portlet.

## 4.3 Java Runtime Environment (JRE) Discontinuation Announcement

The April 2013 Patch Release for Operations Center version 5.0 is the last release to support JRE 1.6.0\_21.

## 4.4 Spectrum 8 Adapter Discontinuation Announcement

The November 2013 Patch Release for Operations Center version 5.0 is the last release to support the Spectrum 8 adapter. This adapter will be removed from the product in the next patch release.

## 4.5 Discontinued Product Components

This section announces any product components that are no longer supported:

- Section 4.5.1, "Discontinued in Operations Center 5.0, March 2014 Patch Release," on page 18
- Section 4.5.2, "Discontinued in Operations Center 5.0," on page 18

## 4.5.1 Discontinued in Operations Center 5.0, March 2014 Patch Release

In Operations Center 5.0 March 2014 patch release, the *Native Windows Explorer*, a feature of the Experience Manager, is supported at Tier 2 (Best Level).

#### 4.5.2 Discontinued in Operations Center 5.0

In Operations Center 5.0, the following product components are no longer supported:

- Business Technology Insight (BTI)
- PortalBuilder
- Portal Component Toolkit

## 4.6 Retired Adapters

Some adapters are no longer available or validated for use with the Operations Center server because vendors have discontinued support for older products. The following adapters have been retired and are no longer available as an Operations Center adapter:

- Appilog Pathfinder
- Aprisma Management Technologies SPECTRUM
- BMC Mastercell
- BMC Software MAX/Enterprise
- Collation Configna
- ConnectPoint LinkXchange
- Managed Objects Business Technology Insight (BTI)
- Relicore Clarity
- SMARTS InCharge

## 4.7 Software Signing Certificates

Certificates are signatures by vendors to indicate that they are the owner of a set of code or an application. Some companies only run software that is digitally signed. NetIQ signs its software for all product releases, including major and minor releases, as well as service pack releases:

- Major releases are certified for two years from the GA ship date. Certificates issued expire within two years of their issuance.
- Minor releases are certified using the same certificate as the major release. The exception is that minor releases shipped more than six months after the major version GA date are issued a new signing certificate that is valid for two years from the GA ship date.
- Service pack releases are certified using the same certificate as the release it services (such as major or minor).

Table 4-1 provides information regarding certificate expiration:

Product Version	Certificate Expiration Date
Operations Center v5.7	August 30, 2019
Operations Center v5.6	December 19, 2017
Operations Center v5.5	December 19, 2017
Operations Center v5.0, PB9	October 24, 2015
Operations Center v5.0, PB8	October 24, 2015
Operations Center v5.0, PB7	October 24, 2015
Operations Center v5.0	March 24, 2013

#### Table 4-1 Certificate Expiration

Operations Center does not re-sign previous GA release software. Software that has an expired certificate typically runs without issues, except that the user is warned beforehand that the signing certificate has expired, meaning the certificate can no longer be used for signing. This has nothing to do with the validity of the software code; after the code is signed, it remains valid indefinitely.

# 5

## **Enhancements and Resolved Issues**

The following sections list enhancements and resolved issues for Operations Center 5.7:

- 907857 [FTF] Client will not work properly with custom setting for client patch validity.
- 916670 [FTF] Remedy 8: Need adapter or schema property for removing element when alarm record is removed.
- 917669 [FTF] Web2Connect: REST fails for series query in case path to element contains space characters.
- 924344 [FTF] BSW: Oracle Purge is working very slow as it is doing a table scan and needs to be optimized.
- 930450 [FTF] SCM Scheduler presents warning and defaults to enable second schedule.
- 932661 [FTF] NOC Automations do not take element blackout calendars into account when firing.
- 933671 [FTF] NOC: Research how to set the Service Manager 9.3 adapter to use https instead of http.
- 935775 [FTF] SPECTRUM: Failed to acquire operation indicatorsjava.lang.NullPointerException.
- 936274 Automation: Add the filter Type: Alarm Condition Change.
- 936526 [FTF] Layout portlet fails to display loading indicator for more complex custom layouts.
- 936868 Research: SCOM 2012 not working at all on Windows 2012 server edition to register DLL.
- 937668 [FTF] Dashboard: Alarms portlet does not trigger custom server automation when alarm receives ACK or CLOSE.
- 940034 BDI Editor: BDI Editor fails to display Validation screen when using Java 1.8.
- 941501 Implement customer request for alarm severity override.
- 941963 Add the ability to filter out adapter elements from alarm history.
- 942552 AppManager event details and description are wrong.
- 942563 [FTF] NOC: BMC BEM throwing multiple messages: WARN Adapter.MasterCell.Adapter: BMC(r) Event Manager - New event received, but event class is null or zero length, using base event class.
- 942903 [FTF] Dashboard mymoprobe.sh not working at all on Solaris OS platform after upgrading to 5.6.
- 943352 [FTF] NOC Automation GUI losing elements linked to automations as well as losing links to predefined scripts.
- 943858 [FTF] NOC Nodestyle with a preview element set carries over property text even if tied-to element has no such property value.
- 945697 Upgrades to Liferay permissions algorithm conversion process.
- 946400 [FTF] Max login sessions not in force when logging in with lowercase IDs.
- 946788 [FTF] User session not cleaned up when browser closed. Running out of limited sessions.

- 947014 [FTF] NetIQ AppManager adapter: Failed to connect, exception=java.lang.NullPointerException.
- 947830 [FTF] SLA status not respecting the 508 accessibility flag.
- 949330 [FTF] BMC BEM Adapter Alarms not closing.
- 950648 [FTF] Data Warehouse running poorly in prod causing massive queue backup.
- 952494 [Research] BEM Need help in creating appropriate step to capture data for NOC Experience Manager Synthetic Test.
- 952669 [FTF] BDI does not support Sybase encrypted password.
- 957507- [FTF] Dashboard: Menu operation fails.
- 958515 [FTF] Dashboard: Type in the columns you want to see, like AckTime, and it comes back in UTC time.
- 960076 [FTF] EVE: Eve queue stopping on null pointer.
- 960450 [FTF] Dashboard: False 100 percent data in SLA Status portlet.
- 961036 Dashboard: Runs out of memory every three days or sooner.
- 961148 [FTF] Dashboard: User property fullname cannot be changed and gets synchronized back into the NOC.
- 964045 [FTF] Black background on Dashboard after upgrade to 5.6.
- 965332 [FTF] BDI Adapter: Alarms get wrongly moved from the child element to the root element after upgrade to 5.6.
- 966346 [FTF] Client: Right-click alarm operations are very slow and delayed especially with client dialogues.
- 966943 Alerts via BMC Event Manager adapter do not update/refresh automatically.
- 968315 [FTF] Dashboard landing page action is not being picked up.
- 968906 [FTF] Dashboard: Alarm portlet fails to correctly filter historical alarms in case the dashboard user is non-privileged.
- 970092 [FTF] IDM 4.5.3 adapter not starting.
- 973068 [FTF] NOC: DB cleanup enhancement to cleanup entries not in root.
- 973889 NOC unable to log users in via client certificates.
- 974648 Improvements to the NOC and Dashboard probes.
- 975967 [FTF] Client disconnection burst can cause config store connection exhaustion.
- 977261 [FTF] GUI Element Critical Appearance (RED) When alarm is closed, element icon remains RED and doesn't return to GREEN status.
- 977326 [FTF] Client: Continuous scrolling when using Portal view on Automation Server.
- 977700 Dashboard operation enhancement.
- 978092 Re-add getAlarmDetailedMessage method back on AppManager adapter.
- 980911 [FTF] BDI: Inconsistent results using macro expressions with MySQL.
- 981223 [FTF] Cluster server did not properly become cluster coordinator.
- 981908 [FTF] NPE when performing Element Operation from Web2Connect.
- 983559 [FTF] Automation: Need better logging when backup and fail to run.
- 984213 [Research] BDI: Reserach the alarm.setField operation.
- 984238 [FTF] Suppression config is lost after NOC restart.
- 984870 [FTF] EVE: Owner not updated in Eve alarm server database.

- 985875 Dashboard requiring double logins.
- 986090 [BDI] Query runtimes are returning in UNIX timestamps from 45 years ago.
- 986976 [FTF] Dashboard: Layout portlet is not drivable by other portlet when the drill-down
  option is not selected.
- 988439 [FTF] Warehouse Debug Tracing causes issue during query clean up.