

Release Notes

Novell® Operations Center

5.0

April 26, 2011

www.novell.com



Legal Notices

Novell, Inc., makes no representations or warranties with respect to the contents or use of this documentation, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc., reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Further, Novell, Inc., makes no representations or warranties with respect to any software, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc., reserves the right to make changes to any and all parts of Novell software, at any time, without any obligation to notify any person or entity of such changes.

Any products or technical information provided under this Agreement may be subject to U.S. export controls and the trade laws of other countries. You agree to comply with all export control regulations and to obtain any required licenses or classification to export, re-export or import deliverables. You agree not to export or re-export to entities on the current U.S. export exclusion lists or to any embargoed or terrorist countries as specified in the U.S. export laws. You agree to not use deliverables for prohibited nuclear, missile, or chemical biological weaponry end uses. See the [Novell International Trade Services Web page \(http://www.novell.com/info/exports/\)](http://www.novell.com/info/exports/) for more information on exporting Novell software. Novell assumes no responsibility for your failure to obtain any necessary export approvals.

Copyright © 1997-2011 Novell, Inc. All rights reserved. No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of the publisher.

Novell, Inc.
404 Wyman Street, Suite 500
Waltham, MA 02451
U.S.A.
www.novell.com

Novell Trademarks

For Novell trademarks, see [the Novell Trademark and Service Mark list \(http://www.novell.com/company/legal/trademarks/tmlist.html\)](http://www.novell.com/company/legal/trademarks/tmlist.html).

Third-Party Materials

All third-party trademarks are the property of their respective owners.

Contents

About This Guide	5
1 About Operations Center	7
1.1 Product Overview	7
1.2 About Operations Center Documentation	8
1.3 Contacting Novell Technical Support	8
2 What's New	9
2.1 Novell Branding	9
2.2 Updated DBMS, OS and Management System Support	9
2.2.1 New Operating Systems	10
2.2.2 Supported DBMS	10
2.2.3 New Management System Integrations	10
2.3 Automated Import and Update of LDAP Users and Groups	10
2.4 SLA Portlets in Operations Center Dashboard	10
2.5 Custom Operations in Operations Center CMS	11
3 Technical Considerations	13
3.1 Installing, Upgrading, Patching and Uninstalling Operations Center	13
3.1.1 Installing Operations Center	13
3.1.2 Upgrades from Managed Objects to Operations Center v5.0	14
3.1.3 Patches for v5.0	16
3.1.4 Uninstalling Operations Center and Operations Center Components	16
3.2 Technical Considerations in Operations Center v5.0	17
3.2.1 Adapter Considerations	17
3.2.2 ORB Upgrades	19
3.2.3 Experience Manager Considerations	20
3.2.4 Service Level Manager Considerations	20
3.2.5 Alarm Date/Time Discrepancy	21
3.2.6 ConfigStore	22
3.2.7 Performance Considerations for Console Configurations	22
3.2.8 Dashboard Considerations	22
3.2.9 Java Related Known Issues	23
4 Discontinued Support	25
4.1 Discontinued Product Components	25
4.2 Retired Adapters	25
4.3 Software Signing Certificates	26
5 Enhancements and Resolved Issues	27

About This Guide

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

Audience

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

Guide Sections

- ♦ [Chapter 1, “About Operations Center,” on page 7](#)
- ♦ [Chapter 2, “What’s New,” on page 9](#)
- ♦ [Chapter 4, “Discontinued Support,” on page 25](#)
- ♦ [Chapter 3, “Technical Considerations,” on page 13](#)
- ♦ [Chapter 5, “Enhancements and Resolved Issues,” on page 27](#)

Additional Documentation

For other related documentation:

- ♦ [Novell Operations Center 5.0 Getting Started Guide](#)
- ♦ [Novell Operations Center 5.0 Server Installation Guide](#)
- ♦ [Novell Operations Center 5.0 Console Guide](#)

Documentation Updates

In general, Operations Center provides two main sources of information to help you configure and use Operations Center products:

- ♦ **Online help:** The help is part of each product and available from multiple locations depending upon the product; look for help in the upper right of a window or dialog box as a drop-down menu option, a help button, or a question mark symbol (?).
- ♦ **Guides:** Available as PDF files on the installation CD, the guides provide an overview of how to solve a problem, complete a task, or use a specific Operations Center product.

Documentation Conventions

In Novell documentation, 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.

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

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.

About Operations Center

1

Novell 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 Novell Technical Support,” on page 8](#)

1.1 Product Overview

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

- ♦ **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 [Novell Operations Center 5.0 Getting Started Guide](#).
- ♦ For information regarding supported versions of third-party management systems, databases, and other software relevant to Operations Center, see the [Novell Operations Center 5.0 Getting Started Guide](#).

1.3 Contacting Novell Technical Support

Access our award winning [support Web site \(http://support.novell.com\)](http://support.novell.com) for a number of self-help resources and to register and check on service requests. For high severity issues, we recommend you call Novell Technical Support directly. Visit the [Submit a Service Request Web page \(http://support.novell.com/contact/\)](http://support.novell.com/contact/) to find the phone numbers for your region.

What's New

2

Operations Center v5.0 contains the following functionality and enhancements described in the following topics:

- ♦ [Section 2.1, “Novell Branding,” on page 9](#)
- ♦ [Section 2.2, “Updated DBMS, OS and Management System Support,” on page 9](#)
- ♦ [Section 2.3, “Automated Import and Update of LDAP Users and Groups,” on page 10](#)
- ♦ [Section 2.4, “SLA Portlets in Operations Center Dashboard,” on page 10](#)
- ♦ [Section 2.5, “Custom Operations in Operations Center CMS,” on page 11](#)

2.1 Novell Branding

All products has been renamed and rebranded to be consistent with Novell products. Product user interfaces have been updated visually to the Novell product “look & feel”. The product and component name changes are outlined in [Table 2-1](#).

Table 2-1 Product Name Changes

Former Name	New Name
<i>Novell Managed Objects</i>	<i>Novell Operations Center (NOC)</i>
<i>Business Experience Manager</i>	<i>Novell Operations Center Experience Manager</i>
<i>Business Data Integrator</i>	<i>Novell Operations Center Data Integrator</i>
<i>Event Integrator</i>	<i>Novell Operations Center Event Manager</i>
<i>Business Service Configuration Manager</i>	<i>Novell Operations Center Service Configuration Manager</i>
<i>myMO</i>	<i>Novell Operations Center Dashboard</i>
<i>myCMDB</i>	<i>Novell Operations Center Configuration Management System (CMS)</i>
<i>Managed Objects SQL</i>	<i>Novell Operations Center SQL Views</i>
<i>InterCommunication Adapter</i>	<i>InterConnection Adapter.</i>
<i>FormulaScript</i>	<i>NOC Script</i>

2.2 Updated DBMS, OS and Management System Support

The following sections list the database management systems (DBMS), discovery tools, operating systems (OS), and management systems that are validated for use with Operations Center:

- ♦ [Section 2.2.1, “New Operating Systems,” on page 10](#)

- ♦ [Section 2.2.2, “Supported DBMS,” on page 10](#)
- ♦ [Section 2.2.3, “New Management System Integrations,” on page 10](#)

For more information, see the [Novell Operations Center 5.0 Server Installation Guide](#) and [Novell Operations Center 5.0 Adapter and Integration Guide](#).

2.2.1 New Operating Systems

Operations Center now supports the following operating systems for the Operations Center server:

- ♦ IBM AIX 6.1

However, AIX is unsupported for Operations Center Dashboard and CMS.

2.2.2 Supported DBMS

Operations Center now supports the following database management systems:

- ♦ DB2 9.7
- ♦ PostgreSQL 8.4.3
- ♦ Sybase ASE 15

However, DB2, PostgreSQL, and Sybase are unsupported for Operations Center Dashboard. DB2 is unsupported for CMS.

2.2.3 New Management System Integrations

Operations Center integrates to the following management systems:

- ♦ IBM Micromuse Netcool 7.2
- ♦ Solarwinds Orion 9.5

2.3 Automated Import and Update of LDAP Users and Groups

Operations Center now offers an automated process for the import of LDAP users and groups; and the ongoing dynamic update of user/group accounts.

For more information about these new features, see “[Configuring LDAP Authentication](#)” in [Novell Operations Center 5.0 Security Management Guide](#).

2.4 SLA Portlets in Operations Center Dashboard

Operations Center now offers the following new portlets in the Operations Center Dashboard for support of Service Level Agreement information and reporting:

- ♦ SLA Compliance Portlet
- ♦ SLA Status Portlet

For more information about these new portlets, see “[SLA Reporting Portlets](#)” in *Novell Operations Center 5.0 Dashboard Guide*.

2.5 Custom Operations in Operations Center CMS

Operations Center now offers the creation of custom operations for Operations Center CMS elements.

For more information about these new features, see “[Creating Custom Operations](#)” in *Operations Center Configuration Management System (CMS) Guide*.

The following sections provides Operations Center v5.0 software upgrade and patch information as well as details on technical considerations which also includes known issues with the product functionality and calls attention to changes in the default behavior of the product.

- ♦ [Section 3.1, “Installing, Upgrading, Patching and Uninstalling Operations Center,” on page 13](#)
- ♦ [Section 3.2, “Technical Considerations in Operations Center v5.0,” on page 17](#)

3.1 Installing, Upgrading, Patching and Uninstalling 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, “Upgrades from Managed Objects to Operations Center v5.0,” on page 14](#)
- ♦ [Section 3.1.3, “Patches for v5.0,” on page 16](#)
- ♦ [Section 3.1.4, “Uninstalling Operations Center and Operations Center Components,” on page 16](#)

For more detailed information on upgrading Operations Center to version 5.0 or applying a version 5.0 patch release, see the [Novell Operations Center 5.0 Server Installation Guide](#).

3.1.1 Installing Operations Center

For more information about Operations Center and Operation Center component requirements, see [Supported Versions and Hardware Requirements](#) in the [Novell Operations Center 5.0 Getting Started Guide](#).

For specific instructions on installing Operations Center, see [Installation Requirements](#) and [Operations Center server Installation](#) in the [Novell Operations Center 5.0 Server Installation Guide](#).

- ♦ **Operations Center:** See [Installation Requirements](#) and [Operations Center server Installation](#) in the [Novell Operations Center 5.0 Server Installation Guide](#).
- ♦ **Dashboard:** See [Dashboard Installation](#) in the [Novell Operations Center 5.0 Dashboard Guide](#).
- ♦ **CMS:** See [Installing or Upgrading CMS](#) in the [Operations Center Configuration Management System \(CMS\) Guide](#).

The following sections contain additional information about installing Operations Center:

- ♦ [“JREs” on page 14](#)
- ♦ [“License File Management” on page 14](#)

JREs

Operations Center v5.0 requires JRE 1.6.0_21 for the server and the client.

For more information about JRE requirements, see [Java Runtime Environment](#) in the *Novell Operations Center 5.0 Getting Started Guide*.

License File Management

During the installation process of Operations Center, the specified license key is placed in the *NovellOperationsCenter_install_path/NOC/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 Upgrades from Managed Objects to Operations Center v5.0

Operations Center customers can upgrade directly from Managed Objects 4.6.x or 4.7.x to Operations Center 5.0.

It is important to note the following before upgrading to Operations Center v5.0:

- ♦ Because default home directories have been modified as a result of product name changes in the Operations Center v5.0, additional selections in the Operations Center installer must be performed. This includes selection of the existing installation location instead of using the new default location and the manual selection of appropriate components during the custom install step. It is very important to review the upgrade steps prior to performing an upgrade.

For more information, see “[Upgrading to Operations Center v5.0 from Previous Versions](#)” in the *Novell Operations Center 5.0 Server Installation Guide*.

- ♦ When upgrading myCMDB to Operations Center CMS, you must run an upgrade script prior to the first login to implement CMS data structure changes.

For more information, see “[Upgrading CMS](#)” in the *Operations Center Configuration Management System (CMS) Guide*.

- ♦ When upgrading from myMO 4.6 to Operations Center Dashboard, there are various considerations because of an upgrade of the Liferay portal platform.

For more information, see “[myMO/Dashboard Upgrade Considerations](#)” on page 15 and “[Upgrading myMO/the Dashboard](#)” in the *Novell Operations Center 5.0 Dashboard Guide*.

Also note the considerations for the following:

- ♦ “[Adapter Considerations](#)” on page 15
- ♦ “[myMO/Dashboard Upgrade Considerations](#)” on page 15
- ♦ “[PortalBuilder is Discontinued](#)” on page 15
- ♦ “[Portal Component Toolkit is Discontinued](#)” on page 16

Adapter Considerations

The MOM/SCOM database/`msmomConfiguration.xml` file has been updated in v5.0. If running any existing MOM/SCOM adapters, after upgrading, do the following to update the adapters:

- 1 Stop all MOM/SCOM adapters.
- 2 Delete the database/`msmomConfiguration.xml` file.
- 3 Restart all MOM/SCOM adapters. The database/`msmomConfiguration.xml` file is automatically recreated and includes all v5.0 updates.

myMO/Dashboard Upgrade Considerations

The following considerations exist when upgrading myMO/Operations Center Dashboard:

- ♦ Custom theme content is not updated during upgrades and any static links to documentation must be changed manually.

Operations Center Dashboard (formerly myMO) was upgraded in v4.7 from Liferay 4.2.1 to 5.2.3 for its portal platform. As a result of this upgrade, the following must be considered when upgrading from myMO v4.6 to either myMO v4.7 or Operations Center Dashboard v5.0:

- ♦ The Managed Objects/Novell Operations Center portlets will upgrade automatically.
- ♦ Portlets supplied by Liferay may have been decommissioned or renamed. While upgrades occur on a case-by-case basis, the user must remove portlets that do not upgrade successfully from pages and replace with the new portlets if available.

The following portlets have been decommissioned by Liferay: Location Admin (40), Organization Admin (80), Mail (1), Chat (52), Alfresco Content (91), Games (14), Words (37), Calculator (13), Google (35), AdSense (94), Google Gadget (95), Google Maps (96), News (5), Amazon Rankings (67), Shopping (34), Test Flash (53), Test Hello Laszlo (69), Test Reports, Test Web Proxy (66), Analog Clock (65), CSZ Search (17), Maps (18), Countdown (81), Theme Gallery (38), WSRP Proxy (68), Workflow (93).

The Journal, Journal Articles, and Journal Content portlets have been replaced by the Web Content List and Web Content Display portlets. The Announcements portlet has been replaced by Alerts and a new Announcements portlet, however we recommend using the Web Content portlets instead as they allow more than one instance to be added to a page.

- ♦ The overall portal “look & feel” has been updated and previous templates developed on myMO 4.6 are no longer supported. On upgrade, the community pages default to the new *myMO Simple* theme. Third-party themes can be reinstalled and redeployed if there is a Liferay 5.2.3 version available. Custom themes must be upgraded to be compatible with Liferay 5.2.3 before they can be redeployed.

PortalBuilder is Discontinued

PortalBuilder is no longer supported and is uninstalled as part of the upgrade process. Any existing Business Service Dashboard database definitions are also removed.

When starting the daemon after an upgrade, if the database server was previously configured to automatically start in the Configuration Manager (Daemon pane), a message is logged to the `database.trc` file: No integrated database servers defined. Events will be persisted to defined external databases. This message is expected and can be ignored as there are no

Business Service Dashboard database definitions for it to run against in v5.0. If desired, remove *Database* from the *Automatically Start Servers* field in the *Daemon* pane of the *Operations Center Configuration Manager*.

For more information, see “[Accessing Configuration Manager](#)” in the *Novell Operations Center 5.0 Server Configuration Guide*.

Portal Component Toolkit is Discontinued

The Portal Component Toolkit is no longer supported or included in the Operations Center install. However, when upgrading to Operations Center v5.0, the Portal Component Toolkit is not removed or modified.

3.1.3 Patches for v5.0

Novell releases patch bundles to update v5.0. These patch bundles are installed using an automated installation process. For more information on understanding release numbers and installing v5.0 patches, see the *Novell Operations Center 5.0 Server Installation Guide*.

Patch releases 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.

3.1.4 Uninstalling Operations Center and Operations Center Components

When uninstalling some features, the installer may indicate that a reboot to the server is required to complete some install processes, such as removing the Event Manager service. If the server is not rebooted before a re-install, it is possible that the next time the server is rebooted, the service or other features may be removed even though Operations Center has been reinstalled.

For instructions on uninstalling, see “[Uninstalling Operations Center from a Server](#)” in the *Novell Operations Center 5.0 Server Installation Guide*.

3.2 Technical Considerations in Operations Center v5.0

The following technical considerations apply to Operations Center version 5.0:

- ♦ [Section 3.2.1, “Adapter Considerations,” on page 17](#)
- ♦ [Section 3.2.2, “ORB Upgrades,” on page 19](#)
- ♦ [Section 3.2.3, “Experience Manager Considerations,” on page 20](#)
- ♦ [Section 3.2.4, “Service Level Manager Considerations,” on page 20](#)
- ♦ [Section 3.2.5, “Alarm Date/Time Discrepancy,” on page 21](#)
- ♦ [Section 3.2.6, “ConfigStore,” on page 22](#)
- ♦ [Section 3.2.7, “Performance Considerations for Console Configurations,” on page 22](#)
- ♦ [Section 3.2.8, “Dashboard Considerations,” on page 22](#)
- ♦ [Section 3.2.9, “Java Related Known Issues,” on page 23](#)

3.2.1 Adapter Considerations

Please consider the following technical issues when configuring and using the Operations Center adapters:

- ♦ [“Considerations for Adapters” on page 17](#)
- ♦ [“InterConnection Adapter” on page 18](#)
- ♦ [“BMC Remedy Action Request System \(ARS\) Adapter Considerations” on page 18](#)
- ♦ [“Computer Associates Spectrum Adapter Considerations” on page 18](#)
- ♦ [“HP OpenView Network Node i-series \(NNMi\) Adapter Considerations” on page 19](#)
- ♦ [“IBM Tivoli Application Dependency Discovery Manager \(TADDM\) Adapter Considerations” on page 19](#)
- ♦ [“Tideway Foundation Adapter Considerations” on page 19](#)
- ♦ [“SolarWinds Orion Adapter Considerations” on page 19](#)

Considerations for Adapters

Every Operations Center release can include new adapter properties for various adapter types. On upgrade, existing adapter instances do not automatically update with default values for these new properties which can cause unexpected behavior. After upgrading Operations Center, adapter definitions must be recreated to pick up new properties.

The following adapters have new properties in Operations Center v5.0:

- ♦ IBM Tivoli Application Dependency Discovery Manager (TADDM)
- ♦ Microsoft Operations Manager (MOM) and Microsoft System Center Operations Manager (SCOM)
- ♦ SolarWinds Orion

For more information on adapter properties, see the [Novell Operations Center 5.0 Adapter and Integration Guide](#).

InterConnection Adapter

The InterConnection adapter (ICA) (formerly known as the InterCommunication adapter or the F2F adapter) allows Operations Center servers to communicate through firewalls. To use the ICA, the versions of the Operations Center server must be as follows:

- ♦ Both servers must be v5.0
- ♦ One server is v5.0 and the other is v4.7

BMC Remedy Action Request System (ARS) Adapter Considerations

Please consider the following technical issues when configuring and using the BMC Remedy ARS adapter:

- ♦ An incompatibility exists when running the 32-bit Remedy libraries, as distributed with Operations Center and used by the Remedy adapter, on a Operations Center server running under a 64-bit JVM. Create the BMC Remedy ARS adapter on an Operations Center 32-bit JVM remote container, then use a container adapter to connect from the Operations Center 64-bit JVM server. For more information about containers, see “[Using Remote Containers](#)” in the [Novell Operations Center 5.0 Adapter and Integration Guide](#).

Be sure that the BMC Remedy libraries are installed and configured correctly, following the instructions in the [Novell Operations Center 5.0 Adapter and Integration Guide](#).

- ♦ After updating the Remedy configuration file by modifying the configuration file directly, or by using *Edit Remedy Configuration* or *Show Server Information* right-click options, the adapter must be restarted.
- ♦ When removing a configured schema from a BMC Remedy ARS adapter, alarms are removed immediately for the removed schema. However, to remove the elements, the adapter must be restarted.
- ♦ Adding fields to an existing schema in Remedy Administrator won’t be reflected in Operations Center until the BMC Remedy ARS adapter is restarted.

Computer Associates Spectrum Adapter Considerations

Please consider the following technical issues when configuring and using the CA Spectrum adapter:

- ♦ The CA Spectrum adapter does not support the Show Root Cause and Show Impacted features.
- ♦ When using the CA Spectrum adapter, the Operations Center Layout view displays topology views similar to those presented in CA Spectrum. Operations Center can display models and their positions and the links between them. However, Operations Center does not display the more complex pictographs that represent composite sites.
- ♦ When referencing distinguished names (DNAMES) for Spectrum elements, be sure to use the entire DName as the display names used for elements can consist of shortened names that could be duplicates. The DName is encoded with a model handle that can uniquely identify the element. Distinguished names are explained in “[Using Element Properties](#)” of the [Novell Operations Center 5.0 Monitoring Guide](#).
- ♦ When integrating to a CA Spectrum server containing the remote landscape server, a direct connection must be established with the Operations Center server since Computer Associate’s API doesn’t support the relaying of traffic from remote landscapes. Please verify all necessary appliances are configured appropriately to allow traffic.

HP OpenView Network Node i-series (NNMi) Adapter Considerations

The Operations Center HP NNMi Integration adapter requires an NNMi SDK Enablement license from HP.

IBM Tivoli Application Dependency Discovery Manager (TADDM) Adapter Considerations

The TADDM hierarchy file, `TADDMHierarchy.xml`, overwrites the hierarchy file used by the legacy Collation Confignia adapter.

With the TADDM 7.1.2 adapter, the `xml` tag attribute of `case=no` or `case=yes`, set in the `TADDMHierarchy.xml` file and traditionally used to control case of the resulting display data, is ignored.

Tideway Foundation Adapter Considerations

Unlike other adapters, the Tideway Adapter does not change to critical when the adapter loses network connectivity.

SolarWinds Orion Adapter Considerations

The SolarWinds Orion 9.1 Adapter throws the following warning in the logs but will start successfully:

```
WARN Integration.orion.Adapter: SolarWinds Orion.DefaultControl - Exception
while processing query for [_ID16_Application]: select
LTrim(RTrim("Applications"."Status")) as "elementCondition",
"Applications"."LastStatusChange...java.sql.SQLException: Invalid object name
'Applications'.
```

This warning message can be ignored.

3.2.2 ORB Upgrades

If you are upgrading from a previous release of Operations Center, see the [Novell Operations Center 5.0 Server Installation Guide](#). Updated ORBs must be upgraded to work with the current version of Operations Center software.

If your environment consists of multiple Operations Center servers that do not share ORBs, you can upgrade one server at a time.

If your environment consists of multiple Operations Center servers that share ORBs, please contact [Novell Technical Support \(http://support.novell.com/\)](http://support.novell.com/) for instructions on upgrading servers and installing two versions of ORBs. Multiple Operations Center versions cannot connect to a single ORB.

3.2.3 Experience Manager Considerations

The Experience Manager application deployment options have changed so that the full application is installed by the installer. It is no longer a requirement to have a Operations Center server running in order to run Experience Manager. There is a new mechanism for centralized patch deployment. For more information about deploying patches, see the [Novell Operations Center 5.0 Experience Manager Guide](#).

3.2.4 Service Level Manager Considerations

- ♦ [“Agreement Objectives” on page 20](#)
- ♦ [“How Missing or Unknown Data is Handled” on page 20](#)
- ♦ [“Store Suppressed or Real-time State Changes” on page 20](#)
- ♦ [“Data Consistency on Server and Warehouse Restart” on page 20](#)
- ♦ [“Killing the Operations Center server Can Cause Data Loss” on page 21](#)
- ♦ [“Rolling Objectives” on page 21](#)
- ♦ [“Showing Service Level Outage Root Cause” on page 21](#)

Agreement Objectives

Do not create Agreement Objectives that measure the same agreement where the Agreement Objective is defined, where an infinite loop is created. Agreement Objectives are designed to measure agreements other than the one containing the Agreement Objective.

How Missing or Unknown Data is Handled

Missing or Unknown data is considered available when calculating availability and outage metrics.

Store Suppressed or Real-time State Changes

Regardless of Data Warehouse settings, the suppressed state is stored for all Historical Performance profiles that use condition-based expressions. The only exception to this is the Service Levels profile which stores real-time state of suppressed elements and suppressed state of impacted elements if the *Use suppressed element condition for performance data and Service Level calculations* option is not selected. Data Warehouse settings are configured in the Data Warehouse element's *Properties*, in *System Settings* under the *Data Warehouse* property tab.

Data Consistency on Server and Warehouse Restart

If multiple profiles are created with the same expressions for data capture (such as two profiles capturing element condition data), slight discrepancies can exist in collected data points whenever the Operations Center server or the Data Warehouse is restarted. This occurs because profiles are restarted serially.

For example, one profile might show data at 12:01pm but another profile might not have data until 12:02 pm if the second profile started at 12:02 pm. If audit alarms are stored for profiles, it is possible to confirm this has occurred by checking the profile start times against the collected audit alarm data.

Killing the Operations Center server Can Cause Data Loss

If the Operations Center server process is manually terminated rather than shutdown properly, there will be a loss of SLM data. Be sure to use the `mosstop -shutdown` command to shutdown all Operations Center services and the Operations Center server to guard against losing any unnecessary data. Note that it could take several minutes to shutdown the server due to writing queued data to the backup repository.

For more information about shutting down the server, see the [Novell Operations Center 5.0 Server Configuration Guide](#).

Rolling Objectives

Rolling objectives are not currently supported.

Showing Service Level Outage Root Cause

When the Operations Center server or an adapter is restarted, an existing outage condition might continue if the affected element's current condition is considered an outage state and its last known state prior to stopping the server or adapter was an outage state. If this occurs, no Root Cause information for the outage is available in the dashboard SLA reports.

3.2.5 Alarm Date/Time Discrepancy

If server time is different from the management system versus Operations Center, then the date/time associated with incoming alarms could be inconsistent with the Operations Center receipt time. This can happen in cases of having management servers in a different time zone or just being behind/ ahead of the Operations Center server.

By default, alarm date/time is taken directly from the alarm information. The `UseAlarmTimesForCondChanges` adapter property can be modified, on appropriate adapters, to use the date/time that the alarm is received by the Operations Center server.

However, if feeding in a batch of old alarms, the date/time that the alarms actually occurred is probably more important. Similarly, if storing alarm information, it is probably more important to record the properties based on the alarm time versus the time that Operations Center received the alarm. However, element condition and element condition change values are affected when Operations Center receives the alarm.

The `UseAlarmTimesForCondChanges` option is available for the following adapters:

- ♦ BMC Software PATROL Enterprise Manager®
- ♦ Cisco Info Center®
- ♦ IBM Micromuse Netcool
- ♦ IBM Tivoli T/EC®
- ♦ IBM Tivoli T/EC+
- ♦ Operations Center Event Manager™
- ♦ Operations Center NOC Script™

For further information on specific adapters and associated adapter properties, see the [Novell Operations Center 5.0 Adapter and Integration Guide](#).

3.2.6 ConfigStore

If using Windows Server 2008 R2, do not run `moscfg` while the Operations Center server is running. Stop the Operations Center server, then run `moscfg`.

The following consideration applies to using ConfigStore in a clustered environment:

- While using Operations Center in a clustered environment, you may see the following error in the logs when adding adapters to nodes. It is safe to ignore this error.

```
2010-01-25 12:06:12,688 ERROR Server - Class name missing from [Adapters]
in IniFile facade for adapters=Adapters/root=Administration Adapters.ini;
skipping.
```

```
2010-01-25 12:06:12,688 WARN Adapter.Meta.Container Connections - Cannot
load adapter from data: Adapters
```

3.2.7 Performance Considerations for Console Configurations

There can be performance implications related to activating *Show nonsource element indicators* and *Show linked element indicators* options in the Explorer pane. There can be significant overhead for these options when expanding elements that have more than 100 element children.

We recommend using these options only when required and turning them off for daily use.

3.2.8 Dashboard Considerations

The following technical considerations apply to Operations Center Dashboard:

- While the Dashboard installs by default with an embedded Hypersonic SQL database, the Dashboard must be configured to use an Oracle or SQL Server database.
- Operations Center server user accounts are leveraged by the Dashboard to grant user access to dashboard portal pages and Operations Center data via Operations Center portlets. If the e-mail address of a user in Operations Center is invalid, then the user will not synchronize. If the Dashboard is unable to synchronize a user account for this reason, a notification occurs alerting that the email address must be updated.
- Although the Dashboard can be internationalized, not all language packs are included. To localize to a specific language that is not currently implemented, contact Novell Consulting.
- It is necessary to use Flash, PNG, or JPG formats in Chart Builder when using Firefox to access the Dashboard.
- Liferay Password Policies settings for Password Lockout and Password Expiration are unsupported by the Dashboard.
- In v4.6 and v4.7, when running myMO on a separate host from the Managed Objects server, or if the myMO and Managed Objects are both on the same machine and myMO needs to be accessed outside the firewall, and only the myMO port is allowed on the firewall; the following proxy setting in the `myMO_install_path/server/webapps/ManagedObjectsPortlets/WEB-INF/mo-settings.xml` file must be made in order to enable the proxy:

```
<entry>
  <string>cordacharts.useproxy</string>
  <string>true</string>
```

</entry>

This parameter is set to true in *NovellOperationsCenter_install_path*/Dashboard/server/webapps/ManagedObjectsPortlets/WEB-INF/mo-settings.xml by default for the Dashboard in Operations Center 5.0.

- ♦ The *Impersonate User* feature as documented in “[Verifying User Permissions](#)” in the *Novell Operations Center 5.0 Dashboard Guide* shows you the dashboard based on the permissions for the account you are currently logged in as, instead of based on the permissions for a user account you selected.

For further information on the Dashboard, see the *Novell Operations Center 5.0 Dashboard Guide*.

3.2.9 Java Related Known Issues

`ArrayIndexOutOfBoundsException` errors have occurred in the Operations Center console when deleting and highlighting text in alarm columns. This error is harmless.

Discontinued Support

4

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 [Novell Operations Center 5.0 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, “Discontinued Product Components,” on page 25](#)
- ♦ [Section 4.2, “Retired Adapters,” on page 25](#)
- ♦ [Section 4.3, “Software Signing Certificates,” on page 26](#)

4.1 Discontinued Product Components

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

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

4.2 Retired Adapters

A number of adapters are no longer available or validated for use with the Operations Center server due to vendors 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

4.3 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. Novell 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:

Table 4-1 *Certificate Expiration*

Product Version	Certificate Expiration Date
Managed Objects v4.6	April 10, 2011
Managed Objects v4.7	December 11, 2011
Operations Center v5.0	March 24, 2013

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; once the code is signed, it remains valid indefinitely.

Enhancements and Resolved Issues

5

The following resolved issues are included with Operations Center 5.0:

- ♦ CR581884, MyMO: Server side right-clicks not working.
- ♦ CR582280, BSCM: BSCM With Relationship data throws errors.
- ♦ CR582915, F2F adapter getting java.lang.StringIndexOutOfBoundsException when getting root cause.
- ♦ CR584417, BSM - Client - Property column on System Information tab not staying expanded.
- ♦ CR585208, SCOM - RuleName alarm property not displaying in the Alarms window.
- ♦ CR586345, BSW: StoreLockedExcpetion: Kaha Store kaha.db is already opened by this application.
- ♦ CR587011, myMO: Summary Portlet reports wrong alarm counts.
- ♦ CR589475, 4.7 MO/MCorb - unable to increase Heap memory and orb logs report OutOfMemory error.
- ♦ CR592037, BSM - Operations - Duplicate operations menus appearing for non-admin users.
- ♦ CR592368, EVE - Assign Alarm right click on alarms not functioning correctly.
- ♦ CR594422, BSM - Remedy - Formula.root.findElement() not functioning inremote container.
- ♦ CR595917, 4.7 MO:Script adapter & algorithmms not being set set.
- ♦ CR596279, BTI - Get more discovered fields from BTI Adapter if possible.
- ♦ CR596734, BSCM - 'Merge' reconciliation policy causes BSCM job with custom hierarchy to lose all children.
- ♦ CR598946, 4.7 MO recalc engine taking six hours, from thirty minutes on 4.5.
- ♦ CR599035, BSM - PortalBuilder - dd/MM date format not working for Performance Portlet labelling.
- ♦ CR601374, Client: Halt alarms contribution failing when unchecking the function.
- ♦ CR603860, BSLM - 'Calculation' Service Level Objectives not editable after creation.
- ♦ CR604101, Alarm filter cause a memory leak, crashing the server.
- ♦ CR604857, 4.7:myMO: toolkit taglib javadocs link fails and no other source of info fills the information gap.
- ♦ CR605258, BSM server not responding and logins impossible.
- ♦ CR605259, Online Help: Launching online help from client throws an unexpected exception pop-up the first time.
- ♦ CR605260, MO/Service Models: Incorrect parental elements displayed in Impacted window.
- ♦ CR605262, TADDM: The TADDM integration should look in the database directory for hierarchy files.
- ♦ CR605263, Config Store - NPE during a config store copy.

- ♦ CR605312, BSM - EVE - Agent doesn't change state if underlying source becomes unavailable.
- ♦ CR605728, 4.5 MO:research question regarding abnormal data storage for a new profile on EVE adapter.
- ♦ CR607542, Server: ERROR Server.ElementImpl - Server unable to find default ACL for user admins with acl name acl=def.
- ♦ CR607635, BSM - Client - Separate alarm windows not keeping last known filters.
- ♦ CR608680, MSMOM (SCOM) - Element property pages not displaying Date/Time fields.
- ♦ CR608747, MO 4.5:Netcool adapters freezing & connections lost, need to restart MO then adapters take 1.5hrs to come up.
- ♦ CR609455, 4.7:MO:BDI native sybase drive fails to work with MO "generated" queries in BDI.
- ♦ CR609461, MO:F2F duplicate elements showing in client consoles on "random" occasions.
- ♦ CR609574, SMARTS - Broken pip errors receiving SMARTS updates.
- ♦ CR609837, MO/BSCM: Generation fails to include structures from linked elements.
- ♦ CR610654, 4.7:MO:mcorb-BEM Mastercell ORB fails with error ERROR MCorb.Library - Library initialization failed.
- ♦ CR612386, Configstore - SLA blackout calendars missing after 4.5 to 4.7 upgrade.
- ♦ CR612672, BSM - XML Editor - Hierarchy editor throws an error when attempting to re-edit a file.
- ♦ CR613278 ,SCOM: Edit the hierarchy file and adapter stops working - no alarms or elements found.
- ♦ CR613551, myMO: dbmigrate throws out of cursors error when running against Oracle DB.
- ♦ CR613690, BEM: Recorder fails for particular site called <https://gcweb3.guidedchoice.com>.
- ♦ CR615094, Portal: Web.Servlet.SVG - Unexpected error while creating layout view-NPE Thrown.
- ♦ CR615508,BSM - EVE - Chinese characters in file tail cause EVE not to display alarms.
- ♦ CR616295, BEM: Recorder fails on (specific?) HTTPS pages when no proxy is used.
- ♦ CR616406, BSM - Client - Saved user profiles not keeping track of previously selected element, if it is a link.
- ♦ CR616730, BSM4.7/BDI: Missing elements after migrating to version 4.7.
- ♦ CR616821, BSM - Algorithms - Algorithm manually set on a BDI element does not fire automatically.
- ♦ CR616835, BSM - BEM recorder adding extra :443 onto end of an SSL URL.
- ♦ CR617225, BSM - Hierarchy - Greater than/less than operators not working.
- ♦ CR618053, myMO: dbmigrate fails to MS SQL 2008 on USERS_ Table conversion.
- ♦ CR618109, Client: Duplicate IDs found in document in stack trace on client.
- ♦ CR618112, Database: Exception while serializing alarm contents: encoded string too long: 75019 bytes.
- ♦ CR618692, BSM/Service Model:Rename element changes immediate children to non-contributing.

- ♦ CR619222, Netcool: Unable to map unmanaged to unmanaged in MO.
- ♦ CR619236, BSCM: Unexpected error invoking method getRootCauseTree on target.
- ♦ CR619256, Blackout Calendars - Config store export needs to be able to exclude calendar data.
- ♦ CR619269, MO SQL - Results from MO SQL queries returning double rows of results.
- ♦ CR619577, 4.7 myMO:debug file (ext-debug.j) is left in the product - page loads slowly as a result.
- ♦ CR620173, MO:multiple problems - memory issues, server frozen, datawarehouse not keeping up.
- ♦ CR620624, BSM - formula.util.snapshotConfig() causing "java.lang.ArrayIndexOutOfBoundsException: 1" error.
- ♦ CR620673, Remote Container - Remote container cannot be restarted via the client after it is stopped via the client.
- ♦ CR620704, BEM Adapter - Adapter will not restart after it has created DB tables.
- ♦ CR620957, BSM - EVE - EVE hanging and not continuing to process sources.
- ♦ CR622194, BEM 4.7: Recorder fails when communicating through proxy server.
- ♦ CR623484, Configstore: Viewbuilder import just stops processing on sql backend configstore.
- ♦ CR623897, 4.7 myMO: w/2 layouts on one page - only one will refresh.
- ♦ CR626875, Client - Right click operations on alarms failing intermittently due to alarm window refreshes.
- ♦ CR627036, BSM 4.7/EVE: Cut-off time logfile settings do not work.
- ♦ CR627982, Client GUI not up to date when halt alarms checked and unchecked.
- ♦ CR629195, Config Store - NPE during exportatcls.
- ♦ CR629196, SMARTS - Failover doesn't work correctly.
- ♦ CR629228, BSCM: algorithm gather NAM sees relationships.
- ♦ CR630437, BSM - Spectrum server view of Universe results in blank children further down in the Explorer tree.
- ♦ CR630439, BSM - How to suppress msgs: WARN CORBA.Daemon.EveConfigManager.err - log4j:WARN No appenders could be found for.
- ♦ CR632883, BSM - Image server crashing with Java HotSpot error when multi-graph Performance Portlets used in myMO.
- ♦ CR634464, BSM - EVE - Agent remains in Critical state if file tail source exists but is empty.
- ♦ CR634863, BSM - Sybase BSW historical alarm storage very, very slow.
- ♦ CR635626, BEM - Scenario is not failing when a rule explicitly specifies a word match should cause failure.
- ♦ CR636308, BDI: deploy the definition the properties do not follow what is in the source window so the query will fail.
- ♦ CR636394, BSM - Show Impacted not functioning in Remote Container; does work on regular MO server.
- ♦ CR637608, BEM Monitor - Monitoring stops if one monitored device times out.
- ♦ CR637628, Configstore - Bulk removal of users from client sometimes results in incomplete user removal in the configstore.

- ♦ CR637644, Configstore - Users losing all permissions on service model after several copy/paste/rename operations.
- ♦ CR637652, Business Service Warehouse - On MO startup, some SLA element condition status entries are not being recorded.
- ♦ CR637954, Scripting - Customer needs script to show all properties on an element for export filtering.
- ♦ CR638977, BSM - Embedded scripts within Remote Container adapter hierarchy files not being loaded.
- ♦ CR639040, myMO showing signs of a memory leak.
- ♦ CR639839, ERROR Integration.formulabdi.Adapter: OPUS-Stores - Agent error thrown retrieving portal pages.
- ♦ CR640101, 4.7 MO:configstore snapshot script throwing array out of bounds exception.
- ♦ CR640120, 4.7 MO:web2connect issue with getAlarms no respecting paramValues.
- ♦ CR641133, 4.7 MO:BEM monitor - fails to connect on any EIF version above 7.01.
- ♦ CR641174, BSM - EVE - EVE Agents not recording condition change.
- ♦ CR641195, SMARTS - Alarms are being rolled up incorrectly.
- ♦ CR641204, SMARTS - Alarms aren't sorted by Domain correctly.
- ♦ CR641409, 4.7 MO:suppressing child does not propagate the changed status up to parent.
- ♦ CR642159, SLA:Obj. calculations are sometimes wrong for elements with multiple custom properties.
- ♦ CR642303, 4.7 MO- BEM-Master cell mcorb stopped receiving alarms and dropped a core (not hs_err file).
- ♦ CR642861, BEM Monitor - Error running SSLHandler.
- ♦ CR643233, "Remember Me" option in myMO pops up unnecessary warning messages in portal pages.
- ♦ CR643243, Navigation portlet not driving chart builder portlet in portalbuilder.
- ♦ CR644950, BSM - PortalBuilder - Formula Performance Portlet "Last Updated Date/Time" format missing month.
- ♦ CR645083, BEM Monitor - v4.7 LDAP tests fail.
- ♦ CR645241, myMO - Error on startup connecting to high port.
- ♦ CR645930, Performance View - 2nd Performance Chart not displaying X and Y axis markings if property being charted is constant 0.
- ♦ CR646240, Properties pages - using the same name to merge now fails - used to work before.
- ♦ CR646718, BEM Monitor - change in Aggregate Response time causing algorithms to fail.
- ♦ CR647027, BEM Monitor - java.sql.SQLException: Invalid column name EXT_VALUE-1.
- ♦ CR647062, Recalc engine is taking long time for element condition recalculation after Upgrade to 4.7.
- ♦ CR647532, read-only properties in myCMDDB do not work.
- ♦ CR647804, Portal Builder Information Porlet: Custom Layout Diagrams do not render.
- ♦ CR648385, RemoteContainer with Netcool adapter fails to show alarm properties.
- ♦ CR648715, BSW - Expressions will disappear from underneath a profile if one is deleted.

- ♦ CR649599, MO 4.7 - myCMDB - Retention policy not taking into account last modified date when purging.
- ♦ CR649734, 4.7 BEM monitor- failing NetCool/TEC tests with Null Pointer errors - failed to deliver event.
- ♦ CR650194, myCMDB: consumes all physical memory on server.
- ♦ CR651322, MO 4.7 - User Profiles Not Saved in Client.
- ♦ CR651336, myCMDB4.7 - Running Reports Always Return in the Same Results.
- ♦ CR651415, Client: Root Cause View doesn't show all linked elements in network view.
- ♦ CR651475, Viewbuilder: 'delete before import' option doesn't work in 4.7.
- ♦ CR651687, BEM: Error initializing database after 4.5 -> 4.7 PB2 upgrade.
- ♦ CR653361, myMO - layout portlet breaks Liferay theme site name and page title.
- ♦ CR653423, BSM - Java Runtime Error Message - raw HTTP Response contains Pointer Exceptions.
- ♦ CR654149, BEM - Adapter will not start due to host name issue in BEM DB.
- ♦ CR654410, Integration - MCORB needs to be able to pick from a pre-defined range of ports instead of a random port via RMI.
- ♦ CR655285, MO:web2connect - fails to retrieve (Netcool) alarms from a remote container.
- ♦ CR655558, MO4.7 - EMC SMARTS Adapter does not Read Filtering Correctly.
- ♦ CR655819, myCMDB 4.7 - Creating Relation List of CIs is Limited to 500 Results.
- ♦ CR655820, MO4.7 - Renaming Automation Filters Appends Renamed Filter to List, Continues to Reference Original Name.
- ♦ CR656280, SCOM - Severity not changing for changed alarms in the Alarm Window but change registers in SCOM DB.
- ♦ CR656657, Spectrum - Dropping connection with Spectro server with exception: `_hasValidConnection` CORBA exception getting name of model domain -- assuming failure, disconnecting.
- ♦ CR657183, Patrol: On Solaris adapter needs to fork on startup and swap space must be great.
- ♦ CR657705, F/X adapter - Changing hierarchy file causes alarms to disappear out from under the element.
- ♦ CR658289, FX adapter - alarm.setField does not function correctly when new property needs to be set in an alarm.
- ♦ CR658511, BSM - BSM losing connection while viewing Real-time Service Level Metrics: "Unable to request alarm for 2K Cells: IDL: Format/Not Permitted: 1.0".
- ♦ CR658524, myMO: hanging/timing out when a page is requested while MO is gathering high numbers of SLAs from the BSW.
- ♦ CR662110, Integration - FX hierarchy file not allowing group-level severity name-value assignment for alarms.
- ♦ CR662486, myMO - Error connecting from MO to myMO via `mymo.rmi.port` parameter.
- ♦ CR662556, Warehouse - Problem storing alarm when status exceeds BSW status field length.
- ♦ CR665666, BSLM - Planner queries generating queries with end times before start times when week starts on Monday.
- ♦ CR665716, Server - Non-admin users cannot assign alarms.

- ♦ CR669272, BSD 4.7 shows wrong information in Availability report.
- ♦ CR669987, myMO - Performance portlet - Graph still shows multiple elements when only one element chosen.
- ♦ CR670038, BSM - Provide mechanism for creating custom myMO portlets using Web2Connect.
- ♦ CR670667, myMO - Last Updated Date/Time label causes clutter at bottom of portlets.
- ♦ CR671097, moscfg throws error when doing an export of configuration.
- ♦ CR673092, SMARTS broker/domain passwords showing in formula.trc in clear text.
- ♦ CR673434, 'Find' dialog missing Search and Return button if user goes to add elements to existing Service Model.
- ♦ CR673452, Web2Connect: Fails to set cache-control headers in responses.
- ♦ CR676305, BSM/Integration: ZCM adapter causes exception and fails with END OF DATA error message.
- ♦ CR678501, SCOM adapter not coming down if user tries to stop it manually.
- ♦ CR678656, MyMO SLA Portlet exhibits multiple intermittent failures.
- ♦ CR679371, Config import - 'Halt alarm contributions' flag does not stay checked upon config import.
- ♦ CR679805, EVE event queue backing up leading to server lockup.
- ♦ CR679837, Alarms portlet - mismatch in alarm counts between MO client Alarms view and myMO Alarms portlet.
- ♦ CR681334, Layout - current Client drill down logic only allows drilling down into one level of children from the current drawing selection.
- ♦ CR682396, BSM:4.7: Bulk alarm updates to multiple Netcool adapters results in (client?) NPE - seems to have started with PB2.