

# Novell Business Continuity Clustering 1.2 Readme

Novell®

August 14, 2009

This Readme identifies known issues for Novell® Business Continuity Clustering 1.2 for your Novell Open Enterprise Server (OES) 2 Support Pack 1 (SP1) for Linux\* servers that are running Novell Cluster Services™ 1.8.5.

- ♦ [Section 1, “Downloads,” on page 1](#)
- ♦ [Section 2, “Known Issues,” on page 1](#)
- ♦ [Section 3, “Documentation,” on page 4](#)
- ♦ [Section 4, “Additional Information,” on page 4](#)
- ♦ [Section 5, “Documentation Conventions,” on page 4](#)
- ♦ [Section 6, “Legal Notices,” on page 4](#)

## 1 Downloads

You can download [Business Continuity Clustering 1.2 for OES 2 SP1](http://download.novell.com/Download?buildid=sQSUZRA2iO4~&internal=true) (<http://download.novell.com/Download?buildid=sQSUZRA2iO4~&internal=true>) from the [Novell Downloads Web site](http://www.novell.com/downloads) (<http://www.novell.com/downloads>). BCC supports 32-bit and 64-bit OES 2 SP1 Linux architectures.

In addition, you must download the following products:

- ♦ [Identity Manager 3.6 Bundle Edition](http://download.novell.com/Download?buildid=nB7Gvt7p9bg~) (<http://download.novell.com/Download?buildid=nB7Gvt7p9bg~>) (only 32-bit is available)

The credential you need to use Identity Manager drivers beyond the evaluation period can be found in the BCC license.

- ♦ [Storage Related Plug-Ins for OES 2 SP1 with support for Business Continuity Clustering](http://download.novell.com/SummaryFree.jsp?buildid=UB61uxO83qk~) (<http://download.novell.com/SummaryFree.jsp?buildid=UB61uxO83qk~>)

## 2 Known Issues

This section identifies known issues for BCC 1.2 for OES 2 SP1 Linux.

- ♦ [Section 2.1, “Identity Manager 3.6.1 Is Supported for Use With BCC 1.2,” on page 2](#)
- ♦ [Section 2.2, “Identity Manager 3.6 Node Requires 32-Bit OES 2 SP1 Linux,” on page 2](#)
- ♦ [Section 2.3, “Multiple-Tree Configurations Are Not Supported,” on page 2](#)
- ♦ [Section 2.4, “Do Not Disable BCC for a Resource from Multiple Peer Clusters,” on page 2](#)
- ♦ [Section 2.5, “Upgrading the Clusters Plug-In for iManager 2.7.2,” on page 3](#)

## 2.1 Identity Manager 3.6.1 Is Supported for Use With BCC 1.2

Identity Manager 3.6.1 (released in June 2009) supports the 64-bit version of the OES 2 SP1 Linux operating system. BCC supports using Identity Manager 3.6.1 in a peer cluster. You can upgrade to 3.6.1 on a 32-bit OES 2 SP1 Linux operating system, or re-configure the node with a 64-bit OES 2 SP1 Linux operating system and software.

To upgrade an Identity Manager node to 3.6.1:

- 1 Before you upgrade to Identity Manager 3.6.1, save the BCC driver configuration information, then stop the BCC drivers and delete them.
- 2 Use one of the following methods to upgrade to Identity Manager 3.6.1:
  - ♦ Install 3.6.1 on a 32-bit OES 2 SP1 Linux operating system to upgrade Identity Manager from 3.6 to 3.6.1.
  - ♦ Re-install the system with the 64-bit OES 2 SP1 Linux operating system, then install Identity Manager 3.6.1 and iManager 2.7.2 on the system.
- 3 Re-create the BCC drivers.

If you uninstall Identity Manager 3.6 before installing 3.6.1 on the 32-bit platform, the Identity Manager uninstall script removes the symbolic link to the BCC `ncs_bcc.jar` file in the `/opt/novell/eDirectory/lib/dirxml/classes/` directory, which causes the error

```
com.novell.xml.xpath.XPathEvaluationException: function
'bcc:IncrementRevision'
not found
```

Re-install the `novell-business-continuity-cluster rpm` using the `--force` and `--replacepkgs` options. This re-creates the symbolic link to the BCC `ncs_bcc.jar` file.

## 2.2 Identity Manager 3.6 Node Requires 32-Bit OES 2 SP1 Linux

The Identity Manager 3.6 Bundle Edition requires a 32-bit OES 2 SP1 Linux operating system. In a 64-bit cluster, you must have one node running 32-bit OES 2 SP1 Linux where you will install Identity Manager 3.6.

BCC-enabled cluster resources are not assigned to run on the Identity Manager node in 64-bit cluster because of the architecture difference.

## 2.3 Multiple-Tree Configurations Are Not Supported

In the BCC 1.2 for Linux release, multiple-tree configurations of business continuity clusters are not supported. All peer clusters must reside in the same tree.

## 2.4 Do Not Disable BCC for a Resource from Multiple Peer Clusters

If a given BCC enabled resource is disabled for BCC from multiple peer clusters, and is then BCC enabled from one or more peer clusters, the resource can come online as primary in multiple clusters.

If a resource is seen as primary in a peer cluster where you know it should actually be seen as Secondary, execute the `cluster resetresources` command to force it to reset the status to its proper state.

---

**IMPORTANT:** This command changes the state of all resources on this peer cluster to offline and secondary.

---

## 2.5 Upgrading the Clusters Plug-In for iManager 2.7.2

The BCC management tool is integrated in an update to the Novell Cluster Services Clusters plug-in for Novell iManager 2.7.2 (the version released with OES 2 SP1) or later. In addition to managing Novell Cluster Services, the Clusters plug-in is used to manage BCC 1.1 SP2 for NetWare 6.5 SP8 (same as OES 2 SP1 NetWare) and BCC 1.2 for OES 2 SP1 Linux.

To use the BCC options in the Clusters role in iManager, the following storage-related plug-ins must be installed:

```
nsmgmt.npm
storagemgmt.npm
```

The `storagemgmt.npm` contains code in common with other storage-related plug-ins for OES 2 SP1, including Novell Storage Services, Novell Archive and Version Services, Novell Apple\* Filing Protocol (AFP), Novell CIFS, and Novell Distributed File Services. Make sure that you include this common plug-in module when installing any of the others.

---

**IMPORTANT:** If you use more than one of these plug-ins, you should install, update, or remove them all at the same time to make sure the common code works for all plug-ins. If you remove only one of the plug-ins, it removes the common code and breaks the remaining installed plug-ins.

---

These iManager plug-ins support iManager 2.7.2 on all operating systems supported by iManager and iManager Workstation.

These plug-ins are not automatically included with the iManager download. If you want these plug-ins, you must download them separately.

- 1 Download the [Novell Storage Related Plug-Ins for iManager 2.7.2 with support for BCC](http://download.novell.com/SummaryFree.jsp?buildid=UB61uxO83qk~) (<http://download.novell.com/SummaryFree.jsp?buildid=UB61uxO83qk~>) from the [Novell Downloads Web site](http://download.novell.com/) (<http://download.novell.com/>).
- 2 On the iManager server, if the OES 2 version of the storage-related plug-ins are installed, or if you upgraded this server from OES 2 Linux or NetWare 6.5 SP7, log in to iManager, then uninstall all of the storage-related plug-ins that are currently installed, including `storagemgmt.npm`.  

This step is necessary for upgrades only if you did not uninstall and reinstall the storage-related plug-ins as part of the upgrade process.
- 3 On the server, copy the new plug-ins to the packages folder, and manually overwrite the older version of the plug-ins with the newer version of the plug-ins.
- 4 Install all of the storage-related plug-ins, or install only the ones you need plus `storagemgmt.npm`.
- 5 Restart Tomcat.
- 6 Restart Apache.

## 3 Documentation

This Readme lists all known issues for BCC 1.2 for Linux. For information about installing and managing BCC, see the *BCC 1.2: Administration Guide for Linux*.

The latest documentation for BCC is available on the [Business Continuity Clustering documentation Web site \(http://www.novell.com/documentation/bcc\)](http://www.novell.com/documentation/bcc).

## 4 Additional Information

For information about installing and managing Identity Manager 3.6, see the [Identity Manager 3.6 documentation Web site \(http://www.novell.com/documentation/idm36/\)](http://www.novell.com/documentation/idm36/).

For information about Novell iManager 2.7.2, see the [iManager 2.7.x documentation Web site \(http://www.novell.com/documentation/imanager27/index.html\)](http://www.novell.com/documentation/imanager27/index.html).

For information about OES 2 SP1 Linux, see the [OES 2 SP1 documentation Web site \(http://www.novell.com/documentation/oes2/\)](http://www.novell.com/documentation/oes2/).

For information about Novell Cluster Services 1.8.5, see the [Clustering \(High Availability\) documentation Web site for OES 2 SP1 \(http://www.novell.com/documentation/oes2/cluster-services.html\)](http://www.novell.com/documentation/oes2/cluster-services.html).

## 5 Documentation Conventions

In this documentation, a greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path.

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

## 6 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. Please refer to 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 © 2009 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., has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed on the [Novell Legal Patents Web page \(http://www.novell.com/company/legal/patents/\)](http://www.novell.com/company/legal/patents/) and one or more additional patents or pending patent applications in the U.S. and in other countries.

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).

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

