Novell Business Continuity Clustering 1.1 SP1 Readme

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Novell®

This *Readme* applies to Novell® Business Continuity Clustering (BCC) 1.1 Support Pack (SP) 1 for Novell Open Enterprise Server (OES) 1 SP2 Linux and for NetWare 6.5 SP5 or SP6.

1 Downloading BCC 1.1 SP1

To download BCC 1.1 SP1, go to The Novell Business Continuity Clustering download site (http://download.novell.com/Download?buildid=bdkmSxRgKVk~).

2 Documentation

For information on Business Continuity Clustering 1.1 SP1 for OES 1 SP2 Linux and for NetWare 6.5 SP5/SP6, see the BCC Documentation Web site (http://www.novell.com/documentation/bcc/).

3 Installation Issues

3.1 Pre-Installation Patches for Linux

The latest OES Linux patches from the patch channel are required prior to installing BCC 1.1. For instructions on updating OES Linux with the latest patches, see Patching an OES Linux Server (http://www.novell.com/documentation/oes/install_linux/data/bxlu3xc.html) in the *OES Linux Installation Guide*.

For more information on applying patches using the YaST online update or Red Carpet, see the Novell Linux Registration and Updates page (http://support.novell.com/linux/registration/).

3.2 Pre-Installation Patches for NetWare

The following OES NetWare patches are required prior to installing BCC1.1:

- The NetWare 6.5 post Support Pack 5 Update. See *OES SP2, NW6.5 SP5 Update 1: TID # 2974185* (http://support.novell.com/docs/Readmes/InfoDocument/2974185.html).

This patch is required only for NetWare 6.5 Support Pack 5. If you have upgraded to NetWare 6.5 Support Pack 6, this patch is not required.

- The nwcs18pt3 or later cluster patch. See *Netware Cluster Services Field Test: TID # 2974985* (http://support.novell.com/cgi-bin/search/searchtid.cgi?/2974985.htm).

  This patch can be applied only to NetWare 6.5 Support Pack 5. If you have upgraded to NetWare 6.5 Support Pack 6, this patch is not required.

- LIBC (libcsp6X or later) See *LIBC Update NetWare 6.5 SP6 9.00.05: TID # 5003460* (https://innerweb.novell.com/docs/iReadmes/InfoDocument/patchbuilder/readme_5003460.html).

- OpenWBEM. See *CIMOM Update for NetWare 6.5 SP6: TID # 5004180* (http://support.novell.com/docs/Readmes/InfoDocument/patchbuilder/readme_5004180.html).

3.3 Update the iManager Cluster Plug-in

You must remove the existing iManager plug-in for Novell Cluster Services and replace it with the plug-in that is on the Novell download Web site (http://download.novell.com/). Updating the iManager plug-in for cluster services resolves sporadic iManager problems specific to Novell Cluster Services.

To remove the old plug-in, start iManager and then perform the following steps:

1. Click the *Configure* button, then click *Module Installation*.
2. Click *Installed Novell Plug-in Modules*, then select *Cluster Services*.

   IMPORTANT: If you have installed the iManager plug-in for Archive and Versioning Services, you must remove it. If you have installed the Storage Management plug-in (`nssmgmt.npm`) and/or the Shared Storage plug-in (`storagemgmt.npm`), you must remove and resinstall them.

   Select these additional plug-ins to remove them.

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3. Click Uninstall to remove the selected plug-ins.
4. Sometimes the plug-ins may not be correctly removed. To ensure that the plug-ins are removed, complete the following steps for iManager on either NetWare or Linux as indicated:

   4a Go to the `sys:\tomcat\4\webapps\nps\portal\modules` directory on NetWare, or the `/var/opt/novell/tomcat4/webapps/nps/portal/modules` directory on Linux, and ensure the following folders are no longer present. If the folders are present, delete them.

   - `ark`
   - `nss`
   - `ncs`
   - `storage`

   4b Go to the `sys:\tomcat\4\webapps\nps\WEB-INF` directory on NetWare, or the `/var/opt/novell/tomcat4/webapps/nps/WEB-INF` directory on Linux, and ensure the following files are no longer present. If the files are present, delete them.

   - `ark.tld`
   - `ncs.tld`
   - `nss.tld`

4c Go to the sys:\tomcat\4\webapps\nps\WEB-INF\modules directory on NetWare, or the /var/opt/novell/tomcat4/webapps/nps/WEB-INF/modules directory on Linux, and ensure the following folders are no longer present. If the files are present, delete them.

- `ark`
- `ncs`
- `nsmgmt`
- `storage`

4d Go to the `sys:\tomcat\4\webapps\nps\WEB-INF\lib` directory on NetWare, or the `/var/opt/novell/tomcat4/webapps/nps/WEB-INF/lib` directory on Linux, and ensure that the following folders are no longer present. If the folders are present, delete them. (The * character used here is a wildcard character used to represent additional characters in the filename, and is not actually part of the filename.)

- `ark*.jar`
- `ncs*.jar`
- `nss*.jar`

4e Go to the `sys:\tomcat\4\webapps\nps\packages` directory on NetWare, or the `/var/opt/novell/tomcat4/webapps/nps/packages` directory on Linux, and ensure the following files are no longer present. If the files are present, delete them.

- `arkmgmt.npm`
- `nssmgmt.npm`
- `ncsmgmt.npm`
- `storagemgmt.npm`

4f Go to the `SYS:\tomcat\4\work\STANDALONE\LOCALHOST\NPS\portal\modules` directory on NetWare, or the `/var/opt/novell/tomcat4/work/Standalone/localhost/nps/portal/modules` directory on Linux, and ensure that the following folders are no longer present. If the folders are present, delete them.

- `ark`
- `nss`
- `ncs`
- `storage`

4g Go to the `sys:\tomcat\4\webapps\nps\UninstallerData` directory on NetWare, or the `/var/opt/novell/tomcat4/webapps/nps/UninstallerData` directory on Linux, and ensure that the following folders are no longer present. If the folders are present, delete them.

- `Uninstall_nssmgmt`
- `Uninstall_ncsmgmt`
- `Uninstall_arkmgmt`
- `Uninstall_storagemgmt`
- `Uninstall_nssmgmtjar`
- `Uninstall_ncsmgmtjar`
- `Uninstall_arkmgmtjar`
- `Uninstall_storagemgmtjar`

To install the new plug-ins:

1. Go to the iManager plug-in download site (http://download.novell.com/index.jsp?product_id=&search=Search&build_type=SDBuildBean&families=2611&version=&date_range=&keywords=&x=32&y=7) and download the iManager plug-ins to a directory.
2. In iManager, click the *Configure* button, select *Module Installation*, select *Available Novell Plug-in Modules*, then click *New*.
3. Browse to the directory where you downloaded the plug-ins and add the storage management (`storagemgmt.npm`) plug-in by selecting it, clicking *Open*, and then clicking *OK*.
4. Repeat Step 3 to add the NSS plug-in (`nssmgmt.npm`) and the Novell Cluster Services plug-ins (`ncsmgmt.npm`).
5. Select the Storage Management plug-in (`storagemgmt.npm`), click *Install*, and then click *Close* on the message screen with the text informing you to restart your Web server.
6. Click *Available Plug-ins* and then repeat Step 5 for both the NSS plug-in (`nssmgmt.npm`) and the Novell Cluster Services plug-in (`ncsmgmt.npm`).

   The plug-ins must be installed in the following order:

   1. `storagemgmt.npm`
   2. `nssmgmt.npm`
   3. `ncsmgmt.npm`
7. Restart the Apache Web server.

   One way to do this is by restarting your server.

3.4 Software Dependency Conflicts on Linux

During the installation and uninstallation processes, a message might appear stating that requisite software is not installed and asking you if you want to resolve conflicts. Click *Yes*, and then on the Dependency Conflict screen, select *Do Not Delete novell-cluster-services-cli*, click *OK* -- *Try Again*, and then *Accept*.

You might also encounter software dependency conflicts unrelated to Novell Business Continuity Clustering or Novell Cluster Services™ software. You should resolve these conflicts on a case-by-case basis.

3.5 Drive Mappings to NetWare Mapped Volumes Missing After Install

The drive mappings to all NetWare mapped volumes are removed if you enter invalid credentials for administrator/password in the BCC install wizard.

3.6 Limited Support for Mixed NetWare and Linux Clusters

Clusters containing NetWare and Linux* nodes are only supported in a BCC as a temporary means to convert a cluster from NetWare to Linux. Part of the temporary conversion state includes a restriction that only one mixed cluster can exist in your BCC. For example, Cluster A can have both NetWare and Linux nodes, but Cluster B cannot. All nodes in Cluster B must be either NetWare or Linux.

The same restrictions that apply to migrating or failing over resources between nodes within a single cluster also apply to migrating or failing over resources between clusters in a mixed BCC. You can only migrate or fail over NSS pool/volume resources between clusters in a mixed BCC. See Converting a NetWare Cluster to Linux (http://www.novell.com/documentation/oes/cluster_admin_lx/data/bu1b1x8.html) in the *OES Novell Cluster Services 1.8.2 Administration Guide for Linux*

3.7 Do Not Mix IDM Versions

Do not install IDM 3.x management utilities with the IDM 2.x engine. If you do, the IDM Driver for eDirectory will be converted to version 3.x, and the IDM 2.x engine will no longer be able to get the driver information.

4 Known Issues

4.1 Existing Clusters Could Have Conflicting VOLIDs

When existing clusters are configured and enabled within the same business continuity cluster, the volume IDs (VOLIDs) for the existing shared volumes might also share the same VOLIDs. To correct this problem, manually edit the load script for each volume that has been enabled for business continuity and change the VOLIDs to unique values for each volume in the business continuity cluster.

4.2 Refresh of iManager Views Delayed

When you enable a cluster resource for business continuity, that resource might take up to 30 seconds to appear as enabled for business continuity in iManager. After Business Continuity Clustering refreshes its status information, the resource will appear as enabled.

4.3 NSS Pool Failover Times

Due to MSAP (Multiple Server Activation Protocol), the NSS pools on a cluster might take up to 30 seconds per pool to fail over from a cluster to one node in another cluster. If you have several pools in a cluster, the failover process will be faster if those pools fail over to multiple nodes (fan-out failover) rather than to just a single node.

4.4 Migrating Volume Trustee Assignments

If you are migrating a pool to a cluster in another tree and you want to maintain that pool's volume trustee assignments, you must migrate the pool to a server with an eDirectory™ replica that holds all objects that have trustee assignments on any of the volumes in the pool. After migrating the pool to a server with an eDirectory replica, enter the following console command on that server for each volume in the pool:

`NSS/ResetObjectIDStore=`*`volumename`*

This command updates all volume trustee assignments and should be run at night, on a weekend, or during a period of low network and disk utilization. Trustee assignments will not appear in management utilities until you run the command.

If you migrate the pool to a server in another tree without an eDirectory replica, within 90 days you must migrate that pool to a server with an eDirectory replica and then run the command for each volume.

Trustee assignments are always enforced, but after migrating a volume from a cluster in one tree to a cluster in another tree, volume trustee assignments might not be displayed correctly in ConsoleOne®, Novell Remote Manager (NRM), or on an NCP™ client. This issue exists when the migrated pool is active on a nonreplica server node.

The trustees are in place and correct. Users with trustee assignments from the original tree can map drives and access data with no issues. If a pool is migrated to a server node that contains a replica, the trustee assignments are presented correctly.

See Migrating Volume Trustee Assignments above for more information.

4.5 Renamed BCC Volume Names Don't Replicate to Other Trees

If you rename a volume on a shared pool in a business continuity cluster, the changed volume name will not replicate to a cluster in another eDirectory tree. This does not affect user access to the volume in either tree.

4.6 Using iManager to Set Credentials on Linux Not Functional

You cannot use iManager on Linux to set eDirectory credentials for BCC. You must use iManager on NetWare or Windows (the server must be in the same eDirectory tree), or use the Linux BCC command line interface from a shell prompt to set credentials.

4.7 Problems Saving SAN Management Scripts

After filling in the values on the SAN Management Script Details page and clicking Apply and OK, you are returned to the Resource Properties page (with the Business Continuity tab selected). You must click OK on the Resource Properties page or your script changes will not be saved.

4.8 Resource Goes Offline After Migration

Occasionally after migrating a resource to another cluster, the resource will be in an offline-primary state on the destination cluster. If this occurs, online the resource on the destination cluster using either iManager or cluster commands at the server console.

4.9 Cluster and Peer Clusters Don't Appear in Connections List After Upgrade

After upgrading from BCC 1.0 to BCC 1.1 the cluster and peer clusters in your BCC might not appear in the connections list in iManager. To work around this problem:

1. Deselect the *Enable Business Continuity Features* check box in iManager and save your changes.
2. Re-enable Business Contintuity by selecting the peer clusters and selecting the *Enable Business Continuity Features* check box.

For more information, see Configuring Clusters for Business Continuity in the *Novell Business Continuity Clustering 1.1 Administration Guide for NetWare*.

4.10 Creating a New Cluster Resource Requires IDM Cluster Node to Be Up

The node in each cluster where the IDM engine and drivers are running must be up before creating a new cluster resource in your BCC. This requirement does not apply for configuring existing cluster resources, just for creating new resources.

4.11 Disabling BCC for a Cluster Disables BCC for Cluster Resources

If you disable BCC for a cluster using either iManager or the Cluster Disable console command, BCC will also be disabled for those cluster resources that have been BCC-enabled. If you re-enable BCC for the cluster, you must re-enable each individual cluster resource that you want to be BCC-enabled.

This can be a time-consuming process if you have many BCC-enabled cluster resources. For this reason, you should use caution when disabling BCC for an entire cluster.

4.12 Cluster Restart Command Not Functional on NetWare

The `Cluster Restart` command currently does not work on NetWare clusters. To restart your cluster:

1. At the NetWare server console of a cluster server, enter `unload ncscon`.

2 Enter `cluster restart`.

3 Enter `load ncscon`.

This problem will be fixed for NetWare 6.5 Support Pack 7 and later. Unloading ncscon will then no longer be required.

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