IBM Copy Services Manager
Version 6 Release 1

Release Notes
December 2015

IBM

Contents

About this document

This document contains the release notes in support of IBM® Copy Services Manager Version 6 Release 1.

What's new

IBM Copy Services Manager Version 6.1 introduces the following new features:

Version 6, Release 1

This table provides the current technical changes and enhancements to Copy Services Manager as of December 2015.

Table 1. What's new in Copy Services Manager Version 6.1 (December 2015)

Function	Description
Rebranding	The product is now rebranded from IBM Tivoli® Storage Productivity Center for Replication to IBM Copy Services Manager throughout the product interfaces and documentation.
Documentation updates	The following product documentation is now updated with the rebranded names, and information on new functions: • *IBM Copy Services Manager Installation and Configuration Guide* • *IBM Copy Services Manager User's Guide* In addition to the PDF document updates, there is a new online product documentation website for Copy Services Manager available at http://www-01.ibm.com/support/knowledgecenter/SSESK4.
Stand-alone installation	Copy Services Manager offers stand-alone installation on all currently supported Tivoli Storage Productivity Center for Replication 64-bit distributed platforms (Windows, AIX®, and Linux).
Migration from Tivoli Storage Productivity Center for Replication	Copy Services Manager supports customer migration from Tivoli Storage Productivity Center for Replication.
Tivoli Storage Productivity Center for Replication support	Copy Services Manager offers continued support for all existing Tivoli Storage Productivity Center for Replication functions across mainframe and distributed devices.
New server platform support	Copy Services Manager offers support for the following new platforms that are not currently supported by Tivoli Storage Productivity Center for Replication: Linux on IBM PowerPC®, and Linux on IBM z Systems™.
New storage system support	Copy Services Manager offers official support for IBM Storwize® V5000 and IBM FlashSystems V9000 and V840.
Authentication	Copy Services Manager supports both basic user registry and LDAP Registry authentication.
Hardware session ID for IBM System Storage® DS8000® Global Mirror sessions	Copy Services Manager now enables users to define a hardware session ID for DS8000 Global Mirror sessions.

Table 1. What's new in Copy Services Manager Version 6.1 (December 2015) (continued)

Function	Description
Management of 256+ Global Mirror sessions on DS8000 systems	Copy Services Manager allows multiple Global Mirror sessions to use the same hardware master session. Customers can use this feature to manage 256+ Global Mirror sessions individually on the same DS8000 storage system.
REST interfaces updates for iSeries toolkit integration	Copy Services Manager provides updates to REST interfaces for integration with the IBM iSeries Advanced Copy Services Tool Kit.
Property setting for basic automatic restart for SAN Volume Controller Global Mirror suspend operations with reason code 1720 or 1920	SAN Volume Controller automatically suspends replication for Global Mirror relationships if it cannot keep up with forming consistency groups to avoid application impact. In the past, customers had to create scripts to automatically restart the replication under these conditions. By selecting this new properties option, the Copy Services Manager server automatically restarts the session when it suspends due to reason code 1720 or 1920. This feature helps to add in the automation needed for the restart operation for SAN Volume Controller systems in Copy Services Manager..
Suspend on drain command for Metro Global Mirror (MGM), which automates the Metro Global Mirror suspension when the Out of Sync (OOS) track reaches zero	This new command for an MGM or MGM with Practice session is used when you quiesce an application and want to suspend the session for a planned recovery. In the past, customers needed to actively monitor the replication until there were no longer any OOS tracks for the pairs before they suspended the session. With this new feature, Copy Services Manager automatically initiates the suspend operation when there are no longer any OOS tracks on the remote leg of the MGM session.
Global Mirror drain time and coordination interval property settings for Copy Services Manager Global Mirror sessions	For Global Mirror session properties, you can now specify the drain time and coordination interval settings by using the Copy Services Manager GUI. These settings were previously only available through the command line.
Remote CLI installation	You can now install the Copy Services Manager CLI to run on a remote system.
Support for configuring LDAP authentication by using the Copy Services Manager CLI	You can configure LDAP in your Copy Services Manager environment though the command-line interface. Specific commands are used to connect to either an Active Directory or LDAP server for authentication.
Support for Try-and-Buy evaluation license	You can run a trial version of Copy Services Manager by selecting a Try-and-Buy evaluation license. During the installation process, you are guided on how to apply this special license.

Table 1. What's new in Copy Services Manager Version 6.1 (December 2015) (continued)

Function	Description
Support for Multi-Target Metro Mirror - Global Mirror and Multi-Target Metro Mirror - Global Mirror with Practice session types	Copy Services Manager supports the DS8000 storage systems feature for allowing a multi-target configuration where a source volume can make a short distance copy using Metro Mirror at the same time as a long distance copy that is using Global Mirror. These new session types allow for easier site switching between the three sites. The Metro Mirror - Global Mirror with Practice session provides the ability to practice how you would recover, while maintaining disaster recovery capability.

Chapter 1. Prerequisites

Prerequisites for Copy Services Manager 6.1 include supported platforms and browsers, as well as storage systems.

The Copy Services Manager Version 6.1 prerequisites can be found at http://www-01.ibm.com/support/docview.wss?uid=ssg1S1005402.

Chapter 2. General information

This section describes general information that is associated with IBM Copy Services Manager Version 6.1.

Getting support

For technical support with this release of Copy Services Manager, visit the following websites:

- IBM System Storage products: http://www.ibm.com/servers/storage
- IBM Copy Services Manager Support Portal: http://www.ibm.com/support/entry/portal/product/system_storage/storage_software/storage_infrastructure_management/ibm_copy_services_manager

Product documentation

The Copy Services Manager online product documentation at http://www-01.ibm.com/support/knowledgecenter/SSESK4 contains all of the information that is required to install, configure, and manage Copy Services Manager. The online documentation is updated between product releases to provide the most current information.

You can order or download individual publications that have an order number from the IBM Publications website at http://www-05.ibm.com/e-business/linkweb/publications/servlet/pbi.wss.

Table 2. Copy Services Manager product publications

Title	Description	Order number
IBM Copy Services Manager Installation and Configuration Guide	This guide provides task-oriented information for administrators who install and configure Copy Services Manager Version 6 Release 1.	SC27-8543-00
IBM Copy Services Manager User's Guide	This guide provides task-oriented information for administrative users of Copy Services Manager Version 6 Release 1. Users should be familiar with the following topics: • Copy Services concepts • General principles of IBM AIX, Linux, Windows, and the IBM z/OS operating systems • Simple Network Management Protocol (SNMP) concepts • Storage Area Network (SAN) concepts	SC27-8542-00

Chapter 3. Known issues and workarounds

This section describes current known issues with IBM Copy Services Manager Version 6.1 and any associated workarounds.

Table 3. IBM Copy Services Manager Version 6.1 known issues and workarounds

Issue	Explanation and possible workaround
When defined with the same consistency group name, all sessions that share the same DS8000 storage system have the same Master/Subordinate topology, even if there are sessions that do not span the same set of storage systems.	Copy Services Manager supports assigning the same consistency group name to multiple Global Mirror sessions. Master/Subordinate sessions for DS8000 are supported, but limited testing was completed for different combinations of Master/Subordinate configurations, due to environment limitations. Consult with IBM Support to ensure proper coverage of your required configuration.
When more than 256 Copy Services Manager sessions are assigned the same consistency group name, internal issues are encountered.	Limit the number of sessions with the same consistency group name to under 256. This issue will be addressed in a future release.
The Global Mirror options are not synced across sessions that share the same consistency group name. Therefore, when the Global Mirror Master is started, it uses the options that were defined for one of the sessions.	In Copy Services Manager, you can modify certain options for Global Mirror sessions, such as the consistency-group interval time. Ensure that all sessions that have the same consistency group name are also defined with the same Global Mirror options.
When the Global Mirror data for a session is exported, gaps might result with no data while the session was in a suspended state.	When a Global Mirror session that shares a consistency group name with other sessions is suspended, the suspended session is removed from the Master on the hardware while the other sessions are restarted and continue to form consistency groups. When a session is removed from the Master, Copy Services Manager stops collecting historical Global Mirror data for that session. This is a code limitation with no current workaround.
Copy Services Manager does not support the ability to change the Master of the Metro Global Mirror session from the H2 volumes to the H1 volumes without affecting the other Global Mirror sessions that share the consistency group name.	Copy Services Manager supports the ability to use the same consistency group name across a Metro Global Mirror session. However, when running H1>H2, if you issue either a Start H1>H3 to complete an Incremental Resync, or you issue a Suspend/Recover/Start H2H1H3 to switch the direction of the session, the Global Mirror session is terminated at site 2, which affects the other shared Global Mirror sessions. This is a code limitation with no current workaround.

Table 3. IBM Copy Services Manager Version 6.1 known issues and workarounds (continued)

Issue	Explanation and possible workaround
Copy Services Manager does not support local OS authentication.	When migrating from a Tivoli Storage Productivity Center for Replication installation that uses local OS authentication to a Copy Services Manager installation (see the *IBM Copy Services Manager Installation and Configuration Guide* for migration instructions), local OS users are displayed on the Administration page with an indication that they were not found in either the LDAP or Basic User Registries. Delete these local OS users, and then either create new basic users for local users, or configure LDAP to use LDAP users or groups for authentication.
There is a known DS8000 issue on certain microcode levels when a relationship is running in Global Copy and switched to a Metro Mirror mode. An error occurs indicating that the multi-target feature is not supported. This problem could be encountered on Multi-Target Metro Mirror - Global Mirror and Multi-Target Metro Mirror - Global Mirror with Practice session types.	Suspend the Metro Mirror pairs, and then restart to work around the issue.
In the Copy Services Manager z/OS installation only, there is a known issue for the Multi-Target Metro Mirror - Global Mirror and Multi-Target Metro Mirror - Global Mirror with Practice sessions types, where the session can end in an incorrect state after recovering to a third site. This issue only occurs if a Recover is issued to Site 3 after a Recover has been issued first to the Metro Mirror target leg. The original Global Mirror relationship ends in a Suspended state instead of the Target Available state.	This issue will be resolved in a future release of Copy Services Manager.
After a recover to Site 3 for a Metro Mirror - Global Mirror session, when a Start H3->H1->H2 or Start H3->H2->H1 command is issued, the H1H2 pairs might end up in a Suspended state with a Suspend reason code x'16. A timing issue might occur, which results in the suspension when the pairs are converted from a multi-target mode to the cascading mode.	This issue will be addressed in a future release of Copy Services Manager. A possible workaround to the issue is to suspend the session and restart after the H1H2 suspension occurs.

Table 3. IBM Copy Services Manager Version 6.1 known issues and workarounds (continued)

Issue	Explanation and possible workaround
Documentation error: The "Global Mirror Failover/Failback with Change Volumes session properties" option for *enabling automatic restart on unexpected suspends* on SAN Volume Controller systems incorrectly documents a restriction that required the SAN Volume Controller systems to have clocks synced using the same NTPIP address.	There is no restriction for using the option. The option description as documented in the *Copy Services Manager User's Guide* should read as follows: Select this option to automatically restart the session if it unexpectedly suspends with reason code 1720 or 1920. An automatic restart is attempted for every suspend with reason code 1720 or 1920 up to a certain number of times (determined by the storage server's *gmlinktolerance* value) within a 30 minute time period. If the number of allowable automatic restarts is exceeded within the time period, the session will not restart automatically on the next unexpected suspend. Issue a **Start** command to restart the session, clear the automatic restart counters, and enable automatic restarts. If the session allows change volumes, but the change volumes option is disabled when the suspend occurs, the session options are automatically changed to enable change volumes. As a result, when the session is automatically restarted, change volumes are used. If change volumes are no longer needed after the session is restarted, disable the change volumes option in the View/Modify Properties window for the session in the GUI. **WARNING:** Enabling this option causes the session to be automatically restarted by the server. When this occurs, the secondary site will not be consistent until the relationships are fully re-synced.

Chapter 4. Upgrading on z Systems

You can upgrade Copy Services Manager on z Systems™ from a previous version. Or you can upgrade from Tivoli Storage Productivity Center for Replication to Copy Services Manager.

Upgrading from a previous version of Copy Services Manager

Before you begin

During the upgrade, the Copy Services Manager management server is not available. Therefore, the capability for disaster recovery during the migration process is not available unless you have established a high-availability environment. A high-availability environment includes an active and standby management server.

If you want to maintain disaster recovery capability, you must complete the steps to perform a takeover on the standby management server before you upgrade the active management server. The standby management server continues to manage sessions during the upgrade process, which ensures disaster recovery capability and minimizes downtime if the upgrade fails.

For more information on setting up a standby management server, see the *IBM Copy Services Manager User's Guide* chapter titled "Managing management servers." See Chapter 2, "General information," on page 3 for instructions on where to locate this guide. The same information is also available in the online product documentation at http://www-01.ibm.com/support/knowledgecenter/SSESK4.

If you do not want to maintain disaster recovery capability during the migration process, a standby management server is not required. In general, this migration method is used only if you are using Copy Services Manager only for monitoring purposes and are not managing sessions. If you use this method, it is more difficult to restore your Copy Services Manager configuration if the upgrade fails.

Note: When you upgrade to a newer version of Copy Services Manager, the port assignments are preserved as they were before the upgrade.

About this task

To upgrade Copy Services Manager on z Systems while you maintain disaster recovery capability, complete all of the following steps. To upgrade without maintaining disaster recovery capability, complete steps 8 on page 10 and 9 on page 10.

Procedure

1. Verify that the synchronization of the standby server is complete and that the Copy Services Manager sessions are not in a transitory state such as Preparing, Suspending, or Recovering.
2. Move the management of the Copy Services Manager to the standby server by issuing the **Takeover** command.
3. On the standby server, remove the original server from the standby relationship.

4. Stop Copy Services Manager on the original server.

5. Upgrade the original server to Copy Services Manager Version 6.1 or later.

6. When the sessions are not in a transitory state, start Copy Services Manager on the original server.

7. Stop Copy Services Manager on the standby server.

8. Install Copy Services Manager.

   Note: For installation instructions, see the *IBM Copy Services Manager Installation and Configuration Guide*. See Chapter 2, "General information," on page 3 for instructions on where to locate this guide. The same information is also available in the online product documentation at http://www-01.ibm.com/support/knowledgecenter/SSESK4. Also see the *IBM Program Directory for Copy Services Manager for z Systems* or the *IBM Program Directory for Copy Services Manager Basic Edition for z Systems* at ➥ http://www-05.ibm.com/e-business/linkweb/publications/servlet/pbi.wss?CTY=US&FNC=SRX&PBL=GI13451700,GI13451800.

9. Complete the post-installation steps for z/OS® after you install IBM Copy Services Manager. Post-installation tasks are detailed under the "Installing on z Systems" section of the online help documentation at http://www-01.ibm.com/support/knowledgecenter/SSESK4.

Results

When all post-installation tasks are finished, the upgrade from a previous version of Copy Services Manager is complete.

Upgrading from Tivoli Storage Productivity Center for Replication to Copy Services Manager

Before you begin

Important: It is strongly recommended that you first back up your Tivoli Storage Productivity Center for Replication database before you proceed with an upgrade from Tivoli Storage Productivity Center for Replication to Copy Services Manager. Create the backup database by using the `mkbackup` command on the Tivoli Storage Productivity Center for Replication CLI.

During the upgrade, the Tivoli Storage Productivity Center for Replication management server is not available. Therefore, the capability for disaster recovery during the upgrade process is not available unless you have established a high-availability environment. A high-availability environment includes an active and standby management server.

See your Tivoli Storage Productivity Center for Replication product documentation for instructions on how to set up a standby management server if you do not have one already.

If you want to maintain disaster recovery capability, you must complete the steps to perform a takeover on the standby management server before you upgrade the active management server. The standby management server continues to manage sessions during the upgrade process, which ensures disaster recovery capability and minimizes downtime if the upgrade fails.

If you do not want to maintain disaster recovery capability during the migration process, a standby management server is not required. In general, this migration method is used only if you are using Tivoli Storage Productivity Center for Replication only for monitoring purposes and are not managing sessions. If you use this method, it is more difficult to restore your Tivoli Storage Productivity Center for Replication configuration if the upgrade fails.

Note: When you upgrade from Tivoli Storage Productivity Center for Replication to Copy Services Manager, the port assignments are not preserved unless you set them in IWNINSTL before the upgrade. For more information on configuring IWNINSTL, see the *IBM Copy Services Manager Installation and Configuration Guide*. See Chapter 2, "General information," on page 3 for instructions on locating all of the Copy Services Manager product documentation, including the *Installation and Configuration Guide*.

About this task

To upgrade from Tivoli Storage Productivity Center for Replication to Copy Services Manager on z Systems, ensure that all Copy Services Manager installation and post-installation tasks are complete. When you run the IWNINSTL script, all optional values can be updated, including port assignments and the time zone designation. There are two new values in the IWNINSTL script for this type of upgrade:

TPCR_ProductionRoot=path_prefix/opt/Tivoli/RM
    Specifies the production root that was used when Tivoli Storage Productivity Center for Replication was installed. Update this path to indicate what directory path for Copy Services Manager to use for the upgrade.

KEEP_TPCR (optional) TRUE/FALSE
    Default is KEEP_TPCR=false. If set to true, when you upgrade from Tivoli Storage Productivity Center for Replication to Copy Services Manager, the TPCR directory structure is not deleted.

After you process the IWNINSTL script , and you start IWNSRV and IWNAUTH, Copy Services Manager is accessible at: *https://<host name>:<GUI_PORT>/CSM/*

To upgrade from Tivoli Storage Productivity Center for Replication to Copy Services Manager while you maintain disaster recovery capability, complete all of the following steps. To upgrade without maintaining disaster recovery capability, complete steps 5 and 6 on page 12.

Procedure
1. Verify that the synchronization of the standby server is complete and that the Tivoli Storage Productivity Center for Replication sessions are not in a transitory state, such as Preparing, Suspending, or Recovering.
2. Move the management of the Tivoli Storage Productivity Center for Replication to the standby server by issuing the **Takeover** command.
3. On the standby server, remove the original server from the standby relationship.
4. Stop Tivoli Storage Productivity Center for Replication on the original server.
5. Install Copy Services Manager Version 6.1 or later on the original server.

   Note: For installation instructions, see the *IBM Copy Services Manager Installation and Configuration Guide*. See Chapter 2, "General information," on page 3

page 3 for instructions on where to locate this guide. The same information is also available in the online product documentation at http://www-01.ibm.com/support/knowledgecenter/SSESK4. Also see the *IBM Program Directory for Copy Services Manager for z Systems* or the *IBM Program Directory for Copy Services Manager Basic Edition for z Systems* at ➥ http://www-05.ibm.com/e-business/linkweb/publications/servlet/pbi.wss?CTY=US&FNC=SRX&PBL=GI13451700,GI13451800.

6. Complete the post-installation steps for z/OS after you install IBM Copy Services Manager. Post-installation tasks are detailed under the "Installing on z Systems" section of the online help documentation at http://www-01.ibm.com/support/knowledgecenter/SSESK4.

7. When the sessions are not in a transitory state, start Copy Services Manager on the original server.

8. Stop Tivoli Storage Productivity Center for Replication on the standby server.

Results

When all of these tasks are finished, the upgrade from Tivoli Storage Productivity Center for Replication to Copy Services Manager is complete.

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