RecoverPoint Operations

This chapter contains the following sections:

RecoverPoint Appliance Clusters

RecoverPoint Appliance (RPA) clusters can be a group of two to eight physical (or virtual) RPAs at the same geographic location, that work together to replicate and protect data. A RecoverPoint system can have up to five RPA clusters.

Assigning a Pod to a Cluster

You must also assign a pod to each RecoverPoint cluster.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the RecoverPoint device that you want.

Step 4 Click the **Clusters** tab and click the cluster that you want to assign to the pod.

Step 5 Click **Assign to Pod**.

Step 6 In the **Assign Pod to Cluster** dialog box, complete the following field:

Name	Description
Select Pod drop-down list	Choose a pod type. This can be one of the following: • **Default Pod** • **VSPEX** • **Generic** • **Vblock**

Step 7 Click **Submit.**

Step 8 Repeat the previous steps if you need to assign a pod to another cluster.

Note Up to five clusters in a system can be assigned to a RecoverPoint cluster. After you finish configuring the clusters, you can double-click the RecoverPoint cluster to view the cluster summary, cluster gateway, splitters, RPAs, vCenter servers and filters, the repository volume, and other cluster volume information.

Unassigning a Pod from a Cluster

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device you want.

Step 4 Click the **Clusters** tab and click the cluster that you want.

Step 5 Click **Unassign Pod**.

Step 6 In the **Unassign Pod from Cluster** dialog box, click **Submit** to unassign the pod from the cluster.

Consistency Groups

In RecoverPoint, volumes are protected by consistency groups. If two data sets are dependent on one another (such as a database and a database log), they should be part of the same consistency group. The consistency group ensures that updates to the production volumes are also written to the copies in a consistent and correct write-order so that the copy can always be used to continue working from, or to restore the production source. The volumes must be replicated together in one consistency group to guarantee that at any point in time, the saved data is in true form.

RecoverPoint also supports simultaneous bidirectional replication, where the same RecoverPoint appliance (RPA) can serve as the source RPA for one consistency group and the target RPA for another consistency group.

For more detailed guidelines about using RecoverPoint consistency groups, see the *EMC RecoverPoint Administrator's Guide*, which can be obtained from EMC.

Creating a Consistency Group

Consistency groups allow you to group volumes together and apply a set of properties to the entire group.

Note A maximum of 128 consistency groups can be defined per RecoverPoint system. We recommend that you do not configure more than 64 consistency groups per RPA.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Consistency Groups** tab.

Step 5 Click **Create**.

Step 6 In the **Create Consistency Group** dialog box, complete the following fields:

Name	Description
Consistency Group Name	The group name that is unique among all clusters.
Production Name	The name of the production copy.
Cluster	Choose the RecoverPoint production cluster.
Modify Group Policy check box	Check this check box if you want to modify the group policy options.
Group Policy	
Primary RPA	If you checked the **Modify Group Policy** check box, choose the primary RecoverPoint appliance.
Priority drop-down list	If you checked the **Modify Group Policy** check box, choose the priority for the consistency group.

Name	Description
Distribute Group check box	If you checked the **Modify Group Policy** check box, check this check box if you want to write across multiple RPAs. Each RecoverPoint system allows a maximum of eight distributed consistency groups.
Secondary RPAs	If you checked the **Distribute Group** check box, choose the secondary RPA that you want to distribute writes to.
Modify Copy Policy check box	Check this check box if you want to modify the production copy policy options.
Copy Policy	
Host OS drop-down list	If you checked the **Modify Copy Policy** check box, choose the host operating system.
Journal Policy	
Journal Compression drop-down list	If you checked the **Modify Copy Policy** check box, choose the journal compression level.
Maximum Journal Lag drop-down list	If you checked the **Modify Copy Policy** check box, choose the maximum journal lag.
Required Protection Window check box	If you checked the **Modify Copy Policy** check box, check this check box if you want to enable a protection window.
Protection Window	If you checked the **Required Protection Window** check box, enter the value of time for the protection window.
Window unit drop-down list	If you checked the **Required Protection Window** check box, choose the window time unit.
Enable Snapshot Consolidation check box	If you checked the **Modify Copy Policy** check box, check this check box if you want to enable snapshot consolidation.
Do not consolidate snapshots for at least below period	If you checked the **Enable Snapshot Consolidation** check box, enter the value of time for which snapshot consolidation should not be performed.
Unit (Consolidation Period) drop-down list	If you checked the **Enable Snapshot Consolidation** check box, choose the consolidation period unit.

Name	Description
consolidate to one snapshot per day	If you checked the **Enable Snapshot Consolidation** check box, enter the number of days to consolidate snapshots that are older than the consolidation period.
Indefinitely check box	If you checked the **Enable Snapshot Consolidation** check box, check this check box if you want to consolidate snapshots for an indefinite number of days.
consolidate to one snapshot per week	If you checked the **Enable Snapshot Consolidation** check box, enter the number of weeks to consolidate snapshots that are older than the consolidation period.
Indefinitely check box	If you checked the **Enable Snapshot Consolidation** check box, check this check box if you want to consolidate snapshots for an indefinite number of weeks.

Step 7 Click **Submit**.

Deleting an Existing Consistency Group

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Consistency Groups** tab.

Step 5 Choose the consistency group that you want to delete.

Step 6 Click **Delete**.

Step 7 In the **Delete Consistency Groups** confirmation dialog box, click **Submit**.

Getting the Transfer Status for a Consistency Group

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Consistency Groups** tab.

Step 5 Choose the consistency group for which you need the transfer status.

Step 6 Click **Get Transfer Status**.

Step 7 In the **Get Transfer Status** dialog box, click **Submit**.
The **Submit Result** dialog box displays telling you whether or not the transfer status for the RecoverPoint (RP) account updated successfully.

Starting Transfer for a Consistency Group

You can start the transfer of data from a production copy to all other replication copies in a consistency group within a RecoverPoint appliance (RPA) cluster.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Consistency Groups** tab.

Step 5 Choose the consistency group for which you need to transfer data.

Step 6 Click **Start Transfer**.

Step 7 In the **Consistency Group Start Transfer** dialog box, click **Submit**.
The **Submit Result** dialog box displays telling you whether or not the consistency group was transferred successfully.

Note Use the **Pause Transfer** parameter to temporarily pause the transfer of writes from the production host to all copies of the lower-priority selected consistency group(s) when WAN bandwidth is very limited and you need to provide the largest bandwidth possible to higher-priority consistency group(s).

Enabling or Disabling a Consistency Group

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Consistency Groups** tab.

Step 5 Click **Enable** or **Disable**.

Step 6 In the **Enable Consistency Group** or **Disable Consistency Group** dialog box, click **Submit**.

Applying a Bookmark to a Consistency Group

A bookmark is a text label that is applied to a snapshot in order to uniquely identify it. Bookmarks can be created manually or automatically at regular intervals. You can bookmark a snapshot at any time. Bookmarks are useful to mark particular points in time, such as an event in an application, or a point in time to fail over.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device you want.

Step 4 Click the **Consistency Groups** tab.

Step 5 Choose the consistency group for which you want to apply a bookmark.

Step 6 Click **Apply Boomark**.

Step 7 In the **Apply Bookmark** dialog box, complete the following fields:

Name	Description
Bookmark Name field	The bookmark name for the current snapshot.

Name	Description
Consistency Type drop-down list	Choose from the following consistency types: • (Default) **Crash-Consistent—** Creates snapshots (points in time) that are crash-consistent for data files, control files, and logs that are in the same RecoverPoint consistency group. • **Application-Consistent—**Used to bookmark Microsoft Volume Shadow Copy Service (VSS)-aware applications in many consistency groups. VSS guarantees that the applications are in a consistent state at the point-in-time when each bookmark is applied to an image. As a result, recovery using an image with a KVSS bookmark is faster than recovering from normal RecoverPoint images. **Note** The RecoverPoint KVSS utility is a command-line utility that enables applying bookmarks to Windows 2003 and 2008-based applications that support Microsoft Volume Shadow Copy Service (VSS).
Consistency Policy drop-down list	Choose from the following consistency policies applied to this snapshot: • **Never Consolidate—**The snapshot is never consolidated. • **Daily—**The snapshot policy is applied daily. • **Weekly—** The snapshot policy is applied weekly. • **Monthly—** The snapshot policy is applied monthly. • (Default) **Always Consolidate—**The snapshot is consolidated the next time that the consolidation process runs.

Step 8 Click **Submit.**

Updating a Snapshot for a Consistency Group

You can collect the latest snapshot image for a consistency group.

A snapshot is a point in time marked by the system for recovery purposes. A snapshot includes only the data that has changed from the previous snapshot. Once the system distributes the snapshot to the remote storage system, the snapshot creates a new current image on the remote storage system. A snapshot is the difference between one consistent image of stored data and the next consistent image of stored data.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Consistency Groups** tab.

Step 5 Choose the consistency group that you need to update.

Step 6 Click **Update Snapshots**.

Step 7 In the **Update Snapshots** dialog box, click **Submit**.
The **Submit Result** dialog box displays telling you whether or not the snapshot image for the consistency group updated successfully.

Creating a Consistency Group Copy

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Consistency Groups Copies** tab.

Step 5 Click **Create**.

Step 6 In the **Create Consistency Group Copy** dialog box, complete the following fields:

Name	Description
Consistency Group Name field	Click **Select**. In the **Select** dialog box, choose the consistency group to copy and click **Select**.
Copy Name field	The name of the consistency group copy.
Cluster field	Click **Select**. In the **Select** dialog box, choose the RecoverPoint cluster on which the consistency group copy will be and click **Select**.
Copy Policy	
Host OS drop-down list	Choose the host operating system.
Journal Policy	

Name	Description
Journal Compression drop-down list	Choose the journal compression level.
Maximum Journal Lag drop-down list	Choose the maximum journal lag.
Required Protection Window check box	Check this check box if you want to enable a protection window.
Protection Window	If you checked the **Required Protection Window** check box, enter the value of time for the protection window.
Window unit drop-down list	If you checked the **Required Protection Window** check box, choose the window time unit.
Enable Snapshot Consolidation check box	Check this check box if you want to enable snapshot consolidation.
Do not consolidate snapshots for at least below period	If you checked the **Enable Snapshot Consolidation** check box, enter the value of time for which snapshot consolidation should not be performed.
Unit (Consolidation Period) drop-down list	If you checked the **Enable Snapshot Consolidation** check box, choose the consolidation period unit.
consolidate to one snapshot per day	If you checked the **Enable Snapshot Consolidation** check box, enter the number of days to consolidate snapshots that are older than the consolidation period.
Indefinitely check box	If you checked the **Enable Snapshot Consolidation** check box, check this check box if you want to consolidate snapshots for an indefinite number of days.
consolidate to one snapshot per week	If you checked the **Enable Snapshot Consolidation** check box, enter the number of weeks to consolidate snapshots that are older than the consolidation period.
Indefinitely check box	If you checked the **Enable Snapshot Consolidation** check box, check this check box if you want to consolidate snapshots for an indefinite number of weeks.

Step 7 Click **Submit.**

Editing a Consistency Group Copy Policy

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Consistency Groups Copies** tab.

Step 5 Double-click the consistency group copy that you want to edit.

Step 6 Click the **Copy Policy** tab.

Step 7 In the **Edit Consistency Group Copy Policy** dialog box, edit the **Copy Policy** and **Journal Policy** fields as needed.

Step 8 Click **Submit**.

Adding a Link Between Consistency Group Copies

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device you want.

Step 4 Click the **Consistency Groups Copies** tab.

Step 5 Click **Add Link**.

Step 6 In the **Add Link Between Consistency Group Copies** dialog box, complete the following fields:

Name	Description
First Copy field	Click **Select**. In the **Select** dialog box, choose the first consistency group copy to be linked and click **Select**.
Second Copy field	Click **Select**. In the **Select** dialog box, choose the second consistency group copy to be linked to the previously selected first copy and click **Select**.
Protection Settings	

Name	Description
Replication Mode drop-down list	Choose the replication mode by selecting one of the following options: • **Asynchronous** • **Synchronous**
RPO	The recovery point objective, which defines the required lag of each link in a consistency group. The default value is 25 seconds.
RPO Unit drop-down list	Choose the RPO unit by selecting one of the following options: • **Bytes** • **KB** • **MB** • **GB** • **TB** • **Writes** • **Seconds** • **Minutes** • **Hours**
Snapshot Granularity drop-down list	Choose the following snapshot granularity for the link: • **Fixed (per write)** - Creates a snapshot for every write operation, over a specific (local or remote) link. • **Fixed (per second)** - Creates one snapshot per second, over a specific (local or remote) link. • **Dynamic** - The system determines the snapshot granularity of a specific (local or remote) link, according to available resources.

Step 7 Click **Submit.**

Note Click **Remove Link** to remove links between a consistency groups and their respective copies.

Getting the Transfer Status for a Consistency Group Copy

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Consistency Groups** tab.

Step 5 Choose the consistency group copy for which you need the transfer status.

Step 6 Click **Get Transfer/Copy Status**.

Step 7 In the **Get Transfer/Copy Status** dialog box, click **Submit**.
The Submit Result dialog box displays telling you whether or not the transfer status for the RecoverPoint (RP) account updated successfully.

Starting Transfer for a Consistency Group Copy

You can start the transfer of data from a production copy to a consistency group copy within a RecoverPoint appliance (RPA) cluster after it is added.

Note Consistency group copy data can be transferred only if it is a replication copy and not production copy. The production copy consists of a single consistency group.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Consistency Groups Copies** tab.

Step 5 Choose the consistency group copy for which you need to transfer data.

Step 6 Click **Start Transfer**.

Step 7 In the **Consistency Group Start Transfer Copy** dialog box, click **Submit**.
The Submit Result dialog box displays telling you whether or not the consistency group was transferred successfully.

Note Use the **Pause Transfer** parameter to temporarily pause the transfer of writes from the production host to all copies of the lower-priority selected consistency group(s) when WAN bandwidth is very limited and you need to provide the largest bandwidth possible to higher-priority consistency group(s) copy.

Enabling or Disabling a Consistency Group Copy

Consistency groups are comprised of one or more replication sets. Each replication set consists of a production volume and any local or remote copy volumes to which it is replicating. The number of replication sets in your system is equal to the number of production volumes being replicated.

You can disable an enabled consistency group, or enable or disable a replica consistency group copy.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device you want.

Step 4 Click the **Consistency Groups Copies** tab.

Step 5 Click **Enable** or **Disable**.

Step 6 In the **Enable Consistency Group Copy** or **Disable Consistency Group Copy** dialog box, click **Submit**.

Adding or Removing a Journal Volume

Each copy of a consistency group must contain one or more volumes that are dedicated to holding system information or point in time history. The type of information contained in the journal differs according to the journal type. There are two types of journals:

- Copy journal - Copy journals are dedicated to holding point-in-time information for each image on the production storage, as well as bookmarks that mark significant points in time. The copy journals hold all changes to data, so that the copy storage can be rolled back to a previous point in time (PIT).
- Production journal - Production journals are dedicated to store information about the replication process (called marking information) that is used to make synchronization between the production and copy volumes more efficient. Although the production journal does not contain snapshots, journal protection policies should also be set for the production journal, as they are used in the case of failover.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Consistency Groups Copies** tab.

Step 5 Choose the consistency group to or from which you want to add or remove a journal volume.

Step 6 Click **Add Journal Volume** or click the purple down arrow icon from the top right corner, and choose **Remove Journal Volume**.

Step 7 In the **Add Journal Volume to Group Copy** or **Remove Journal Volume from Group Copy** dialog box, choose the journal that you want to add to or remove from a group copy.

Step 8 Click **Submit.**

Enabling Image Access

You can enabling image access to briefly verify, backup, clone, or analyze copy data, before failover or production recovery.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device you want.

Step 4 Click the **Consistency Groups Copies** tab.

Step 5 In the **Consistency Group Copies** pane, click the purple down arrow icon from the top right corner.

Step 6 Choose **Enable Image Access**.

Note You can not enable image access on production copies.

Step 7 In the **Enable Image Access** dialog box, complete the following fields:

Name	Description
Select an Image to access drop-down list	Choose an image to access: • **The latest image** - The last snapshot that was created at the production, and transferred to the copy journal. This is the image at the top of the image list and the most current snapshot sent from production. • **An image from the image list** - Choose from a list of images in the copy journal. You can choose ain image by point in time, snapshot size (or the delta between the selected snapshot and the snapshot before it), bookmark, consistency, and consolidation policy. • **A specific point in time or bookmark** - This option displays advanced search criteria and lets you perform a customized search based on **Point in Time**, **Bookmark** with the option of **Exact** text, **Image Type**, or **Max Range**.
Select Image Access Mode drop-down list	Choose the image access mode by selecting one of the following options: • **Logged Access** - After disabling image access, any writes made to the copy while image access is enabled are undone. The distribution of images from the copy journal to the copy storage continues from the accessed image forward. The state of the copy storage is restored to **No access**. • **Virtual Access** - After disabling image access, the virtual volume and any writes made to it are undone faster than in logged access mode. The distribution of images from the copy journal to the copy storage continues from the last image that was distributed before image access was enabled. The state of the copy storage is restored to **No access**. • **Virtual Access With Roll** - After disabling image access, the virtual volume and any changes to it and any writes made directly to the copy are discarded. The distribution of images from the copy journal to the copy storage continues from the image which the system has rolled to. The state of the copy storage is restored to **No access**.

Step 8 Click **Submit.**

Note Click the **Disable Image Access** to disable image access on the selected consistency group copy.

Replication Sets

Consistency groups are comprised of one or more replication sets. Each replication set consists of a production volume and any local or remote copy volumes to which it is replicating. The number of replication sets in your system is equal to the number of production volumes being replicated.

Creating a Replication Set

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Replication Sets** tab.

Step 5 Click **Create**.

Step 6 In the **Create Replication Set** dialog box, complete the following fields:

Name	Description
Consistency Group Name field	Click **Select**. In the **Select** dialog box, choose the consistency group that you want and click **Select**.
Replication Set Name field	The replication set name.

Step 7 Click **Submit**.

Deleting an Existing Replication Set

Before You Begin

You must first disable the consistency group before you can delete its replication set.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.
Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.
Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.
Step 4 Click the **Replication Sets** tab.
Step 5 Click **Delete**.
Step 6 In the **Delete Replication Set** dialog box, click **Submit**.

Renaming a Replication Set

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.
Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.
Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.
Step 4 Click the **Replication Sets** tab and choose the replication set that you want to change.
Step 5 Click **Edit**.
Step 6 In the **Edit Replication Set** dialog box, enter the new name for the replication set.
Step 7 Click **Submit**.

Adding a User Volume to a Consistency Group Copy

You can add a user volume, which consists of either a production logical unit number (LUN) or a replication LUN, to a consistency group copy that is in a replication set.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Replication Sets** tab.

Step 5 Click **Add User Volume**.

Step 6 In the **Add User Volume to Group Copy** dialog box, complete the following fields:

Name	Description
Consistency Group Copy field	Click **Select**. In the **Select** dialog box, choose the consistency group copy and click **Select**.
User Volume field	Click **Select**. In the **Select** dialog box, chose the user volume and click **Select**.

Step 7 Click **Submit.**

Removing a User Volume from a Consistency Group Copy

You can remove a user volume, which consists of either a production logical unit number (LUN) or a replication LUN, from a consistency group copy that is in a replication set.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Replication Sets** tab.

Step 5 Click **Remove User Volume**.

Step 6 In the **Remove User Volume from Group Copy** dialog box, complete the following fields:

Name	Description
Replication Set Volume field	Click **Select**. In the **Select** dialog box, chose the replication set volume and click **Select**.

Step 7 Click **Submit.**

Viewing Details for a Replication Set

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device you want.

Step 4 Click the **Replication Sets** tab and choose the replication set that you want to view.

Step 5 Click **View Details**.

Step 6 Click **Replication Set Volumes** and **Service Request Details** tab to view information for each replication set and service requests by ID.

Group Sets

In RecoverPoint, group sets let you automatically bookmark a set of consistency groups at pre-defined intervals to manage consistency. The bookmark represents the same recovery point in each consistency group in the group set, allowing you to define consistent recovery points for consistency groups that are distributed across different RecoverPoint appliances. Group sets are useful for the automatic management of consistent points in time across consistency groups that are dependent on one another, or that must work together as a single unit.

For more detailed guidelines about using RecoverPoint group sets, see the *EMC RecoverPoint Administrator's Guide*, which can be obtained from EMC.

Creating a Group Set

Before You Begin

Before you create a group set, note the following:

- All consistency groups in the group set must be replicating in the same direction, from the same source.
- All consistency groups in the group set must be enabled.
- The interval between automatic bookmarks should not be less than 30 seconds.

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Group Sets** tab.

Step 5 Click **Create**.

Step 6 In the **Create RecoverPoint Group Set** dialog box, complete the following fields:

Name	Description
Group Set Name field	The name for the group set.
Consistency Group Name	Choose one or more consistency groups to add to the group set.
Frequency field	The bookmark frequency.
Unit drop-down list	Choose the bookmark frequency time unit.

Step 7 Click **Submit**.

Deleting an Existing Group Set

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **Group Sets** tab.

Step 5 Choose the group set that you want to delete.

Step 6 Click **Delete**.

Step 7 In the **Delete RecoverPoint Group Set** confirmation dialog box, click **Submit**.

Assigning a Policy to a RecoverPoint Task

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **System Tasks** tab.

Step 5 In the **System Tasks** panel, click the **EMC RecoverPoint Tasks** folder icon to expand the folder.

Step 6 Click the **System EMC RecoverPoint Task** (EMCRecoverPointCollector) task icon.

Step 7 Click **Manage Task**.

Step 8 In the **Manage Task** dialog box, complete the following fields:

Name	Description
Task Execution drop-down list	Choose **Enable** or **Disable** to enable or disable this RecoverPoint task.
System Task Policy drop-down list	Choose either the **default-system-task-policy** or the **local-run-policy** assigned to this RecoverPoint task.
Minutes drop-down list	Choose the frequency in minutes for how often the RecoverPoint task is executed.

Step 9 Click **Submit.**

Step 10 If you want to run this RecoverPoint task, click **Run Now**.

Step 11 If you want to view this RecoverPoint task, click **View Details**.

Viewing RecoverPoint Task History and Reports

Procedure

Step 1 On the menu bar, choose **Physical** > **Storage**.

Step 2 On the **Storage** pane, click the **Multi-Domain Managers** icon to expand the list of connected multi-domain managers.

Step 3 Choose **EMC RecoverPoint** to expand the connected RecoverPoint device(s) and click the device that you want.

Step 4 Click the **System Tasks** tab.

Step 5 In the System Tasks panel, click the **EMC RecoverPoint Tasks** folder icon to expand the folder.

Step 6 Double-click the System EMC RP Task (EMCRecoverPointCollector) task icon.

Step 7 Choose either the **System Task History** or **More Reports** tabs for RecoverPoint reporting information.