These technical notes contain supplemental information about how to configure EMC VNX, EMC NetWorker Module for MEDITECH 8.2, and EMC NetWorker Management Console to perform VNX-SNAP backups. Topics include:

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Note: This document was accurate at publication time. Go to EMC Online Support (https://support.emc.com) to ensure that you are using the latest version of this document.
Revision history

The following table presents the revision history of this document.

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<td>01</td>
<td>January 16, 2015</td>
<td>First release of these technical notes for the EMC NetWorker Module for MEDITECH release 8.2.</td>
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Introduction to the NetWorker Module for MEDITECH

The EMC NetWorker Module for MEDITECH release 8.2 enables you to perform the following tasks:

- Schedule, create, and manage local replicas of the MEDITECH volumes when you use the product with the EMC VNX and EMC Symmetrix® VMAX® storage systems
- Schedule, create, and manage local and remote replicas of the MEDITECH volumes when you use the product with the EMC RecoverPoint storage system
- Integrate NetWorker with the MEDITECH application to perform the scheduled backups and create disaster recovery replicas of the data without interrupting the application
- Integrate the product with MEDITECH Backup Facility (MBF) to take hardware or array point-in-time snapshots to back up the MEDITECH data to the NetWorker devices
- Perform Integrated Serverless Backups (ISBs) of the LUNs that VNX, Symmetrix VMAX, and RecoverPoint support to a NetWorker device, such as tape, Data Domain, and disk
- Perform Integrated Disaster Recovery (IDR) backups to create bookmarks at regular intervals according to the user-defined schedule on a RecoverPoint appliance, and validate the bookmarks in the NMMEDI GUI
- Perform backups and recoveries in a quick and predictable time frame
- View the backup and recovery information

VNX requirements

The NetWorker Module for MEDITECH supports the following VNX software installation requirements:

- EMC NetWorker 8.2 client
- EMC Solutions Enabler 7.6 or later

Note: The NetWorker Module for MEDITECH 8.2 does not support Solutions Enabler 8.0.

- EMC Unisphere™ Host Agent
- EMC Navisphere® CLI
- EMC Unisphere SnapCLI
- EMC Unisphere admsnap
- Windows .NET Framework 4.0
VNX-SNAP requirements

Ensure that you meet the following requirements:

- You installed VNX with the 05.32.000.5.206 code or later on a physical proxy host.
- You copied the snapcli.exe file from C:\Program Files (x86)\EMC\Unisphere Snapcli to C:\Program Files (x86)\EMC\NavisphereCLI.
- You created one consistency group for all MEDITECH source LUNs.
- You manually created only one Snapshot Mount Point (SMP) for each MEDITECH segment or source LUN, assigned the SMP to the proxy storage group, and rebooted the host.
- You enabled in-band commands from the proxy host to attach snapshots to the mount host.
- You made the SMP visible and accessible from the proxy host.

Configuring VNX

Ensure that you meet the following requirements to perform the VNX-SNAP backups:

- You have created the security file on the proxy host. The *EMC NetWorker Module for MEDITECH Release 8.2 Administration Guide* provides information.
- You have created a consistency group.
- You have created a Snapshot Mount Point (SMP) for each LUN.

Creating a consistency group

The following sample procedure assumes that there are 28 LUNs—903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 166, 495, and 498 that are part of backup.

1. Create a consistency group **MEDITECH_Prod_CG** by running the following sample command:

   C:\Users\administrator.SP2010>naviseccli.exe -h 10.31.216.239 snap -group -create -name MEDITECH_Prod_CG

2. Add the LUN 903 to the consistency group by running the following sample command:

   C:\Users\administrator.SP2010>naviseccli.exe -h 10.31.216.239 snap -group -addmember -id MEDITECH_Prod_CG -res 903

3. Verify whether the LUN is added to the consistency group by running the following sample command:

   C:\Users\administrator.SP2010>naviseccli.exe -h 10.31.216.239 snap -group -list

4. Perform step 2 to add the remaining LUNs to the consistency group.

5. After you have added all the LUNs, perform step 3.

   The command displays the LUNs that you have successfully added to the consistency group.
Note: You must keep all the LUNs as part of a single consistency group because all the
LUNs are simultaneously quiesced to take snapshot at the same point-in-time.

Creating a Snapshot Mount Point for each source LUN

Perform the following steps to create an SMP for each source LUN:
1. In the EMC Unisphere GUI, select the Hosts tab.
2. Under Details, select the LUNs tab.
3. Right-click a LUN and select Snapshot > Create Snapshot Mount Point.
4. In the Create Snapshot Mount Point dialog box:
   1. In the Name field, type a name for the snapshot mount point.
      For example, MT_SMP.
   2. Under Storage Group (optional), select the storage group of the NetWorker Module
      for MEDITECH server, where you want the snapshot to be mounted.
   3. Clear the Automatically delete oldest snapshots of this LUN option.
   4. Select the Allow in-band commands from host to attach snapshot to this mount
      point option.
   5. Click OK.

Configuring the NetWorker Module for MEDITECH

Configuring the NetWorker Module for MEDITECH includes the following tasks:
◆ Adding a Coherency Group
◆ Adding a VNX storage array

Adding a Coherency Group

Perform the following steps to add a Coherency Group:
1. In the NetWorker Module for MEDITECH window, click Configure.
2. Click Add Group.
   The Add Coherency Group dialog box appears.
3. Under Coherency Group common parameters, specify the following fields:
   • Group Name: Type a name for the group of MEDITECH hosts that you want to back
     up. The group name can contain up to 64 alphanumeric characters, spaces,
     underscores (_), and hyphens (-).
   • MBI User Name: Type the username of the MBI server, by using which the
     MEDITECH file servers are configured.
   • MBI Password: Type the password of the MBI server, by using which the MEDITECH
     file servers are configured.
• **Confirm password**: Re-type the password of the MBI server, by using which the MEDITECH file servers are configured.

• **SAN Type**: Select VNX.

**Note**: All the hosts in the Coherency Group must have the same MBI server account username and password, and SAN type.

4. Perform and repeat the following steps to add the MEDITECH hosts (MBI servers) to the Coherency Group:

1. Under MEDITECH Hosts, specify the following fields:
   - **MBI Host Name**: Type the name of the MBI server.
     Click **Clear** to clear the host name.
   - **MBI Port**: Type the port number that you use to communicate with the MBI server.
     The default port number is **2987**.

2. Click the right arrow to add the host to the Coherency Group.
   The hostname and the port number appear in the table.

3. To modify the information of a host:
   1. Select the hostname in the table and click the left arrow.
   2. Edit the hostname and the port number in the **MBI Host Name** and the **MBI Port** fields.
   3. Click the right arrow to add the host to the Coherency Group.
     The hostname and the port number appear in the table.

4. Click **Verify**.
   The NetWorker Module for MEDITECH performs the following tasks:
   a. Validates the user credentials.
   b. Checks whether the MBI server works for all the MEDITECH file servers.
   c. Writes the information to the **nsr\applogs\nwmedi.log** file.
   d. Displays a validation message that states whether the specified user credentials are correct.

   Click **OK**.

5. Click **Remove** to remove a host from the Coherency Group.

5. Click **OK**.
Adding a VNX storage array

Perform the following steps to add a VNX storage array:

1. In the NetWorker Module for MEDITECH window, click Configure.
2. Click Add Array.
   The Add Storage Array dialog box appears.
3. Under the EMC VNX tab, specify the following fields and click OK:
   - **Serial Number**: Type the serial number of the VNX array.
   - **Storage Processor A IP Address**: Type the IP address of the storage processor A.
   - **Storage Processor B IP Address**: Type the IP address of the storage processor B.
   - **User Name**: Type the username to access the array.
   - **Password**: Type the password to access the array.
   - **Confirm Password**: Re-type the password to access the array.
   - **Verify**: Click the button to validate the values that you have specified in the fields.

Note: VNX has two network connections to the two storage processors to overcome failovers.

Configuring the NetWorker Management Console

In the NMC, create a group and add a client to it by performing the following steps in the Create Client dialog box:

1. Under the General tab, in the Save set field, type either MEDi:<Coherency Group Name> or MEDi:<Coherency Group Name>/MBI Hostname/<FILESERVER Hostname><Drive_letter>
   For example, MEDI:VNX-SNAP
2. Under the Apps & Modules tab:
   - In the Backup command field, type nsmedisv.
   - In the Application information field, type:
     - EMCCLEAR_SNAP_SUBTYPE=VNX-SNAP
     - FRAME_IP=<storage_processor_A_IP_address>:<storage_processor_B_IP_address>

Note: If you configured two or more VNX arrays in the NetWorker Module for MEDITECH GUI, set the FRAME_IP application information variable with the storage processor IP addresses to point to the correct VNX array for successful backups.
Troubleshooting

This section lists the VNX related issues, and provides workarounds for these issues.

◆ Unable to locate snapcli.exe in standard locations.

  Workaround: Copy snapcli.exe to C:\Program Files (x86)\EMC\NavisphereCLI

◆ Backup fails and the nsrmedisv.raw file has following message:

0 1392210300 0 0 0 9884 6224 0 medi-nw02.ise.vdc nsrmedisv NSR info
2 %s 1 0 148 [msg #69492
nsr/storage/ssm/emc_clariion/cli_methods.cpp 2980 PSDBG 7] Inside:
emc_snapview::isVNXSnappable, inbuf output [LOGICAL UNIT NUMBER 101 ]
0 1392210300 0 0 0 9884 6224 0 medi-nw02.ise.vdc nsrmedisv NSR info
2 %s 1 0 153 [msg #69493
nsr/storage/ssm/emc_clariion/cli_methods.cpp 2980 PSDBG 7] Inside:
emc_snapview::isVNXSnappable, inbuf output [Name: MEDITECH_Production_1 ]
0 1392210300 0 0 0 9884 6224 0 medi-nw02.ise.vdc nsrmedisv NSR info
2 %s 1 0 153 [msg #69494
nsr/storage/ssm/emc_clariion/cli_methods.cpp 2980 PSDBG 7] Inside:
emc_snapview::isVNXSnappable, inbuf output [Snapshot Mount Points: 41,7

  Workaround: Ensure that one source LUN has only one SMP.

According to the message, the source LUN 101 has 2 SMPs 41 and 7. So, the backup
failed.

Run the following sample command to view the SMPs that are associated with each
source LUN, for example, LUN 101:

C:\EMC>C:\Program Files (x86)\EMC\Navisphere CLI\naviseccli.exe -h
10.110.45.160 lun -list -l 101 -snapMountPoints -belongsToCG

The following output appears:

LOGICAL UNIT NUMBER 101
Name: MEDITECH_Production_1
Snapshot Mount Points: 41,7
Consistency Group: MT.CG

◆ VNX-SNAP backups fail.

  Workaround: Ensure that you do not expose the clone and the SMP of a source LUN to
the same NetWorker Module for MEDITECH proxy server.

During a VNX-SNAP backup, the snapshot is mounted in the SMP. Because the CLONE
drive is already mounted and online, Windows prevents the SMP drive from mounting
due to signature collision of disks. So, you must ensure that the CLONE LUN is offline
for the VNX-SNAP backups to succeed.
Documentation

The following EMC publications provide additional information:

- **EMC NetWorker Module for MEDITECH Release 8.2 Administration Guide**
- **EMC NetWorker Module for MEDITECH Release 8.2 Release Notes**
- **EMC NetWorker Release 8.2 Installation Guide**
- **EMC NetWorker Release 8.2 Administration Guide**
- **EMC VNX product documentation**

Troubleshooting and getting help

The EMC support page provides access to licensing information, product documentation, advisories, and downloads, as well as how-to and troubleshooting information. This information may enable you to resolve a product issue before you contact EMC Customer Support.

Support page

To access the NetWorker support page:

1. Go to [https://support.emc.com/products](https://support.emc.com/products).
2. Type a product name in the **Find a Product** box.
3. Select the product from the list that appears.
4. Click the arrow next to the **Find a Product** box.
5. (Optional) Add the product to the [My Saved Products](#) list by clicking Add to My Saved Products in the top right corner of the Support by Product page.

Knowledgebase

The EMC Knowledgebase contains applicable solutions that you can search for either by solution number (for example, esgxxxxxx) or by keyword.

To search the EMC Knowledgebase:

1. Click the **Search** link at the top of the page.
2. Type either the solution number or keywords in the search box.
3. (Optional) Limit the search to specific products by typing a product name in the **Scope by product** box and then selecting the product from the list that appears.
4. Select **Knowledgebase** from the **Scope by resource** list.
5. (Optional) Specify advanced options by clicking **Advanced options** and specifying values in the available fields.
6. Click the **Search** button.
Online communities

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Live chat

To engage EMC Customer Support by using live interactive chat, click Join Live Chat on the Service Center panel of the support page.

Service requests

For in-depth help from EMC Customer Support, submit a service request by clicking Create Service Request on the Service Center panel of the support page.

Note: To open a service request, you must have a valid support agreement. Contact your EMC sales representative for details about obtaining a valid support agreement or with questions about your account.

To review an open service request, click the Service Center link on the Service Center panel, and then click View and manage service requests.