

SnapManager® 2.0 for Oracle®

Release Notes

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What's New in SnapManager 2.0 for Oracle

SnapManager overview

SnapManager® 2.0 for Oracle® is a Network Appliance™ application which can be used to back up, restore, and recover host data in an Oracle database. It uses NetApp's Snapshot™ and FlexClone™ technology to enable you to quickly perform operations such as creating a backup of the data, making a clone of the backup, and restoring and recovering the backup.

New Features

SnapManager 2.0 for Oracle supports the following operating systems:

- ◆ Red Hat® Enterprise Linux® 3 (32-bit) and 4 (32-bit and 64-bit)
- ◆ SUSE® Linux® Enterprise 9 (32-bit and 64-bit)
- ◆ Solaris® 8, 9 and 10

Note

IBM AIX 5.2, 5.3 (NFS only) and HP-UX® 11.11, 11.23 (NFS only) are supported by PVR only.

SnapManager 2.0 for Oracle supports ONTAP 7.0 or higher.

SnapManager 2.0 for Oracle supports the following Volume Managers:

- ◆ RedHat Enterprise Linux: Logical Volume Manager (LVM)
- ◆ SUSE Linux Enterprise: Logical Volume Manager (LVM)
- ◆ Solaris: VERITAS Volume Manager (VxVM)

New and enhanced SnapManager for Oracle features are:

- ◆ New Cloning Functionality
 - ❖ Clone from the current state of the database. SnapManager automatically adjusts the state of the database to backup and clone the database with one CLI command or with the GUI Clone Wizard.
 - ❖ Clone map text file has changed to a clone specification in XML format. The clone specification includes database and storage specifications. Create a template using the CLI or create one dynamically using the GUI. Refer to the Installation and Administration Guide for more information.

Note

The clone specification in this release is not backwards compatible with clone maps from previous releases. You must change the format of your clone information to the XML clone specification format, or create a new clone specification to create clones using this SnapManager for Oracle release.

- ◆ Enhancements to the installation and upgrade process include:
 - ❖ Simplified installation and upgrade process for the server and for the client.
 - ❖ The installer automatically installs a Java Runtime Environment (JRE) for SnapManager for Oracle to use. However, this JRE is not made available to the entire system.

CLI Changes

- ◆ The `smo pfile` command has changed to `smo cmdfile`. This command allows users to create a text file containing a more complex command which can be executed simply by using the `smo cmdfile` command with the location and name of the text file.
- ◆ The format of all commands has changed to a `smo <noun> <verb>` nomenclature across all commands. In addition, the commands are more consistent in terminology.
- ◆ The `smo dump` command in previous releases captured information about backups. In this release, information about any operation can be captured using the `smo operation dump` command. In addition, the `smo system dump` command captures information about the environment. The `smo profile dump` command captures information about operations associated with the profile specified, along with extra diagnostic information.

GUI Changes

The following highlights SnapManager for Oracle GUI changes for this release.

- ◆ Any action you perform in the GUI opens a Wizard that steps through the configuration and execution processes.
- ◆ Message logging is available through the GUI.
- ◆ Online help is available with the GUI.

System setup required to use SnapManager

This release of SnapManager works with hosts running one of the following Operating systems:

- ◆ Operating system:
 - ❖ Red Hat Enterprise Linux 3 update 4 or Red Hat Enterprise Linux 4 update 2
 - ❖ SUSE Linux Enterprise 9
 - ❖ Solaris 8, 9 or 10

Note

IBM AIX 5.2, 5.3 (NFS only) and HP-UX® 11.11, 11.23 (NFS only) are supported by PVR only.

You must have the following installed and running to use SnapManager

- ◆ Oracle 9iR2 or Oracle 10gR2 using NFS, iSCSI or FCP for storage on a Linux host or NFS, iSCSI or FCP for storage on a Solaris host.
- ◆ NetApp's SnapDrive 2.2 for UNIX

Note

SnapManager executes on top of SnapDrive for UNIX, so you must meet the requirements for that product.

On your storage system, you must have installed and running:

- ◆ NetApp's Data ONTAP® 7.0 or higher.

In addition, you must have the following licenses on your storage system

- ◆ iSCSI, FCP, or NFS
- ◆ A FlexClone™ license is required to take full advantage of SnapManager with NFS databases. SnapManager uses FlexClone to:
 - ❖ Mount backups of NFS databases.
 - ❖ Verify backups of NFS databases.
 - ❖ Clone NFS databases.
 - ❖ Register backups of NFS databases with RMAN (if using RMAN).

FlexClone is part of the Data ONTAP® version supported by SnapManager. As with SnapDrive for UNIX, SnapManager handles all interactions with FlexClone.

- ◆ SnapRestore®

If you want to use SnapManager's Graphical User Interface (GUI), you must also have the following:

- ◆ Windows® XP

Confirming system requirements

The most current information on SnapManager's requirements are available in the compatibility matrices on the NOW site. NetApp adds new components and updates products on an ongoing basis, so it is a good practice to check these matrices.

Links to the matrices are in the Interoperability section of the Access & Order Product Documentation page, which is available at <http://now.netapp.com/NOW/knowledge/docs/docs.shtml>. The matrices you need to check are:

- ◆ *SnapManager & SnapDrive Compatibility Matrix*
- ◆ *The Compatibility and Configuration Guide for NetApp's FCP and iSCSI Products*

SnapManager components

SnapManager is available either on CD-ROM or as software that you can download from the NetApp NOW site (<http://now.netapp.com/>).

The software available for downloading from the NOW site includes the SnapManager software host package and the SnapManager GUI software package. You can also download SnapManager's NetApp prerequisites, such as SnapDrive for UNIX, from their product locations on the NOW site.

The media kit includes the following items:

- ◆ *SnapManager for Oracle Installation and Administration Guide*
- ◆ *SnapManager for Oracle Release Notes* (this document)
- ◆ CD-ROM. The CD-ROM contains the NetApp software packages for the SnapManager host and its GUI in standard, installable package formats.

Installing SnapManager

Detailed instructions for installing SnapManager are in the *SnapManager for Oracle Installation and Administration Guide*.

You must install the SnapManager software package on your UNIX host after installing SnapDrive for UNIX. See the documentation for SnapDrive for UNIX installation instructions.

To use the GUI, you must install the SnapManager GUI software package on your Windows host. You do not need to install SnapDrive for UNIX on the Windows host.

Using SnapManager with IBM® storage systems

SnapManager has been qualified with the IBM System Storage™ N series. You must have the IBM System Storage N series versions of Data ONTAP and SnapDrive for UNIX if you want to use SnapManager with the IBM System Storage N series.

Finding information on known issues and troubleshooting tips

Finding information on known issues for SnapManager

At the time of this release, there were some known problems, limitations, and troubleshooting tips for SnapManager. To locate information on known issues, check the following places:

- ◆ “[Troubleshooting information for SnapManager](#)” on page 7
- ◆ “[Known issues](#)” on page 15
- ◆ The “*Troubleshooting*” chapter of the *SnapManager Installation and Administration Guide*
- ◆ NetApp’s Bugs Online system, which is available on the NOW site

Accessing information about bug fixes

In most cases, if known problems occur, they have a bug ID assigned to them. You can determine the status of a bug or see if any issues have occurred since this document was produced by using the Bugs Online system, which is available on the NOW site.

For a list of fixed bugs, access Bugs Online by completing the following steps.

Step	Action
1	Use a Web browser to go to http://now.netapp.com .
2	Log into NOW and click Service & Support.
3	Click the link for Bugs Online & Release Tools.
4	To perform a Quick Search, complete the following steps: 1. Enter either the bug ID in the ID box or the phrase “SW_SMO” in the Key Word Search box. 2. Click the Go button next to the text box for your search.

Troubleshooting information for SnapManager

Cannot connect to database - invalid username password

Symptom: SnapManager for Oracle username and password failed.

Explanation: SnapManager for Oracle requires you have sysdba privileges when attempting commands. If the user authentication information used does not have these privileges, you will receive the error message:

SMO-12105 [ERROR]: Cannot connect to database - invalid username/password.

Oracle error is: ORA-01017: invalid username/password; logon denied

What to do: First, verify the user has sysdba privileges. Perform the following steps:

- 1. Log in to SQLPlus as the Oracle user "sys".
- 2. Run the following SQL command:

```
SQL> select * from v$pwfile_users;
```

USERNAME	SYSDBA	SYSOPER
SYS	TRUE	TRUE
SCOTT	TRUE	FALSE

If the user is not listed, you must enable authentication of an administrative user. To enable authentication of an administrative user using password file authentication you must do the following:

- 1. If not already created, create the password file using the ORAPWD utility:
`ORAPWD FILE=filename PASSWORD=password ENTRIES=max_users`
- 2. Set the REMOTE_LOGIN_PASSWORDFILE initialization parameter to EXCLUSIVE. (This is the default).

Note _____
REMOTE_LOGIN_PASSWORDFILE is a static initialization parameter and therefore cannot be changed without restarting the database.

- 3. Connect to the database as user SYS (or as another user with the administrative privileges).
- 4. If the user does not already exist in the database, create the user.

5. Grant the SYSDBA or SYSOPER system privilege to the user:

```
GRANT SYSDBA to oe;
```

This statement adds the user to the password file, thereby enabling connection as SYSDBA.

Attempt to connect to the database as the user just created.

**Command
smo_server start
fails**

Symptom: The command `smo_server start` fails with message:

```
SMO-01104: Error invoking command: Multiple exceptions.:
```

Explanation: The most likely cause of this problem is that the SnapManager for Oracle listening ports (27214 and 27215, by default) are currently in use. In log file, the text "java.net.BindException: Address already in use" appears. This error occurs if another application is currently using the ports. In this case, reconfigure either SnapManager for Oracle or the other application to use different ports. This error can also occur if the `smo_server` is already running, but SnapManager for Oracle did not detect the existing process.

What to do: Run the following sequence of commands to restart the SMO server:

1. `smo_server start`

You will get an error message.

2. `smo_server stop`

This will stop the existing SMO server.

3. `smo_server start`

Now the SMO server should successfully start.

**SMO GUI
installation
succeeds with
errors**

Symptom: SMO GUI installation on Windows succeeds with errors.

Explanation: A Windows user installs the SMO GUI. The installation succeeds, but the user sees the following message:

```
The installation of SnapManager for Oracle 2.0.0 is finished, but  
some errors occurred during the install. Please see the  
installation log for details.
```

Furthermore, the user does not have a desktop icon to start the SMO GUI.

In this scenario, the user account used to install the SMO GUI has enough permissions to install SMO, but not enough permissions to setup SMO icons and shortcuts for all users of the PC. The user account must be able to modify directory: C:\Documents and Settings\All Users.

What to do: The user should perform one of the following:

- ◆ Reinstall the SMO GUI with different settings. On the "Choose Icon Availability" step, deselect "Make these shortcuts available to all users of this PC". This time the installation should succeed completely.
- ◆ Login using a user account that is not restricted and reinstall the GUI.

SnapManager uses default pfile/spfile for Oracle startup

Symptom: When SnapManager restarted the database, it failed.

Your environment is set up so that the init<SID>.ora file is located in a directory other than the \$ORACLE_HOME/dbs directory. Then you started your Oracle database using `startup pfile`. You put the path to this init<SID>.ora file in this command; however, SnapManager looked in a different location for this file so the database failed to restart.

Explanation: When SnapManager transitions from a Shutdown state into a Mounted or Open state, it uses the default SPFILE or PFILE. If you normally start your database with a specific PFILE or SPFILE by using the `startup pfile=<file>` syntax, the database restart fails. This is because SnapManager does not use the file you normally specify when it restarts the database. Instead, SnapManager uses the default location to start the database. Normally, this is ORACLE_HOME/dbs.

What to do: If the default init<SID>.ora file is not the correct initialization file for your database, either copy the file to default location (for example, \$ORACLE_HOME/dbs/init<SID>.ora) or set up a symbolic link to this location.

Restore fails in SnapMirror configuration

Symptom: The restore operation fails when you attempt to restore a backup of a database volume that was created using SnapMirror.

Explanation: SnapDrive for UNIX has some architectural guidelines for working with mirrored storage systems. Because SnapManager requires SnapDrive for UNIX, these guidelines affect it also.

What to do: Check the SnapDrive for UNIX documentation for information on how it works with SnapMirror and how to handle any issues. In particular, check chapter 1 of the *SnapDrive for UNIX Installation and Administration Guide*.

Space shortages can occur during restore operations

Symptom: SnapManager runs out of space in the /opt/NTAPsmo/tmp directory while it is performing a restore operation.

Explanation: SnapManager uses this directory to hold temporary, safe copies while it performs an operation.

What to do: Make sure you allocate sufficient space for this directory. One option is to set it up on a separate file system. If you need additional space, but no more physical disk space is available on the root file system, then create a symbolic link from the <snapmanager_install_dir>/tmp directory to a disk or files system with more space.

Profile create operation fails if you use an existing name

Symptom: The profile create operation fails when you try to create a profile with the same name as a profile in a different repository on that system.

Explanation: SnapManager uses the same folder for all profiles. As a result, even though you're using a different repository, you cannot use the name of an existing profile.

What to do: Make sure each profile name on a system is unique regardless of how many repositories you have on that system.

Restore operation fails saying login denied

Symptom: A SnapManager restore operation fails with a message similar to:

```
SMO-13040 [ERROR]: Error while handling failed operation: ORA-01017: invalid username/password; logon denied
```

Explanation: This message indicates that the Oracle database system password changed after the backup occurred. As a result, SnapManager can no longer access the database.

What to do: If you encounter this problem, you need to run the SnapManager `smo operation abort` command to release the resources that were in use when the command failed. Use **one** of the following three scenarios to do this:

- ◆ Change the database password back to the password at the time of the database backup so that SnapManager can access the database. Now run `smo operation abort`.
- ◆ Or update the profile associated with that backup and enter the new database password. Now run `smo operation abort`.
- ◆ Or use the `-force` option and run `smo operation abort -force`. This forces SnapManager to clean up after the failed restore operation.

**Backup operation
unable to freeze file
system**

Symptom: SnapManager attempted to back up data files, control files, log files, and archive log files for an ASM database that is spread across multiple volumes. An error occurred, indicating that SnapManager could not freeze the file system.

Explanation: This is a issue with databases spread across multiple volumes that has been seen with versions of Data ONTAP prior to 7.2. In addition, SnapDrive for UNIX has some architectural guidelines for freezing file systems that span multiple storage system volumes.

What to do: Reconfigure your database so that it does not span multiple volumes. NetApp recommends that you follow the recommendations in the NetApp technical reports TR 3329 (http://www.netapp.com/tech_library/3329.html) and TR 3349 (http://www.netapp.com/tech_library/3349.html) when laying out your database. You may also want to check the SnapDrive for UNIX documentation for information. In particular, see chapter 1 of the *SnapDrive for UNIX Installation and Administration Guide*.

**The recovery
operation accepts
out-of-range SCNs**

Symptom: The SnapManager recovery operation completed even though the command used an out-of-range Oracle System Change Number (SCN).

Explanation: Oracle allows you to enter out-of-range SCNs. SnapManager is following Oracle's behavior.

**Profile verify
operation fails
because of missing
SID**

Symptom: The profile verify operation fails with a message that SnapManager cannot find the SID in the oratab file. The path is /var/opt/oracle/oratab for Solaris and /etc/oratab on Linux.

Explanation: SnapManager always looks for the database SID in the /etc/oratab file or the /var/opt/oracle/oratab file in order to determine the Oracle home for the database instance.

What to do: Make sure you include the SID for each database instance in the /etc/oratab file. If you manually create the database instance, make sure you put the SID in the /etc/oratab or /var/opt/oracle/oratab file.

**Problem occurs
when using RAC
with SnapManager**

Symptom: SnapManager fails when it attempts to perform operations on Real Application Cluster (RAC) database instances.

Explanation: The Oracle sys password and privileges must be the same for all instances of a RAC database that SnapManager handles.

What to do: Check the password on each RAC database instance to make sure that all the instances are using the same password and privileges.

Restore operation fails in ASM configuration

Symptom: A SnapManager restore operation in an ASM configuration fails with the following error:

```
SMO-12018: Error executing RMAN command: [RESTORE DATAFILE
'+DG_EXT1/storasm/datafile/testtab01.dbf' FROM TAG='SMO_storasm_full_1137458676410'];].
The command returned: RMAN-00571:
=====
RMAN-00569: ===== ERROR MESSAGE STACK FOLLOWS =====
RMAN-00571: =====
RMAN-03002: failure of restore command at 01/17/2006 09:45:25
RMAN-06026: some targets not found - aborting restore
RMAN-06023: no backup or copy of datafile 7 found to restore
```

Explanation: You are using an RMAN control file for cataloging. You perform a controlfile restore. Because SnapManager uses RMAN to copy ASM files from cloned disk groups into the active disk groups, it requires that the same controlfile used to register a backup be present at the time of the restore operation.

What to do: Use an external database as the RMAN catalog instead of the controlfile. Another option is to restore a controlfile that contains the necessary RMAN information (i.e., one from after the backup you are trying to restore).

Backup fails for 10g RAC database when remote instance is in MOUNT or NOMOUNT state

Symptom: The SnapManager backup operation hangs on an Oracle 10g RAC database when one of the remote RAC instances is in the NOMOUNT (startup nomount) or MOUNT (startup mount) state. The Oracle commands alter database begin backup and alter database end backup hang when the database is in this state.

What to do: Shut down the RAC instance that is in the NOMOUNT or MOUNT state. NetApp has filed bug report 4956243 with Oracle. Oracle resolved this issue with release 10.2.0.3.

Restore and Recover fails

Symptom: When performing a restore and recover operation, SnapManager fails with an error similar to the following:

SMO-12014: Error executing SQL command: [RECOVER DATABASE UNTIL TIME '2006-01-12:06:37:26'];]. The command returned: ORA-00283: recovery session canceled due to errors
ORA-01610: recovery using the BACKUP CONTROLFILE option must be done

Explanation: The recover operation must use a backup controlfile. You cannot include the recover option when you perform a restore operation using the controlfiles option.

What to do: Do not include the `-recover` option on the command line after a controlfile restore. Instead, use:

```
smo restore -using_backup_controlfile
```

controlfile restore fails on 9i RAC setup

Symptom: SnapManager attempts to restore controlfiles for 9i RAC configuration, but the operation fails with the message:

SMO-07411 [ERROR]: Oracle RAC srvctl command failed. Command is: "srvctl start instance -d <database> -i <instance> -o mount", output is "PRKP-1001 : Error starting instance <instance> on node <node> ORA-01081: cannot start already-running ORACLE - shut it down first"

Explanation: Oracle's `srvctl` utility for Oracle 9i does not correctly handle transitioning an instance from a NOMOUNT state to a SHUTDOWN state (see Metalink SR 5135325.993). SnapManager requires this transition for a controlfile restore if any remote RAC instance is in the MOUNTED or OPEN state. Without this transition, SnapManager fails in this task. Newer versions of Oracle support this.

What to do: Manually shutdown the remote RAC instances before performing the controlfile restore in SnapManager or install a newer Oracle version that supports the transition of the database instance that SnapManager requires.

Backup fails due to invalid snapshot name

Symptom: You attempt to create or backup a profile containing a colon in the profile name and the operation fails with the message:

SMO-08007 [ERROR]: Error creating snapshot. SMO-12111: Error executing snapdrive command "/usr/sbin/snapdrive snap create -fs <MountPoint> -snapname <SnapshotName> -unrelated": 0001-102 Command error: Invalid snapshot name: <SnapshotName>

Explanation: SnapManager does not recognize a profile with a colon in the name and fails when you attempt to create or backup such a profile.

What to do: When creating a profile, specify a profile name that does NOT contain a colon.

Known issues

Known issues with the product

When working with SnapManager, there are some issues you should be aware of. These involve how different aspects of the product stack, such as Oracle, your host operating system, and Data ONTAP, handle matters such as temporary space, partitions, and LUNs that span multiple volumes. If you encounter one of these issues, you could see different error messages. This section lists some of the issues.

Don't perform similar operations on a database simultaneously

You should not execute a SnapManager backup operation at the same time you are working with the database or a remote RAC database instance using another tool. Doing so can cause the SnapManager operation to fail and leave your database in an inconsistent state.

For example, suppose you're performing an offline SnapManager backup operation at the same time you start RMAN to perform a database restore. The SnapManager operation fails, but the RMAN restore succeeds. However, you discover there are now inconsistent files in the database.

This can happen when you've set up SnapManager to work with RMAN. SnapManager catalogs the backed up data files in RMAN. When you're running both SnapManager and RMAN, SnapManager cannot update the files in the RMAN catalog. In addition, RMAN is writing to the database files at the same time SnapManager is. As a result the database becomes corrupted.

Partial restore of an UNDO tablespace not supported

SnapManager does not support performing a partial restore operation of an UNDO tablespace.

Spaces in file path names not allowed

An error occurs if you configure a database or clone specification using a file path name that includes a space. For example, the following command line fails:

```
# df /mnt/my favorite dir/db01.dbf
```

The reason for the failure is that SnapManager does not escape the space character for host-side interactions using the shell. As a result, when the shell receives the path name with the space, it does not recognize it.

srvctl must be working on all nodes in a RAC cluster

It is possible to create an inconsistent backup if `srvctl` is not set up and working on all nodes in the RAC cluster. When `srvctl` is not correctly set up, SnapManager may not be aware of all the database instances when it creates a backup and may incorrectly report the backup succeeded.

For example, suppose you have RAC cluster consisting of `rac1` and `rac2`. `rac1` is a local database instance and is mounted. `rac2` is a remote a database instance and is open. Because `rac2` was removed from `srvctl`, SnapManager does not know it exists. As a result, if you use SnapManager to create a full, offline backup, the operation succeeds even though the database is open on `rac2`.

Database must be in correct state for a restore

During a restore operation, SnapManager only copies the files from the backup to the database. It does not check to make sure all the mount points in the backup are mounted. The Database Administrator (DBA) must make sure that the Oracle database is in the correct state for SnapManager to perform a restore operation. For example, the file systems and disk groups must be mounted and the LUNs must be mapped.

Temporary files not backed up, restored, or cloned

SnapManager follows Oracle behavior in that it does not back up, restore, or clone temporary files or tablespaces.

You can use Oracle commands to manually perform these tasks, if necessary. For example you can execute a command such as:

```
ALTER TABLESPACE TEMP ADD TEMPFILE '/oracle/my_system/temp01.dbf'  
SIZE 41943040 REUSE AUTOEXTEND ON NEXT 655360 MAXSIZE 32767M;
```

Backup fails if controlfiles are raw devices

SnapManager does not support backing up controlfiles that are raw devices. If you use SnapManager for creating backups, make sure the controlfiles are not raw devices.

Obtaining the latest version of the NetApp software

Getting the most up-to-date SnapManager software

The SnapManager software that you download from the NOW site is the most recent version of the software. You can check the NOW site to see whether the software available there is more recent than the file you have on CD-ROM. If so, download the software instead of using the CD-ROM version of the software.

Obtaining the software from NOW

To download the software from the NOW site, complete the following steps.

Step	Action
1	Log in to the NOW site at http://now.netapp.com . In the fields on the right side of the page, complete the following steps: 1. Enter your user name and password. 2. From the Select Start Page list box, click Download Software. 3. Click the Login button.
2	Go to the SnapManager product row of the Software Download table and select your SnapManager host platform from the Select Platform drop-down list.
3	Click Go!
4	Follow the prompts to reach the software download page.
5	Download the software to a local directory. If you did not download the file to your host machine, move it to that machine. To install SnapManager, you must have: ◆ The SnapManager host software: ❖ (Linux host) <code>netapp.smo.linux-2.0.0.bin</code> ❖ (Solaris host) <code>netapp.smo.sunos-2.0.0.bin</code> ◆ The SnapManager GUI software: <code>netapp.smo.windows-2.0.0.exe</code>
6	For instructions to install the software, see the <i>SnapManager Installation and Administration Guide</i> .

Obtaining other NetApp documentation

Obtaining additional NetApp documentation

NetApp's NOW site contains the most current documentation for SnapManager, the NetApp Host Agent, SnapDrive for UNIX, attach kits and support kits, SAN storage system components, and various interconnect methods. For information, see the following:

- ◆ The online *SnapManager & SnapDrive Compatibility* matrix at <http://now.netapp.com/NOW/knowledge/docs/docs.shtml/>
- ◆ The online *Compatibility and Configuration Guide for NetApp's FCP and iSCSI Products* at http://now.netapp.com/NOW/knowledge/docs/san/fcp_iscsi_config/
- ◆ The online NOW Description Pages for SnapManager, NetApp Host Agent, and SnapManager for UNIX
- ◆ The *SnapManager Installation and Administration Guide* (available as a downloadable PDF file from the NOW site)

The documentation for SnapManager, the NetApp Host Agent, SnapDrive for UNIX, and Data ONTAP is also available from the Access & Order Product Documentation page (<http://now.netapp.com/NOW/knowledge/docs/docs.shtml>).