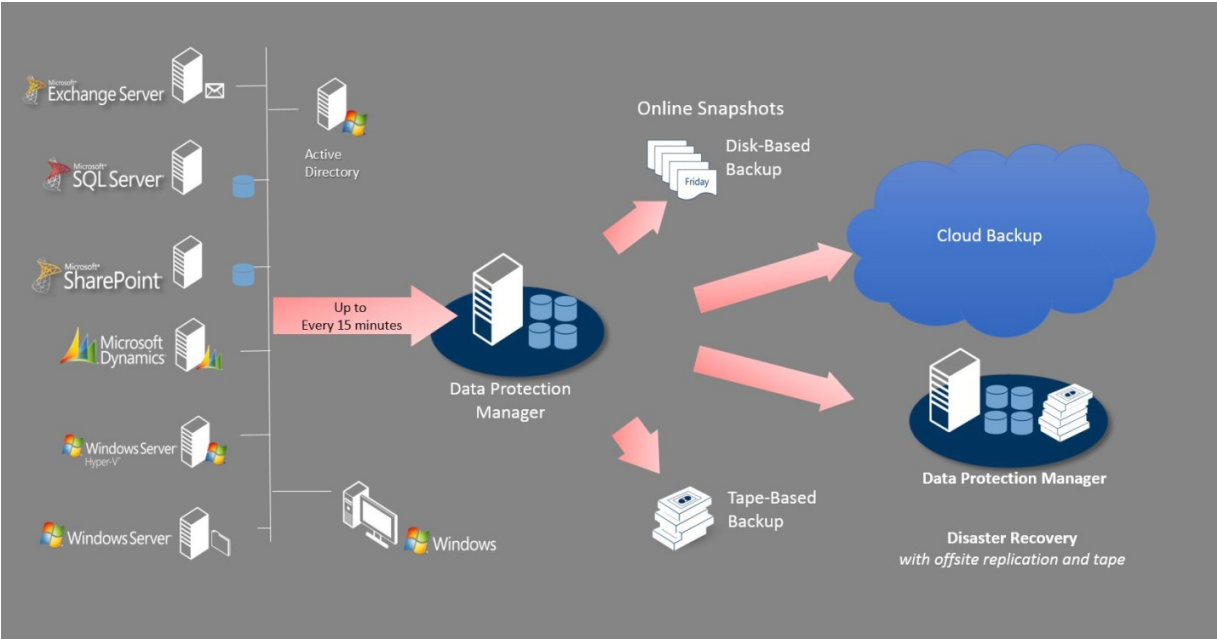
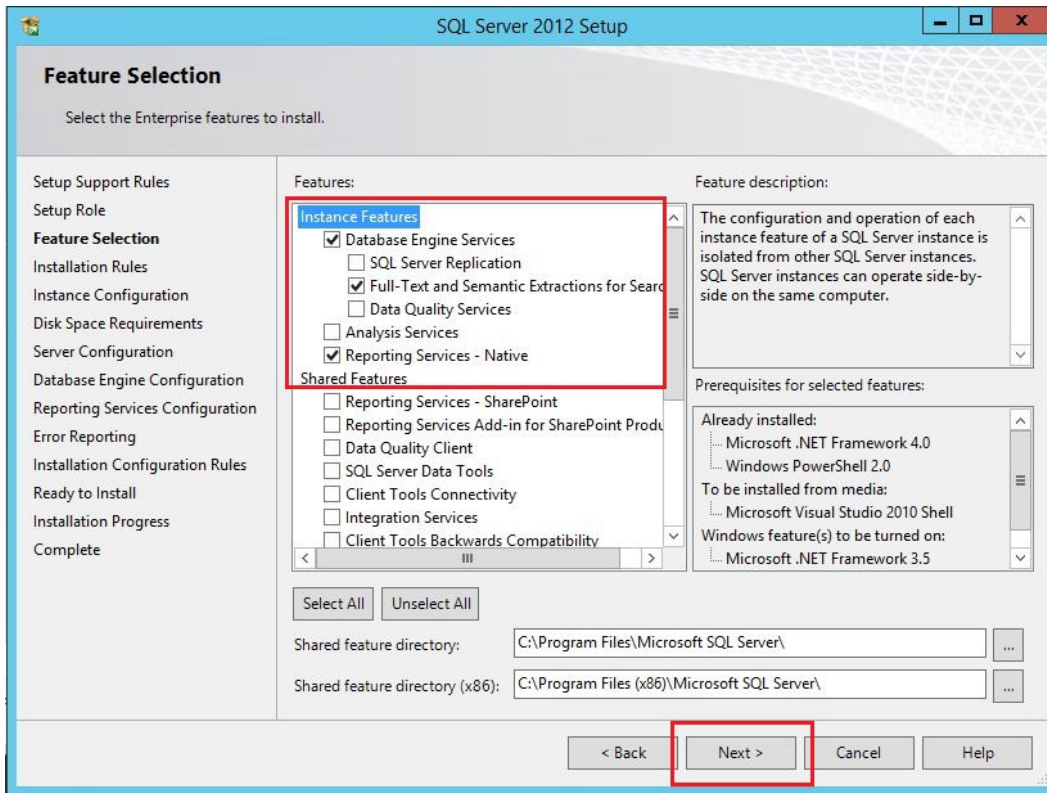


# Chapter 1



## Chapter 2



SQL Server 2012 Setup

### Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

Setup Support Rules  
Setup Role  
Feature Selection  
Installation Rules  
**Instance Configuration**  
Disk Space Requirements  
Server Configuration  
Database Engine Configuration  
Reporting Services Configuration  
Error Reporting  
Installation Configuration Rules  
Ready to Install  
Installation Progress  
Complete

Default instance

Named instance:

Instance ID:

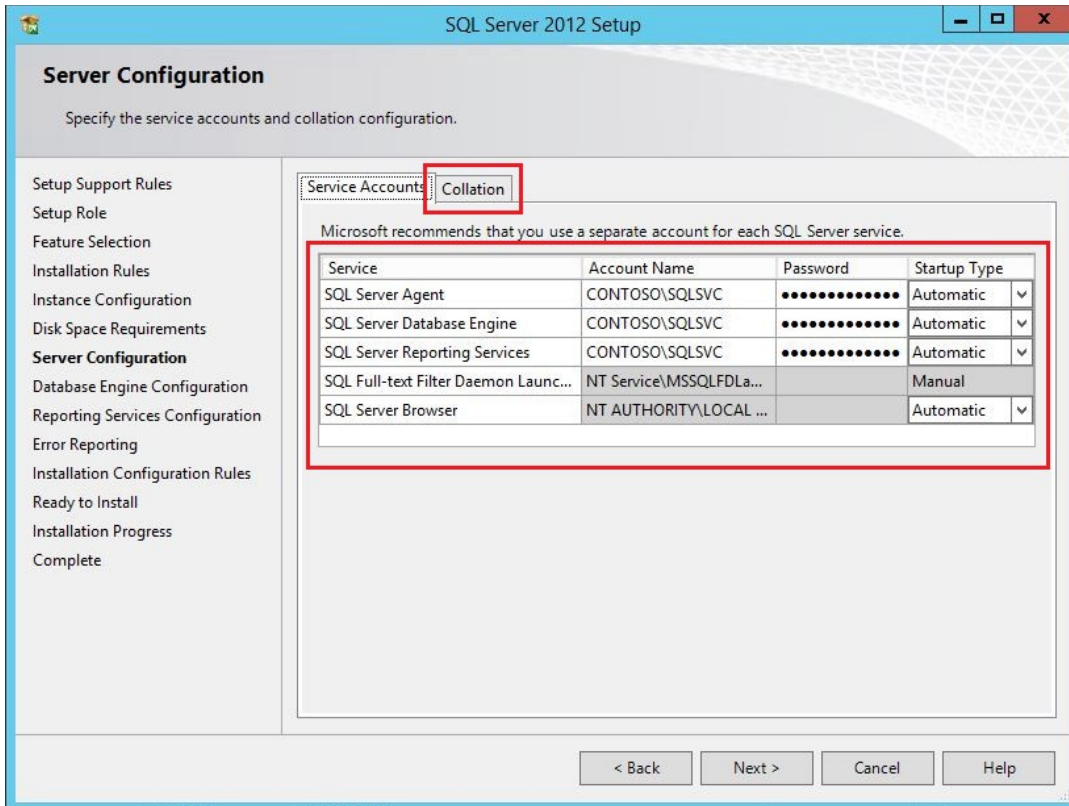
Instance root directory:  ...

SQL Server directory: E:\DPMDB\MSSQL11.DPM  
Reporting Services directory: E:\DPMDB\MSRS11.DPM

Installed instances:

Instance Name	Instance ID	Features	Edition	Version
---------------	-------------	----------	---------	---------

< Back **Next >** Cancel Help





The Microsoft logo is in the top right corner. The main heading is "Microsoft System Center 2012 R2". Below it is a horizontal line, followed by the sub-heading "Data Protection Manager".

**Install**

- [Data Protection Manager](#) (highlighted with a red box)
- [DPM Central Console](#)
- [DPM Protection Agent](#)
- [DPM Remote Administration](#)
- [DPM Self Service Recovery](#)
- [DPM Remote SQL Prep](#)

**Before you begin**

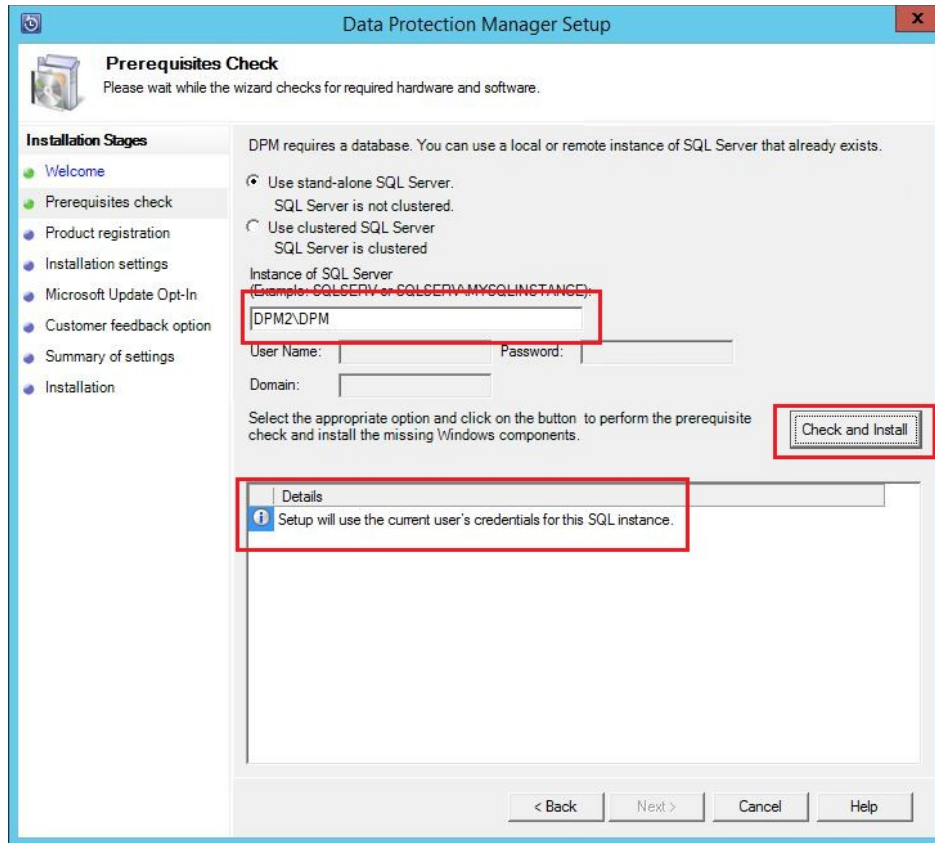
- [View Release Notes](#)
- [Read Installation Guide](#)
- [Run the Prerequisite Checker](#)

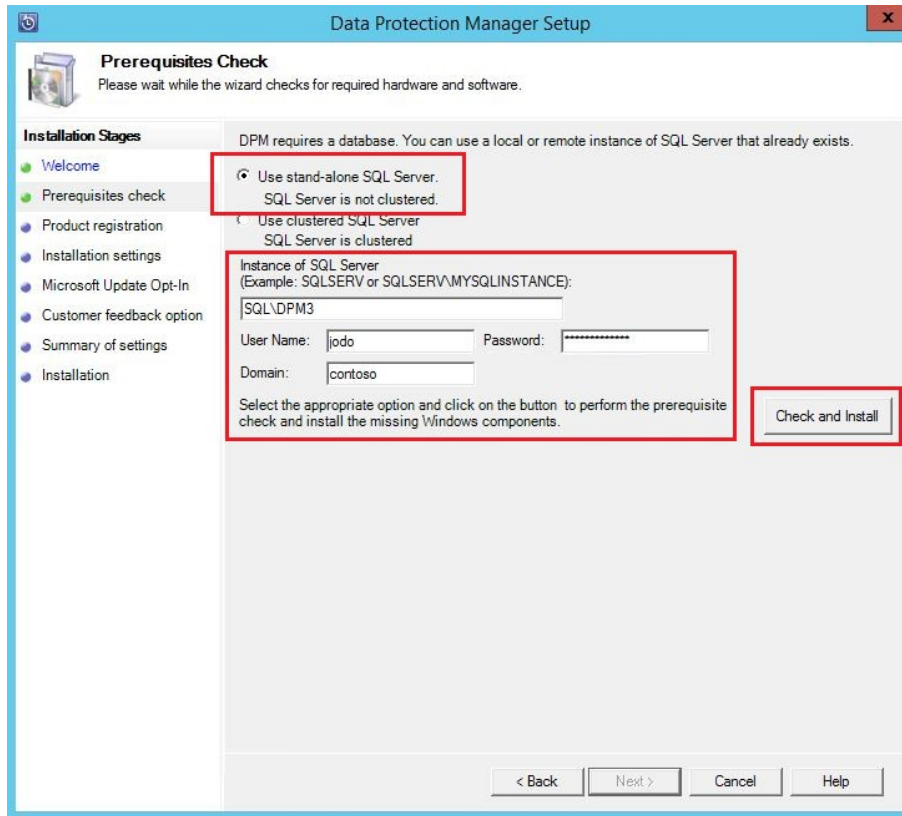
**Additional Resources**

- [Review License Terms](#)
- [Visit DPM Web Site](#)

R2  
© 2013 Microsoft Corporation. All rights reserved.

[Exit](#)





**Data Protection Manager Setup**

### Prerequisites Check

Please wait while the wizard checks for required hardware and software.

**Installation Stages**

- Welcome
- Prerequisites check
- Product registration
- Installation settings
- Microsoft Update Opt-In
- Customer feedback option
- Summary of settings
- Installation

DPM requires a database. You can use a local or remote instance of SQL Server that already exists.

Use stand-alone SQL Server.  
SQL Server is not clustered

Use clustered SQL Server  
SQL Server is clustered

Instance of SQL Server  
(Example: SQLSERV or SQLSERV\MYSQLINSTANCE):  
SQL\DPM3

User Name: jodo Password: \*\*\*\*\*

Domain: contoso

Instance of SQL Server Reporting Service  
(Example: SQLSERV or SQLSERV\MYREPORTINGINSTANCE):  
SQL2\DPM3

User Name: jodo Password: \*\*\*\*\*

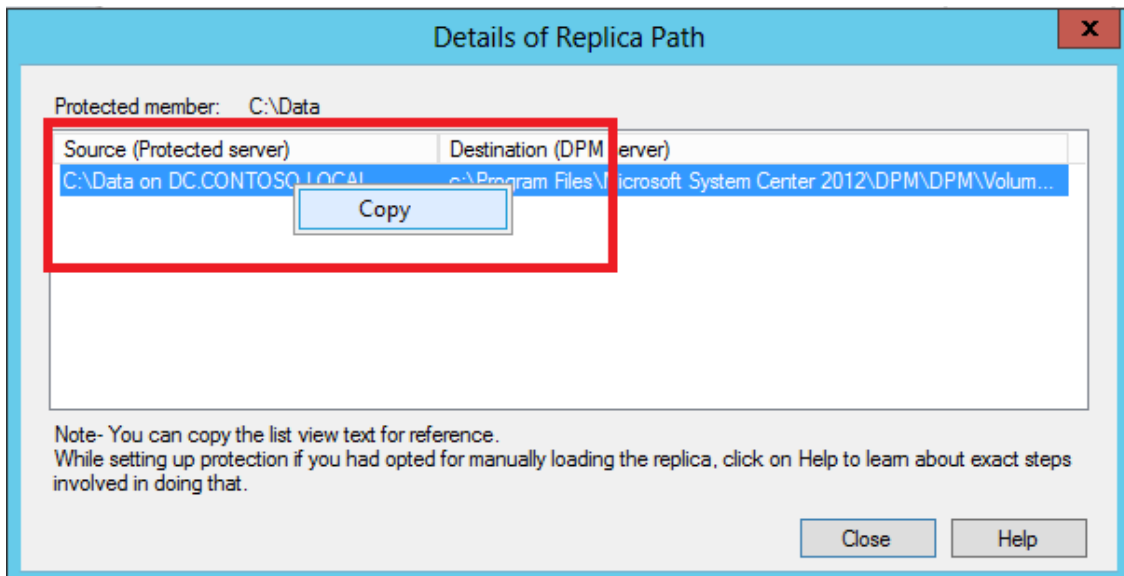
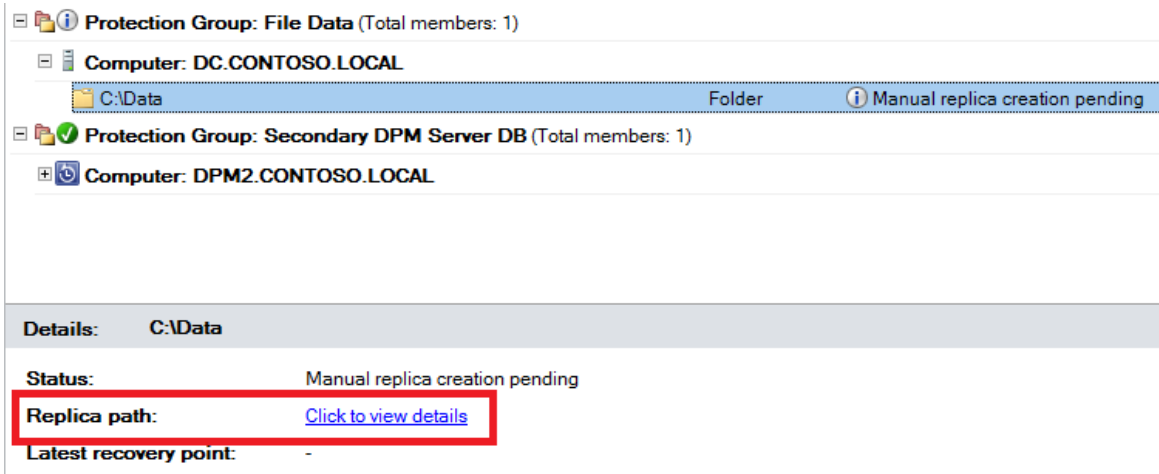
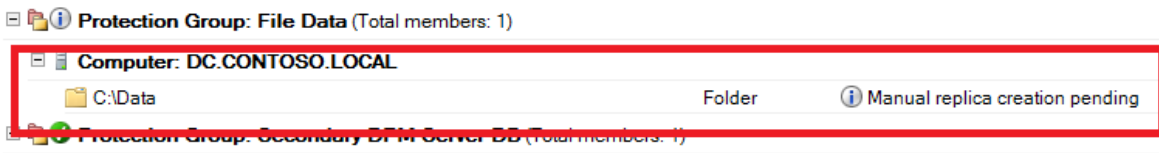
Domain: contoso

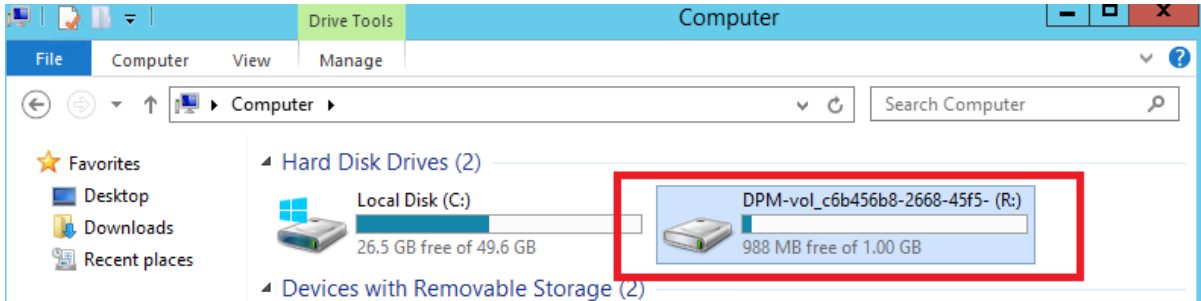
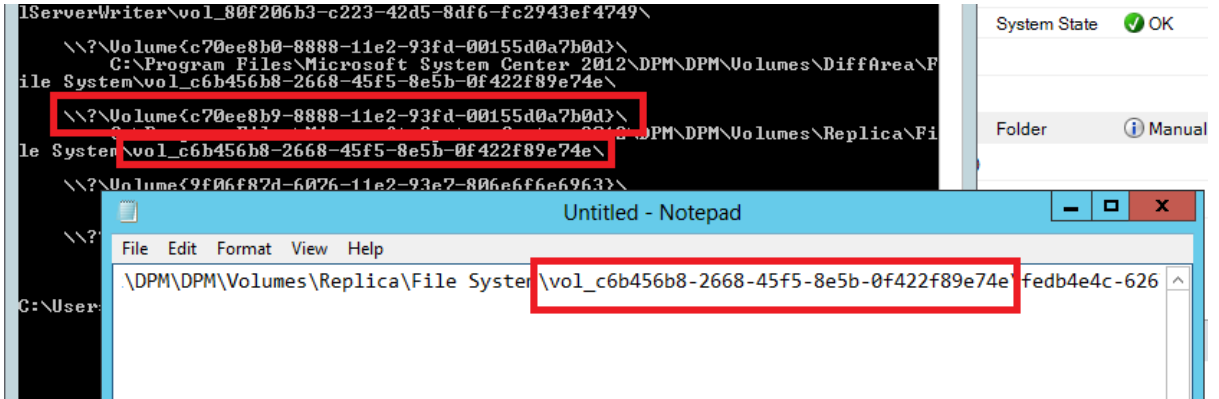
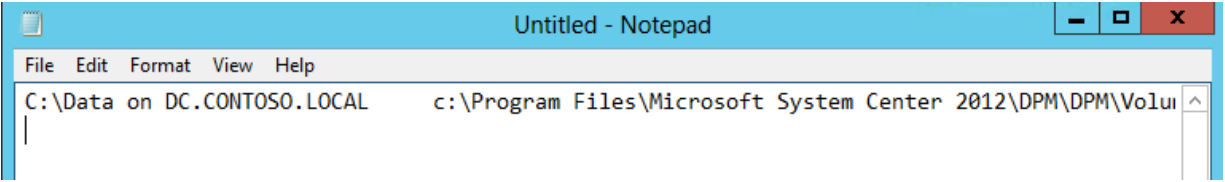
Select the appropriate option and click on the button to perform the prerequisite check and install the missing Windows components.

**Check**



# Chapter 3





## Throttle



Specify the network bandwidth usage throttle setting for the selected protected computer. This setting applies for both protection and recovery.

Ensure that 'QoS Packet Scheduler' is installed in the local area connection properties of both protected and DPM server. The QoS Packet Scheduler is not automatically installed with Windows Server 2003. For details, refer to Help.

Enable network bandwidth usage throttling

### Settings

On non-work days the throttling will be as per non-work hours for whole day.

Work hours:

Non-work hours:

### Work Schedule

Work hours use the local time zone of the protected computer.

Work hours:  to

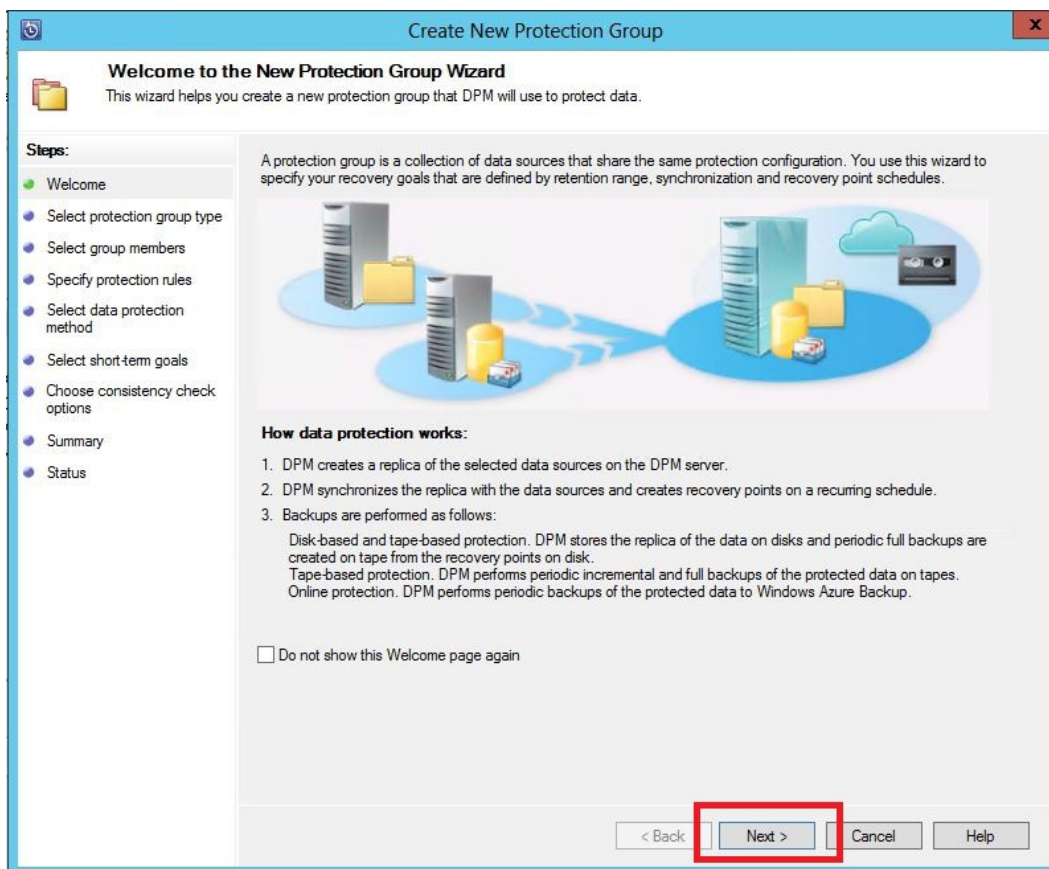
Work days:  Sunday  Monday  Tuesday  
 Wednesday  Thursday  Friday  
 Saturday

OK

Cancel

Help

# Chapter 4



Create New Protection Group

### Select Protection Group Type

Select what kind of computers you would like to setup protection for.


**Steps:**

- Welcome
- Select protection group type
- Select group members
- Specify protection rules
- Select data protection method
- Select short-term goals
- Choose consistency check options
- Summary
- Status

You can create two kinds of protection groups. Select one of them below

Servers  
Select this option for backing up file servers and application servers. Before selecting this option, ensure that the DPM protection agent is already installed on the target server. These computers must be online at the time of configuring protection. You will need to select the specific resources you want to backup.

Clients  
Select this option for backing up data from laptops and desktops. You can install the DPM protection agent after completing the configuration on the DPM server.

 To configure secondary protection for laptops and desktops, select the Servers option.

< Back   **Next >**   Cancel   Help

**Modify Group - File Data**

### Select Group Members.

Select the data that you want to protect.

**Steps:**

- Select group members
- Select data protection method
- Select short-term goals
- Choose consistency check options
- Specify online protection data
- Specify online protection goals
- Summary
- Status

To choose the data to protect, select the check boxes in the Available members section. To exclude a folder, expand the directory structure, and clear the check box of the folder.

If you do not see the data source you want to protect in the tree below, click the following link for a list of unsupported configurations.  
[Unsupported configurations](#)

**Available members**

- CONTOSO.LOCAL
  - DC
  - DPM1
  - EXCH01
  - FILE01
    - All Shares
      - Data
      - de-dup SMB DATA
      - MTATempStore\$
      - ReFS - File data
    - All Volumes
      - C:\ul>      - \$Recycle.Bin
      - Data
      - inetpub
      - PerfLogs
      - Program Files
      - Program Files (x86)

**Selected members**

Selected Members	Computer
\\FILE01.CONTOSO.LOCAL\D...	FILE01.CONTOS...
\\FILE01.CONTOSO.LOCAL\d...	FILE01.CONTOS...
\\FILE01.CONTOSO.LOCAL\R...	FILE01.CONTOS...
C:\inetpub	FILE01.CONTOS...

Remove

Clear cache  
Clicking Clear Cache will only empty the cache. To refresh the data, expand the resource group.  
Clear cache

Excluded folders: 0 [View](#)  
Excluded file types: 0 [Exclude Files...](#)

< Back **Next >** Cancel Help

Modify Group - File Data

### Select Data Protection Method

DPM can help provide disk, online and tape based data protection.

**Steps:**

- Select group members
- Select data protection method
- Select short-term goals
- Choose consistency check options
- Specify online protection data
- Specify online protection goals
- Summary
- Status

Protection group name:

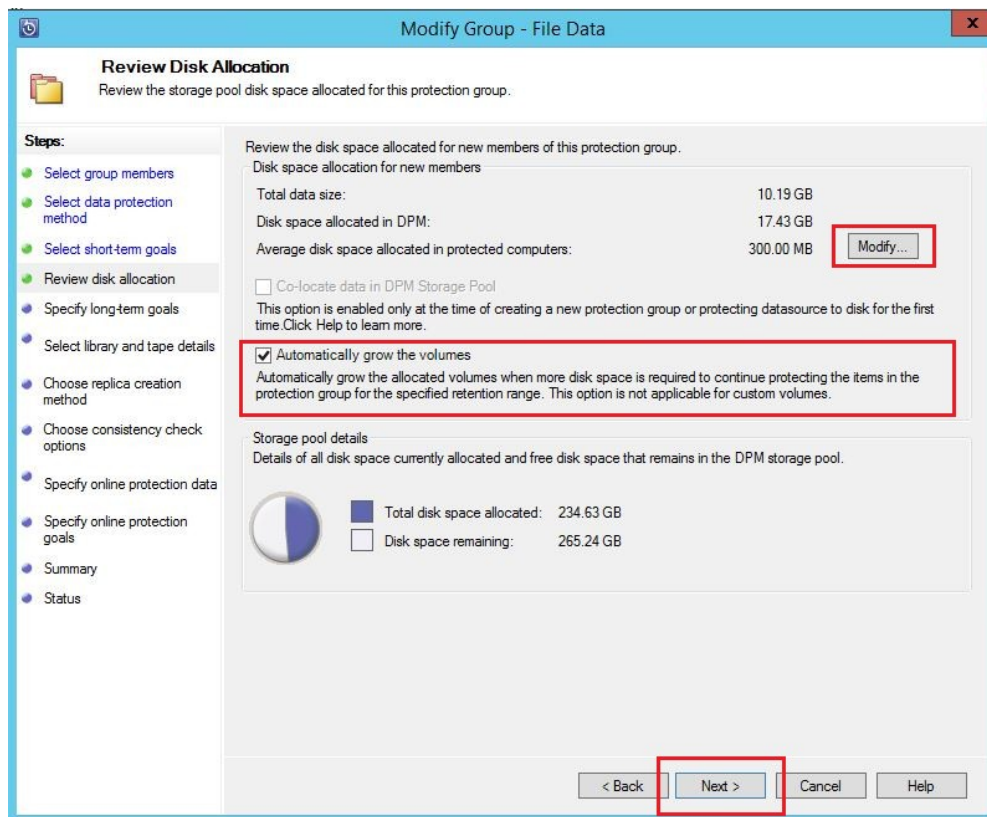
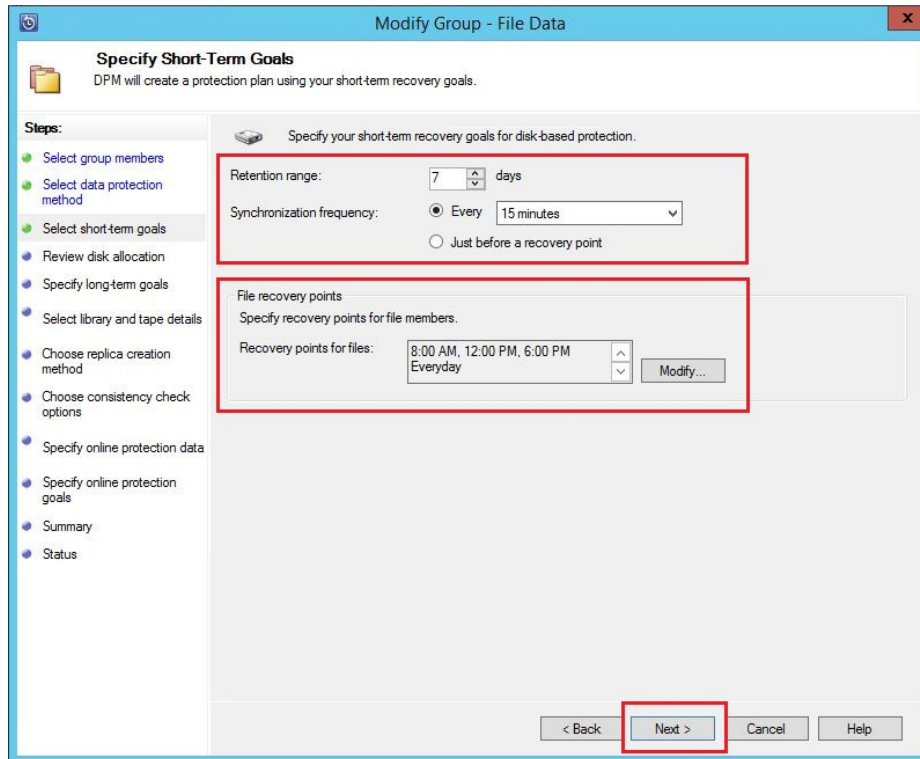
Protection method  
Select your protection method.

I want short-term protection using:

I want online protection

I want long-term protection using tape

< Back **Next >** Cancel Help





**Modify Group - File Data**

### Select Long-Term Goals

DPM will create a protection plan using your long-term recovery goals.

**Steps:**

- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Specify long-term goals
- Select library and tape details
- Choose replica creation method
- Choose consistency check options
- Specify online protection data
- Specify online protection goals
- Summary
- Status

Specify your long-term recovery goals for tape-based protection. All long-term tape-based protection uses full backups.

**Recovery goals**

The retention range and backup frequency that you select will determine the recovery point schedule.

Click Customize to modify the recovery point schedule or the default tape labels.

Retention range: 3 Months

Frequency of backup: Weekly

Recovery points:  
1 recovery point every 1 week(s) for the last 4 week(s)  
1 recovery point every 1 month(s) for the last 3 month(s)

Restore Defaults Customize

**Backup schedule**

Based on the specified backup frequency, the tape library will perform a full backup to the tapes according to the following schedule

Click the Modify button to choose the backup days in case of daily tape backups.

Weekly: Sat 11:00 PM  
Monthly: Day 1, 11:00 PM

Modify...

< Back Next > Cancel Help

## Customize Recovery Goal



You can customize the long-term recovery goals for daily, weekly, monthly, or yearly backups. To customize the recovery goals, specify the backup frequency, retention range, number of backup copies, and tape label for each increment of backup to be applied to this protection group.

To modify the tape label, click the label text to select it, and then click the label text again to edit it.

### Recovery goal 1

Back up every: 1 Weeks  
Retention range: 4 Weeks  
Number of backup copy: 1

Tape Label  
File Data-LT-1Weeks-Copy0

### Recovery goal 2

Back up every: 1 Months  
Retention range: 12 Months  
Number of backup copy: 1

Tape Label  
File Data-LT-1Months-Copy0

### Recovery goal 3

Back up every: 1 Years  
Retention range: 10 Years  
Number of backup copy: 1

Tape Label  
File Data-LT-1Years-Copy0

### Option

Specify the action DPM should take when the backup jobs for different recovery goals occur on the same day.

- Run backup for all (ignore overlap of days)  
 Run backup only for the 'Recovery goal 3'

OK

Cancel

Help

### Modify Long-Term Backup Schedule

Backup schedule

Yearly backup time: 11:00 PM

Yearly backup day:  Every Jan 1  The First Sun of Jan

Monthly backup time: 11:00 PM

Monthly backup day:  Day 1  The First Mon of every month

Weekly backup time: 11:00 PM

Weekly backup day: Sat

OK Cancel Help

### Modify Group - File Data

#### Select Library and Tape Details

Specify details about tape and the library that you would like to use for backup.

**Steps:**

- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Specify long-term goals
- Select library and tape details**
- Choose replica creation method
- Choose consistency check options
- Specify online protection data
- Specify online protection goals
- Summary
- Status

Specify details about the library and tape that you want to use for tape backups.

**Library details**

Library: Firestreamer Media Changer

Drives allocated: 1

Copy library: Firestreamer Media Changer

Check backup for data integrity (time consuming operation)

**Tape options for long-term protection**

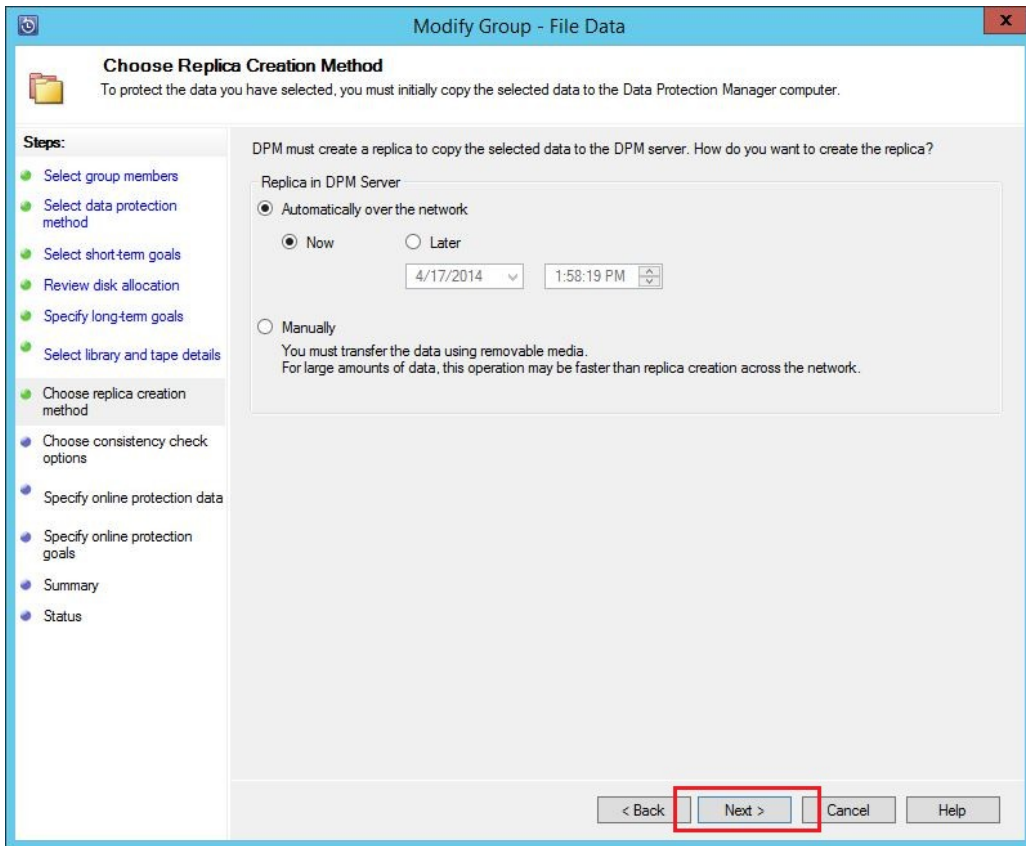
Compress data

Encrypt data  
A valid DPM encryption certificate must be available on this DPM server. For more information click Help.

Do not compress or encrypt data.

*i* You can optimize tape usage for this protection group using 'Optimize Tape Usage' on the Libraries Management page.

< Back Next > Cancel Help



Modify Group - File Data

### Consistency check options

Select how you want to run consistency check on inconsistent replicas.

**Steps:**

- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Specify long-term goals
- Select library and tape details
- Choose replica creation method
- Choose consistency check options
- Specify online protection data
- Specify online protection goals
- Summary
- Status

Running a consistency check on a replica that has become inconsistent allows DPM to continue protecting the data source. You can start a consistency check manually or allow DPM to run it automatically. Use the methods below to customize how DPM can run a consistency check.

Run a consistency check if a replica becomes inconsistent

Select this method if you want DPM to automatically run a consistency check when it finds a replica in an inconsistent state. This method may require DPM to use additional CPU and disk resources.

Run a daily consistency check according to the following schedule

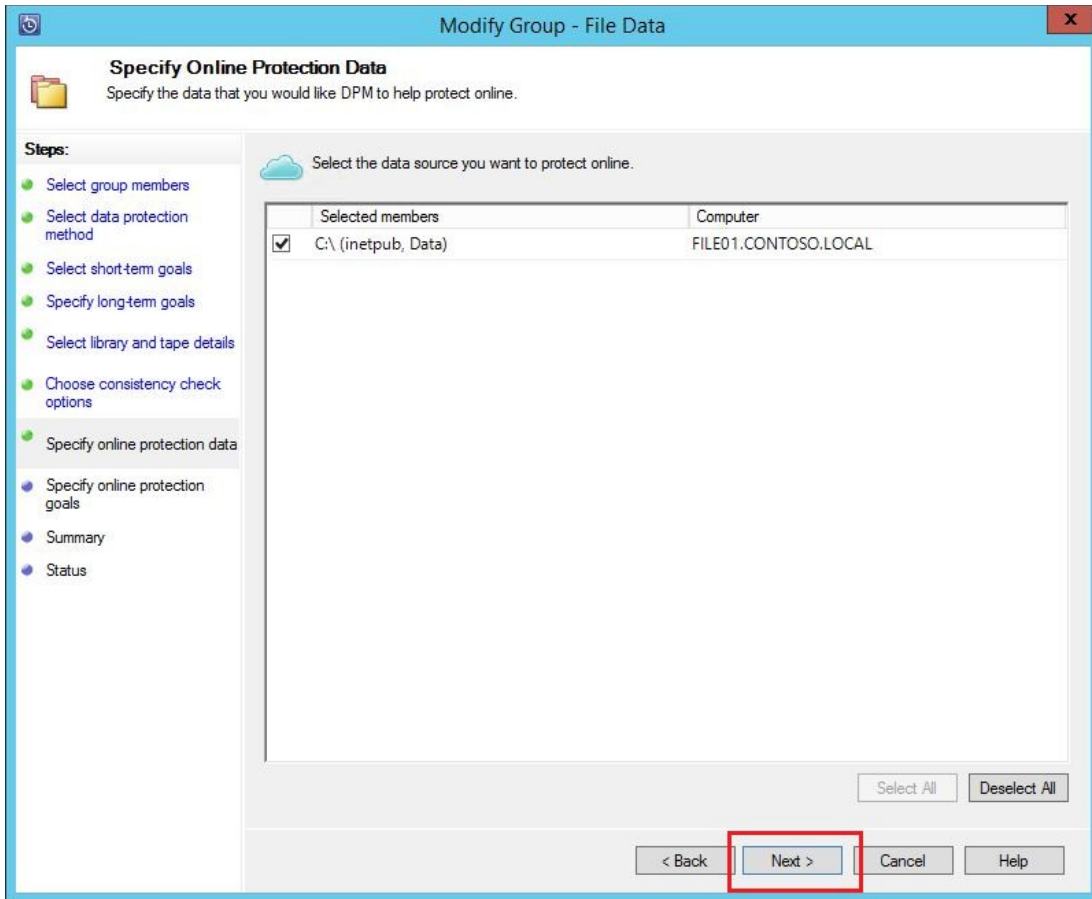
Select this method if you want DPM to check for inconsistent replicas at a specified time every day and then run a consistency check if it finds one. This method may require additional CPU and disk resources during the specified hours.

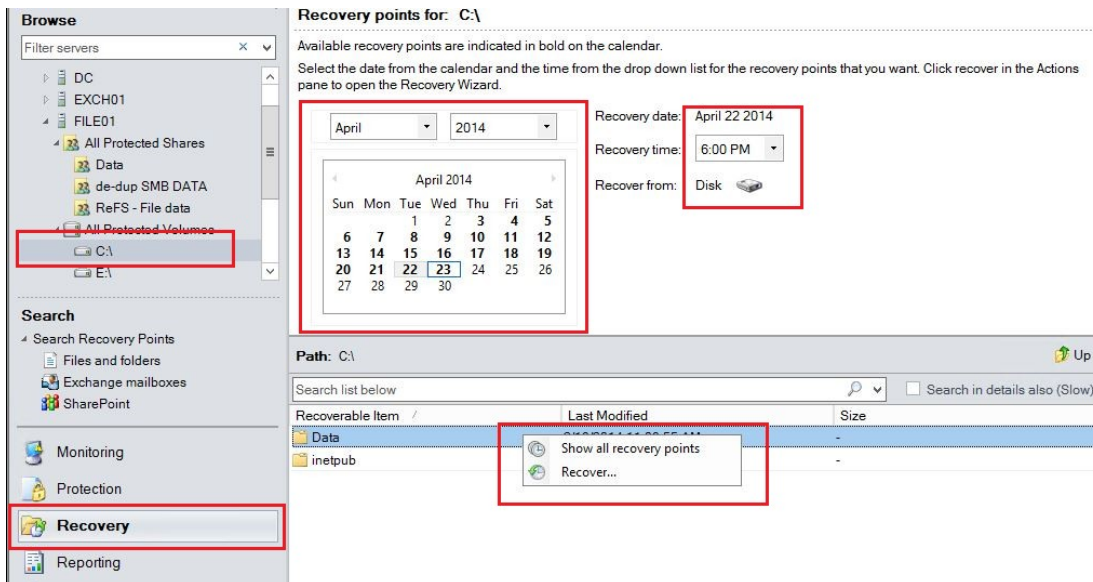
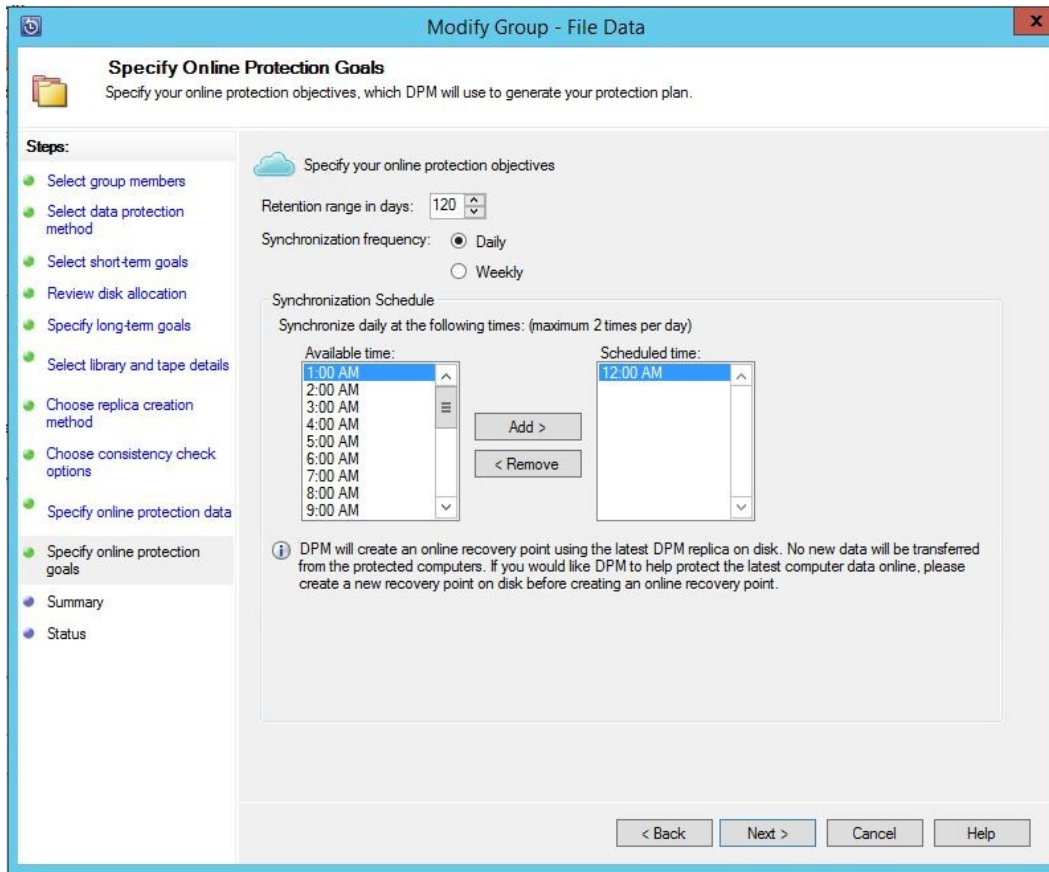
Start time: 12:00 AM

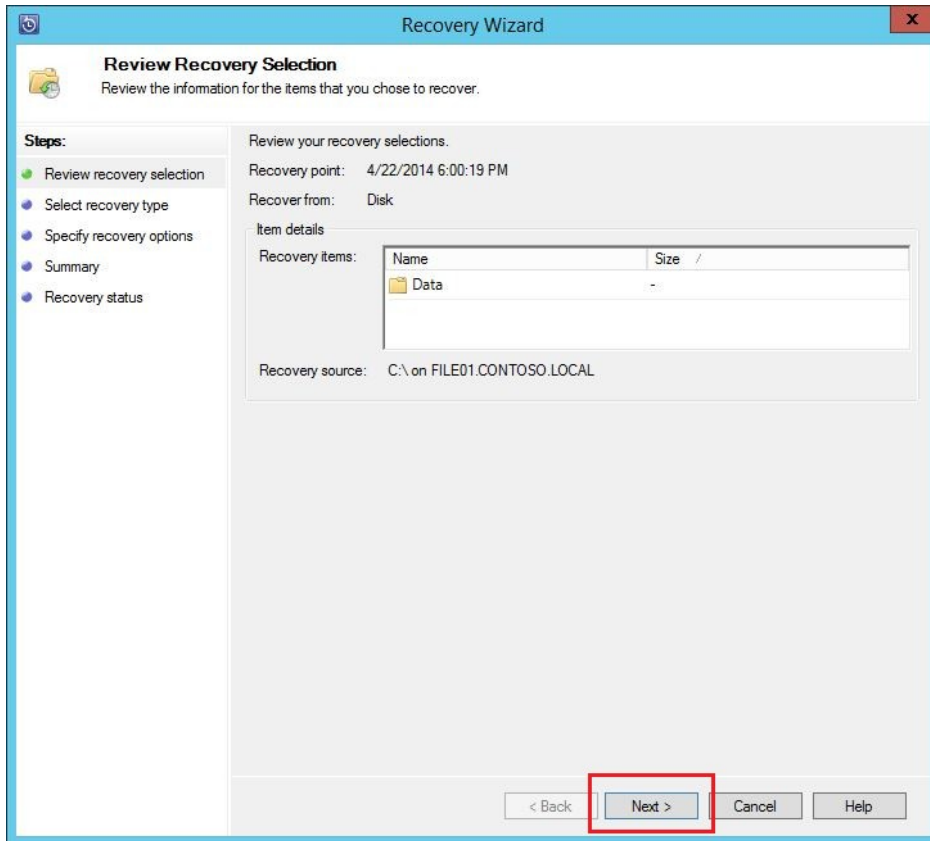
Maximum duration: 480 hours

Cannot exceed 480 hours (20 days).

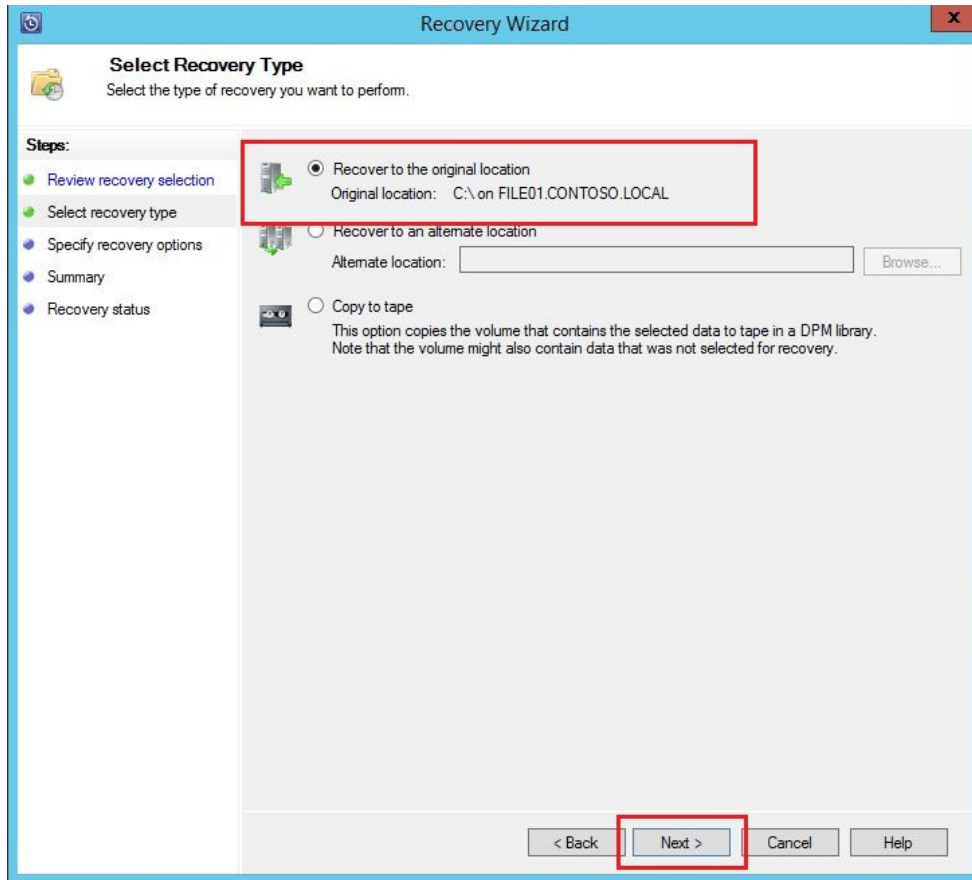
< Back Next > Cancel Help











Recovery Wizard

### Specify Recovery Options

Specify the options to apply to the recovery.

**Steps:**

- Review recovery selection
- Select recovery type
- Specify recovery options**
- Summary
- Recovery status

**Existing version recovery behavior**

Create copy    Skip    Overwrite

**Restore security**

Apply security settings of the destination computer  
 Apply the security settings of the recovery point version

**Network bandwidth usage throttling**

Status: Disabled [Modify...](#)

**SAN Recovery**

Enable SAN based recovery using hardware snapshots  
Click on [Help](#) to learn about the prerequisite steps

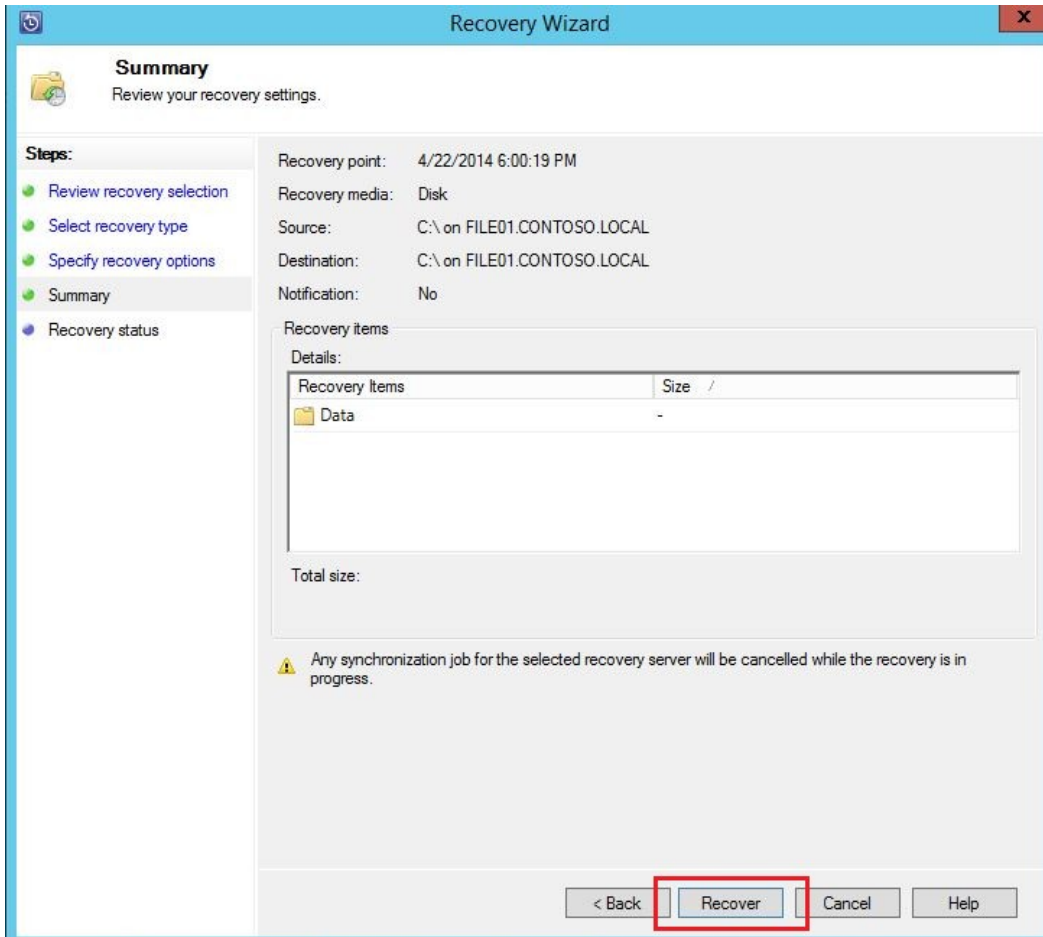
**Notification**

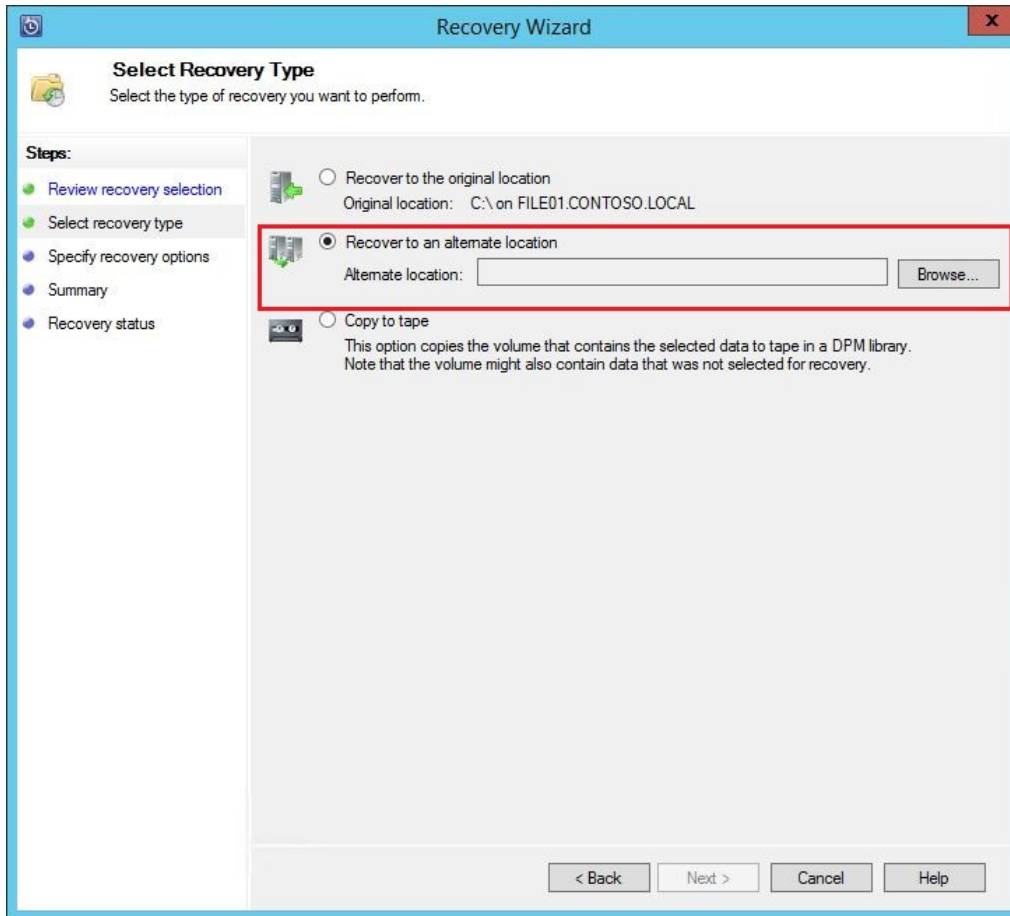
Send an e-mail when this recovery completes

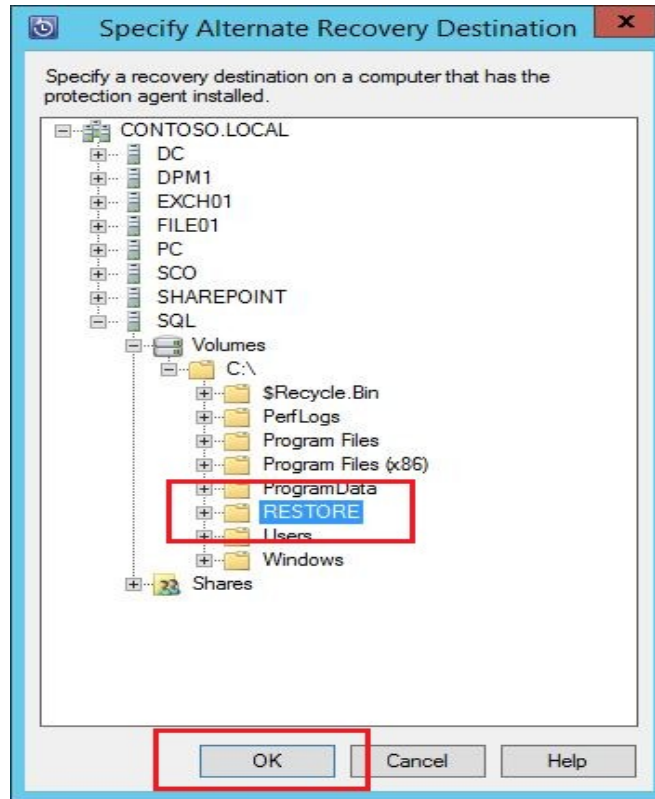
Recipients:

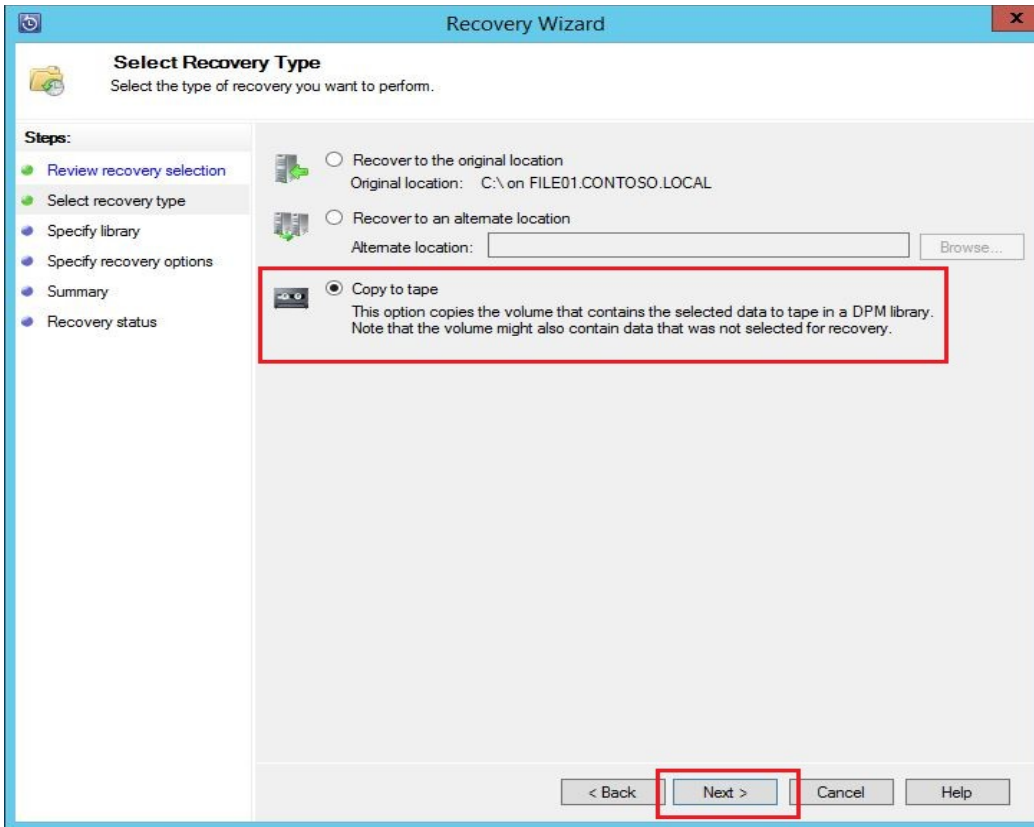
[Help](#) Separate e-mail addresses with comma.  
Example: Kim@Contoso.com, Terry@Adventure-works.com

< Back   **Next >**   Cancel   Help









Recovery Wizard

### Specify Library

Select library and specify the tape options for recovery.

**Steps:**

- Review recovery selection
- Select recovery type
- Specify library**
- Specify recovery options
- Summary
- Recovery status

Data Protection Manager will copy the following item to a tape in the selected library.

Copy item: C:\ on FILE01.CONTOSO.LOCAL

Size: -

**Library details**

Specify the library to use for the recovery.

Primary library: Firestreamer Media Changer

Copy library:

The copy library is enabled only when the primary library has a single drive.

**Tape options**

Tape label: DPM\_Recovered\_C:\ on FILE01.CONTOSO.LOCAL

Data on tape:

- Compress
- Encrypt (Encrypted tape can be read only by a DPM Server)
- Do not compress or encrypt

< Back   **Next >**   Cancel   Help

Recovery Wizard

### Specify Recovery Options

Specify the options to apply to the recovery.

**Steps:**

- Review recovery selection
- Select recovery type
- Specify library
- Specify recovery options
- Summary
- Recovery status

**SAN Recovery**

Enable SAN based recovery using hardware snapshots  
Click on Help to learn about the prerequisite steps

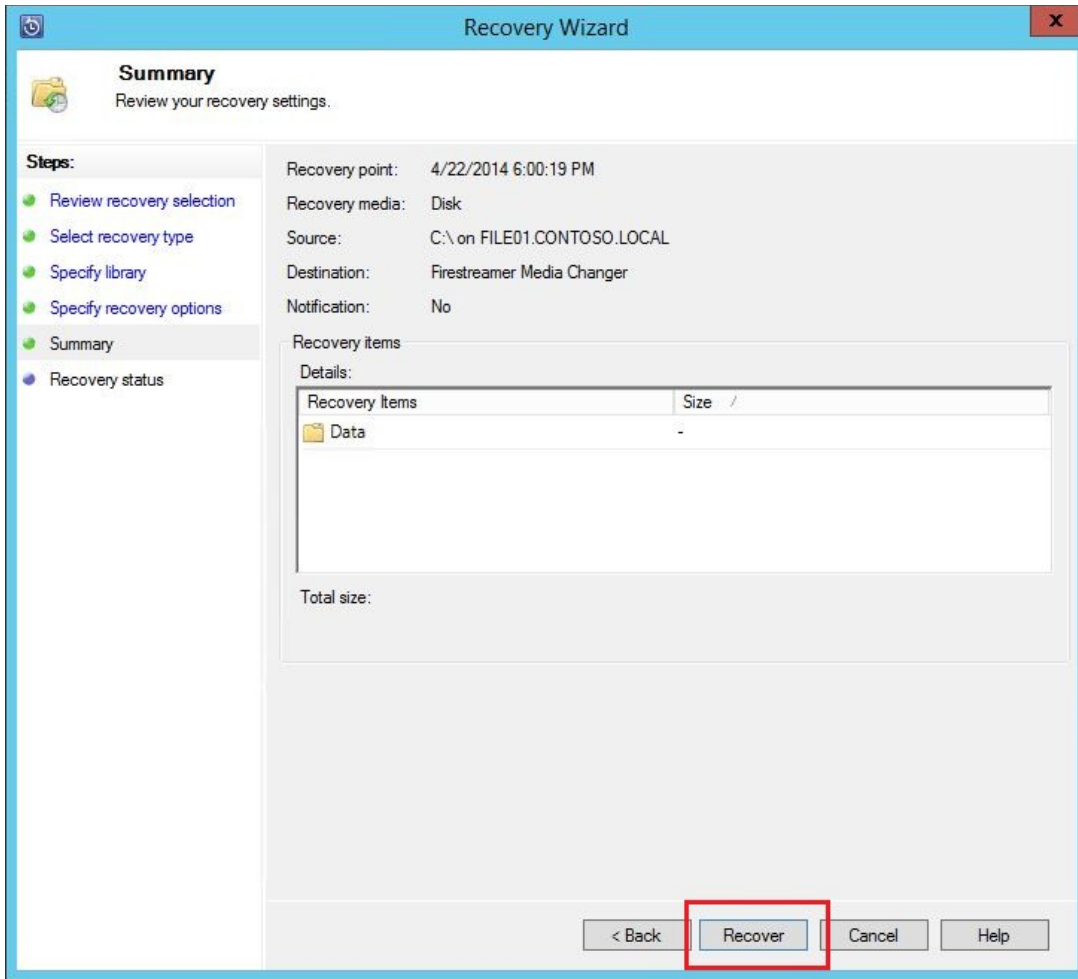
**Notification**

Send an e-mail when this recovery completes

Recipients:    
Separate e-mail addresses with comma.  
Example: Kim@Contoso.com, Terry@Adventure-works.com

< Back   **Next >**   Cancel   Help





**Browse**

Filter servers

- Recoverable Data
  - CONTOSO.LOCAL
    - EXCH01
      - FILE01
        - All Protected Shares
          - Data
            - de-dup SMB DATA**
            - ReFS - File data
          - All Protected Volumes

**Search**

- Search Recovery Points
  - Files and folders
  - Exchange mailboxes
  - SharePoint
- Monitoring
- Protection
- Recovery**
- Reporting

**Recovery points for: de-dup SMB DATA**

Available recovery points are indicated in bold on the calendar.  
 Select the date from the calendar and the time from the drop down list for the recovery points that you want. Click recover in the Actions pane to open the Recovery Wizard.

Recovery date: April 23 2014  
 Recovery time: 6:04 PM(T)  
 Recover from: Tape

All tapes online [View tape list](#)

Path: F:\Shares\de-dup SMB DATA

Search list below

Recoverable Item	Last Modified	Size
DPM.txt	4/23/2014 3:59:41 AM	83 KB

Show all recovery points  
 Recover...

**Recovery Wizard**

**Review Recovery Selection**  
 Review the information for the items that you chose to recover.

**Steps:**

- Review recovery selection
- Select recovery type
- Specify recovery options
- Summary
- Recovery status

Review your recovery selections.

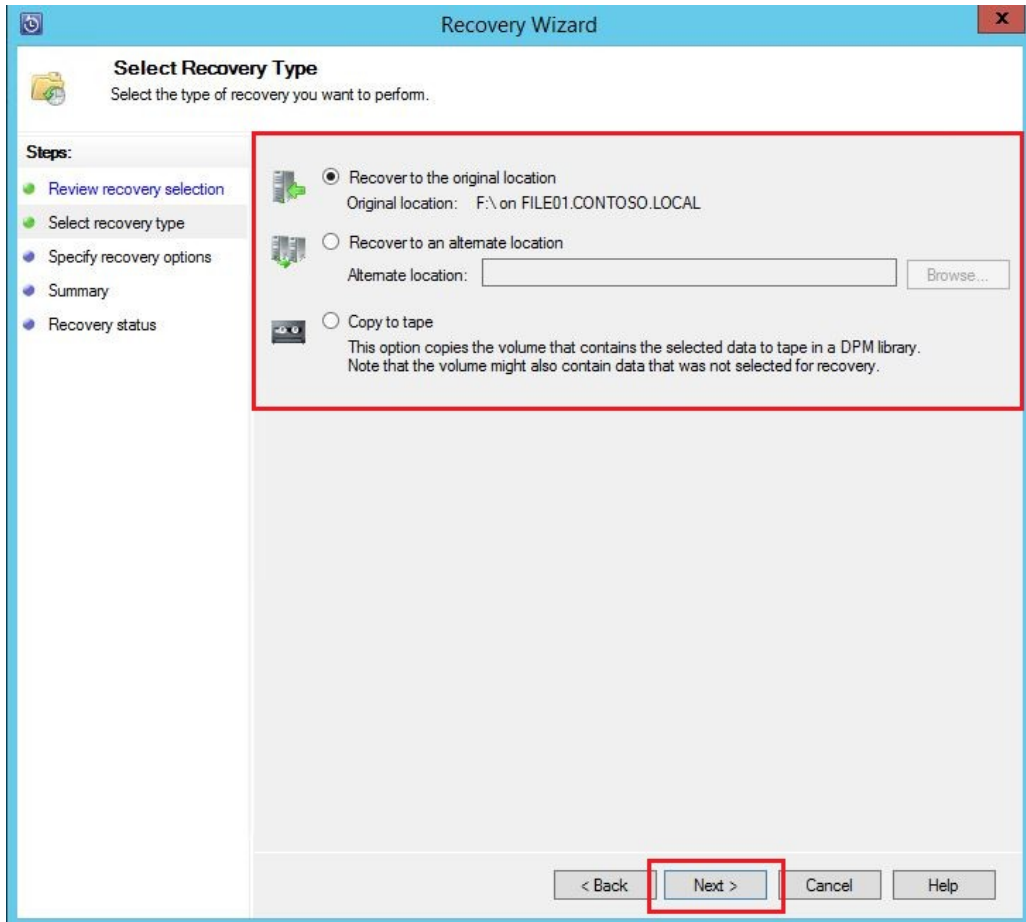
Recovery point: 4/23/2014 6:04:04 PM  
 Recover from: Tape  
 Tape set for recovery: Tape set 1 [Tape set details](#)

Item details

Recovery items:	Name	Size
	DPM.txt	83 KB

Recovery source: F:\ on FILE01.CONTOSO.LOCAL

< Back **Next >** Cancel Help



Recovery Wizard

### Specify Recovery Options

Specify the options to apply to the recovery.

**Steps:**

- Review recovery selection
- Select recovery type
- Specify recovery options**
- Summary
- Recovery status

**Recovery library**  
All the tapes needed for recovery needs to be present in this library.  
Library name: Firestreamer Media Changer (Recommended) v

**Existing version recovery behavior**  
 Create copy  Skip  Overwrite

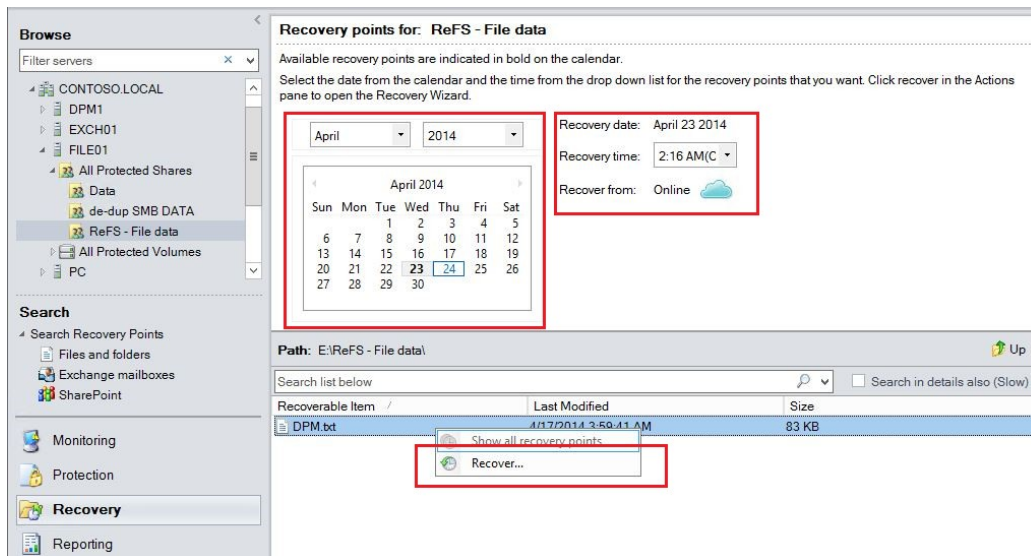
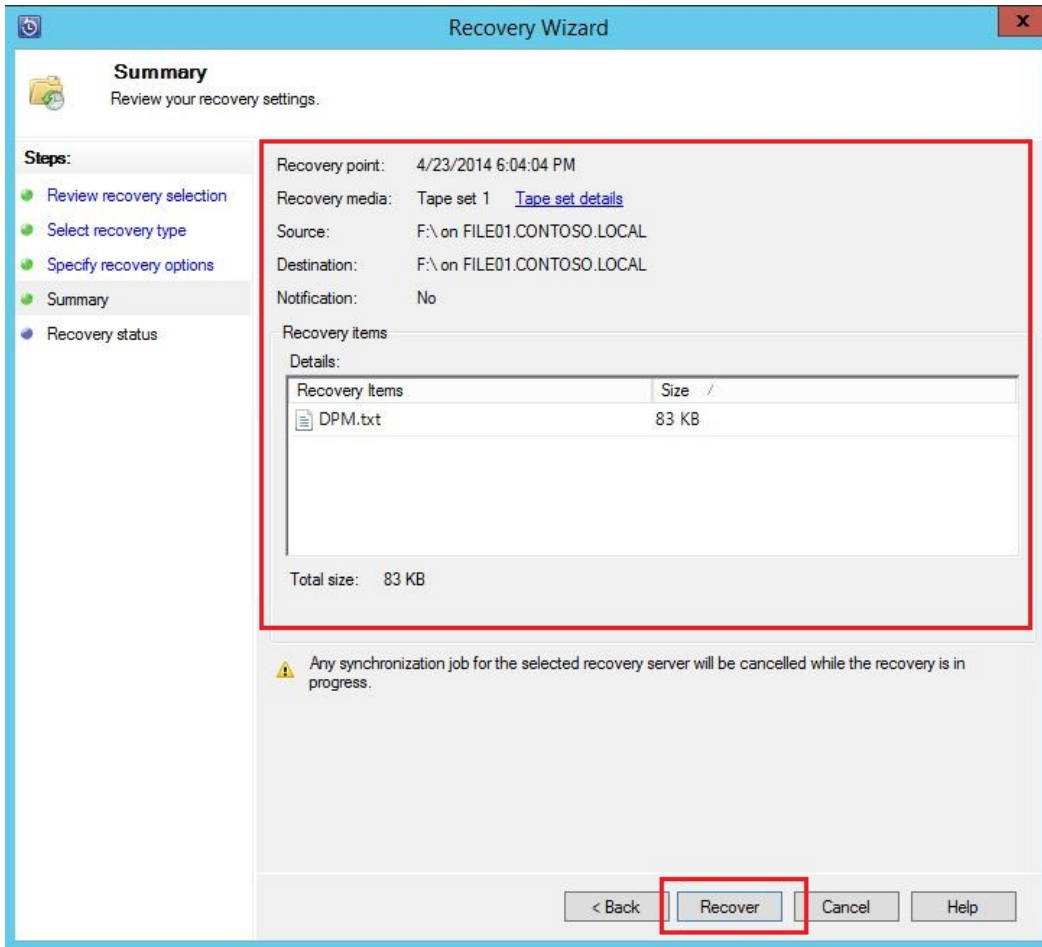
**Restore security**  
 Apply security settings of the destination computer  
 Apply the security settings of the recovery point version

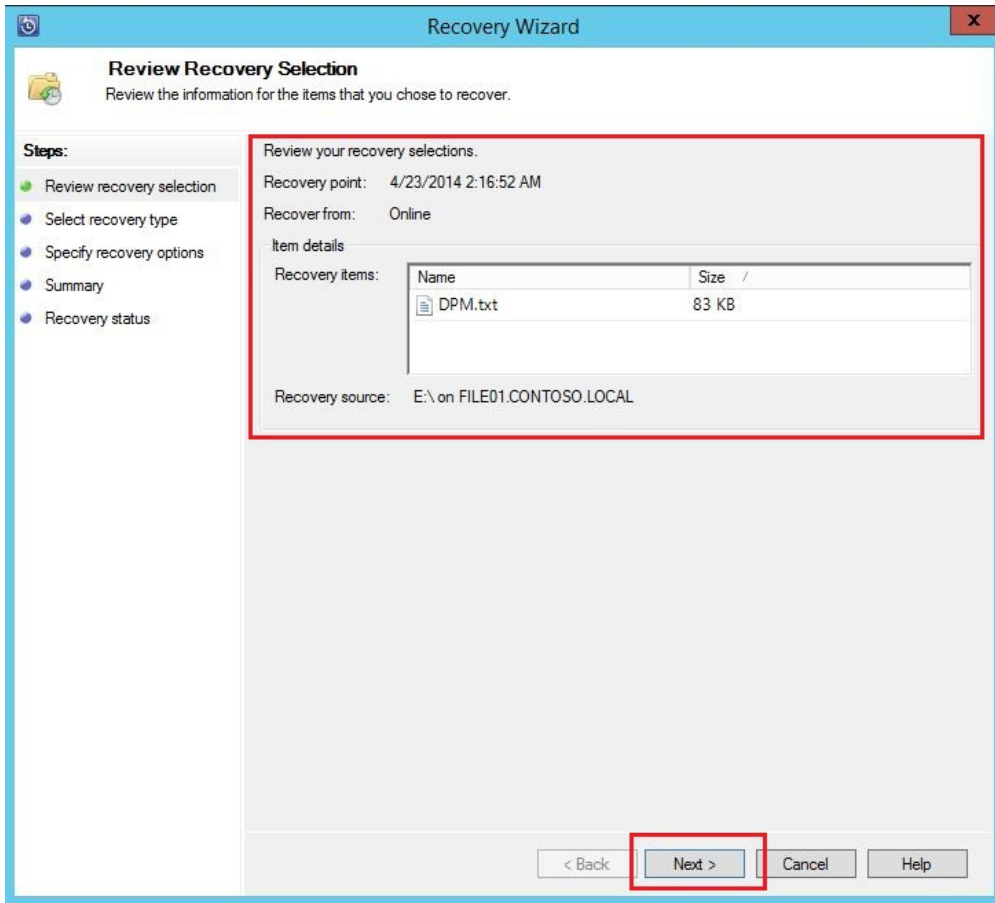
**Network bandwidth usage throttling**  
Status: Disabled [Modify...](#)

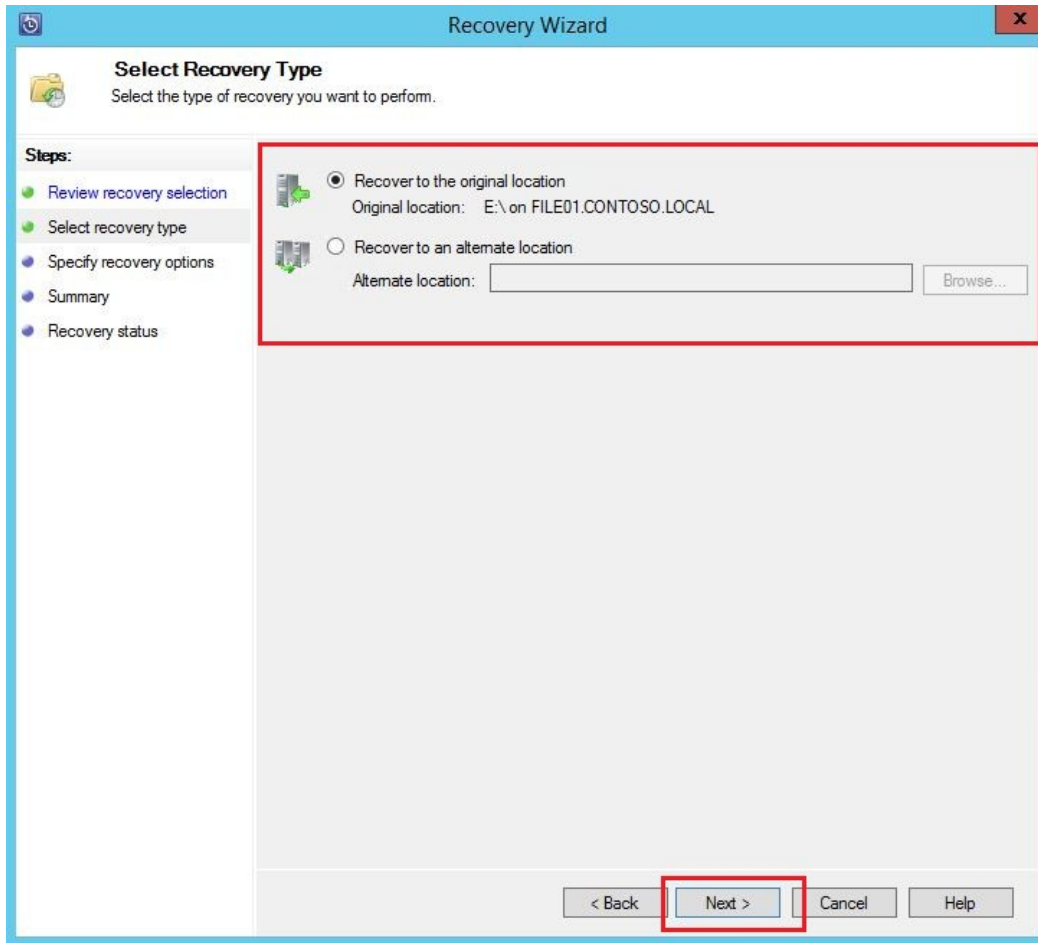
**SAN Recovery**  
 Enable SAN based recovery using hardware snapshots  
Click on Help to learn about the prerequisite steps

**Notification**  
 Send an e-mail when this recovery completes  
Recipients:  Separate e-mail addresses with comma.  
Example: Kim@Contoso.com, Terry@Adventure-works.com

< Back Next > Cancel Help







Recovery Wizard

### Specify Recovery Options

Specify the options to apply to the recovery.

**Steps:**

- Review recovery selection
- Select recovery type
- Specify recovery options**
- Summary
- Recovery status

**Existing version recovery behavior**

Create copy    Skip    Overwrite

**Restore security**

Apply security settings of the destination computer  
 Apply the security settings of the recovery point version

**Network bandwidth usage throttling**

Status: Disabled [Modify...](#)

**SAN Recovery**

Enable SAN based recovery using hardware snapshots  
Click on Help to learn about the prerequisite steps

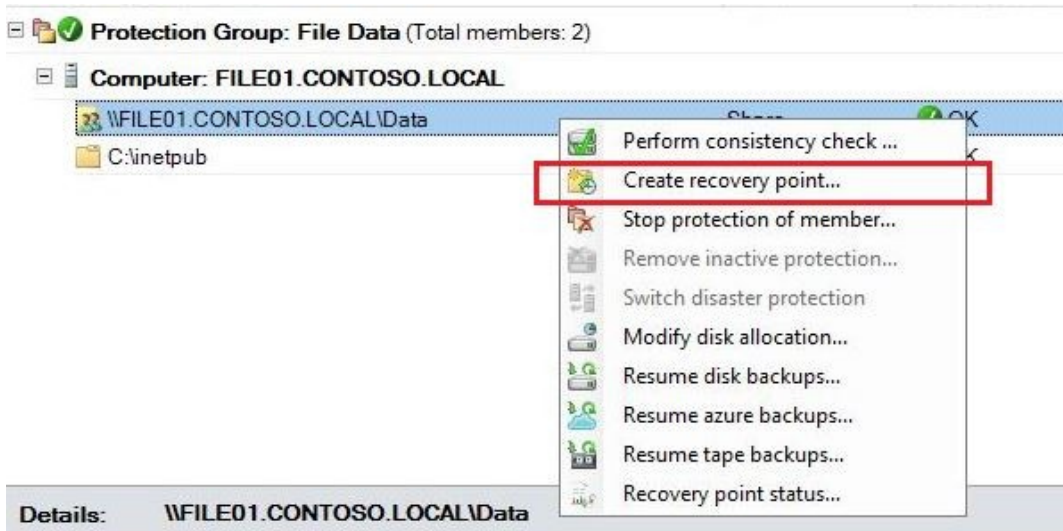
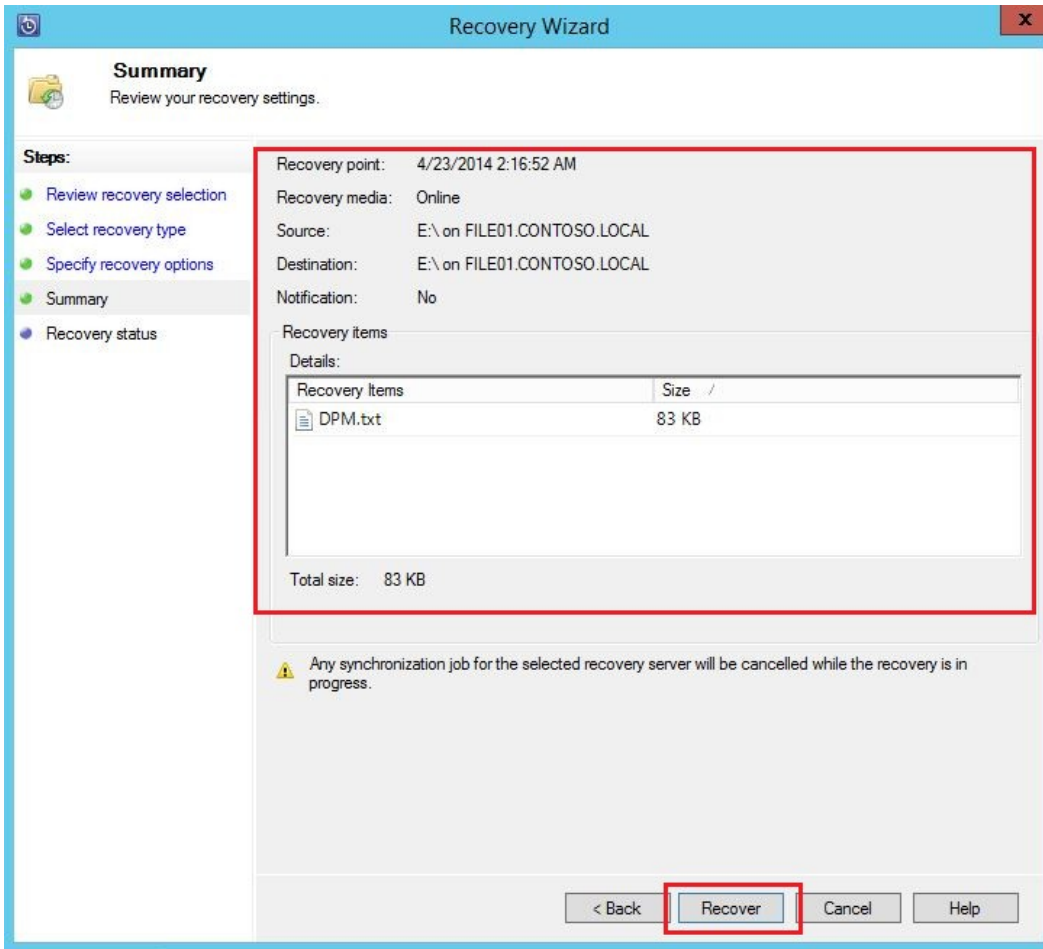
**Notification**

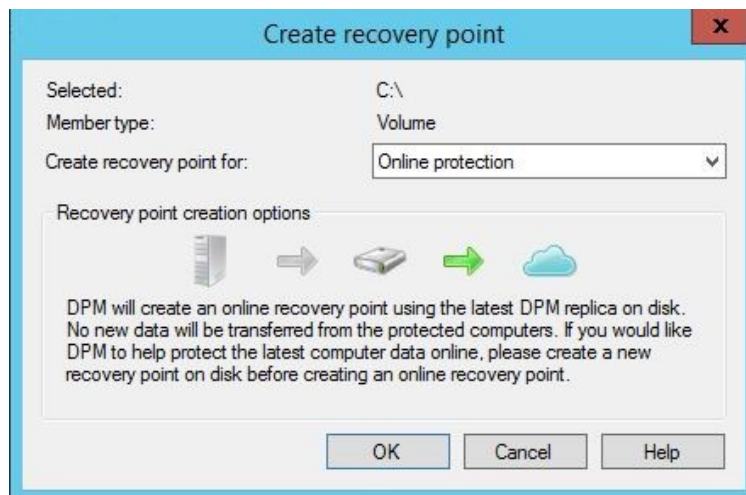
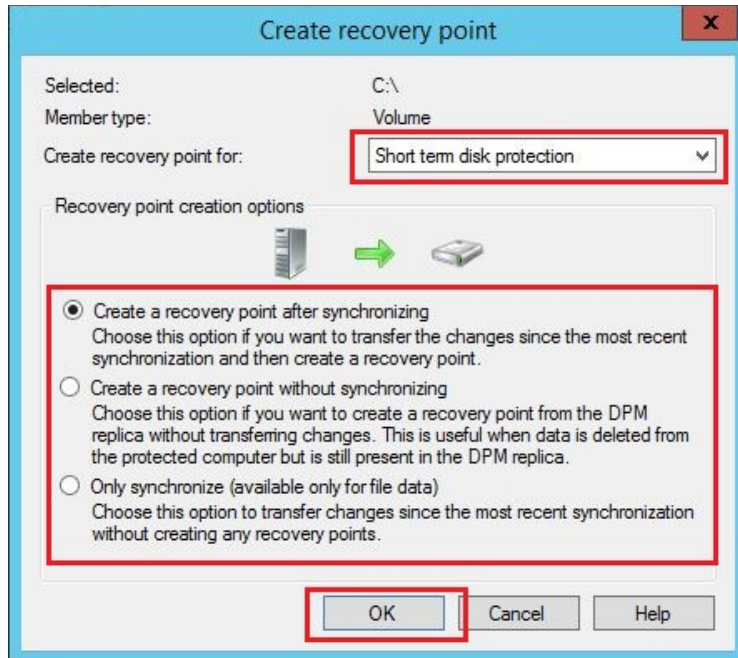
Send an e-mail when this recovery completes

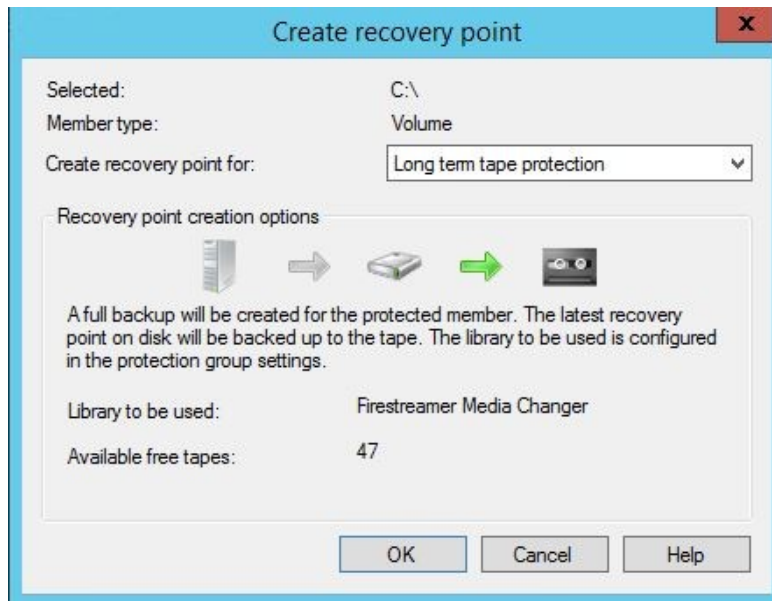
Recipients:  [Help](#) Separate e-mail addresses with comma.  
Example: Kim@Contoso.com, Terry@Adventure-works.com

< Back   **Next >**   Cancel   Help









```
DPM Management Shell
PS C:\Program Files\Microsoft System Center 2012 R2\DPM\DPM\bin> .\Migrate-DataS
ource.ps1
DPMServer: DPM1
WARNING: Connecting to DPM server: DPM1
        auto for AUTO SEARCH for matching volume letters
        manual for MANUAL INPUT of 'from' and 'to' Volumes, to be migrated
option< auto or manual>: auto
PSName: FILE01.CONTOSO.LOCAL
Running inquiry on the PS
Finished running inquiry
Could not find any volumes for migrating automatically
PS C:\Program Files\Microsoft System Center 2012 R2\DPM\DPM\bin>
```

# Chapter 5

Protection Group: SQL Databases (Total members: 1)

Computer: SCSQL.CONTOSO.local

SCSQL\SCO\Orchestrator	SQL Data	Unable to configure protection	Enabled
------------------------	----------	--------------------------------	---------

f

Occurred Since	Affected Area	Computer	Protection Gr...	Alert
Critical (Total alerts: 1)				
12/6/2013 10:55:18 AM	SCSQL\SCO\Orchestr...	scsql.contoso.l...	SQL Databases	Unable to configure protection

**Details:** SCSQL\SCO\Orchestrator

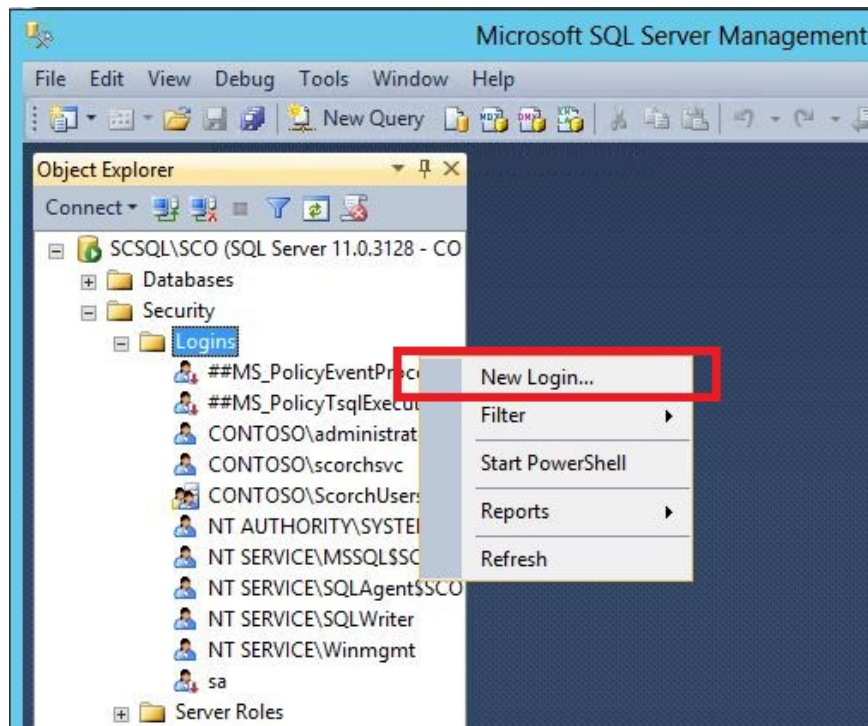
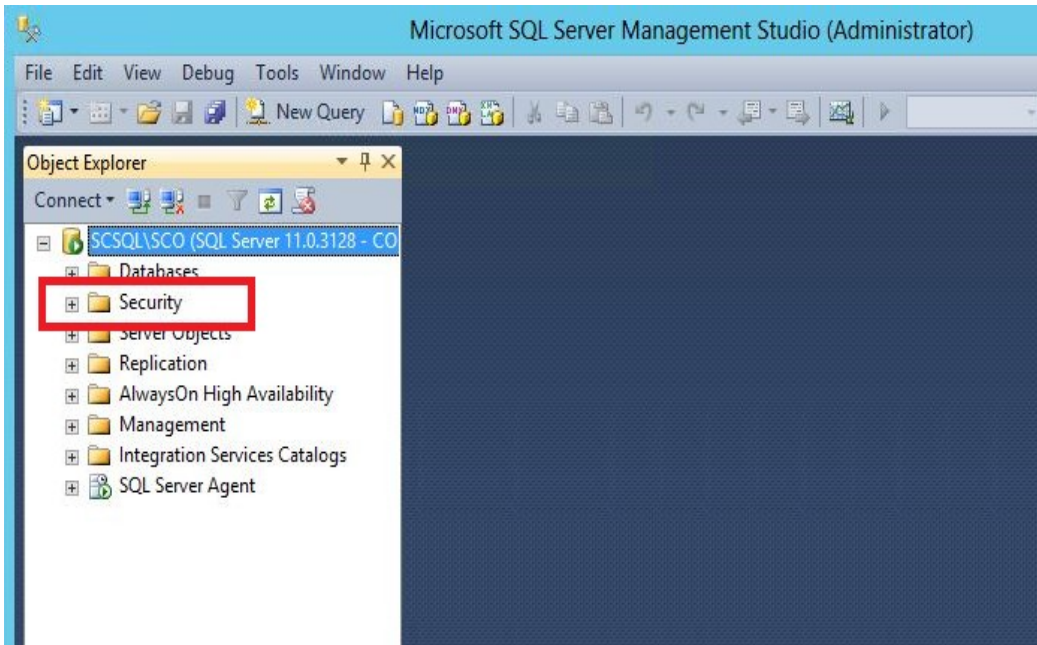
**Affected area:** SCSQL\SCO\Orchestrator

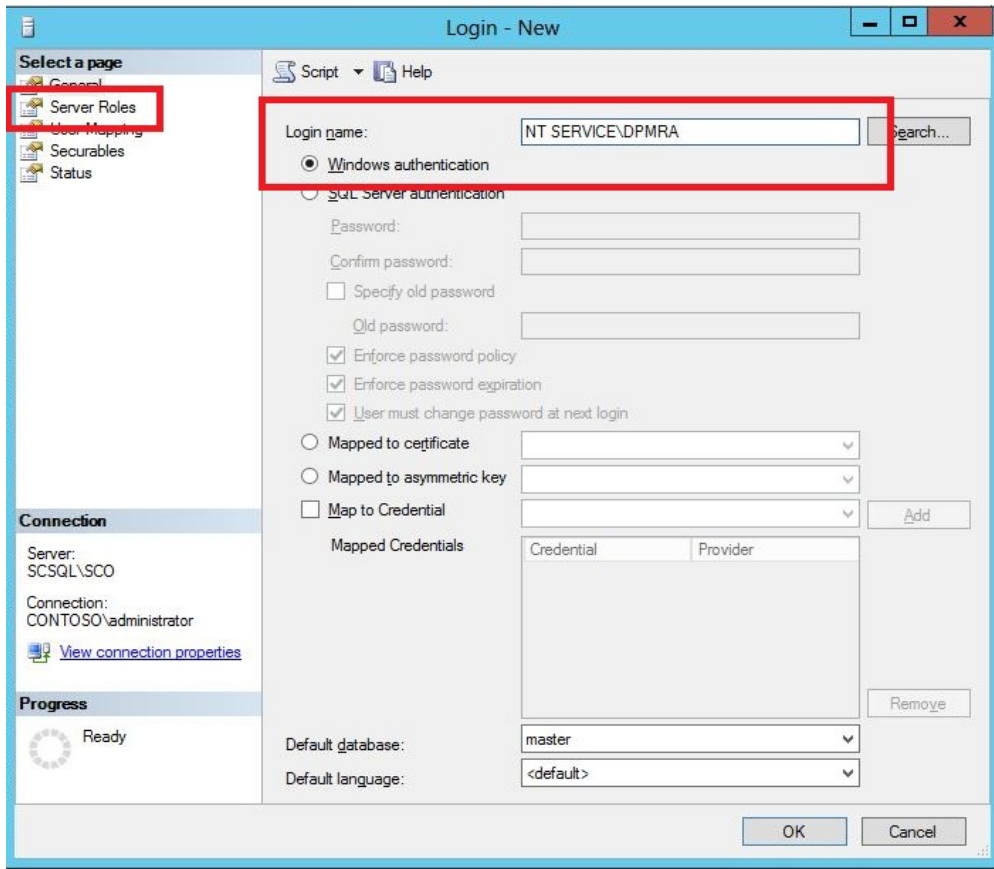
**Occurred since:** 12/6/2013 10:55:18 AM

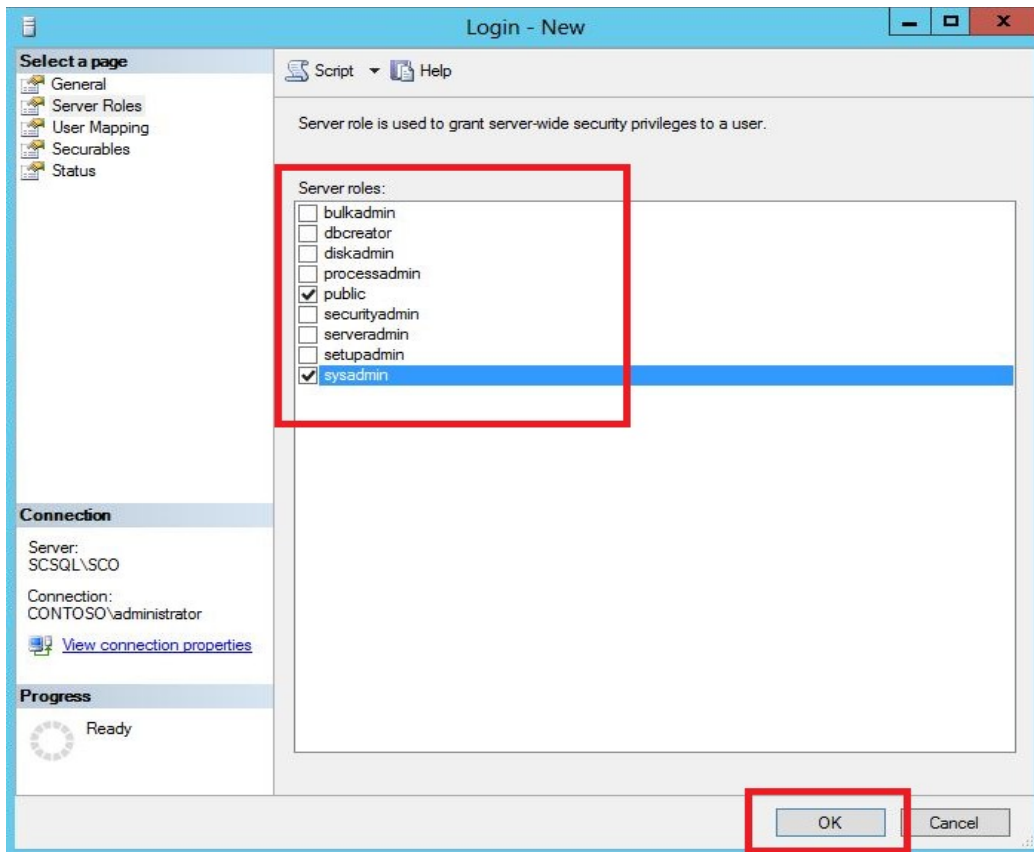
**Description:** DPM could not start a recovery, consistency check, or initial replica creation job for SQL Server 2012 database SCSQL\SCO\Orchestrator on SCSQL.CONTOSO.local for following reason: (ID 3170)  
The DPM job failed for SQL Server 2012 database SCSQL\SCO\Orchestrator on SCSQL.CONTOSO.local because the protection agent did not have sysadmin privileges on the SQL Server instance. (ID 33424  
Details: )  
[More information](#)

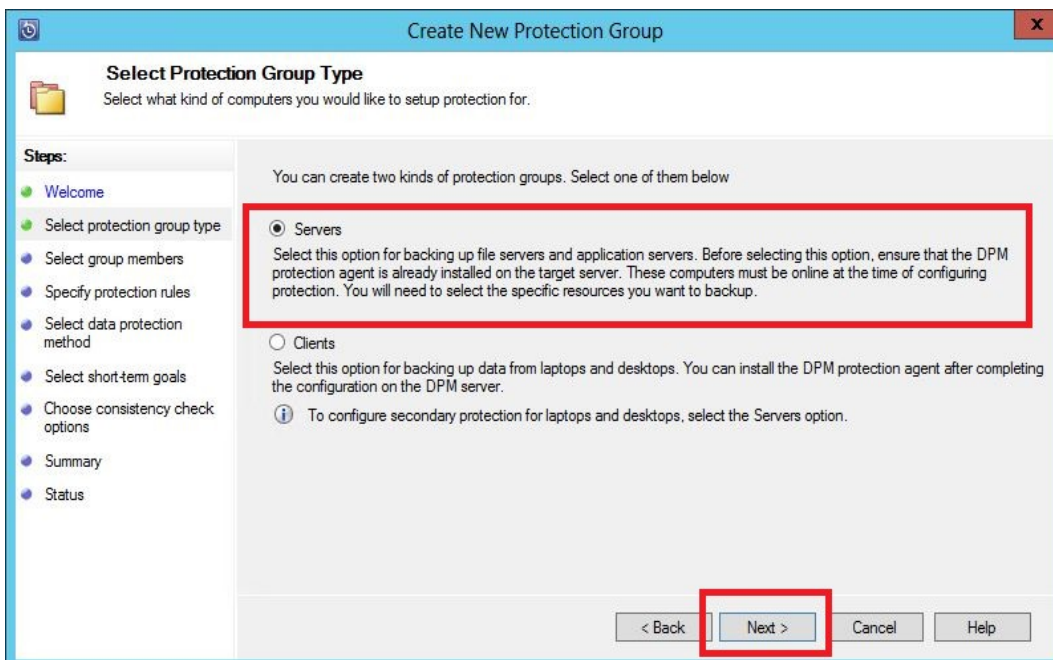
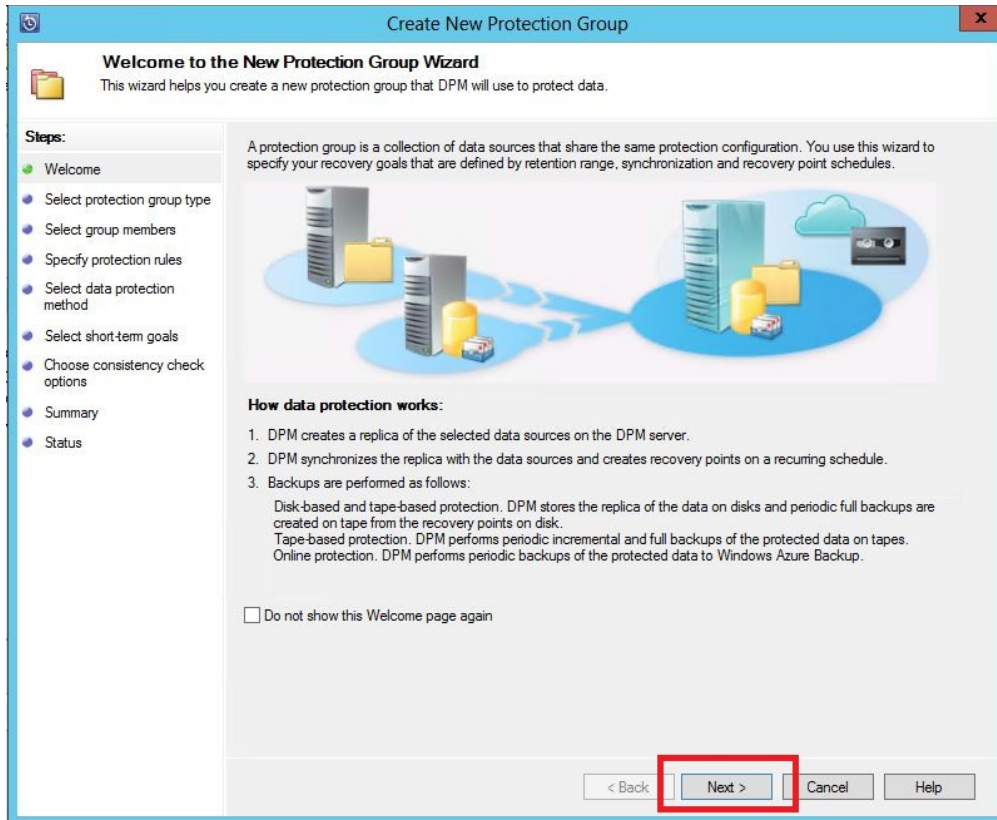
**Recommended action:** Add 'NT Service\DPMRA' to the sysadmin role on the SQL Server instance.  
[Run configure protection job again...](#)

**Resolution:** To dismiss the alert, click below  
[Inactivate](#)

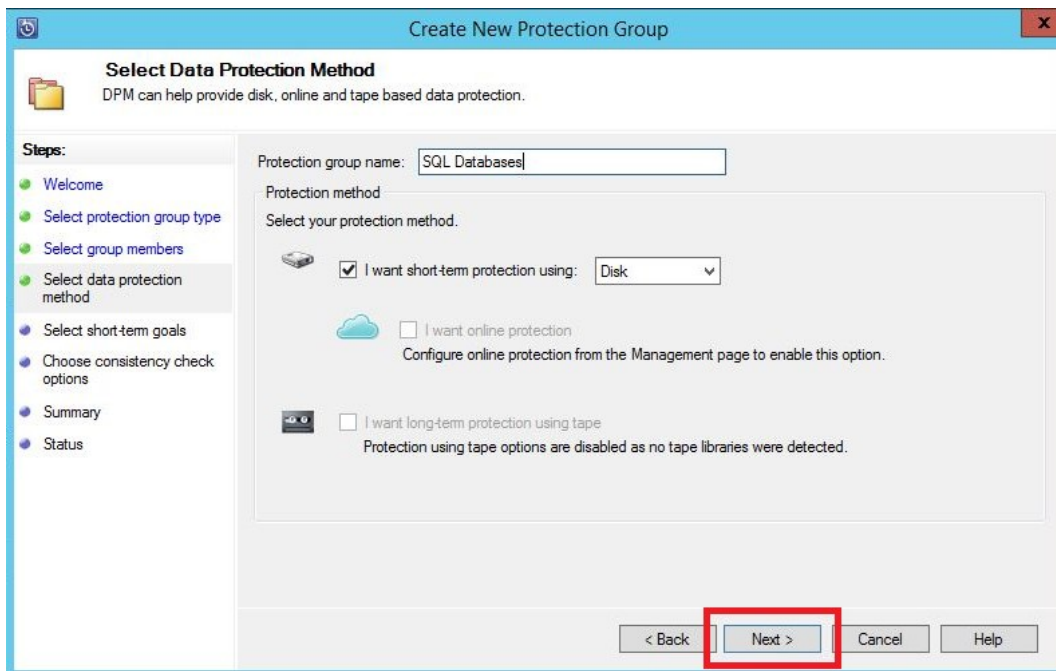
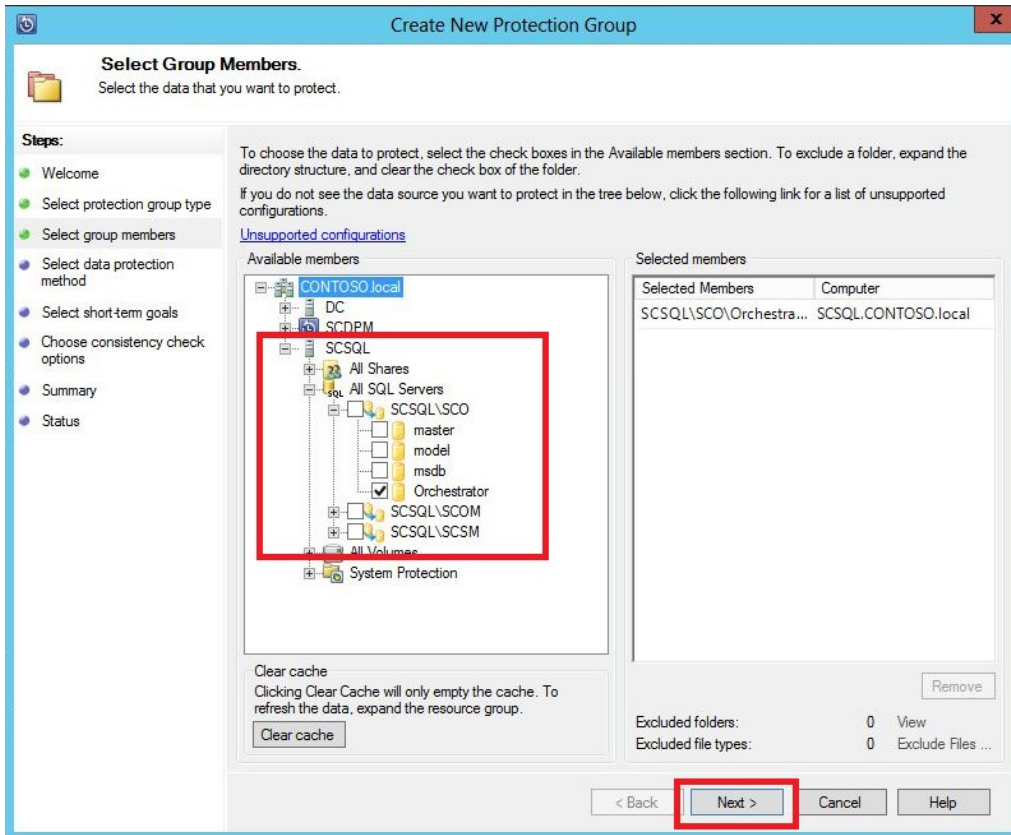


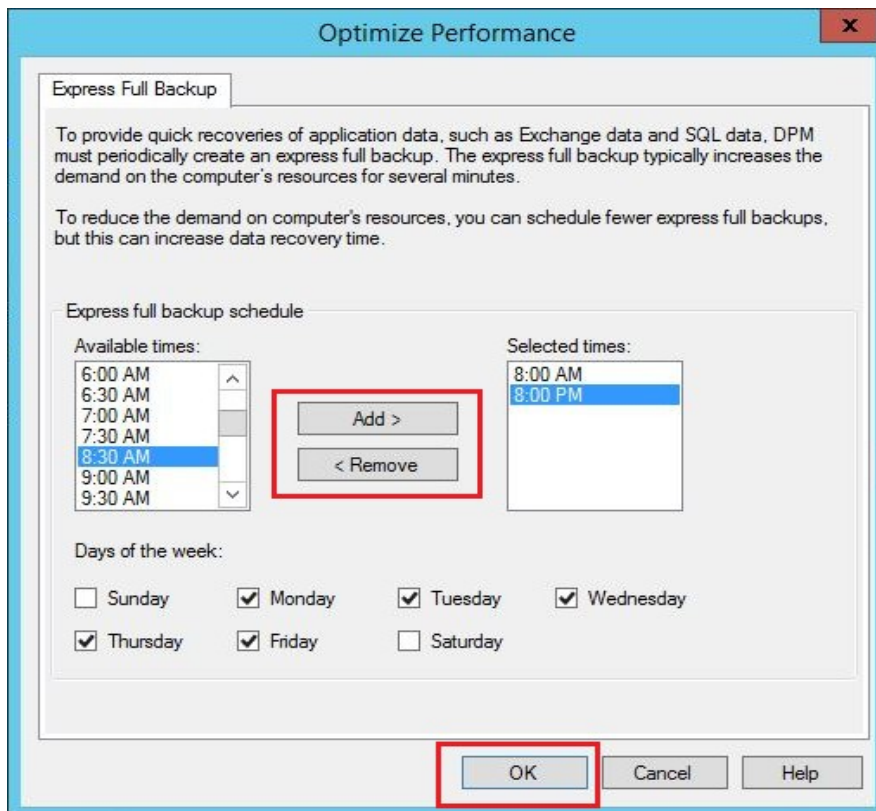
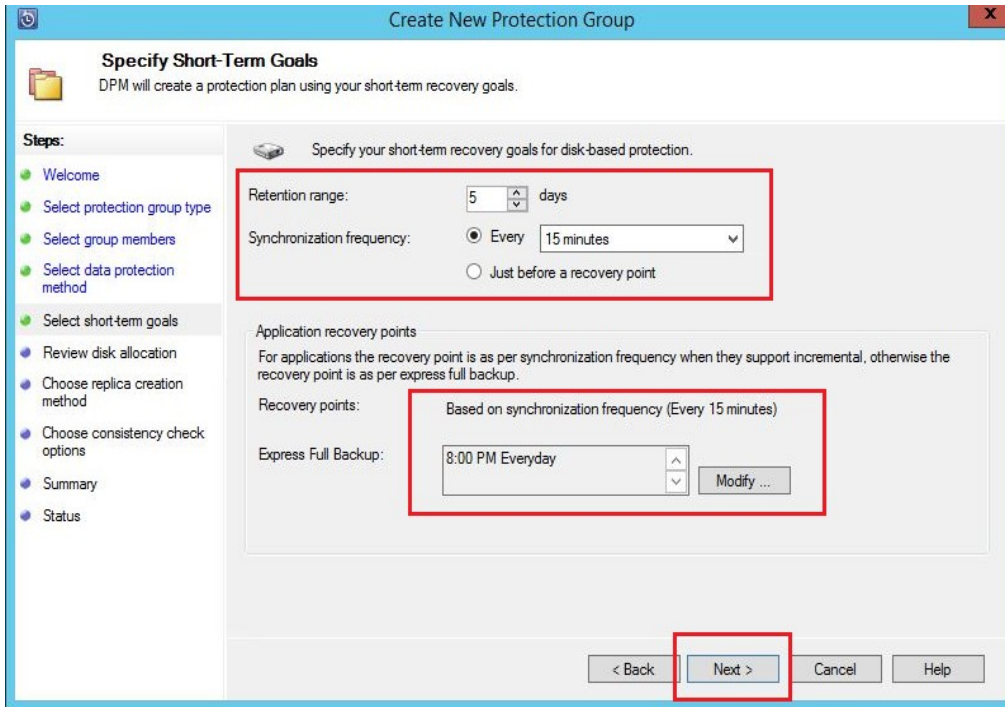


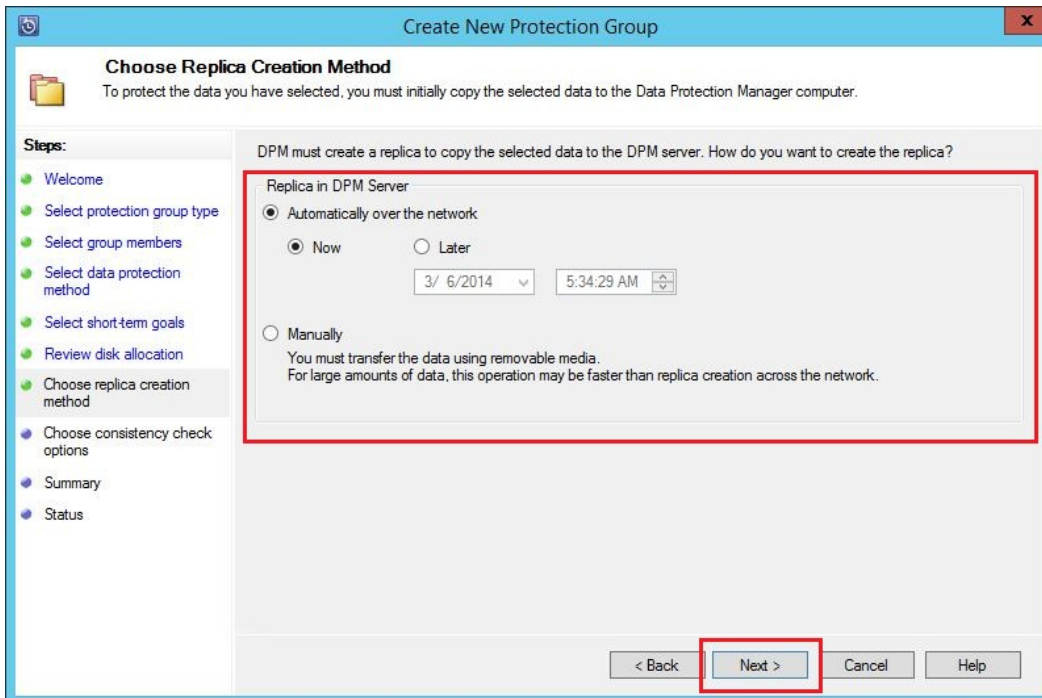
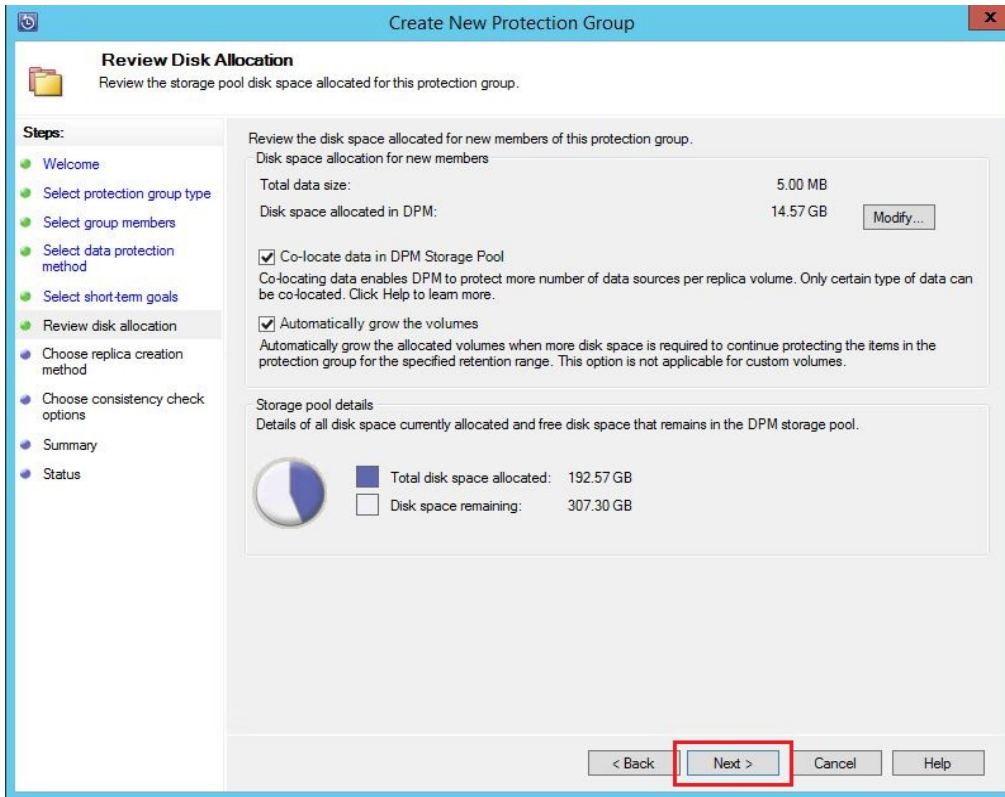












Create New Protection Group

### Consistency check options

Select how you want to run consistency check on inconsistent replicas.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Choose replica creation method
- Choose consistency check options
- Summary
- Status

Running a consistency check on a replica that has become inconsistent allows DPM to continue protecting the data source. You can start a consistency check manually or allow DPM to run it automatically. Use the methods below to customize how DPM can run a consistency check.

Run a consistency check if a replica becomes inconsistent

Select this method if you want DPM to automatically run a consistency check when it finds a replica in an inconsistent state. This method may require DPM to use additional CPU and disk resources.

Run a daily consistency check according to the following schedule

Select this method if you want DPM to check for inconsistent replicas at a specified time every day and then run a consistency check if it finds one. This method may require additional CPU and disk resources during the specified hours.

Start time: 12:00 AM

Maximum duration: 480 hours

Cannot exceed 480 hours (20 days).

< Back Next > Cancel Help

**Create New Protection Group**

**Summary**  
DPM is ready to create the Protection Group 1 protection group.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Choose replica creation method
- Choose consistency check options
- Summary**
- Status

Review the settings, and then click Create Group to create the Protection Group 1 protection group.

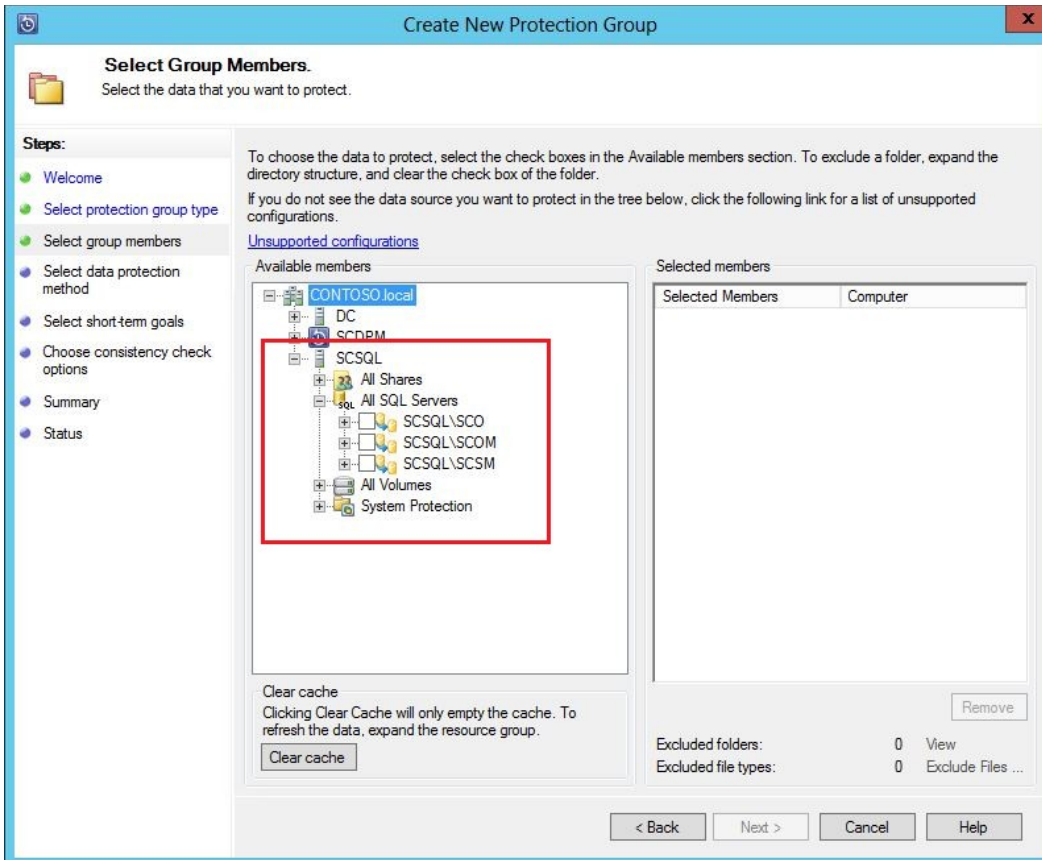
Protection group members:  
SQL\FULL

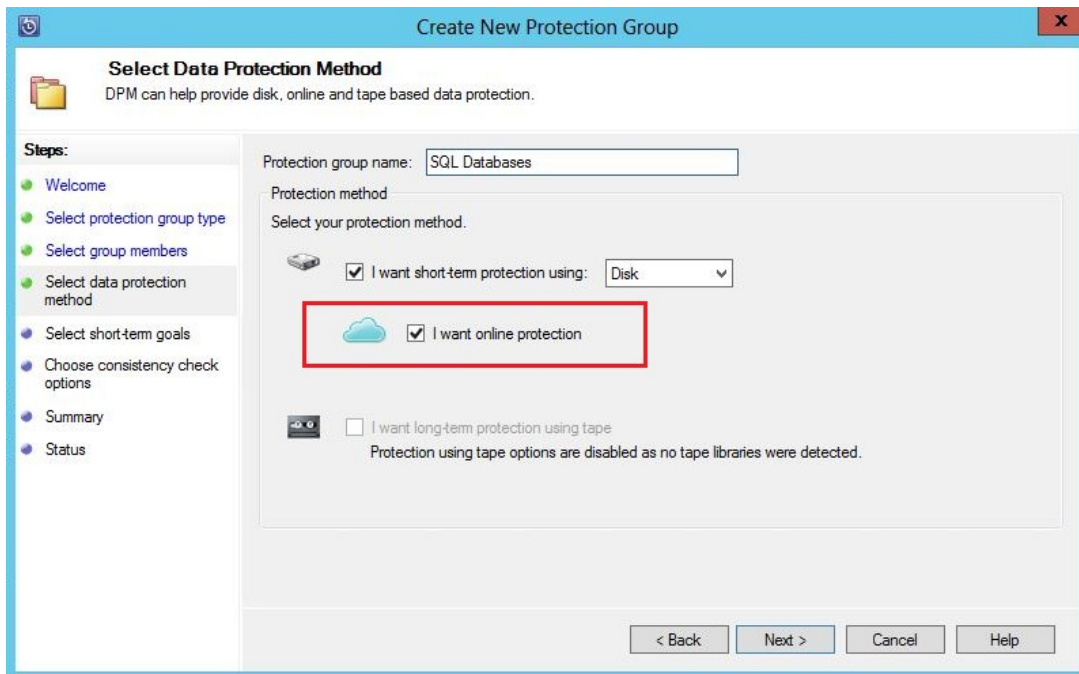
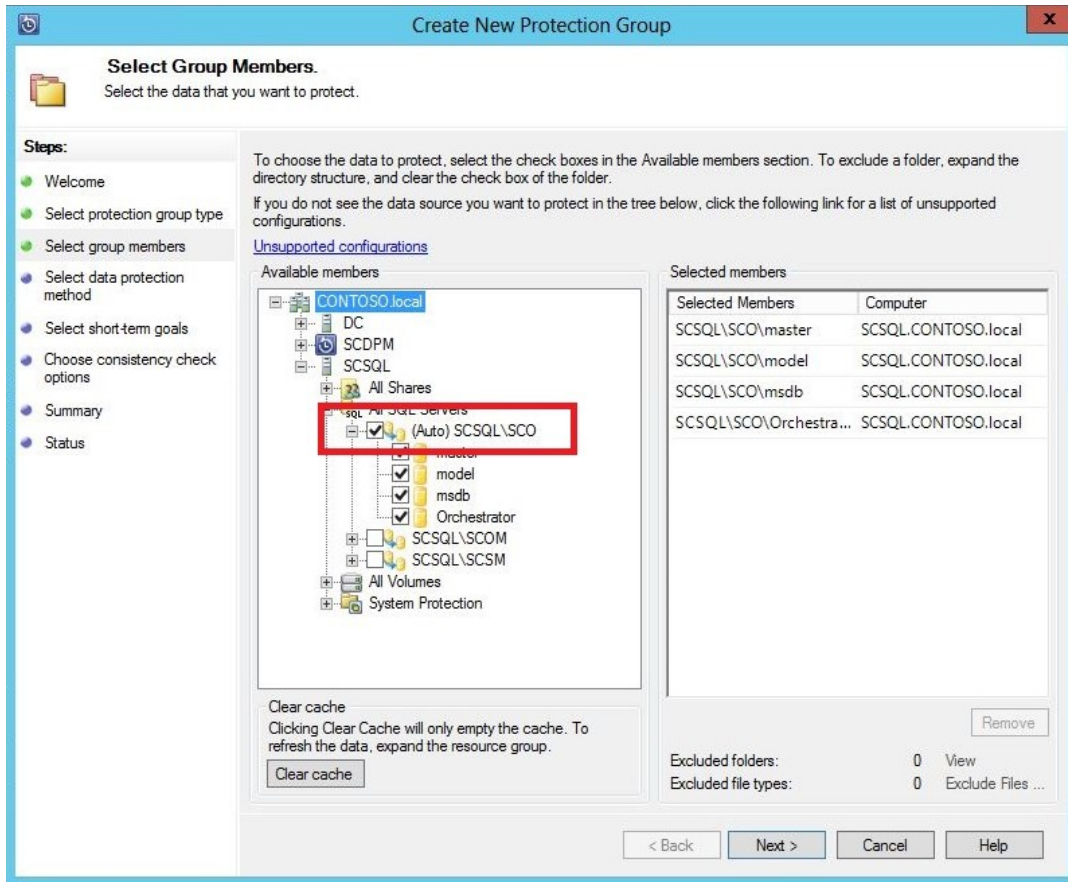
Protection group settings:

Setting	Details
Short-term retention range	5 Day(s)
Synchronization	Every 15 minutes
Recovery points (applications)	Every 15 minutes
Replica creation	Now

*i* You can [optimize performance](#) of this protection group now or you can do it later from the actions pane.

< Back   **Create Group**   Cancel   Help





**Create New Protection Group**

### Specify Online Protection Data

Specify the data that you would like DPM to help protect online.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Choose replica creation method
- Choose consistency check options
- Specify online protection data**
- Specify online protection goals
- Summary
- Status

Select the data source you want to protect online.

Selected members	Computer
<input type="checkbox"/>	SCSQL\SCO\Orchestrator
	SCSQL.CONTOSO.local



Create New Protection Group

### Specify Online Protection Goals

Specify your online protection objectives, which DPM will use to generate your protection plan.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Choose replica creation method
- Choose consistency check options
- Specify online protection data
- Specify online protection goals**
- Summary
- Status

Specify your online protection objectives

Retention range in days: 120

Synchronization frequency:  Daily  
 Weekly

Synchronization Schedule

Synchronize daily at the following times: (maximum 2 times per day)

Available time:	Scheduled time:
12:00 AM	9:00 PM
1:00 AM	
2:00 AM	
3:00 AM	
4:00 AM	
5:00 AM	
6:00 AM	
7:00 AM	
8:00 AM	

**i** DPM will create an online recovery point using the latest DPM replica on disk. No new data will be transferred from the protected computers. If you would like DPM to help protect the latest computer data online, please create a new recovery point on disk before creating an online recovery point.

< Back   Next >   Cancel   Help

**Browse**

Filter servers

- EXCH01
- FILE01
- PC
- SHAREPOINT
  - SQL
    - All Protected SQL Instances
      - SQL
        - FULL
        - SIMPLE**

**Search**

- Search Recovery Points
  - Files and folders
  - Exchange mailboxes
  - SharePoint
- Monitoring
- Protection
- Recovery**
- Reporting
- Management

**Recovery points for: SIMPLE**

Available recovery points are indicated in bold on the calendar.  
Select the date from the calendar and the time from the drop down list for the recovery points that you want pane to open the Recovery Wizard.

Recovery date: March 08 2014  
Recovery time: 1:27 PM  
Recover from: Disk

March 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	<b>8</b>
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Path: SQL

Search list below

Recoverable Item	Last Modified	Size
<b>SIMPLE</b>		46.96 MB

Show all recovery points  
Recover...

**Recovery Wizard**

**Review Recovery Selection**  
Review the information for the items that you chose to recover.

**Steps:**

- Review recovery selection
- Select recovery type
- Specify database state
- Specify recovery options
- Summary
- Recovery status

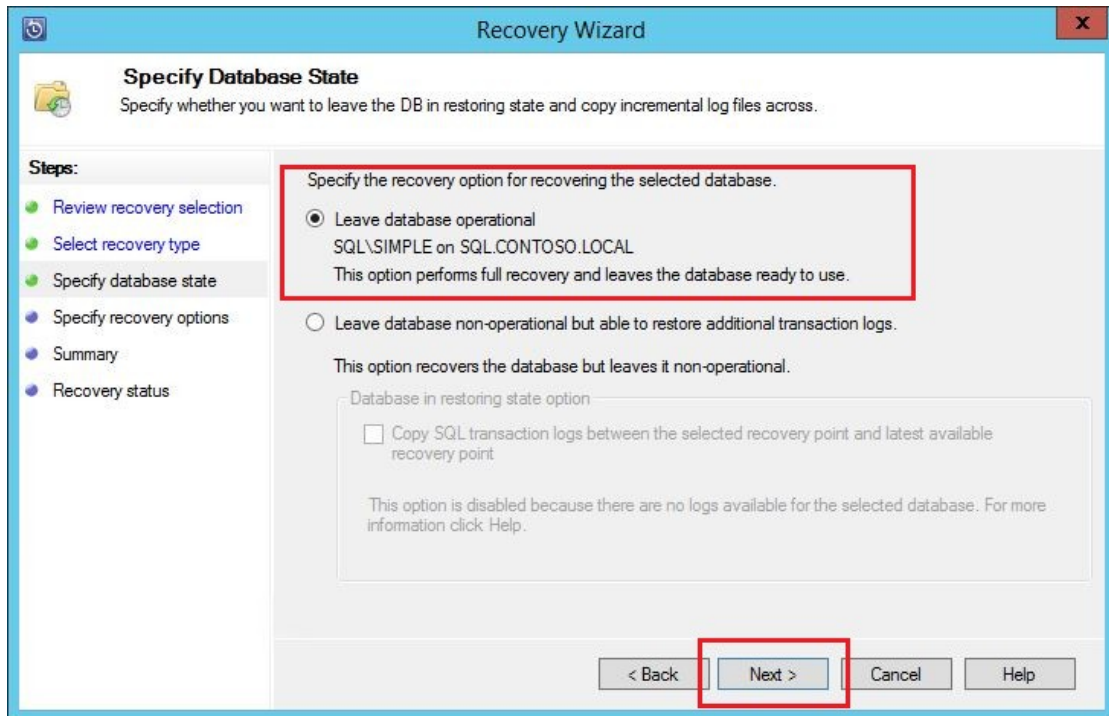
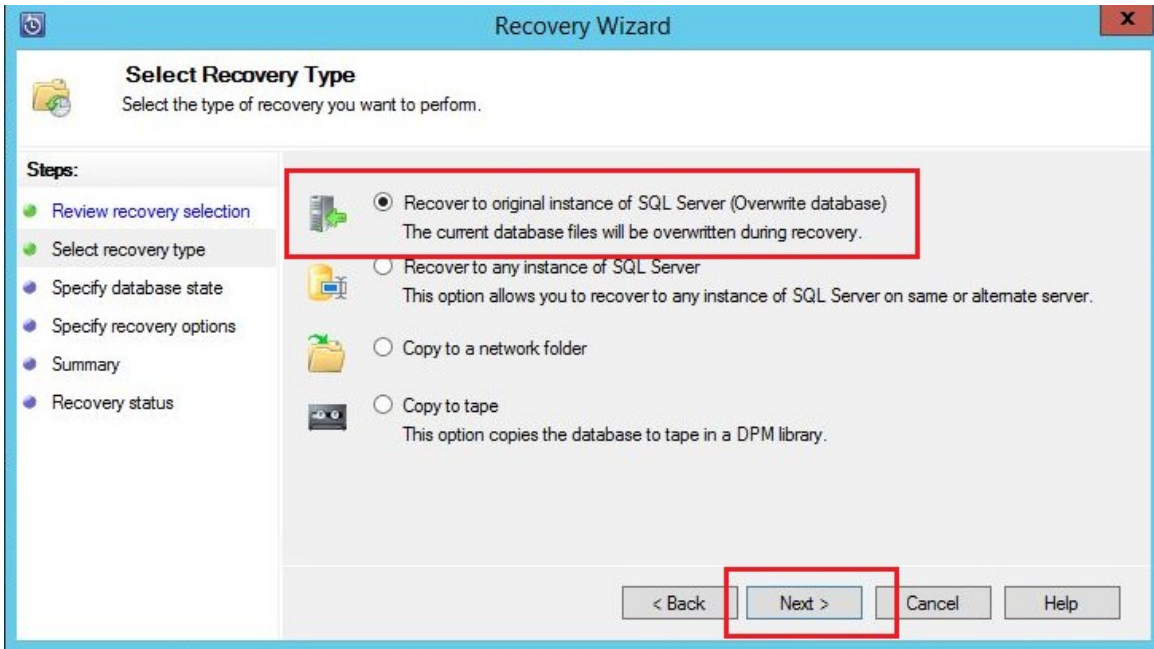
Review your recovery selections.

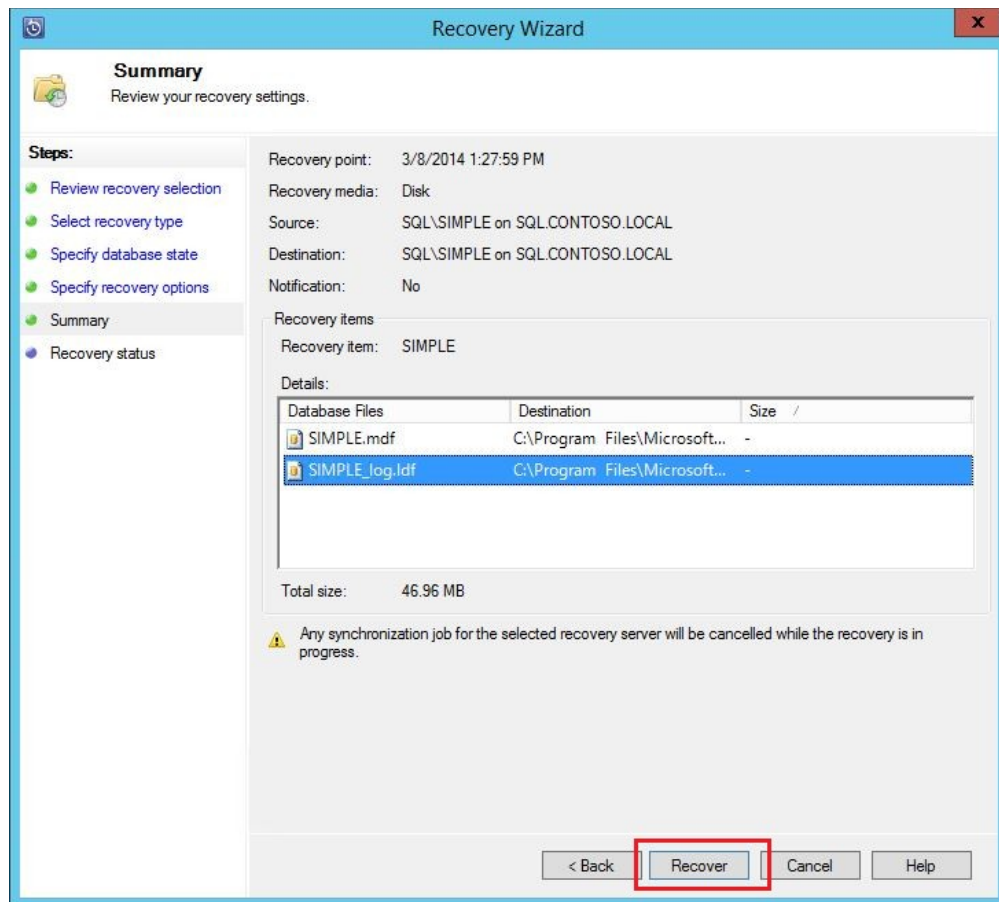
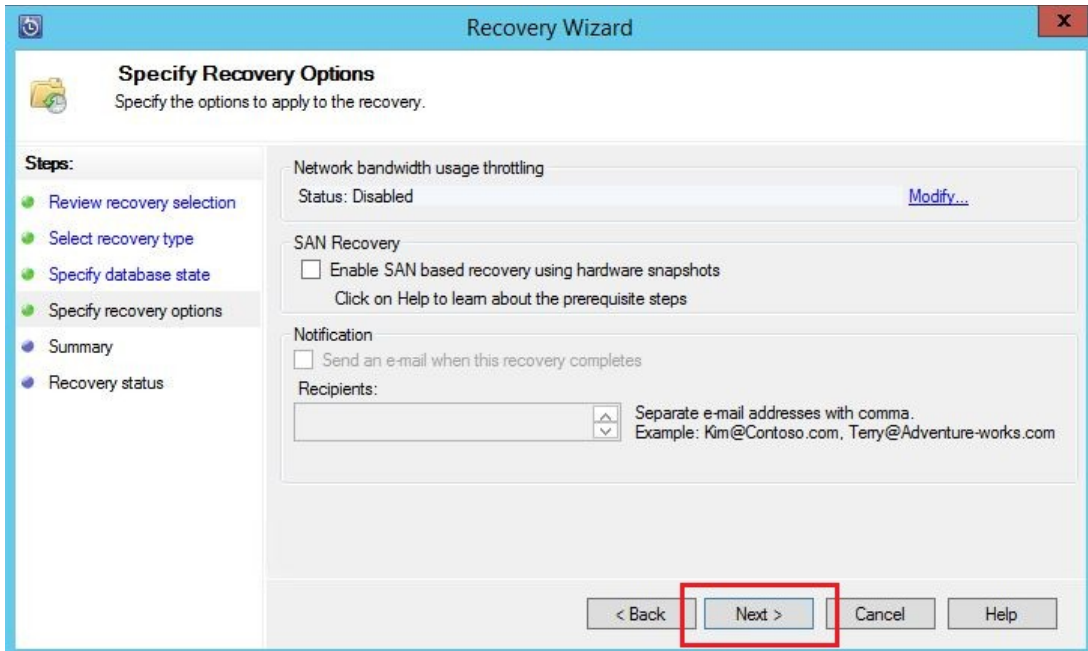
Recovery point: 3/10/2014 8:00:24 PM  
Recover from: Disk

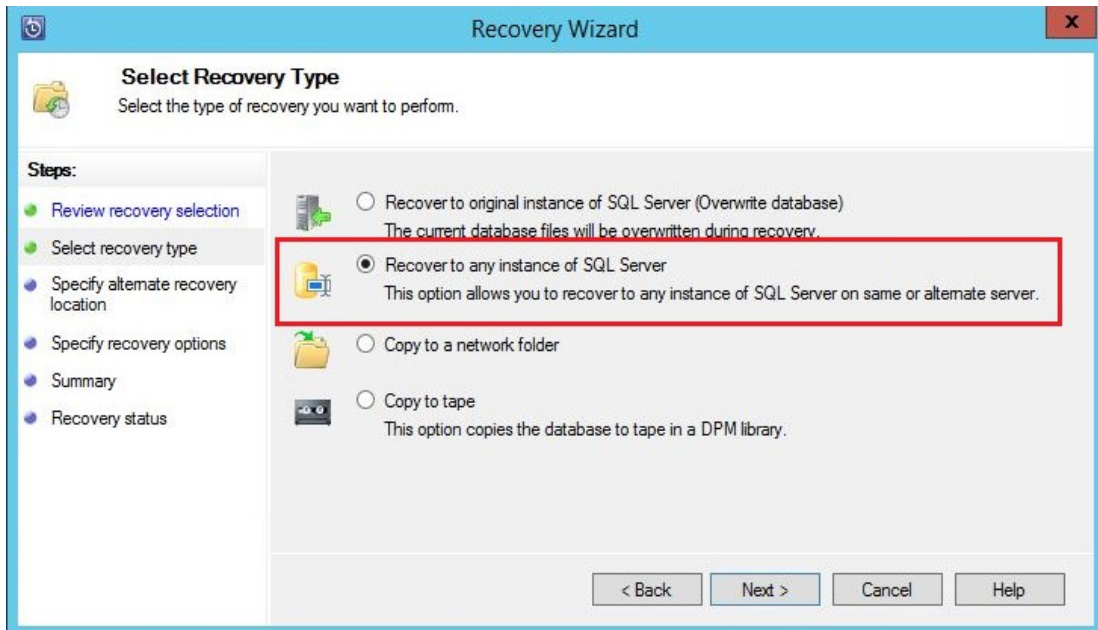
**Item details**

Recovery item: SIMPLE  
Size: 47.02 MB  
Recovery source: SQL\SIMPLE on SQL.CONTOSO.LOCAL  
Source version: 11.0.3128.0

< Back   **Next >**   Cancel   Help







Recovery Wizard

### Specify alternate recovery location

Specify the alternate database and instance for recovery.

**Steps:**

- Review recovery selection
- Select recovery type
- Specify alternate recovery location
- Specify database state
- Specify recovery options
- Summary
- Recovery status

For the database you are recovering, specify the instance of SQL Server, the name of the recovered database, and the database file locations.

Instance of SQL Server:  **Browse...**

Recovered database name:

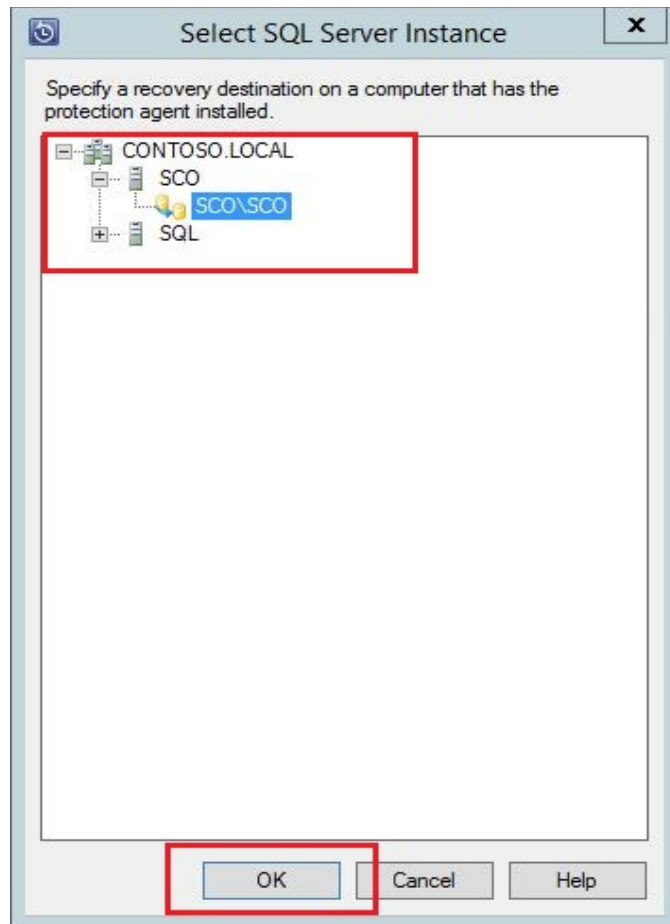
**Database file locations**

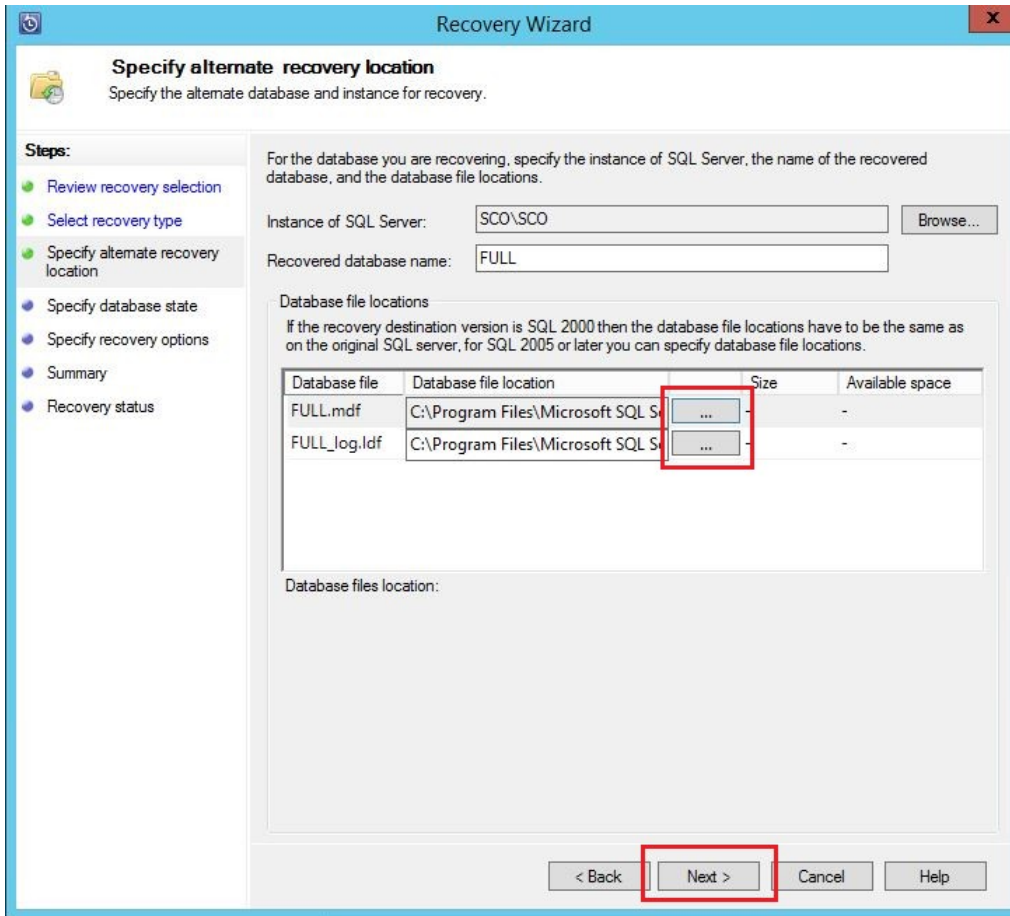
If the recovery destination version is SQL 2000 then the database file locations have to be the same as on the original SQL server, for SQL 2005 or later you can specify database file locations.

Database file	Database file location	Size	Available space
FULL.mdf	C:\Program Files\Microsoft SQL Se	...	-
FULL_log.ldf	C:\Program Files\Microsoft SQL Se	...	-

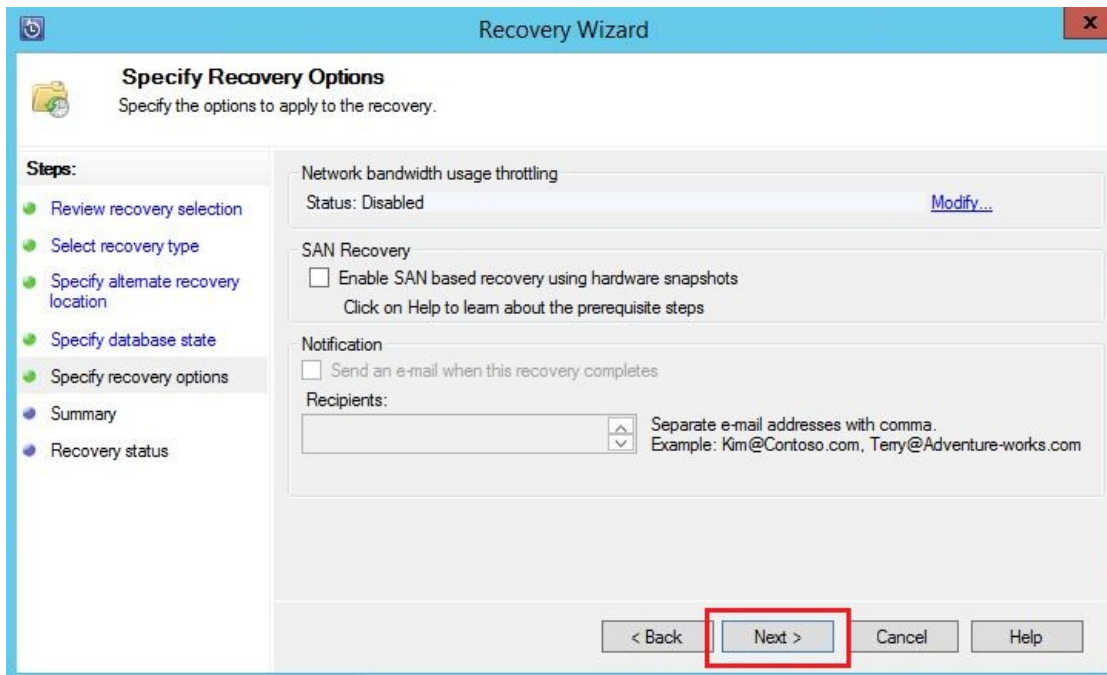
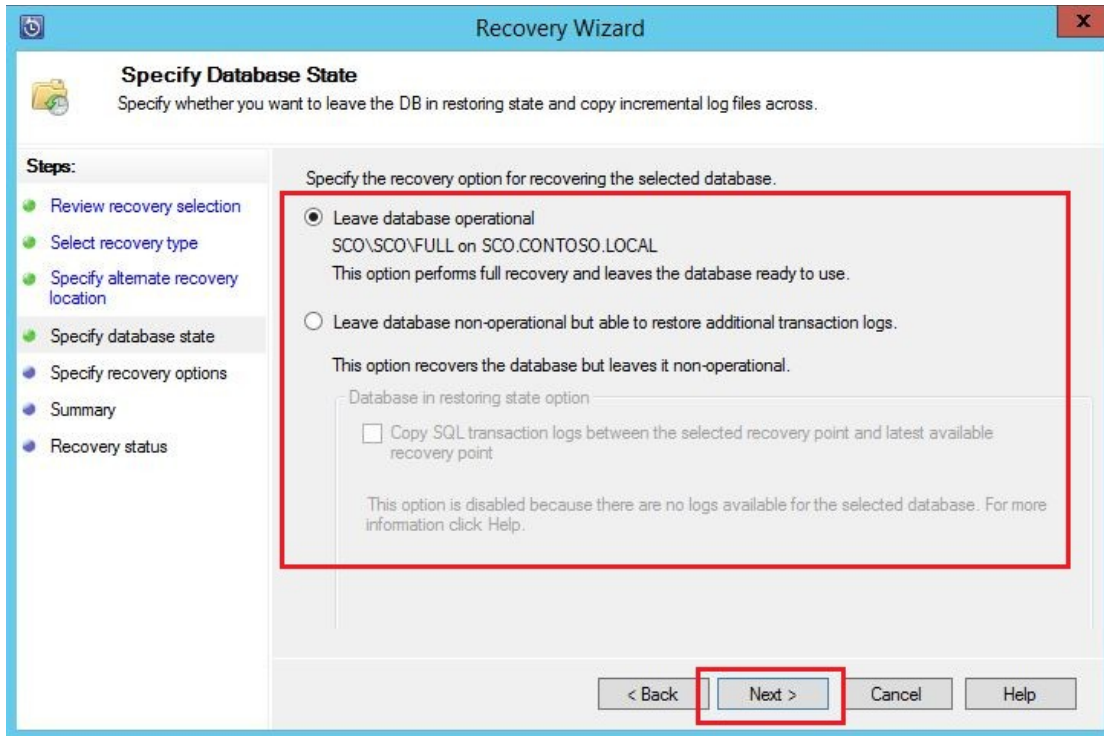
Database files location:

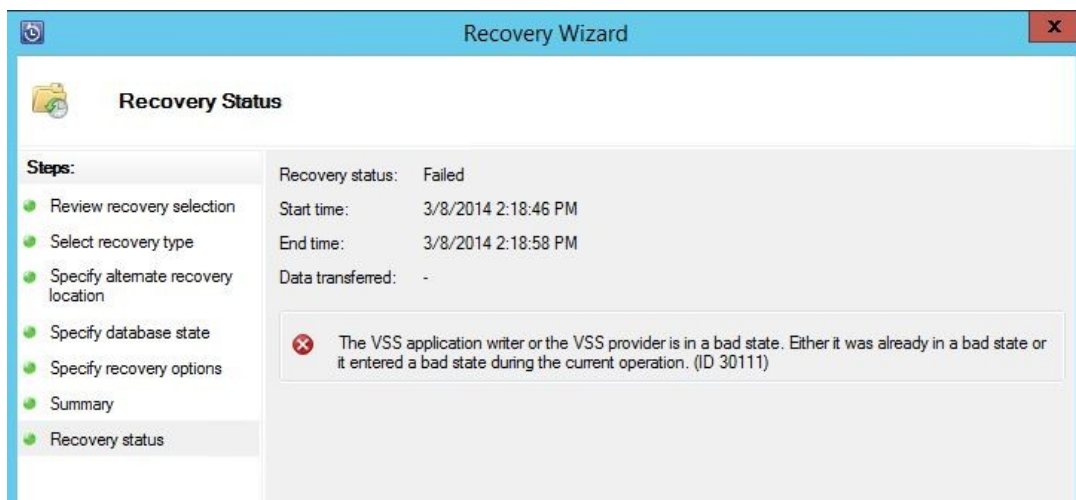
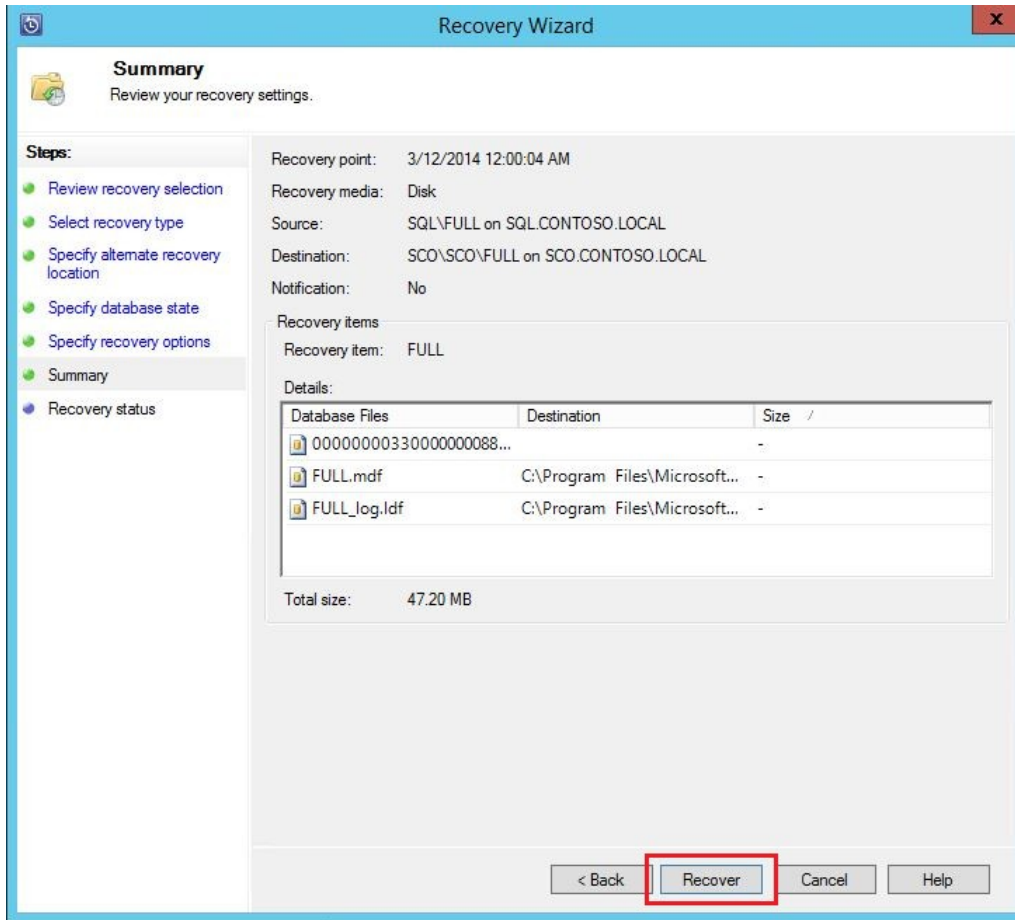
< Back   Next >   Cancel   Help

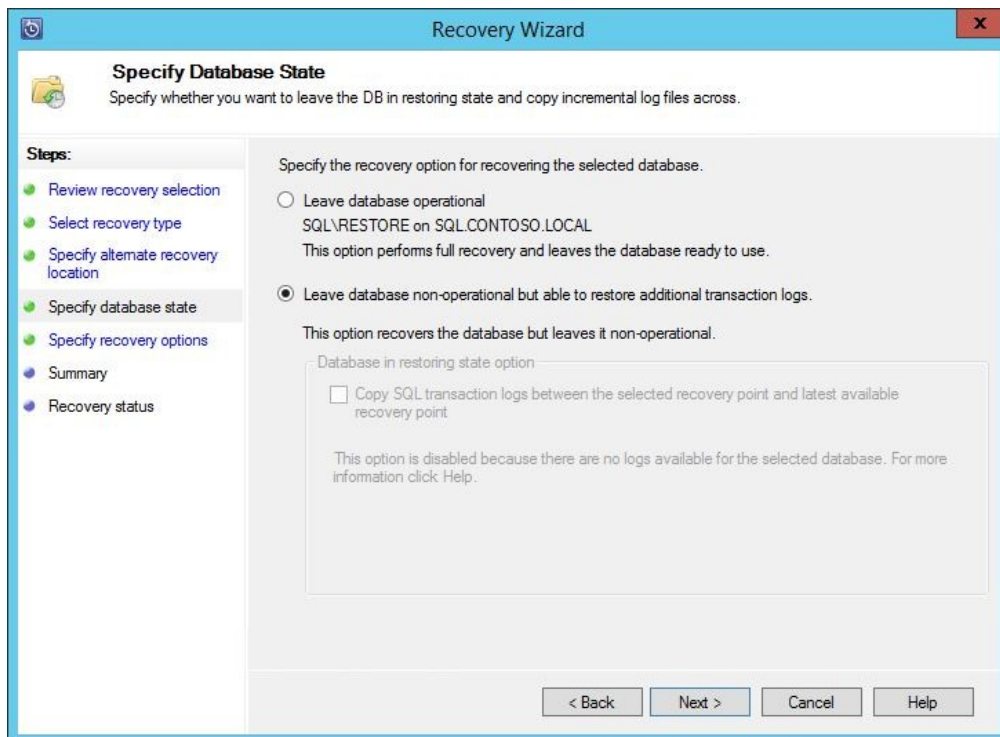
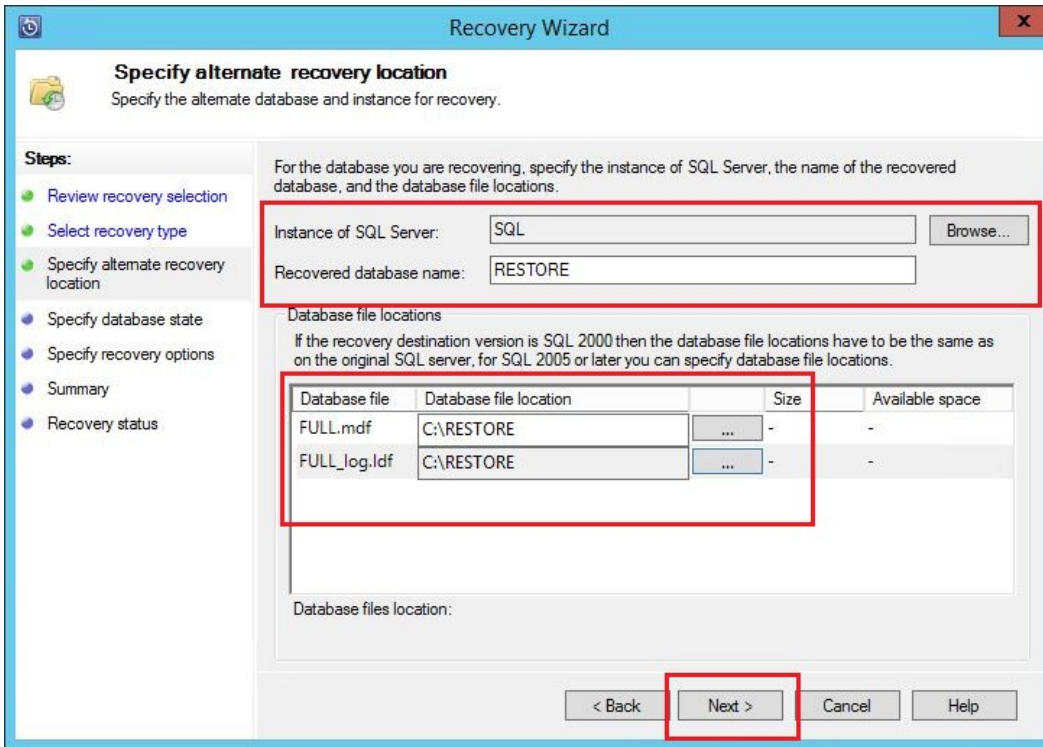


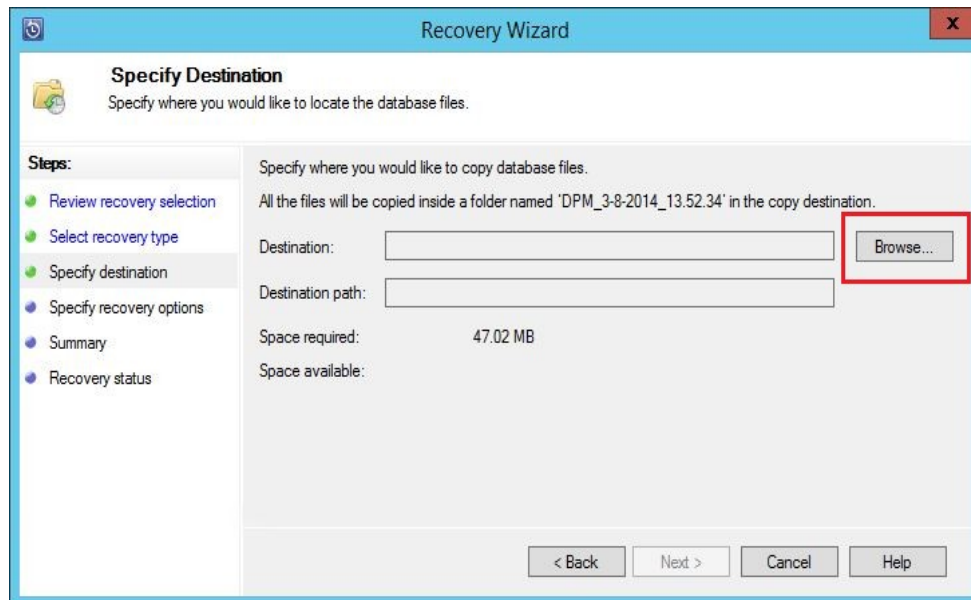
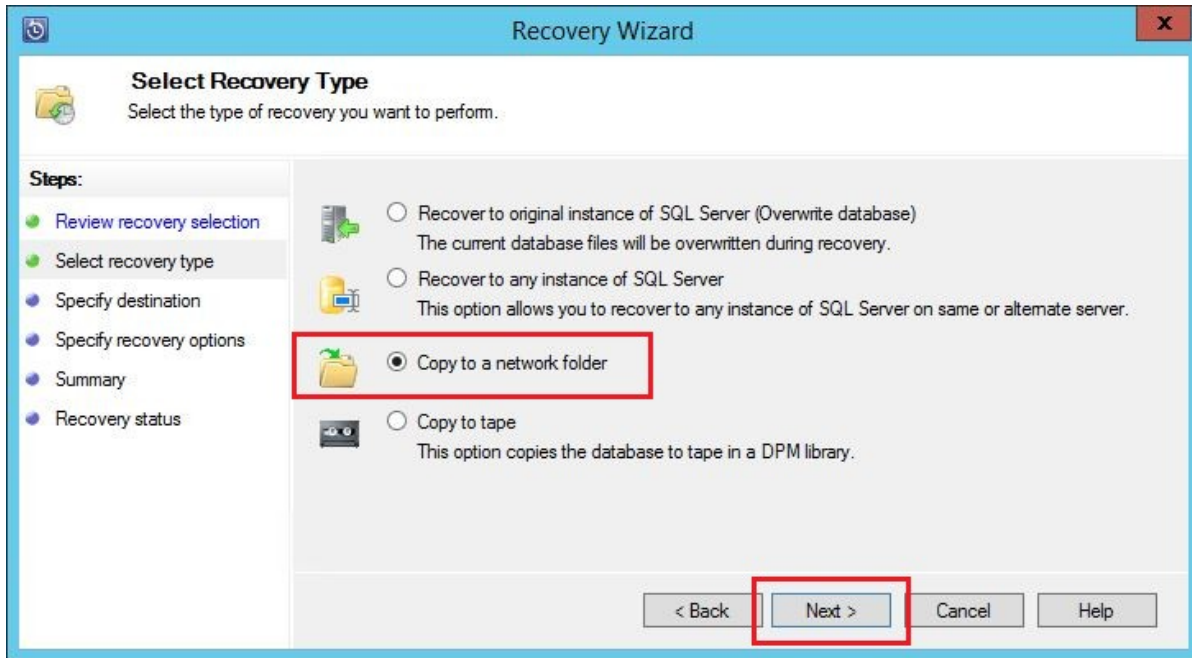


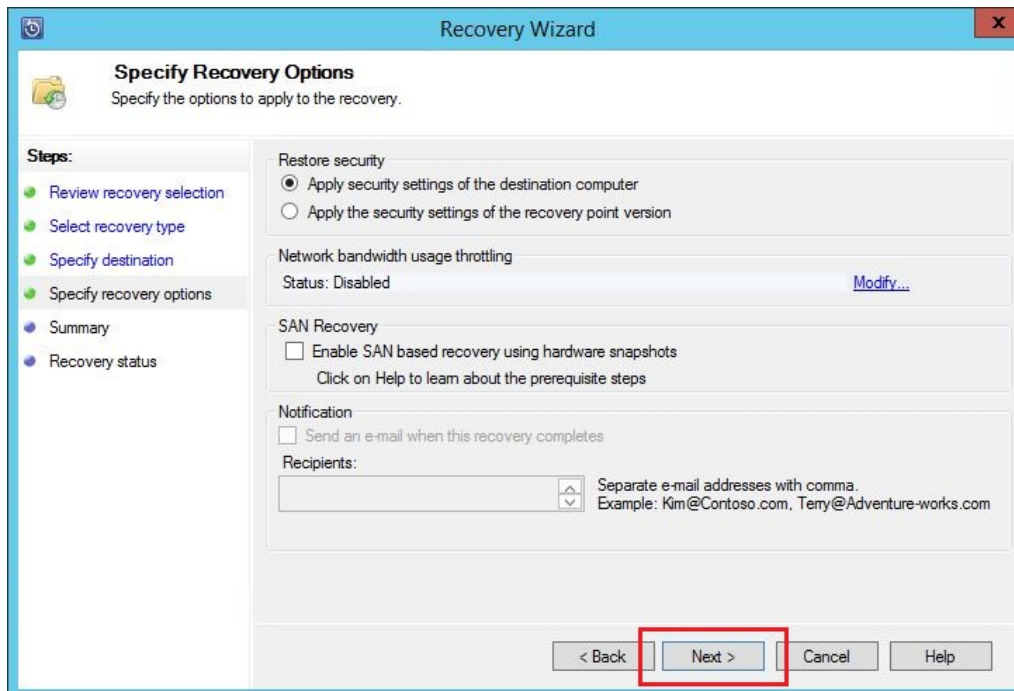
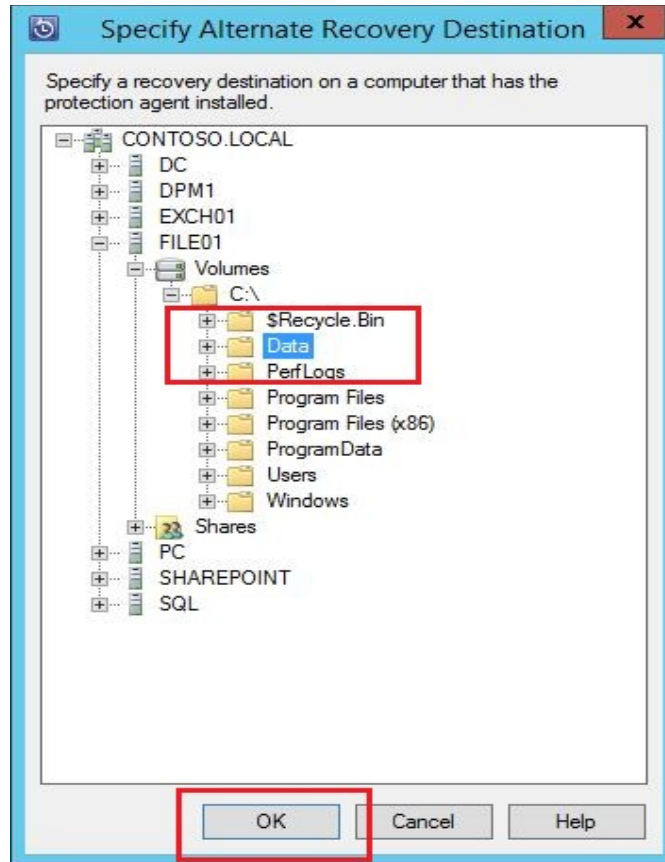


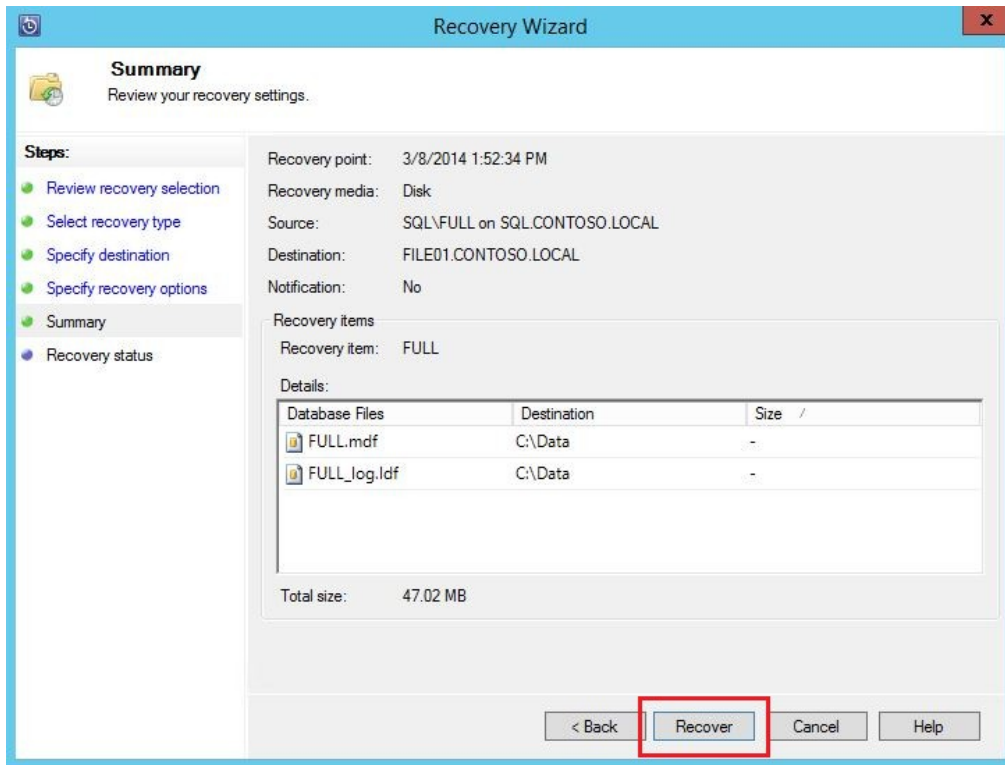


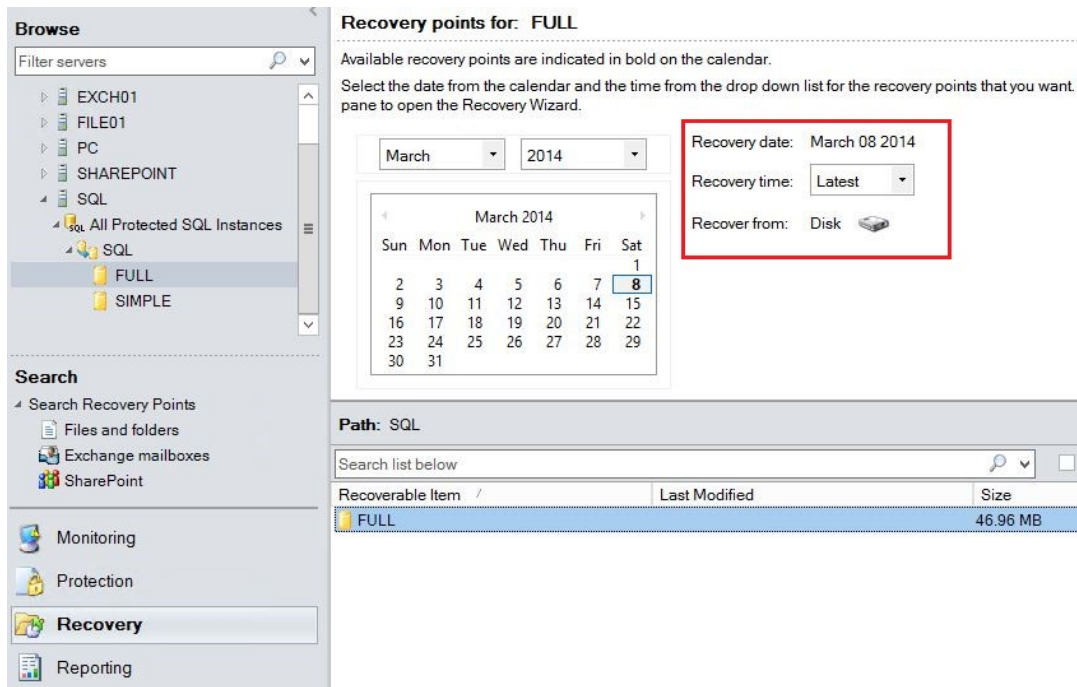
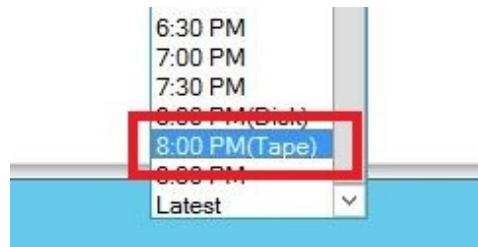
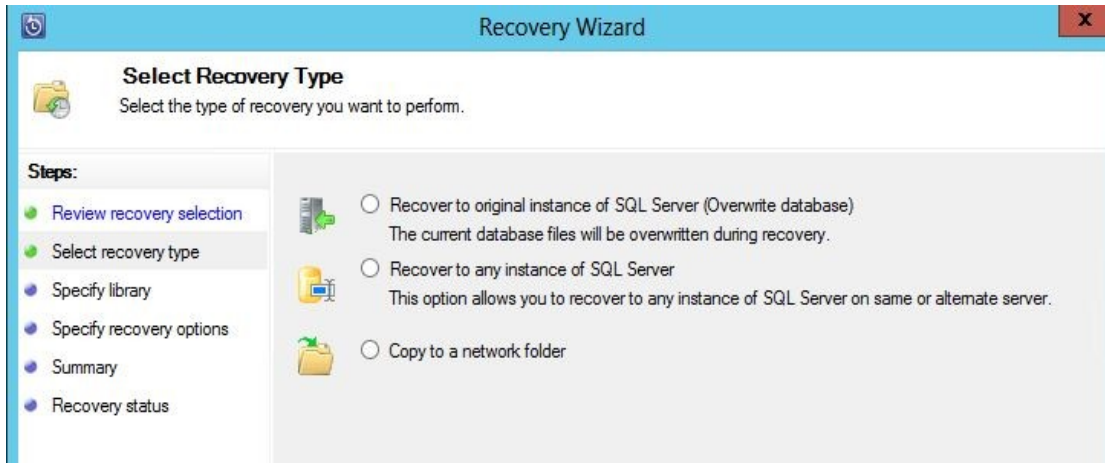


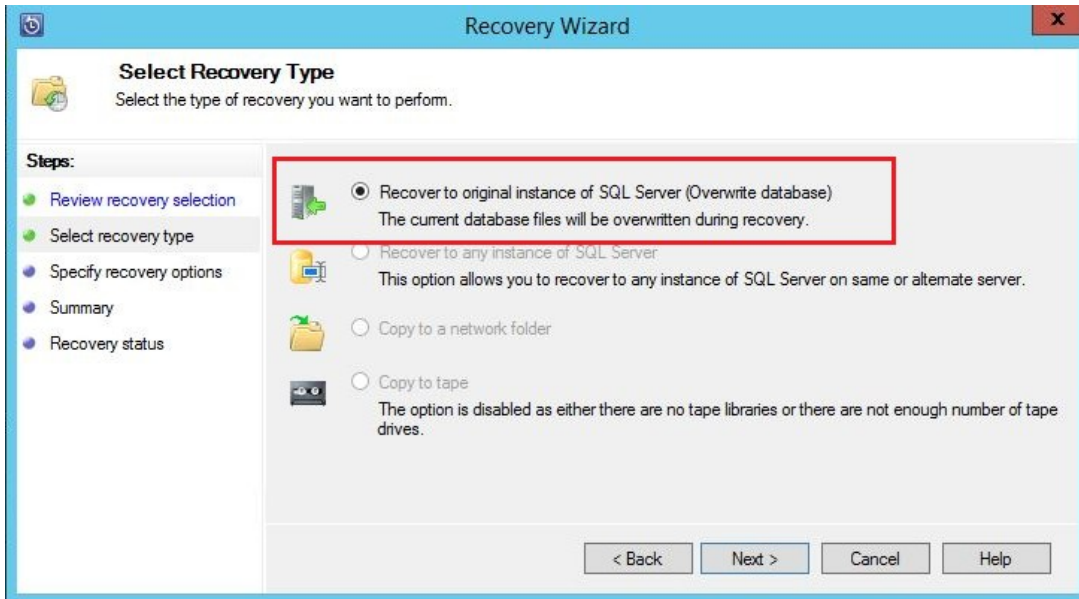






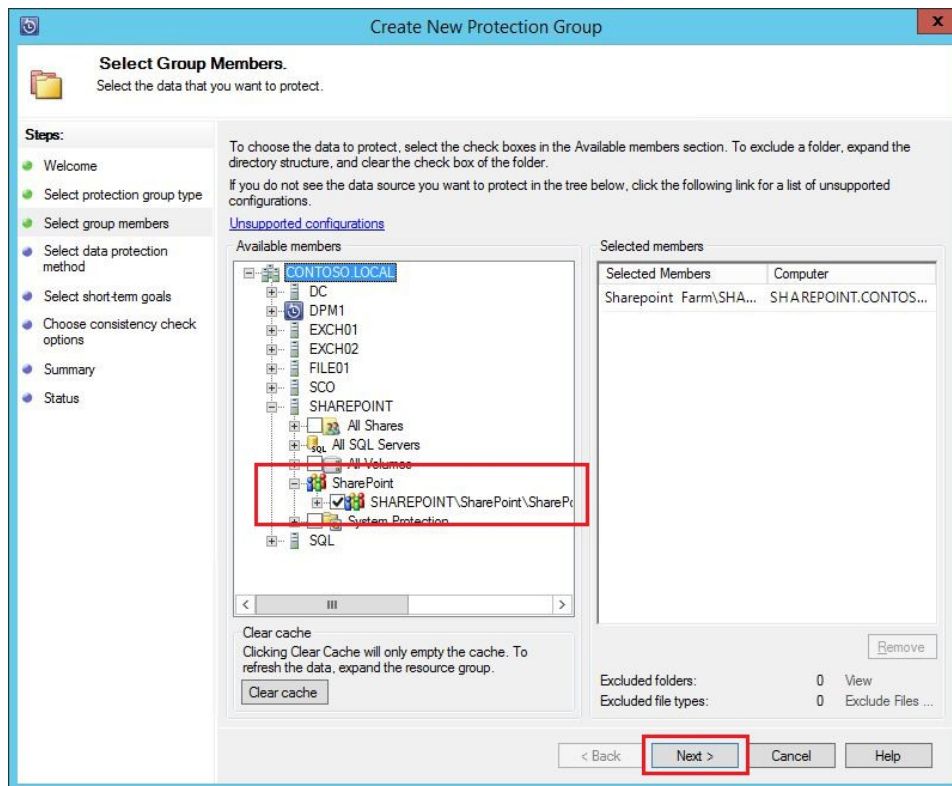








# Chapter 7



Create New Protection Group

### Select Data Protection Method

DPM can help provide disk, online and tape based data protection.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Choose consistency check options
- Summary
- Status

Protection group name:

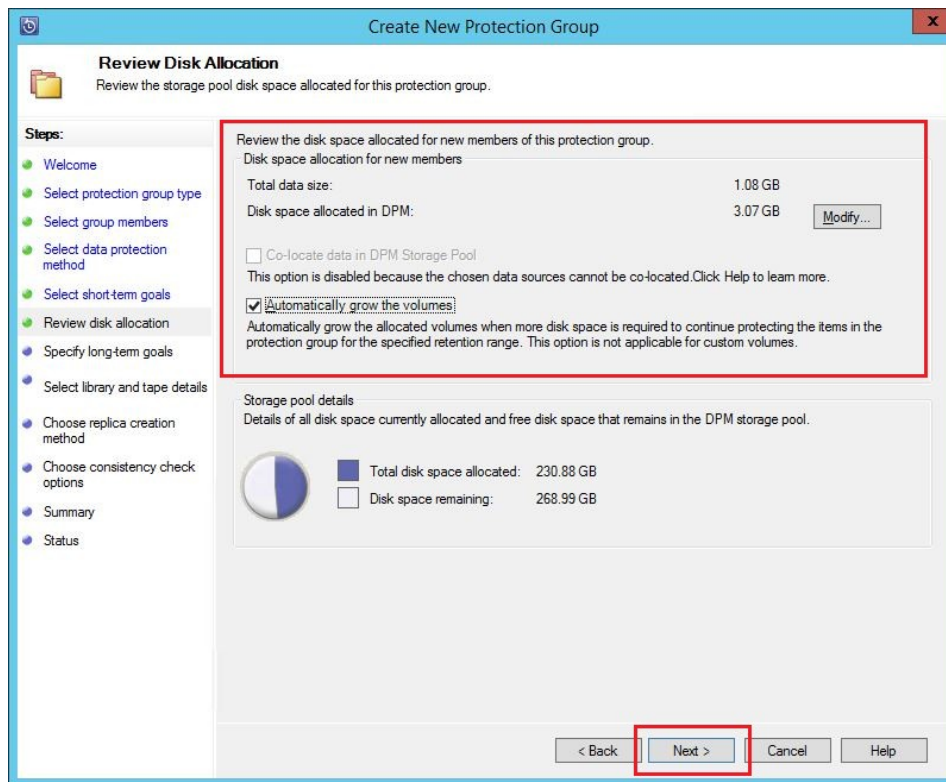
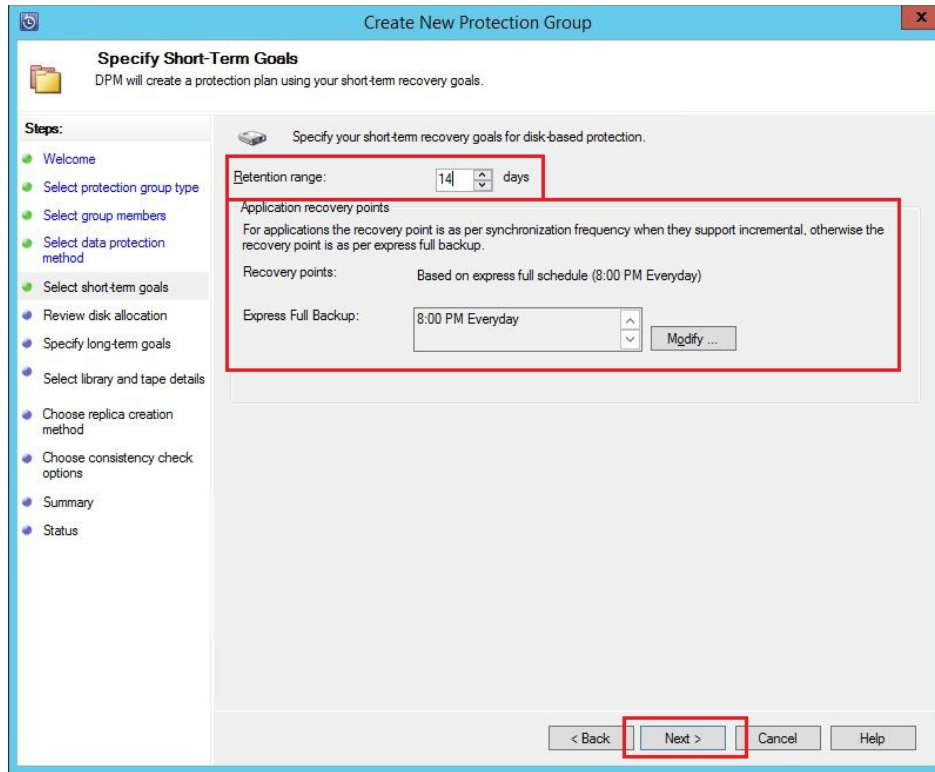
Protection method  
Select your protection method.

I want short-term protection using:

I want online protection  
This option is disabled as this protection group does not contain data sources that can be protected online.

I want long-term protection using tape

< Back **Next >** Cancel Help



**Create New Protection Group**

### Select Long-Term Goals

DPM will create a protection plan using your long-term recovery goals.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Specify long-term goals
- Select library and tape details
- Choose replica creation method
- Choose consistency check options
- Summary
- Status

Specify your long-term recovery goals for tape-based protection. All long-term tape-based protection uses full backups.

**Recovery goals**  
The retention range and backup frequency that you select will determine the recovery point schedule.  
Click Customize to modify the recovery point schedule or the default tape labels.

Retention range: 3 Months  
Frequency of backup: Weekly

Recovery points:  
1 recovery point every 1 week(s) for the last 4 week(s)  
1 recovery point every 1 month(s) for the last 3 month(s)

Restore Defaults Customize

**Backup schedule**  
Based on the specified backup frequency, the tape library will perform a full backup to the tapes according to the following schedule  
Click the Modify button to choose the backup days in case of daily tape backups.

Weekly: Sat 11:00 PM  
Monthly: Day 1, 11:00 PM Modify...

< Back Next > Cancel Help

### Customize Recovery Goal

You can customize the long-term recovery goals for daily, weekly, monthly, or yearly backups. To customize the recovery goals, specify the backup frequency, retention range, number of backup copies, and tape label for each increment of backup to be applied to this protection group.

To modify the tape label, click the label text to select it, and then click the label text again to edit it.

**Recovery goal 1**  
 Back up every: 1 Weeks  
Retention range: 4 Weeks  
Number of backup copy: 1  
Tape Label: SharePoint Fams-LT-1Weeks-Copy0

**Recovery goal 2**  
 Back up every: 1 Months  
Retention range: 3 Months  
Number of backup copy: 1  
Tape Label: SharePoint Fams-LT-1Months-Copy0

**Recovery goal 3**  
 Back up every: 1 Years  
Retention range: 1 Years  
Number of backup copy: 1  
Tape Label: SharePoint Fams-LT-1Years-Copy0

**Option**  
Specify the action DPM should take when the backup jobs for different recovery goals occur on the same day.  
 Run backup for all (ignore overlap of days)  
 Run backup only for the 'Recovery goal 2'

OK Cancel Help

### Modify Long-Term Backup Schedule

**Backup schedule**

Monthly backup time: 11:00 PM  
Monthly backup day:  Day 1  The First Mon of every month

Weekly backup time: 11:00 PM  
Weekly backup day: Sat

OK Cancel Help

Create New Protection Group

### Select Library and Tape Details

Specify details about tape and the library that you would like to use for backup.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Specify long-term goals
- Select library and tape details
- Choose replica creation method
- Choose consistency check options
- Summary
- Status

Specify details about the library and tape that you want to use for tape backups.

**Library details**

Library: Firestreamer Media Changer

Drives allocated: 1

Copy library: Firestreamer Media Changer

Check backup for data integrity (time consuming operation)

**Tape options for long-term protection**

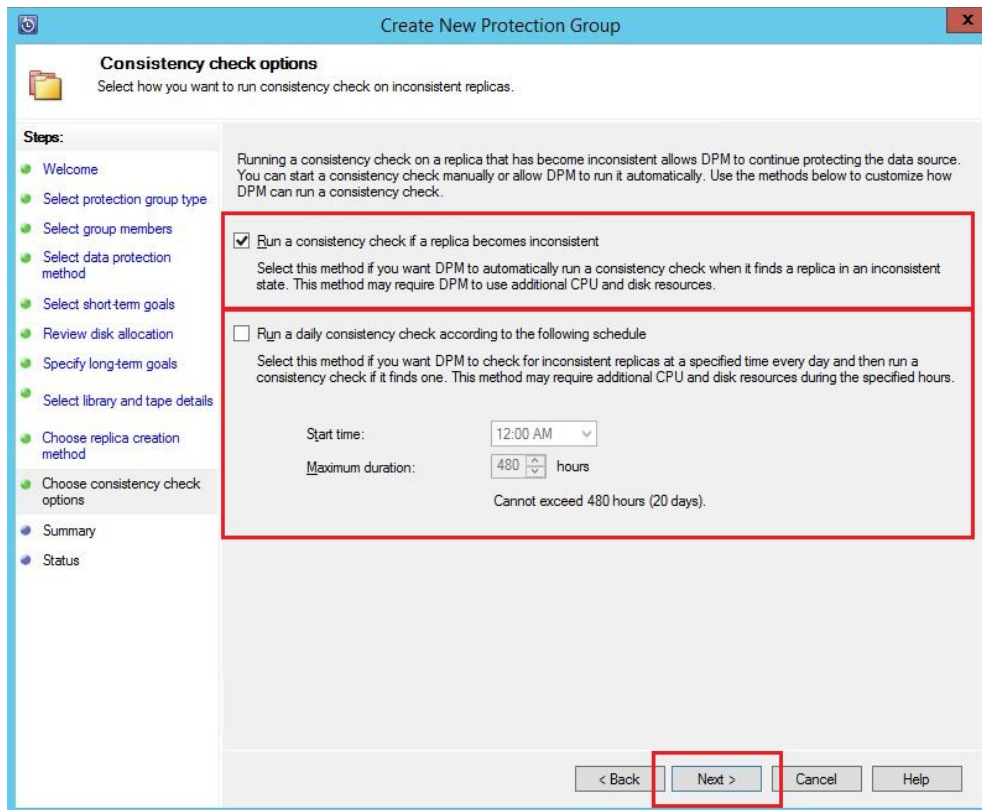
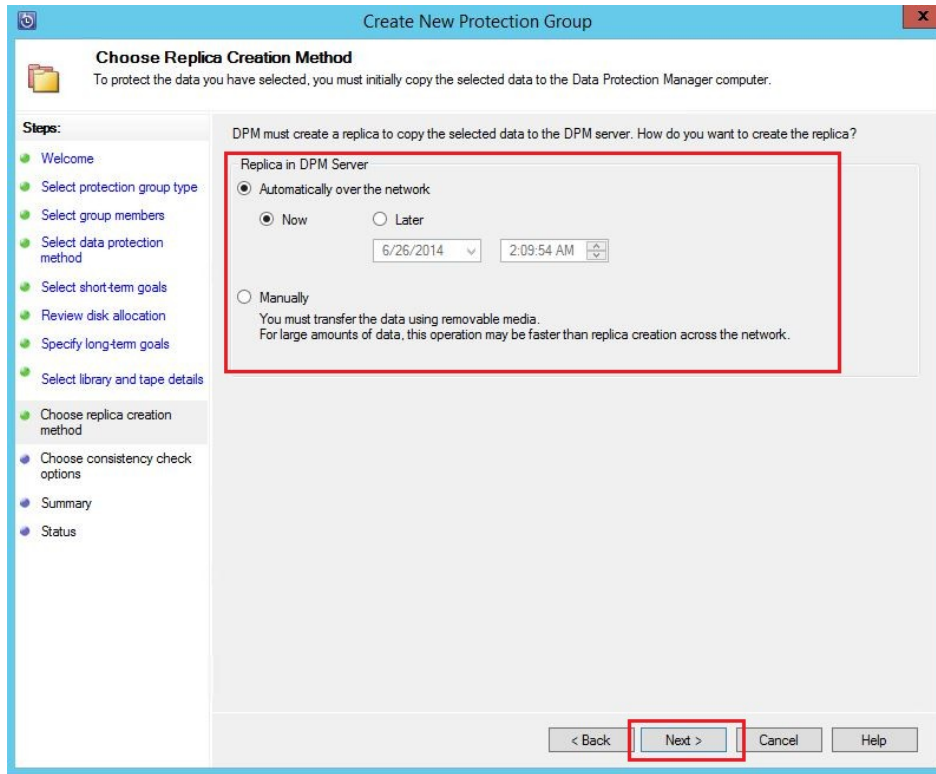
Compress data

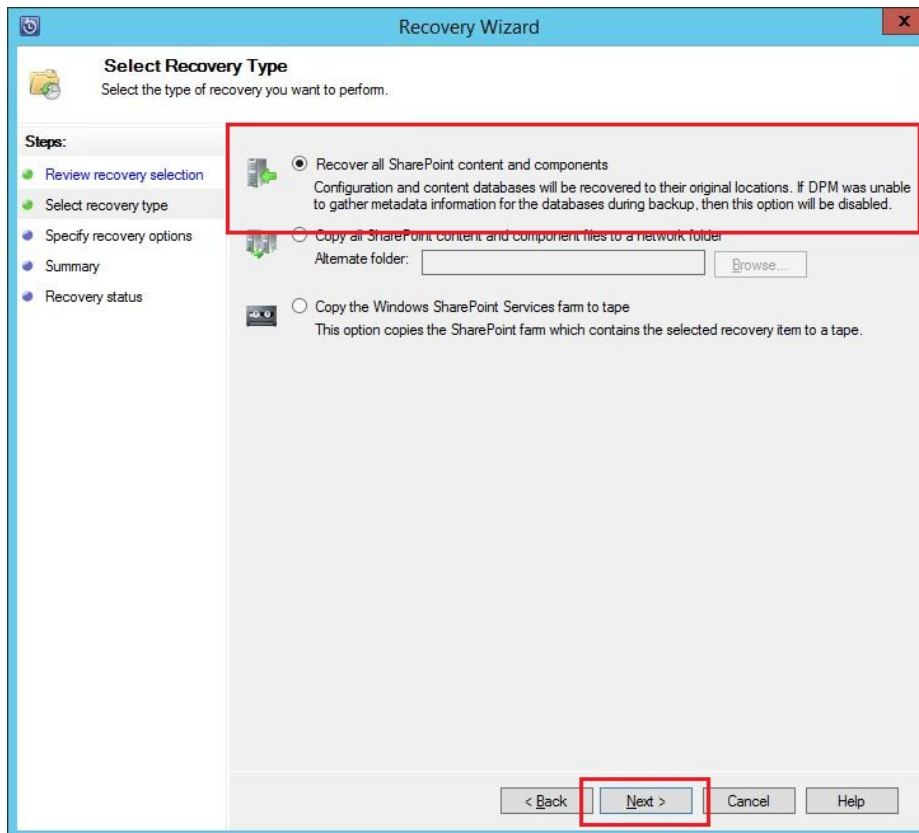
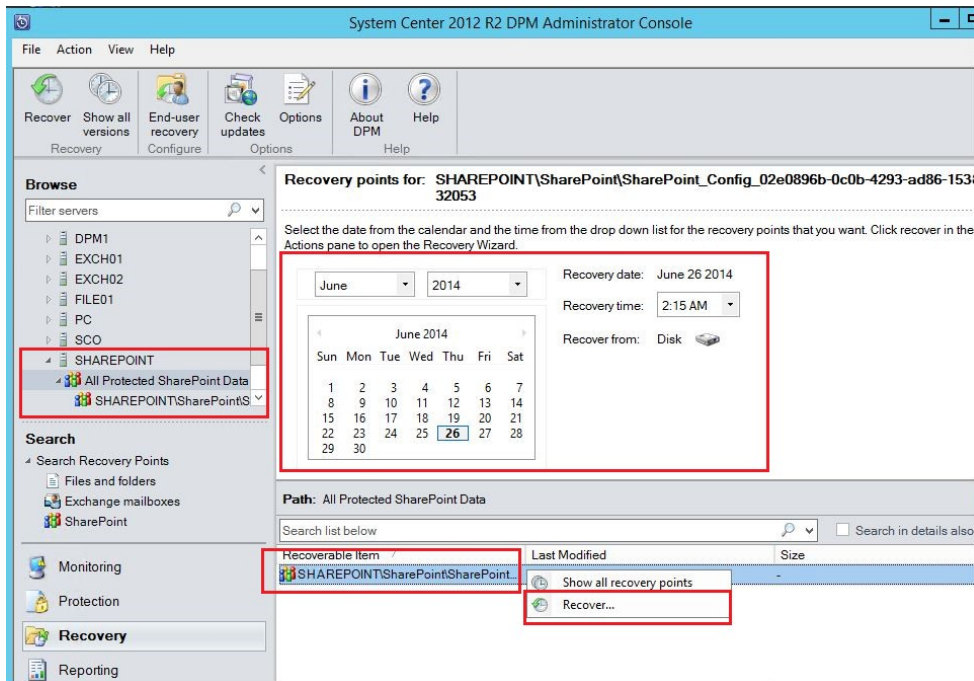
Encrypt data  
A valid DPM encryption certificate must be available on this DPM server. For more information click Help.

Do not compress or encrypt data.

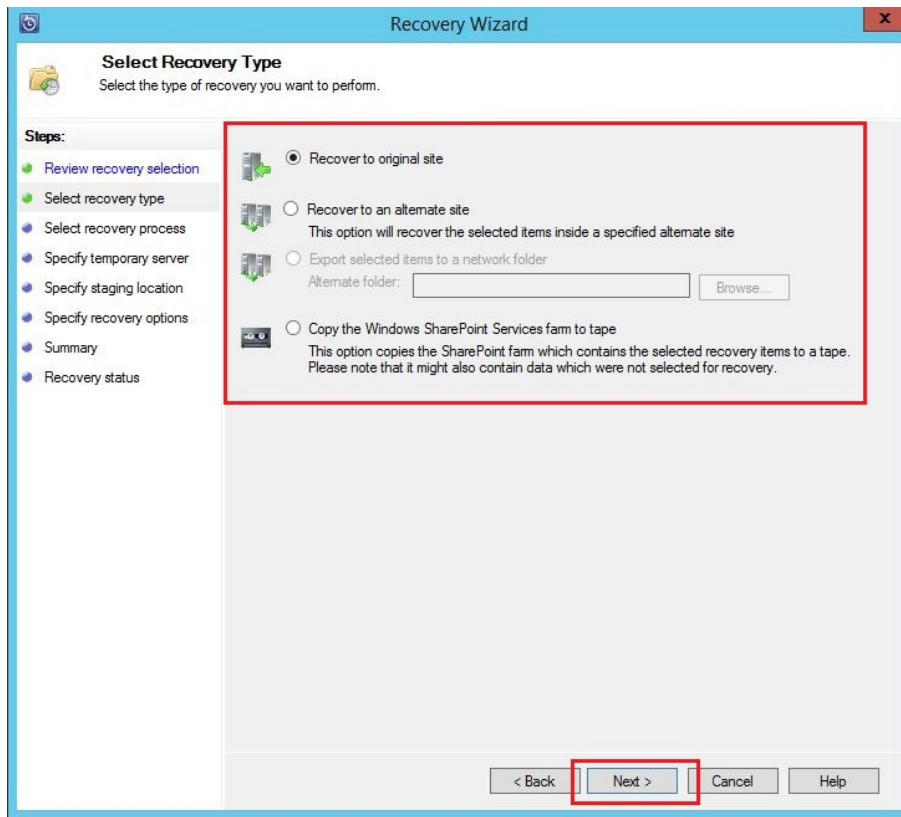
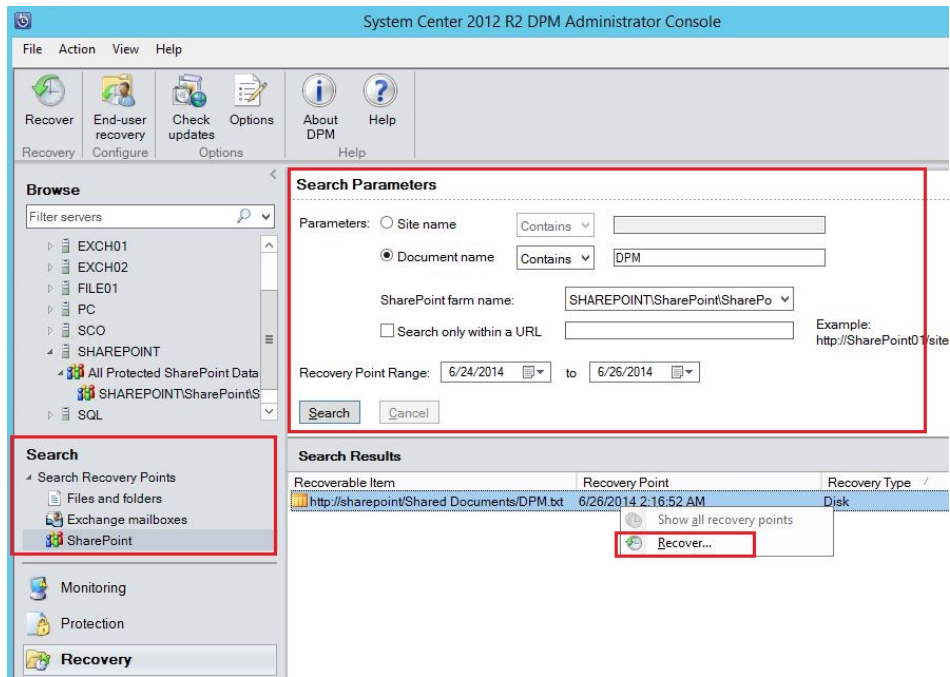
**i** You can optimize tape usage for this protection group using 'Optimize Tape Usage' on the Libraries Management page.

< Back   **Next >**   Cancel   Help

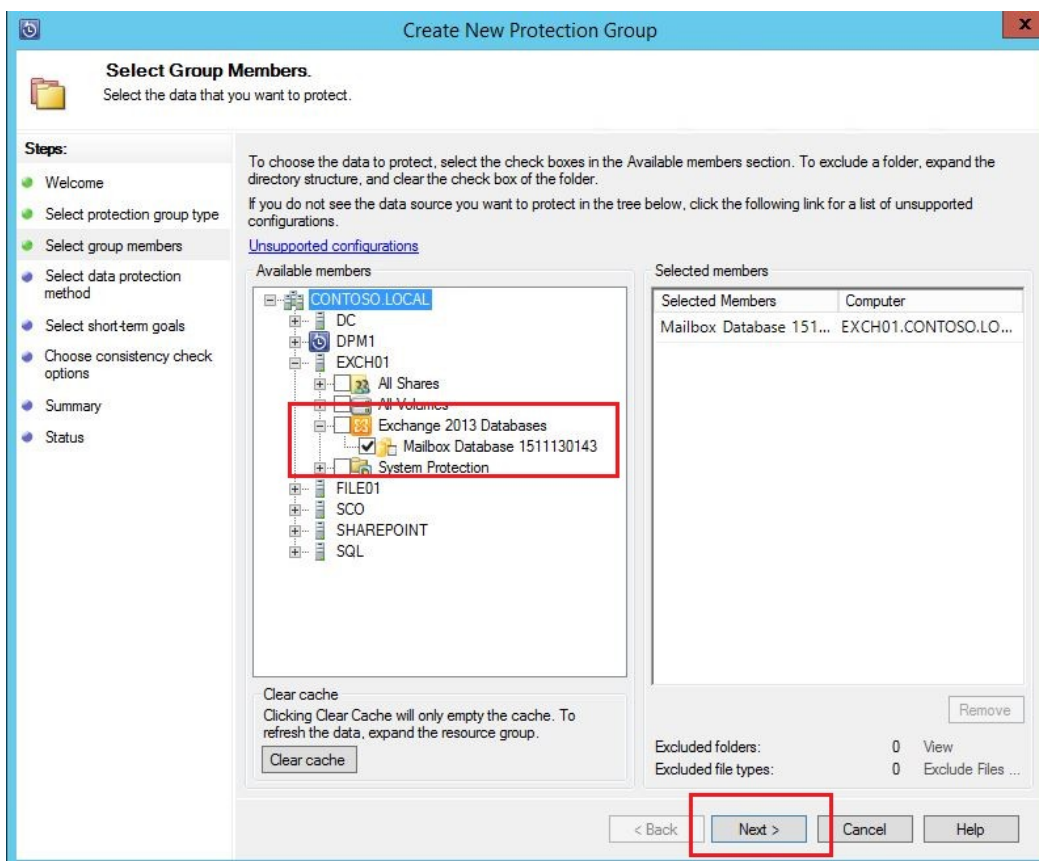
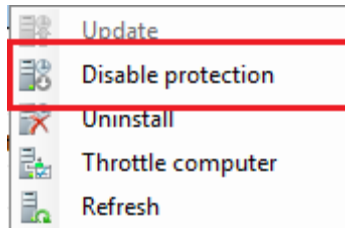








# Chapter 8



**Create New Protection Group**

### Select Data Protection Method

DPM can help provide disk, online and tape based data protection.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Specify exchange protection options
- Specify Exchange DAG protection
- Select short-term goals
- Review disk allocation
- Choose replica creation method
- Choose consistency check options
- Summary
- Status

Protection group name: Exchange Mailbox Databases

Protection method

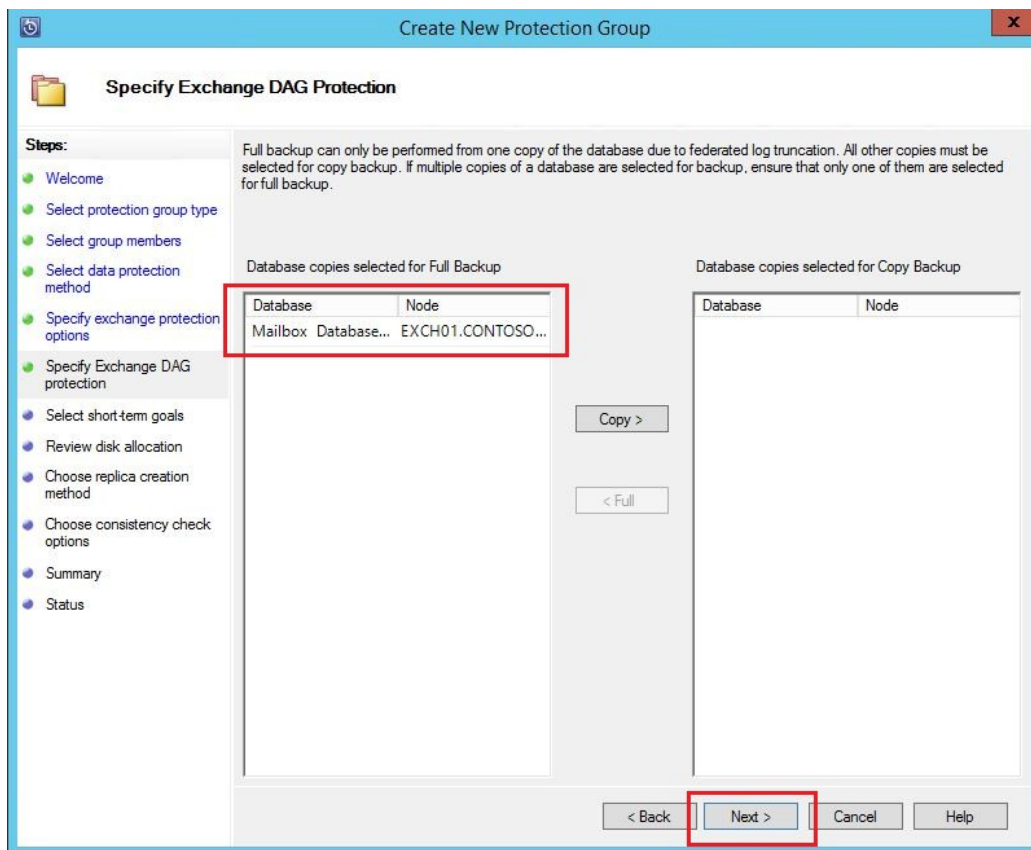
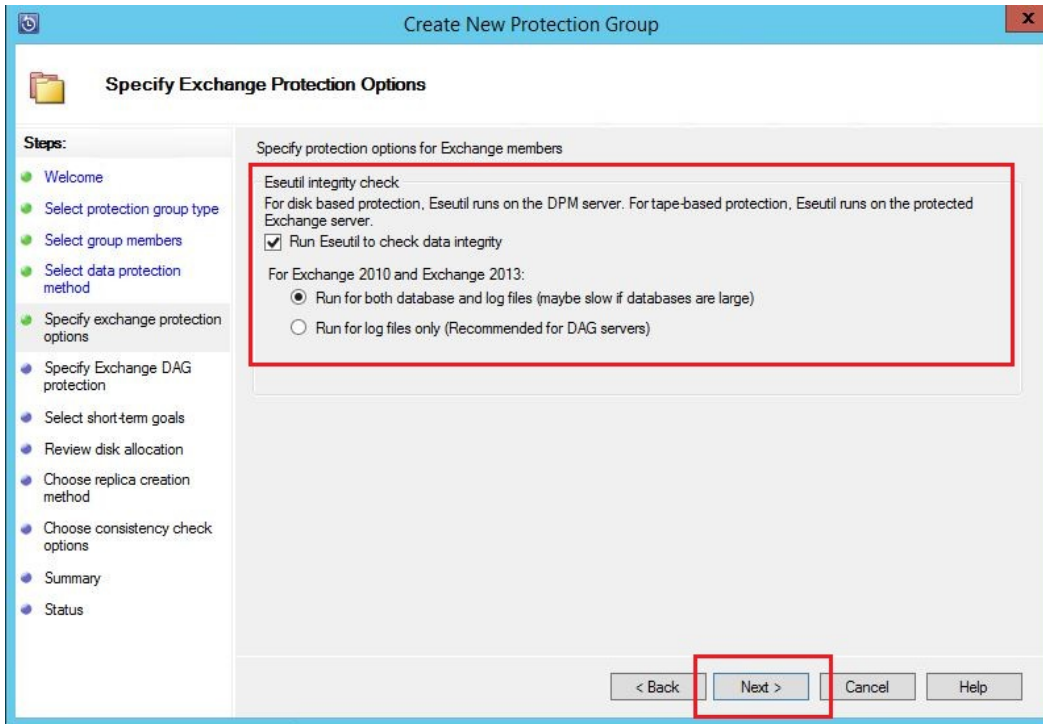
Select your protection method.

I want short-term protection using: Disk

I want online protection  
This option is disabled as this protection group does not contain data sources that can be protected online.

I want long-term protection using tape

< Back   Next >   Cancel   Help



**Create New Protection Group**

### Specify Short-Term Goals

DPM will create a protection plan using your short-term recovery goals.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Specify exchange protection options
- Specify Exchange DAG protection
- Select short-term goals
- Review disk allocation
- Choose replica creation method
- Choose consistency check options
- Summary
- Status

Specify your short-term recovery goals for disk-based protection.

Retention range: 14 days

Synchronization frequency:  Every 15 minutes  Just before a recovery point

**Application recovery points**

For applications the recovery point is as per synchronization frequency when they support incremental, otherwise the recovery point is as per express full backup.

Recovery points: Based on synchronization frequency (Every 15 minutes)

Express Full Backup: 8:00 PM Everyday

< Back **Next >** Cancel Help

Create New Protection Group

### Review Disk Allocation

Review the storage pool disk space allocated for this protection group.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Specify exchange protection options
- Specify Exchange DAG protection
- Select short-term goals
- Review disk allocation**
- Choose replica creation method
- Choose consistency check options
- Summary
- Status

Review the disk space allocated for new members of this protection group

Disk space allocation for new members

Total data size:	789.07 MB
Disk space allocated in DPM:	3.35 GB <span>Modify...</span>

Co-locate data in DPM Storage Pool


This option is disabled because the chosen data sources cannot be co-located. Click Help to learn more.



Automatically grow the volumes

Automatically grow the allocated volumes when more disk space is required to continue protecting the items in the protection group for the specified retention range. This option is not applicable for custom volumes.

Storage pool details

Details of all disk space currently allocated and free disk space that remains in the DPM storage pool.



 Total disk space allocated:	213.56 GB
 Disk space remaining:	286.32 GB

< Back Next > Cancel Help

Create New Protection Group

### Choose Replica Creation Method

To protect the data you have selected, you must initially copy the selected data to the Data Protection Manager computer.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Specify exchange protection options
- Specify Exchange DAG protection
- Select short-term goals
- Review disk allocation
- Choose replica creation method
- Choose consistency check options
- Summary
- Status

DPM must create a replica to copy the selected data to the DPM server. How do you want to create the replica?

**Replica in DPM Server**

Automatically over the network

Now  Later

6/19/2014 1:32:11 AM

Manually

You must transfer the data using removable media.  
For large amounts of data, this operation may be faster than replica creation across the network.

< Back Next > Cancel Help

**Create New Protection Group**

### Consistency check options

Select how you want to run consistency check on inconsistent replicas.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Specify exchange protection options
- Specify Exchange DAG protection
- Select short-term goals
- Review disk allocation
- Choose replica creation method
- Choose consistency check options**
- Summary
- Status

Running a consistency check on a replica that has become inconsistent allows DPM to continue protecting the data source. You can start a consistency check manually or allow DPM to run it automatically. Use the methods below to customize how DPM can run a consistency check.

Run a consistency check if a replica becomes inconsistent

Select this method if you want DPM to automatically run a consistency check when it finds a replica in an inconsistent state. This method may require DPM to use additional CPU and disk resources.

Run a daily consistency check according to the following schedule

Select this method if you want DPM to check for inconsistent replicas at a specified time every day and then run a consistency check if it finds one. This method may require additional CPU and disk resources during the specified hours.

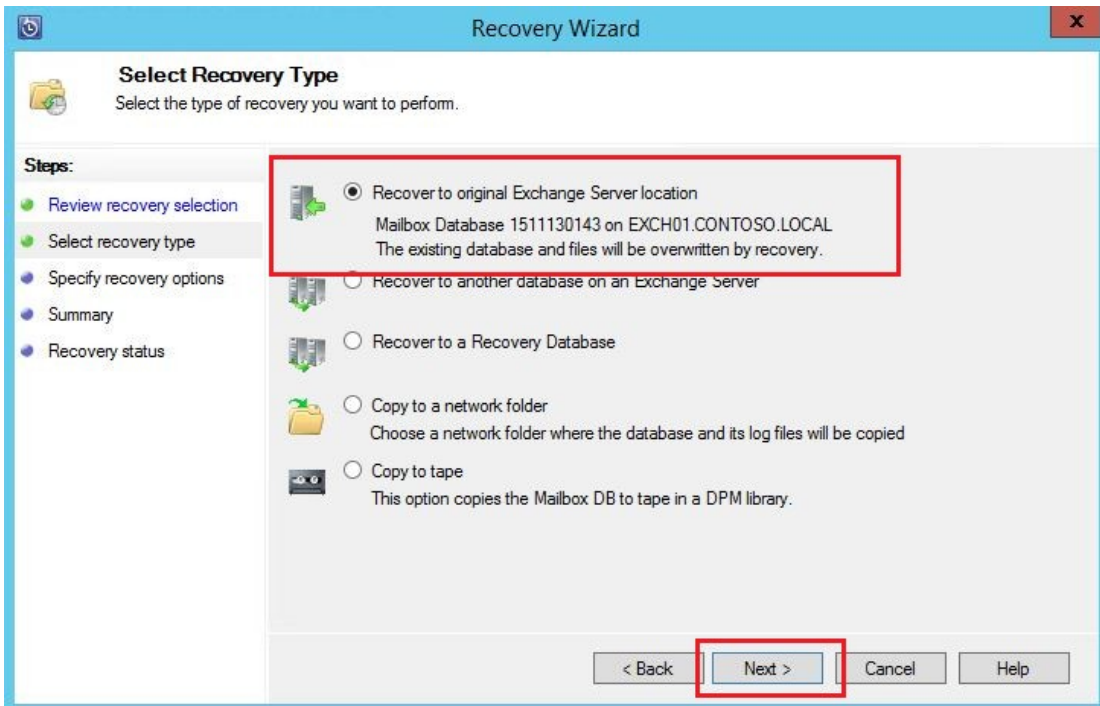
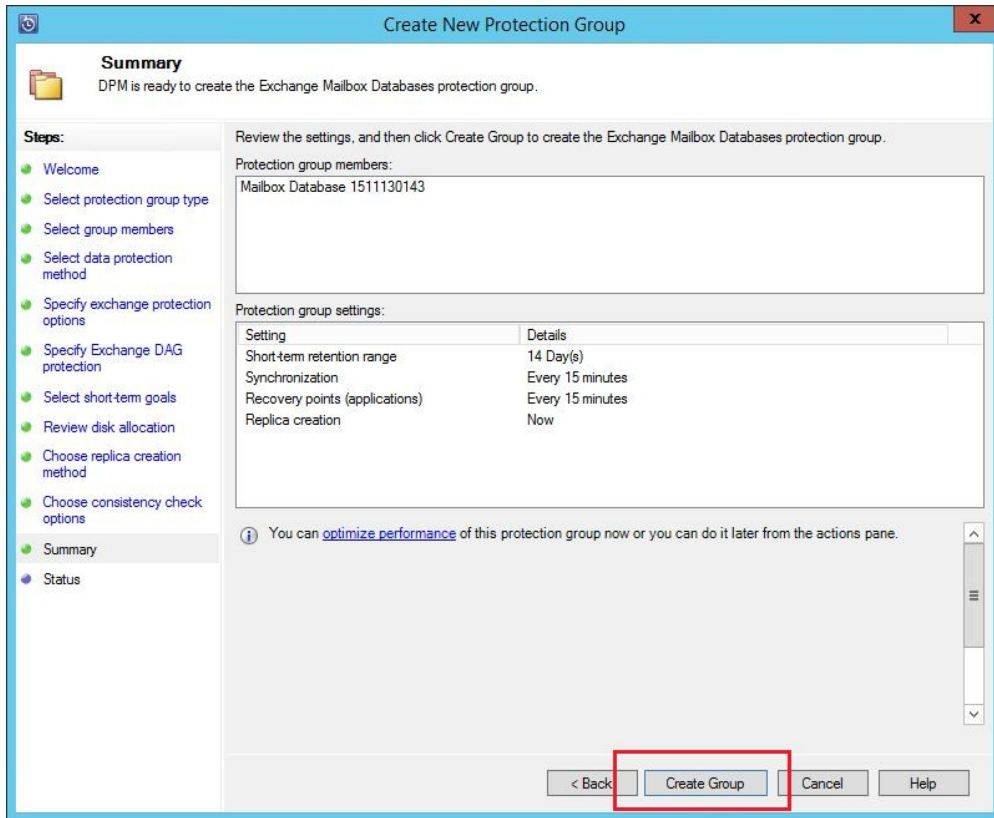
Start time: 12:00 AM

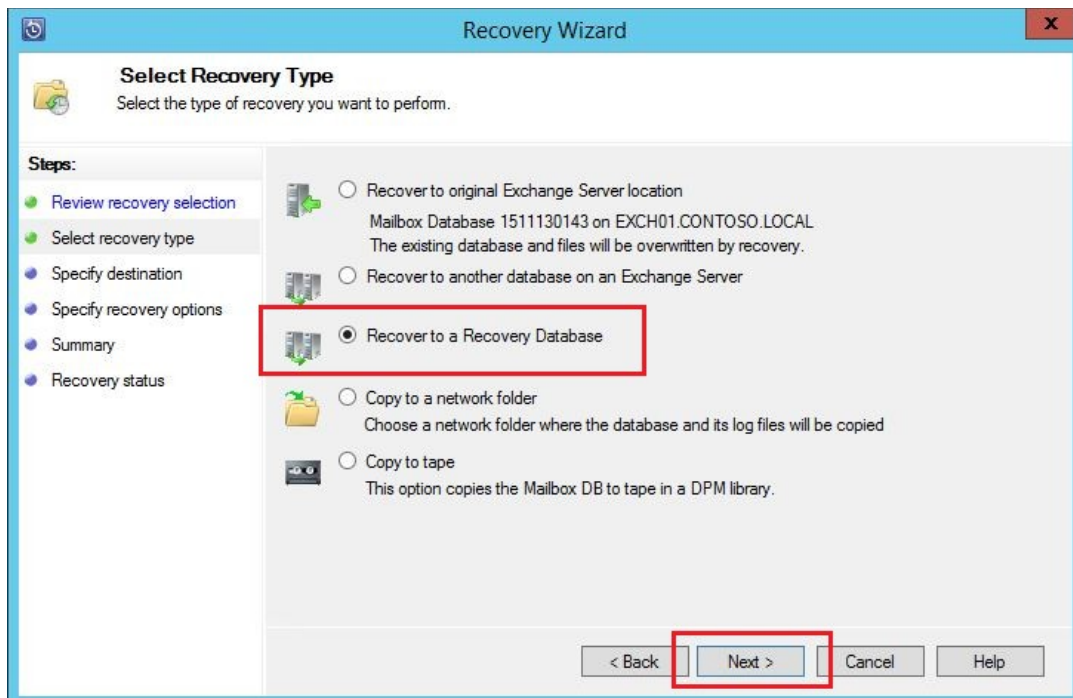
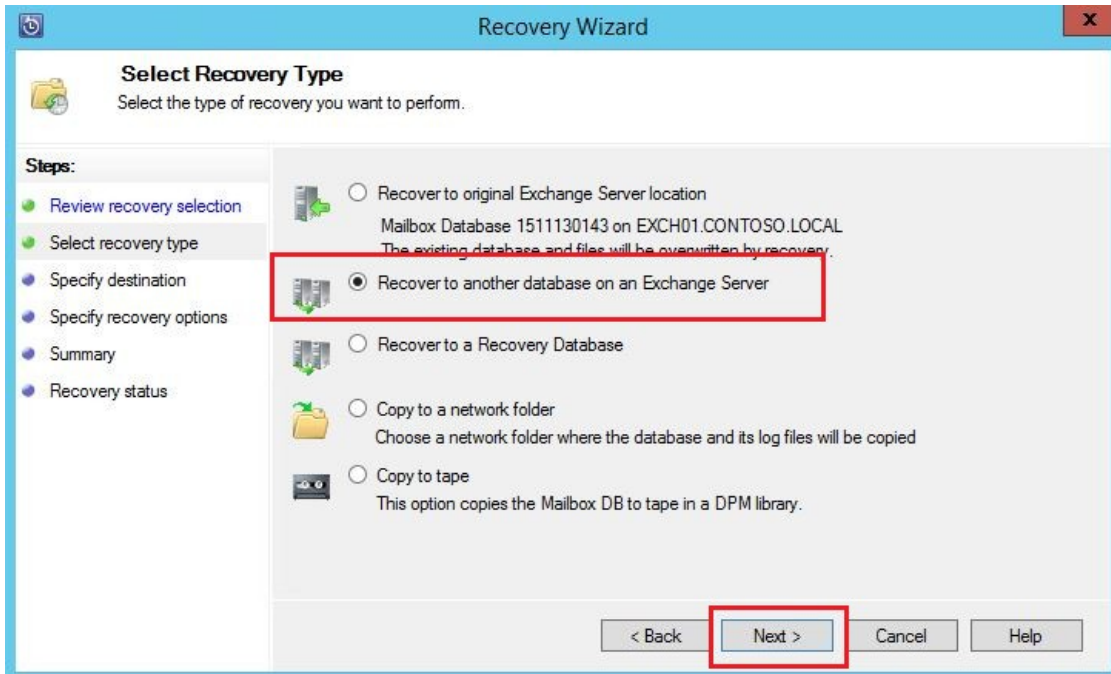
Maximum duration: 480 hours

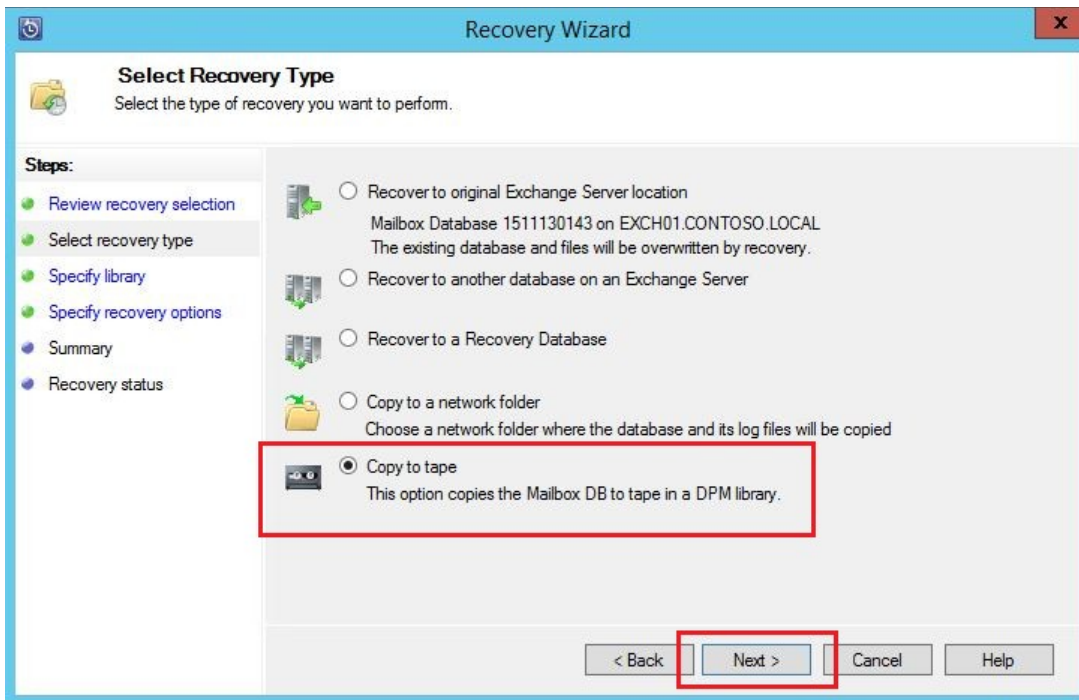
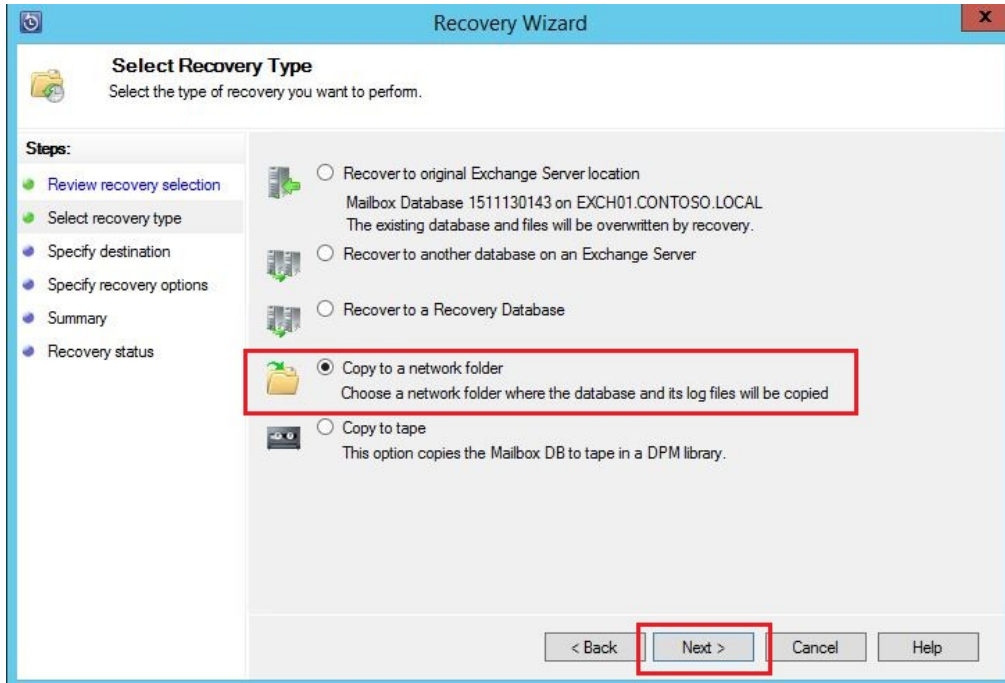
Cannot exceed 480 hours (20 days).

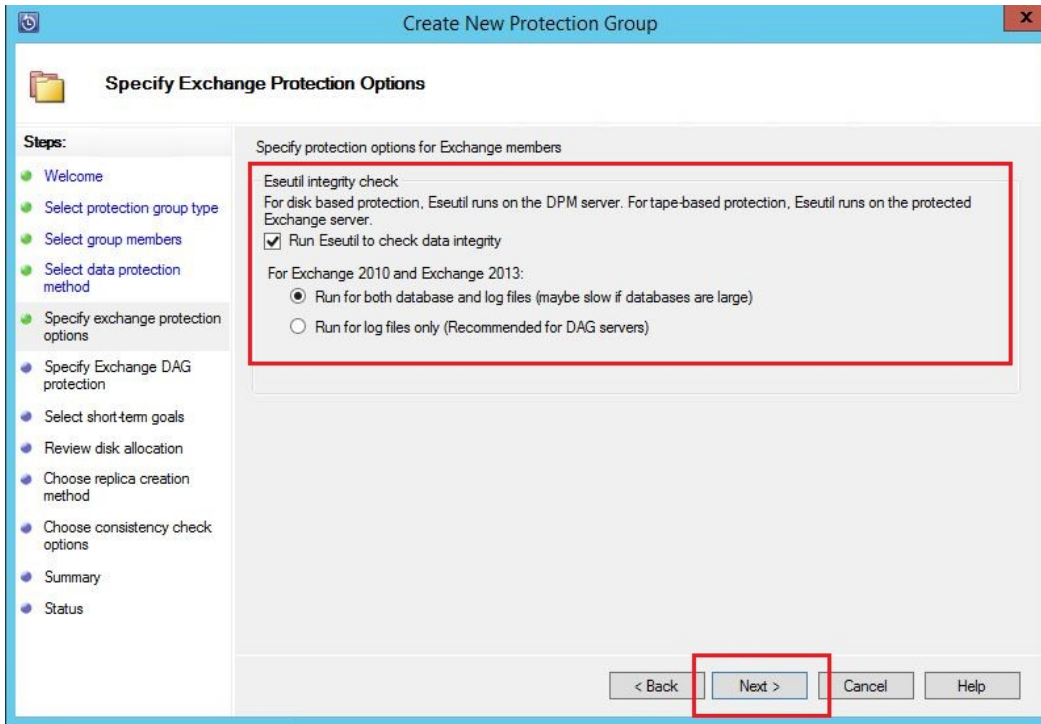
< Back   **Next >**   Cancel   Help



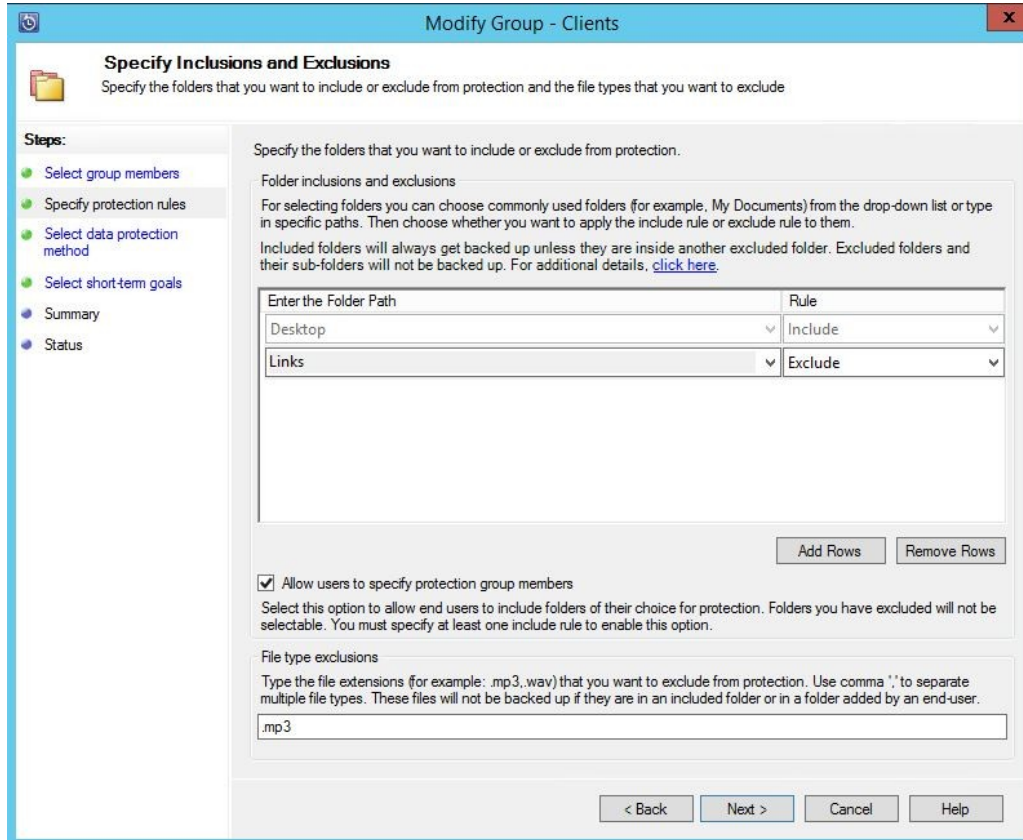


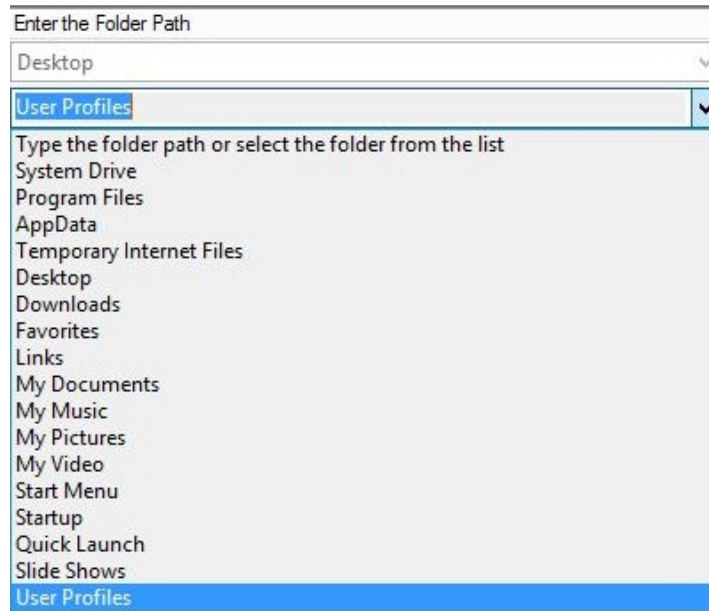


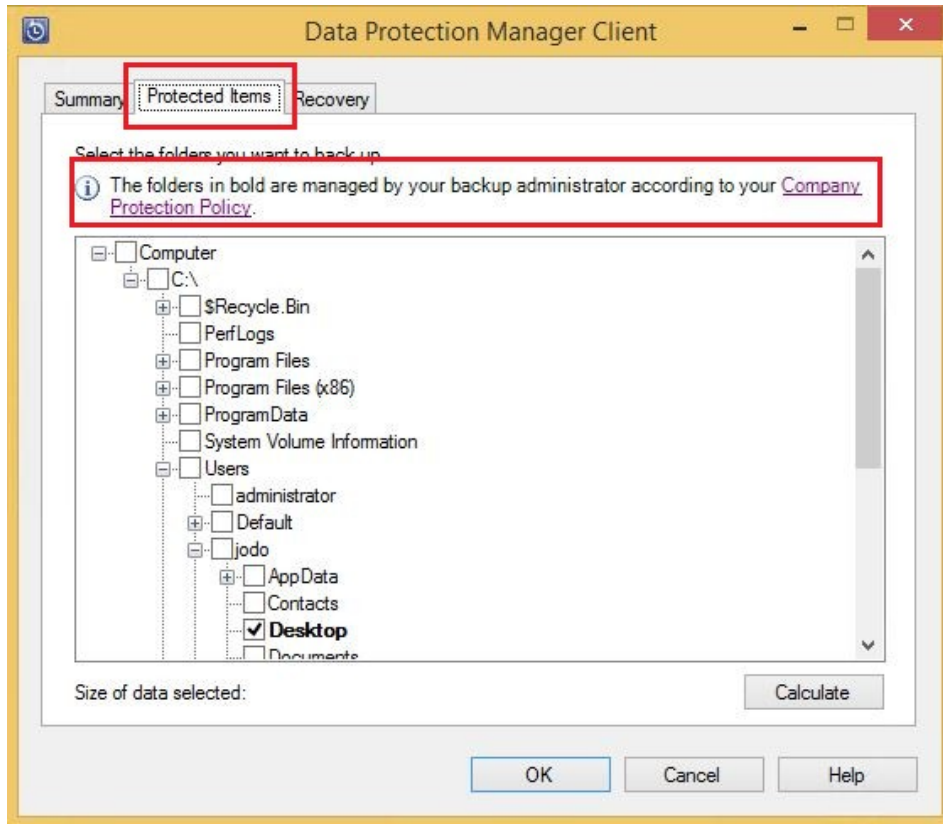


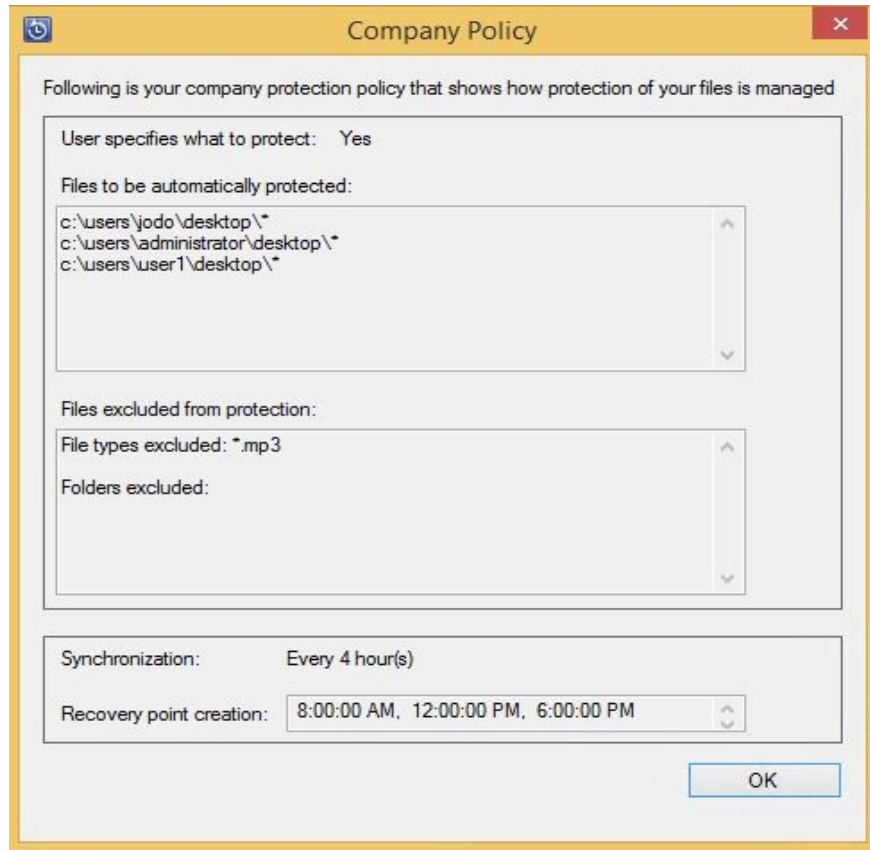


# Chapter 9

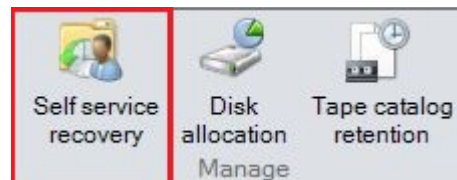
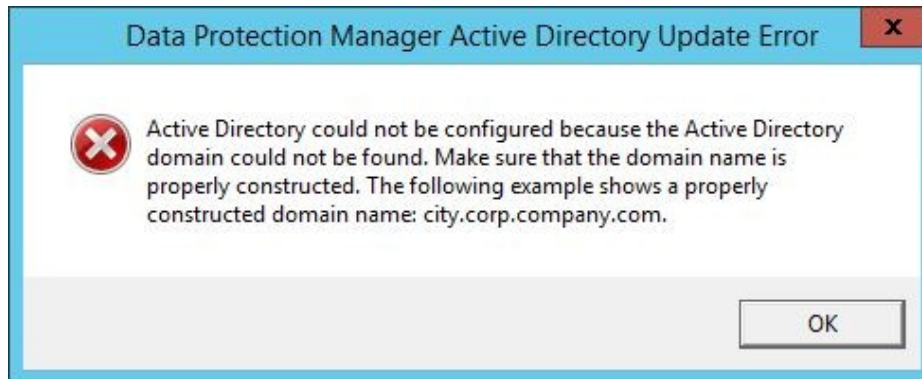
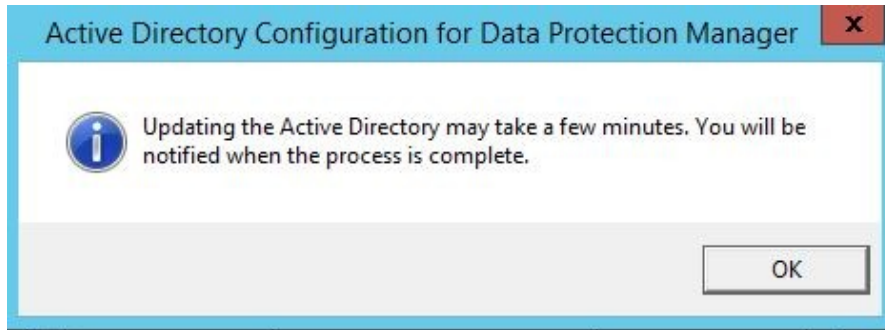


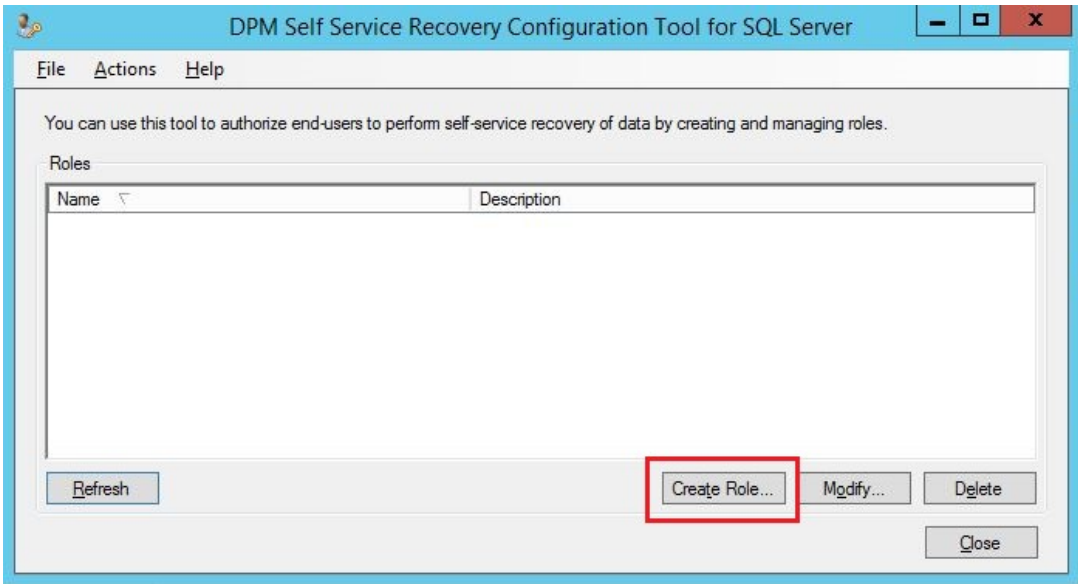








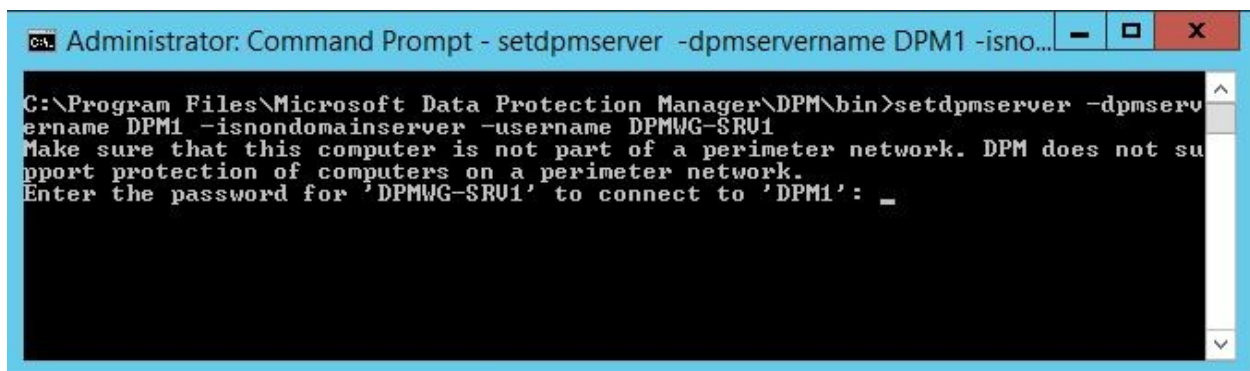





## Chapter 10



```
Administrator: Command Prompt
C:\Program Files\Microsoft Data Protection Manager\DPM\bin>setdpmserver -dpmservername DPM1 -isnondomainserver -username DPMWG-SRU1
```

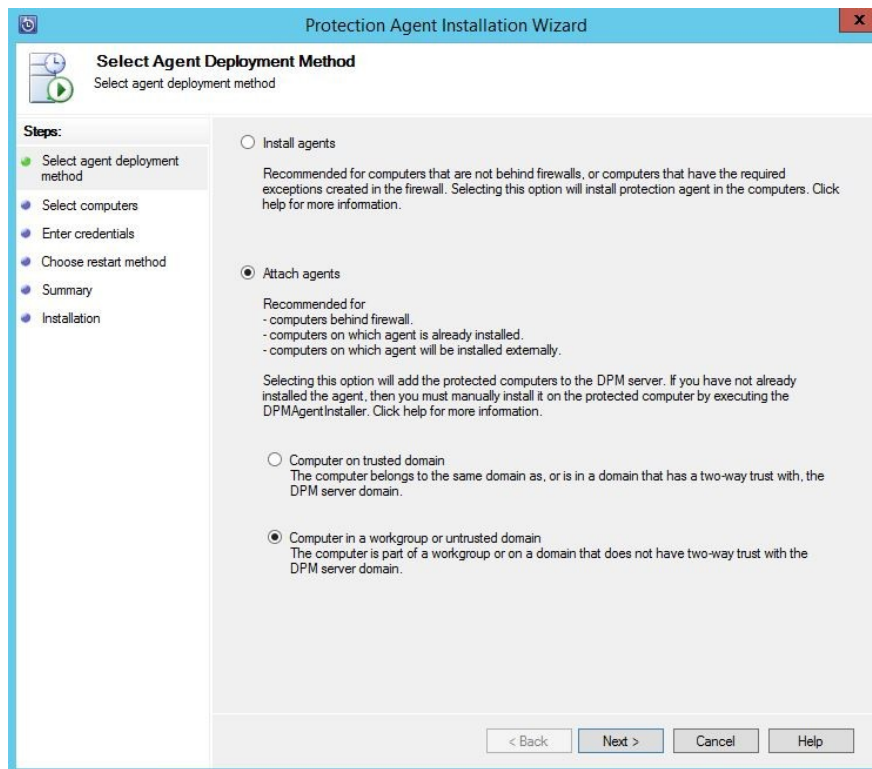
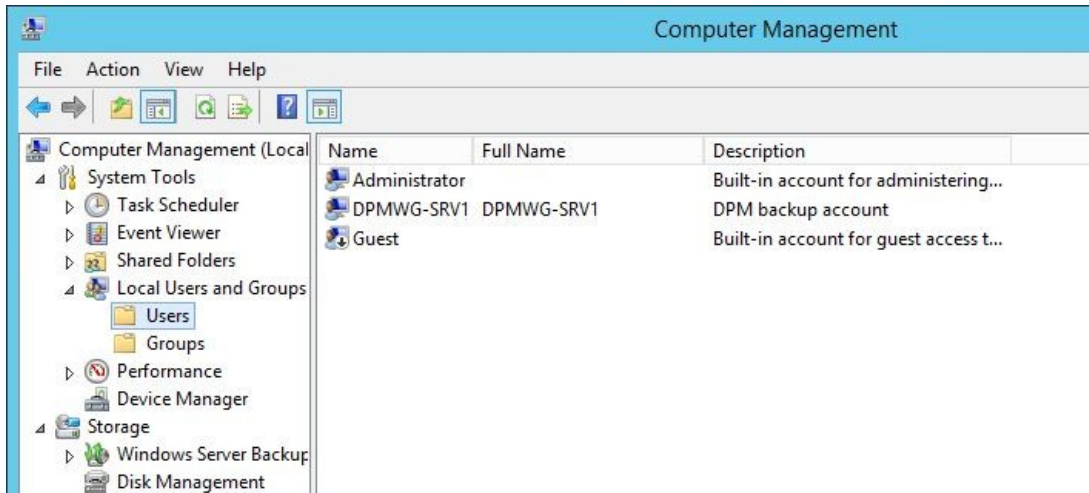


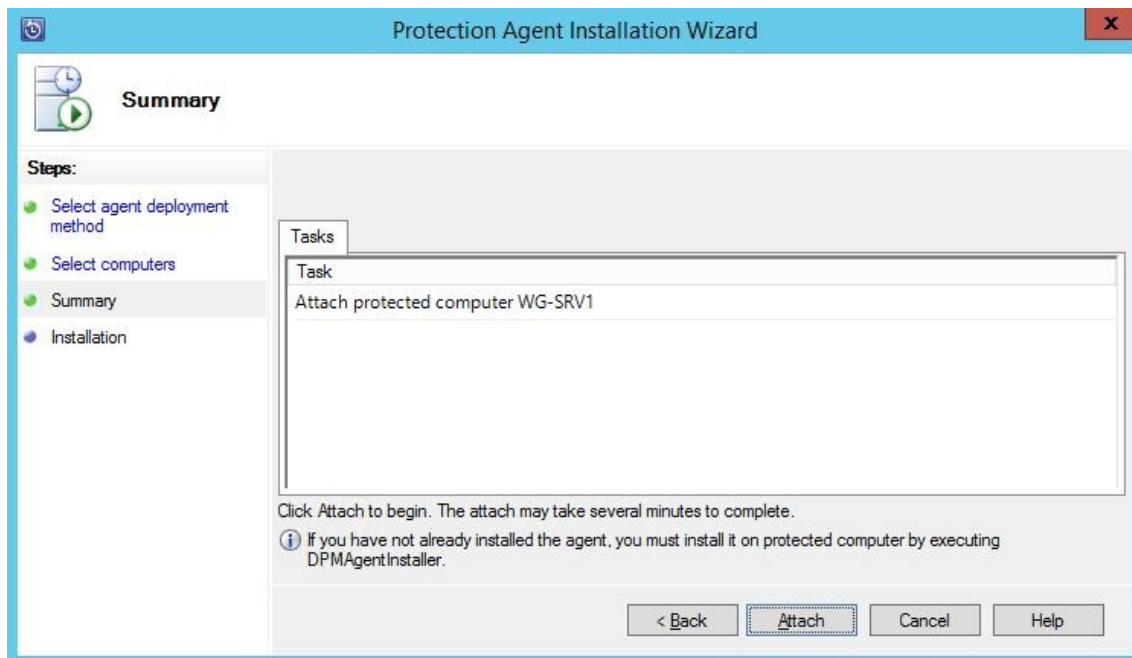
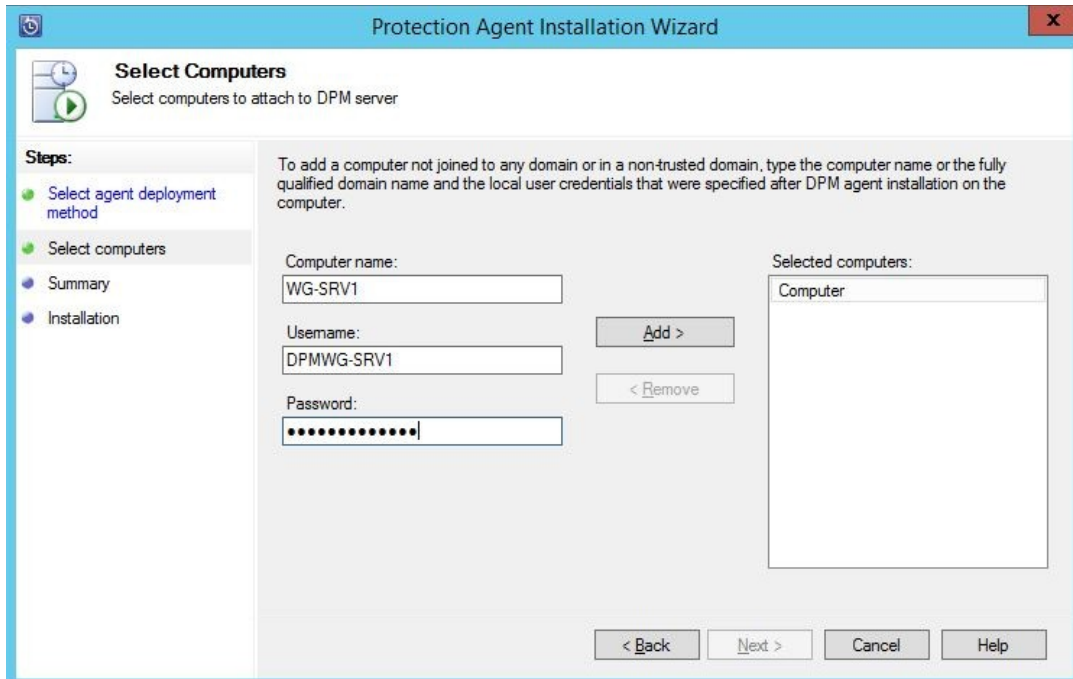
```
Administrator: Command Prompt - setdpmserver -dpmservername DPM1 -isno...
C:\Program Files\Microsoft Data Protection Manager\DPM\bin>setdpmserver -dpmservername DPM1 -isnondomainserver -username DPMWG-SRU1
Make sure that this computer is not part of a perimeter network. DPM does not support protection of computers on a perimeter network.
Enter the password for 'DPMWG-SRU1' to connect to 'DPM1': _
```

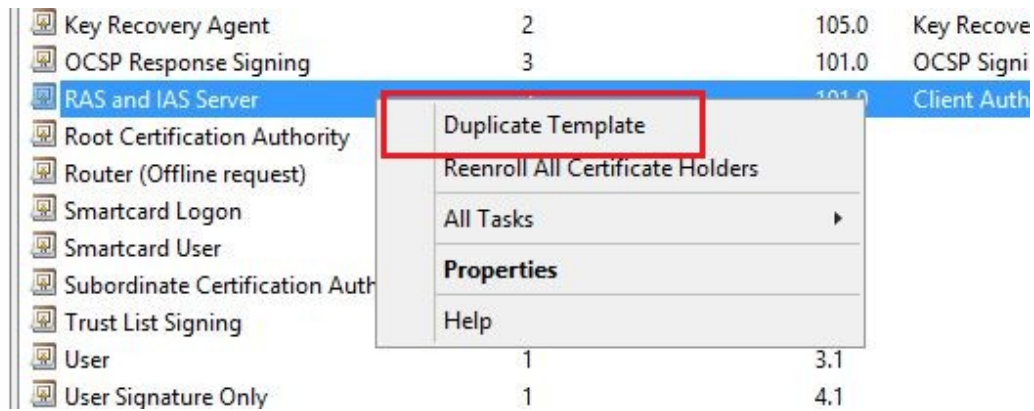
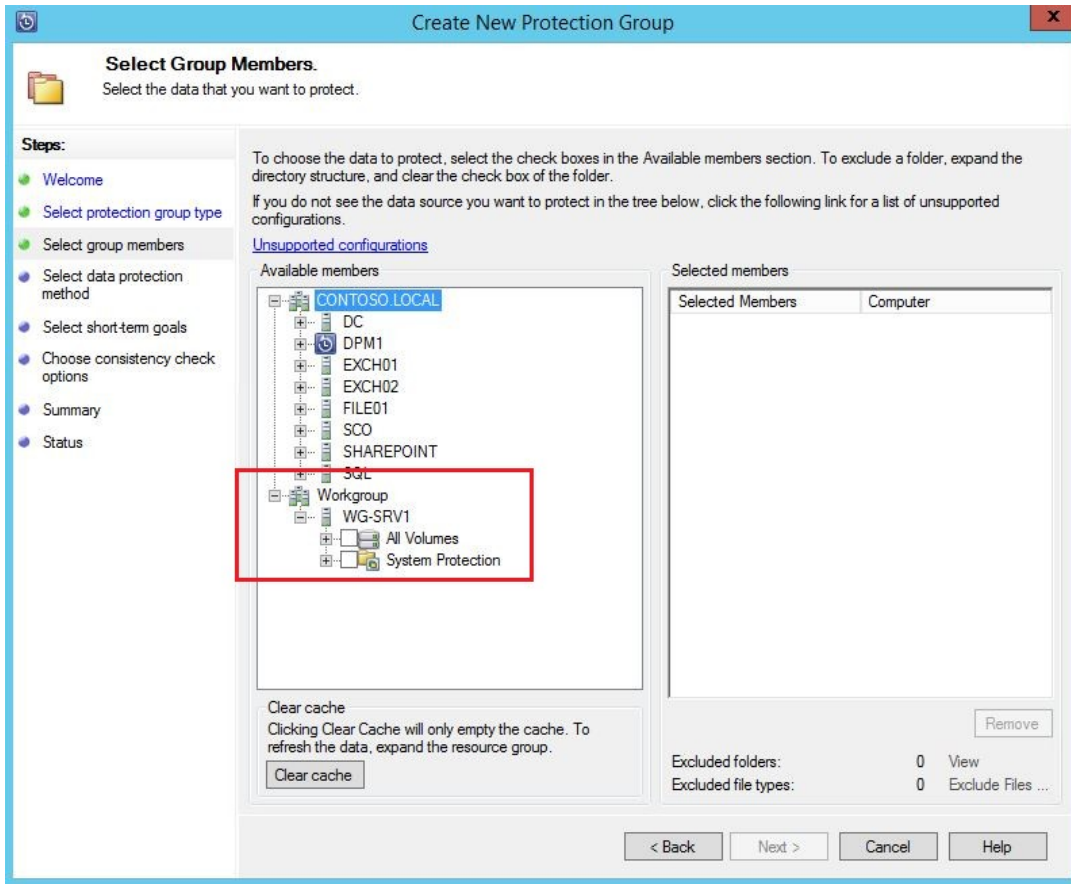


```
Administrator: Command Prompt
C:\Program Files\Microsoft Data Protection Manager\DPM\bin>setdpmserver -dpmservername DPM1 -isnondomainserver -username DPMWG-SRU1
Make sure that this computer is not part of a perimeter network. DPM does not support protection of computers on a perimeter network.
Enter the password for 'DPMWG-SRU1' to connect to 'DPM1':
Retype the password to confirm:
Enter the password for 'DPMWG-SRU1' to connect to 'DPM1':
Configuring dpm server settings and firewall settings for dpm server =[DPM1]

The following firewall exceptions has been added:
- Exception for DPMRA.exe in all profiles.
- Exception for Windows Management Instrumentation service.
- Exception for DCOM communication on port 135 (TCP and UDP) in all profiles.
Configuration completed successfully!!!
C:\Program Files\Microsoft Data Protection Manager\DPM\bin>
```







Properties of New Template

Subject Name	Server	Issuance Requirements		
Superseded Templates		Extensions		Security
Compatibility	General	Request Handling	Cryptography	Key Attestation

The template options available are based on the earliest operating system versions set in Compatibility Settings.

Show resulting changes

Compatibility Settings

Certification Authority  
Windows Server 2003

Certificate recipient  
Windows XP / Server 2003

These settings may not prevent earlier operating systems from using this template.

OK Cancel Apply Help

Properties of New Template

Subject Name	Server	Issuance Requirements		
Superseded Templates	Extensions	Security		
Compatibility	General	Request Handling	Cryptography	Key Attestation

Template display name:  
DPM CBA Template

Template name:  
DPMCBATemplate

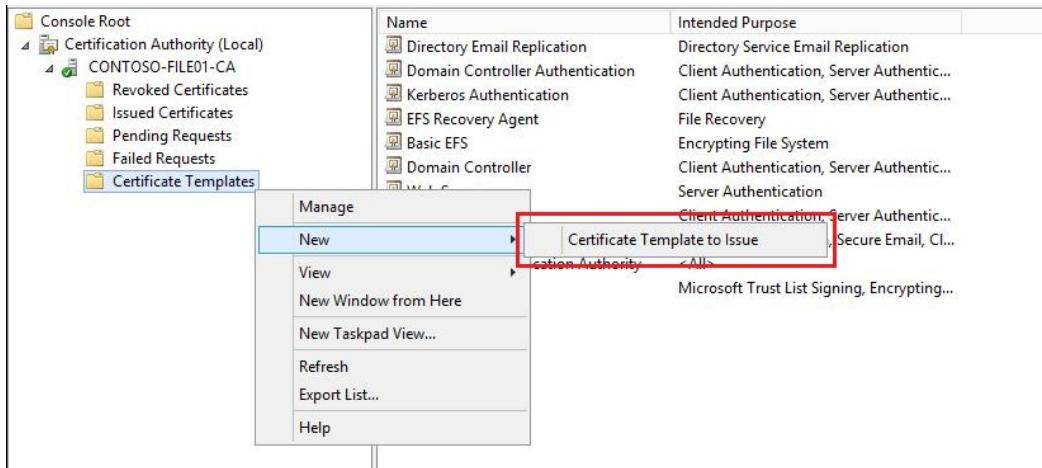
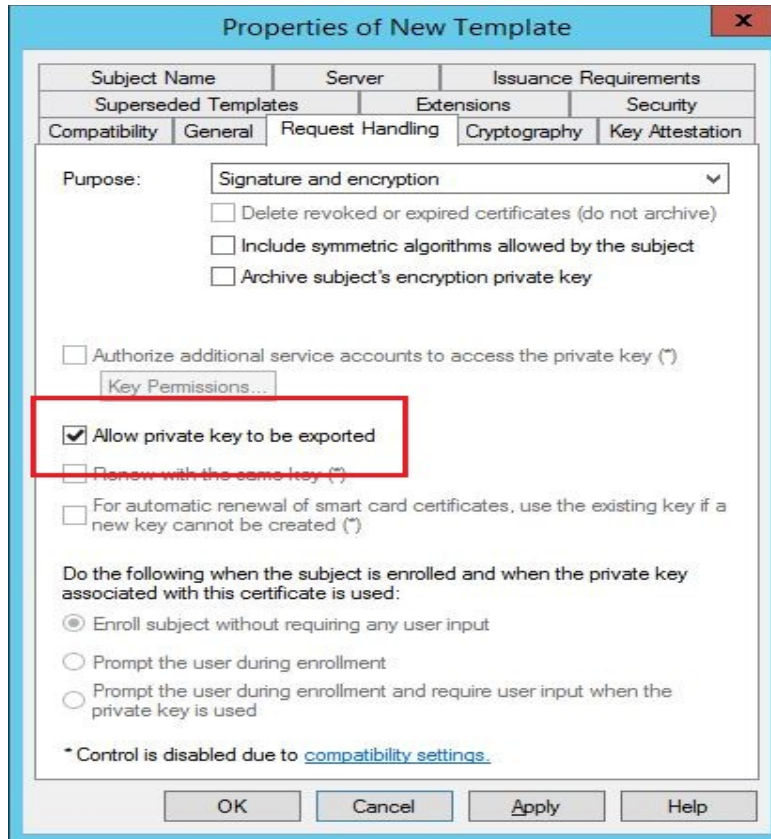
Validity period:  
5 years

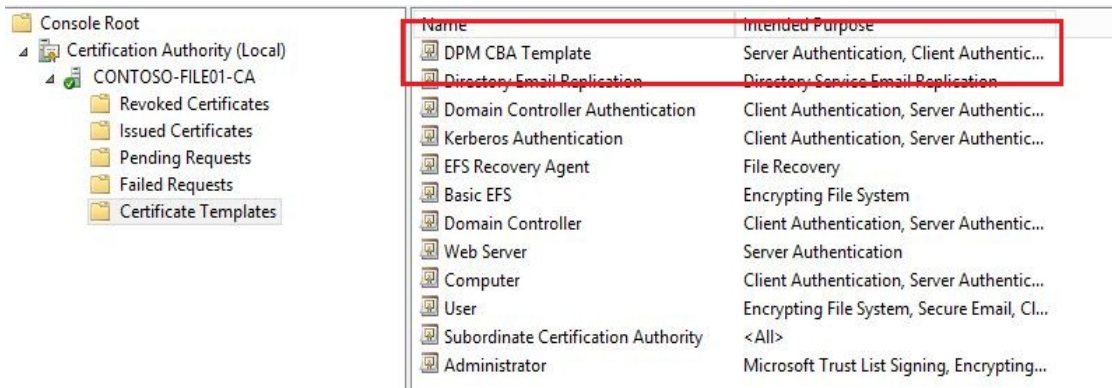
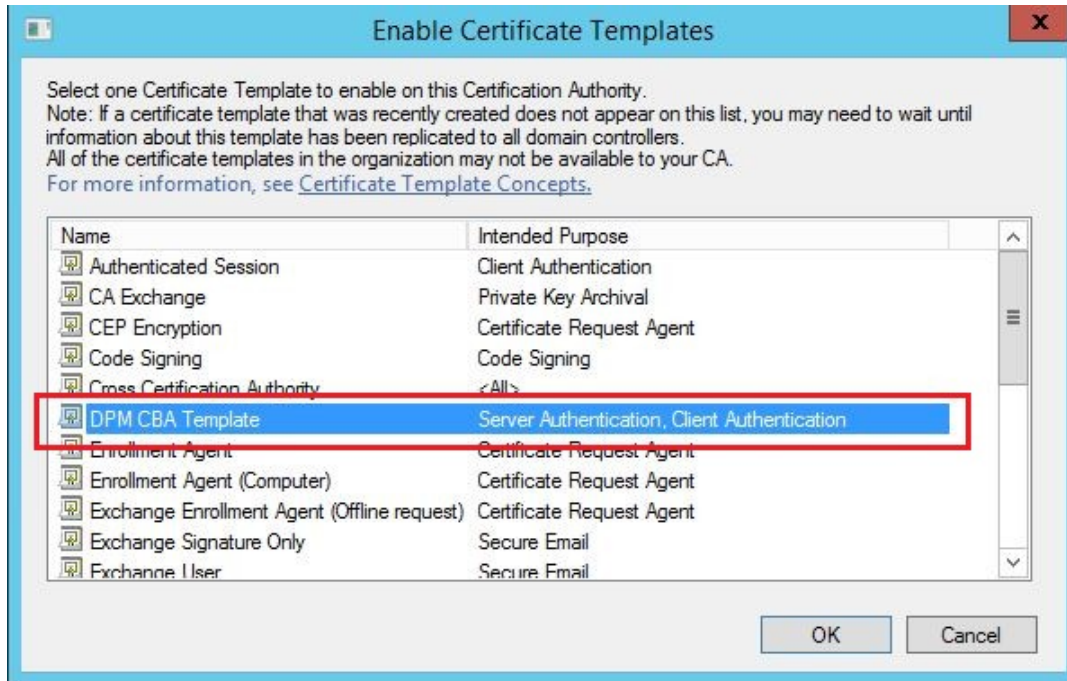
Renewal period:  
6 weeks

Publish certificate in Active Directory  
 Do not automatically reenroll if a duplicate certificate exists in Active Directory

OK Cancel Apply Help







DPM CBA Template Properties

Superseded Templates	Extensions	Security	Server	
General	Compatibility	Request Handling	Cryptography	Key Attestation

Subject Name Issuance Requirements

Supply in the request

Use subject information from existing certificates for autoenrollment renewal requests (\*)

Build from this Active Directory information

Select this option to enforce consistency among subject names and to simplify certificate administration.

Subject name format:  
Common name

Include e-mail name in subject name

Include this information in alternate subject name:

E-mail name

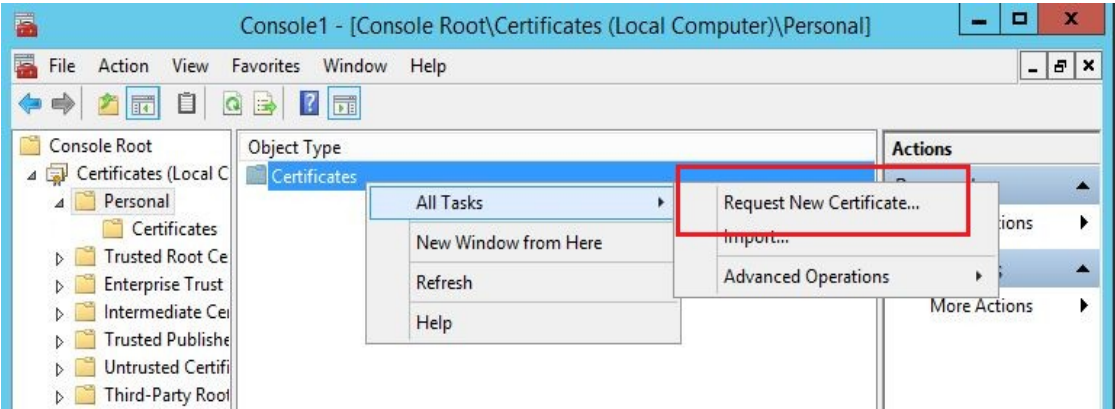
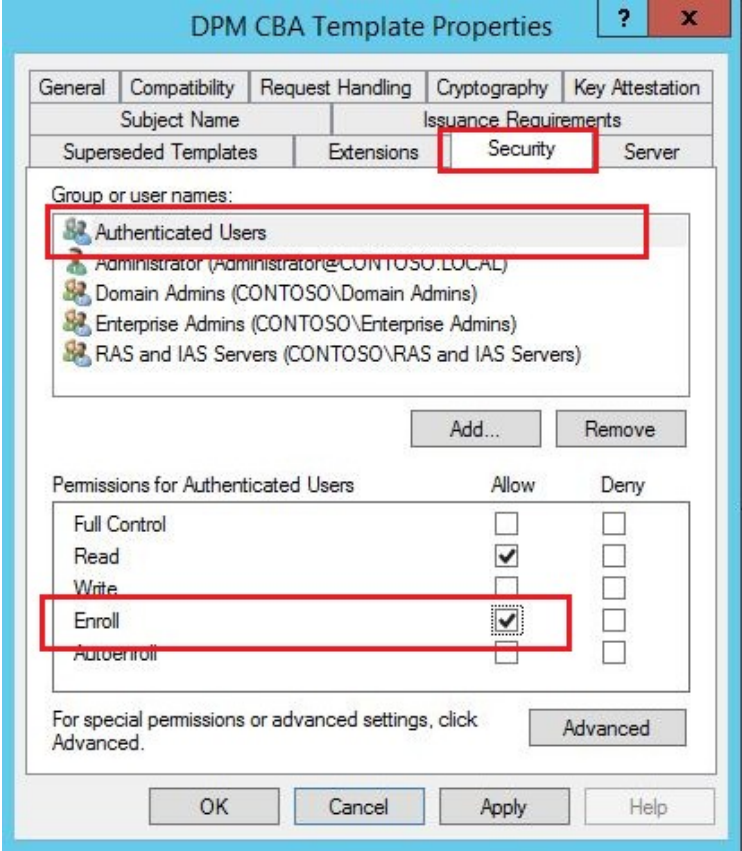
DNS name

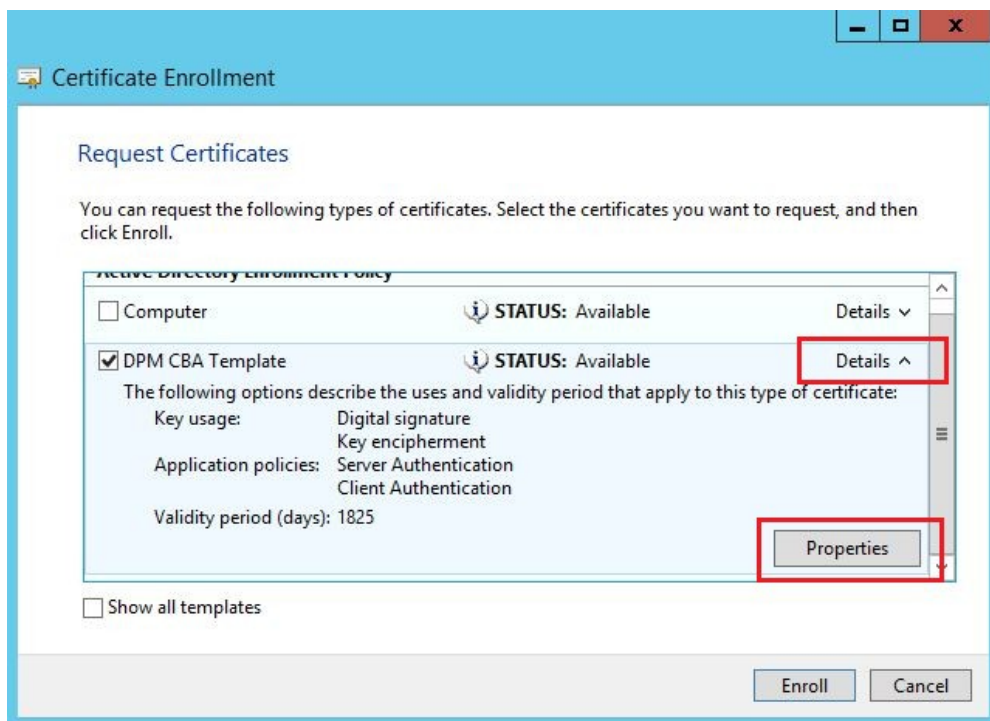
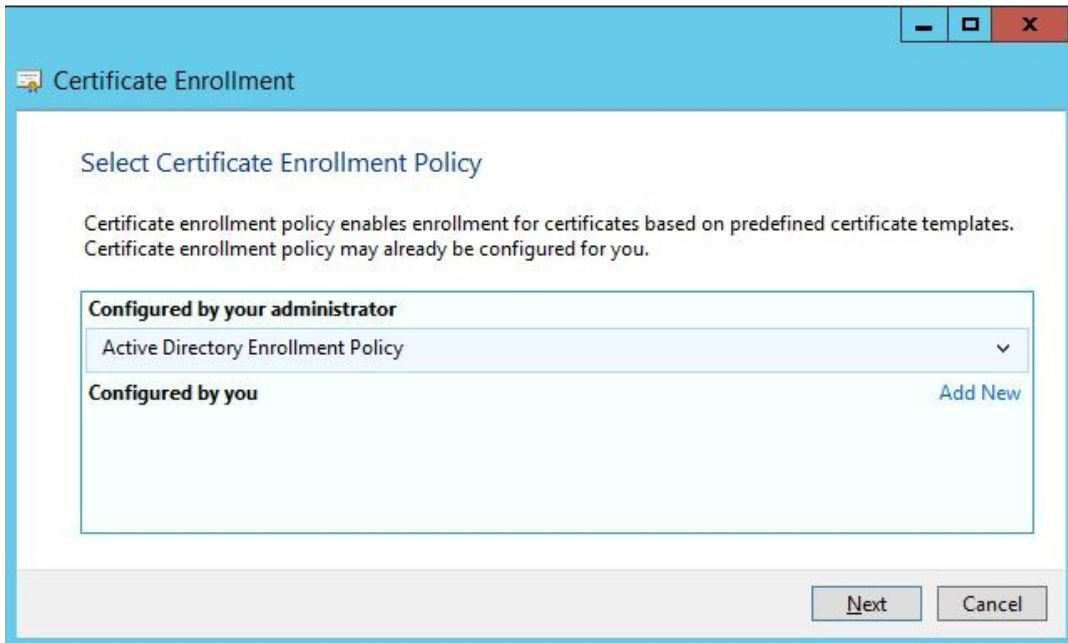
User principal name (UPN)

Service principal name (SPN)

\* Control is disabled due to [compatibility settings](#).

OK Cancel Apply Help





### Certificate Properties

General | Subject | Extensions | Private Key | Certification Authority | Signature

A friendly name and description will make it easier to identify and use a certificate.

Friendly name:  
DPM1

Description:

OK Cancel Apply

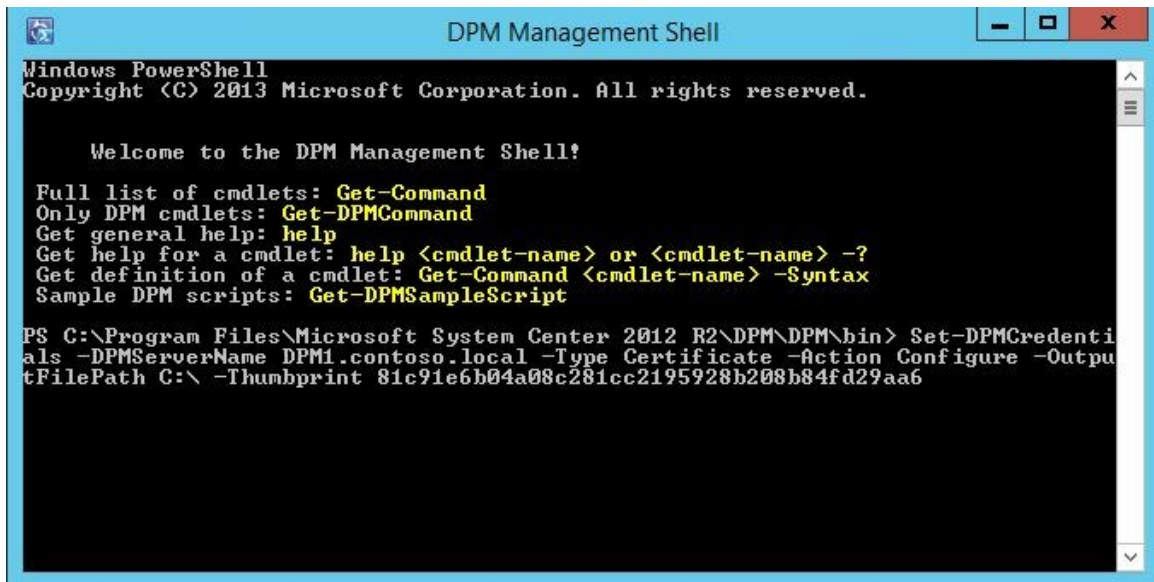
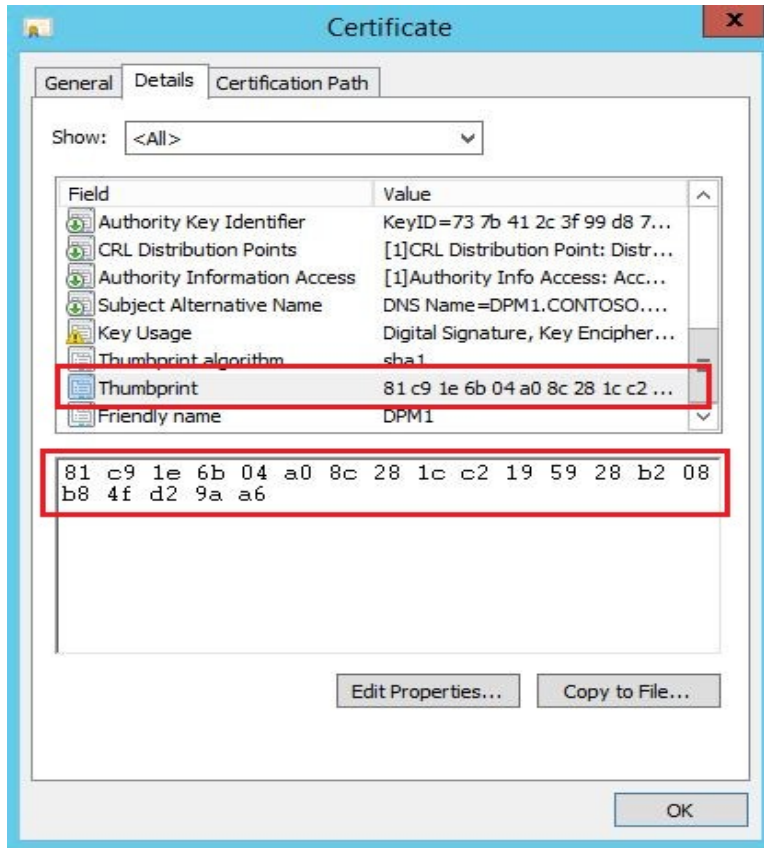
### Certificate Enrollment

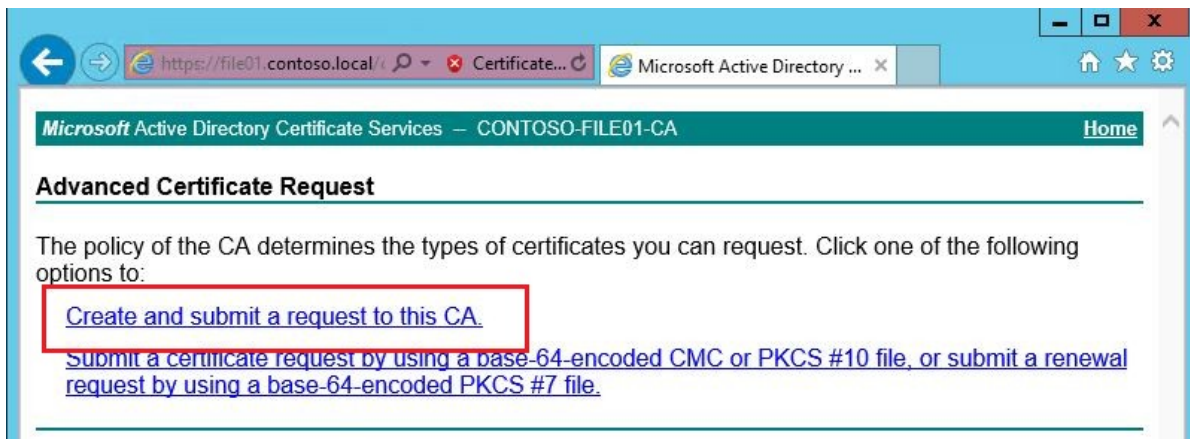
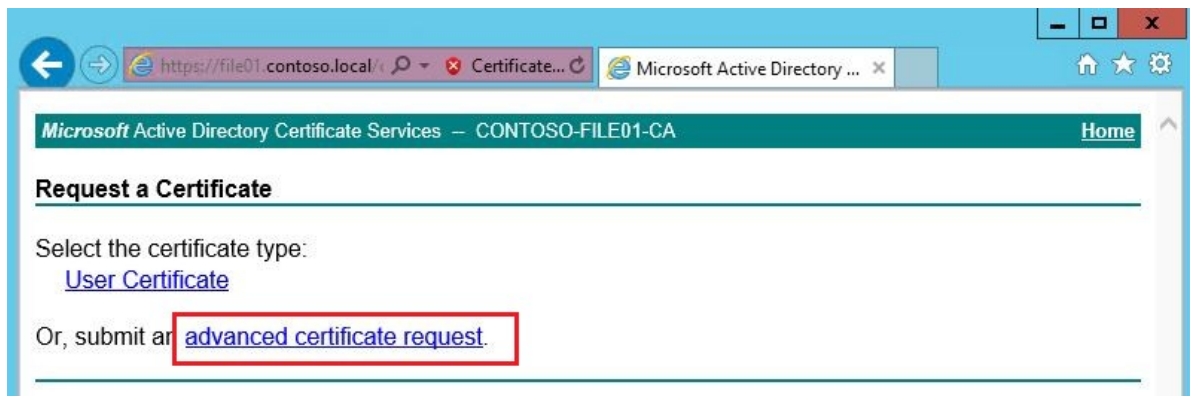
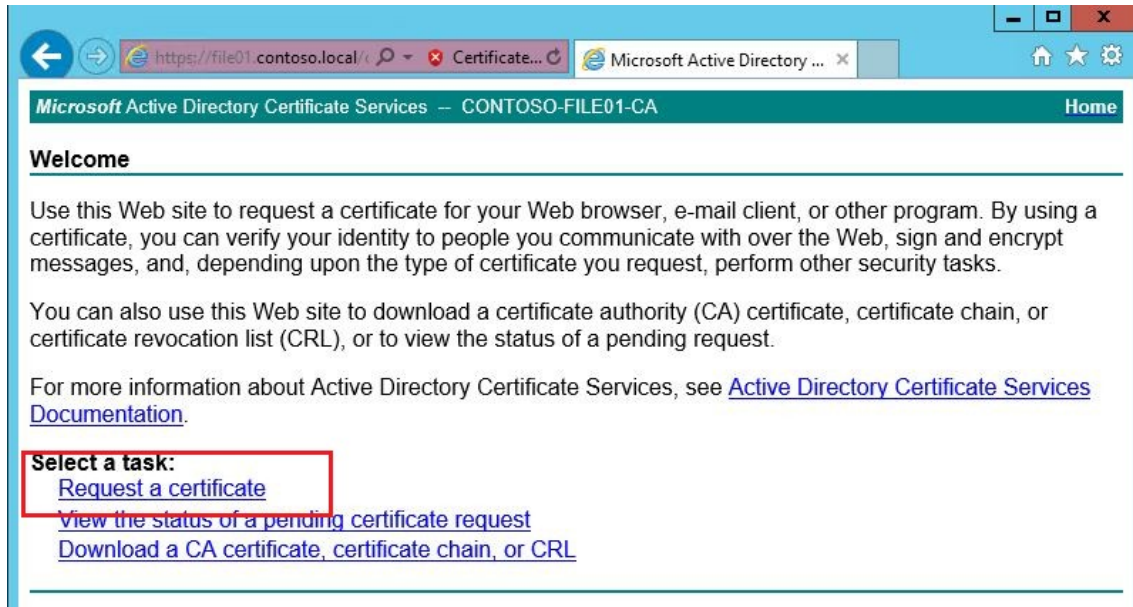
#### Certificate Installation Results

The following certificates have been enrolled and installed on this computer.

Active Directory Enrollment Policy		
<input checked="" type="checkbox"/> DPM CBA Template	✓ STATUS: Succeeded	Details

Finish







Microsoft Active Directory Certificate Services – CONTOSO-FILE01-CA Home

### Advanced Certificate Request

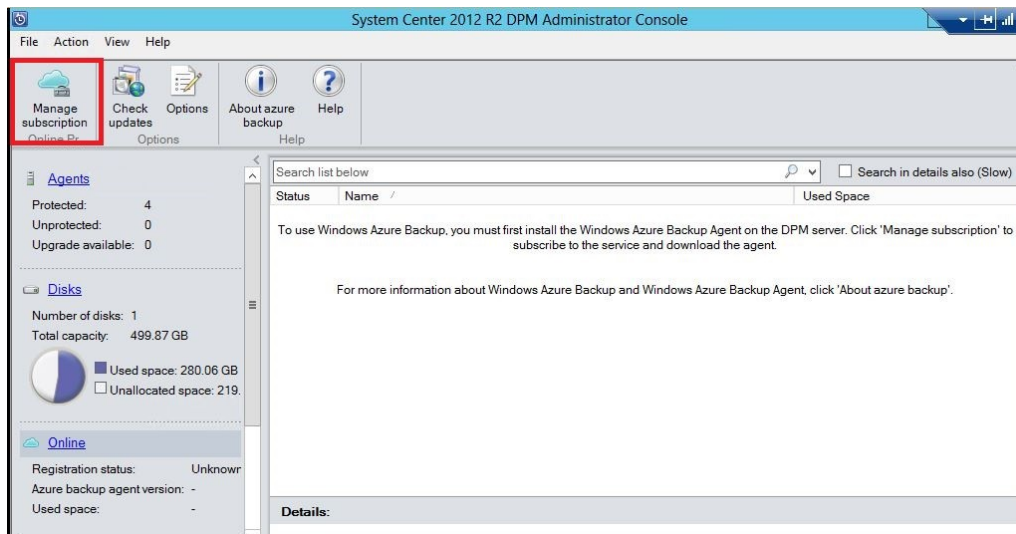
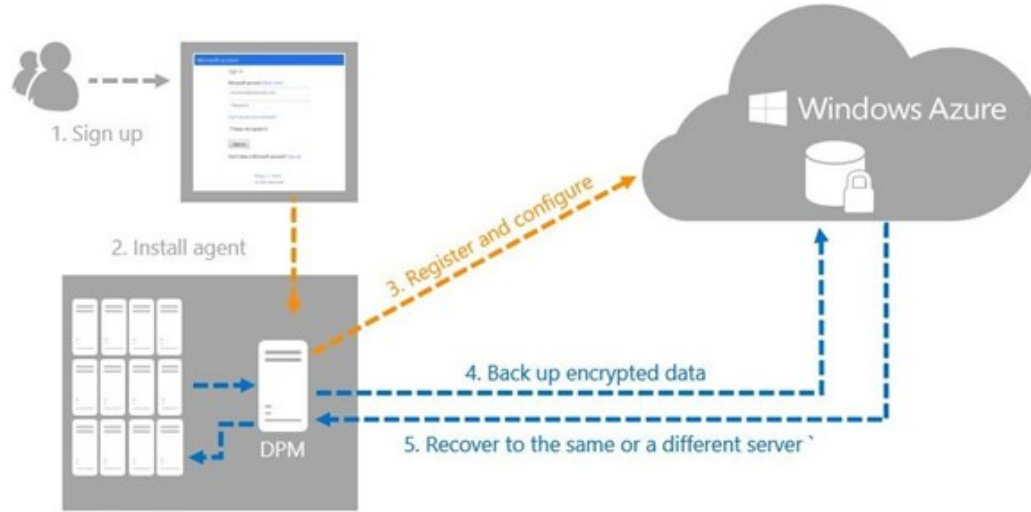
**Certificate Template:**  
DPM CBA Template

**Identifying Information For Offline Template:**  
Name: WG-SRV1  
E-mail:  
Company:  
Department:  
City:  
State:  
Country/Region:

**Key Options:**  
 Create new key set  Use existing key set  
CSP: Microsoft RSA SChannel Cryptographic Provider  
Key Usage:  Exchange  
Key Size: 2048 (Min: 2048, Max: 16384, common key sizes: 2048 4096 8192 16384)  
 Automatic key container name  User specified key container name  
 Mark keys as exportable  
 Enable strong private key protection

**Additional Options:**  
Request Format:  CMC  PKCS10  
Hash Algorithm: sha1  
*Only used to sign request.*

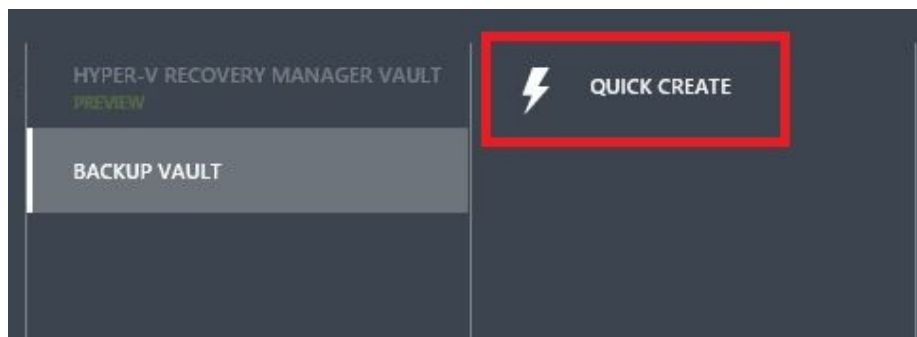
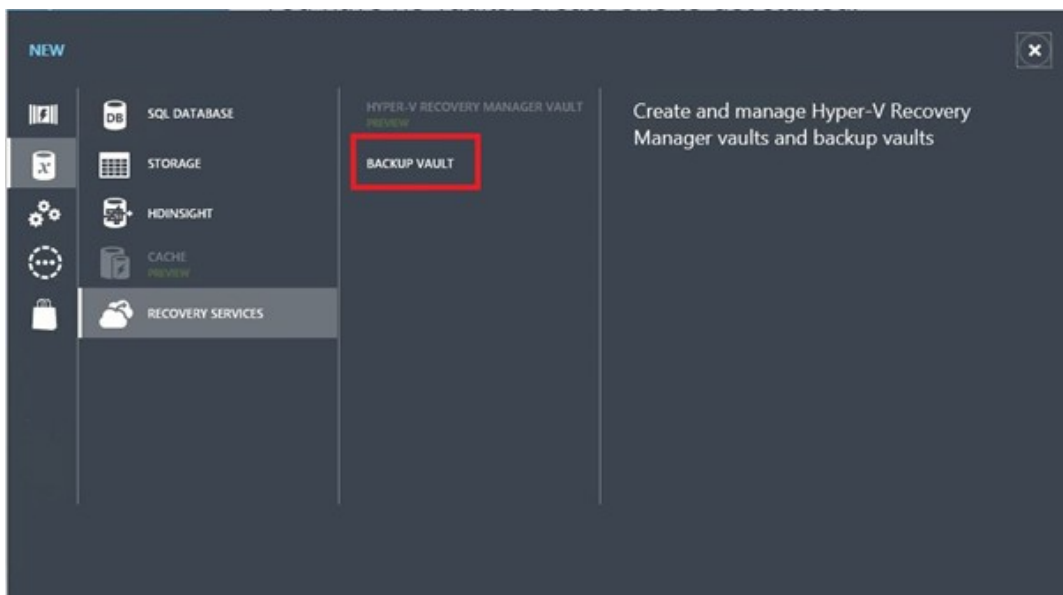
# Chapter 11

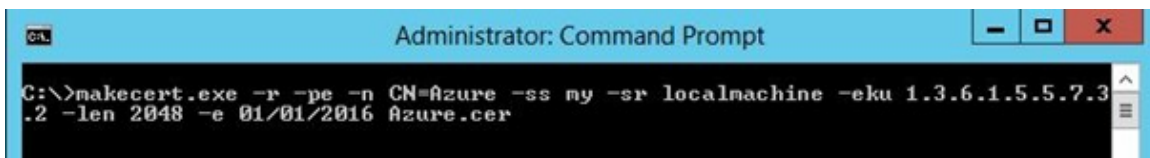
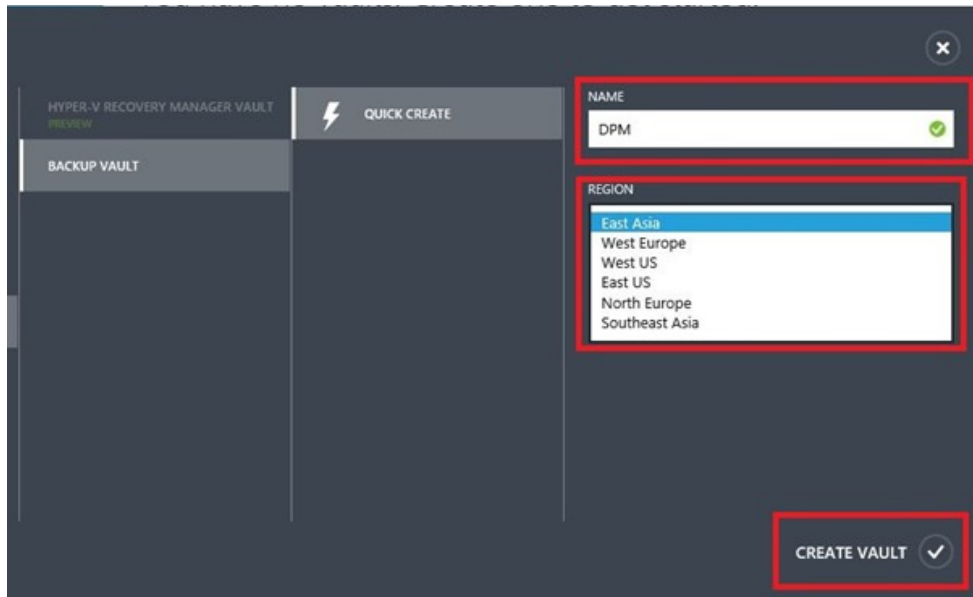


recovery services

You have no vaults. Create one to get started.

CREATE A NEW VAULT →





Windows Azure | CREDIT STATUS

dpm

DASHBOARD | PROTECTED ITEMS | SERVERS

Your backup vault was created.  
Follow these steps to get started.

Skip Quick Start the next time I visit

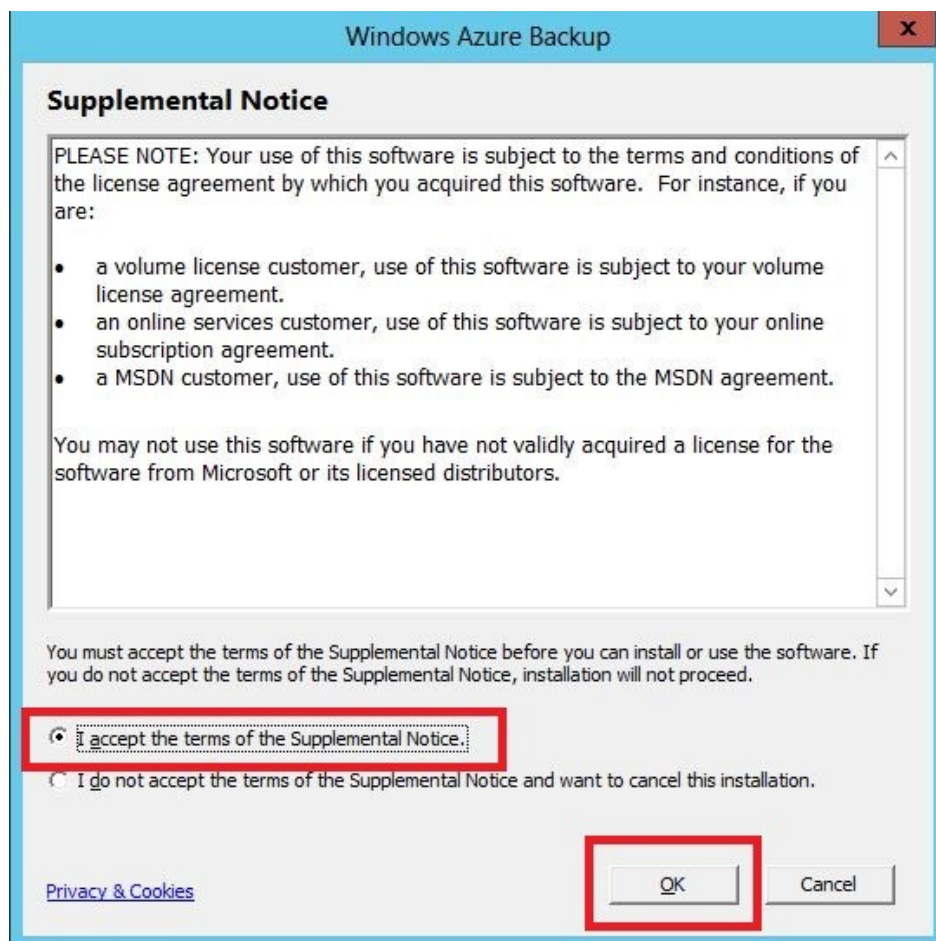
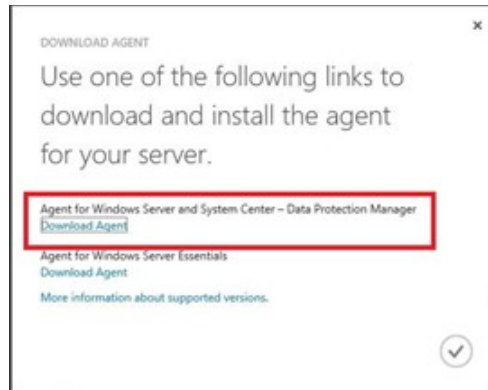
- 1 Upload your public certificate to the backup vault.  
[Acquire Certificate](#)  
[Manage Certificate](#)
- 2 Download the agent for your server and use it to register your server with the backup vault.  
[Download Agent](#)

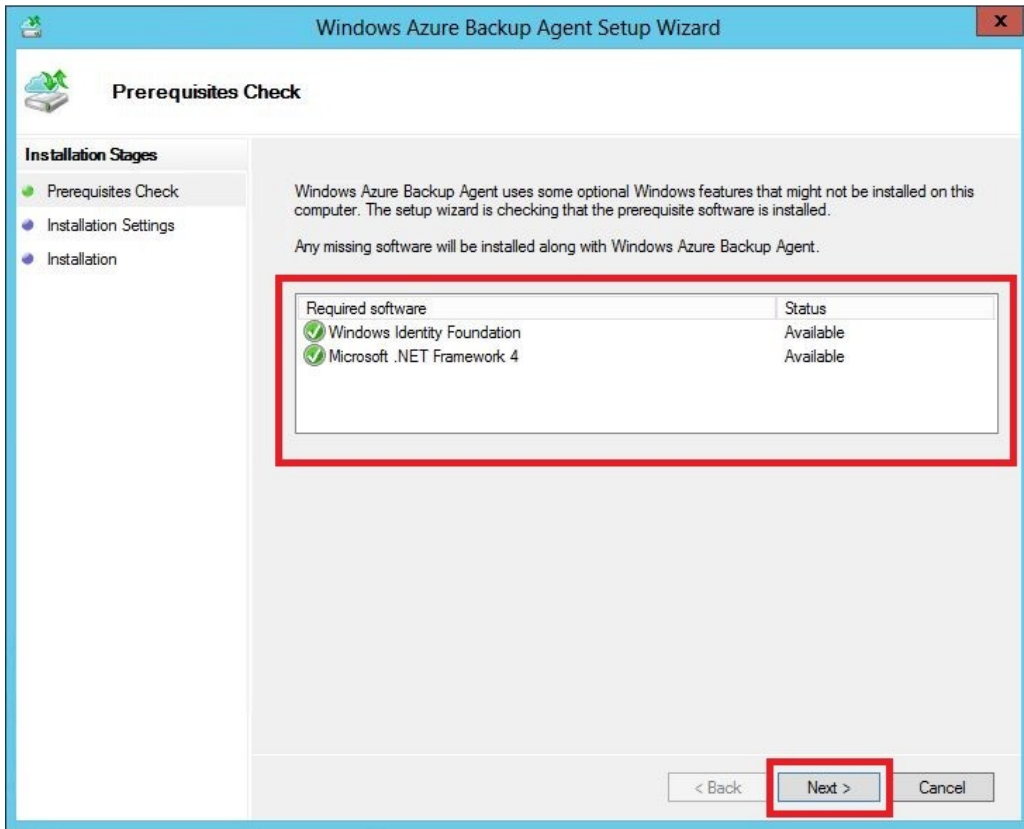
Manage Certificate

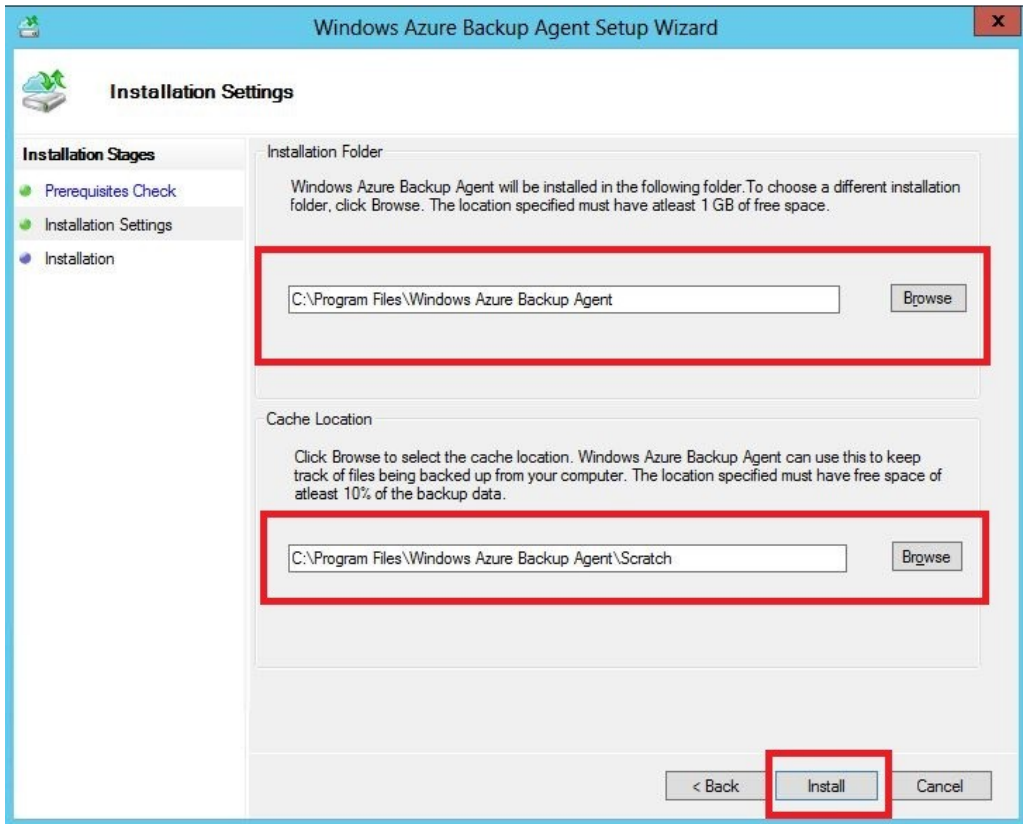
Add or update the certificate file (.cer) that contains a public key for the vault. The certificate is used to register servers with the vault.

CERTIFICATE FILE ?

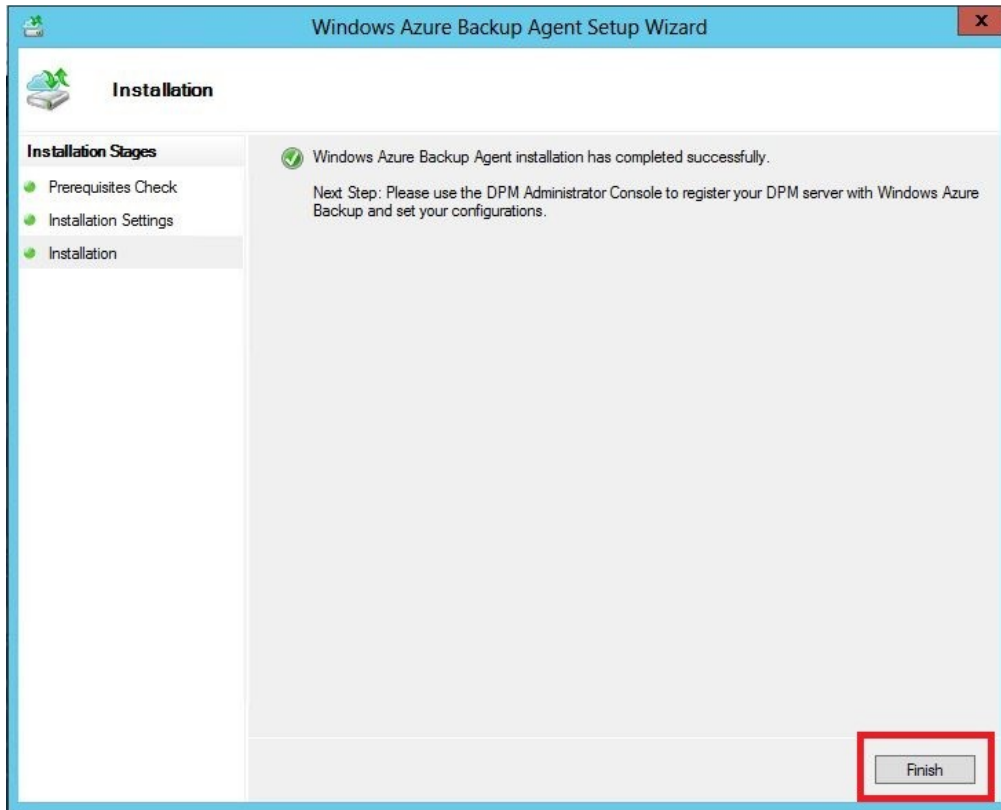
- 2 Download the agent for your server and use it to register your server with the backup vault.  
[Download Agent](#)











Manage subscription   **Register**   Check updates   Options

Online Protection   Options

**Agents**

Protected: 4  
Unprotected: 0  
Upgrade available: 0

**Disks**

Number of disks: 1  
Total capacity: 499.87 GB

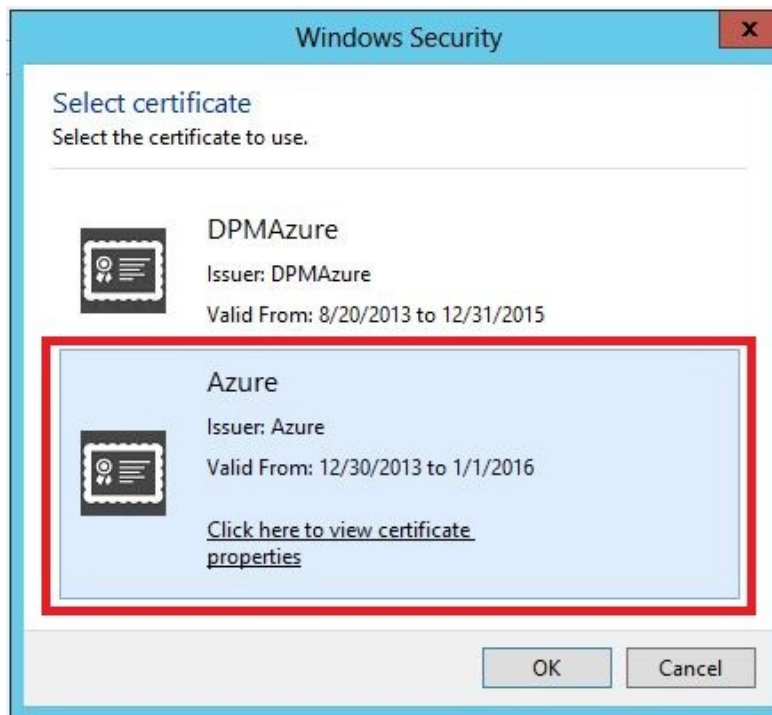
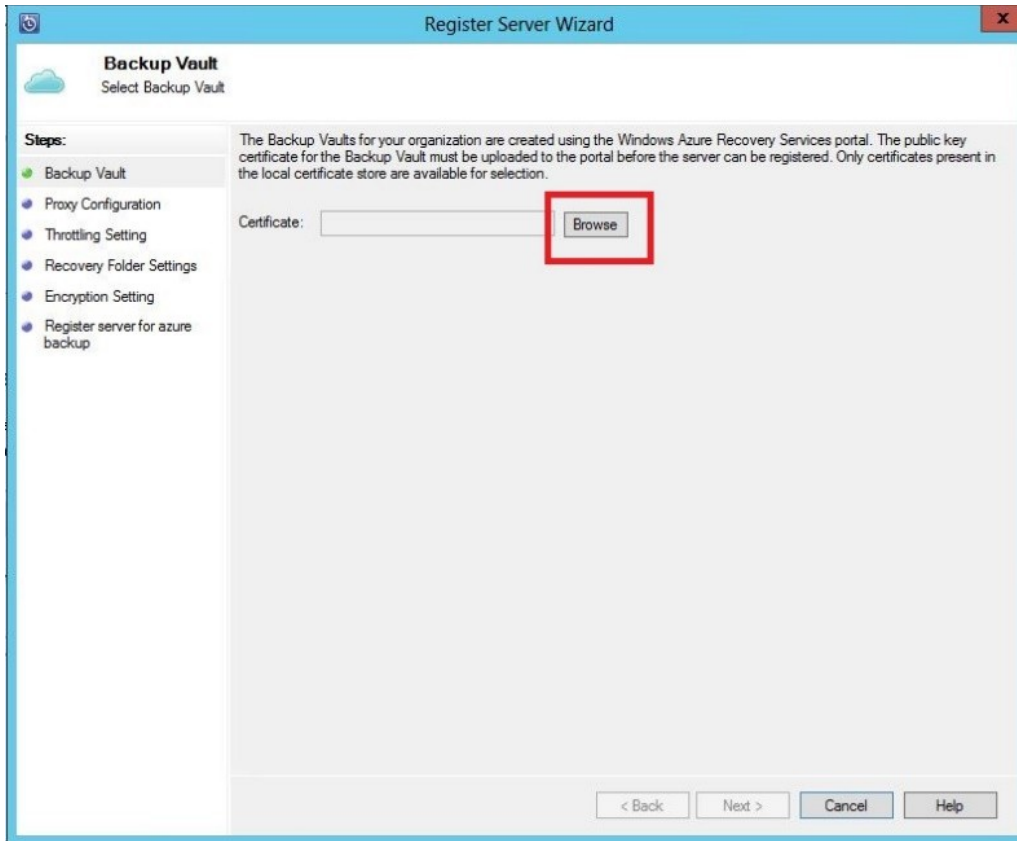
Used space: 280.06 GB  
Unallocated space: 219.

**Online**

Registration status: Unknown  
Azure backup agent version: 1.0.8236.  
Used space: -

Monitoring  
Protection  
Recovery  
Reporting

**Management**



Register Server Wizard

### Backup Vault

Select Backup Vault

**Steps:**

- Backup Vault
- Proxy Configuration
- Throttling Setting
- Recovery Folder Settings
- Encryption Setting
- Register server for azure backup

The Backup Vaults for your organization are created using the Windows Azure Recovery Services portal. The public key certificate for the Backup Vault must be uploaded to the portal before the server can be registered. Only certificates present in the local certificate store are available for selection.

Certificate:

Backup Vault:

Region: north europe

Subscription Identifier: 1ed3ebcf-cf16-487b-a391-faa566431387

< Back **Next >** Cancel Help

Register Server Wizard

### Proxy Configuration

Configure Proxy Settings

**Steps:**

- Backup Vault
- Proxy Configuration
- Throttling Setting
- Recovery Folder Settings
- Encryption Setting
- Register server for azure backup

Windows Azure Backup Agent can use the default settings configured for the server to connect to the internet or you can specify a different proxy server. These setting apply to azure backup only.

Use a proxy server for Windows Azure Backup

Address: http://

Port:

This proxy server requires authentication

Username:

Password:

< Back   **Next >**   Cancel   Help

Register Server Wizard

### Throttling Setting

Configure Throttling Settings

**Steps:**

- Backup Vault
- Proxy Configuration
- Throttling Setting
- Recovery Folder Settings
- Encryption Setting
- Register server for azure backup

Enable internet bandwidth usage throttling for backup operations

Work hours: 256.0 Kbps

Non-work hours: 1023.0 Mbps

---

Work hours: 9 AM 5 PM

Work days:  Sunday  Monday  Tuesday  Wednesday  Thursday  Friday  Saturday

< Back Next > Cancel Help

Register Server Wizard

### Recovery Folder Settings

Recovery Folder Settings

**Steps:**

- Backup Vault
- Proxy Configuration
- Throttling Setting
- Recovery Folder Settings**
- Encryption Setting
- Register server for azure backup

During recovery, backup data from the Windows Azure Backup needs to be temporarily downloaded to a local staging area before it is recovered to the final recovery destination. The staging folder is automatically cleaned up after recovery.

Enter a folder location with sufficient space to hold the recoverable items you anticipate to recover in parallel. You can estimate the space requirement (in GBs) by adding up the maximum size of those recoverable items that you anticipate recovering in parallel.

E:\Azure Restore

For example, if you want to recover up to 10 virtual machine backups (from online protection) in parallel and the size of each VM backup can be up to 100GB, select a folder which can hold 1000GB of data.

[More Information](#)

< Back

Register Server Wizard

### Encryption Setting

Encryption Setting

**Steps:**

- Backup Vault
- Proxy Configuration
- Throttling Setting
- Recovery Folder Settings
- Encryption Setting**
- Register server for azure backup

Enter a passphrase to encrypt all backups from this server. Note that your existing backups will still be accessible after this change.


- Passphrase must be 16 characters long.
- Use strong password guidelines.
- Do not use recognizable words or phrases.

Enter passphrase (minimum 16 characters)

.....

Confirm passphrase

.....

 Please make sure to keep a copy of your passphrase in a safe location. If the passphrase is lost or forgotten, customer support will not be able to assist you in recovering access to your backed up data.

< Back  Cancel Help



Create New Protection Group

### Select Data Protection Method

DPM can help provide disk, online and tape based data protection.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Choose consistency check options
- Summary
- Status

Protection group name:

Protection method

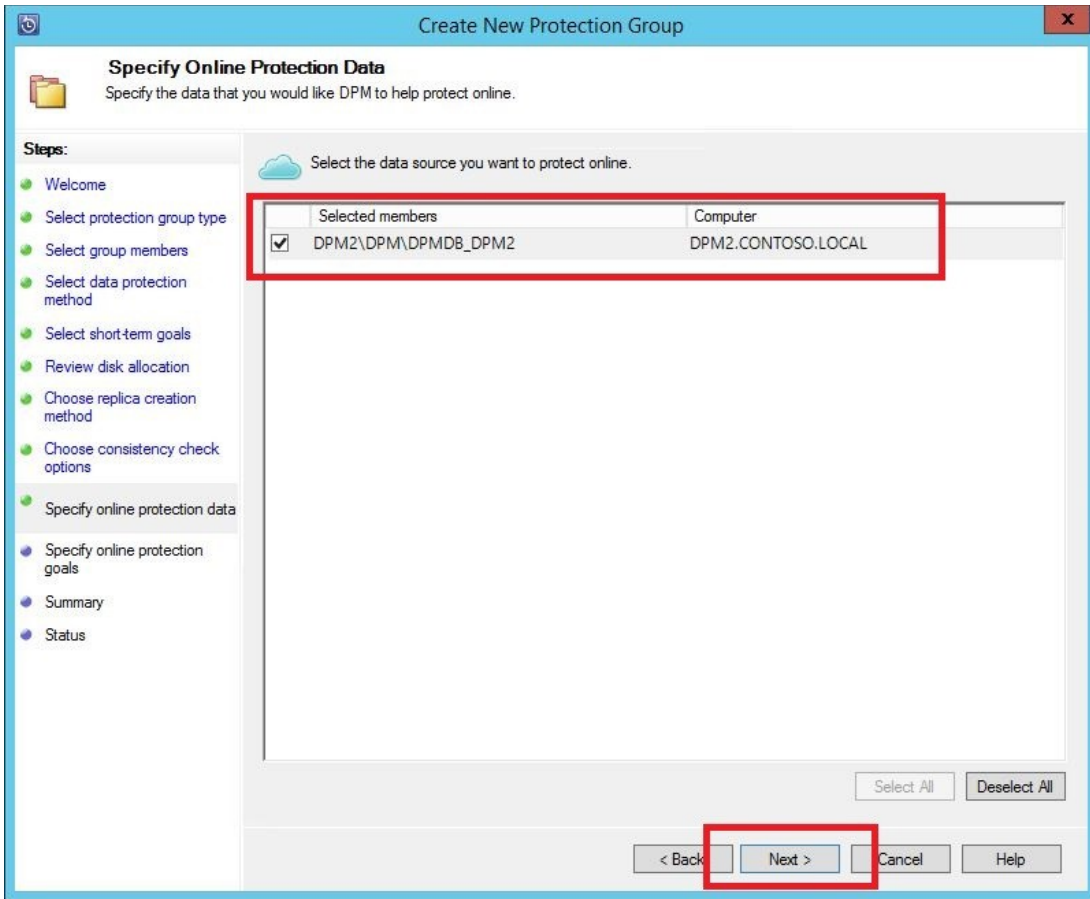
Select your protection method.

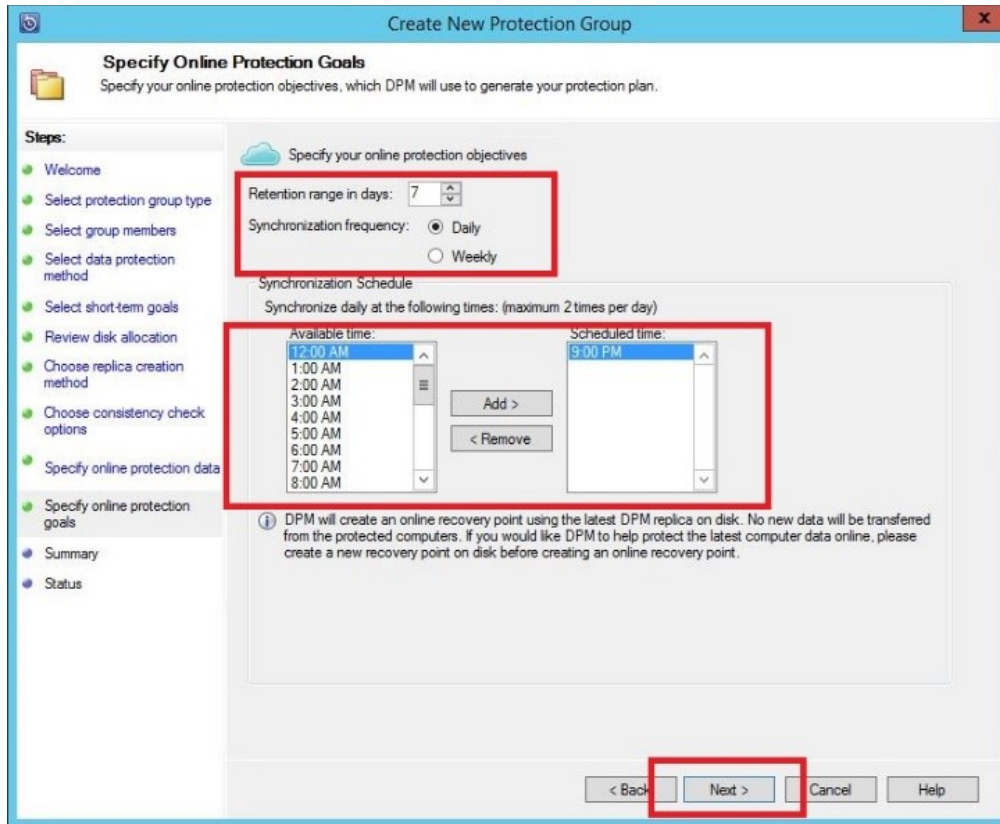
I want short-term protection using:

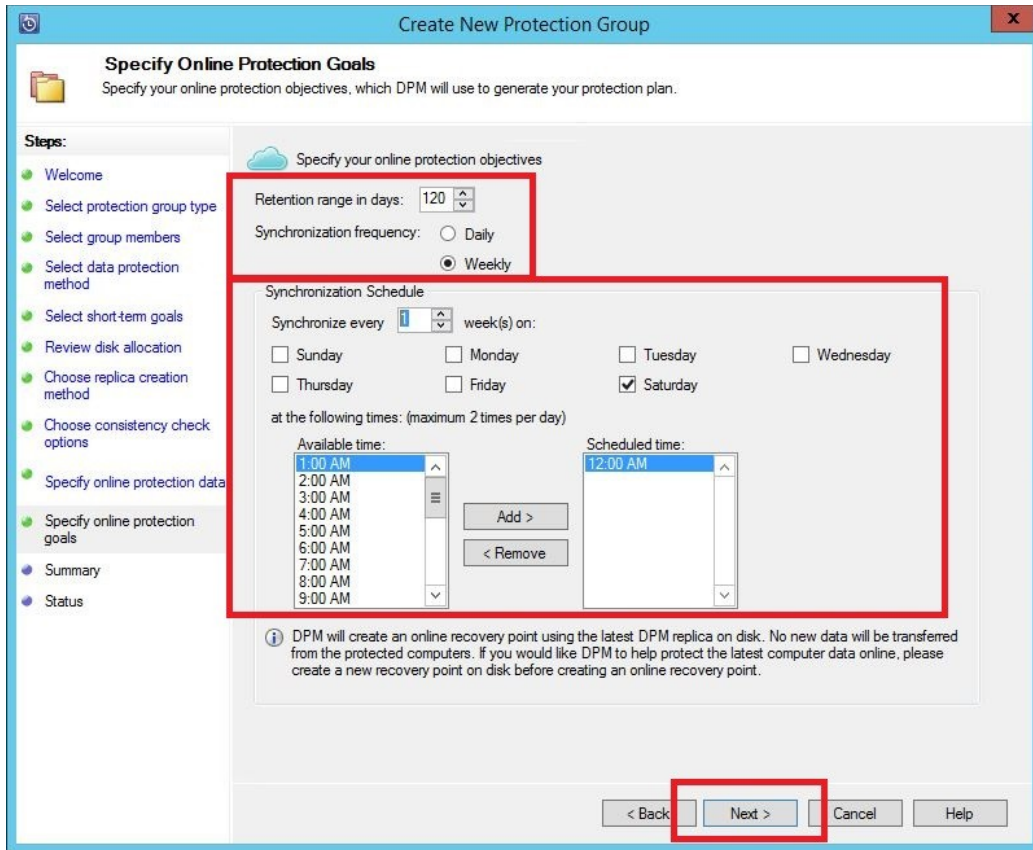
I want online protection

I want long-term protection using tape  
Protection using tape options are disabled as no tape libraries were detected.

< Back   **Next >**   Cancel   Help







The screenshot shows the Windows Backup and Restore Center interface. On the left, there is a navigation pane with sections for 'Monitoring', 'Protection', and 'Recovery'. The 'Protection' section is active, displaying a list of protection groups. The main pane shows a tree view of protection groups, with 'C:\Azure' selected. A context menu is open over 'C:\Azure', listing various actions such as 'Perform consistency check...', 'Create recovery point...', 'Stop protection of member...', 'Remove inactive protection...', 'Switch disaster protection', 'Modify disk allocation...', 'Resume disk backups...', 'Resume azure backups...', 'Resume tape backups...', and 'Recovery point status...'. Below the tree view, the 'Details' for 'C:\Azure' are shown, including its status (OK), replica path, and recovery points.

Protection Group Member	Type	Protection Status	Online Protection
Protection Group: Client Protection (Total members: 2)			
Protection Group: GOLD File (2 RP/d 08:00 16:00 / 15 min SYNC / AZURE 22:00) (Total members: 1)			
Computer: SCSQL.CONTOSO.local			
C:\Azure	Folder	OK	
Protection Group: GOLD SQL DPMDB (Total members: 1)			
Computer: SCDPM.CONTOSO.local			
Protection Group: SILVER File (1RP/d 08:00) (Total member			
Computer: SCDPM.CONTOSO.local			
Protection Group: SQL Databases (Total members: 1)			
Computer: SCSQL.CONTOSO.local			

**Details: C:\Azure**

Status: OK

Replica path: [Click to view details](#)

Latest recovery point: 1/7/2014 8:00:08 AM

Oldest recovery point: 12/18/2013 8:00:41 AM

Total recovery points: 16

The screenshot shows the 'Create recovery point' dialog box. The 'Selected:' field is 'C:\' and the 'Member type:' is 'Volume'. The 'Create recovery point for:' dropdown menu is set to 'Online protection'. Below this, there is a section for 'Recovery point creation options' with icons for a server, a disk, and a cloud. A text box explains that DPM will create an online recovery point using the latest DPM replica on disk, and that no new data will be transferred from the protected computers. The 'OK' button is highlighted with a red box.

**Create recovery point**

Selected: C:\

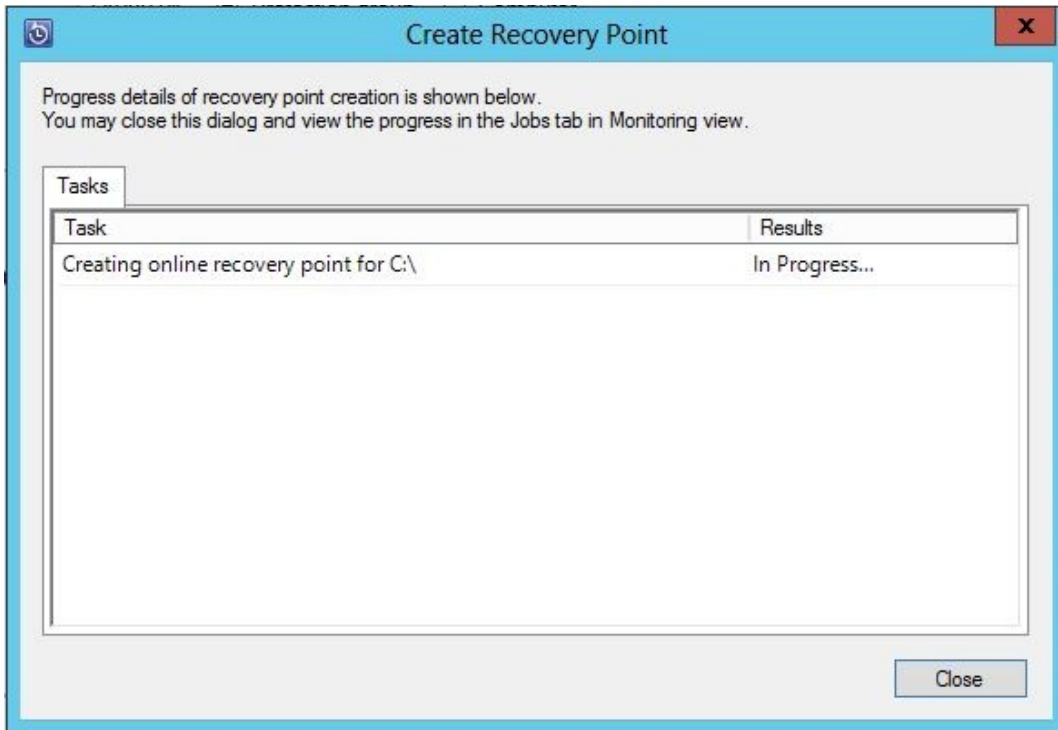
Member type: Volume

Create recovery point for: Online protection

Recovery point creation options

DPM will create an online recovery point using the latest DPM replica on disk. No new data will be transferred from the protected computers. If you would like DPM to help protect the latest computer data online, please create a new recovery point on disk before creating an online recovery point.

OK Cancel Help



Source	Computer	Protection Gro...	Type	Start Time	Time ...	Data Tr...
<b>In progress</b> (Total jobs: 1)						
C:\	scsql.contoso.local	GOLD File (2 RP/d...	Online recovery point	1/7/2014 1:46:42 P...	00:04:04	45.35 MB

**Browse**

Filter servers

- DC
- PC1
- PC2
- SCDPM
- SCSQL
  - All DPM Protected Data
  - All Protected SQL Instances
  - All Protected Volumes
  - C:\

**Search**

- Search Recovery Points
  - Files and folders
  - Exchange mailboxes
  - SharePoint
- Monitoring
- Protection
- Recovery**
- Reporting
- Management

**Recovery points for: C:\**

Available recovery points are indicated in bold on the calendar.

Select the date from the calendar and the time from the drop down list for the recovery points that you want. Click recover in the Actions pane to open the Recovery Wizard.

Recovery date: January 07 2014

Recovery time: 1:45 PM

Recover from: Online

Path: C:\

Search list below

Recoverable Item	Last Modified	Size
Azure	8/20/2	-

Recover...

**Recovery Wizard**

**Review Recovery Selection**

Review the information for the items that you chose to recover.

**Steps:**

- Review recovery selection
- Select recovery type
- Specify recovery options
- Summary
- Recovery status

Review your recovery selections.

Recovery point: 1/7/2014 1:45:07 PM

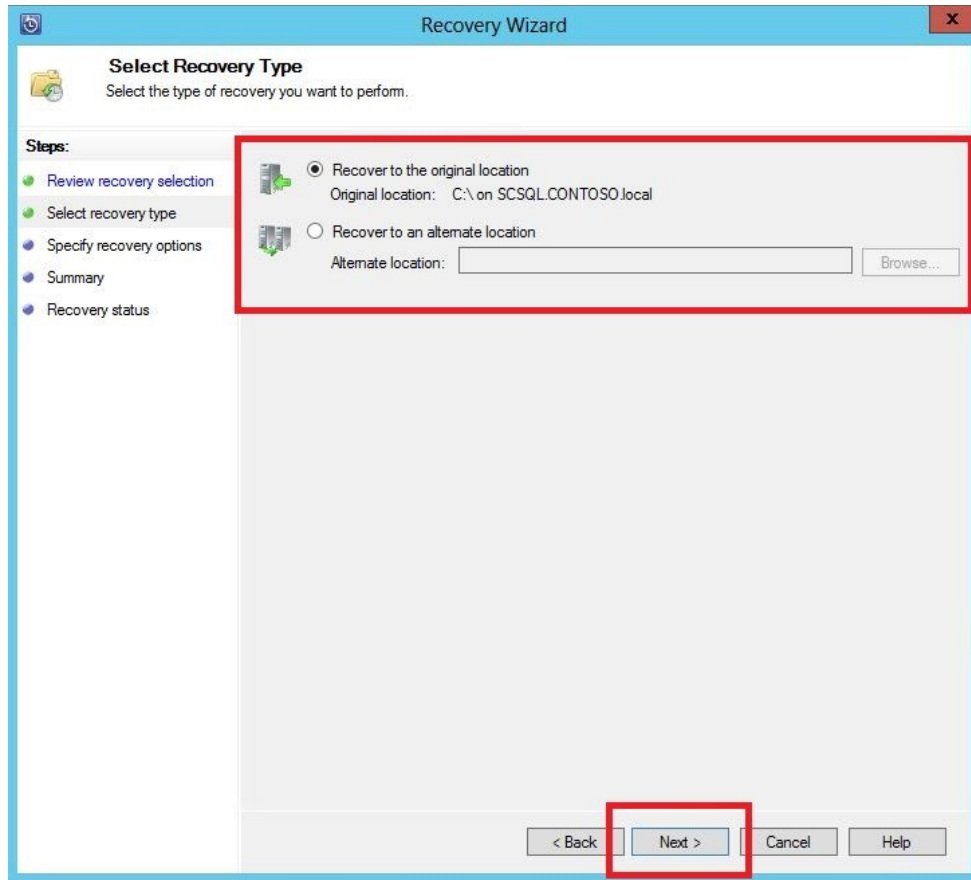
Recover from: Online

Item details

Recovery items:	Name	Size
	Azure	-

Recovery source: C:\ on SCSQL.CONTOSO.local

< Back Next > Cancel Help





Recovery Wizard

### Specify Recovery Options

Specify the options to apply to the recovery.

**Steps:**

- Review recovery selection
- Select recovery type
- Specify recovery options**
- Summary
- Recovery status

**Existing version recovery behavior**

Create copy    Skip    Overwrite

**Restore security**

Apply security settings of the destination computer  
 Apply the security settings of the recovery point version

**Network bandwidth usage throttling**

Status: Enabled - 512 Kbps 9 AM to 6 PM | 9999 Mbps 6 PM to 9 AM [Modify...](#)

**SAN Recovery**

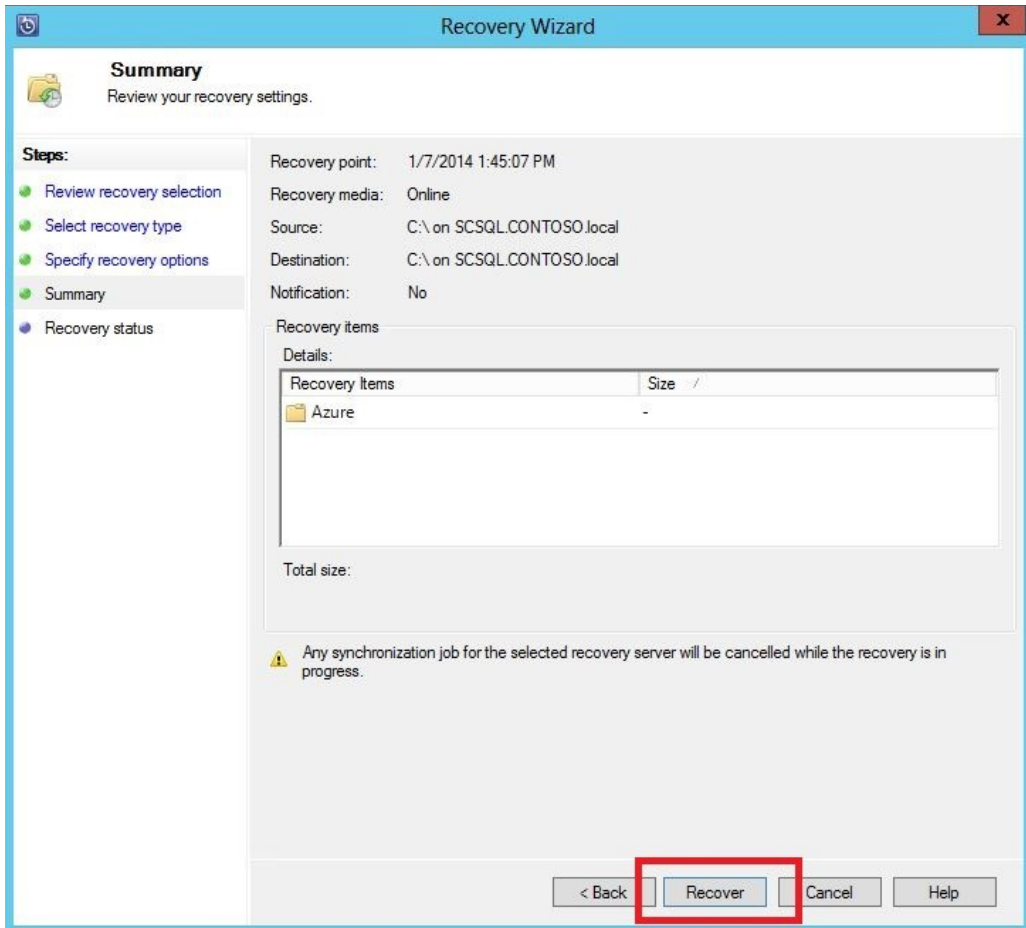
Enable SAN based recovery using hardware snapshots  
Click on [Help](#) to learn about the prerequisite steps

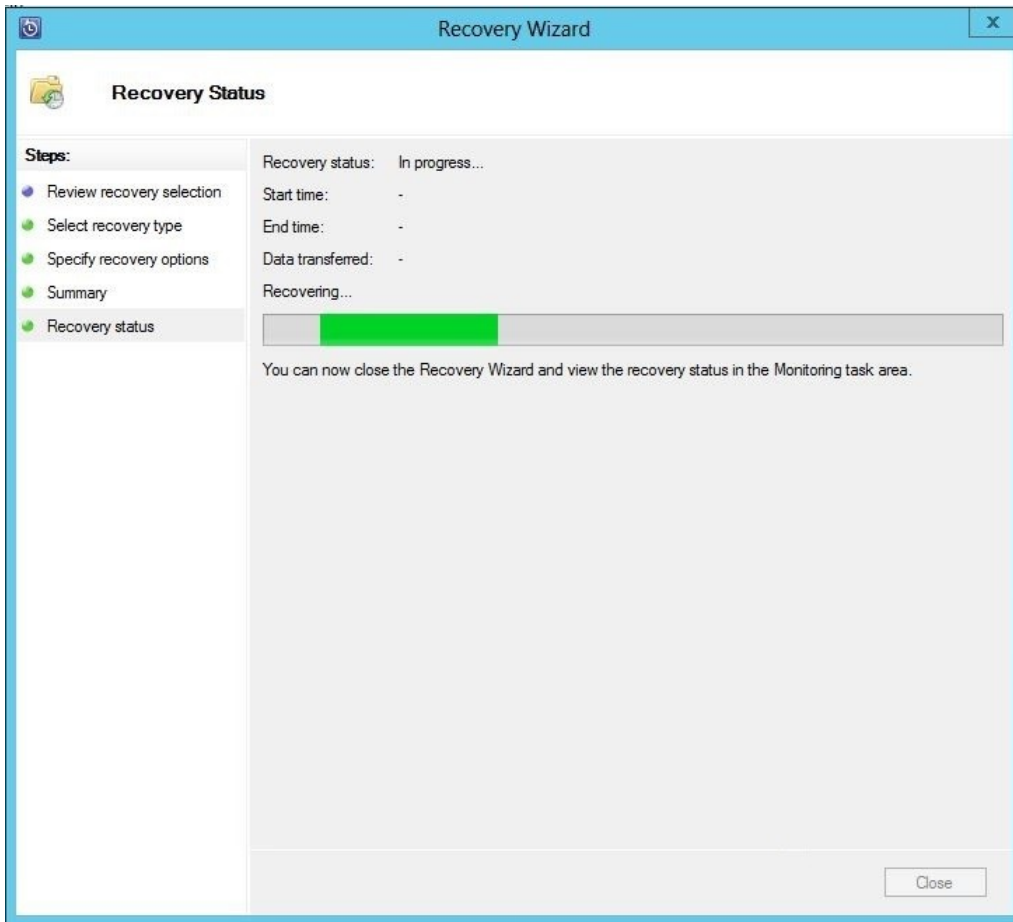
**Notification**

Send an e-mail when this recovery completes

Recipients:  [Help](#)  
Separate e-mail addresses with comma.  
Example: Kim@Contoso.com, Terry@Adventure-works.com

< Back   **Next >**   Cancel   Help





Source	Computer	Protection Gro...	Type	Start Time	Time ...	Data Tr...
<b>In progress (Total jobs: 2)</b>						
C:\	scdpm.contoso.local	-	Online recovery	1/7/2014 2:19:53 P...	00:00:08	0 MB
C:\	scsql.contoso.local	-	Recovery from staging...	1/7/2014 2:19:52 P...	-	-

Group by:  Protection group  Computer  Severity

Search list below    Search in details also (Slow)

Occurred Since	Affected Area	Computer	Protection Gr...	Alert
<b>Information</b> (Total alerts: 1)				
1/7/2014 2:21:39 PM	C:\	scsql.contoso.l...	GOLD File (2 RP/d...	Recovery success

---

**Details:** C:\

**Affected area:** C:\

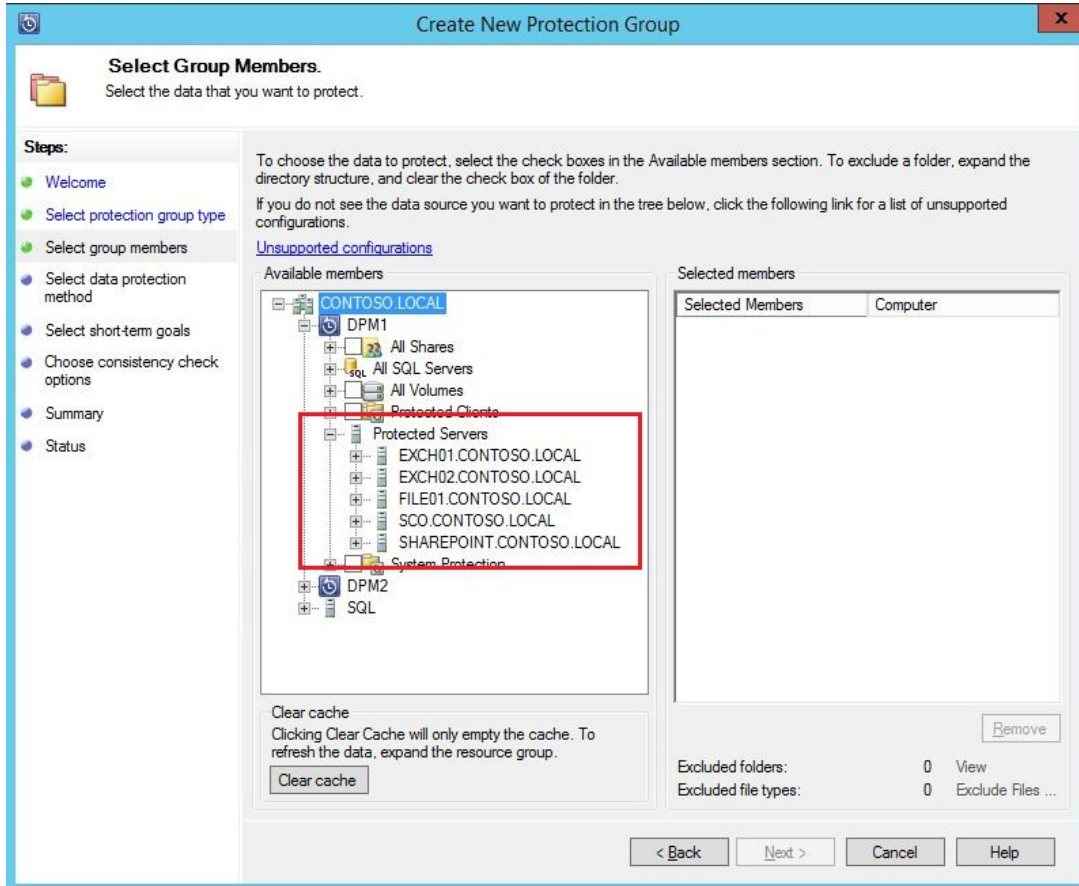
**Occurred since:** 1/7/2014 2:21:39 PM

**Description:** The recovery jobs for Volume C:\ that started at Tuesday, January 7, 2014 2:19:52 PM, with the destination of SCSQL.CONTOSO.local, have successfully completed. (ID 3112)  
[More information](#)

**Recommended:** No action required.

**Resolution:** DPM automatically changes this alert's status to inactive 3 days after it is issued. To dismiss the alert, click below  
[Inactivate](#)

# Chapter 12



**Create New Protection Group**

---

**Select Data Protection Method**  
DPM can help provide disk, online and tape based data protection.


**Steps:**


- Welcome
- Select protection group type
- Select group members
- **Select data protection method**
- Select short-term goals
- Review disk allocation
- Specify long-term goals
- Select library and tape details
- Choose replica creation method
- Choose consistency check options
- Summary
- Status


Protection group name:

Protection method

Select your protection method.

  I want short-term protection using:

  I want online protection  
Configure online protection from the Management page to enable this option.

  I want long-term protection using tape

Create New Protection Group

### Specify Short-Term Goals

DPM will create a protection plan using your short-term recovery goals.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals**
- Review disk allocation
- Specify long-term goals
- Select library and tape details
- Choose replica creation method
- Choose consistency check options
- Summary
- Status

Specify your short-term recovery goals for disk-based protection.

Retention range: 5 days

Synchronization frequency:  Every 24 hour(s) [Modify synchronization start time](#)

**File recovery points**  
Specify recovery points for file members.

Recovery points for files: 6:00 PM Everyday [Modify...](#)

**Application recovery points**

*i* The recovery points for application replicas on the secondary DPM server use the express full backup schedule and synchronization frequency configured for the data source on the primary DPM server. For more information, click Help.

< Back   Next >   Cancel   Help

**Create New Protection Group**

### Review Disk Allocation

Review the storage pool disk space allocated for this protection group.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation**
- Specify long-term goals
- Select library and tape details
- Choose replica creation method
- Choose consistency check options
- Summary
- Status

Review the disk space allocated for new members of this protection group.


Disk space allocation for new members

Total data size:	193.61 MB
Disk space allocated in DPM:	17.15 GB
Average disk space allocated in protected computers:	300.00 MB <a href="#">Modify...</a>

Co-locate data in DPM Storage Pool  
Co-locating data enables DPM to protect more number of data sources per replica volume. Only certain type of data can be co-located. Click Help to learn more.

Automatically grow the volumes  
Automatically grow the allocated volumes when more disk space is required to continue protecting the items in the protection group for the specified retention range. This option is not applicable for custom volumes.

**Storage pool details**  
Details of all disk space currently allocated and free disk space that remains in the DPM storage pool.



<input checked="" type="checkbox"/> Total disk space allocated:	2.03 MB
<input type="checkbox"/> Disk space remaining:	499.87 GB

< Back   Next >   Cancel   Help



**Create New Protection Group**

### Select Long-Term Goals

DPM will create a protection plan using your long-term recovery goals.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Specify long-term goals
- Select library and tape details
- Choose replica creation method
- Choose consistency check options
- Summary
- Status

**Specify your long-term recovery goals for tape-based protection. All long-term tape-based protection uses full backups.**

**Recovery goals**  
The retention range and backup frequency that you select will determine the recovery point schedule.  
Click Customize to modify the recovery point schedule or the default tape labels.

Retention range: 3 Months

Frequency of backup: Weekly

Recovery points:  
1 recovery point every 1 week(s) for the last 4 week(s)  
1 recovery point every 1 month(s) for the last 3 month(s)

Restore Defaults Customize

**Backup schedule**  
Based on the specified backup frequency, the tape library will perform a full backup to the tapes according to the following schedule  
Click the Modify button to choose the backup days in case of daily tape backups.

Weekly: Sat 11:00 PM  
Monthly: Day 1, 11:00 PM Modify...

< Back Next > Cancel Help

Create New Protection Group

### Select Library and Tape Details

Specify details about tape and the library that you would like to use for backup.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Specify long-term goals
- Select library and tape details
- Choose replica creation method
- Choose consistency check options
- Summary
- Status

Specify details about the library and tape that you want to use for tape backups.

**Library details**

Library: Firestreamer Media Changer

Drives allocated: 1

Copy library: Firestreamer Media Changer

Check backup for data integrity (time consuming operation)

**Tape options for long-term protection**

Compress data

Encrypt data  
A valid DPM encryption certificate must be available on this DPM server. For more information click Help.

Do not compress or encrypt data.

**i** You can optimize tape usage for this protection group using 'Optimize Tape Usage' on the Libraries Management page.

< Back   Next >   Cancel   Help

Windows logo icon | Create New Protection Group | Close button (X)

### Choose Replica Creation Method

To protect the data you have selected, you must initially copy the selected data to the Data Protection Manager computer.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Specify long-term goals
- Select library and tape details
- Choose replica creation method**
- Choose consistency check options
- Summary
- Status

DPM must create a replica to copy the selected data to the DPM server. How do you want to create the replica?

Replica in DPM Server

- Automatically over the network
  - Now
  - Later
  - 11/ 7/2014
  - 7:56:57 PM
- Manually  
You must transfer the data using removable media.  
For large amounts of data, this operation may be faster than replica creation across the network.

< Back | Next > | Cancel | Help

**Create New Protection Group**

### Consistency check options

Select how you want to run consistency check on inconsistent replicas.

**Steps:**

- Welcome
- Select protection group type
- Select group members
- Select data protection method
- Select short-term goals
- Review disk allocation
- Specify long-term goals
- Select library and tape details
- Choose replica creation method
- Choose consistency check options**
- Summary
- Status

Running a consistency check on a replica that has become inconsistent allows DPM to continue protecting the data source. You can start a consistency check manually or allow DPM to run it automatically. Use the methods below to customize how DPM can run a consistency check.

Run a consistency check if a replica becomes inconsistent

Select this method if you want DPM to automatically run a consistency check when it finds a replica in an inconsistent state. This method may require DPM to use additional CPU and disk resources.

Run a daily consistency check according to the following schedule

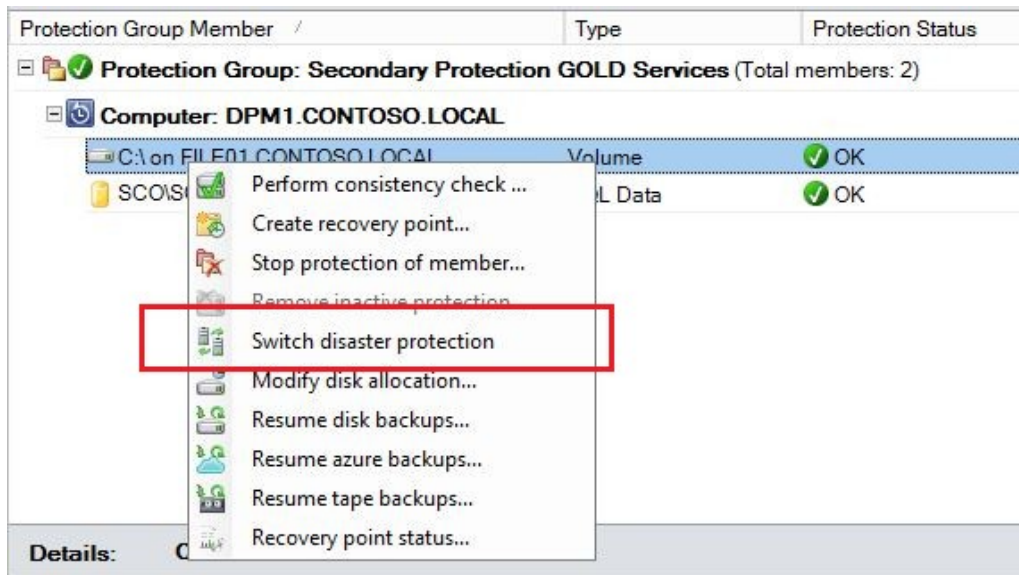
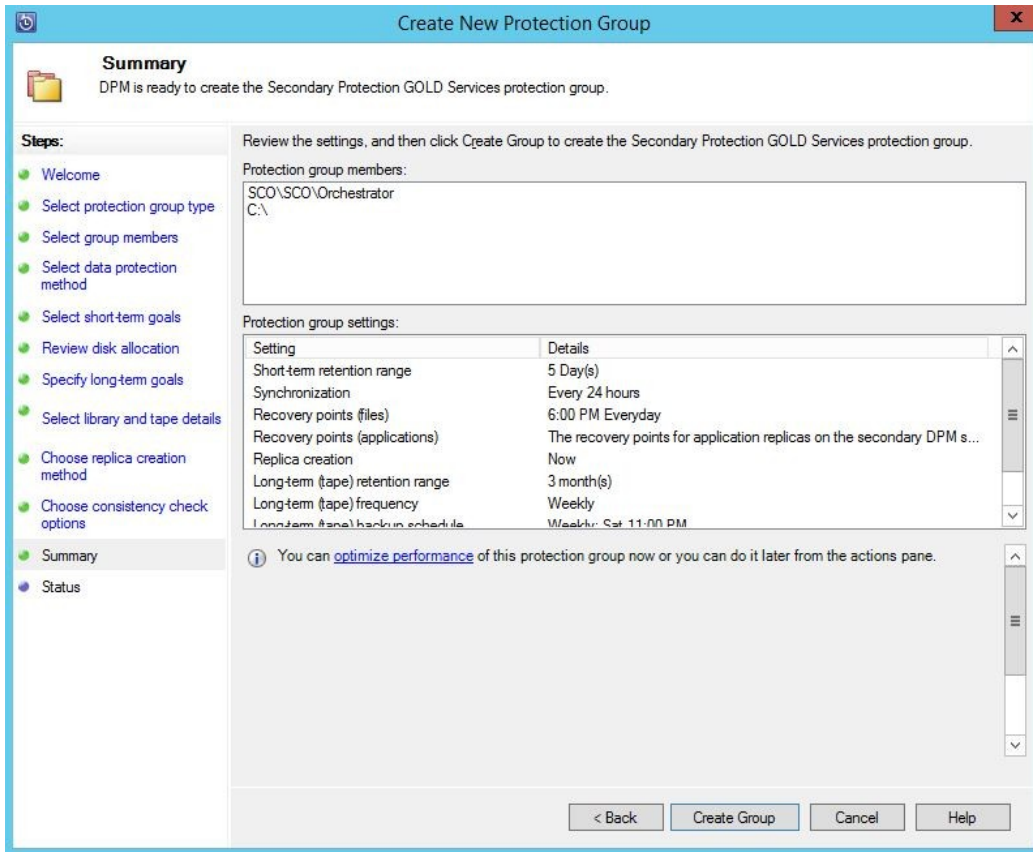
Select this method if you want DPM to check for inconsistent replicas at a specified time every day and then run a consistency check if it finds one. This method may require additional CPU and disk resources during the specified hours.

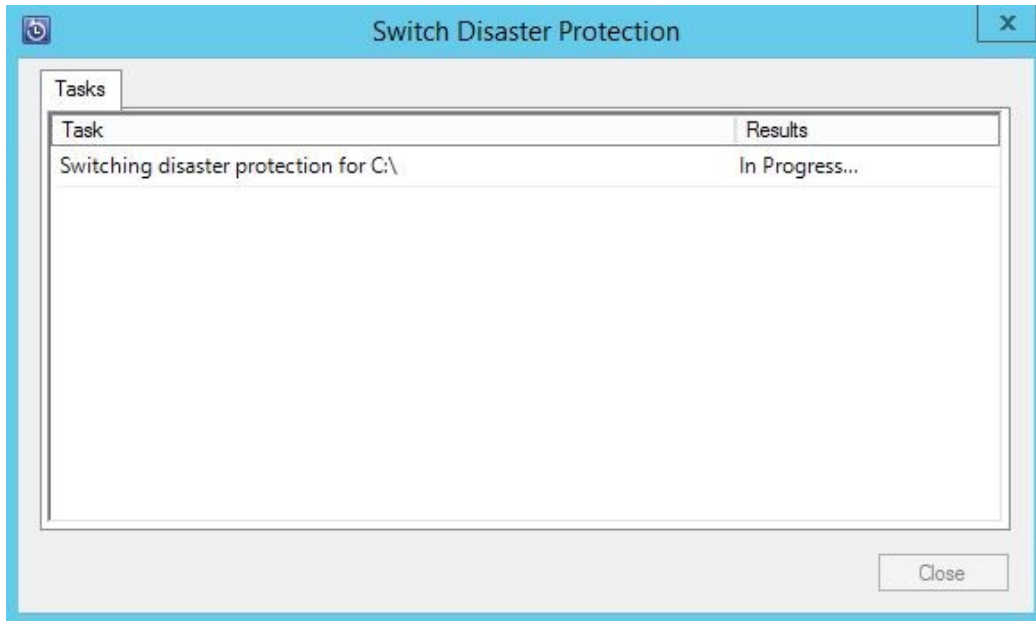
Start time: 12:00 AM

Maximum duration: 480 hours



Cannot exceed 480 hours (20 days).











< Back   Next >   Cancel   Help



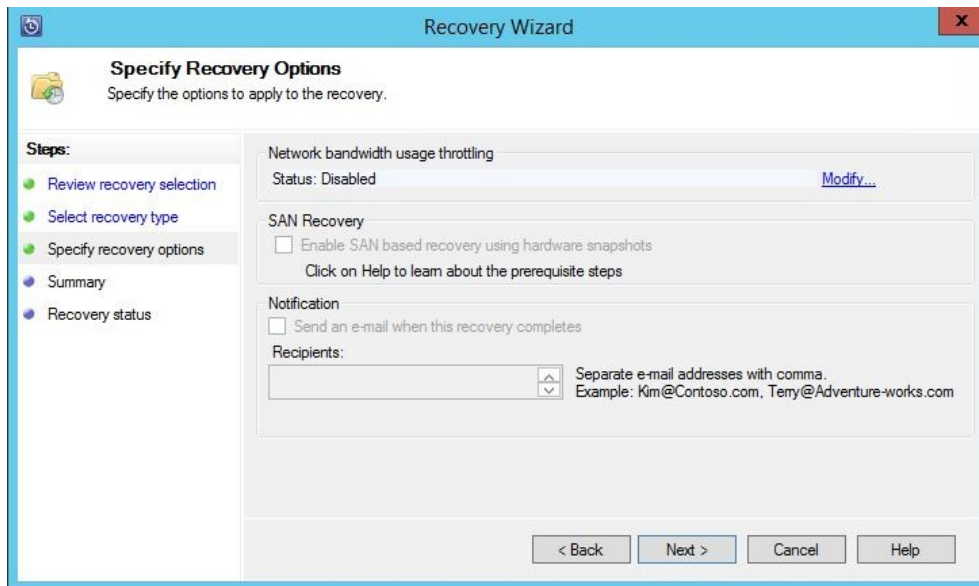
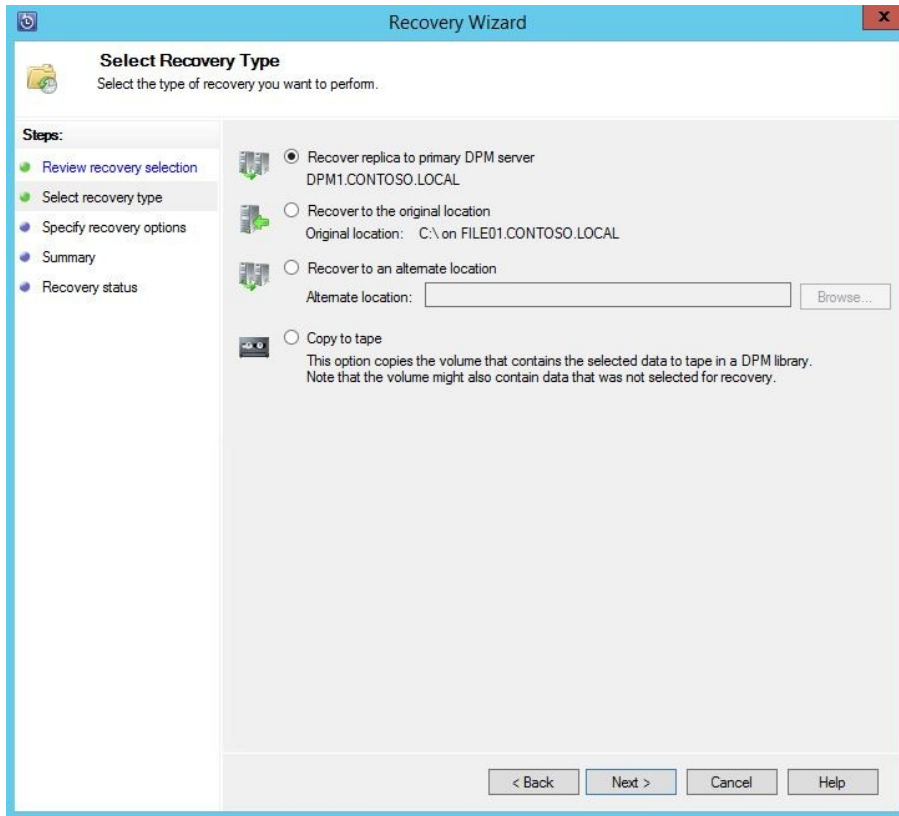


Group by:  Protection group  Computer

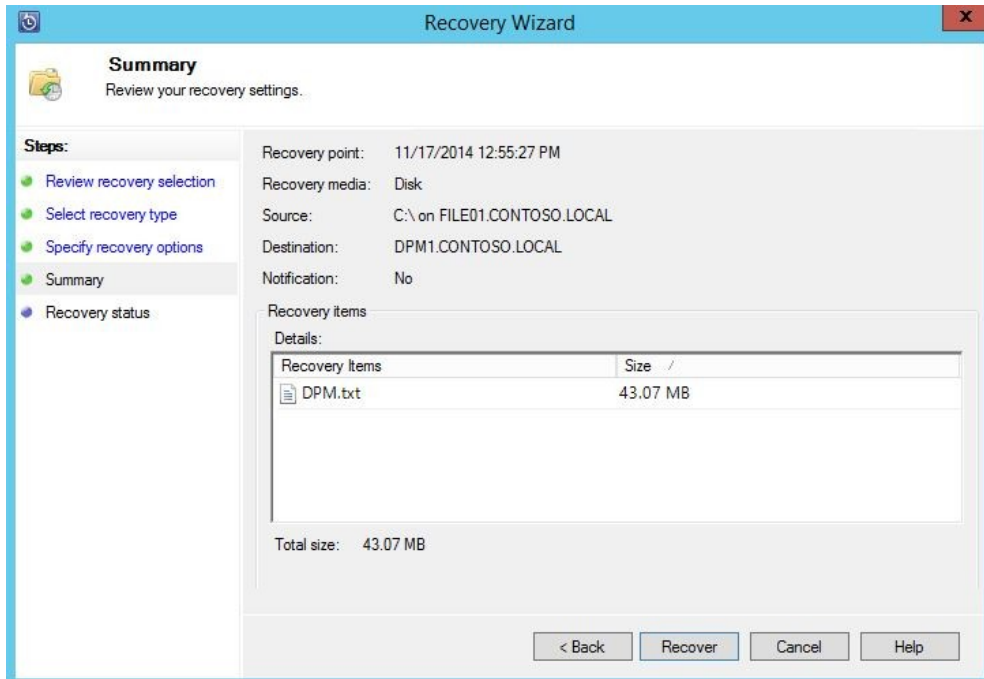
Search list below  

Protection Group Member	Type	Protection Status
  <b>Protection Group: Secondary Protection GOLD Services</b> (Total members: 3)		
 <b>Computer: DPM1.CONTOSO.LOCAL</b>		
 SCO\SCO\Orchestrator on SCO.CONTOS...	SQL Data	 OK
 <b>Computer: FILE01.CONTOSO.LOCAL(Protection-Switched)</b>		
 \\FILE01.CONTOSO.LOCAL\Data	Share	 OK
 C:\inetpub	Folder	 OK

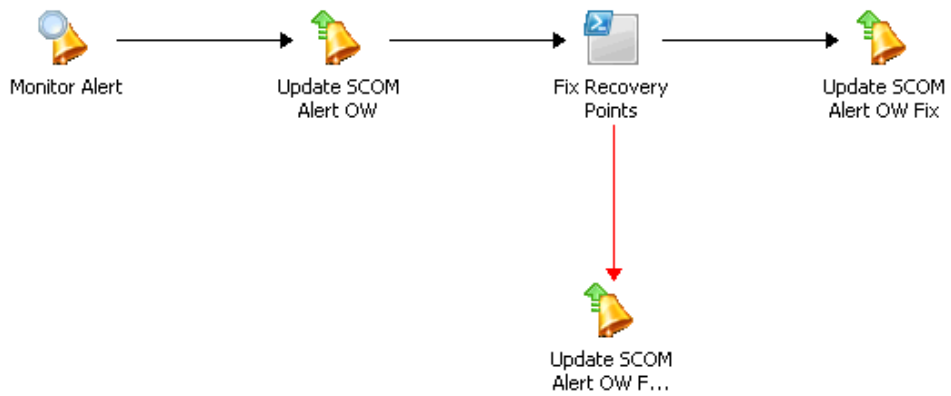
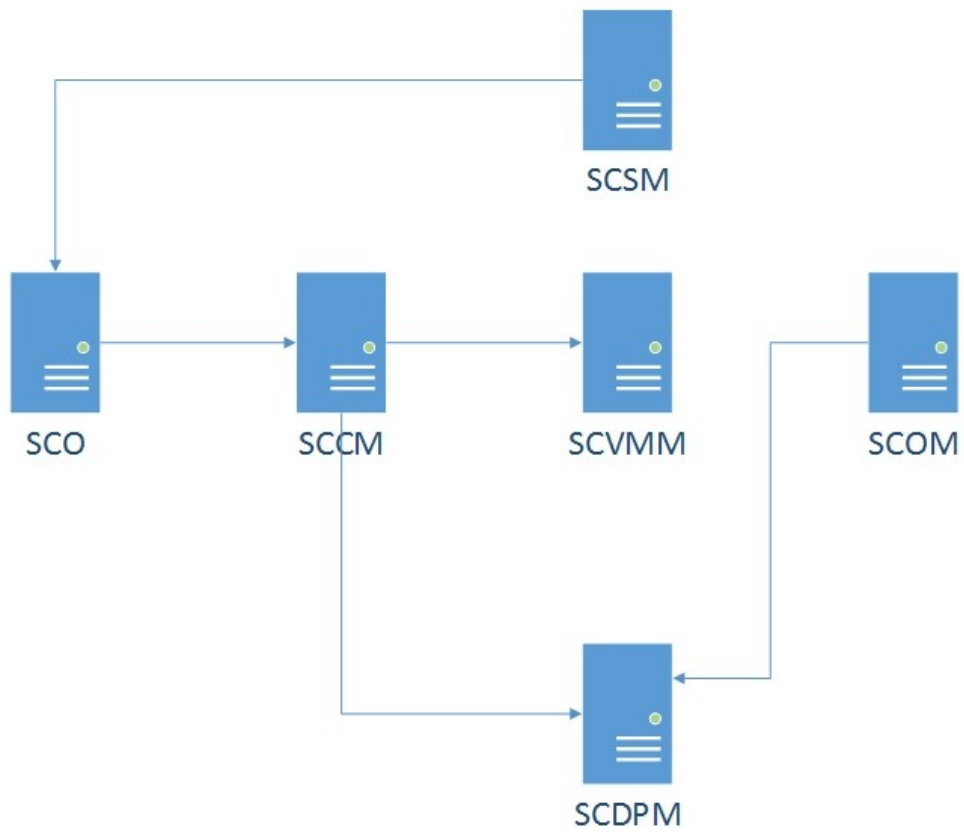








Chapter 14



**Edit Configuration** [X]

Name:

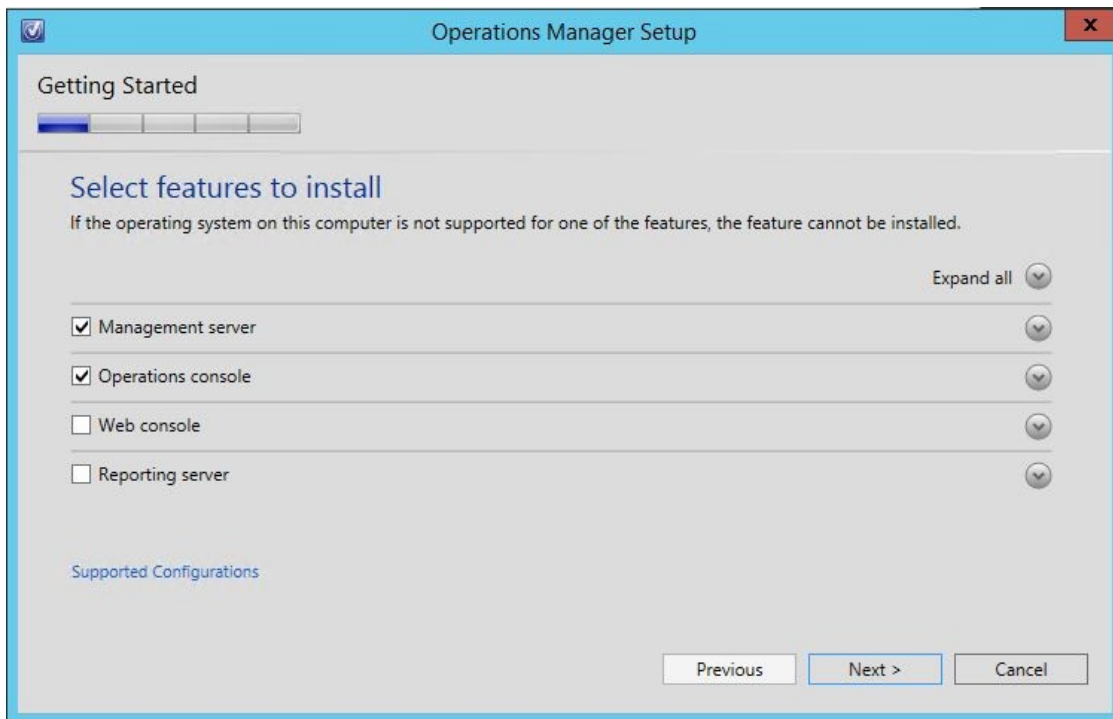
Type:  ...

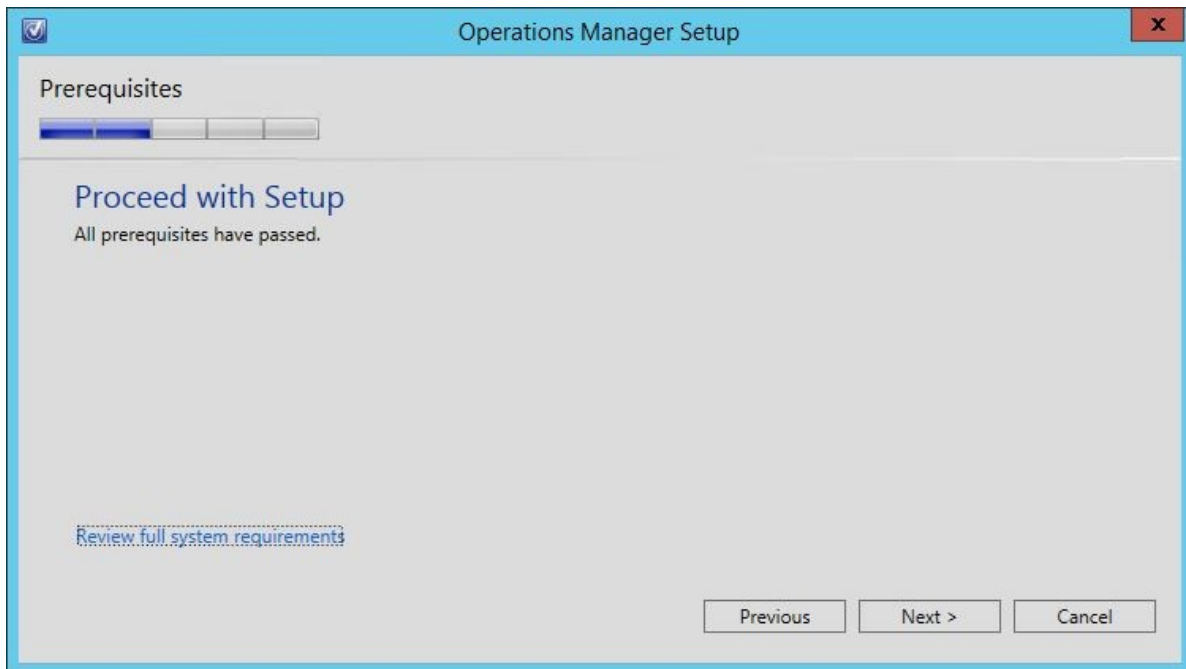
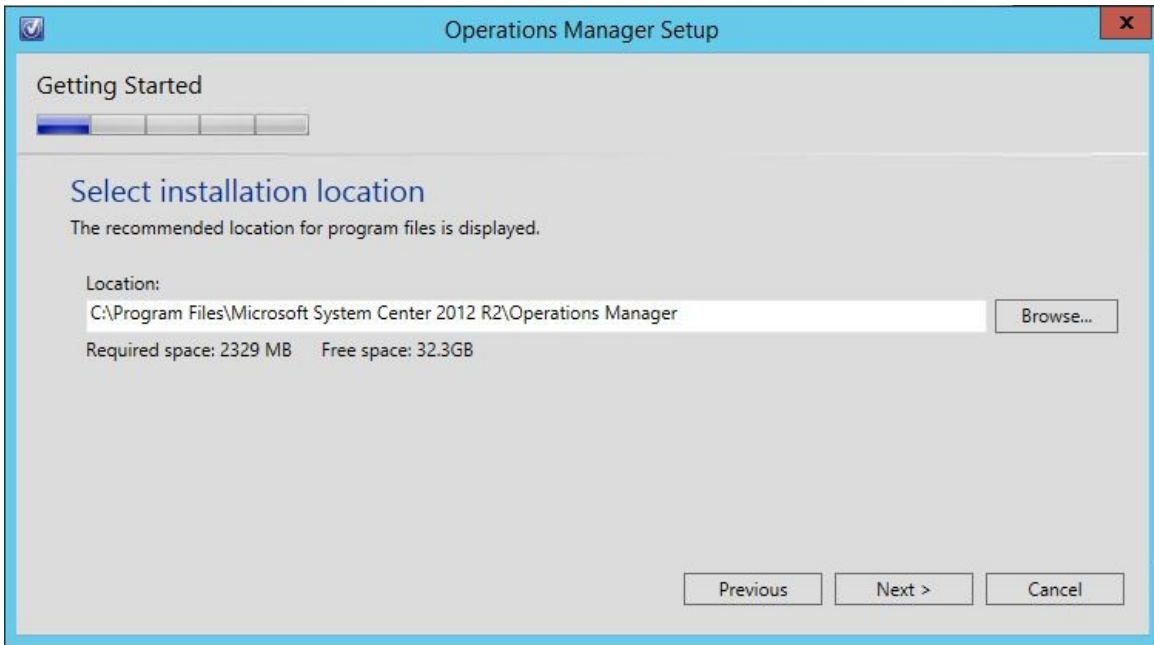
Properties

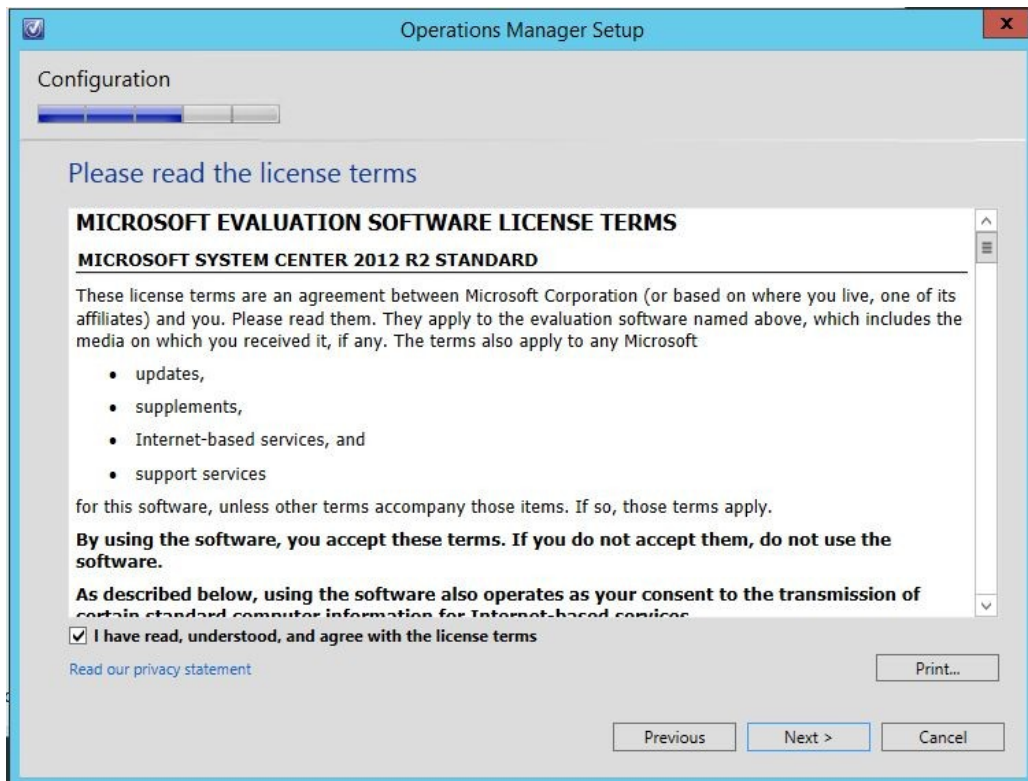
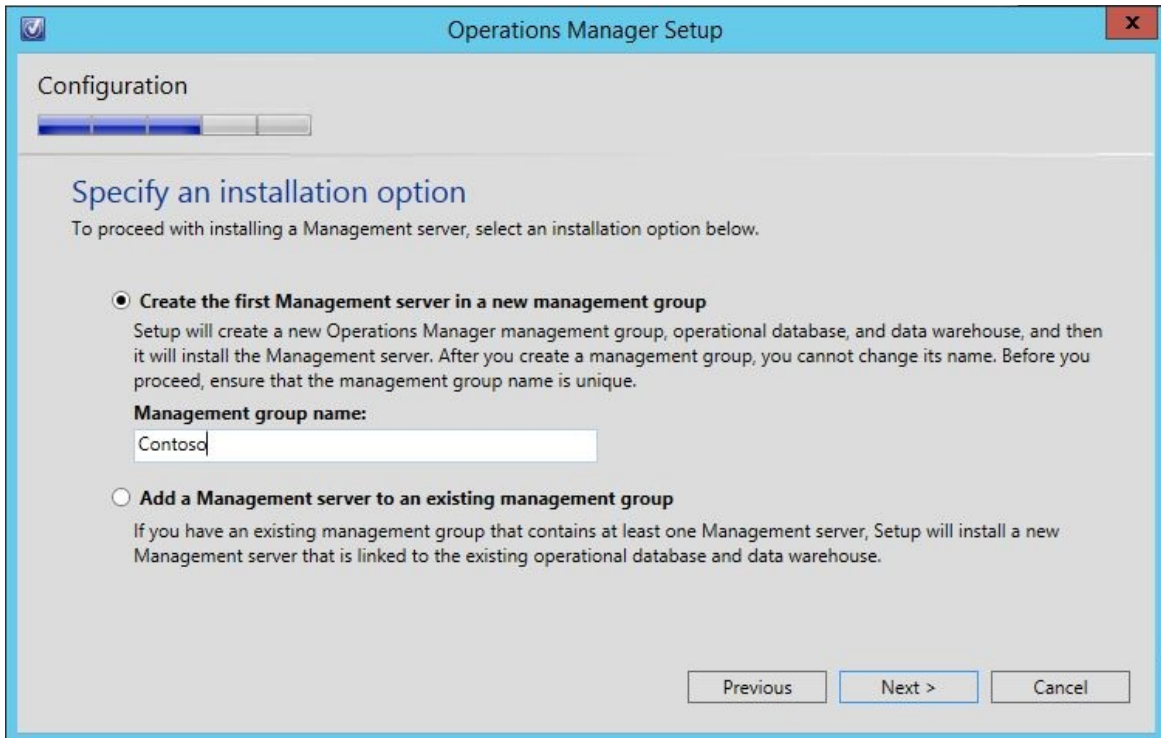
DPM Administrator Console	DPM1	^
DPM Server	DPM1	
User	SCORCHSVC	≡
Domain	CONTOSO.local	
Password	*****	
Authentication Type (Remote only)	Default	
Port (Remote only)	5985	v

OK Cancel









Operations Manager Setup

Configuration

### Configure the operational database

Before you click **Next**, verify the database name, the instance name, and the port. Ensure that you have sufficient permissions on the database instance.

Server name and instance name: SQL\SCOM  
*Format: server name\instance name*

SQL Server port: 1433

Database name: OperationsManager

Database size (MB): 1000

Data file folder: C:\Program Files\Microsoft SQL Server\MSSQL11.SCOM\MSSQL\DATA\ Browse...

Log file folder: C:\Program Files\Microsoft SQL Server\MSSQL11.SCOM\MSSQL\DATA\ Browse...

Previous Next > Cancel

Operations Manager Setup

Configuration

### Configure the data warehouse database

Before you click **Next**, verify the database name, the instance name, and the port. Ensure that you have sufficient permissions on the database instance.

Server name and instance name: SQL\SCOM  
*Format: server name\instance name*

SQL Server port: 1433

Create a new data warehouse database  
 Use an existing data warehouse from a different management group

Database name: OperationsManagerDW

Database size (MB): 1000

Data file folder: C:\Program Files\Microsoft SQL Server\MSSQL11.SCOM\MSSQL\DATA\ Browse...

Log file folder: C:\Program Files\Microsoft SQL Server\MSSQL11.SCOM\MSSQL\DATA\ Browse...

Previous Next > Cancel

Operations Manager Setup

Configuration

### Configure Operations Manager accounts

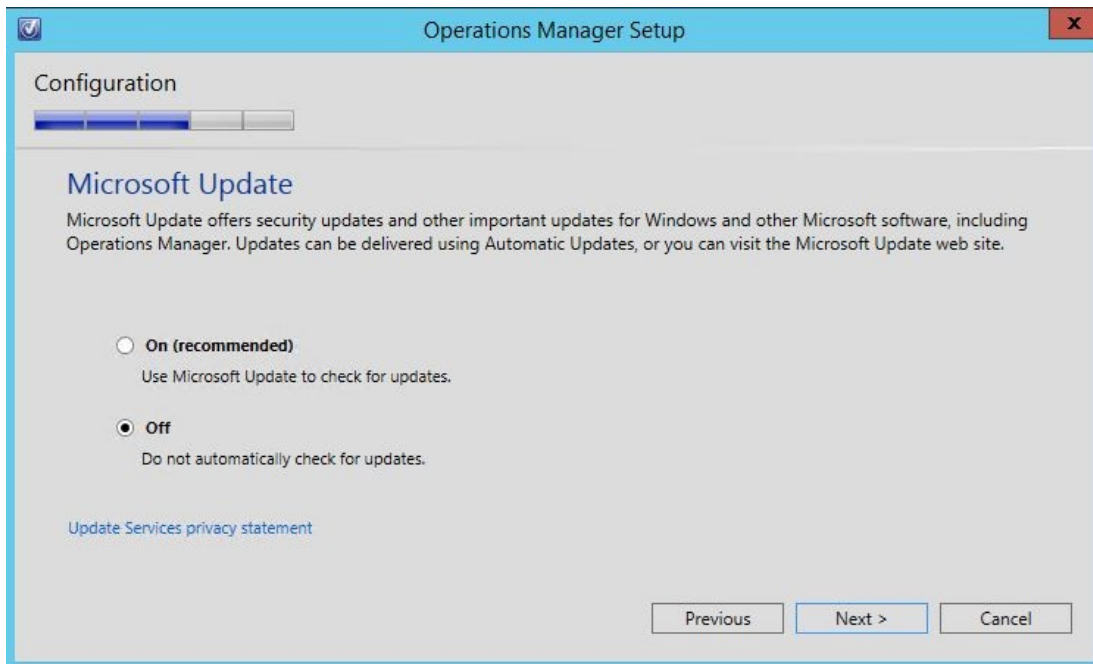
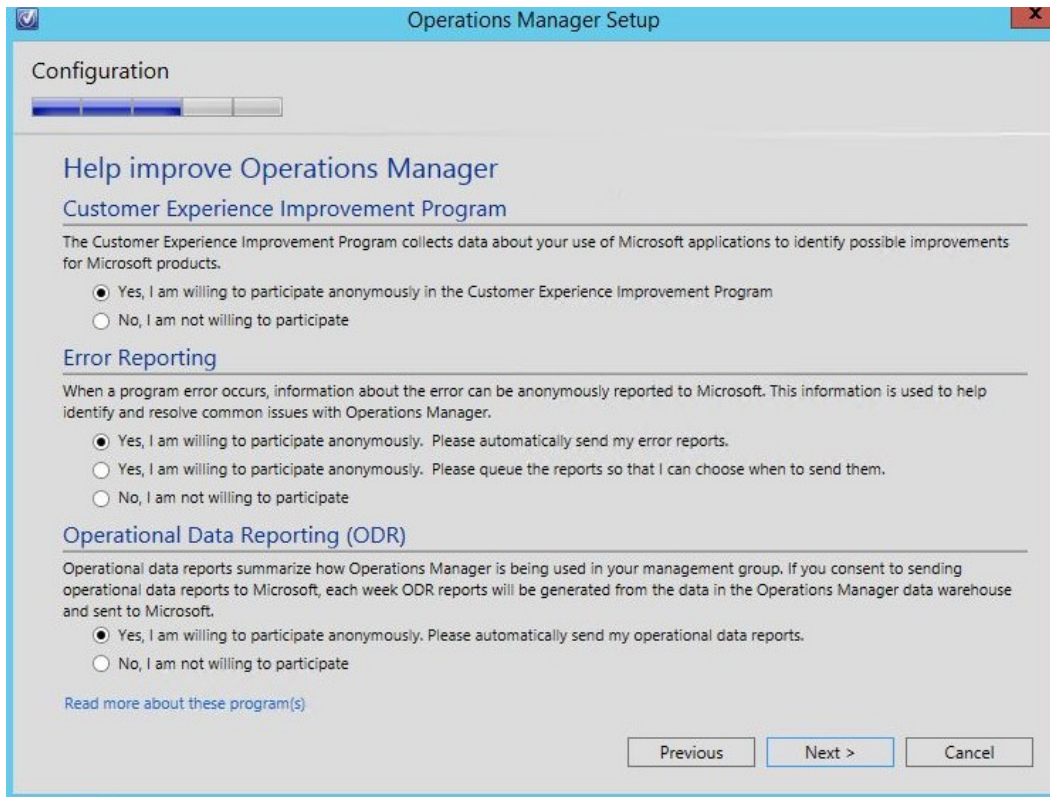
If you want to use a single account for all services, verify that the account has all the required rights. For more information, see the Operations Manager deployment documentation.

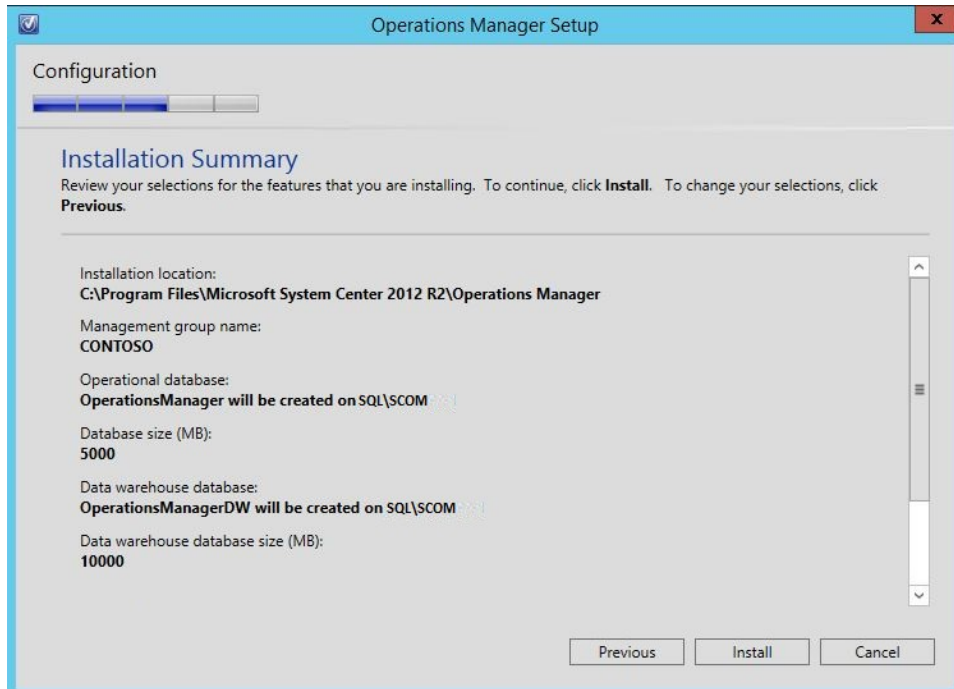
Account Name	Local System	Domain Account	Domain\User Name	Password
Management server action account	<input type="radio"/>	<input checked="" type="radio"/>	CONTOSO\OMAA	.....
System Center Configuration service and System Center Data Access service	<input type="radio"/>	<input checked="" type="radio"/>	CONTOSO\OMDAS	.....
Data Reader account	<input type="radio"/>	<input checked="" type="radio"/>	CONTOSO\OMREAD	.....
Data Writer account	<input type="radio"/>	<input checked="" type="radio"/>	CONTOSO\OMWRITE	.....

[Installation Guide](#)

Previous Next > Cancel







System Center 2012 R2 Orchestrator Setup

Getting started


Product registration

Enter your registration information.

Name:

Organization:

Product Key:  -  -  -  -

 If you don't provide a Product Key during setup, Orchestrator will install as an evaluation edition.

