

1 Provisioning DASH systems for Active Directory authentication using DASHConfig via MEM

This document outlines the steps required to configure DASH systems (also mentioned as DASH targets) for Active Directory authentication. After configuration, these DASH systems are accessible by AMD Management Plugin for SCCM, for any DASH operations.

1.1 Requirements

- Administrative access to Domain Controller
- Microsoft MEM setup
- DASHConfig utility
- AMD Management Plugin for SCCM (AMPS)

1.2 Quick steps

- 1) Create Service Principal Name (SPN) account in Active Directory
- 2) Register this SPN for HTTP service on DASH system
- 3) Create 'DASHAdmins' group in Active Directory and obtain SID of this group
- 4) Use DASHConfig to set SPN account & SID in DASH system
- 5) Create a DASH systems user in Active Directory and add to DASHAdmins group
- 6) Set DASH systems user as domain user in authentication tab of DASH Configuration Properties in AMPS (Refer Figure:30)


2 Detailed steps

2.1 Create Service Principal Name (SPN) account in Active Directory

- 1) On the AD domain controller, open the "Active Directory User and Computers" MMC
- 2) Select and expand the appropriate domain in the MMC tree
- 3) Right click with the mouse on the "Users" node and select the New->User menu item
- 4) Input the name of an account in the "Full name" and "User Logon name" edit fields. In the example shown below DASHTargetsSPN was used. Write down and/or remember this account name for use in a later procedure. Click the "Next" button to move to the password page (Refer Figure:1)
- 5) Type in a password for this account. As with the account name, write down and/or remember the password. In this example the password "ADP@ssw0rd" was used. Depending on your company's security procedures, you can modify how and when this password can be modified. Click the "Next" button to move to the final page of the "New User" wizard dialog (Refer Figure:2)
- 6) If the settings are as expected and desired, Click the "Finish" button and exit the "New User" wizard dialog (Refer Figure:3)

NOTE: For higher security, this user can have restricted access, such as no desktop logon access.

New Object - User



Create in: sccmtest.amd.com/Users

First name:

Initials:

Last name:

Full name:

DASHTargetsSPN

User logon name:

DASHTargetsSPN

@sccmtest.amd.com

User logon name (pre-Windows 2000):

SCCMTEST\

DASHTargetsSPN

< Back

Next >

Cancel

Figure :1

New Object - User



Create in: sccmtest.amd.com/Users

Password:

Confirm password:

☐ User must change password at next logon

☒ User cannot change password

☒ Password never expires

☐ Account is disabled

< Back

Next >

Cancel

Figure :2

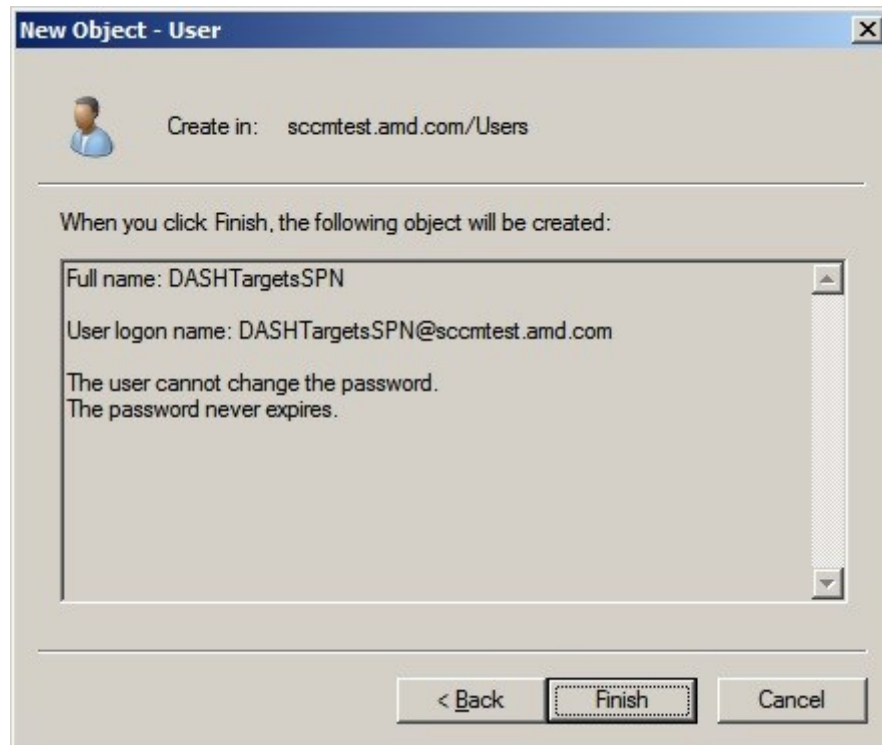


Figure :3

2.2 Register SPN for HTTP service on DASH system

2.2.1 Modify Active Directory Users and Computers MMC view to expose advanced capabilities

- 1) On the AD domain controller, open the "Active Directory User and Computers" MMC
- 2) Click the "View" menu item from the menu bar at the top of the MMC
- 3) Select the "Advanced Features" menu (Refer Figure:4)

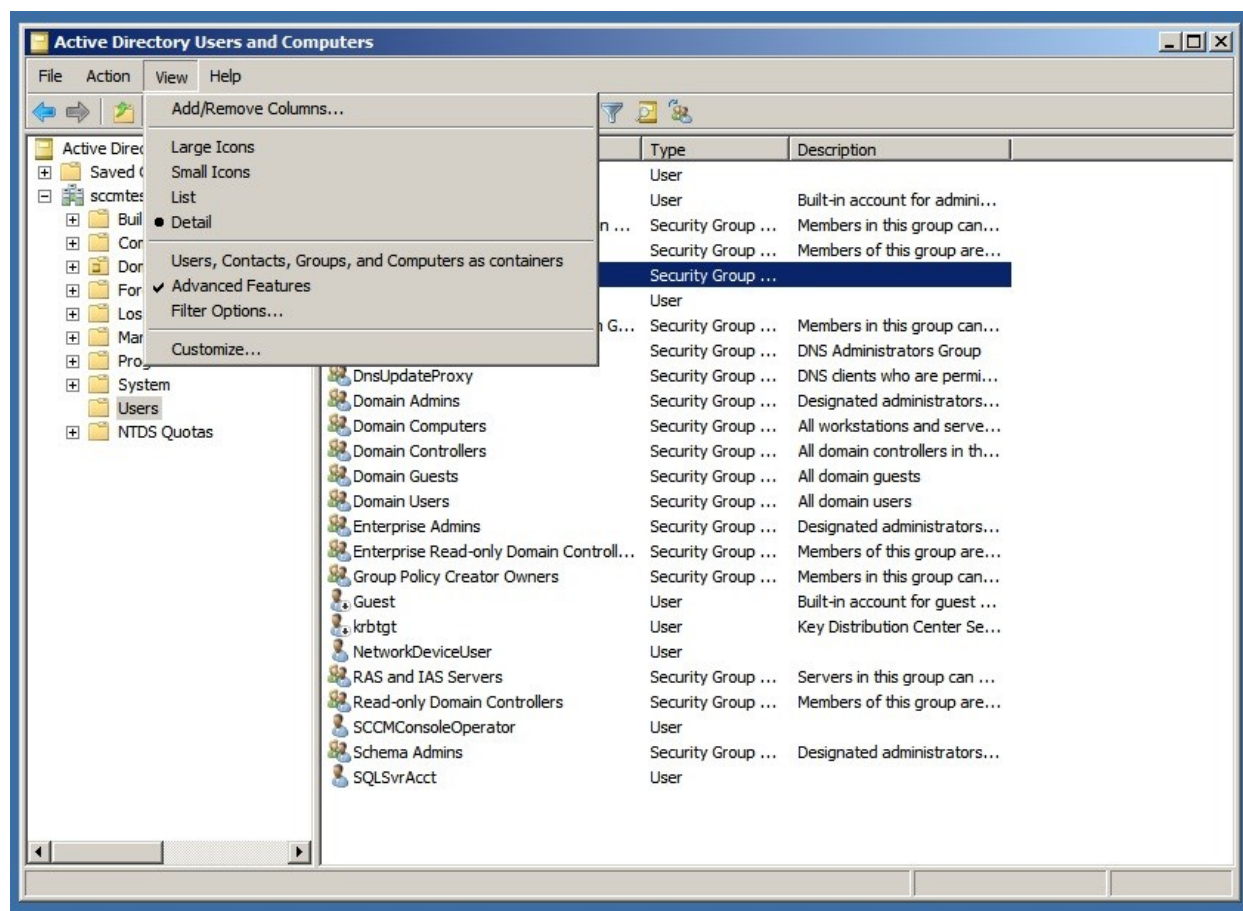


Figure :4

2.2.2 Add the DASH Systems' SPN properties to the Active Directory user account

- 1) On the AD domain controller, open the "Active Directory User and Computers" MMC
- 2) Select and expand the appropriate domain in the MMC tree
- 3) Click with the mouse on the "Users" node so that the list of Domain Users and Groups are shown in the details pane (Refer Figure:5)
- 4) Right click on the user account created in the first procedure (DASHTargetsSPN) and select the "Properties" menu item
- 5) Select the "Attribute Editor" tab
- 6) Scroll down the "Attributes" list box until you find the "servicePrincipalName" attribute item. Select this item and Click the "Edit" button.
- 7) Add two values for each DASH system which is expected to use AD authentication
 - a. The first value is in the form: HTTP/<MachineName>, example: HTTP/TGTONE
 - b. The second value is in the form: HTTP/<FQDN>, example:
HTTP/tgtone.sccmtest.bigcorp.com
- 8) Click the "OK" button to dismiss the "Editor" dialog when done adding values
- 9) Click the "OK" button to dismiss the "Properties" dialog

NOTE: For a large group of DASH systems, it is faster to use the SETSPN utility inside of a script or batch file. When using the SETSPN utility use the following two command line invocations:

Setspn -A HTTP/<MACHINENAME> <spnacctname>

Setspn -A HTTP/<FQDN> <spnacctname>

In our example, <MACHINENAME> is TGTONE, <FQDN> is tgtone.sccmtest.bigcorp.com and <spnacctname> is DASHTargetsSPN

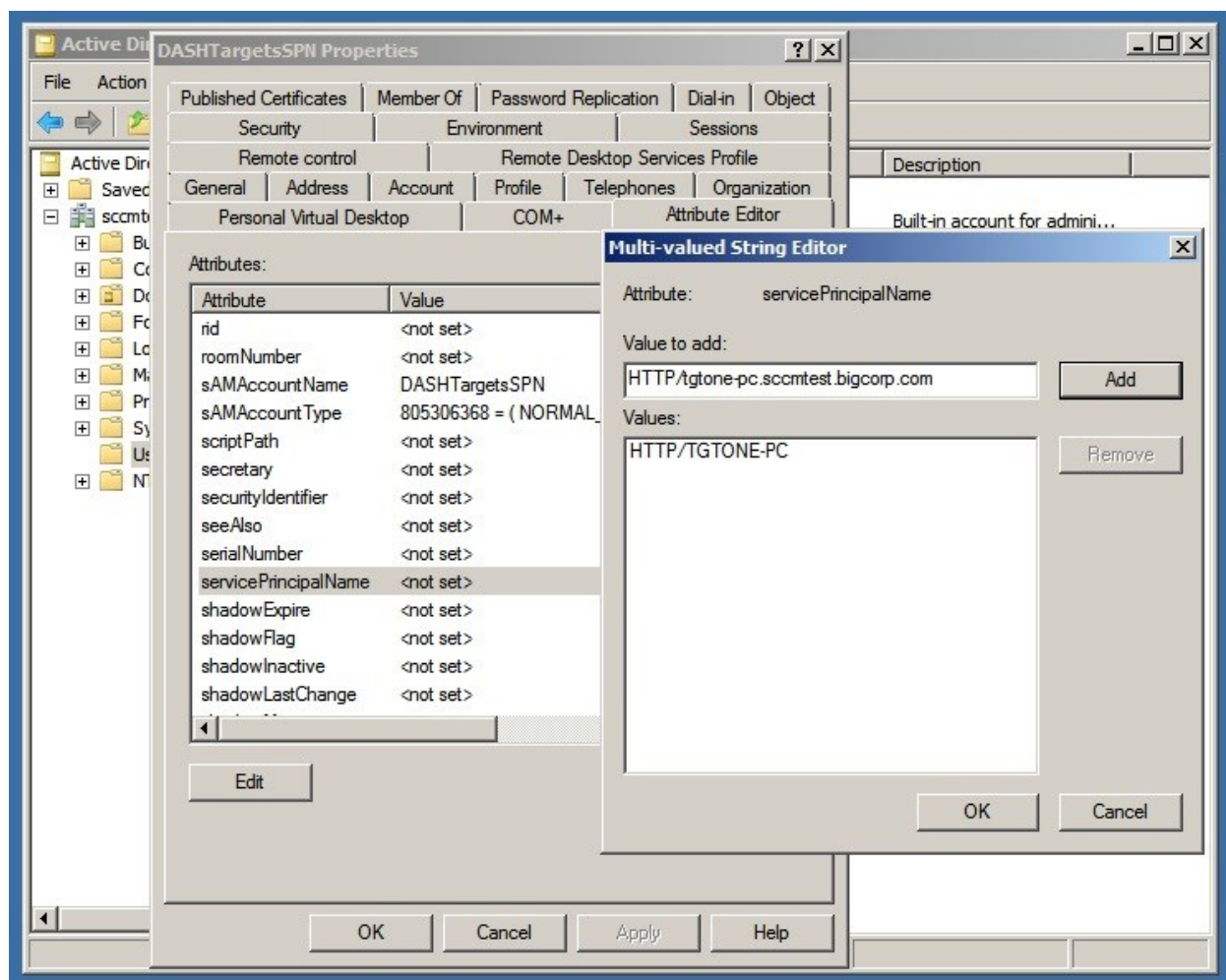


Figure :5

2.3 Create 'DASHAdmins' group in Active Directory and obtain SID

2.3.1 Create a DASHAdmins security group

- 1) On the AD domain controller, open the "Active Directory User and Computers" MMC
- 2) Select and expand the appropriate domain in the MMC tree
- 3) Right click with the mouse on the "Users" node and select the New->Group menu item
- 4) Enter "DASHAdmins" into the "Group Name" edit control

- 5) Click the “OK” button to accept the group name and dismiss the dialog

2.3.2 Obtain the Security object ID for the DASHAdmins group

- 1) On the AD domain controller, open the “Active Directory User and Computers” MMC
- 2) Select and expand the appropriate domain in the MMC tree
- 3) Click with the mouse on the “Users” node so that the list of Domain Users and Groups are shown in the details pane (Refer Figure:6)
- 4) Right click on the group created in the previous procedure (DASHAdmins) and select the “Properties” menu item
- 5) Select the “Attribute Editor” tab
- 6) Scroll down the “Attributes” list box until you find the “objectSID” attribute item
- 7) Write down and/or remember the Security ID string in the value field for the objectSID attribute. Depending on screen size, you may need to scroll to obtain the whole string. In this example the Security ID “S-1-5-21-4028623702-3156808415-3642503678-1111” was used

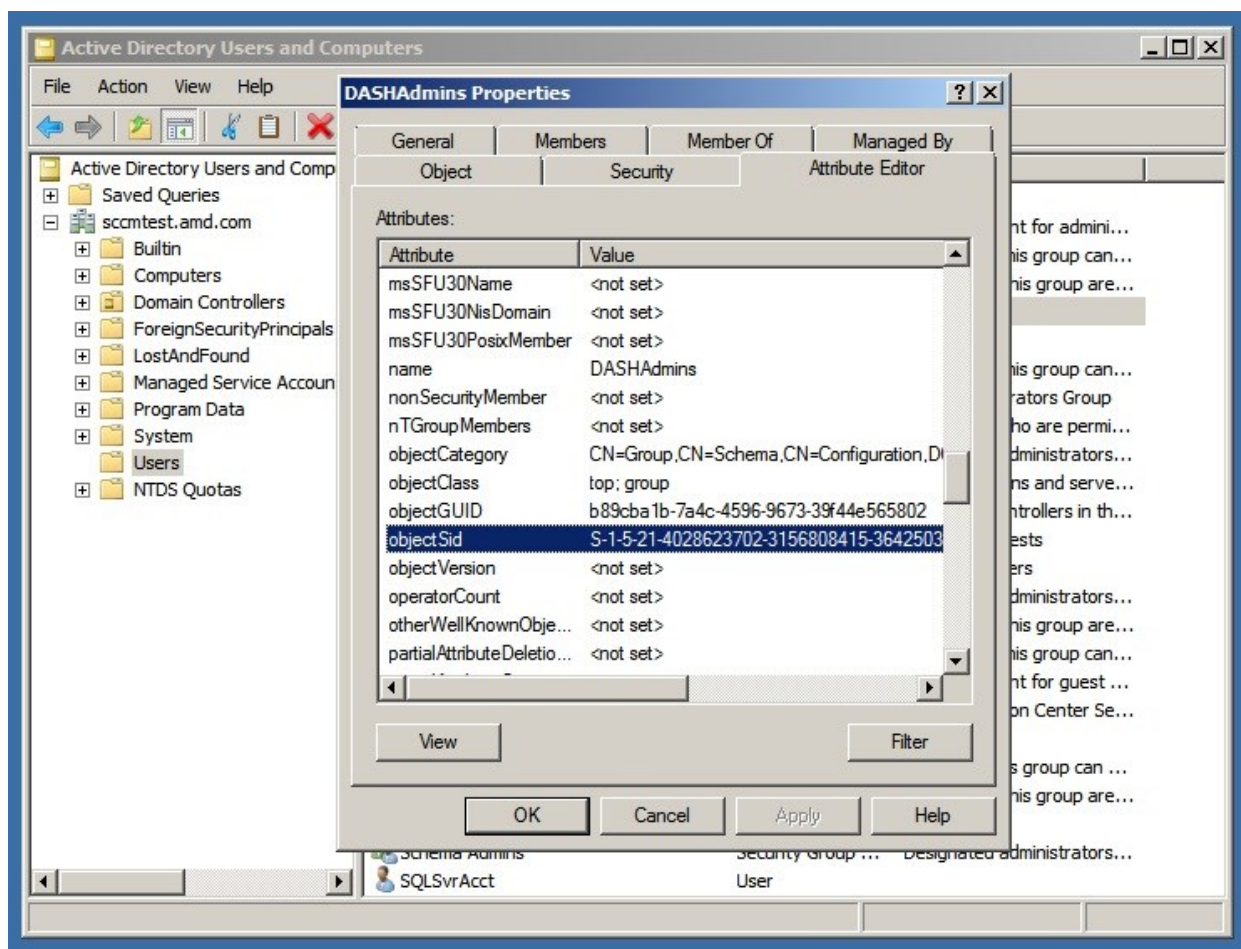


Figure :6

2.4 Use DASHConfig to set SPN account & SID in DASH system

2.4.1 Update the DASHConfig provisioning XML file for distribution

- 1) Obtain the DASHConfigExample.xml file from the DASHConfig package and open it in the text editor of your choice.
- 2) Modify the following XML nodes with information from the previous procedures:
 - a. <ACTIVEDIRECTORY_SPNACCOUNT> from the SPN account creation procedure, step 4. In this example: DASHTargetsSPN
 - b. <SPNACCOUNT_PASSWORD> from the SPN account creation procedure, step 5. In this example: ADP@ssw0rd
 - c. <OBJECTSID> from the <ACTIVEDIRECTORY_GROUP> node whose <GROUPNAME> equals "DASH Admins". In this example: S-1-5-21-4028623702-3156808415-3642503678-1111
- 3) Save the changed file. In this example it was saved as DASHConfigExample.xml (Refer Figure:7)

NOTE: Refer DASHConfig release notes on XML format.

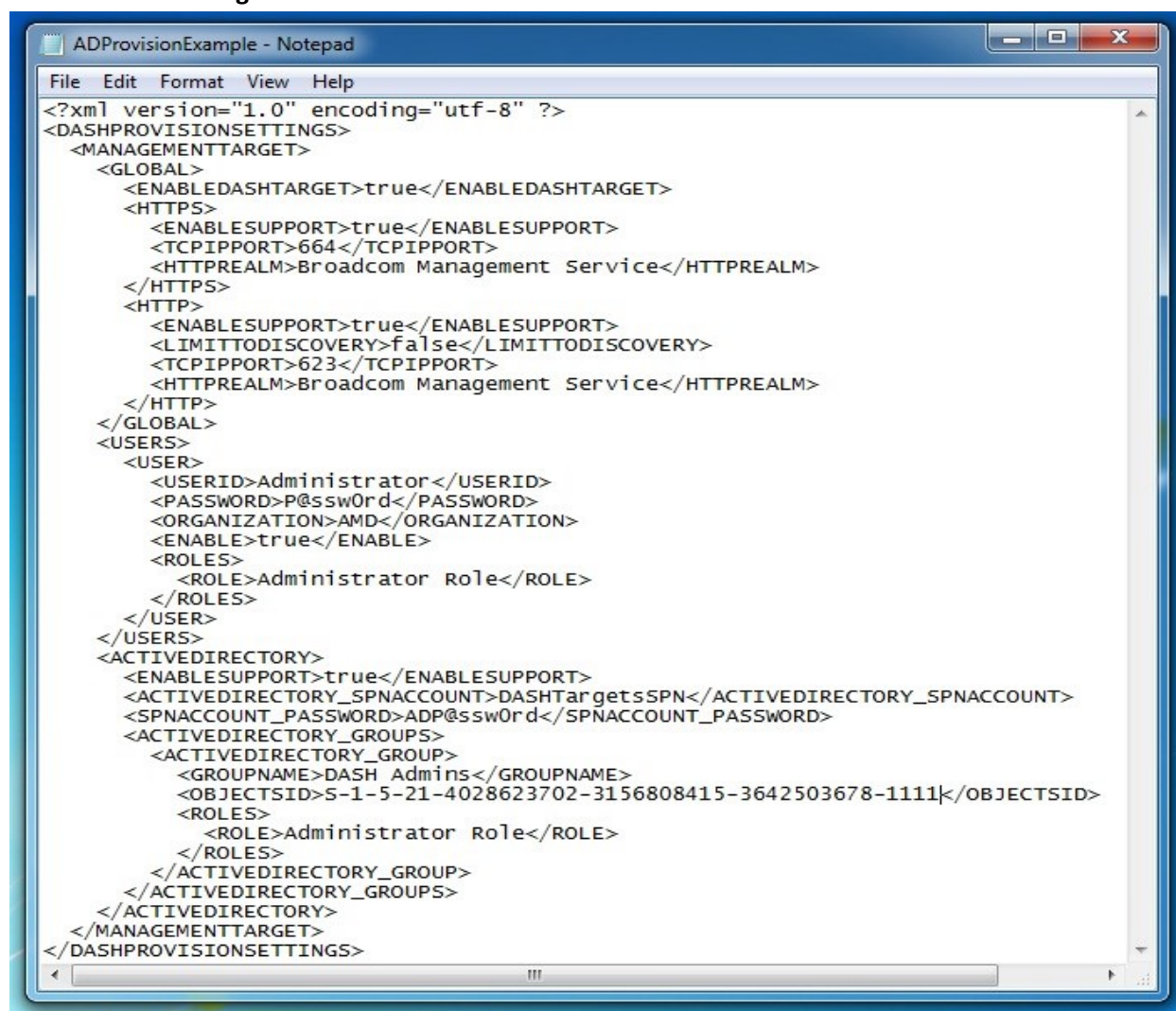


Figure :7

2.4.2 Run DASHConfig utility on DASH system

DASHConfig utility can run on the DASH systems either manually on the system and can be deployed as a package from MEM. Both the methods are described below.

2.4.3 Distributing DASHConfig as MEM Software Distribution Package

Before distributing, package has to be created. The steps to create the software package:

- 1) Open the MEM Console.
- 2) In the left hand side, click on the Software Library tab.
- 3) Expand the Application Management node.
- 4) Right click on the Package node and select the Create Package menu item.
- 5) When the “Create Package and Program Wizard” appears enter the following information into the “Package” page controls: (Refer Figure:8)
 - a. Name: DASHConfig
 - b. Version: 1.8.0.0084
 - c. Manufacturer: AMD
 - d. Language: English
- 6) On the “Data Source” page select the “This package contains source files” checkbox.
- 7) In the “Source Folder” group box enter the directory where the DASHConfig files are stored. In this example that folder is C:\DASHConfig.

Figure 8 shows the "Create Package and Program Wizard" dialog box, specifically the "Package" page. The dialog box has a title bar "Create Package and Program Wizard" and a close button (X). The left sidebar shows the "Package" tab selected, with other options like "Program Type", "Requirements", "Summary", "Progress", and "Completion". The main area is titled "Specify information about this package" and contains the following fields and controls:

- Name:** DASHConfig
- Description:** (Empty text box)
- Manufacturer:** AMD
- Language:** English
- Version:** 1.8.0.0084
- ☒ This package contains source files
- Source folder:** <Directory on site server>C:\DASHConfig
- Browse...** button

Figure :8

8) Push the “Next” button to move to the next page.

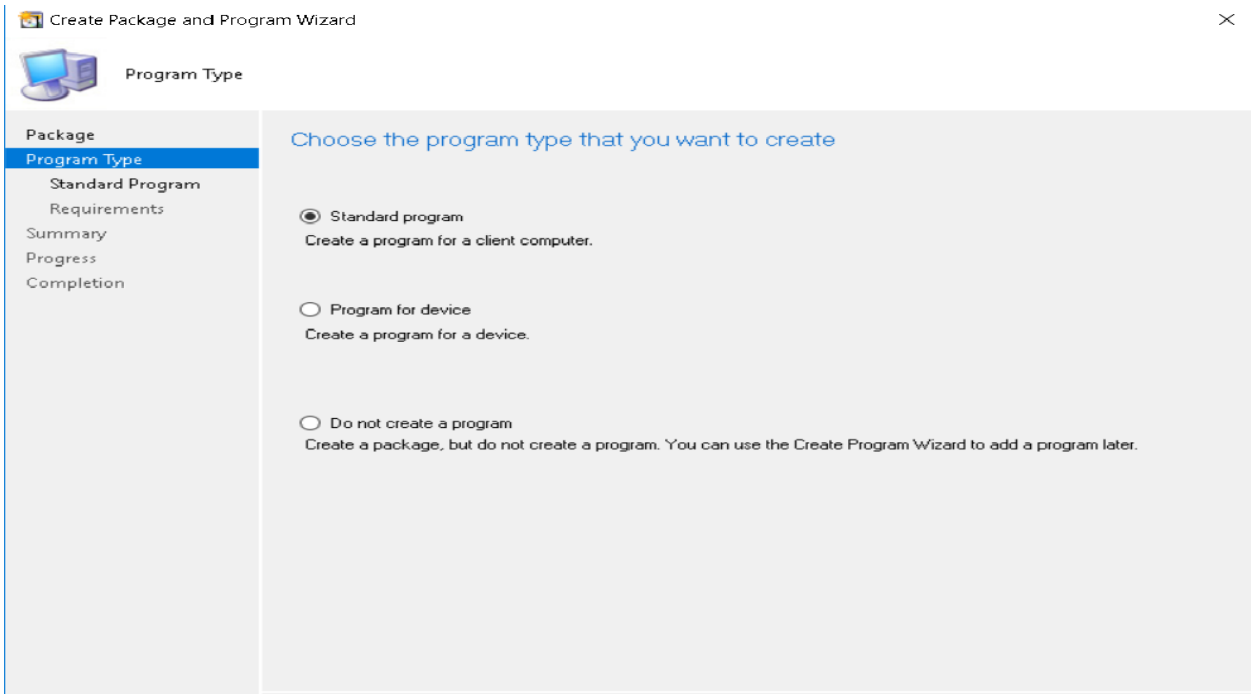


Figure :9

9) On the “Program Type” page select the Standard Program Radio button. (Refer Figure:9)

10) Push the “Next” button to move to the next page.

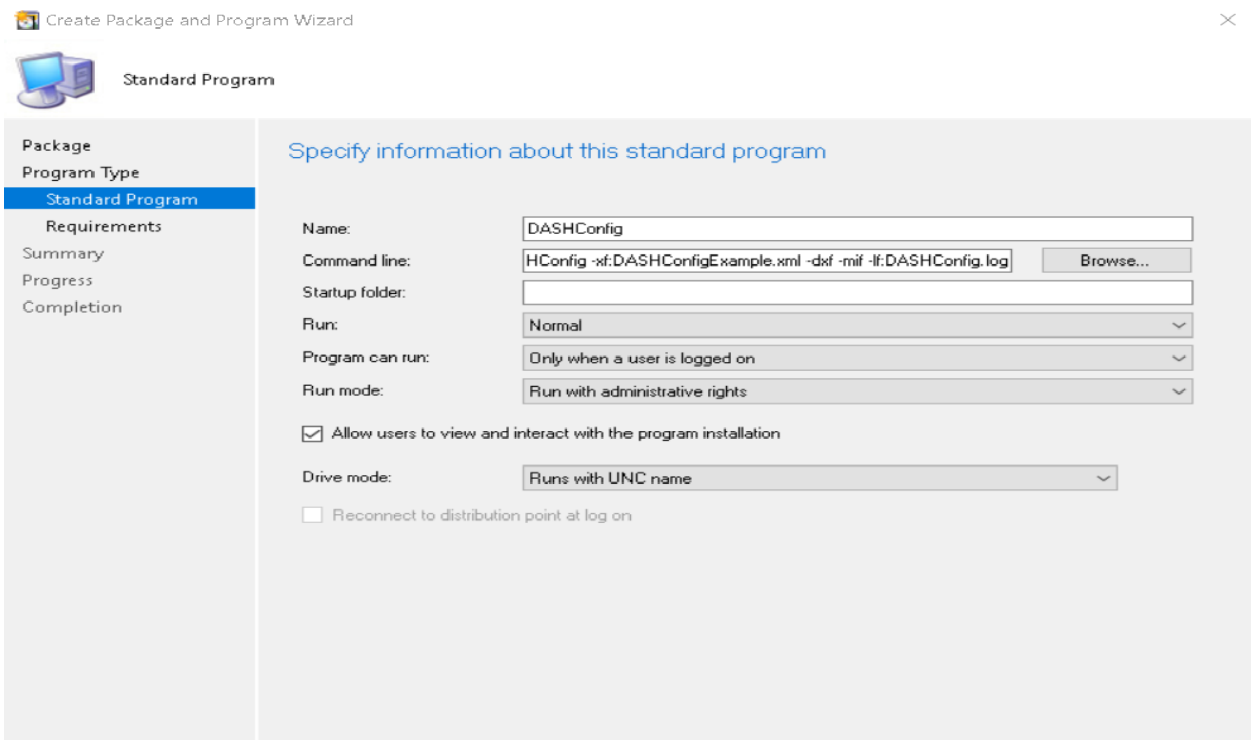


Figure :10

- 11) On the “Standard Program ” page, enter the following information into the page controls:
(Refer Figure:10)
- a. Name: DASHConfig
 - b. Command line: DASHConfig -xf:DASHConfigExample.xml -dxf -mif -lf:DASHConfig.log
 - c. Run: Normal
 - d. Run mode: Run with administrative rights.

Note: In command line if user opt option –dxf the xml file will be deleted once the execution is completed. Refer the DASHConfig release notes for more info.

- 12) Push the “Next” button to move to the next page.

Create Package and Program Wizard

Requirements

Package
Program Type
Standard Program
Requirements
Summary
Progress
Completion

Specify the requirements for this standard program

☐ Run another program first

Package: Browse...

Program:

☐ Always run this program first

Platform requirements

☒ This program can run on any platform

☐ This program can run only on specified platforms

- ☐ All Windows RT
- ☐ All Windows RT 8.1
- ☐ All Windows 10 (32-bit)
- ☐ All Windows 10 (64-bit)
- ☐ All Windows 7 (64-bit)
- ☐ All Windows 8 (64-bit)
- ☐ All Windows 8.1 (64-bit)
- ☐ Windows Embedded 8 Industry (64-bit)
- ☐ Windows Embedded 8 Standard (64-bit)
- ☐ Windows Embedded 8.1 Industry (64-bit)

Estimated disk space: MB

Maximum allowed run time (minutes):

< Previous Next > Summary Cancel

Figure :11

- 13) On the “Requirements” page, leave all the fields with default values.
- 14) Push the “Next” button to move to the next page.

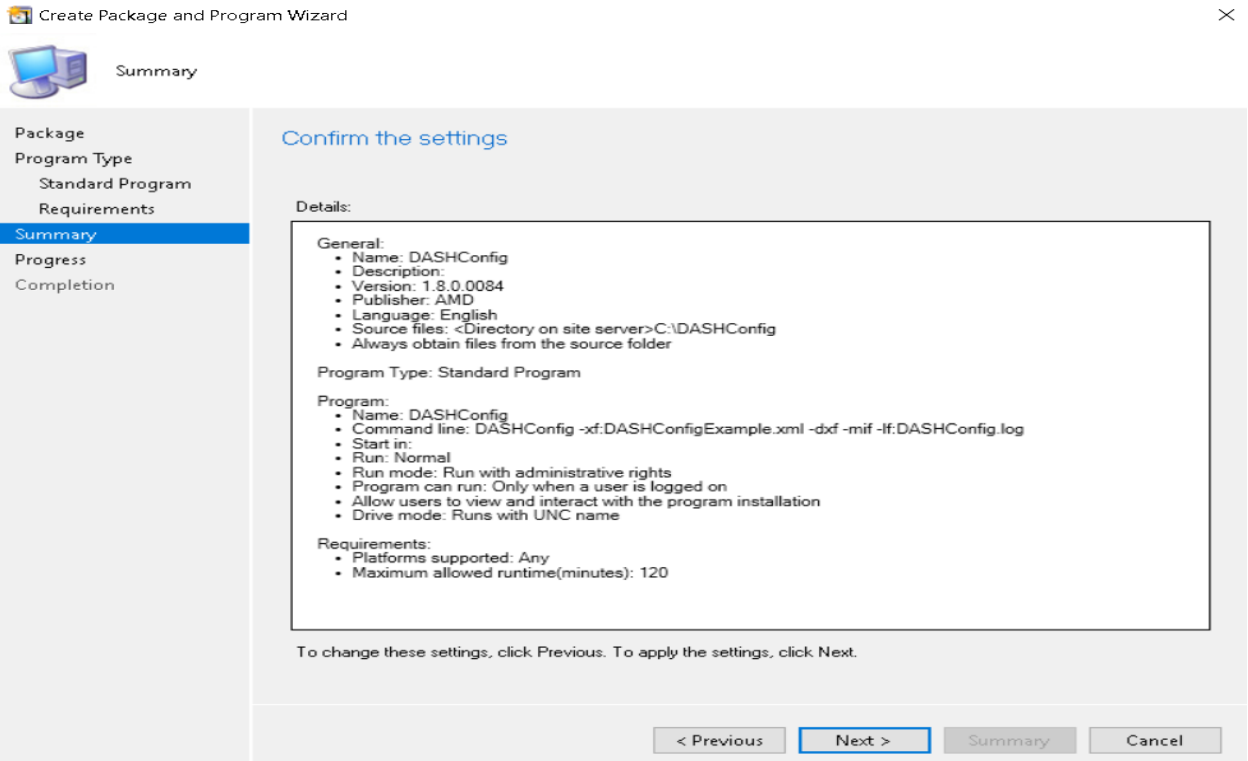


Figure :12

- 15) On the “Summary” page, Verify all the user entered data are correct and (Refer Figure:12)
- 16) Push the “Next” button to move to the next page.

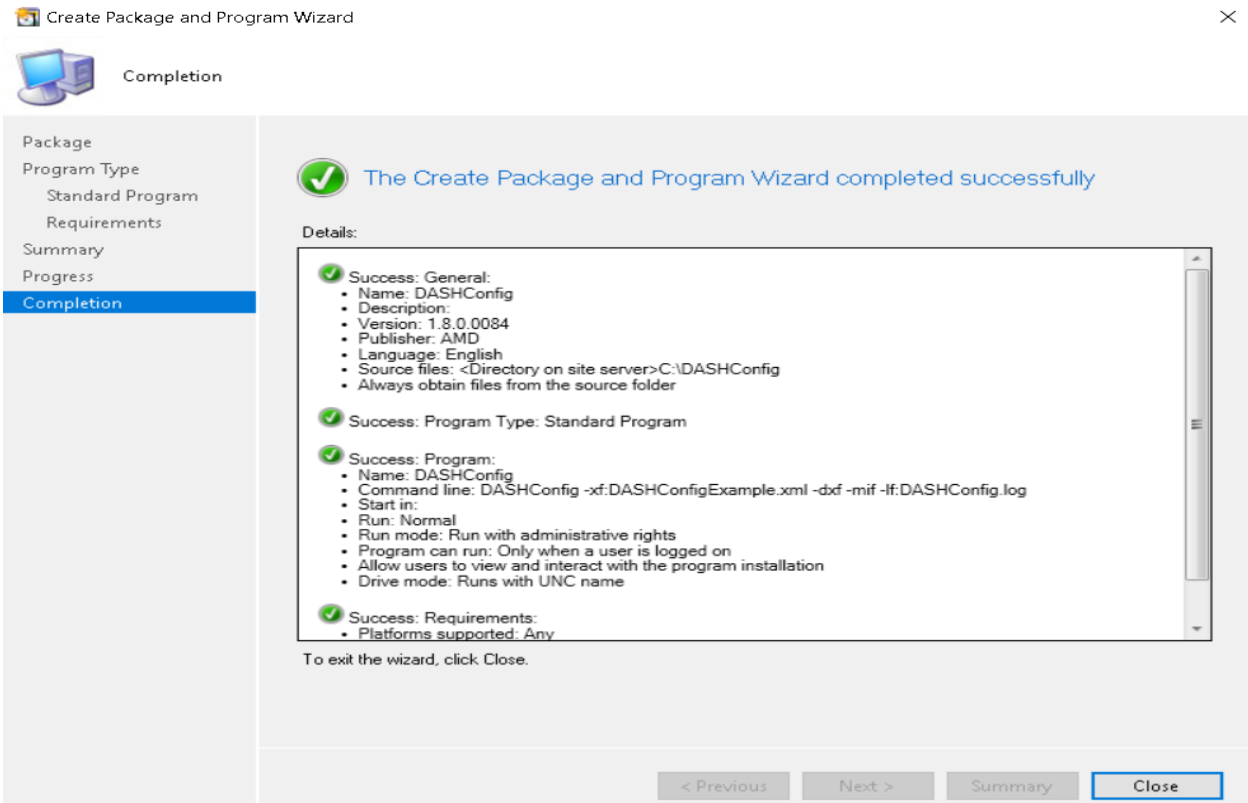


Figure:13

- 17) Click on the Close button and close the Create Package and Program Wizard (Refer Figure:13)
- 18) Right click on DASHConfig package and select properties.
- 19) Click on Data Access tab and enable the checkbox (Copy the content in this package to a package share on distribution points). (Refer Figure:14)

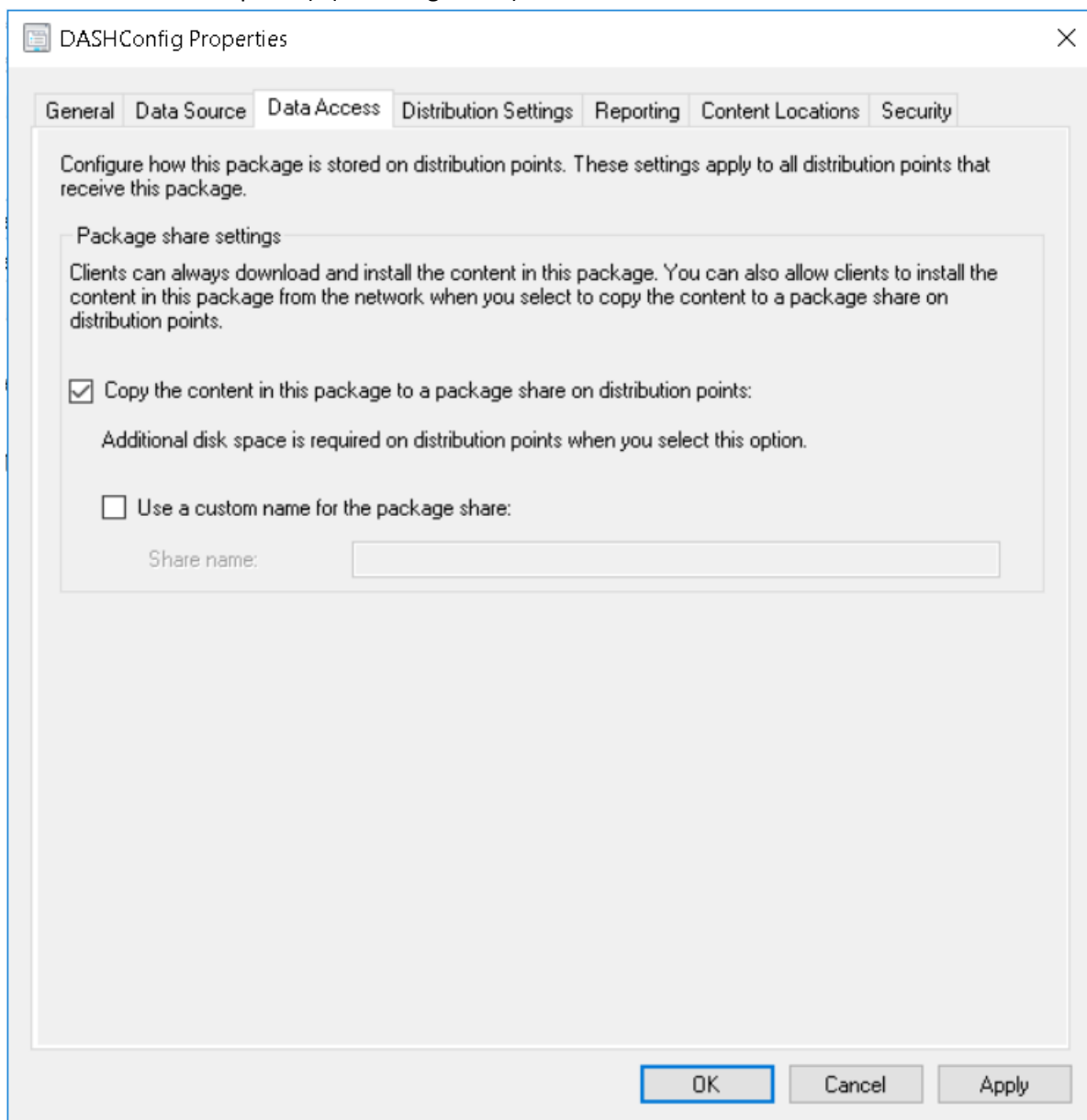


Figure :14

- 20) Click on Distribution Settings tab, set the Distribution priority to High, enable the checkbox(Enable for on-demand distribution), and click on the radio button(automatically download content when packages are assigned to distribution points) and Click on Apply and Click on OK. (Refer Figure:15)

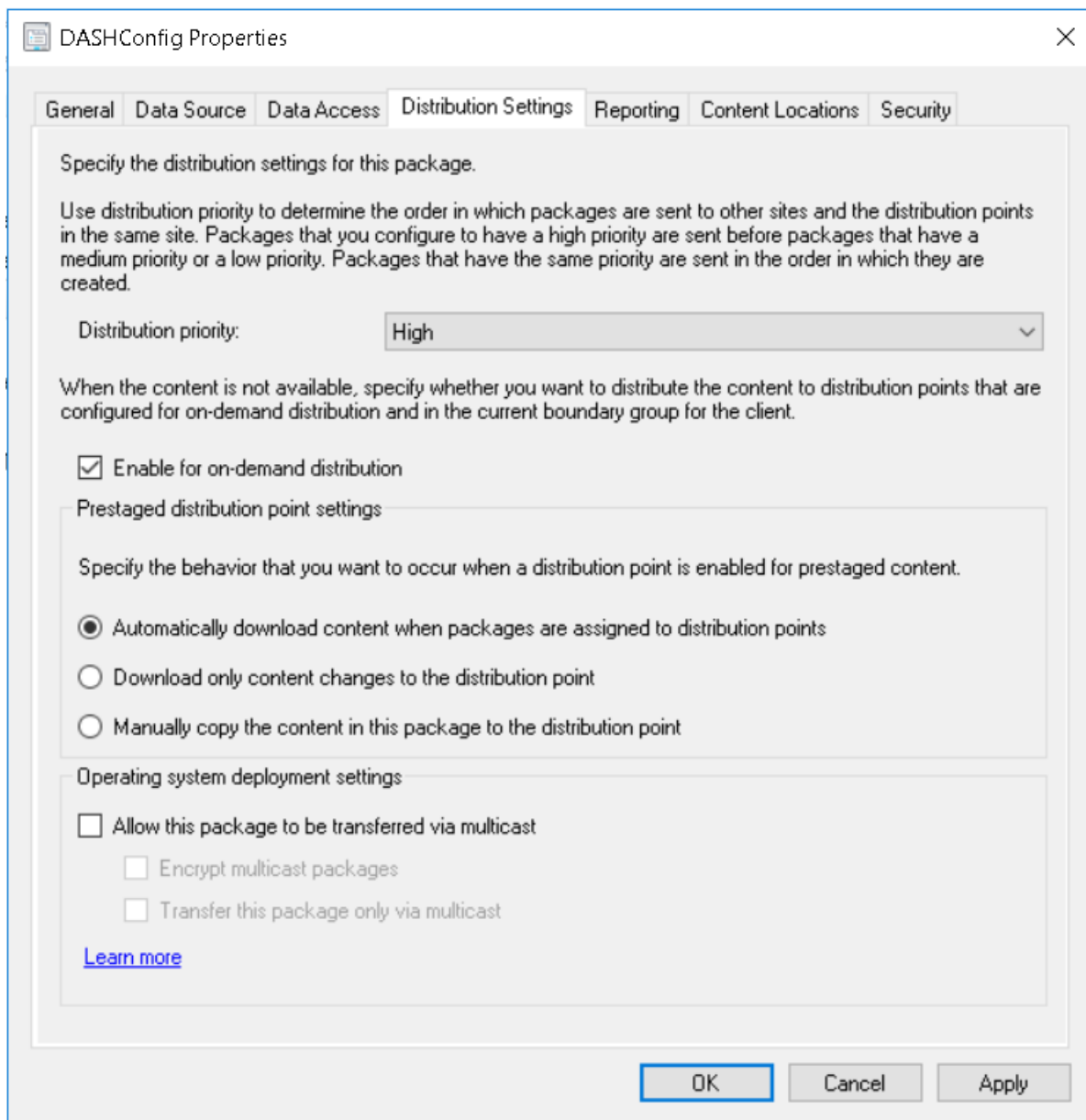


Figure :15

Steps to distribute the software package:

- 1) Open the MEM Console.
- 2) In the left hand side, click on the Software Library tab.
- 3) Expand the Application Management node.
- 4) Click on the Package node and select the DASHConfig Package.
- 5) Right click on DASHConfig package and select deploy option to launch the deploy software wizard. (Refer Figure:16)

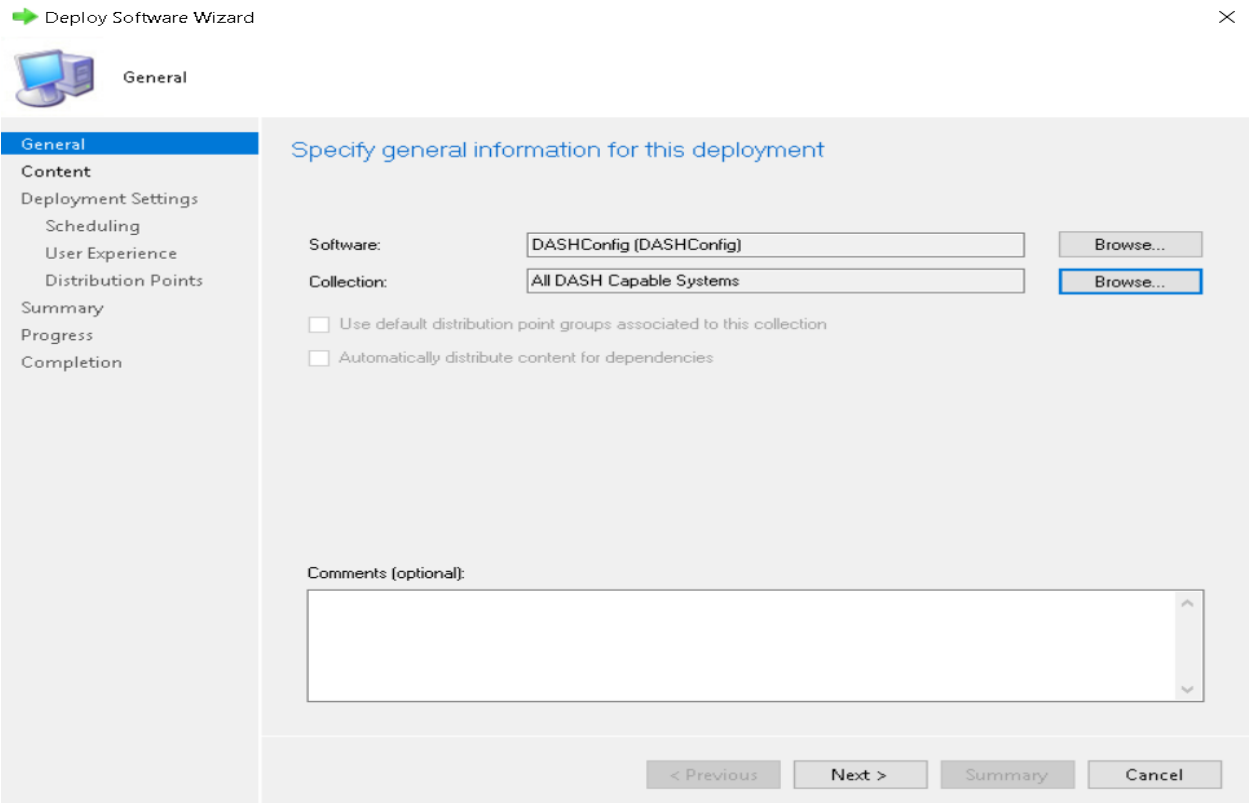


Figure :16

- 6) On the “General” page, Browse and select the collection (Refer Figure:16)
- 7) Push the “Next” button to move to the next page

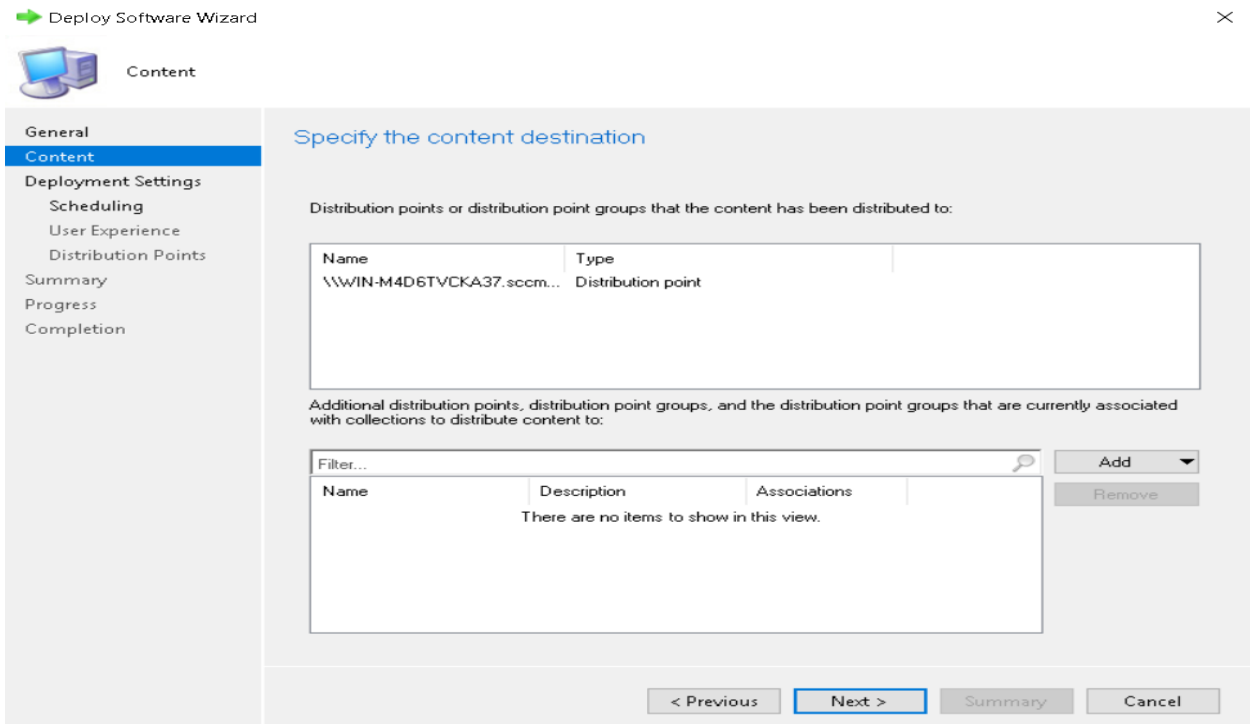


Figure :17

- 8) On the “Content” page, Verify the distribution point is added, if not click on the Add button and add manually. (Refer Figure:17)
- 9) Push the “Next” button to move to the next page.

The screenshot shows the 'Deploy Software Wizard' window, specifically the 'Deployment Settings' tab. The left sidebar contains a list of tabs: General, Content, Deployment Settings (selected), Scheduling, User Experience, Distribution Points, Summary, Progress, and Completion. The main area is titled 'Specify settings to control how this software is deployed'. It features two dropdown menus: 'Action' set to 'Install' and 'Purpose' set to 'Required'. Below these are three unchecked checkboxes: 'Pre-deploy software to the user's primary device', 'Send wake-up packets', and 'Allow clients on a metered Internet connection to download content after the installation deadline, which might incur additional costs'. At the bottom right, there are four buttons: '< Previous', 'Next >' (highlighted with a blue border), 'Summary', and 'Cancel'.

Figure :18

- 10) Push the “Next” button to move to the next page.

The screenshot shows the 'Deploy Software Wizard' window, specifically the 'Scheduling' tab. The left sidebar shows the same list of tabs as Figure 18, with 'Scheduling' now selected. The main area is titled 'Specify the schedule for this deployment'. It contains a paragraph: 'This program will be available as soon as it has been distributed to the content servers unless it is scheduled for a later time below. For required applications, specify the assignment schedule.' Below this are two unchecked checkboxes: 'Schedule when this deployment will become available:' and 'Schedule when this deployment will expire:'. Each checkbox has a date and time picker (set to 8/24/2020 and 11:42 PM) and a 'UTC' checkbox. Below these is an 'Assignment schedule:' section with a red warning icon, a 'New...' button, an 'Edit...' button, and a 'Delete' button. A large empty box below contains the text 'There are no items to show in this view.' At the bottom, there is a 'Rerun behavior:' dropdown menu set to 'Always rerun program'. At the bottom right, there are four buttons: '< Previous', 'Next >' (highlighted with a blue border), 'Summary', and 'Cancel'.

Figure :19

- 11) On the “Scheduling” page, the package can be scheduled in 2 ways:
- a)Immediately, by clicking on new button and select as soon as possible.(Refer Figure:20)

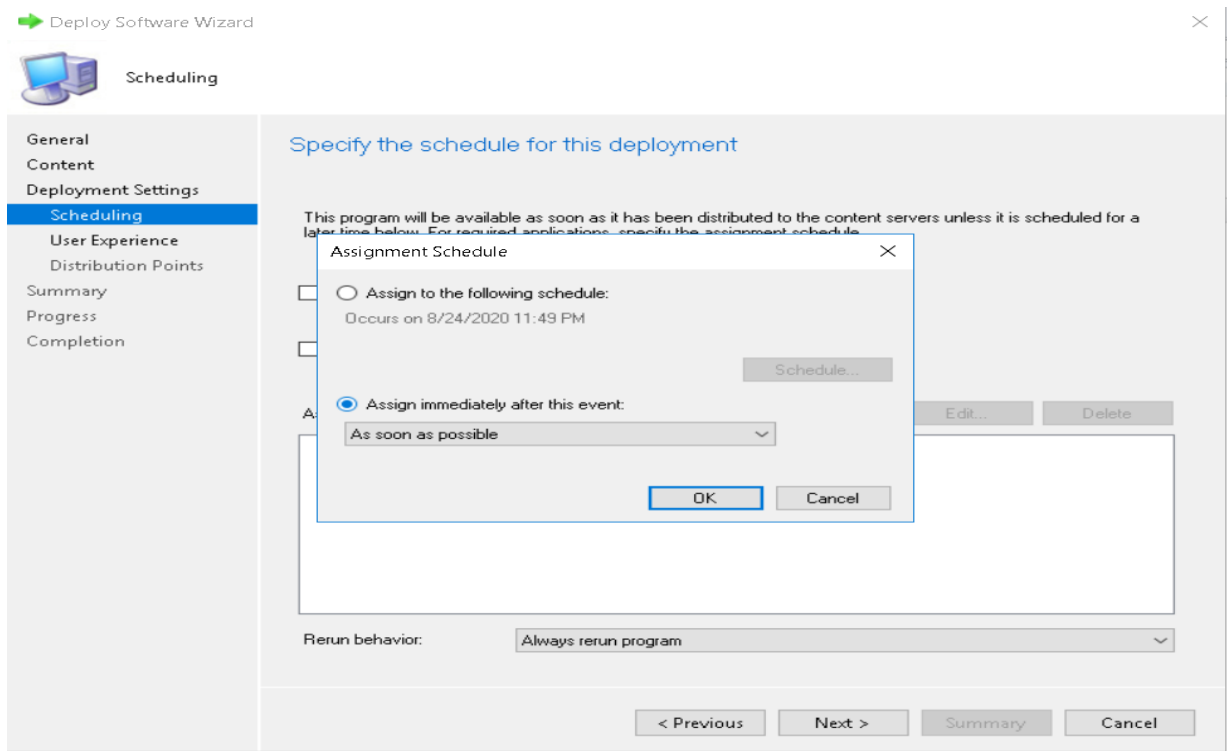


Figure :20

- b)Schedule at a particular time, by clicking on the schedule button.(Refer Figure:21)

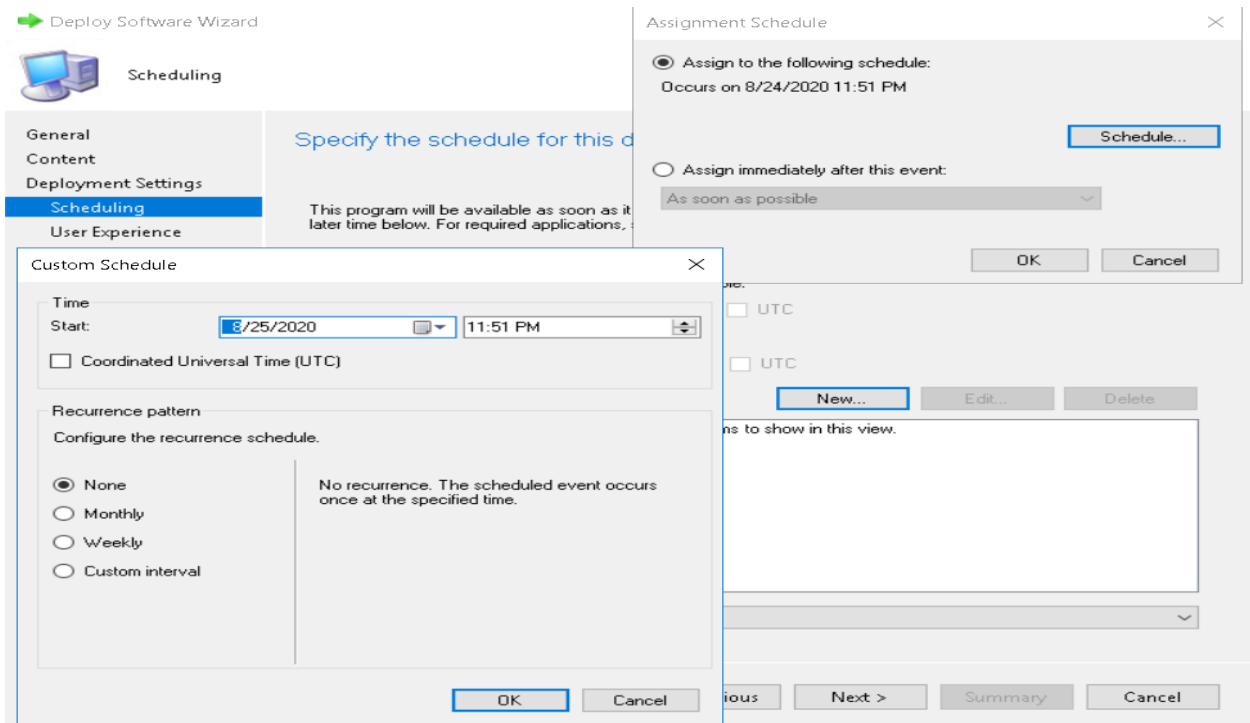


Figure :21

12) Push the “Next” button to move to the next page.

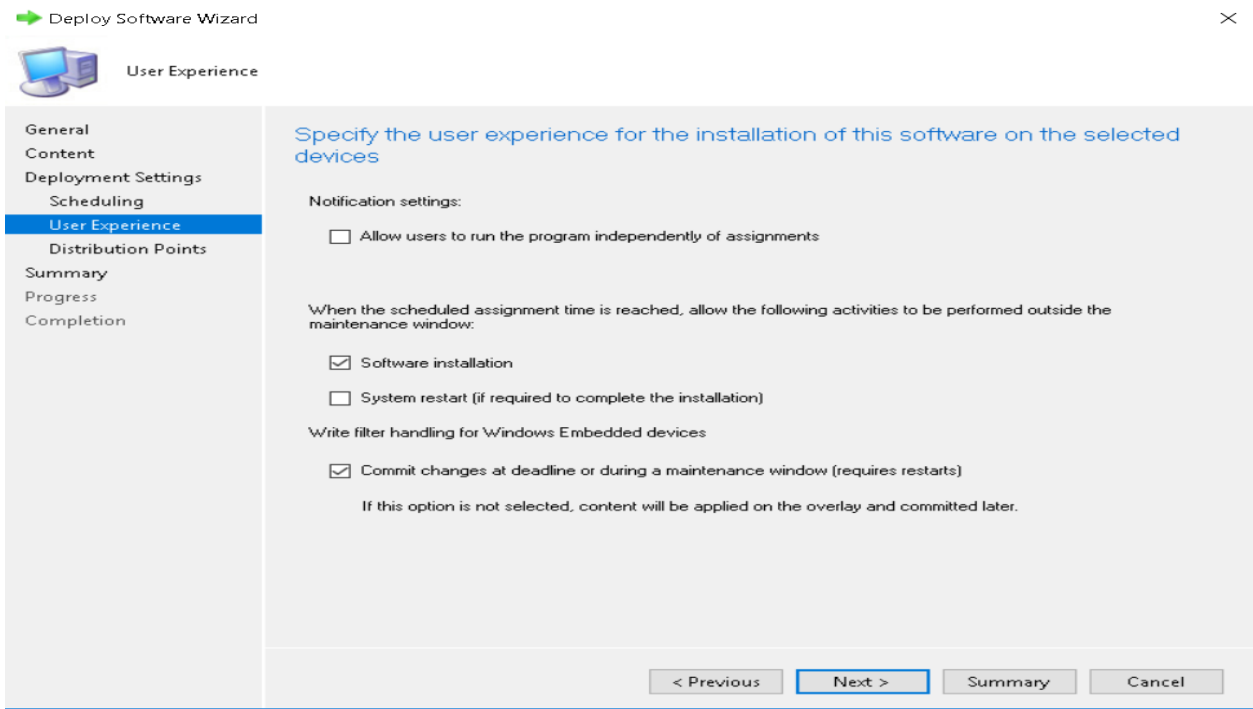


Figure :22

- 13) On the “User Experience” page, enable the software installation checkbox.(Refer Figure:22)
- 14) Push the “Next” button to move to the next page.

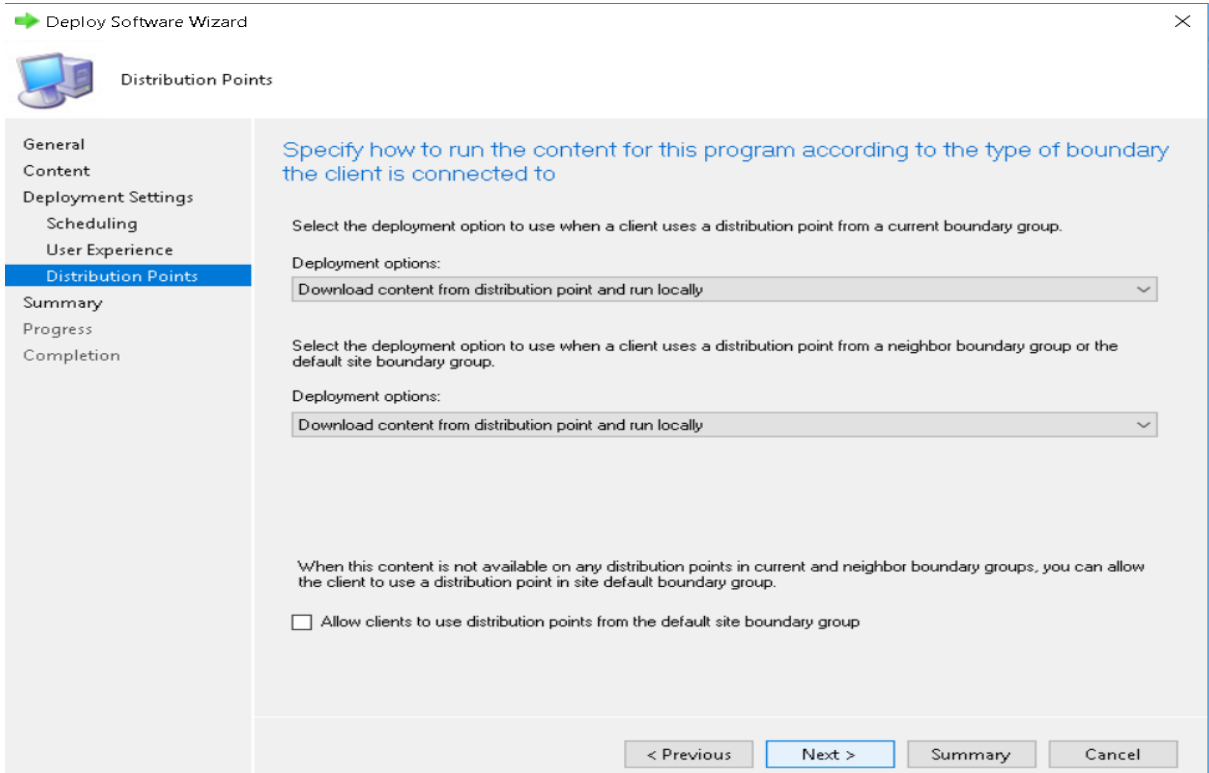


Figure :23

- 15) Select the Deployment options as “Download content from distribution point and run locally”.
(Refer Figure:23)
Push the “Next” button to move to the next page. (Refer Figure:24)

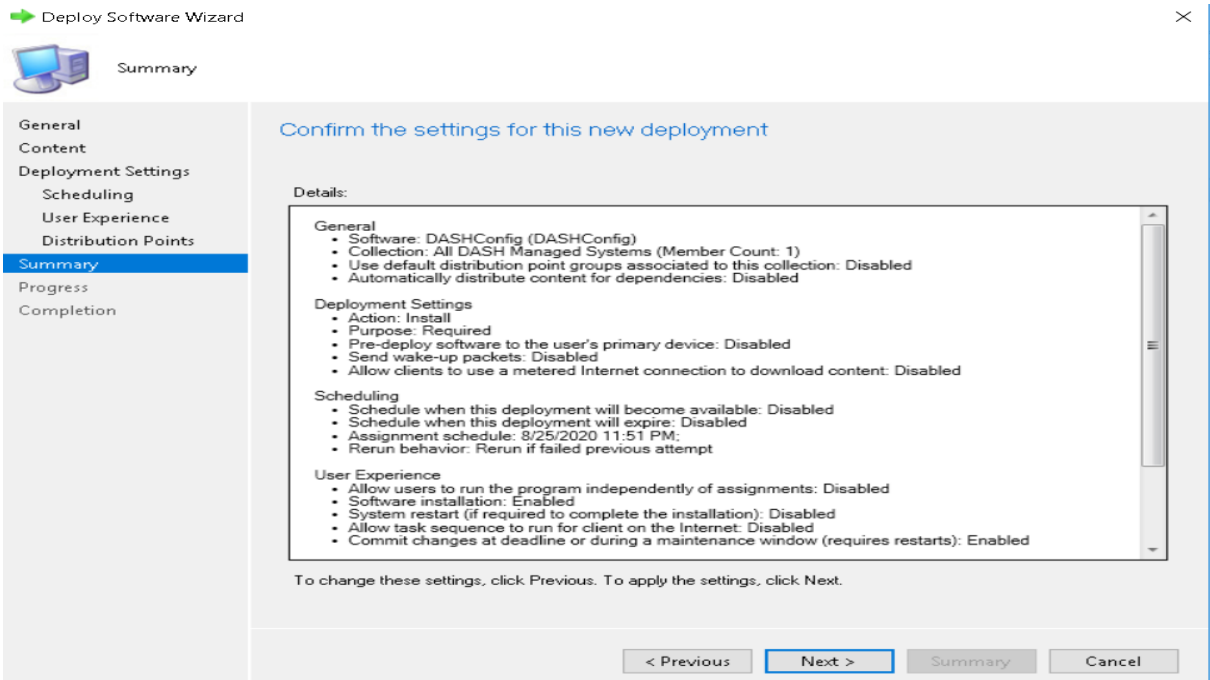


Figure :24

- 16) On the “Summary” page, make sure that the package details are correct.(Refer Figure:25)
17) Push the “Next” button to move to the next page.

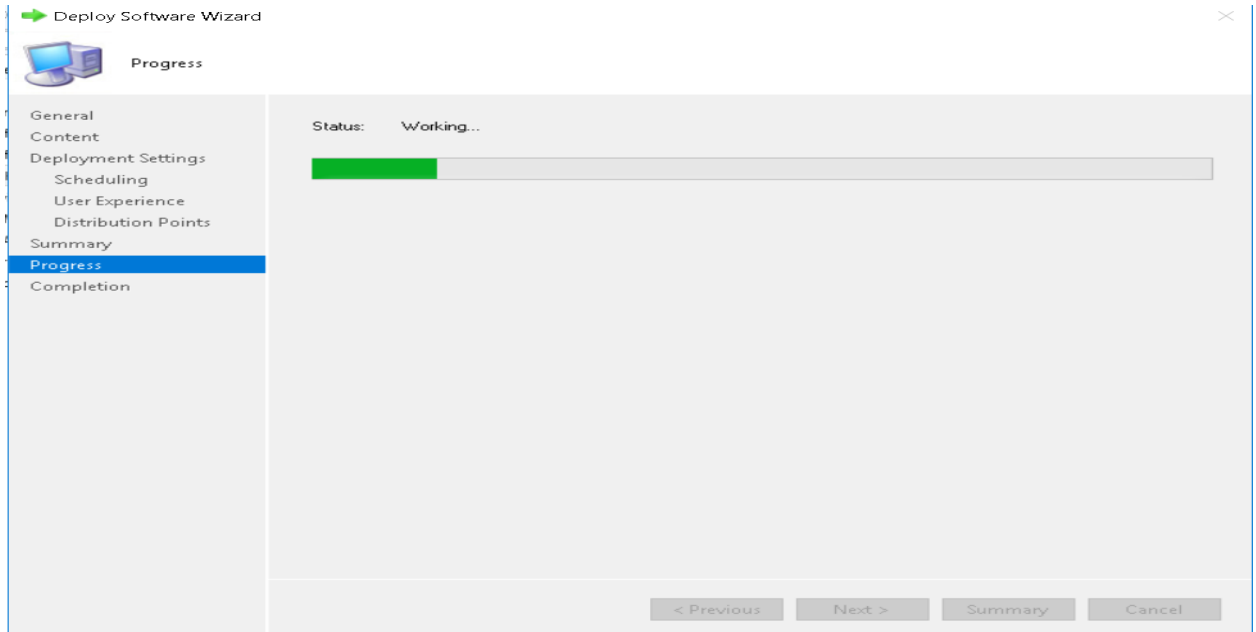


Figure :25

18) Make sure that program creation is working on the “Progress” page....

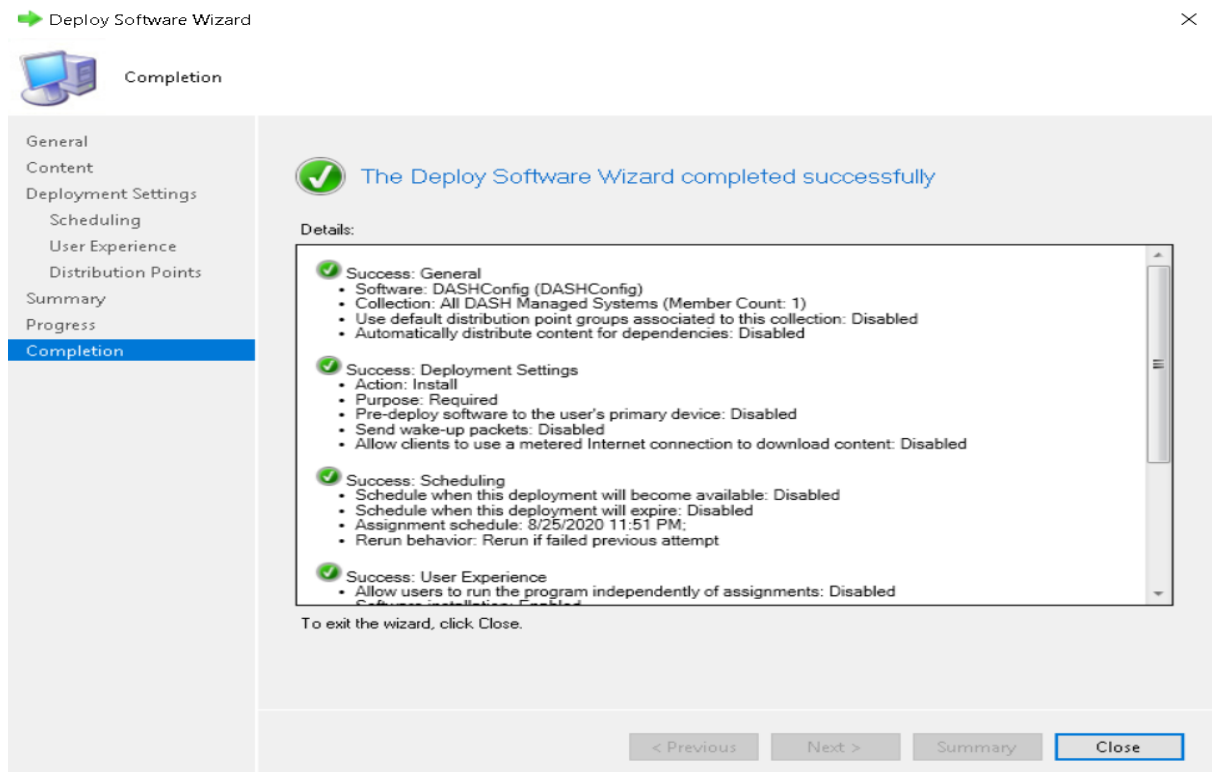


Figure :26

- 19) When the “Confirmation” page appears, make sure that the program was successfully created and press the “Close” button to close the wizard.
- 20) You can check the MEM “System Status” logs to determine the success of package delivery and program execution. Also you can execmgr.log file in the DASH machine’s Windows\System32\CCM\Logs folder. Finally you check the package’s folder for the DASHConfig.log file.

2.4.4 Running DASHConfig manually on the DASH system

- 1) Start a “Command Prompt” window with “Run as administrator” authority
- 2) Change current directory to the folder where the DASHConfig executable and provisioning XML reside. In this example that folder is C:\DASH
- 3) Invoke DASHConfig using following command line:
DASHConfig -xf:DASHConfigExample.xml -dx -mif -lf:DASHConfig.log (Refer Figure:27)

NOTE: Refer DASHConfig release notes on help.

NOTE: For a large group of DASH systems, it is faster to use a script or batch file that can be delivered and invoked locally on each DASH system’s host operating system.

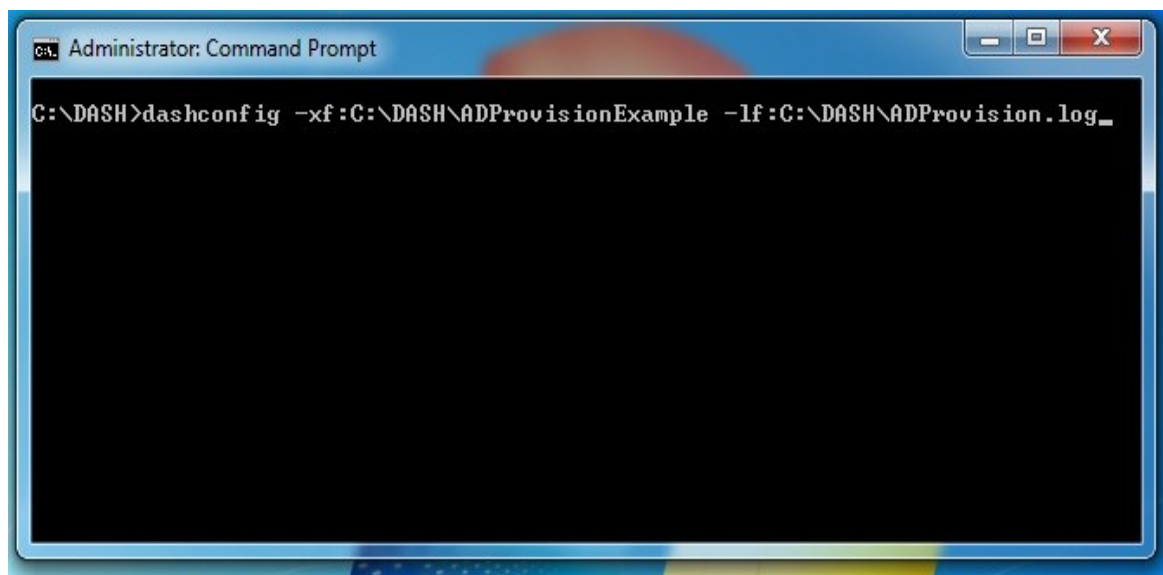


Figure :27

- 4) Open the log file (DASHConfig.log) in the editor of your choice and make sure the DASHConfig procedure completed successfully. (Refer Figure:28)

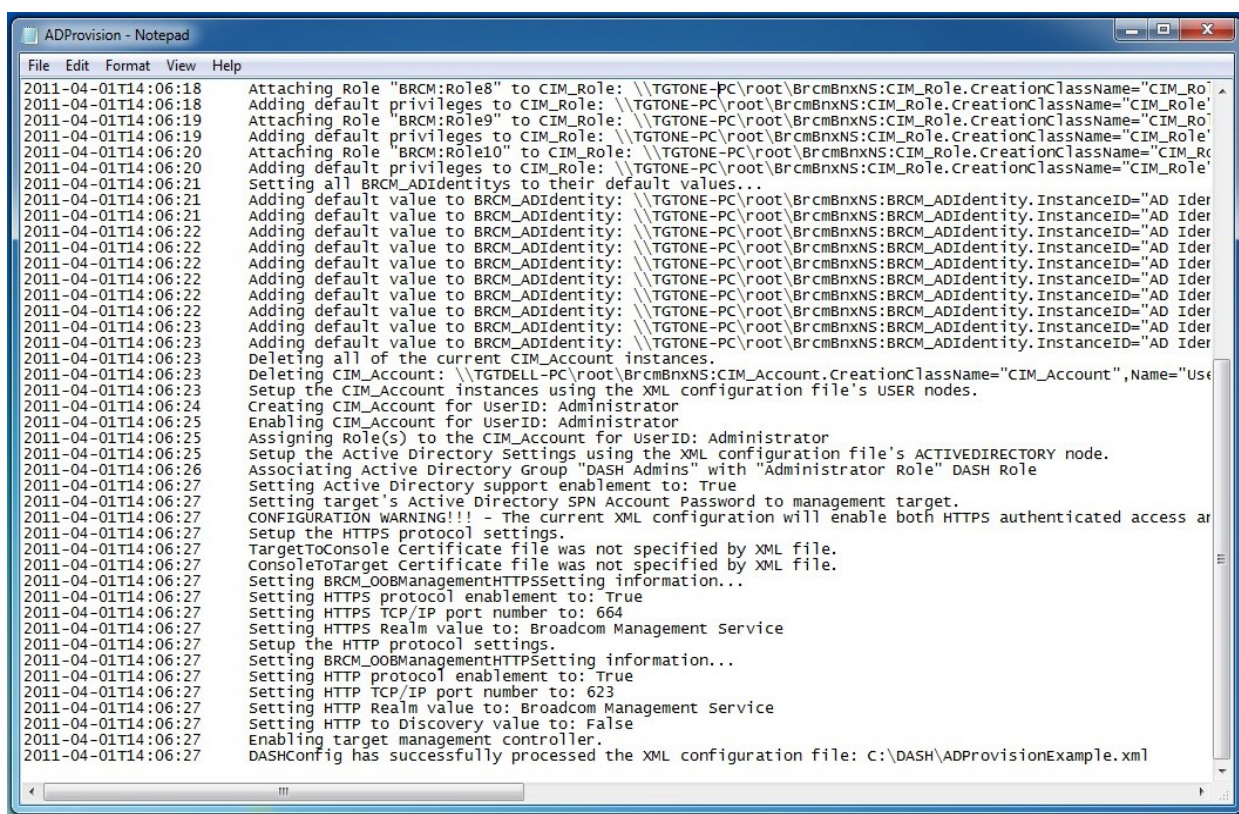


Figure :28

2.5 Create a DASH systems user in Active Directory and add to DASHAdmins group

- 1) On the AD domain controller, open the “Active Directory User and Computers” MMC
- 2) Right click on “Users” node and create a new user (referred to as ‘sccmuser’ in the figure)
- 3) In properties of this user, under ‘Member Of’ tab, add this user to DASHAdmins group.
- 4) Add the console operator domain user accounts that require access the DASH Systems.
(Refer Figure:29)

NOTE: For higher security, this user can have restricted access, such as no desktop login access.

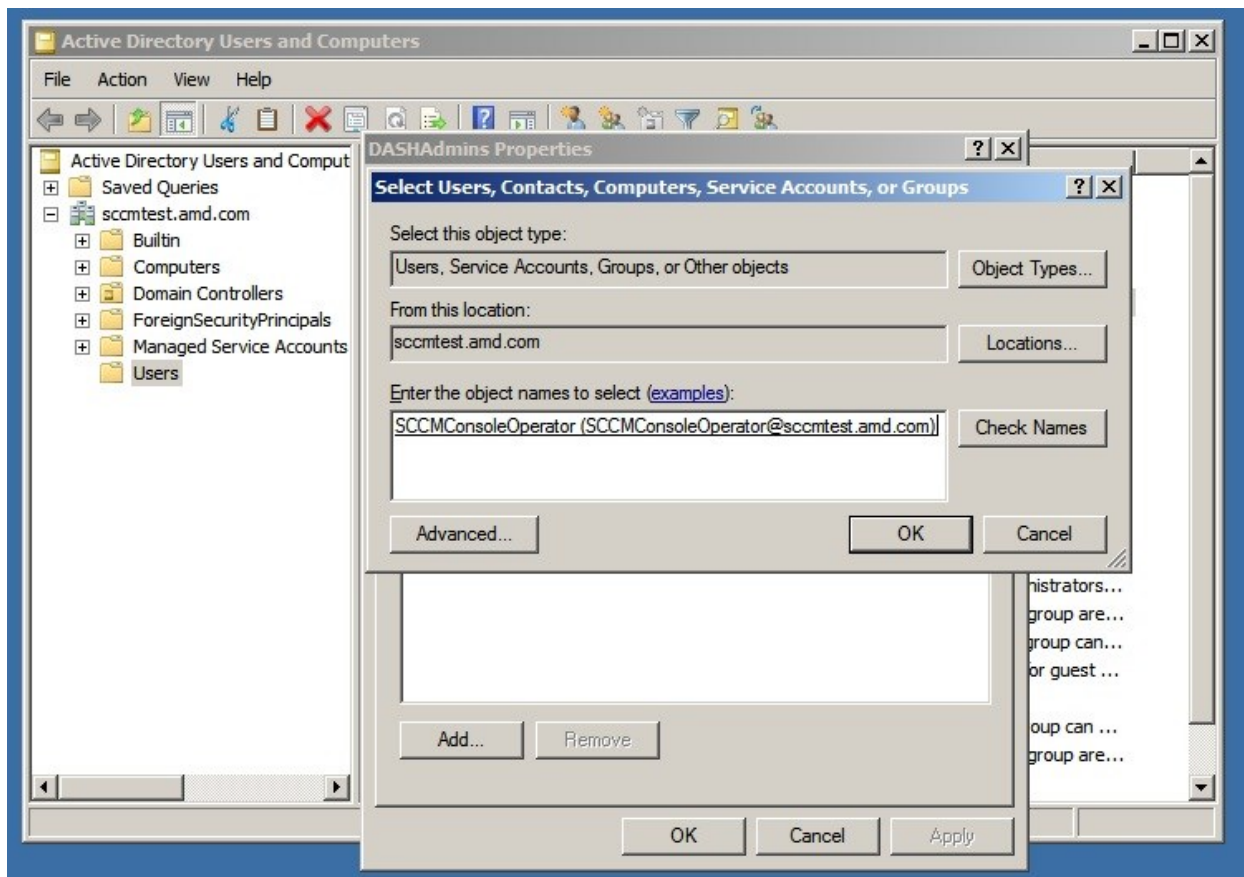



Figure :29

2.6 Configure AMD Management Plugin for SCCM(AMPS)

- 1) Open DASH Configuration window in AMPS.
 - a) Open MEM console and click on Administration Tab.
 - b) Expand Site Configuration and right click on DASH Configuration.
- 2) Go to Authentication Schemes.
- 3) Select Active Directory under Scheme.
- 4) Enter DASH systems user created in step 5 as domain user & specify correct password for that account.
- 5) Click on save button and close the dash configuration. (Refer Figure:30)

 DASH Configuration

Authentication Schemes

	Auth Identifier	Scheme	Username	Password	Confirm Password
1	RLTK	Digest	Administrator	XXXXXXXX	XXXXXXXX
2	BRCM	Digest	Administrator	XXXXXXXX	XXXXXXXX
3	WME	Digest	Administrator	XXXXXXXX	XXXXXXXX

Management Port and Transport

☒ HTTP

623

☐ HTTPS

664

Alerts

Event Port : 8080

Configuration Manager Settings

☒ DASH Wakeup - Use DASH to wakeup a collection of devices during power management and package deployment

☒ DASH Auto Discover - Enable automatic DASH discovery of newly found devices by site server

TLS certificate for HTTPS

☒ Trust self signed certificate

Any self-signed TLS certificate, installed on DASH system will be trusted. Ensure the DASH systems are configured with a TLS server certificate.

About

Help

Save

Close

Figure :30