AMD Management Console 2.0

User Guide

Advanced Micro Devices

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Contents

Abbreviations

- **DASH** (**D**esktop and Mobile **A**rchitecture for **S**ystem **H**ardware): It is the DMTF Commercial Client management standard produced by the DMTF DMWG. It specifies the transport, management protocol (WS-Man) and DMTF CIM profiles used to manage desktop/mobile PC. A 'Dash Capable System' is a computer system which conforms to the DMTF DASH standard.
- **DMTF** (**D**istributed **M**anagement **T**ask **F**orce): It is an industry organization which develops system management standards such as DASH and WS-Management.
- **MC**: **M**anagement **C**ontroller.
- **DASH MC**: The MC that implements the external DASH protocol stack. It interfaces with other platform components (BIOS, SB, IMDs, etc.) to get needed information or control the platform.
- **Out-of-band management**: This defines the management tasks that are performed independent of the power or OS state on the managed client or system.
- **Managed System or Managed Node**: It is a DASH capable system i.e. a computer system which conforms to the DMTF DASH standard.

Chapter 1 Introduction

This document describes features and usage of AMC (AMD Management Console) version 1.2. AMC allows the IT Admin to remotely manage client computer systems which support the DMTF DASH standard. AMC 1.2 supports DASH 1.0 and 1.1.

Features supported in AMC 1.2 are:

- Multiple authentication schemes (up to 3) supported.
- All the configuration parameters are available in a single screen.
- Console layout is saved when closed and is restored when opened later.
- Managed systems, for which authentication has failed, are highlighted in red color.
- Managed system's properties are available in a right click menu option.

Features supported in AMC 1.0 are:

- Manage DASH Capable computer systems by grouping the systems. Option to create, rename or delete groups. Also, add or remove systems to or from any group.
- Discovery can be performed on single system, IP address range or on systems in active directory domain.
- Power operation can be performed on a system or on a group of systems. Supports Power Control 2.0 profile.
- Boot configuration: View configuration and change boot order.
- Text redirection: Connect via SSH or Telnet.
- USB redirection.
- Alerts: Subscribe, unsubscribe and receive decoded alerts.
- System health: Sensor and fan status.
- Inventory: Identity, computer system, asset, processor, memory, ethernet, BIOS and software.
- Configurations:
    - Digest and active directory authentication.
    - HTTPS and HTTP transports.
    - Management ports.
- Filter activity log based on severity or source of event.
- Persist user selected activity/alert window filters.

AMC is capable of managing up to 500 DASH capable systems in a SMB environment.

1.1   Architecture Overview

Referring Figure 1, AMC consists of two major Layers. The first one is the AMC User Interface (AMC UI) and the other is the AMC Service. The AMC UI layer is a light weight layer and relies entirely on the AMC Service.

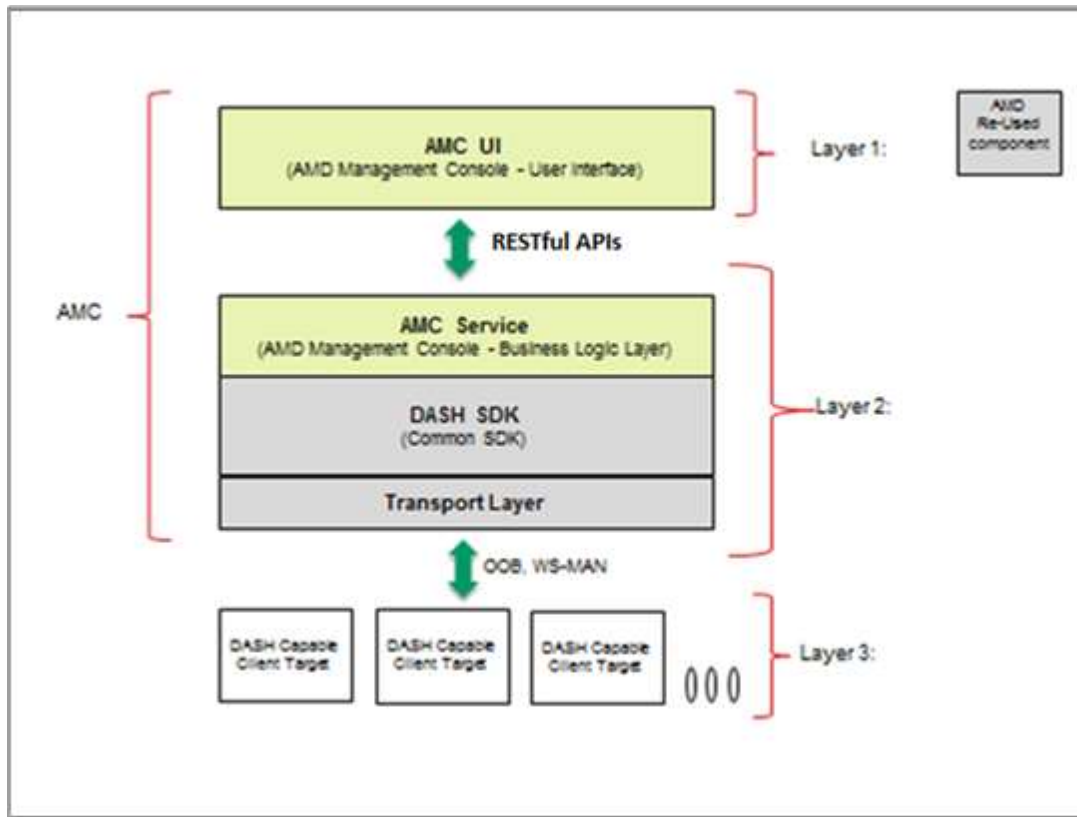Figure 1 shows an architectural overview of the AMC.

Figure 1: AMC High Level Architectural Overview.

1.2   System Requirements

Supported Operating Systems

Listed below are the supported operating systems to install and use AMC:

- Windows 7 (32 and 64 bit)
- Windows 8 (32 and 64 bit)
- Windows 8.1 (32 and 64 bit)
- Windows Server 2008 R2 (64 bit)
- Windows Server 2012 (64 bit)
- Windows 10

Memory and Disk Space requirements

AMC requires a minimum of 1 GB Disk space and 4 GB RAM for normal functioning.

1.3   Prerequisites

DASH capable client desktops and notebooks (client targets) should be DASH enabled/configured to be managed from AMC. Kindly refer to the client system vendor's tool chain to configure the system.

Note: 'DASH Config', an AMD tool is packaged with AMC and can be used for configuration. Refer the release notes of DASH Config tool.

1.4   AMC Installation Steps

Once a system to be installed is identified with all the requirements as specified in *section 1.2*, use the 'AMC-setup-<version>-AMD.exe' to install AMC.

Note: If you have AMC 1.0 / AMC 1.1 installed in your system, you first have to uninstall that version before installing AMC 1.2.

1. Double click on the 'AMC-setup-<version>-AMD.exe' windows installer file.

2. The AMC setup wizard will appear as shown in Figure 2, click on 'Next' to continue the installation.

Figure 2: AMC Setup Dialog

3. The 'License Agreement' dialog appears as shown in Figure 3.

4. Read the License Agreement carefully, and select 'I accept the terms in the license agreement' radio button to accept the license terms and then click on the 'Next' to continue.
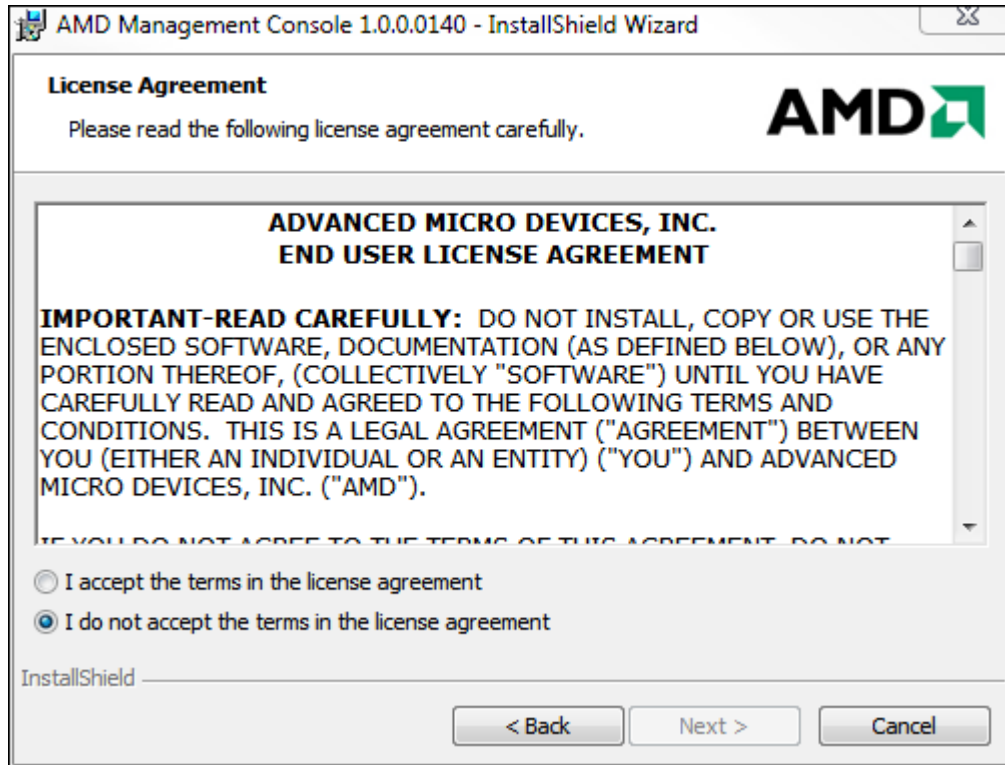

Figure 3: License Agreement Dialog

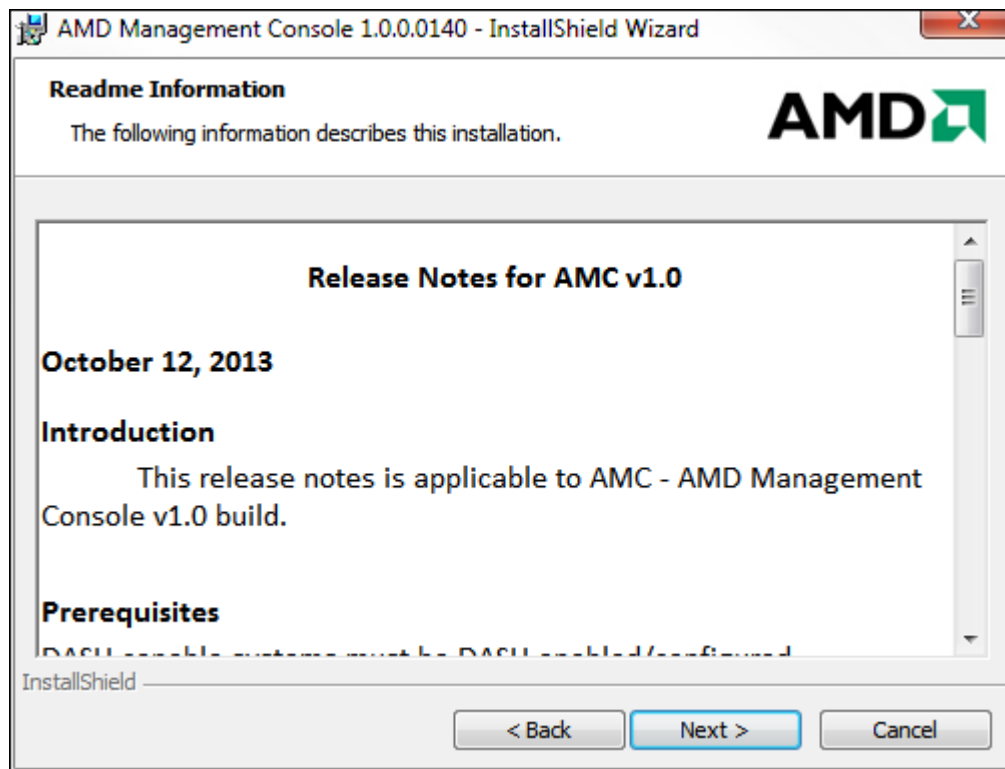5. The 'release notes' dialog appears as shown in Figure 4, read the information and then click next to continue.

Figure 4: Release Notes Information

6. The 'Destination Folder' dialog appears as shown in Figure 5. Default destination folder can be changed by clicking the 'Change' button. Once done, click 'Next' to continue.
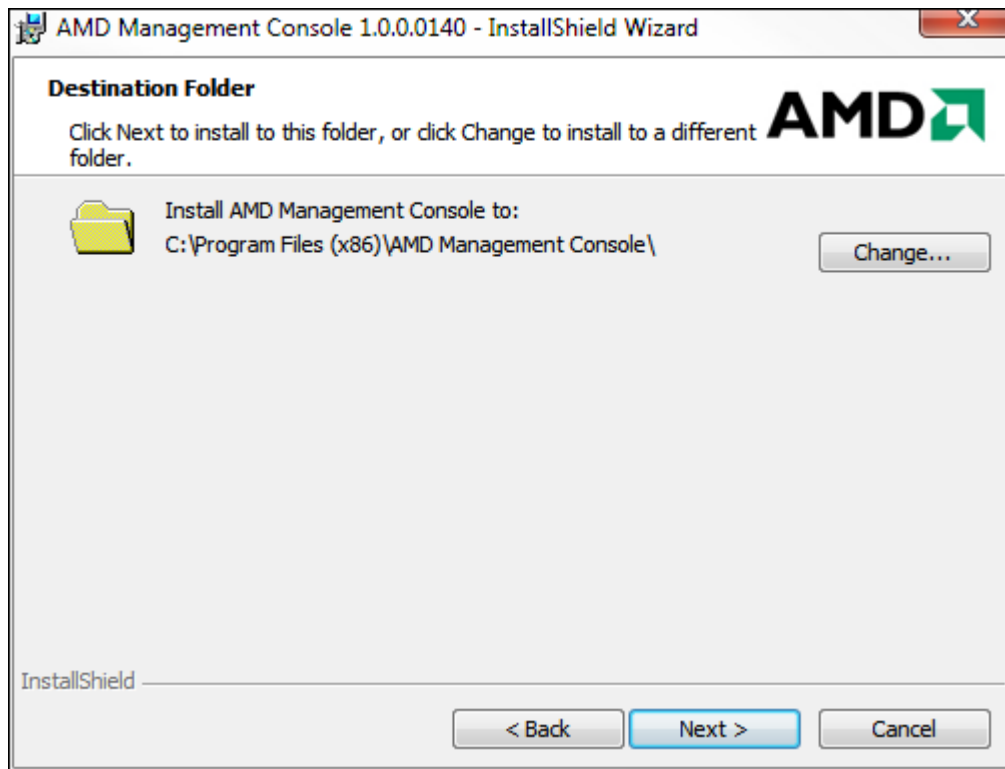

Figure 5: Destination Folder Dialog

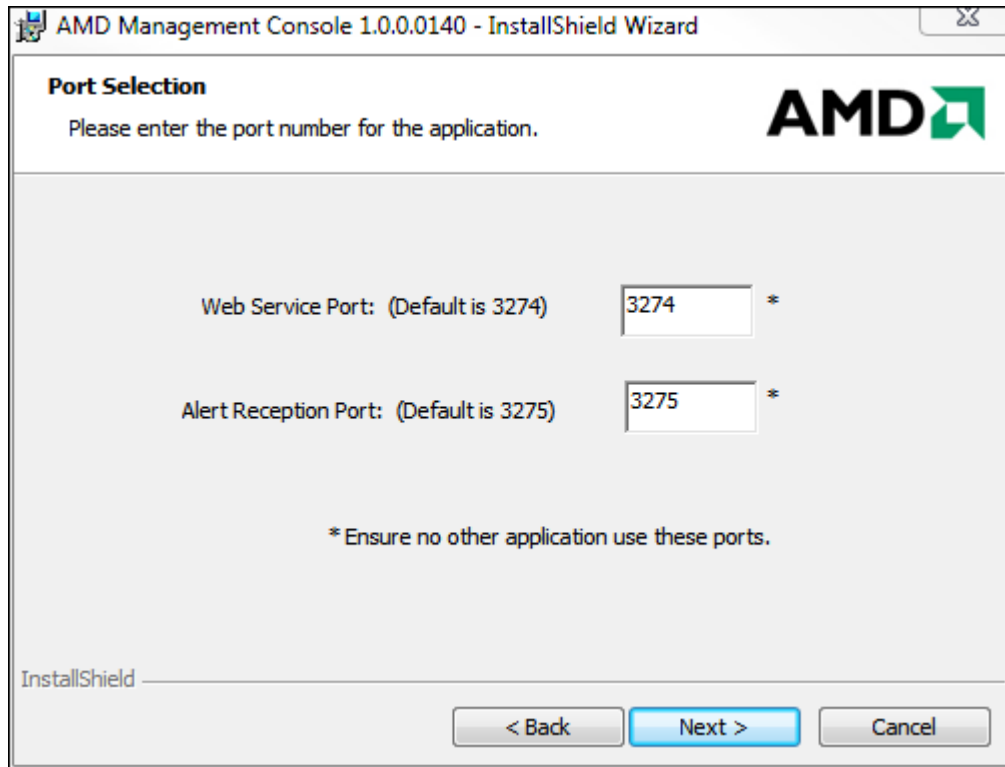7. The 'AMC Port Configuration' dialog appears as shown in Figure 6.

Figure 6: AMC Port Selection Dialog

a. The AMC Service port is used by AMC UI to connect to the AMC Service. The default AMC Service port is 3274. It is recommended not to change the AMC Service port unless the specified port is already in use by a different application.

b. The Alert Reception port is used by AMC Service to receive alerts from the managed nodes (targets). The default Alert Reception port is 3275. It is recommended not to change the Alert reception port unless the specified port is already in use by a different application.

Change the ports to the desired value if necessary and click 'Next' to continue installation.

8. The 'Ready to Install the Program' dialog appears as shown in Figure 7. Click on 'Install' to install the program.
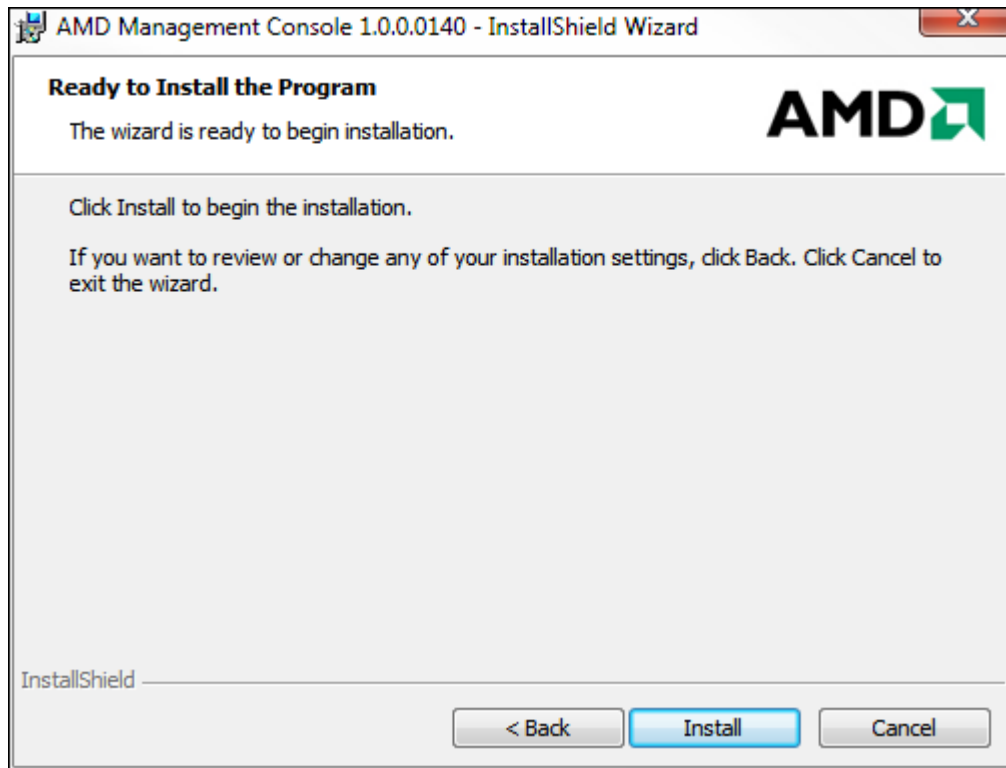
Figure 7: Ready to Install the Program Dialog

9. The 'Installation complete' dialog appears as shown in Figure 8. To launch AMC, check the 'Launch AMD Management Console UI' check box and then click 'Finish' to complete the installation.
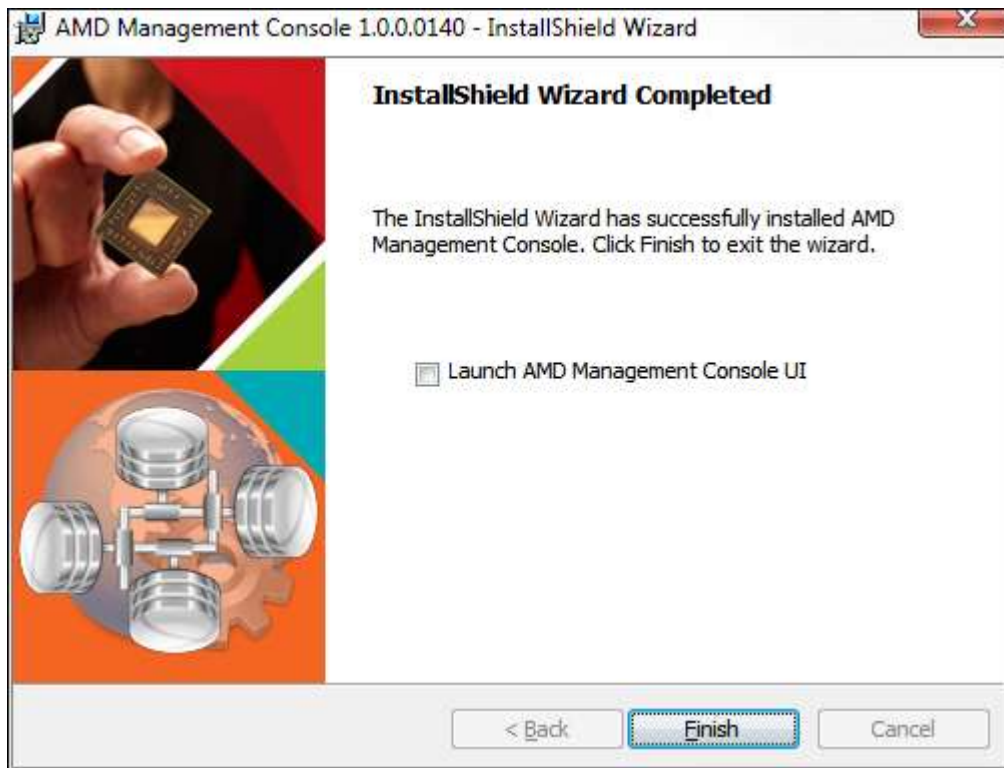

Figure 8: Installation Completion Dialog

Chapter 2   Configure AMC

The configuration screen to configure AMC appears in two ways.

1. When UI is launched for the first time after installation, a dialog box will appear as shown in Figure 9. Click OK to get to the AMC Configuration screen.

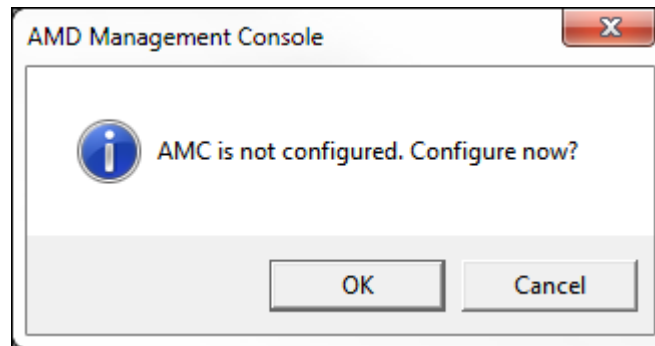Figure 9: Configure AMC

2. After launching the UI, go to 'CONFIGURATION' tab and click on 'Settings' ribbon icon to get to the AMC Configuration Screen. Kindly refer to Figure 10 below.
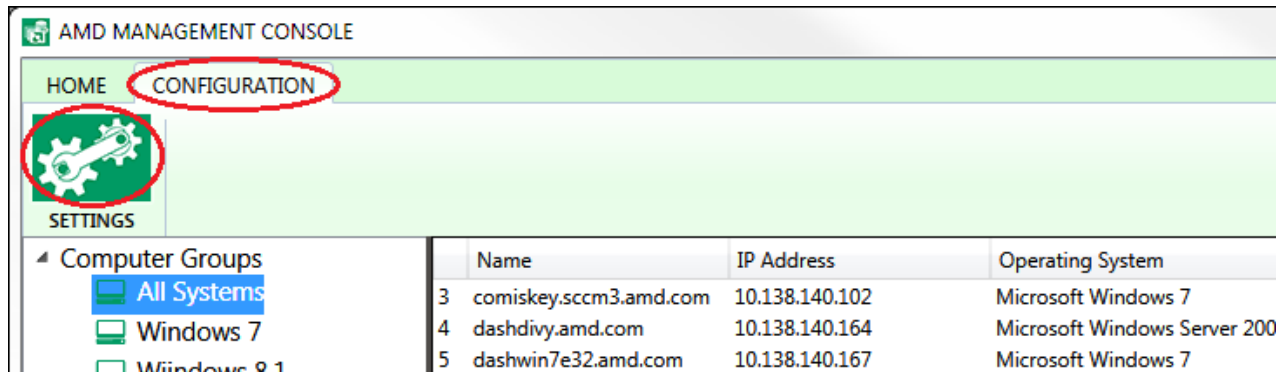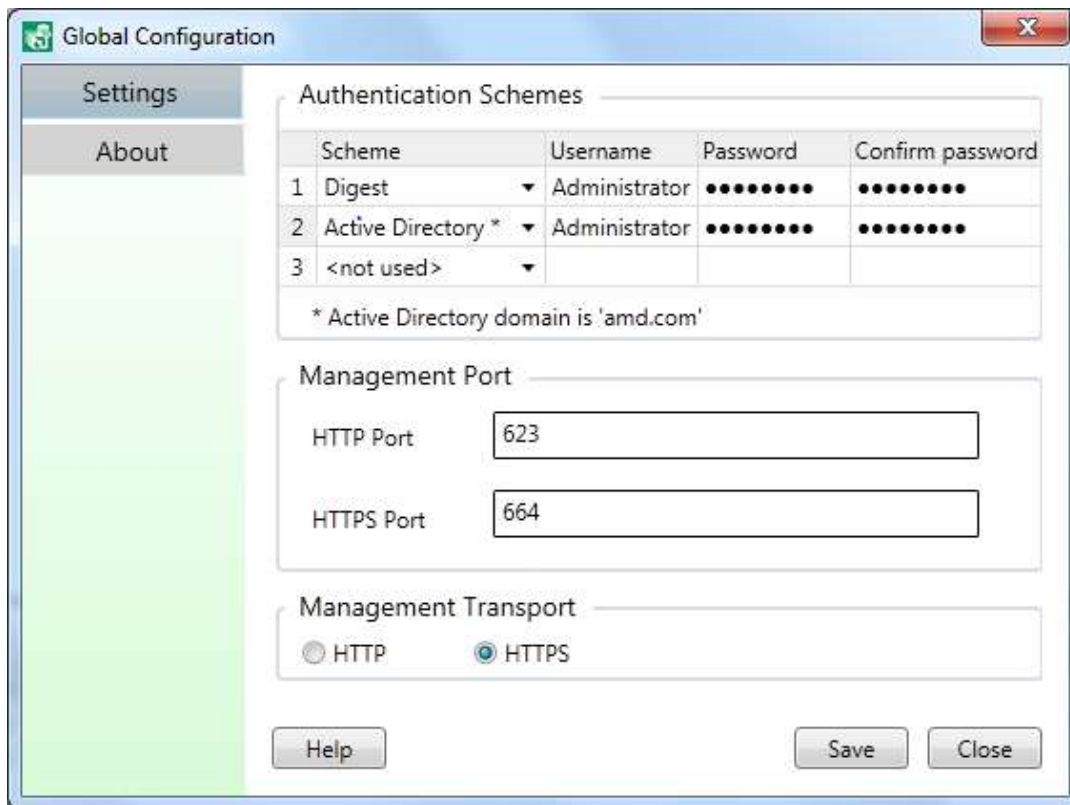

Figure 10: Configure AMC

The AMC configuration screen captures information such as authentication and connection details. AMC will use this information to connect and communicate with the managed computer systems.

2.1 Authentication

AMC has support for up to three authentication entries. Each entry has an authentication scheme and corresponding credentials which has to be provided. AMC has support for two types of authentication schemes, Digest and Active Directory respectively. IT administrator has to provide at least one authentication entry (Scheme, Username and Password). AMC will use one of three entries in sequential order to authenticate itself to manage the target. Once a target is authenticated with a specific entry, the target is associated with that authentication entry. If AMC at a later stage is not able to manage the said system with the associated authentication entry, and if more than one authentication entry is available, AMC will try to utilize the other entries to authenticate itself with the said target. If this succeeds, the association is modified or else removed. Note that between authentication entries, the Scheme and Username together are unique. Specifically, there cannot be two entries with a same scheme and username. It is expected that the computer systems should be provisioned with one of the three authentication entries provided in AMC. Provisioning the managed system is beyond the scope of AMC. IT Admin should use the respective vendor tools to provision the managed computer system.

In figure 11, the IT administrator has provided two authentication entries. First, with Digest Authentication Scheme with credentials and the second, with Active directory authentication scheme with credentials.

Figure 11: Authentication Screen

AMC is capable of communicating with the managed DASH computer systems on either HTTP or HTTPS transport. The default port for HTTP is 623 and HTTPS is 664. This transport and port selection is used by AMC for managing all DASH computer systems. Figure 11 shows that the connectivity detail. For the changes to take effect, the IT Admin should click on 'Save'.

2.2   About

The about tab displays the name of the application, the version information, web service (machine name where the web service runs), web port (port to which the UI Console connects to AMC Service) and alert port (port on which the AMC Service receives alerts from managed systems) as in Figure 13.
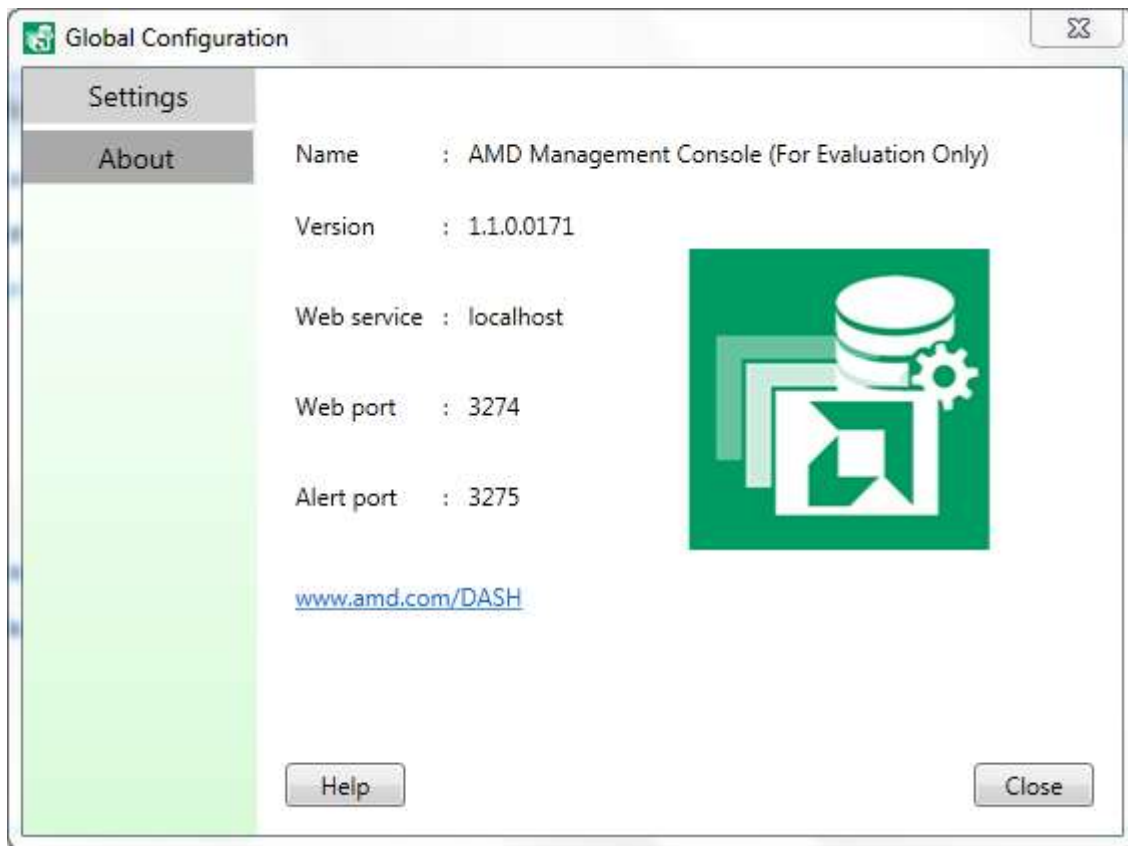
Figure 12: About Screen

Chapter 3   Layout of AMC UI
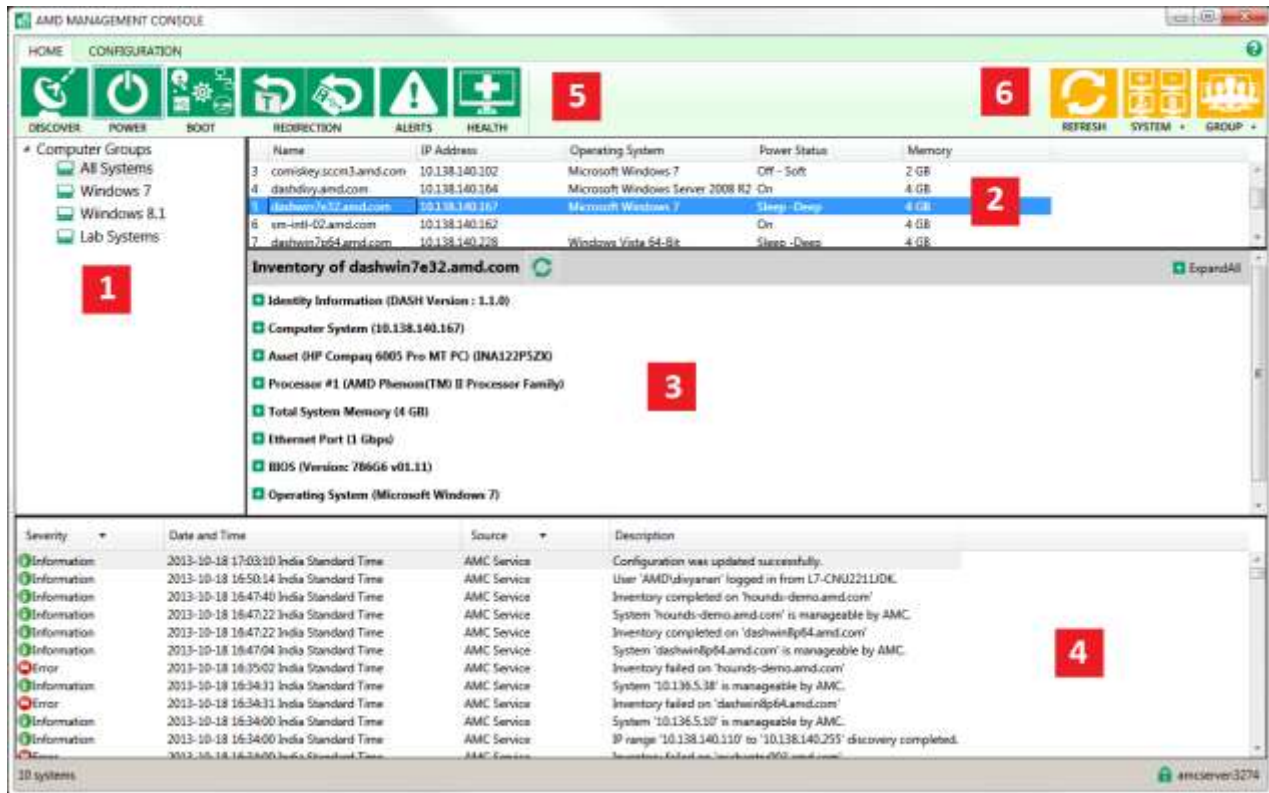
Figure 13: AMC UI Layout

Managed Computer Groups

In Figure 14, the area marked 1, lists all the Computer Groups. The default Computer Group is called 'All Systems'. This group cannot be deleted. After every discovery activity, all the DASH capable systems will be listed under this default Group. New groups can be added to the computer groups list by right clicking on the Computer Group and selecting 'Add Group' or by clicking on the 'Add' menu item under Group Ribbon icon near the item marked 6. Groups can be deleted by right clicking the relevant group and selecting 'Delete Group' or by selecting the 'Delete' menu item under Group Ribbon icon near the item marked 6. Group names can be renamed by right clicking the relevant group and selecting 'Rename Group' or by selecting the 'Rename' menu item under Group Ribbon icon near the item marked 6. To add systems to any group thus created, right click on the Group to which systems are to be added and click on 'Add systems' menu item, and select the systems from the new screen. Click on Ok to accomplish the task. There is one more way to add systems to a specific group. Select a system or a group of systems from the area mentioned 2. Click on 'Add

to Group' menu item under System Ribbon icon, this will result in a screen showing the available groups to which the user want to move the system/systems already selected. After making the selection, click ok to complete the task.

Managed Systems

In Figure 14, the area marked 2, lists all the managed DASH capable computer systems for a particular group selected in area marked 1. If the group selected in area 1 is changed, the respective managed targets of that group get listed in area 2. The systems which are listed here are color coded. The systems with black color inform that the right authentication credential is available with AMC to manage it. The systems with red color inform the user that AMC does not have the right credentials to manage the system.

Inventory

In Figure 14, the area marked 3 is where all the inventory information of a single managed computer system gets listed. The computer system for which the inventory gets listed is based on the selection of the system made from the list in area 2. The asset and inventory information displayed here are identity of the system, physical assets, processor, system memory, Ethernet port, BIOS, OS and System Software.

Activity Log and Alerts

In Figure 14, the area marked 4 is where all the activity and alerts are listed. When an IT Admin initiates an operation, the operations progress is shown in this area. This area also lists the alerts which are received from the managed computer systems. IT Admin can apply filters for information required to be seen in area 4. In the source column, selecting 'Managed Systems' will show only the alerts from Managed systems, selecting 'AMC Service' will show only activity initiated by the IT Admin as tracked by AMC Service and its progress, selecting 'Show All' will show all the messages (both from AMC service and Managed systems). IT Admin can also apply filters for the Severity column; user can select one of 'Show All', 'Information', 'Warning', 'Error', 'Error and Warning' and the respective severity items only will be displayed in area 4.

Manage DASH Clients from AMC

In Figure 14, the area marked 5 is where all the ribbon icons are present. Clicking on them will initiate a management operation, either with a single managed computer system or group of computer systems. The same operation can also be performed by right clicking in the area 1 (Group) or in the area 2 (System). The management operations that can be initiated in this release are Discovery of manageable systems, Power monitoring and control, Boot monitoring and control, Text Redirection, USB Redirection, Alert subscription/un-subscription, Health monitoring.

AMC Group or System activity

In Figure 14, the area marked 6 is where all the ribbon icons with menu items are available. Using these icons, IT Admin can create new groups, delete existing groups, add a system to a group, remove a system from a group or delete a system from AMC. To refresh the information in areas 2 and 3, the refresh ribbon icon can be used.

Chapter 4   How to Manage Clients from AMC

To Manage Clients from AMC, initially manageable systems have to be discovered. Then a set of tasks/operations can be performed against the manageable systems discovered.

4.1   Discovery

Note: Before performing a discovery operation, make sure that the authentication details are correct, refer *'Authentication'*.

Discovery is the process of adding systems to AMC for management. Only systems that have hardware which supports DMTF management specification can be discovered by AMC. On successful discovery, the system is added to 'All Systems' group and inventory is performed on that system. The systems thus added will be of black in color, if AMC was able to authenticate itself successfully using one of the authentication entries provided in the *'Authentication'* screen. The systems thus added will be of red in color, if AMC was not able to authenticate itself successfully using any of the authentication entries provided through AMC. Through discovery, AMC determines if a system supports DASH and which specific capabilities or features are accessible.

Figure 14: Discovery

Four different modes of discovery are supported by AMC

Hostname

Any system name can be provided for discovery. AMC will query the system and find out if that system is manageable or not. For hostname discovery to work correctly, ensure the DNS settings are correct and working. This method is useful for finding out if a single system is manageable or not.

IP Address

Any valid IP address can be provided for discovery. AMC will query that address and find out if that system is manageable or not. This method is useful for finding out if a single system is manageable or not.

IP Subnet

A range of IP address can be provided for discovery. AMC will scan each IP address in that range and find out if the system with that IP address is manageable by AMC or not. This method is one of the bulk discovery mechanisms, where large numbers of systems can be discovered.

Active Directory

If the system on which AMC is installed is part of an active directory domain, then discovery is initiated on all the systems which are a part of that domain. Each system in that domain is determined if it is manageable by AMC or not. This method is one of the bulk discovery mechanisms, where a large number of systems can be discovered.

4.2   Power

AMC can monitor (current state of the system) and manage (transition the system to a new required power state) the power state of a computer system remotely. Below is the list of all possible power states, a computer system can support.

Power State	Friendly Name	Description	Corresponding ACPI State
Power On	On/Power On	Initiate the transition of the system to full on state.	G0/S0
Sleep – Light	Sleeping Lightly/Sleep Light	Initiate the transition of the system to standby or sleep state.	G1/S1 or G1/S2
Sleep – Deep	Sleeping/Sleep	Initiate the transition of the system to standby or sleep state.	G1/S3
Power Cycle (Off Soft)	Immediate Power Reset	Transition the system to off state in which the system consumes a minimal amount of power, followed by a transition to on state.	G2/S5 then G0/S0
Power Off – Hard	N/A	Initiate the transition of the system to power off state, in which the power consumption is zero except for the real-time clock.	G3
Hibernate	Hibernating/Hibernate	Transition the system to hibernation state. – write system context to non-volatile storage, power off the system and devices.	G1/S4
Power Off – Soft	Off/Immediate Power Off	Initiate the transition of the system to off state, in which the system consumes a minimal amount of power.	G2/S5
Power Cycle (Off Hard)	N/A	Transition the system to power off state, in which the power consumption is zero except for the real-time clock, followed by a transition to on state.	G3 to G0/S0
Master Bus Reset	Immediate Warm Reset	Perform hardware reset on the system.	
Diagnostic Interrupt (NMI)	Immediate Diagnostic Interrupt	Assert an NMI on the system.	

Power State	Friendly Name	Description	Corresponding ACPI State
Power Off - Soft Graceful	Off/Shutdown	Perform an orderly transition to power off state, in which the system consumes a minimal amount of power.	G2/S5
Power Off - Hard Graceful	N/A	Perform an orderly transition to power off state, in which the power consumption is zero except for the real-time clock.	G3
Master Bus Reset Graceful	Warm Restart	Perform an orderly shutdown of the system followed by hardware reset.	
Power Cycle (Off – Soft Graceful)	Restart	Perform an orderly transition of the system to power off state, in which the system consumes a minimal amount of power, followed by a transition to on state.	G2/S5 to G0/S0
Power Cycle (Off - Hard Graceful)	N/A	Perform an orderly transition of the system to power off state, in which the power consumption is zero except for the real-time clock, followed by a transition to on state.	G3 to G0/S0

All of the above power state transitions cannot be requested remotely. The subset of the above list will be visible to the user based on the said computer system's capabilities. From AMC, the power state transitions can be requested for a single system or a group of systems.

4.2.1 Power Operation on a single system

1. Click on any managed computer groups.
2. Right click on the specific system on which the power operation is to be performed.
3. Select 'Power' from the menu. You will get the power screen.
4. The Power Screen will show:
    a. The 'system name' against which you are going to perform the power operation.
    b. The 'current power state' of the system.
    c. The list of power states which the system can accept from its current state is shown in the 'select power state to apply' drop down list.
5. When any option in 'select power state to apply' drop down list is selected, an explanation of the power state is displayed.
6. To start the transition of the system to the new power state, click on 'Apply'.
7. The result of the operation will be shown and the user can close the power screen by clicking on 'Finish'.
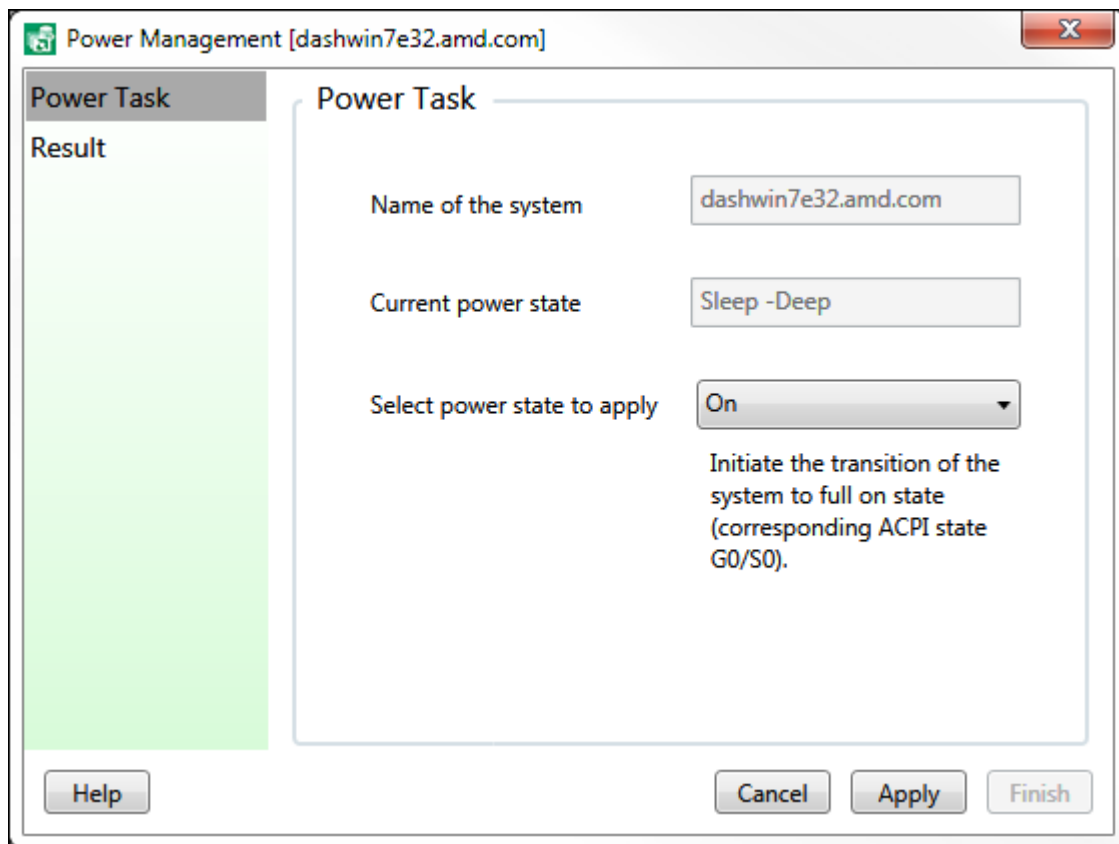

Figure 15: Power operation on a single computer system

4.2.2   Power Operation on a Group of systems

1. Right click on the group against which you want to perform the power operation.
2. Select 'Power' from the menu to get the power screen.
3. The Power Screen will show:
    a. The 'Group Name' against which you are going to perform the power operation.
    b. The list of power states which all the systems in that group can accept is shown in the 'select power state to apply' drop down list.
4. On selecting any option in 'select power state to apply' drop down list, an explanation of the selected power state is displayed.
5. Click 'Apply' to start transition of all the systems in the group to the new power state.
6. The result screen will show that the power operation on the group has been initiated. Close the power screen by clicking 'Finish'. The group tasks are background tasks, and the progress of the task can be tracked at the 'Activity Log' area.
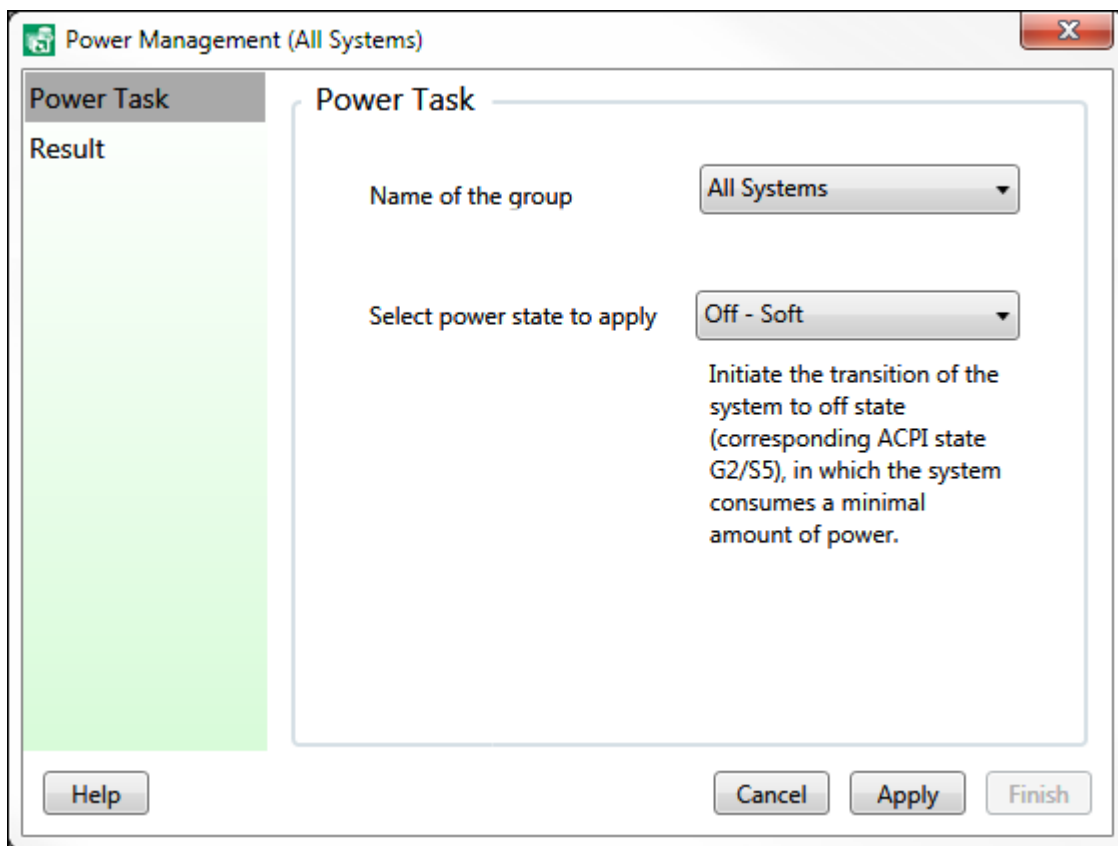

Figure 16: Power operation on a group of computer systems

4.2.3   Power Operation on a System or Group of systems

1. Click on 'Power' icon in the ribbon area to get the power screen.
2. The Power Screen initiated this way will give the option to the user either to:
    a. Perform the power operation of any system in the drop down list. The default system selected would be the system which had the focus before clicking the 'Power' icon, but the system can be changed by the user.
    b. Perform the power operation of any group in the drop down list. The default group selected would be the group against which the focus was there before clicking on the 'Power' icon, but the group can be changed to a group for which a user wishes to perform the power operation.

    Select one of the above options. Note, if you select the power operation for the system then the current power state of the system selected from the drop down is informed below the drop down.
3. On selecting any option in 'select power state to apply' drop down list, an explanation of the selected power state is displayed.
4. Click on 'Apply' to start the transition of the system(s) to a new power state.
5. The result of the operation will be shown and the user can close the power screen by clicking on 'Finish'.
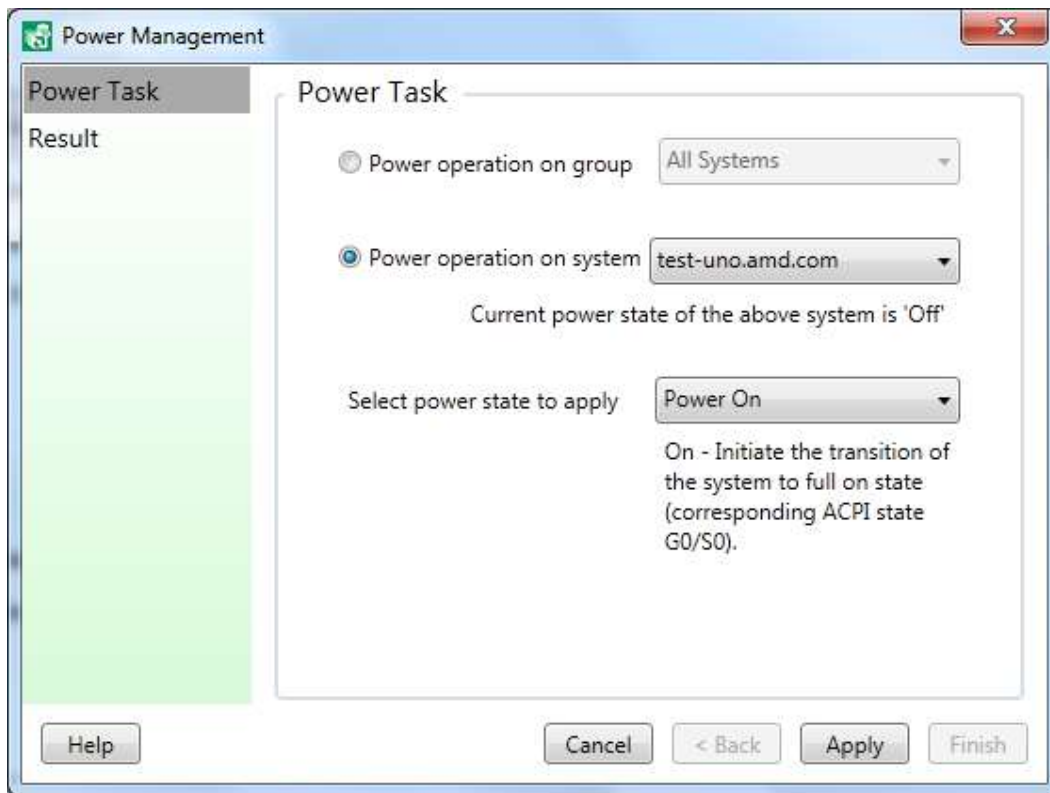

Figure 17: Power operation on either single or group of systems

4.3   Boot

A boot configuration consists of a boot order, which specifies the order of boot devices. The boot order is used during booting.

A computer system can have one or more boot configurations. If there are more than one boot configuration for a computer system, the settings data (will it be used for next boot? will it be used only for next boot? or will it not be used for next boot?) associated with the boot configurations, is used to determine which boot-configurations and boot order should be followed during next boot process.

AMC's Boot task shows all the boot configurations available for the system being managed. For each boot configuration, it shows the current boot order and allows the user to modify the boot order if required. This version of AMC only informs the present value of the setting data (will it be used for next boot, will it be used only for next boot, will it not be used for next boot) but does not allow the user to modify this.

To perform the Boot task follow these steps in AMC:

1.   Select the system on which Boot task has to be performed.
2.   Either right click on the system and select 'Boot' menu item or click on the ribbon icon 'Boot'.
3.   The Boot Screen appears and displays:

     a.   Drop down list with all the boot configurations available for the system.

     b.   Settings information for the selected boot configuration from the drop down list.
          Setting information would be one of the following:

              i.   This boot configuration will be used during next boot.
             ii.   This boot configuration will not be used during next boot.
            iii.   This boot configuration will be used only for next boot

     c.   The current boot order for the selected boot configuration from the drop down list.

4.   Select the required boot configuration from the 'Name' drop down list.

5.   Check on 'Change boot order' check box if the boot order needs to be changed.

6.   Move the Boot Devices to the 'New boot order' list box in the order required.

Note: There is no need to move all the Boot devices from current boot order to the new boot order list box. If only partial devices are moved, then the actual boot order set would be with the devices set in the New order followed by other devices available in the current boot order.

7. Click on 'Next' Button to have the new boot order take effect. The result screen will show the result, e.g. 'boot order was successfully changed'.

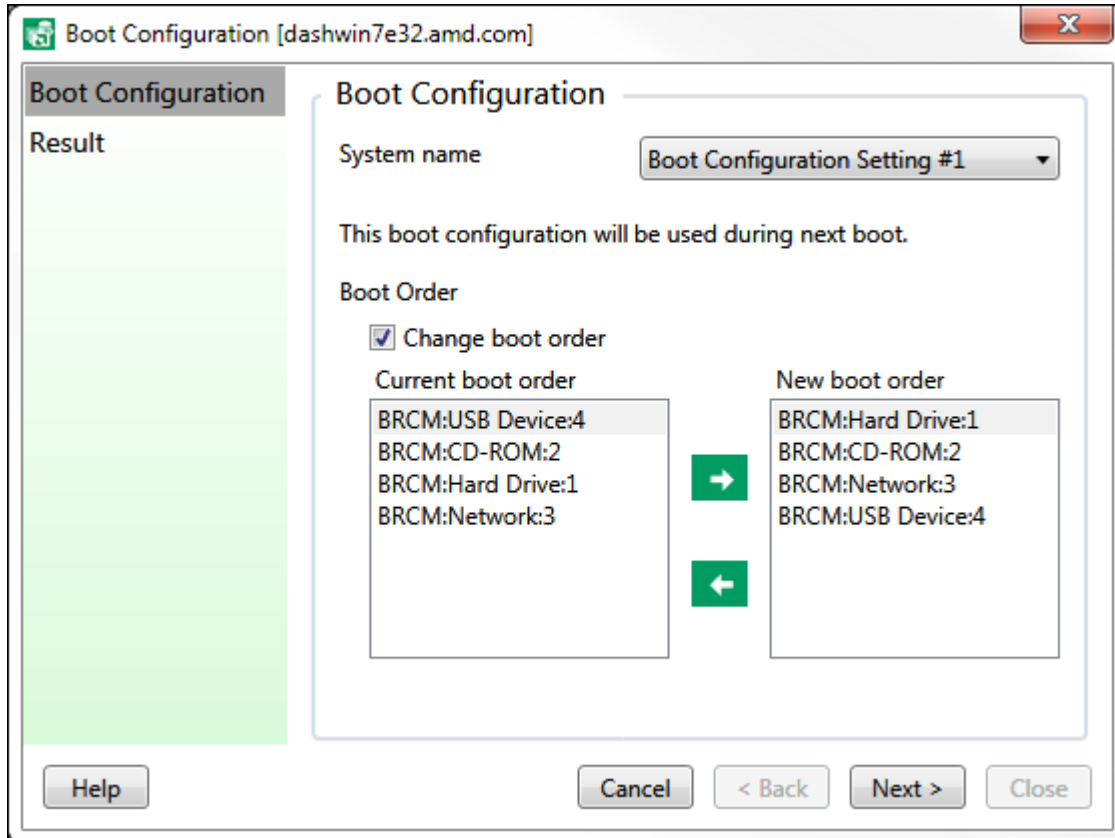8. Close the power screen by clicking 'Close'.

Figure 18: Boot Configuration

4.4   Text Redirection

Text redirection provides BIOS-assisted console and keyboard redirection to a remote computer system terminal. Boot progress, BIOS setup screen, command line OS or command line diagnostic program screens are redirected to the remote terminal. AMC has a terminal screen by which IT Admin can see the console text of the managed system. The managed system can be instructed to redirect its console text to the terminal console using either Telnet or SSH launched by AMC. To perform the same follow these steps in AMC:

1. Select the system from which the text has to be redirected.

2. Either right click on the system and select 'Text Redirection' menu item or click on the text portion of ribbon icon 'Redirection'.

3. The Text Redirection Screen appears and shows:

    a. Drop down list with available protocols for text redirection, SSH and Telnet respectively. Default selection is SSH, it can be switched to Telnet if required.
    b. The Name of the Service that runs on the system to redirect the text.
    c. The port through which the text will be redirected.
    d. The information/status – e.g. Support for OTP (one time password) is stated.

4. Select the required protocol from the 'select protocol' drop down list.
5. Click on Connect.
6. If the connection is successful, the text redirection screen will close and the terminal console Screen will appear.

Note:

- If OTP is supported, the terminal console will connect automatically to the system.

- If OTP is not supported, credentials will have to be entered in the terminal console. On successful authentication, text activity on the system will be redirected to the terminal console.

7. Close the terminal screen if text redirection is no more required from the said system.
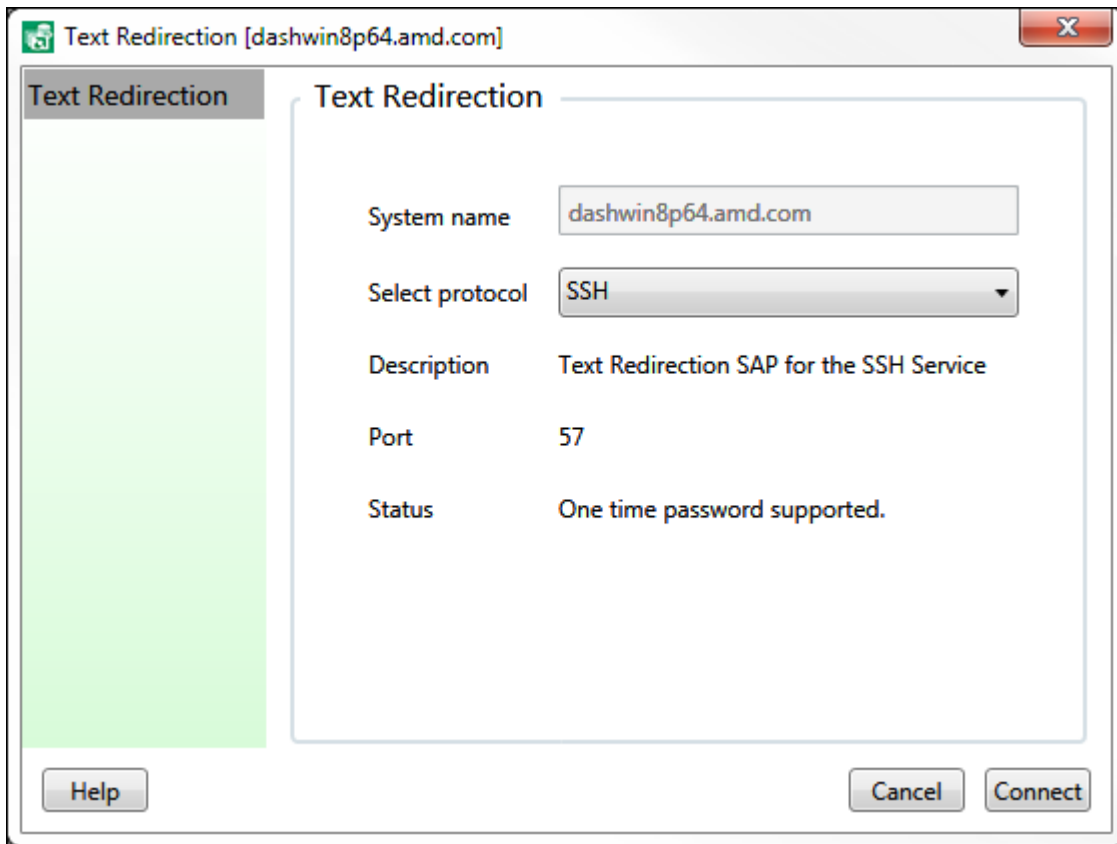

Figure 19: Text Redirection

To view and manage the BIOS remotely from AMC:

1. Select a system for which you want to view and manage the BIOS.

2. Perform the steps 2 to 6 listed above to have the terminal console active to receive the redirected text from the system.

3. Click on Power icon and select 'graceful power cycle' option in the available power states.
    Click 'Apply' to change the power state.

The terminal screen launched by AMC will receive the boot screen remotely and user can interact with the remote system using the keystrokes from the AMC system.

4.5 USB Redirection

USB Redirection provides a 'virtual' USB device which reads data from a remote image file. This allows BIOS to boot from a remote image.

USB Redirection can be used to boot the managed systems to an image file such as .iso. The ISO image file must be available as http web URL.

IT Admin can initiate an action to attach the managed systems USB to a remote URL. This operation can be performed against a single system or on a group of systems.

AMC has its own ISO webserver. Root folder is C:/AMC-ISO. ISOs can be placed in the mentioned folder and http:<ip of AMC console machine>:3274/<iso placed in AMC-ISO> can be used as USB URL.
e.g. *http://10.10.10.2:3274/dos.iso*

4.5.1 Redirect USB for a single system

1. Click on any managed computer groups.
2. Right click on the specific system against which the USB Redirection operation is to be performed.
3. Select 'USB Redirection' from the menu. If the managed system is capable of redirecting the USB you will get the USB Redirection screen.
4. The USB Redirection Screen will display:
   a. The 'Name' of the system for whose USB, AMC is going to attach the remote URL.
   b. The 'URL' that has to be attached to the systems USB.
      i. If the USB is already attached to the remote URL then the attached URL will be shown, and the option to either modify through 'Modify' check box or disconnect by clicking 'Disconnect' is available to the user.
      ii. If the USB is not attached, the user can replace/update any existing URL or enter a new valid URL and click on 'Connect'.
      A template and example is shown below on the right format for the URL entry. AMC only validates the URL format. The existence of the URL and accessibility of the URL by the managed target has to be ensured by the user and outside the scope of AMC.

5. The result of the operation will be shown and the user can close the 'USB redirection Screen' by clicking on 'Finish'.
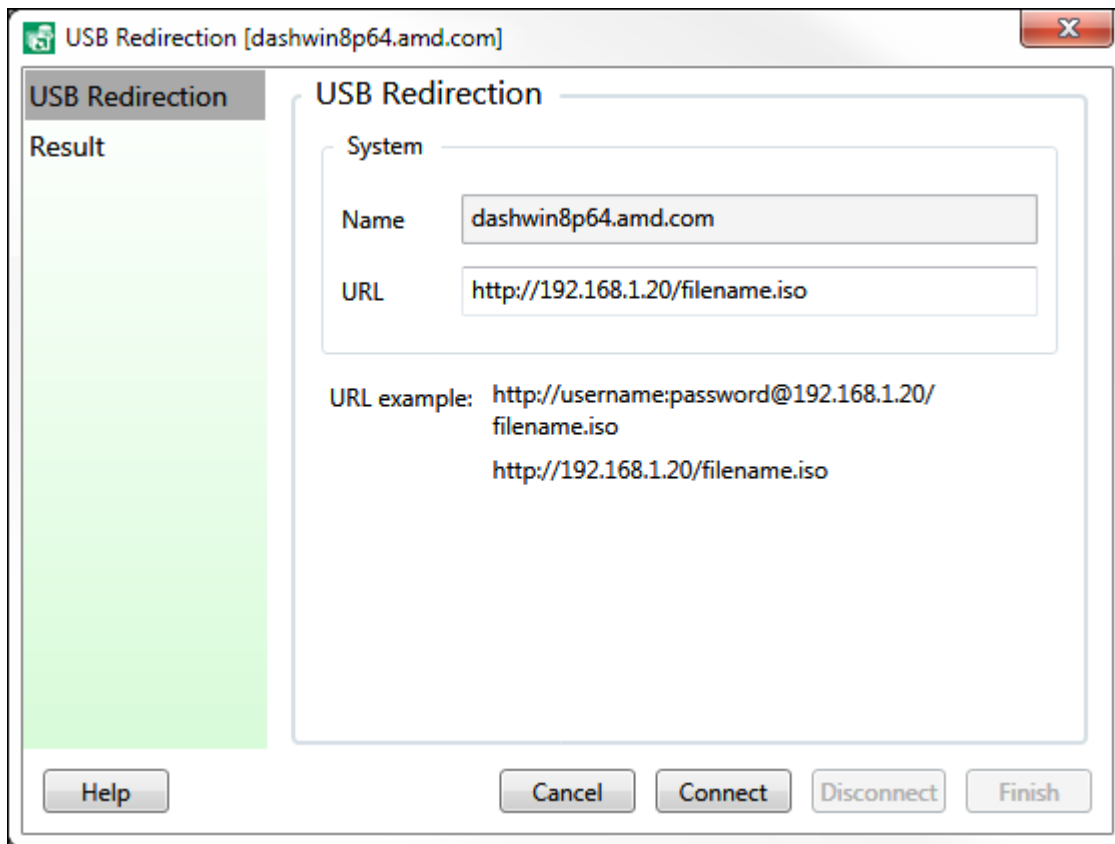

Figure 20: USB Redirection of a single system

4.5.2   USB Redirection Operation on a Group of systems

1. Right click on the group against which the USB redirection operation is to be performed.
2. Select 'USB Redirection' from the menu. USB Redirection screen will be displayed.
3. The USB Redirection Screen will allow:
   a. To select the group for whose system's AMC is going to attach the remote URL. The user can change the group against which the USB Redirection operation is to be performed.
   b. To enter a new valid URL that can be attached to the USB of the systems in the selected Group.

   A template and example in the right format is shown below the URL entry. AMC only validates the URL format. The existence of the URL and accessibility of the URL by the managed target has to be ensured by the user and outside the scope of AMC.
4. User can either:
   a. Click 'Connect', the entered URL would be attached to the USB of the systems in the selected group.
      Or
   b. Click 'Disconnect', to detach the URL for the USB of the systems in the selected group.
5. The result screen will show that the requested group operation was initiated. Close the power screen by clicking on 'Finish'. Note that all group tasks are background tasks, and at the 'Activity Log' area its progress can be tracked.
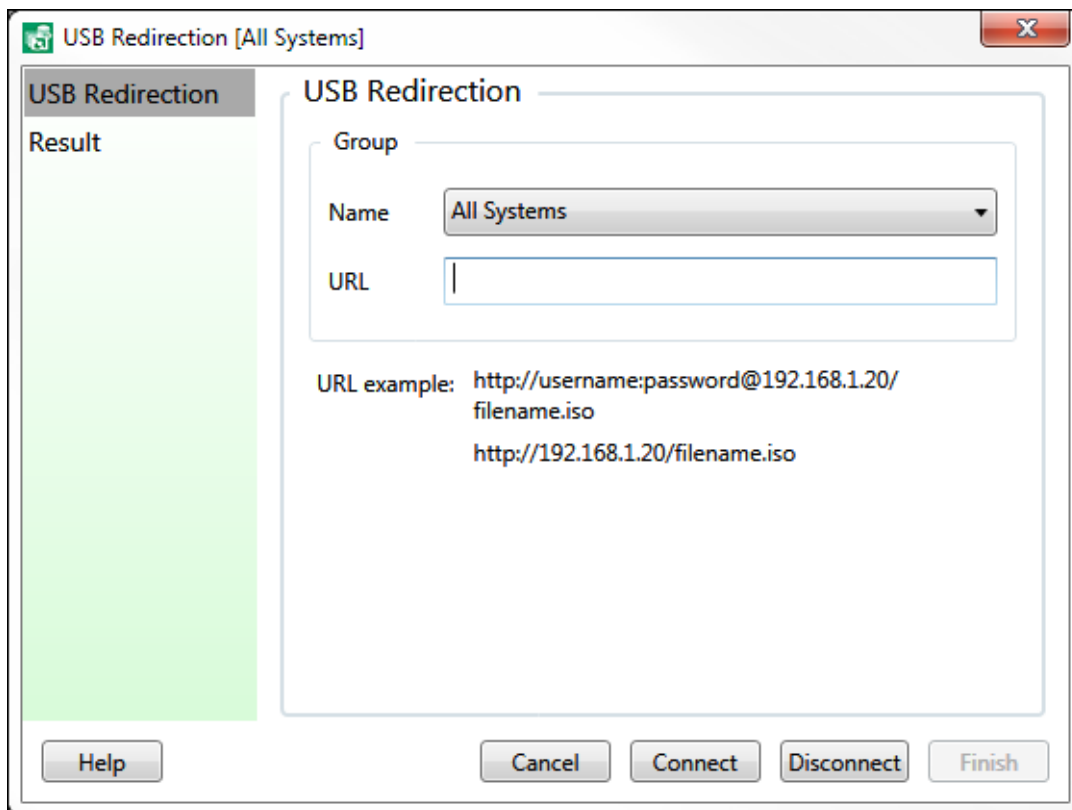

Figure 21: USB Redirection of group of systems

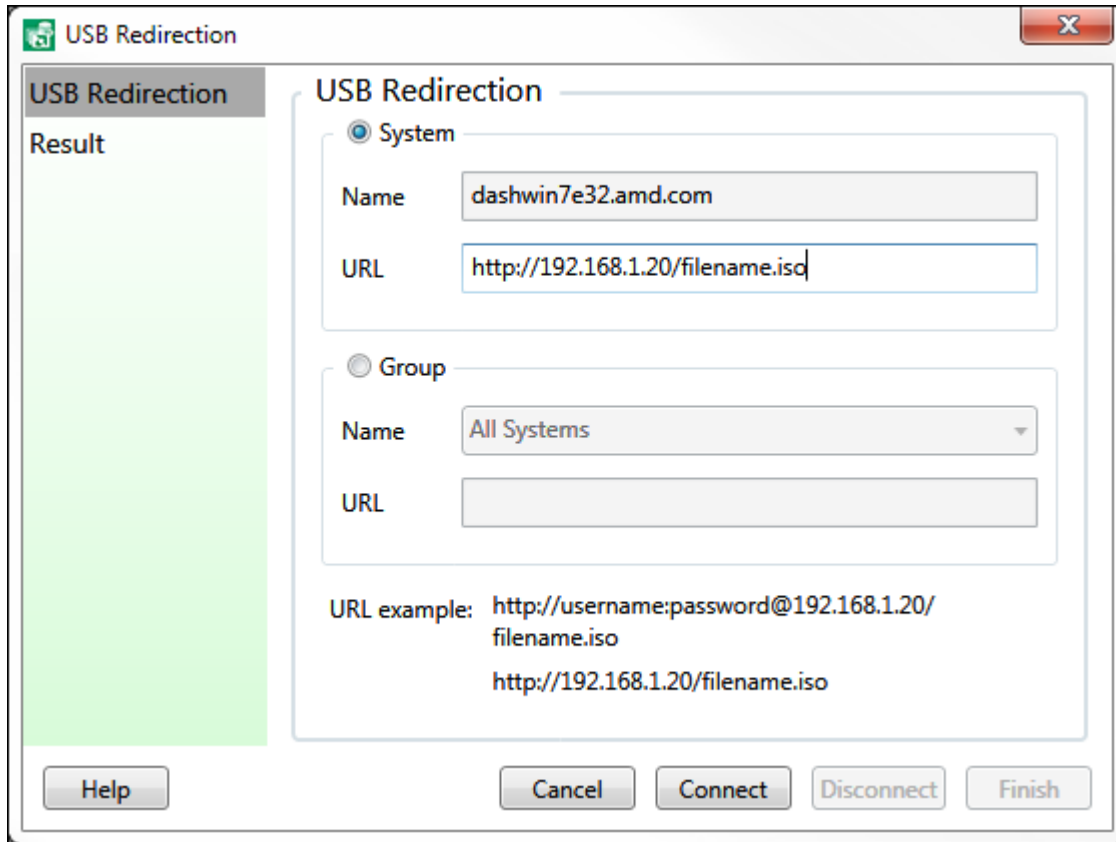## 4.5.3   USB redirection on a System or Group of systems

Figure 22: USB Redirection of single or group of systems

1. Click on USB 'Redirection' icon in the ribbon area. A USB redirection screen will appear.
2. The USB Redirection Screen initiated in the above way will give the option to the user either to:
    a. Perform the USB redirection operation of the system which had the focus before clicking the USB 'Redirection' icon
    b. Perform the USB redirection operation for any group in the drop down list. The default group selected would be the group against which the focus was there before clicking on the USB 'Redirection' icon, but user can change the group against which he wishes to perform the USB redirection operation.
    Select one of the above options.
3. System is selected if:
    a. The USB of the system selected is already attached to the remote URL then the attached URL will be shown, and the option to either modify through 'Modify' check box or disconnect by clicking 'Disconnect' is available to the user.
    b. The USB of the selected system is not attached. The user can replace/update any existing URL or enter a new valid URL and click on 'Connect'.

A template and example in the right format is shown below the URL entry. AMC only validates the URL format. The existence of the URL and accessibility of the URL by the managed target has to be ensured by the user and outside the scope of AMC.

4. If Group is selected, the user can either:
   a. Click 'Connect', so the entered URL would be attached to the USB of the systems in the selected group.
      Or
   b. Click 'Disconnect', to detach the URL for the USB of the systems in the selected group.
5. The result of the operation will be shown and the user can close the USB Redirection screen by clicking on 'Finish'.

4.6   Alerts Subscription/Un-Subscription

AMC can subscribe to alerts generated by the managed systems. The types of alerts are platform, boot-progress and lifecycle events. These events include temperature alerts, fan failure, chassis intrusion, ProcHot, ThermTrip, and BIOS boot failure. AMC shows:

    i.   List of available alerts that the managed system can send.
   ii.   List of alerts that the managed system is already subscribed to.

IT Admin can use AMC to modify the subscribed list.
1. Select the system for which alerts has to be monitored /managed.
2. Either right click on the system and select 'Alerts' menu item or click on the ribbon icon 'Alerts'.
3. The Alert Screen will be displayed
   a. Available filters as a list box in the left. This is a list of events that this system is capable of sending.
   b. Subscribed filters as a list box in the right. This is a list of events for which the Subscription is already in place.
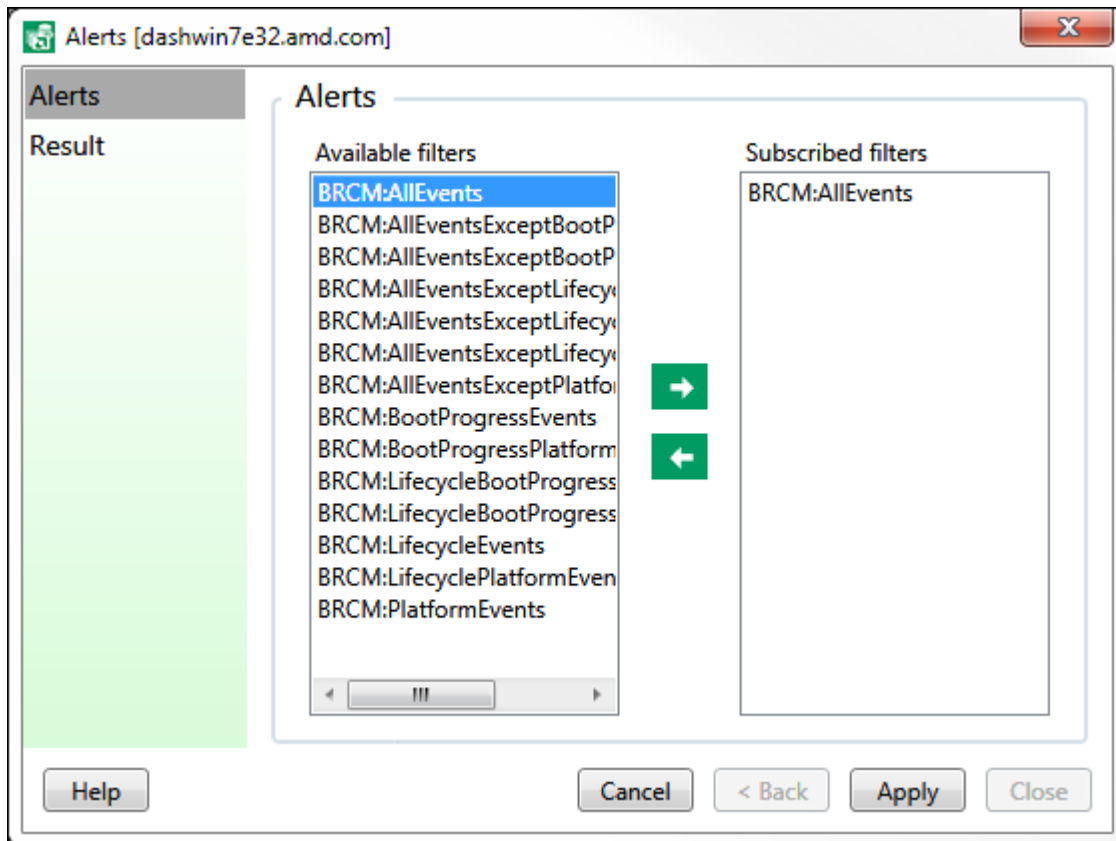

Figure 23: Alert Subscription / Un-Subscription

4. For Subscribing, select any item in the 'Available filters' list and Click on the → arrow to move the item to the 'Subscribed filters' list.

5. For Un-Subscribing, select any item in the 'Subscribed filters' list and Click on the ← arrow to move the item to the 'Available filters' list.

6. Once all the changes are done, click 'Apply'. On occurrence of an event for which subscription exists, the managed system will send an alert to AMC which will be displayed as mentioned *here*.

7. The result of the operation will be shown and the user can close the Alert Subscription/Un-Subscription screen by clicking on 'Close'.

4.7 Health

AMC shows the health of a managed computer systems by way of displaying sensor information.
The sensors shown are temperature and fan.
To monitor the health of system:
1. Select the system for which the health has to be monitored.
2. Either right click on the system and select 'Health' menu item or click on the ribbon icon 'Health'.
3. The Health screen will show a tree view of all the sensors and fans in the system in each node. Each node in the high level view will contain:
    a. The Name of the sensor or fan.
    b. The present health state of the sensor in braces.
4. If the present state is not normal, then to know more details expand the tree and view the present reading etc.
5. To see details of all sensors click on the 'Expand All' icon.

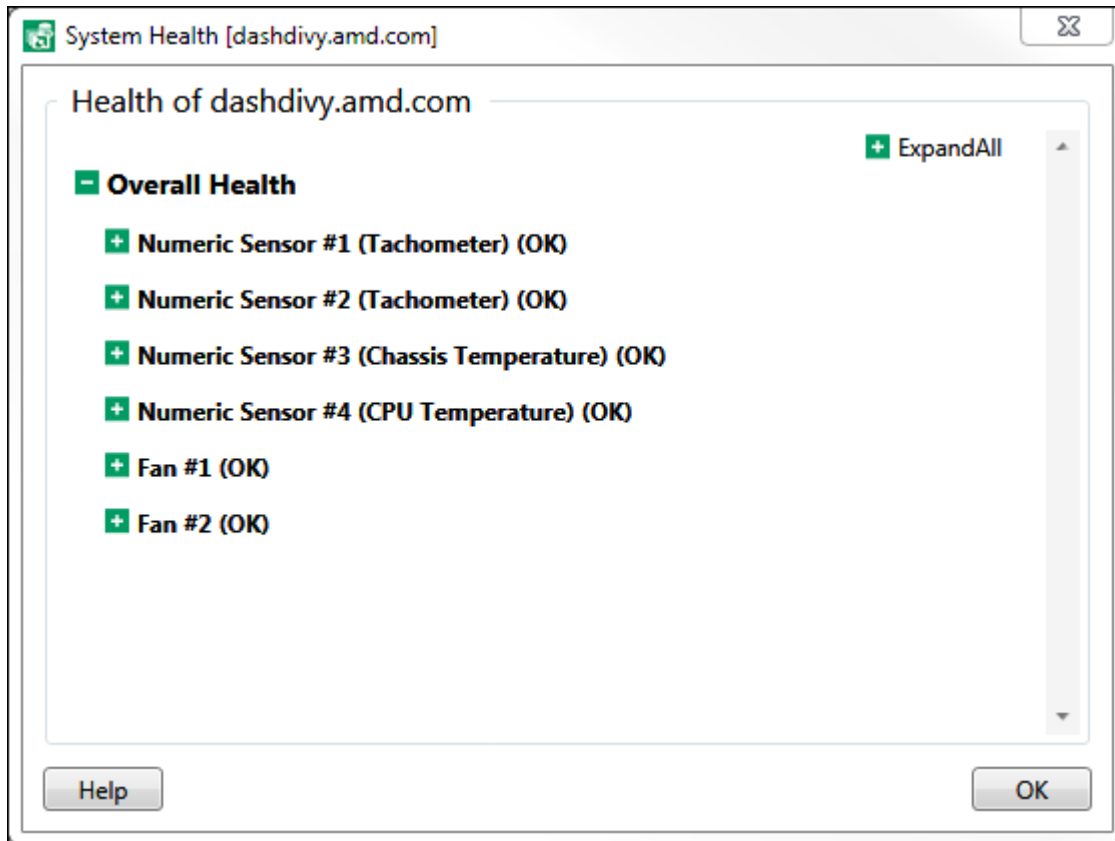6. To close the health screen click on OK.

Figure 24: Health of a computer system

4.8   Properties of the System

AMC supports global configuration, with three authentication entries and choice for management transport and management port. AMC provides a screen through which user can infer the configuration that is being used for a particular target in question.

1. Select the system for which the properties has to be viewed.
2. Right click on the system and select 'properties' menu item.
3. The Properties screen will show up as in figure 25.
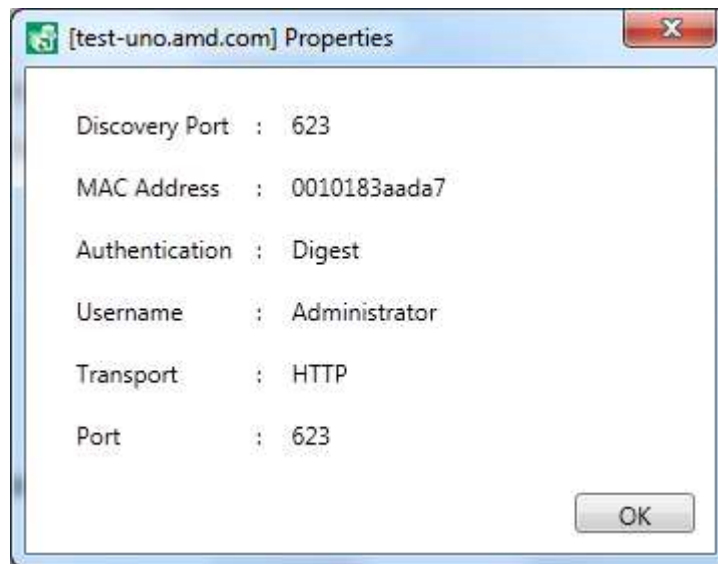4. To close the properties screen click on OK.

Figure 25: System Properties Screen

4.9   Inventory

Refer *here*.

4.10   Alert reception

AMC is capable of receiving the alerts when an alert-able event is triggered in the managed system. In AMC, alerts are subscribed / unsubscribed as mentioned in the *Alerts Subscription/Un-Subscription* section. The received alerts are displayed as mentioned in the *Activity Log & Alerts* section.