Dell Security Management Server Virtual

Quick Start and Installation Guide v11.9

Notes, cautions, and warnings

(i) NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

MARNING: A WARNING indicates a potential for property damage, personal injury, or death.

@ 2012-2023 Dell Inc. All rights reserved. Registered trademarks and trademarks used in the Dell Encryption and Endpoint Security Suite Enterprise suite of documents: Dell™ and the Dell logo, Dell Precision™, OptiPlex™, ControlVault™, Latitude™, XPS®, and KACE™ are trademarks of Dell Inc. Cylance®, CylancePROTECT, and the Cylance logo are registered trademarks of Cylance, Inc. in the U.S. and other countries. McAfee® and the McAfee logo are trademarks or registered trademarks of McAfee, Inc. in the US and other countries. Intel®, Pentium®, Intel Core Inside Duo®, Itanium®, and Xeon® are registered trademarks of Intel Corporation in the U.S. and other countries. Adobe®, Acrobat®, and Flash® are registered trademarks of Adobe Systems Incorporated. Authen tec® and Eikon® are registered trademarks of Authen tec. AMD® is a registered trademark of Advanced Micro Devices, Inc. Microsoft®, Windows®, and Windows Server®, Windows Vista®, Windows 10®, Active Directory®, Access®, BitLocker®, BitLocker To Go®, Excel®, Hyper-V®, Outlook®, PowerPoint®, Word®, OneDrive®, SQL Server®, and Visual C++® are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries. VMware® is a registered trademark or trademark of VMware, Inc. in the United States or other countries. Box® is a registered trademark of Box. Dropbox sm is a service mark of Dropbox, Inc. Google™, Android™, Google™ Chrome™, Gmail™, and Google™ Play are either trademarks or registered trademarks of Google Inc. in the United States and other countries. Apple®, App Store™, Apple Remote Desktop™, Boot Camp™, FileVault™, iPad®, iPhone®, iPod®, iPod touch®, iPod shuffle®, and iPod nano®, Macintosh®, and Safari® are either servicemarks, trademarks, or registered trademarks of Apple, Inc. in the United States and/or other countries. EnCase™ and Guidance Software® are either trademarks or registered trademarks of Guidance Software. Entrust® is a registered trademark of Entrust®, Inc. in the United States and other countries. Mozilla® Firefox® is a registered trademark of Mozilla Foundation in the United States and/or other countries. iOS® is a trademark or registered trademark of Cisco Systems, Inc. in the United States and certain other countries and is used under license. Oracle® and Java® are registered trademarks of Oracle and/or its affiliates. Travelstar® is a registered trademark of HGST, Inc. in the United States and other countries. UNIX® is a registered trademark of The Open Group. VALIDITY™ is a trademark of Validity Sensors, Inc. in the United States and other countries. VeriSign® and other related marks are the trademarks or registered trademarks of VeriSign, Inc. or its affiliates or subsidiaries in the U.S. and other countries and licensed to Symantec Corporation. KVM on IP® is a registered trademark of Video Products. Yahoo!® is a registered trademark of Yahoo! Inc. Bing® is a registered trademark of Microsoft Inc. Ask® is a registered trademark of IAC Publishing, LLC. Other names may be trademarks of their respective owners.

Contents

Chapter 1: Quick Start Guide	5
Installation	5
Configuration	5
Open Management Console	5
Administrative Tasks	5
Chapter 2: Detailed Installation Guide	7
About Security Management Server Virtual	7
Contact Dell ProSupport for Software	7
Requirements	7
Security Management Server Virtual	7
Management Console	9
Proxy Mode	10
Security Management Server Virtual Architecture Design	11
Download and Install OVA File	13
Open Management Console	14
Install and Configure Proxy Mode	14
Basic Terminal Configuration Tasks	
Check System Dashboard	16
Change Host Name	16
Change Network Settings	16
Set DMZ Server Support	
Change Time Zone	
Update Security Management Server Virtual	17
Change User Passwords	
Set up Secure File Transfer (SFTP) Users	
Enable SSH	
Start or Stop Services	
Reboot the Appliance	
Shut down the Appliance	
Advanced Terminal Configuration Tasks	
Configure Log Rotation	
Backup and Restore	
Configure SMTP Settings	
Import an Existing Certificate or Enroll a New Server Certificate	
Enable Database Access	
Set or Change Terminal Language	
View Logs	
Open the Command Line Interface	
Generate a System Snapshot Log	
Chapter 3: Maintenance	29
Chapter 4: Troubleshooting	30

Chapter 5: Post-Installation Configuration Validate Manager Trust Chain Check	
Timeout properties for Management Console	31
Chapter 6: Management Console Administrator Tasks	32
Assign Dell Administrator Role	32
Log in with Dell Administrator Role	32
Commit Policies	
Chapter 7: Ports	34

Quick Start Guide

This Quick Start Guide is for more experienced users, to get the Dell Server up and running fast. As a general rule, Dell recommends installing the Dell Server first, followed by installation of clients.

For more detailed instructions, see the Security Management Server Virtual Installation Guide.

For information about Dell Server prerequisites, see Security Management Server Virtual Prerequisites, Management Console Prerequisites, and Proxy Mode Prerequisites.

For information on how to update an existing Dell Server, see Update Security Management Server Virtual.

Installation

- Browse to the directory where the Dell Data Security files are stored and double-click to import into VMware the Security Management Server Virtual v11.x.x Build x.ova.
 - NOTE: OVA is now SHA256 signed and will fail to import within the VMware thick client. For formation, see https://kb.vmware.com/s/article/2151537.
- 2. Power on Security Management Server Virtual.
- 3. Follow the on-screen instructions.

Configuration

Before you activate users, it is recommended to complete the following configuration tasks at the Security Management Server Virtual terminal:

- Configure SMTP Settings
- Import an Existing Certificate or Enroll a New Server Certificate
- Update Security Management Server Virtual
- Install an FTP client that supports SFTP on port 22, and Set up File Transfer (FTP) Users.

If your organization has external facing devices, see Install and Configure Proxy Mode.

Open Management Console

Open the Management Console at this address: https://server.domain.com:8443/webui/

The default credentials are superadmin/changeit.

For a list of supported web browsers, see Management Console Prerequisites.

Administrative Tasks

If you have not launched the Management Console, do so now. The default credentials are superadmin/changeit.

Dell Technologies recommends that you assign administrator roles as soon as it is convenient. To complete this task now, see Assign Dell Administrator Role.

Click "?" in the upper right corner of the Management Console to launch AdminHelp. The Get Started page displays. Click **Add Domains**.

Baseline policies have been set for your organization but should be modified depending on your specific needs, as follows (licensing and entitlements guide all activations):

- Policy-Based Encryption will be enabled with Common-Key encryption.
- Computers with self-encrypting drives are encrypted.
- BitLocker Management is disabled.
- Advanced Threat Prevention is disabled.
- Threat Protection is disabled.
- External media will not be encrypted.
- Ports will not be managed by Port Control.
- Devices with Full Disk Encryption installed will not be encrypted.

See the AdminHelp topic *Manage Policies* to go to Technology Groups and policy descriptions.

Quick Start tasks are complete.

Detailed Installation Guide

This Installation Guide is for less experienced users, to install and configure Security Management Server Virtual. As a general rule, Dell recommends installing the Security Management Server Virtual first, followed by installation of clients.

For information on how to update an existing Security Management Server Virtual, see Update Security Management Server Virtual.

About Security Management Server Virtual

The Management Console allows administrators to monitor the state of endpoints, policy enforcement, and protection across the enterprise. Proxy mode provides a front-end DMZ mode option for use with Security Management Server Virtual.

Security Management Server Virtual has the following features:

- Centralized management of up to 3,500 devices
- Role-based security policy creation and management
- Administrator-assisted device recovery
- Separation of administrative duties
- Automatic distribution of security policies
- Trusted paths for communication between components
- Unique encryption key generation and automatic secure key escrow
- Centralized compliance auditing and reporting
- Auto-generation of self-signed certificates

Contact Dell ProSupport for Software

Call 877-459-7304, extension 4310039 for 24x7 phone support for your Dell product.

Additionally, online support for Dell products is available at dell.com/support. Online support includes drivers, manuals, technical advisories, FAQs, and emerging issues.

Be sure to help us quickly connect you to the right technical expert by having your Service Tag or Express Service Code available when you call.

For phone numbers outside of the United States, see Dell ProSupport for Software international phone numbers.

Requirements

Security Management Server Virtual

Hardware

The recommended disk space for Security Management Server Virtual is 80 GB.

Virtualized Environment

Security Management Server Virtual v11.7 has been validated with the following virtualized environments.

Dell currently supports hosting the Dell Security Management Server or Dell Security Management Server Virtual within a Cloud-hosted Infrastructure as a Service (laaS) environment, such as Amazon Web Services, Azure, and several other vendors. Support for these environments is only limited to the functionality of the application server hosted within these Virtual Machines, the administration and security of these Virtual Machines is up to the administrator of the laaS solution.

Additional infrastructure requirements (Active Directory, as well as SQL Server for the Dell Security Management Server) are still required for proper functionality.

Virtualized Environments

- VMware Workstation 14.0
 - o 64-bit CPU required
 - o 8 GB RAM required
 - o 80 GB Hard Drive Space
 - o Host computer with at least two cores
 - See http://www.vmware.com/resources/compatibility/search.php?deviceCategory=software&testConfig=17 for a complete list of supported Host Operating Systems.
 - o Hardware must conform to minimum VMware requirements.
 - See https://kb.vmware.com/s/article/1003746 for more information.
- VMware Workstation 14.1
 - o 64-bit CPU required
 - o 8 GB RAM required
 - o 80 GB Hard Drive Space
 - o Host computer with at least two cores
 - See http://www.vmware.com/resources/compatibility/search.php?deviceCategory=software&testConfig=17 for a complete list of supported Host Operating Systems.
 - o Hardware must conform to minimum VMware requirements.
 - See https://kb.vmware.com/s/article/1003746 for more information.
- VMware Workstation 15.0
 - o 64-bit CPU required
 - 8 GB RAM required
 - o 80 GB Hard Drive Space
 - Host computer with at least two cores
 - See http://www.vmware.com/resources/compatibility/search.php?deviceCategory=software&testConfig=17 for a complete list of supported Host Operating Systems.
 - Hardware must conform to minimum VMware requirements.
 - See https://kb.vmware.com/s/article/1003746 for more information.
- VMware Workstation 15.1
 - o 64-bit CPU required
 - o 8 GB RAM required
 - o 80 GB Hard Drive Space
 - o Host computer with at least two cores
 - See http://www.vmware.com/resources/compatibility/search.php?deviceCategory=software&testConfig=17 for a complete list of supported Host Operating Systems.
 - Hardware must conform to minimum VMware requirements.
 - See https://kb.vmware.com/s/article/1003746 for more information.
- VMware ESXi 6.0
 - o 64-bit x86 CPU required
 - Host computer with at least two cores
 - o 8 GB RAM minimum required
 - o 80 GB Hard Drive Space
 - o An Operating System is not required.
 - See http://www.vmware.com/resources/compatibility/search.php?deviceCategory=software&testConfig=17 for a complete list of supported Host Operating Systems.
 - o Hardware must conform to minimum VMware requirements.
 - See https://kb.vmware.com/s/article/1003746 for more information.
- VMware ESXi 6.5
 - o 64-bit x86 CPU required
 - o Host computer with at least two cores
 - o 8 GB RAM minimum required

Virtualized Environments

- 80 GB Hard Drive Space
- o An Operating System is not required.
- See http://www.vmware.com/resources/compatibility/search.php?deviceCategory=software&testConfig=17 for a complete list of supported Host Operating Systems.
- Hardware must conform to minimum VMware requirements.
- See https://kb.vmware.com/s/article/1003746 for more information.
- VMware ESXi 6.7
 - o 64-bit x86 CPU required
 - o Host computer with at least two cores
 - o 8 GB RAM minimum required
 - o 80 GB Hard Drive Space
 - o An Operating System is not required.
 - See http://www.vmware.com/resources/compatibility/search.php?deviceCategory=software&testConfig=17 for a complete list of supported Host Operating Systems.
 - o Hardware must conform to minimum VMware requirements.
 - See https://kb.vmware.com/s/article/1003746 for more information.
- Hyper-V Server (Full or Core installation)
 - o 64-bit x86 CPU required
 - o Host computer with at least two cores
 - o 8 GB RAM minimum required
 - o 80 GB Hard Drive Space
 - o An operating system is not required.
 - o Hardware must conform to minimum Hyper-V requirements.
 - o Must be run as a Generation 1 Virtual Machine.
- NOTE: For information about setting up Hyper-V, follow instructions for Endpoint Operating Systems: https://docs.microsoft.com/en-us/virtualization/hyper-v-on-windows/quick-start/enable-hyper-v or for Server Operating Systems: https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/get-started/install-the-hyper-v-role-on-windows-server.

Management Console

Internet Browsers

i NOTE:

The browser must accept cookies.

The following table details supported Internet browsers.

Internet Browsers

- Mozilla Firefox 41.x or later
- Google Chrome 46.x or later
- Microsoft Edge (Chromium)
- Microsoft Edge

Access the Management Console

Since Internet Explorer is no longer supported, you must install a third-party browser to properly access the Management Console.

If Internet Explorer is required to validate the Management Console, you must disable Internet Explorer Enhanced Security Configuration for the account type that corresponds to the logged-in administrator.

Proxy Mode

Hardware

The following table details minimum hardware requirements.

Processor

Modern Dual-Core CPU (1.5 GHz +)

RAM

2 GB minimum dedicated RAM / 4 GB dedicated RAM recommended

Free Disk Space

1.5 GB free disk space (plus virtual paging space)

Network Card

10/100/1000 network interface card

Miscellaneous

IPv4, IPv6, or a combination of IPv4 and IPv6 are supported.

Software

The following table details the software that must be in place before installing proxy mode server.

Prerequisites

Windows Installer 4.0 or later

Windows Installer 4.0 or later must be installed on the server where the installation is taking place.

Microsoft Visual C++ 2010 Redistributable Package

If not installed, the installer installs it for you.

Microsoft .NET Framework Version 4.6.1

Microsoft has published security updates for .NET Framework Version 4.6.1.

(i) NOTE:

Universal Account Control (UAC) must be disabled when installing in a protected directory. After disabling UAC, you must reboot the server for this change to take effect.

Registry location for Windows Servers: HKLM\SOFTWARE\Dell.

The following table details the software requirements for the proxy mode server.

Operating System

Windows Server 2022

- Standard Edition
- Datacenter Edition

Windows Server 2019

- Standard Edition
- Datacenter Edition

Windows Server 2016

Operating System

- Standard Edition
- Datacenter Edition

Windows Server 2012 R2

- Standard Edition
- Datacenter Edition

• LDAP Repository

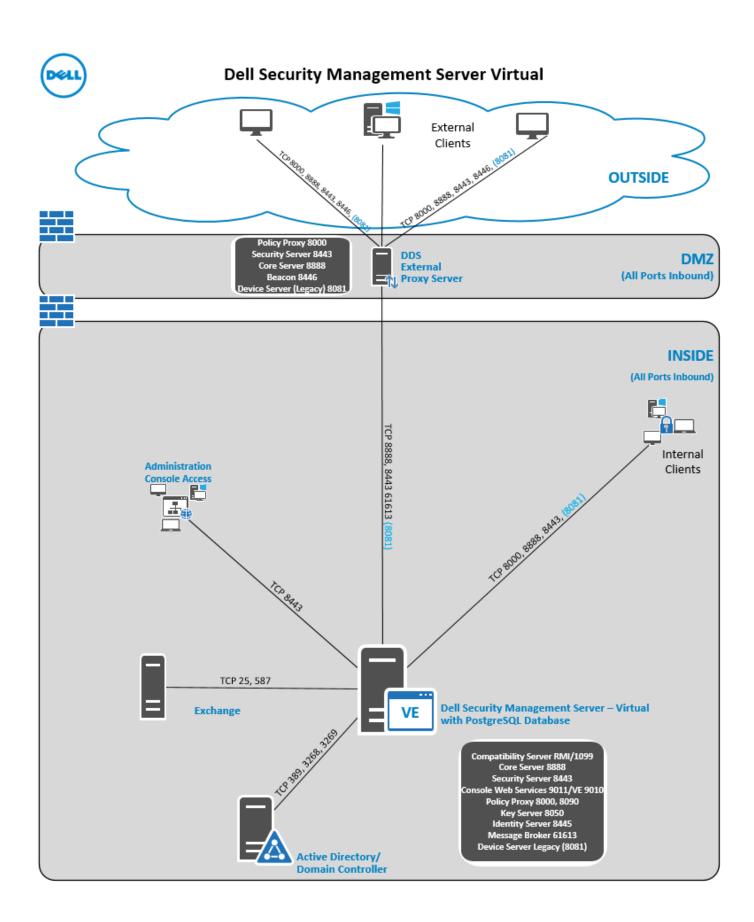
- Active Directory 2008 R2
- Active Directory 2012 R2
- Active Directory 2016
- Hybrid Azure Active Directory

Security Management Server Virtual Architecture Design

The Encryption Enterprise and Endpoint Security Suite Enterprise solutions are highly scalable products, based on the number of endpoints targeted for encryption in your organization.

Architecture Components

Below is a basic deployment for the Dell Security Management Server Virtual.



Download and Install OVA File

At initial installation, Security Management Server Virtual is delivered as an OVA file, an Open Virtual Application used to deliver software that runs on a virtual machine. The OVA file is available at www.dell.com/support, on the Product Support pages for the following Dell Data Security products:

- Encryption
- Endpoint Security Suite Enterprise

To download the OVA file:

- 1. Navigate to the Drivers and downloads page for the appropriate product listed above.
- 2. Click Drivers & downloads.
- 3. Select the appropriate VMware ESXi version.
- 4. Download the appropriate bundle.

To install the OVA file:

Before you begin, ensure that all system and virtual environment Requirements are met.

1. Do one of the following:

VMware	In the Dell installation media, locate Security Management Server Virtual v11.x.x Build x.ova and double-click to import into VMware.
	Follow the on-screen instructions. (i) NOTE: If the import fails when using VMware, then the web client is the suggested path for importing the OVA file. For more information, see https://kb.vmware.com/s/article/2151537.
Hyper-V	Requirements:
Follow instructions for Windows 10 https://docs.microsoft.com/en-us/virtualization/hyper-v-on-windows/about/.	 Generation 1 virtual machine Security Management Server Virtual comes in VHDX format. A disk should not be defined, and the disk should be added to the virtual machine after it is created within Hyper-V.
	See https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/get-started/create-a-virtual-machine-in-hyper-v.
Server-based Operating Systems	Follow instructions: https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/get-started/install-the-hyper-v-role-on-windows-server.
ESXi	OVA import process:
Follow instructions:https://kb.vmware.com/s/article/2109708	See https://docs.vmware.com/en/VMware-vSphere/6.7/com.vmware.vsphere.html.hostclient.doc/GUID-FBEED81C-F9D9-4193-BDCC-CC4A60C20A4E_copy.html.

- 2. Power on Security Management Server Virtual.
- 3. Select the language for the license agreement, and select Display EULA.
- 4. Read the agreement, and select Accept EULA.
- 5. If an update is available, select Accept.
- 6. Select Connected Mode or Disconnected Mode.

(i) NOTE:

If you select **Disconnected Mode**, it can never be changed to Connected mode.

Disconnected mode isolates the Dell Server from the Internet and an unsecured LAN or other network. All updates must be performed manually. For more information about Disconnected mode and policies, refer to *AdminHelp*.

7. In Set delluser Password, enter the current (default) password, delluser, then enter a unique password, re-enter the unique password, and select Apply.

Passwords must include the following:

- At least 8 characters
- At least 1 uppercase letter
- At least 1 digit
- At least 1 special character
- (i) NOTE: It is possible to retain the default password by selecting Cancel, or by pressing Escape on the keyboard.
- 8. Select **close** to enter into configure hostname window.
- 9. In Configure Hostname, use the backspace key to remove the default hostname. Enter a unique hostname and select OK.
- 10. In Configure Network Settings, choose either option below, then select OK.
 - (Default) Use DHCP (IPv4)
 - (Recommended) In Use DHCP, press the space bar to remove the X and manually enter these addresses, as applicable:

Static IP

Network Mask

Default Gateway

DNS Server 1

DNS Server 2

DNS Server 3

Either IPv6 or IPv4 can be selected for a static configuration.

- (i) NOTE: When using a static IP, you must also create a host entry in the DNS server.
- 11. At the time zone confirmation prompt, select OK.
- 12. When the message displays to indicate that first boot configuration is completed, select OK.
- 13. Configure SMTP Settings.
- **14.** Import an Existing Certificate or Enroll a New Server Certificate.
- **15.** Update Security Management Server Virtual.
- 16. Install an FTP client that supports SFTP on port 22, and Set up File Transfer (FTP) Users.

Security Management Server Virtual installation tasks are complete.

Open Management Console

Open the Management Console at this address: https://server.domain.com:8443/webui/

The default credentials are superadmin/changeit.

For a list of supported web browsers, see Management Console Prerequisites.

Install and Configure Proxy Mode

Proxy mode provides a front end (DMZ mode) option for use with the Dell Server. If you intend to deploy Dell components in the DMZ, ensure that they are properly protected against attacks.

To install, you need the fully qualified hostname of the DMZ server.

- In the Dell installation media, go to the Security Management Server directory. Extract (DO NOT copy and paste or drag and drop) Security Management Server-x64 to the root directory of the server where you are installing Security Management Server Virtual. Copying and pasting or dragging and dropping produces errors and an unsuccessful installation.
- 2. Double-click setup.exe.
- 3. Select the language for installation, and then click \mathbf{OK} .
- 4. If prerequisites are not already installed, a message displays to inform you of which prerequisites will be installed. Click Install.

- 5. Click **Next** in the Welcome dialog.
- 6. Read the license agreement, accept the terms, and then click Next.
- 7. Enter the 32-character Product Key and then click **Next**. The Product Key is located in the EnterpriseServerInstallKey.ini file.
- 8. Select Front End Install and click Next
- 9. To install the front-end server to the default location of C:\Program Files\Dell, click **Next**. Otherwise, click **Change** to select another location, and then click **Next**.
- 10. You have a choice of digital certificate types to use.
 - i NOTE: It is highly recommended that you use a digital certificate from a trusted certificate authority.

Select option "a" or "b" below:

- To use an existing certificate that was purchased from a CA authority, select Import an existing certificate and click
 Next
- To create a self-signed certificate, select Create a self-signed certificate and import it to key store and click Next.

At the Create Self-Signed Certificate dialog, enter the following information:

Fully qualified computer name (example: computername.domain.com)

Organization

Organizational Unit (example: Security)

City

State (full name)

Country: Two-letter country or region abbreviation

Click Next.

i NOTE: The certificate expires in 10 years, by default.

- 11. In the Front-End Server Setup dialog, enter the fully qualified hostname or DNS alias of the back-end server, select **Dell Security Management Server**, and click **Next**.
- 12. From the Front-End Server Install Setup dialog, you can view or edit hostnames and ports.
 - To accept the default hostnames and ports, in the Front-End Server Install Setup dialog, click Next.
 - To view or edit hostnames, in the Front-End Server Setup dialog, click Edit Hostnames. Edit hostnames only if necessary. Dell Technologies recommends using the defaults.
 - (i) NOTE:

A hostname cannot contain an underscore character ("_").

Clear a proxy only if certain that you do not want to configure it for installation. If you clear a proxy in this dialog, it is not installed.

When finished, click **OK**.

To view or edit ports, in the Front-End Server Setup dialog, click either Edit External Facing Ports or Edit Internal
Connecting Ports. Edit ports only if necessary. Dell Technologies recommends using the defaults.

If you clear a proxy in the Edit Front-End Host Names dialog, its port does not display in the External Ports or Internal Ports dialogs.

When finished, click **OK**.

- 13. In the Ready to Install the Program dialog, click Install.
- 14. When the installation is completed, click Finish.

Basic Terminal Configuration Tasks

Basic configuration tasks are accessed from the Main Menu.

Check System Dashboard

To check the status of Dell Server services, in the Main Menu, select System Dashboard.

The System Information widget displays the current version, hostname, IP address, as well as the usage for CPU, memory and disk.

The Version History widget displays versioned database schema changes. Data comes from the 'information' table and is sorted by time, with newest version on top.

The following table describes each service and its function in the Service Health widget .

Name	Description
Message Broker	Enterprise Server Bus
Identity Server	Handles domain authentication requests.
Compatibility Server	A service for managing the enterprise architecture.
Security Server	Provides the mechanism for controlling commands and communication with Active Directory.
Core Server	A service for managing the enterprise architecture. This service also handles all activation, policy and inventory gathering from "Agent" based devices.
Core Server HA (High Availability)	A high-availability service that allows for increased security and performance of HTTPS connections when managing the enterprise architecture.
Inventory Server	Processes the inventory queue.
Forensic Server	Provides web services for forensic API.
Policy Proxy	Provides a network-based communication path to deliver security policy updates and inventory updates.

Services are monitored and restarted automatically if necessary.

NOTE: If the databasecustomizer process fails, servers move to the Execution Failed state. To check the Databasecustomizer log, in the Main Menu, select View Logs.

Change Host Name

This task can be completed at any time. It is not required to begin using Security Management Server Virtual.

- 1. From the Basic Configuration menu, select Host Name.
- 2. Use the backspace key to remove the existing hostname then replace it with a new host name and select OK.

Change Network Settings

This task can be completed at any time. It is not required to begin using Security Management Server Virtual.

- 1. From the Basic Configuration menu, select Network.
- 2. In the Configure Network Settings screen, choose either option below then select OK.
 - (Default) Use DHCP (IPv4).
 - (Recommended) In Use DHCP, press the space bar to remove the X and manually enter these addresses, as applicable:
 Static IP

Network Mask

Default Gateway

DNS Server 1

DNS Server 2

DNS Server 3

Either IPv6 or IPv4 can be selected for a static configuration.

(i) NOTE:

When using a static IP, you must create a host entry in the DNS server.

Set DMZ Server Support

This task can be completed at any time. It is not required to begin using Security Management Server Virtual.

- 1. From the Basic Configuration menu, select DMZ Server Support.
- 2. Use the space bar to enter an X in the Enable DMZ Server Support field
- 3. Enter the fully qualified domain name of the DMZ server and select OK.
 - NOTE: To leverage a DMZ server, please reference the installation instructions for a proxy server above Install and Configure Proxy Mode.

Change Time Zone

This task can be completed at any time. It is not required to begin using Security Management Server Virtual.

- 1. From the Basic Configuration menu, select Time Zone.
- 2. In the Time Zone screen, use the arrow keys to highlight your time zone and select Enter.

Update Security Management Server Virtual

For information about a specific update, see Security Management Server Virtual Technical Advisories, located at dell.com/support. To see the version and installation date of an update that is already applied, check the System Dashboard.

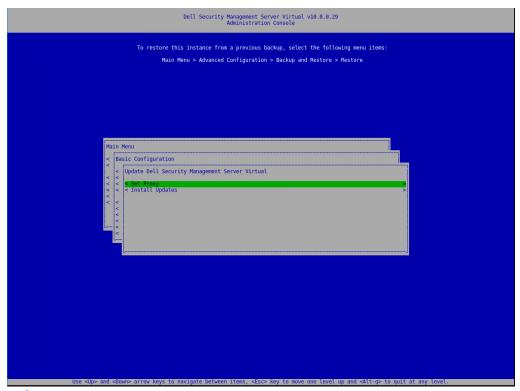
To receive email notifications when Dell Server updates are available, see Configure SMTP Settings.

If policy changes have been made but not committed in the Management Console, commit the policy changes before updating the Dell Server:

- 1. As a Dell administrator, log in to the Management Console.
- 2. In the left menu, click Management > Commit.
- 3. Enter a description of the change in the Comment field.
- 4. Click Commit Policies.
- 5. When the commit is complete, log off the Management Console.

Update Security Management Server Virtual (Connected Mode)

- 1. Dell recommends performing a regular backup. Before updating, ensure that the backup process has been functioning properly. See Backup and Restore.
- 2. From the Basic Configuration menu, select Update Dell Security Management Server Virtual.



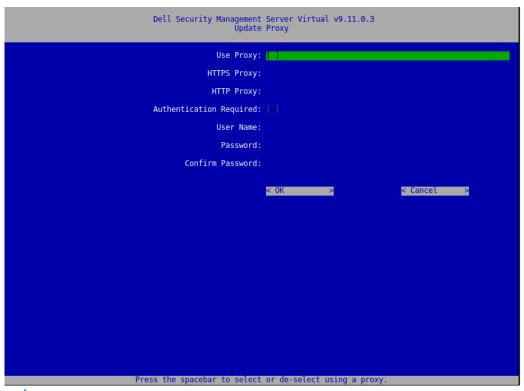
i NOTE: The version number may differ from the attached screen capture.

3. Select the desired action:

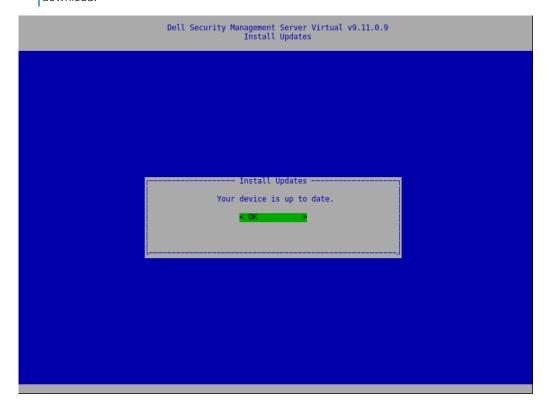
• Set Proxy Settings - Select this option to set the proxy settings for downloading updates.

In the Configure Proxy Settings screen, press the space bar to enter an \mathbf{X} in Use Proxy. Enter the HTTPS, and HTTP. If firewall authentication is required, press the space bar to enter an \mathbf{X} in Authentication Required. Enter the user name and password, and select \mathbf{OK} .

NOTE: This Set Proxy option also now updates the proxy settings for the various java-based applications for pulling On-The-Box licenses as well as communication to the Endpoint Security Suite Enterprise SaaS and the Dell/Credant back-end infrastructure.

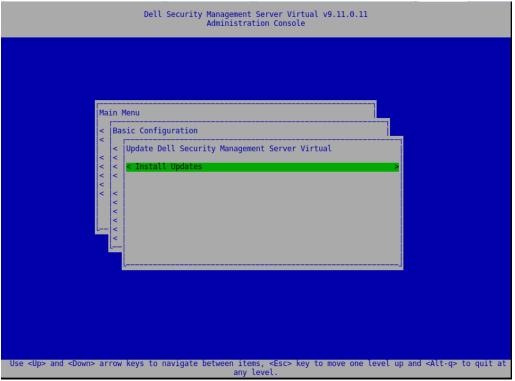


- i NOTE: The version number may differ from the attached screen capture.
- When selecting **Install Updates**, the Security Management Server Virtual queries the built-in, default Ubuntu repositories and dist.ddspproduction.com, Dell's custom repository containing application updates.
 - NOTE: Dell queries dist.ddspproduction.com through port 443 and port 80 for all Ubuntu updates. Any available updates are downloaded. The proxy settings defined in Set Proxy are used for port 443 and port 80 connections for download.



Update Security Management Server Virtual (Disconnected Mode)

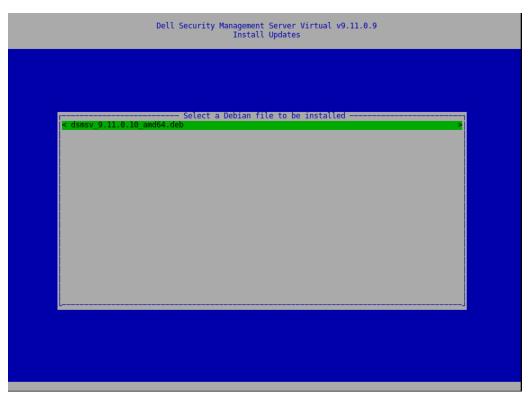
- 1. Dell recommends performing a regular backup. Before updating, ensure that the backup process has been functioning properly. See Backup and Restore.
- 2. Obtain the .deb file that contains the latest Dell Server update from Dell ProSupport.
- **3.** Store the .deb file in the /var/opt/dell/dsmsv/ftp/files/updates folder on the secure FTP server of the Dell Server. Ensure that the FTP client supports SFTP on port 22, and an FTP user is set up. See Set up File Transfer (FTP) Users.
- 4. From the Basic Configuration menu, select Update Security Management Server Virtual.
- 5. Select Install Updates and press Enter.



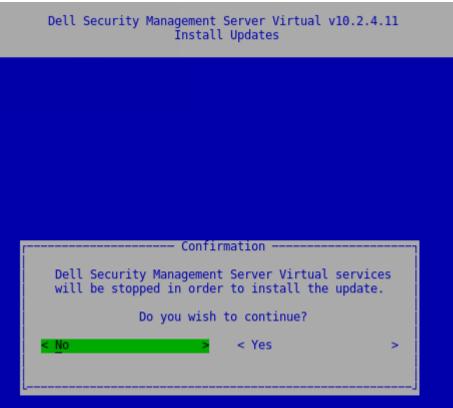
(i) NOTE: The version number may differ from the attached screen capture.

If the .deb file does not display, ensure that the .deb file is stored in the proper location.

6. Select the .deb update file you want to install and press Enter.



7. Select Yes to stop the Security Management Server Virtual's services.



8. The Debian package is verified and upgraded.

```
Verifying Debian signature...
Processing /var/opt/dell/dsmsv/ftp/files/updates/dsmsv 10.2.6.8 amd64.deb...
GOODSIG _gpgdsmsv 7662F15378C0AE35CB4A9727B6A2D750D8BFD78E 1558Z97741

Upgrading dsmsv package...
(Reading database ... 140845 files and directories currently installed.)
Preparing to unpack .../dsmsv_10.2.6.8 amd64.deb ...
Unpacking dsmsv (10.2.6.8) over (10.2.4.11) ...
Setting up dsmsv (10.2.6.8) ...
```

9. After the update completes, change the database password.

```
Dell Security Management Server Virtual v10.2.6.8
Database Access

Enable Remote Access (IPv4): [ ]

Enable Remote Access (IPv6): [ ]

Password:
Password:
Password is required.

Confirm Password:

< Reboot Appliance >
```

i NOTE: The version number may differ from the attached screen capture.

Change User Passwords

This task can be completed at any time. It is not required to begin using Security Management Server Virtual.

You can change passwords for these users:

- delluser (Terminal administrator) This user has access to the Dell Server terminal and its menus.
- dellconsole (shell access) This user has Dell Server shell access. Shell access is available for a network administrator to check and troubleshoot network connectivity.
- dellsupport (Dell ProSupport administrator) This user has "sudo" rights and should be used sparingly. For security purposes, you control the password for this account.
- 1. From the Basic Configuration menu, select Change User Passwords.
- 2. In the Change User Passwords screen, select user password to change and select Enter.
- 3. In the Set Password screen, enter the current password, enter the new password, re-enter the new password, and select **OK**.

Passwords must include the following:

- At least 8 characters
- At least 1 uppercase letter
- At least 1 digit
- At least 1 special character
 - (i) NOTE:

To select different user accounts, use the "spacebar" key on the keyboard to display the selection list.

Set up Secure File Transfer (SFTP) Users

This task can be completed at any time. It is not required to begin using Security Management Server Virtual.

- 1. From the Basic Configuration menu, select SFTP.
- 2. In the SFTP screen, to add an SFTP user and define a password, press **Enter** or the down key in Status for the user. Pressing the space bar key offers the option update or delete an existing user. To disable an SFTP user, select **Delete** after selecting user and then select**Yes** on the SFTP confirmation screen.
- **3.** Enter a user name and password for the SFTP user.

Passwords must include the following:

- At least 8 characters
- At least 1 uppercase letter
- At least 1 digit
- At least 1 special character
- **4.** When you are finished entering SFTP users, select **Apply**.

Enable SSH

This task can be completed at any time. It is not required to begin using Security Management Server Virtual.

You can enable SSH for the support administrator login, shell access, and the terminal command-line interface.

- 1. From the Basic Configuration menu, select SSH.
- 2. Highlight the user for which you want to enable SSH, press the space bar to enter an X, and select OK.

Start or Stop Services

Perform this task only if needed.

- To simultaneously start or stop all services, from the Basic Configuration menu, select either Start Application or Stop Application.
- 2. At the confirmation prompt, select Yes.
 - (i) NOTE:

Server state changes may require up to two minutes to complete.

Reboot the Appliance

Perform this task only if needed.

- 1. From the Basic Configuration menu, select Reboot Appliance.
- 2. At the confirmation prompt, select Yes.
- 3. After restart, log in to Security Management Server Virtual.

Shut down the Appliance

Perform this task only if needed.

- 1. From the Basic Configuration menu, scroll down and select Shutdown Appliance.
- 2. At the confirmation prompt, select Yes.
- 3. After restart, log in to Security Management Server Virtual.

Advanced Terminal Configuration Tasks

Advanced configuration tasks are accessed from the Main Menu.

Configure Log Rotation

NOTE: The instructions below define log rotate for applications on the Dell Security Management Server Virtual that support log rotation.

This task can be completed at any time. It is not required to begin using Security Management Server Virtual.

Daily log rotation is enabled by default. To change the default log rotation, from the *Advanced Configuration* menu, select **Logrotate Configuration**.

To disable log rotation, use the space bar to enter an X in No rotation and select OK.

To enable log rotation, follow these steps:

- 1. To enable daily, weekly, or monthly rotation, use the Spacebar to enter an **X** in the appropriate field. For weekly rotation, use the dropdown menu to select the appropriate day of the week. For monthly rotation, input the appropriate day of the month.
- 2. Enter a time for rotation in Logrotate Time.
- 3. Select OK.

Backup and Restore

Backups can be configured or performed at any time and are not required to begin using Security Management Server Virtual. Dell recommends that you configure a regular backup process. For more information see http://www.dell.com/support/article/us/en/19/sln304943/how-to-back-up-and-restore-dell-security-management-server-virtual-dell-data-protection-virtual-edition?lang=en

When stored on the Dell Server and the disk is at 90 percent capacity, no new backups are stored. If email notifications have been configured, you will receive an email notification that disk allocation space is low.

(i) NOTE:

To preserve disk partition space and prevent automatic deletion of backups, remove unnecessary backups from storage.

Backups are run daily, by default. Dell recommends storing backups to an external secure FTP server at a frequency that meets requirements of the organization for backups and appropriate use of storage space.

To configure a backup schedule, from the *Advanced Configuration* menu, select **Backup and Restore > Configuration** and follow these steps:

- 1. To enable daily, weekly, or monthly backups, use the space bar to enter an X in the appropriate field. For weekly or monthly backups, enter the appropriate day of the week or month as a numeral, where Monday=1. To disable backups, use the space bar to enter an X inNo backups and select OK.
- 2. Enter a time for backup in Backup Time.
- 3. Select OK.

To perform an immediate backup, from the $Advanced\ Configuration\ menu$, select **Backup and Restore > Backup now.** When the backup confirmation displays, select **OK**.

(i) NOTE:

Before beginning a restore operation, all Dell Server services must be running. Check Server Status. If all services are not running, restart the services. For more information, see Start or Stop Services. Begin to restore **only** when **all** services are running.

To restore from a backup, from the Advanced Configuration menu, select **Backup and Restore > Restore** then select the backup file to be restored. At the confirmation screen select **Yes**.

The backup is restored after reboot.

Store backups to a secure FTP server

To store backups to an FTP server, the FTP client must support SFTP on port 22.

According to backup requirements of the organization, backups can be downloaded in the following ways:

- Manually
- Through automated script
- Through the organization's approved backup solution

To download backups using the organization's backup solution, obtain detailed instructions from your backup solution vendor.

(i) NOTE:

The Dell Server is based on Linux Debian Ubuntu x64.

Log on to the Dell Server as dellsupport, and use the sudo command to configure your backup solution:

sudo <instructions from backup solution vendor>

Back up contents of the following folders:

/backup (required)

/certificates (strongly recommended)

/support (optional)

When the sudo process is complete, type exit and press Enter until the login prompt displays.

Configure SMTP Settings

To receive email notifications, follow the steps in this section to configure SMTP settings. Email notifications inform recipients of Dell Server status error states, password updates, availability of Dell Server updates, and client license issues.

It is a best practice to restart the services any time a settings change is made.

To configure SMTP settings, follow these steps:

- 1. From the Advanced Configuration menu, select E-mail Notifications.
- 2. In the E-mail Notifications screen, to enable email alerts, press the space bar to enter an X in Enable -Email Alerts.
- 3. Enter the SMTP Server fully qualified domain name.
- 4. Enter the SMTP Port.
- 5. Enter the SMTP User
- 6. Enter the SMTP Password
- 7. In Send Notifications From, enter the email account ID to send email notifications.
- 8. In Send Server Status to, enter an email account ID to send server status notifications. Recipients are separated with commas or semicolons.
- 9. In Send Password Changes to, enter an email account ID to send password change notifications.
- 10. In Send Software Updates to, enter an email account ID to send software update notifications.
- 11. In Service alert reminder, to enable reminders, press the space bar to enter an **X** then set the reminder interval in minutes. A Service alert reminder is triggered when the reminder interval has passed after a notification is sent about a system health issue and the host or service remains in the same state.
- 12. In the Summary Report field, to enable reports of notifications, select the desired interval (Daily, Weekly, or Monthly) and then press the space bar to enter an X.
- 13. Select OK.

Import an Existing Certificate or Enroll a New Server Certificate

You can import an existing certificate or create a certificate request through Security Management Server Virtual.

It is a best practice to restart the services any time a settings change is made.

Import an Existing Server Certificate

1. Export the existing certificate and its full chain of trust from its keystore.

- NOTE: Keep the export password because you will enter it when you import the certificate into Security Management Server Virtual.
- 2. On the FTP Server of the Dell Server, store the certificate to /certificates.
- 3. From the Advanced Configuration menu, select Server Certificates.
- 4. Select Import Existing Certificate.
- 5. Select a certificate file to be installed on the Dell Server.
- 6. When prompted, enter the certificate export password and select OK.
- 7. When the import is complete, select **OK**.
 - NOTE: For further information, refer to http://www.dell.com/support/article/us/en/19/sln302996/dell-data-protection-virtual-edition-dell-security-management-server-virtual-manual-csr-creation-and-certificate-import?lang=en

Enroll a New Server Certificate

- 1. From the Advanced Configuration menu, select Server Certificates.
- 2. Select New Server Certificate.
- 3. Select Create Certificate Request.
- **4.** Complete the fields *Generate Certificate Request*:
 - Country Name: Two-letter country code.
 - State/Province: Enter the unabbreviated state or province name (example, Texas).
 - Locality Name/City. Enter the appropriate value (example, Dallas).
 - Organization: Enter the appropriate value (example, Dell).
 - Organizational Unit: Enter the appropriate value (example, Security).
 - Common Name: Enter the fully qualified domain name of the the Dell Server. This fully qualified name includes the
 hostname and the domain name (example, server.domain.com).
 - Email ID: Enter the email address to which your CSR will be sent.
- Follow your organizational process for acquiring an SSL server certificate from a Certificate Authority. Send the contents of the CSR file for signing.
- 6. When you receive the signed certificate, export the certificate as a .p7b file, and download the full chain of trust in .der format.
- 7. Make backup copies of the certificate and chain of trust.
- 8. Upload the certificate file and its full chain of trust to the FTP Server of the Dell Server.
- 9. From the Advanced Configuration menu, select Server Certificates.
- 10. Select New Server Certificate.
- 11. Select Complete Certificate Enrollment.
- 12. Select the certificate file to be installed on the Dell Server.
- 13. If prompted, enter the Certificate Password: changeit.

To enable trust validation on Windows-based Encryption clients, see Enable Manager Trust Chain Check.

Create and Install a Self-signed Certificate

- i NOTE: The default generated self-signed certificates are generated for 10 years.
- 1. From the Dell Server Advanced Configuration menu, select Server Certificates.
- 2. Select Create and Install Self-signed Certificate.
- 3. To confirm that you want to replace the pre-installed certificate with a new certificate, click Yes.
- 4. Enter the Certificate Password: changeit.
- 5. After the new certificate is installed, select **OK** and wait for services to restart.

The services automatically restart.

Enable Database Access

This task can be completed at any time. It is not required to begin using Security Management Server Virtual.

- NOTE: Dell recommends that you enable database access only if necessary and disable after the necessity has been completed.
- 1. From the Advanced Configuration menu, select Database Access.
- 2. Use the space bar to enter an X in *Enable Database Access* and select **OK**. If the database password has not yet been configured, a prompt for the database password displays.
- 3. Enter the database password.
- 4. Re-enter the database password.

Dell Data Security application components stop automatically.

Set or Change Terminal Language

It is a best practice to restart the services any time a settings change is made.

- 1. In the Main Menu, select Set Language.
- 2. Use the arrow keys to select the preferred language.

View Logs

To check the following logs, in the Main Menu, select View Logs.

- System Logs
 - Syslog Log
 - Mail Log
 - o Auth Log (SSH)
 - Postgres Log
 - Monitor Log
- Server Logs
 - o Message Broker
 - o Identity Server
 - o Compatibility Server
 - o Security Server
 - o Core Server
 - o Core Server HA
 - o Inventory Server
 - o Forensic Server
 - Policy Proxy
- Administration Console
 - o pybackup.log
 - o pyconsole.log
 - o pydatabase.log
 - update.log
- Databasecustomizer Log
- NOTE: To navigate through this screen, use the following:
 - To go to the end of the log you can hold the right alt key and then press the "/" key on the keyboard
 - To exit the log, hold left control and press "x" on the keyboard.
 - arrow keys allow for navigation.
 - page up and page down go up and down pages one at a time.
 - space bar progresses the logs by one page.

Open the Command Line Interface

To open the command line interface, in the Main Menu, select Launch Shell.

To exit the command-line interface, type **exit** and press **Enter**.

Generate a System Snapshot Log

To generate a System Snapshot Log for Dell ProSupport, in the Main Menu, select **Support Tools.**

- 1. From the Support Tools menu, select Generate System Snapshot Log.
- 2. At the indication that the file is created, select **OK**.

Maintenance

Remove unneeded Security Management Server Virtual backups.

Only the ten most recent backups are retained. If disk partition space is at ten percent or less, no more backups are stored. If this condition occurs, you will receive an email notification that disk allocation space is low.

Troubleshooting

If an error occurs, and you have configured email notifications, you will receive an email notification. Based on the information in the email notification, follow these steps:

- 1. Check applicable log files.
- 2. Restart services, as needed. It is a best practice to restart the services any time a settings change is made.
- 3. Generate a System Snapshot Log.
- 4. Contact Dell ProSupport. For more information, see Contact Dell ProSupport.

Post-Installation Configuration

After installation, some components of your environment may need to be configured, based on the Dell Data Security solution used by your organization.

After installing the Security Management Server Virtual, the following defaults should be modified:

- Change the back end server password at the following location:
 - C:\Program Files\Dell\Enterprise Edition\Message Broker\conf\application.properties
- Change password for every front end server in your environment at the following location:
 - C:\Program Files\DELL\Enterprise Edition\Beac\conf\application.properties

The password displays as follows: proxy-server.password=ENC (<texthere>)

To change the password:

- 1. Select: ENC (<texthere>)
- 2. Change the selected text to: CLR (<newpasswordhere>)

After service restart, the modified line changes to ENC from CLR and the password is encrypted.

NOTE: The proxy-server username may also be modified, but this must match within the Message Broker's application properties file and all active front end servers.

Validate Manager Trust Chain Check

If a self-signed certificate is used on the Security Management Server Virtual for SED or BitLocker Manager, SSL/TLS trust validation must remain *disabled* on the client computer. Before enabling SSL/TLS trust validation on the client computer, the following requirements must be met:

- A certificate signed by a root authority (for example, Entrust or Verisign) must be imported into the Dell Server. See Import
 an Existing Certificate or Enroll a New Server Certificate.
- The full chain of trust of the certificate must be stored in the Microsoft keystore on the client computer.

To disbale SSL/TLS trust validation, on the client computer, change the value of the following registry entry to 1:

[HKLM\System\CurrentControlSet\Services\DellMgmtAgent\Parameters]

DisableSSLCertTrust=REG_DWORD (32-bit):1

Timeout properties for Management Console

To modify the timeout property for the Management Console, go to the application.properties file, and modify the default values:

- idle.warn.seconds=1080
- idle.timeout.seconds=1200

Management Console Administrator Tasks

Assign Dell Administrator Role

- 1. As a Security Management Server administrator, log in to the Management Console: https://server.domain.com:8443/webui/. The default credentials are **superadmin/changeit**.
- 2. In the left pane, click **Populations** > **Domains**.
- 3. Click a domain to add a user to.
- 4. On the Domain Detail page, click the **Members** tab.
- 5. Click Add User.
- 6. Enter a filter to search the user name by Common Name, Universal Principal Name, or sAMAccountName. The wild card character is *.

A Common Name, Universal Principal Name, and sAMAccountName must be defined in the enterprise directory server for every user. If a user is a member of a Domain or Group but does not display in the Domain or Group Members list in the Management, ensure that all three names are properly defined for the user in the enterprise directory server.

The query will automatically search by common name, then UPN, and then sAMAccount name until a match is found.

- 7. Select users from the Directory User List to add to the Domain. Use <Shift><click> or <Ctrl><click> to select multiple users.
- 8. Click Add.
- 9. From the menu bar, click the **Details & Actions** tab of the specified user.
- 10. Scroll across the menu bar, and select the Admin tab.
- 11. Select the administrator roles to add to this user.
- 12. Click Save.

Log in with Dell Administrator Role

- 1. Log out of the Management Console.
- 2. Log in to the Management Console and login with Domain user credentials.

Click "?" in the upper right corner of the Management Console to launch AdminHelp. The Get Started page displays. Click **Add Domains**.

Baseline polices have been set for your organization but should be modified to your specific needs, as follows (licensing and entitlements guide all activations):

- Policy Based Encryption will be enabled with Common-Key encryption
- Computers with self-encrypting drives will be encrypted
- BitLocker Management is not enabled
- Advanced Threat Prevention is not enabled
- Threat Protection is disabled
- External media will not be encrypted
- Ports will not be managed by Port Control
- Devices with Full Disk Encryption installed will not be encrypted

See the AdminHelp topic Manage Policies for policy descriptions.

Commit Policies

Commit policies when installation is completed.

To commit polices after installation or, later, after policy modifications are saved, follow these steps:

- 1. In the left pane, click **Management > Commit**.
- 2. In Comment, enter a description of the change.
- 3. Click Commit Policies.

Ports

The following table describes each component and its function.

Name	Default Port	Description
Access Group Service	TCP/ 8006	Manages various permissions and group access for various Dell Security products. (i) NOTE: Port 8006 is not currently secured. Ensure this port is properly filtered through a firewall. This port is internal only.
Management Console	HTTPS/ 8443	Administration console and control center for the entire enterprise deployment.
Core Server	HTTPS/ 8887 (closed)	Manages policy flow, licenses, and registration for Preboot Authentication, SED Management, BitLocker Manager, Threat Protection, and Advanced Threat Prevention. Processes inventory data for use by the Management Console. Collects and stores authentication data. Controls rolebased access.
Core Server HA (High Availability)	HTTPS/ 8888	A high-availability service that allows for increased security and performance of HTTPS connections with the Management Console, Preboot Authentication, SED Management, FDE, BitLocker Manager, Threat Protection, and Advanced Threat Prevention.
Security Server	HTTPS/ 8443	Communicates with Policy Proxy; manages forensic key retrievals, activations of clients, and SED- PBA and Full Disk Encryption-PBA communication.
Compatibility Server	TCP/ 1099 (closed)	A service for managing the enterprise architecture. Collects and stores initial inventory data during activation and policy data during migrations. Processes data based on user groups. (i) NOTE: Port 1099 should be filtered through a firewall. Dell suggests this port be internal only.
Message Broker Service	TCP/	Handles communication between services of the Dell Server. Stages

Name	Default Port	Description
	61616 (closed) and STOMP/ 61613 (closed or, if configured for DMZ, 61613 is open)	policy information created by the Compatibility Server for Policy Proxy queuing. (i) NOTE: Port 61616 should be filtered through a firewall. Dell recommends this port be internal only. (i) NOTE: Port 61613 should only be opened to Security Management Servers configured in Front-End mode.
Identity Server	8445 (closed)	Handles domain authentication requests, including authentication for SED Management.
Forensic Server	HTTPS/ 8448	Allows administrators that have appropriate privileges to get encryption keys from the Management Console for use in data unlocks or decryption tasks. Required for Forensic API.
Inventory Server	8887	Processes the inventory queue.
Policy Proxy	TCP/ 8000	Provides a network-based communication path to deliver security policy updates and inventory updates. Required for Encryption Enterprise (Windows and Mac)
PostGres	TCP/ 5432	Local database used for eventing data. (i) NOTE: Port 5432 should be filtered through a firewall. Dell recommends this port be internal only.
LDAP	389/636, 3268/326 9 RPC - 135, 49125+	Port 389 - This port is used for requesting information from the local domain controller. LDAP requests sent to port 389 can be used to search for objects only within the global catalog's home domain. However, the requesting application can obtain all of the attributes for those objects. For example, a request to port 389 could be used to obtain a user's department. Port 3268 - This port is used for queries specifically targeted for the global catalog. LDAP requests sent to port 3268 can be used to search for objects in the entire forest. However, only the attributes marked for replication to the global catalog can be returned. For example, a user's department could not be returned using port 3268 since this attribute is not replicated to the global catalog.

Name	Default Port	Description
Client Authentication	HTTPS/ 8449	Allows client servers to authenticate against Dell Server. Required for Server Encryption