Dell Unity™ Family Configuring SupportAssist

5.5

DELLTechnologies

Notes, cautions, and warnings

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.

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

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Introduction

This chapter contains general information about the document, additional resources that are available, and an operational description of the SupportAssist feature.

Topics:

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- Operational description

About this document

This document provides information that you can use to configure and manage SupportAssist on a Unity system with operating environment (OE) version 5.3 or later. The SupportAssist feature is relevant only to physical deployments.

(i) **NOTE:** UnityVSA does not support SupportAssist. You can only use Centralized ESRS for remote support. For information about Centralized ESRS, see the Unisphere online help and the *Unity Family Secure Remote Service Requirements and Configuration* document.

Additional resources

As part of an improvement effort, revisions of the software and hardware are periodically released. Therefore, some functions described in this document might not be supported by all versions of the software or hardware currently in use. The product release notes provide the most up-to-date information on product features. Contact your technical support professional if a product does not function properly or does not function as described in this document.

Where to get help

Support, product, and licensing information can be obtained as described below.

Product information

For product and feature documentation or release notes, go to Unity Technical Documentation at: dell.com/unitydocs.

Troubleshooting

For information about products, software updates, licensing, and service, go to Support (registration required) at: dell.com/support. After logging in, locate the appropriate product page.

Benefits of SupportAssist

The embedded SupportAssist feature in Unity physical deployments provides a highly secure, remote connection between your Unity environment and Dell Support. A connection that, once made, can unlock a wide range of benefits and services like:

- Automated health checks.

- 24x7 predictive wellness monitoring.
- Remote issue analysis and diagnosis.
- An enhanced Online Support experience with actionable, real-time data-driven insight into your global Dell environment through the MyService360 dashboard.
- Remote delivery of service and support from Dell.
- APEX AIOps Infrastructure Observability, a software-as-a-service cloud-native application that provides predictive analytics about performance, capacity, and configuration for health-based reporting and remediation.

(i) **NOTE:** SupportAssist must be enabled on your storage system to send data to APEX AIOps Observability.

Connection Type options for SupportAssist

SupportAssist supports two options for connection type through which storage system information can be sent to the Support Center for remote troubleshooting:

- Connect Directly
- Connect through a Gateway Server

Either option can be configured with one of the following types of remote service connectivity options:

- In Unity OE version 5.3.x and 5.4.x, if both Inbound connectivity for remote access and RSC (Remote Secure Credentials - Recommended) are selected (default settings), authorized Dell support engineers are allowed to securely troubleshoot your system remotely. Selecting the RSC option allows authorized Dell support engineers to authenticate with your system by using a unique one-time Dell-generated credential. Your system administrator does not have to provide Dell support engineers with an access credential.
- In Unity OE version 5.5 or later, if Inbound connectivity for remote access is selected in Unisphere (default setting), authorized Dell support engineers are allowed to securely troubleshoot your system remotely. The RSC option does not appear in Unisphere but is enabled when Inbound connectivity for remote access is selected. The RSC option cannot be disabled in Unisphere.
- In Unity OE version 5.3.x or 5.4.x, if Inbound connectivity for remote access is selected and RSC is not selected, both outbound and inbound traffic for remote service is allowed. However, not selecting the RSC option requires your system administrator to provide Dell support engineers with an access credential that allows authorized Dell support engineers to authenticate and securely troubleshoot your system remotely.
- For Unity OE versions 5.3.x, 5.4.x, or 5.5 or later, if Inbound connectivity for remote access is not selected, only outbound traffic for remote service is allowed.

(i) **NOTE:** To enable and configure the SupportAssist feature, you must accept the SupportAssist End User License Agreement (EULA). It is recommended that you enable the SupportAssist feature to accelerate problem diagnosis, perform troubleshooting, and help speed time to resolution. If you do not enable SupportAssist, you may need to collect system information manually to assist Support with troubleshooting and resolving problems with your storage system. Also, SupportAssist must be enabled on the system for data to be sent to APEX AIOps Observability.

Connect Directly

The Connect Directly option for SupportAssist runs directly on the storage system. When you select this option, you set up the storage system to use a secure connection between itself and the Support Center. Ensure that ports 443 and 8443 are open from the storage system to the Support Center. If remote access using SSH is required, ensure that ports 22 and 8443 are open on the storage system.

Connect through a Gateway Server

The Connect through a gateway server option for SupportAssist requires that a separate customer-supplied server running Secure Connect Gateway (version 5.12.00.10 or later) be set up. When you select this option, your storage system can be managed together with other storage systems by a Secure Connect Gateway. The storage systems reside behind a single common (centralized) secure connection between Support Center servers and an off-array Secure Connect Gateway. The Secure Connect Gateway is the single point of entry and exit for all IP-based SupportAssist activities for the storage systems that are associated with the gateway.

(i) **NOTE:** SupportAssist does not support ESRS gateway (version 3.x) or SupportAssist Enterprise (version 4.y). As a result, you cannot specify an ESRS gateway or SupportAssist Enterprise address for enabling a gateway connection.

The Secure Connect Gateway is a remote support solution application that is installed on one or more customer-supplied dedicated servers. The Secure Connect Gateway functions as a communication broker between the associated storage systems and the Support Center. You can configure a Primary and a Secondary Gateway for SupportAssist for high availability in case one of the gateways is inaccessible. It is recommended that both gateways reside on the same cluster to minimize disruption if one gateway fails over to the other.

In Unity OE versions 5.3.x and 5.4.x, HTTP proxy servers are supported for both Connect Directly and Connect through a gateway connection type options. SOCKS proxy servers are not supported. In Unity OE version 5.5 or later, HTTP proxy servers are only supported for the Connect Directly connection type option.

(i) **NOTE:** For a Non-Disruptive Upgrade from an earlier Unity OE version 5.3.x or 5.4.x to Unity OE version 5.5 or later and when SupportAssist is enabled with Connect through a gateway server and Use Global Proxy Settings options in the earlier Unity OE version, the Use Global Proxy Settings option is disabled during upgrade. After the upgrade, the system communicates directly with the Secure Connect Gateway server, the proxy server connection is removed. An alert is generated as a notification that the proxy server is not supported by the gateway connection and has been removed from the SupportAssist configuration. If your network requires a proxy server between the Unity system and the gateway server, you must re-arrange your network environment or change the SupportAssist configuration to use the Connect directly option instead.

A Policy Manager is not supported in Unity. To use a Policy Manager to manage the network traffic between your storage system and Support Center, you must select the Connect through a gateway server connection option for SupportAssist. Also, you must specify the Policy Manager and, if required, an associated proxy server within the Secure Connect Gateway.

(i) **NOTE:** For more information about Secure Connect Gateway and Policy Manager, go to the Secure Connect Gateway product page on Online Support.

To configure your storage system to use Connect through a Gateway Server, you must provide the IPv4 address (IPv6 is not supported) or FQDN of the Secure Connect Gateway and ensure that port 9443 is open from the storage system to the gateway. If remote access using SSH is required, ensure that ports 22 and 8443 on the storage system are also open.

(i) **NOTE:** Storage systems can only be added to the Secure Connect Gateway from Unisphere or UEMCLI. A remote session for Unisphere requires port 80 to be open, UEMCLI requires port 443 to be open. If the storage system is added from the gateway server, it appears to be connected, but does not successfully send system information.

Remote Secure Credentials

In Unity OE version 5.3.x or 5.4.x, the RSC (Remote Secure Credentials) option is disabled by default and SupportAssist must be enabled to select it. When selected, the RSC option allows authorized Dell support engineers to authenticate with your system by using a unique one-time Dell-generated credential. Your system administrator does not need to provide Dell support engineers with an access credential. Once the authentication process passes, the user is given both administrator and service roles when running UEMCLI commands, and the service role when running on-array CLI commands.

In Unity OE version 5.5 or later, the RSC option does not appear in Unisphere. When the Inbound connectivity for remote access option is selected and SupportAssist is enabled, the RSC option is enabled by default and authorized Dell service personnel are allowed to remotely log in to your system to securely troubleshoot your system. Once the authentication process passes, the user is given both administrator and service roles when running UEMCLI commands, and the service role when running on-array CLI commands. However, if the Inbound connectivity for remote access option is not selected, the RSC option is not enabled.

Operational description

The SupportAssist feature provides an IP-based connection that enables Support to receive error files and alerts from your storage system, and to perform remote troubleshooting resulting in a fast and efficient time to resolution.

(i) **NOTE:** It is recommended that you enable the SupportAssist feature to accelerate problem diagnosis, perform troubleshooting, and help speed time to resolution. If you do not enable SupportAssist, you may need to collect system information manually to assist Support with troubleshooting and resolving problems with your storage system. SupportAssist must be enabled on the system for data to be sent to APEX AIOps Observability.

SupportAssist and security

SupportAssist employs multiple security layers throughout each step in the remote connectivity process to ensure that you and Support can use the solution with confidence:

● All notifications originate from your site—never from an outside source—and are kept secure by using Advanced Encryption Standard (AES)-256-bit encryption.
● IP-based architecture integrates with your existing infrastructure and maintains the security of your environment.
● Communications between your site and the Support Center are bilaterally authenticated using RSA® digital certificates.
● Only authorized Customer Service professionals that are verified using two-factor authentication can download the digital certificates that are needed to view a notification from your site.

When RSC (Remote Secure Credentials) is enabled, Dell Support personnel can remotely log in as a special service user by using a unique dynamic RSA passcode from a strictly controlled Dell backend portal. The passcode is only valid for a 30 minute period and is authenticated by Dell backend servers. Once the authentication process passes, the user is given both administrator and service roles when running UEMCLI commands, and the service role when running on-array CLI commands. All remote user login and logout activities with RSC passcode are audit logged.

SupportAssist management

You can manage SupportAssist using Unisphere, UEMCLI, or the REST API. You can enable or disable the service and change the settings for a global proxy server.

The Connect Directly SupportAssist feature is embedded in the operating environment (OE) of the storage system as a managed service. The Connect Directly implementation includes the High Availability (HA) feature, which provides monitoring of SupportAssist and is responsible for failing it over from the primary storage processor (SP) to the backup SP should the primary SP fail. If it fails, HA is responsible for restarting SupportAssist. The OE is responsible for persisting the configuration and certificates that are needed for SupportAssist to work.

The Connect through a Gateway Server SupportAssist feature allows you to configure both a Primary gateway and a Secondary gateway to allow for high availability (HA) within the Support Connect Gateway cluster on the network. If the primary gateway goes down, the Unity system automatically fails over to the secondary gateway on the network for SupportAssist and APEX AIOps Observability connectivity. Configuration of the primary gateway is mandatory, while configuration of the secondary gateway is optional.

SupportAssist is only supported on the primary SP when it is in normal mode. SupportAssist is not supported in service mode.

SupportAssist communication

Access to a DNS server is required for SupportAssist to work.

If a global proxy server is configured and the user selects to use the global proxy settings, SupportAssist attempts to use the configured proxy server to communicate with the Support Center back-end systems. If a global proxy server is not configured or is not selected to be used, SupportAssist attempts to communicate directly to the Support Center back-end systems.

Requirements, Restrictions, and Configuration

This chapter describes the requirements and restrictions for the SupportAssist feature, and the processes to provision the feature.

Topics:

Prerequisites for SupportAssist

As prerequisites for enabling SupportAssist on the storage system, your Unity system must have the following:

*   Operating environment (OE) version 5.3 or later.
*   Unity system is initialized (a universal key is present).

    (i) **NOTE:** SupportAssist is initialized on new Unity systems with OE version 5.3 or later, during the manufacturing process. For Unity systems being upgraded to OE 5.3 or later with Integrated or Centralized ESRS configured before upgrade, the Unity system is initialized during the upgrade process. However, SupportAssist does not initialize when any of the following conditions exist:

    o   Integrated or Centralized ESRS is not configured before upgrade to OE 5.3 or later.

    o   A universal key is not present. In these cases, an access key and customer-supplied PIN must be obtained to initialize SupportAssist as part of the manual enabling and configuring SupportAssist process.

    o   If either ESRS gateway (version 3.x) or SupportAssist Enterprise (version 4.y) is used as the gateway server for Centralized ESRS. The Secure Connect Gateway server version 5.12.00.10 or later must be used.

    o   Your Unity system was configured for integrated ESRS but could only connect to the public network through a proxy server before the upgrade.

    (i) **NOTE:** Automatic conversion from integrated ESRS to SupportAssist during upgrade can only succeed on those Unity systems that can directly connect to the public network.

*   At least one DNS server must be configured on the storage system.
*   Unrestricted network access from Unity to the Support Center backend (`esrs3-core.emc.com`) over the Internet using HTTPS (for non-proxy environments).
*   Do not use dynamic IP addresses (DHCP) for any components of the Secure Connect Gateway servers or managed devices unless they are configured with the FQDN of the Secure Connect Gateway server.
*   Network traffic over ports 443 and 8443 is required for SupportAssist functionality and is required for remote support personnel to perform many break or fix tasks using SupportAssist.
*   If remote access using SSH is required, ensure that ports 22 and 8443 are open on the storage system.
*   SSL/TLS inspection and certificate proxying are not permitted for SupportAssist network traffic.
*   Unity OE version 5.5 requires that your system contact information must be specified to configure or modify SupportAssist.

    (i) **NOTE:** If the contact information is not specified in an earlier Unity OE release and Support Assist is enabled, the following notifications are generated after upgrading to Unity OE version 5.5:

- A warning icon appears along with the other controls at the top right-side of the page. Click the warning icon to go to the page to specify the contact information.
- An alert notification to add the contact information appears on the **Events Alerts** page.

Once the contact information has been added, the following occurs:

- The warning icon no longer appears.
- A new information alert is generated which indicates that the contact information is set.
- The previous warning alert is marked as inactive.

(i) **NOTE:** An IP address is not needed for a SupportAssist configuration with a connection type of direct connect. If you use DHCP to assign IP addresses to any SupportAssist components (Secure Connect Gateway servers or managed devices), they must have static IP addresses. Leases for the IP addresses that those devices use cannot be set to expire. It is recommended that you assign static IP addresses to those devices you plan to have managed by SupportAssist. For a SupportAssist configuration with a connection type of connect through a gateway, FQDNs can be configured instead of IP addresses.

Requirements for SupportAssist with Connect Directly connectivity

The following requirements are related to the SupportAssist Connect Directly implementation:

- Network traffic (HTTPS) must be permitted on ports 443 and 8443 (outbound) to the Support Center. Failure to open both ports may result in a delay in resolving issues with the end device.
- If remote access using SSH is required, ensure that ports 22 and 8443 are open.
- If the SupportAssist implementation includes connection to a global proxy server for the storage system, you must indicate this when you configure the SupportAssist feature.

Requirements for SupportAssist with Connect through a Gateway connectivity

The following requirements are related to the SupportAssist Connect through a Gateway implementation:

- Network traffic (HTTPS) must be permitted on port 9443 between the Unity system and the Secure Connect Gateway server. Also, network traffic over port 443 is required for SupportAssist functionality.

  (i) **NOTE:**

- If remote access using SSH is required, ensure that ports 22 and 8443 on the storage system are open.

  (i) **NOTE:** A remote session for Unisphere requires port 80 to be open, UEMCLI requires port 443 to be open.

- The Secure Connect Gateway server operating environment must be version 5.12.00.10 or later.
- At least one Secure Connect Gateway server is up and operating normally.
- The Secure Connect Gateway server must be configured with either an IPv4 address or FQDN.

  (i) **NOTE:** IPv6 is not supported.

(i) **NOTE:** Never manually add or remove a Unity system from a Secure Connect Gateway server. Only add or remove a storage system from a gateway server with the Unisphere SupportAssist configuration wizard. If the storage system is added from the gateway server, it will appear to be connected, but will not successfully send system information.

General SupportAssist restrictions and limitations

The following restrictions and limitations apply to SupportAssist:

- If a policy manager server address is configured for a connection type of **Integrated ESRS** on the Unity system before an upgrade to Unity OE version 5.3 or later, the policy manager setting is not transferred during the upgrade. After the upgrade, an error is logged to indicate that the policy manager can no longer manage the network communication between the Unity system and the backend servers.

    (i) **NOTE:** A Policy Manager and associated proxy servers are supported in Unity OE version 5.3 for SupportAssist with a connection type of **Connect through a gateway server**. Connections to the Policy Manager and associated proxy servers must be configured through the Secure Connect Gateway interface.

- If integrated ESRS is enabled with a SOCKS proxy in an earlier Unity OE version before an upgrade to Unity OE version 5.3, a pre-upgrade health check error blocks the upgrade. If integrated ESRS is not enabled but a SOCKS proxy is configured, the upgrade is blocked. If a global proxy server is configured in Unity OE version 5.3 or later, it must be of type HTTP. If you configure a SOCKS proxy server in Unity OE version 5.3 or later for external network connectivity, SupportAssist cannot be enabled.
- A Unity system with either ESRS gateway (version 3.x) or SupportAssist Enterprise (version 4.y) configured for centralized ESRS cannot be upgraded to Unity OE version 5.3. ESRS gateway (version 3.x) and SupportAssist Enterprise (version 4.y) are not supported in Unity OE version 5.3 for SupportAssist. SupportAssist only supports Secure Connect Gateway version 5.12.00.10 or later.
- IPv6 is not supported. Only IPv4 is supported for SupportAssist.

    (i) **NOTE:** If the Unity system is configured with only an IPv6 management IP address, SupportAssist functions and basic connectivity do not work. Also, you cannot specify a proxy server with an IPv6 address for either Connect Directly or Connect through a gateway server, or Secure Connect Gateways with an IPv6 address for gateway connections.

- If the underlying SupportAssist service encounters a problem (status appears to remain as `unknown`) and **Connect directly** is configured for the **Connection Type**, you cannot enable the **Connection Type** of **Connect through a gateway server**.
- When a Unity system has been assigned a universal key during manufacturing or an OE 5.3 upgrade and the ESRS connection is automatically upgraded to SupportAssist, or the system has enabled SupportAssist while running OE 5.3 and is later reinitialized to a pre-OE 5.3 release, an upgrade to SupportAssist operation will fail because the universal key for OE 5.3 already exists in the Support Center backend. In this case, the issue with the Support Center backend must be fixed before you upgrade to an OE 5.3 or later release.
- When Unity is connected through a gateway connection to the Support Center backend, it is possible that the remote access state that appears in Unisphere is different from the remote access setting in the Support Center backend.

    (i) **NOTE:** With Unity OE version 5.5 or later, Unity cannot connect to a Secure Connect Gateway server through a proxy server.

- On a Unity system that is configured with a Secure Connect Gateway connection, remote access and remote secure credentials (RSC) will stop working without notification if the Secure Connect Gateway server is reinstalled.
- A false success indication appears when switching to a configured Secure Connect Gateway that cannot communicate to the Support Center backend or Unity system due to firewall or port setting.
- When a correctly configured gateway exists, misleading and invalid proxy configuration errors may appear in an associated response and log when there is an issue reaching the Secure Connect Gateway server or Support Center backend server.
- If an issue occurs with the Support Center backend server or a network issue occurs between the Secure Connect Gateway server and the Support Center backend server, the connection appears as good and an alert is not generated.
- An active remote connection from Dell Support cannot be terminated by a user by disabling the inbound connection in the SupportAssist UI page. Dell Support must terminate this active connection.
- When the SupportAssist service is not in a good state or there is any difficulty in gracefully disabling the connection, users may initiate a cleanup in the Unity system. This cleanup only deletes the data in the Unity system, but not the data in the SCG or backend servers. As a result, Dell Support could still remotely log in to the Unity system.
- In a direct connection configuration, when any proxy server setting, which includes proxy server address, port, username, password, and enabling or disabling a proxy server, is changed, remote access stops working if the previous proxy setting no longer works. You must restart the SupportAssist service using the `svc_supportassist -r` service command.

    (i) **NOTE:** For information about service commands, see the *Dell Unity Family Service Commands Technical Notes* document.

- If your Unity system can only connect to the public network through a proxy server, an automatic upgrade to SupportAssist from Integrated ESRS during an upgrade from Unity OE version 5.2 or earlier to Unity OE version 5.3 or later is not supported and the operation will fail.

(i) **NOTE:** For more information about these restrictions and limitations, see Knowledge Base Article 000210339.

How to enable and configure SupportAssist

In Unisphere, you can enable and configure SupportAssist for a storage system by using any of the following means:

- Initial Configuration wizard—Wizard for configuring global storage system settings which runs when you first access the system with Unisphere.
- Overview—Service page for the storage system that you can access from Unisphere (**System** > **Service** > **Overview**).
- SupportAssist—A SupportAssist settings page that you can access from Unisphere (**Settings** > **Support Configuration**).
- UEMCLI—Command line interface that includes commands you can run on a system through a prompt from a Microsoft Windows or UNIX/Linux host to configure SupportAssist settings. For information about SupportAssist related CLI commands, see the *Unisphere Command Line Interface User Guide*.
- Unisphere Management REST API server—Application interface that can receive REST API requests to configure SupportAssist settings. For information related to the Unisphere Management REST API, see the *Unisphere Management REST API Programmers Guide*.

To determine the status of the SupportAssist feature in Unisphere, go to **System** > **Service** > **Overview**. SupportAssist is enabled when a check mark appears within a green circle under **SupportAssist**.

Typical use cases for enabling SupportAssist are:

- A new Unity system with SupportAssist already initialized during the manufacturing process.

  (i) **NOTE:** If enabling SupportAssist through the Initial Configuration wizard is skipped, it can be enabled later through any of the other previously described means.

- Unity software upgrade from a version that is earlier than 5.3 to version 5.3 or later and either Centralized or Integrated ESRS is configured before upgrade.
- Unity software upgrade from a version that is earlier than 5.3 to version 5.3 or later and ESRS is not configured before upgrade.
- Unity software upgrade from version 5.3.x to version 5.4 or later and either Connect directly or Connect through a gateway server is configured for SupportAssist before upgrade.
- Unity software upgrade from version 5.3.x to version 5.4 or later and SupportAssist is not configured before upgrade.

If either Centralized or Integrated ESRS is enabled before the upgrade of a Unity system to version 5.3 or 5.4, SupportAssist is automatically enabled, and the remote connectivity is reestablished following a successful upgrade. The connection type (outbound only traffic or inbound and outbound traffic) is the same as the type before the upgrade. However, if Unity software is upgraded from a version that is earlier than 5.3, Remote Secure Credentials (RSC) is not enabled automatically and, if used, must be enabled manually. If ESRS is not enabled before the upgrade, SupportAssist is not enabled as part of the upgrade.

If either Centralized or Integrated ESRS is enabled before the upgrade of a Unity system to version 5.5, SupportAssist is automatically enabled, and the remote connectivity is reestablished following a successful upgrade. The connection type (outbound only traffic or inbound and outbound traffic) is the same as the type before the upgrade. If Unity software is upgraded to version 5.5, and inbound and outbound traffic was enabled, Remote Secure Credentials (RSC) is enabled automatically. If ESRS is not enabled before the upgrade, SupportAssist is not enabled as part of the upgrade.

If either Direct connect or Connect through a gateway server is enabled before the upgrade of a Unity system from version 5.3.x to version 5.4 or later, SupportAssist is automatically enabled, and the remote connectivity is reestablished following a successful upgrade. The connection type (outbound only traffic or inbound and outbound traffic) is the same as the type before the upgrade. If Remote Secure Credentials (RSC) is enabled before Unity software is upgraded from version 5.3.x to version 5.4 or later, Remote Secure Credentials (RSC) is enabled automatically as part of the upgrade. Also, the RSC option no longer appears as a selection in the SupportAssist Configuration wizard in Unisphere after the upgrade. If Remote Secure Credentials (RSC) is not enabled before Unity software is upgraded from version 5.3.x to version 5.4, Remote Secure Credentials (RSC) is not enabled automatically and, if used, must be enabled manually. If SupportAssist is not enabled before the upgrade, SupportAssist is not enabled as part of the upgrade.

(i) **NOTE:** Pre-upgrade health checks related to SupportAssist can block upgrade to OE version 5.3 or later:
- If a global proxy server is configured and integrated ESRS is enabled with the SOCKS type proxy, a pre-upgrade health check blocks the upgrade. SupportAssist does not support a SOCKS proxy server. Before proceeding with the upgrade, either switch the proxy server type to HTTP instead or do not use the proxy server.
- If a centralized ESRS gateway is configured before the upgrade and the gateway address is for an ESRS gateway (version 3.x), or SupportAssist Enterprise (version 4.y), or Secure Connect Gateway version earlier than 5.12, a pre-upgrade health check blocks the upgrade. Before proceeding with the upgrade, either upgrade the Secure Connect Gateway to version 5.12.00.10 or later in the gateway, or disable Centralized ESRS.

When enabling the SupportAssist feature on a storage system, configure the following settings:

- License Agreement—The SupportAssist End User License Agreement (EULA) must be accepted in order to configure and use SupportAssist.
- Connection Type—Type of SupportAssist, Connect Directly or Connect through a gateway server, that the storage system will use (outbound only, outbound and inbound, or outbound and inbound with Remote Secure Credentials (RSC)). Although you can disable SupportAssist, it is not recommended.

  (i) **NOTE:** In Unity OE version 5.5 or later, the RSC option does not appear in Unisphere. If Inbound connectivity for remote access is selected, RSC is enabled automatically.

- Network check—Validates network readiness for SupportAssist configuration and shows the current proxy server settings, if configured and the **Use Global Proxy Settings** checkbox is selected.

  (i) **NOTE:** In Unity OE version 5.5 or later, the **Use Global Proxy Settings** checkbox is only applicable to the Connect directly option for SupportAssist.

  - Proxy Enabled: Indicates whether the Global Proxy server is enabled or disabled.
  - Protocol: Protocol used to communicate with a proxy server used for the communication channel. The available option is HTTP (the default protocol) on port 3128 (default port).
  - Proxy server IP address: Network address associated with the global proxy server traffic.
  - Credentials: User name and password of an account that is used to access the proxy server system.
- (Only for storage systems that are not initialized) Initialize—User must provide an access key, which is obtained from the Dell Key Portal site, and a 4-digit PIN.
- Verify Contact Information—This information enables your service provider to contact you and respond quickly to critical issues.
- Review Configuration—Lists SupportAssist user selections and configuration operation results.
- Results—Indicates whether SupportAssist has been successfully enabled.

  (i) **NOTE:** When SupportAssist is enabled, APEX AIOps Observability is selected to be enabled by default. APEX AIOps Observability is a software-as-a-service cloud-native application that is used to provide intelligent analytics about performance, capacity, and configuration for health-based reporting and remediation.

Configuring SupportAssist workflow for a new Unity system

The Initial Configuration wizard automatically appears when you log in to Unisphere and SupportAssist can be enabled directly within the SupportAssist step of the wizard.

(i) **NOTE:** If you select to skip enabling SupportAssist in the wizard, it can be enabled later through any of these other means:
- **Overview Service** page in Unisphere
- **SupportAssist** settings page in Unisphere
- Unisphere Command line interface that is run on a system through a prompt from a Microsoft Windows or UNIX/Linux host
- Unisphere Management REST API server

The following steps show the workflow in Unisphere to configure SupportAssist on a new Unity system:

1. For **License Agreement**, accept the SupportAssist End User License Agreement (EULA).

   (i) **NOTE:** The SupportAssist EULA must be accepted in order to configure and use SupportAssist.

2. For **Connection Type**, select the Connection Type of SupportAssist, Connect Directly or Connect through a Gateway Server.

   (i) **NOTE:** Setting the connection type to either Connect Directly or Connect through a Gateway Server enables SupportAssist. Enabling remote access allows both outbound network traffic to and inbound network traffic from Dell Support. In Unity OE versions 5.3.x or 5.4.x, selecting Remote Secure Credentials (RSC) allows authorized Dell service personnel to authenticate to a system without arranging a password with the owner of the appliance beforehand. Inbound connectivity for remote access must be enabled to select RSC. In Unity OE version 5.5 or later, the RSC option does not appear in Unisphere, however, it is automatically enabled or disabled together with the Inbound connectivity for remote access option.

3. For **Network Check**, run a network check to validate the network readiness for the SupportAssist configuration.

   (i) **NOTE:** The **Use Global Proxy Settings** checkbox is not selected by default and, in Unity OE version 5.5 or later, it can only be selected for the Connect directly option. If selected, the current configured proxy server settings display under the checkbox and are used for the SupportAssist connection. However, if the current proxy server type is SOCKS, an error appears. SupportAssist does not support a SOCKS proxy server. To proceed, the global proxy server should be configured for HTTP instead. The proxy server settings for the system should have already been configured as part of the system initial configuration. Verify these settings and make any necessary changes.

4. For **Verify Contact Information**, specify the applicable contact information.

   (i) **NOTE:** The required contact information at a minimum must be specified to continue to configure SupportAssist.

5. For **Review Configuration**, review the listed selections and operation results from the previous steps.
6. For **Results**, a checkbox for APEX AIOps Observability, which is selected by default, is included. Either select or clear it and then close the wizard.

Configuring SupportAssist workflow when ESRS is not configured before upgrade

If the SupportAssist conversion is blocked during a Unity software upgrade, the SupportAssist connection must be manually enabled because SupportAssist is not initialized. SupportAssist may not initialize for the following reasons:

- The Unity system did not have ESRS enabled before the upgrade.
- The access key is lost or corrupted.

The following steps show the workflow in Unisphere to configure SupportAssist when SupportAssist is not initialized:

1. For **License Agreement**, accept the SupportAssist End User License Agreement (EULA).

   (i) **NOTE:** The SupportAssist EULA must be accepted in order to configure and use SupportAssist.

2. For **Connection Type**, select the Connection Type of SupportAssist, Connect Directly or Connect through a Gateway Server.

   (i) **NOTE:** Setting the connection type to either Direct or Gateway enables SupportAssist. Enabling remote access allows both outbound network traffic to and inbound network traffic from Dell Support. Disabling remote access allows only outbound traffic to Dell Support. In Unity OE versions 5.3.x or 5.4.x, selecting Remote Secure Credentials (RSC) allows authorized Dell service personnel to authenticate to a system without arranging a password with the owner of the appliance beforehand. Inbound connectivity for remote access must be enabled to select RSC. In Unity OE version 5.5 or later, the RSC option does not appear in Unisphere, however, it is automatically enabled or disabled with the Inbound connectivity for remote access option.

3. For **Network Check**, run a network check to validate the network readiness for the SupportAssist configuration.

   (i) **NOTE:** The **Use Global Proxy Settings** checkbox is not selected by default and, in Unity OE version 5.5 or later, it can only be selected for the Connect directly option. If selected, the current configured proxy server settings display under the checkbox and are used for the SupportAssist connection. However, if the current proxy server type is SOCKS, an error message appears. SupportAssist does not support a SOCKS proxy server. To proceed, an HTTP proxy server should be configured instead. The proxy server settings for the system should have already been configured through the **Initial Configuration Wizard** as part of the system initial configuration. Verify these settings while configuring a Connect Directly implementation and make any necessary changes. If the proxy server has not been configured or changes must be made, go to **Settings** and under **Support Configuration** select **Proxy server** and enter the appropriate information.

4. For **Initialize**, access the Dell Key Portal site to obtain an access key.

   (i) **NOTE:** The access key is generated from the current Unity system serial number and a four-digit PIN that you provide. If the access key and PIN are correct, wait until the initialization completes. When the initialization completes, **Review Configuration** appears.

5. For **Verify Contact Information**, specify the applicable contact information.

   (i) **NOTE:** The required contact information at a minimum must be specified to continue to configure SupportAssist.

6. For **Review Configuration**, review the listed selections and operation results from the previous steps.

   (i) **NOTE:** Click **Finish** to go to **Results**. The connectivity is enabled within a few minutes.

7. For **Results**, a checkbox for APEX AIOps Observability, which is selected by default, is included. Either select or clear it and then close the wizard.

Configuring SupportAssist

This chapter describes the processes to configure the SupportAssist feature using the Unisphere interface.

Topics:

Configure SupportAssist on a new system

Prerequisites

(i) **NOTE:** Do not use this procedure if the system has not been initialized (universal key is not present). Use the Configure SupportAssist when the Unity system is not initialized procedure instead.

- Unity operating environment (OE) version is 5.3 or later.
- System is initialized (universal key is present).
- If your IT environment requires the storage system to connect through a proxy server, verify that the proxy server is of type HTTP, configured, and operating normally before continuing.

  (i) **NOTE:** SOCKS proxy server is not supported.

- At least one DNS server must be configured on the storage system.
- Unrestricted network access to Support Center backend (esrs3-core.emc.com) over the Internet using HTTPS.
- Network traffic over ports 443 and 8443 is required for SupportAssist functionality and is required for remote support personnel to perform many break/fix tasks using SupportAssist.
- For Connect through a Gateway server type connectivity:
  ○ Network traffic (HTTPS) must be permitted on port 9443 between the Unity system and the Secure Connect Gateway server.
  ○ The Secure Connect Gateway server operating environment must be version 5.12 or later.
  ○ At least one Secure Connect Gateway server is up and operating normally.
- If remote access using SSH is required, ensure that ports 22 and 8443 are open on the storage system.

About this task

To configure the initial setup of SupportAssist, do the following:

Steps

1. If you are using the Initial Configuration wizard and the **SupportAssist** step is reached and SupportAssist information is shown, go to step 5. If you are using Unisphere because the SupportAssist step was previously skipped and not enabled through the Initial Configuration wizard, go to step 2.
2. Select the **Settings** icon.
   The **Settings** window appears.
3. Select **Support Configuration**.
4. From the drop down list under **Support Configuration**, select **SupportAssist**.
   Information related to **SupportAssist** appears.
5. Click **Configure**.
   The **Configure SupportAssist** wizard appears showing the SupportAssist **License Agreement** information.
6. Select **Accept license agreement**, to accept the terms of the SupportAssist End User License Agreement (EULA), then click **Next**.

   The SupportAssist EULA must be accepted to enable and configure SupportAssist.

> **(i) NOTE:** Once the license agreement is accepted, it does not appear again.

Connection Type information appears.

7. Specify the appropriate SupportAssist connectivity options that you prefer to use.

Option	Description
Connect Directly	Sets up the storage system to use a secure connection between the storage system and Dell services. > **(i) NOTE:** Selected by default.
Connect through a Gateway server	The storage system can be managed together with other storage systems by a Secure Connect Gateway. > **(i) NOTE:** This option requires that at a minimum of one separate customer-supplied server running Secure Connect Gateway (version 5.12 or later) is configured and operating. a. (Required) Specify the **Primary gateway address** of the Secure Connect Gateway server that is used to connect to Dell services and ensure that port 9443 is open between the Secure Connect Gateway server and the storage system. b. (Optional) Specify a **Secondary gateway address** for SupportAssist High Availability (HA). The second gateway should be configured in the same SupportAssist HA cluster as the **Primary gateway address**.
Inbound connectivity for remote access	Allows both outbound and inbound traffic for remote service. If not selected, only outbound traffic is allowed for remote service. > **(i) NOTE:** Selected by default.
RSC (Remote Service Credentials - Recommended) > **(i) NOTE:** This option does not appear in Unisphere in Unity OE version 5.5 or later.	Allows authorized Dell Technologies service personnel to authenticate without a password exchange with the system administrator to securely troubleshoot your system remotely. > **(i) NOTE:** In Unity OE version 5.3.x or 5.4.x, this option is disabled by default. Before this option can be selected, **Inbound connectivity for remote access** must be selected. In Unity OE version 5.5 or later, when the **Inbound connectivity for remote access** option is selected and SupportAssist is enabled, this option is enabled by default. The RSC option is disabled when clearing the **Inbound connectivity for remote access** option.

8. Once the appropriate SupportAssist connectivity options have been selected, click **Next** to continue.
   Network Check information appears.

9. Do one of the following:

   > **(i) NOTE:** In Unity OE version 5.5 or later, the **Use Global Proxy Settings** checkbox is only applicable to the Connect directly option for SupportAssist.

   - Leave the **Use Global Proxy Settings** checkbox cleared. It is not selected by default.
   - Select **Use Global Proxy Settings**.

     > **(i) NOTE:** If selected, the configured global proxy server settings display under the checkbox and are used for the SupportAssist connection. However, if the current global proxy server type is SOCKS, an error appears. SupportAssist does not support a SOCKS proxy server. To proceed, the global proxy server should be configured for HTTP instead or not used if possible.

10. Click **Next** to run a Network check to validate the network readiness for the SupportAssist configuration.
    When the network check passes successfully, **Verify Contact Information** appears.

11. Ensure that the applicable contact information is complete and accurate.

    > **(i) NOTE:** The required contact information at a minimum must be specified to continue to configure or modify SupportAssist.

12. Click **Verify**.
    Review Configuration information appears.

13. Check that the SupportAssist selections and the previous related operation results are correct.

14. If the **Review Configuration** information is correct, click **Finish**.
The SupportAssist connectivity should be enabled after a few minutes and **Results** information appears to show a success message. Also, the **Send system data collected by SupportAssist to APEX AIOps Observability** check box is selected (enabled) by default.

15. Do one of the following:
    - Leave the **Send system data collected by SupportAssist to APEX AIOps Observability** check box selected.
    - Clear the check box to disable sending data to APEX AIOps Observability (not recommended).

    ⓘ **NOTE:** APEX AIOps Observability can be enabled or disabled after completing the SupportAssist configuration from **Settings** > **Support Configuration** > **APEX AIOps Observability**.

16. Click **Close** to close the wizard.

Next steps

Always test connectivity after configuring SupportAssist. This process checks that the connection is working and causes Dell to recognize the system. Click **Test** in one of the following locations:
- **System** > **Service** under **SupportAssist**
- **Settings** > **Support Configuration** > **SupportAssist**

ⓘ **NOTE:** If the Status has not changed after 10 minutes (the time it should take to test connectivity and update status), contact Support. To update status from Unknown, click **Refresh**.

If you must change (reprovision) the SupportAssist configuration information, select **Change**. The **Configure SupportAssist** wizard appears in which you can make changes.

ⓘ **NOTE:** For Unity with an operating system version 5.4 or later, or that has been upgraded from version 5.3 to version 5.4, if both the **Inbound connectivity for remote access** and the **RSC (Remote Secure Credentials)** options were previously selected, the **RSC (Remote Secure Credentials)** option does not appear again.

Configure SupportAssist when the Unity system is not initialized

Prerequisites

ⓘ **NOTE:** Do not use this procedure to enable and configure SupportAssist if your Unity system is already initialized. Use the procedure Configure SupportAssist on a new system instead.

- Unity operating environment (OE) version is 5.3 or later.
- The system is not initialized (the universal key is not present).
- If your IT environment requires the storage system to connect through a global proxy server, verify that the proxy server is of type HTTP, and is configured and operating before continuing.
- At least one DNS server must be configured on the storage system.
- Unrestricted network access to the Support Center backend (esrs3-core.emc.com) over the Internet using HTTPS.
- Network traffic over ports 443 and 8443 is required for SupportAssist functionality and is required for remote support personnel to perform many break/fix tasks using SupportAssist.
- For Connect through a Gateway server type connectivity:
  - Network traffic (HTTPS) must be permitted on port 9443 between the Unity system and the Secure Connect Gateway server.
  - The Secure Connect Gateway server operating environment must be version 5.12 or later.
  - At least one Secure Connect Gateway server is up and operating.
- If remote access using SSH is required, ensure that ports 22 and 8443 are open on the storage system.

About this task

To configure SupportAssist using Unisphere, do the following:

Steps

1. Select the **Settings** icon.

The **Settings** window appears.

2. Select **Support Configuration**.
3. From the drop-down list under **Support Configuration**, select **SupportAssist**.
   Information related to **SupportAssist** appears.
4. Click **Configure**.
   The **Configure SupportAssist** wizard appears to show the SupportAssist **License Agreement** information.
5. Select **Accept license agreement**, to accept the terms of the SupportAssist End User License Agreement (EULA), then click **Next**.

   The SupportAssist EULA must be accepted to enable and configure SupportAssist.

   (i) **NOTE:** Once the license agreement is accepted, it does not appear again.

   Connection Type information appears.
6. Specify the appropriate SupportAssist connectivity options that you prefer to use.

Option	Description
Connect Directly	Sets up the storage system to use a secure connection between the storage system and Dell services. (i) **NOTE:** Selected by default.
Connect through a Gateway server	The storage system can be managed together with other storage systems by a Secure Connect Gateway. (i) **NOTE:** This option requires that at a minimum of one separate customer-supplied server running Secure Connect Gateway (version 5.12 or later) is configured and operating. a. (Required) Specify the **Primary gateway address** of the Secure Connect Gateway server that is used to connect to Dell services and ensure that port 9443 is open between the Secure Connect Gateway server and the storage system. b. (Optional) Specify a **Secondary gateway address** for SupportAssist High Availability (HA). The second gateway should be configured in the same SupportAssist HA cluster as the **Primary gateway address**.
Inbound connectivity for remote access	Allows both outbound and inbound traffic for remote service. If not selected, only outbound traffic is allowed for remote service. (i) **NOTE:** Selected by default.
RSC (Remote Service Credentials - Recommended) (i) **NOTE:** This option does not appear in Unisphere in Unity OE version 5.5 or later.	Allows authorized Dell Technologies service personnel to authenticate without a password exchange with the system administrator to securely troubleshoot your system remotely. (i) **NOTE:** In Unity OE version 5.3.x or 5.4.x, this option is disabled by default. Before this option can be selected, **Inbound connectivity for remote access** must be selected. In Unity OE version 5.5 or later, when the **Inbound connectivity for remote access** option is selected and SupportAssist is enabled, this option is enabled by default. The RSC option is disabled when clearing the **Inbound connectivity for remote access** option.

7. Once the appropriate SupportAssist connectivity options have been selected, click **Next** to continue.
   Network Check information appears.
8. Do one of the following:

   (i) **NOTE:** In Unity OE version 5.5 or later, the **Use Global Proxy Settings** checkbox is only applicable to the Connect directly option for SupportAssist.

   ● Leave the **Use Global Proxy Settings** checkbox cleared. It is not selected by default.
   ● Select **Use Global Proxy Settings**.

   (i) **NOTE:** If selected, the configured global proxy server settings display under the checkbox and are used for the SupportAssist connection. However, if the current global proxy server type is SOCKS, an error appears. SupportAssist does not support a SOCKS proxy server. To proceed, the global proxy server should be configured for HTTP instead or not used if possible.

9. Click **Next** to run a Network check to validate the network readiness for the SupportAssist configuration.
    When the network check passes successfully, **Initialize** information appears.

10. Make note of the system serial number that is shown and click the **Key Portal** hyperlink.

    ⓘ **NOTE:** You must provide the system serial number and a 4-digit PIN to generate an access key to initialize SupportAssist.

    A **Dell Support** page appears with a **Generate Access Key** link that is listed under **Quick Links**.

11. Click **Generate Access Key**.
    The **Generate Access Key** page appears.

12. For **Select the Product ID or Service Tag**, type the system serial number that was shown in the **Initialize** information and click the **Search** icon.
    The serial number is validated and a row containing the Unity details for confirmation is shown.

13. Under **Create PIN**, type a 4-digit PIN to use in generating the access key.
    The **Generate Access Key** control is enabled.

14. Click **Generate Access Key**.
    A message is shown indicating that an email has been sent to the registered Dell support account for the system. The received email should include the following access key details:
    ● Access Key
    ● Expiration Date

15. Type the access key from the received email and the 4-digit PIN that was provided to generate the access key into the associated **Initialize** information fields.
    The **Next** control is enabled.

16. Click **Next**.

    ⓘ **NOTE:** The access key and PIN are checked for correctness. If the access key and PIN are correct, wait until the initialization completes.

    When the initialization completes successfully, **Verify Contact Information** appears.

17. Ensure that the applicable contact information is complete and accurate.

    ⓘ **NOTE:** The required contact information at a minimum must be specified to continue to configure or modify SupportAssist.

18. Click **Verify**.
    Review Configuration information appears.

19. Check that the SupportAssist selections and the previous related operation results are correct.

20. If the **Review Configuration** information is correct, click **Finish**.
    The SupportAssist connectivity should be enabled after a few minutes and **Results** information appears to show a success message. Also, the **Send system data collected by SupportAssist to APEX AIOps Observability** check box is selected (enabled) by default.

21. Do one of the following:
    ● Leave the **Send system data collected by SupportAssist to APEX AIOps Observability** check box selected.
    ● Clear the check box to disable sending data to APEX AIOps Observability (not recommended).

    ⓘ **NOTE:** APEX AIOps Observability can be enabled or disabled after completing the SupportAssist configuration from **Settings** > **Support Configuration** > **APEX AIOps Observability**.

22. Click **Close** to close the wizard.

Next steps

Always test connectivity after configuring SupportAssist. This process checks that the connection is working and causes Dell to recognize the system. Click **Test** in one of the following locations:
● **System** > **Service** under **SupportAssist**
● **Settings** > **Support Configuration** > **SupportAssist**

ⓘ **NOTE:** If the Status has not changed after 10 minutes (the time it should take to test connectivity and update status), contact Support. To update status from Unknown, click **Refresh**.

If you must change (reprovision) the SupportAssist configuration information, select **Change**. The **Configure SupportAssist** wizard appears in which you can make changes.

ⓘ **NOTE:** For Unity with an operating system version 5.4 or later, or that has been upgraded from version 5.3 to version 5.4, if both the **Inbound connectivity for remote access** and the **RSC (Remote Secure Credentials)** options were previously selected, the **RSC (Remote Secure Credentials)** option does not appear again.

View and Manage SupportAssist settings

Prerequisites

The SupportAssist End User License Agreement (EULA) has been accepted SupportAssist has been initially configured.

About this task

You can view current SupportAssist configuration settings and status, change the **Connection Type** configuration settings, test the connection to your service provider, and send a test alert to your service provider. Any modifications of the SupportAssist configuration are made within the **Configure SupportAssist** wizard. The wizard can be accessed through either **Settings** > **Support Configuration** > **SupportAssist** or **System** > **Service** > **Overview** > **SupportAssist**.

Steps

1. Do one of the following in Unisphere to navigate to and view current SupportAssist configuration settings and status:
   ● Select **Settings**, and under **Support Configuration**, select **SupportAssist**.
   ● Under **System**, select **Service**.
   The current SupportAssist cofiguration settings appear.
   ⓘ **NOTE:** For Unity with an operating system version 5.4 or later, or that has been upgraded from version 5.3 to version 5.4, if both the **Inbound connectivity for remote access** and the **RSC (Remote Secure Credentials)** options were previously selected, the **RSC (Remote Secure Credentials)** option does not appear again. The **RSC (Remote Secure Credentials)** option does not appear in Unisphere for Unity OE version 5.5, However, if the **Inbound connectivity for remote access** option is selected and enabled, RSC is also enabled.

2. Do one or more of the following actions as needed:
   ● To send a test alert to your service provider to ensure end-to-end connectivity, click the **Test** control.
   ● To change the **Connection Type** information, click the **Change** control on the **Settings** > **Support Configuration** > **SupportAssist** tab or the **Edit** control on **System** > **Service** > **Overview** > **SupportAssist**.

     ⓘ **NOTE:** The selections that appear reflect the current configuration. The current selected type has the label **(Enabled)** beside it. If you are changing the type to **Connect through a gateway server**, the same address cannot be used for both the primary and secondary gateway addresses.

     After the necessary changes are made, proceed to **Network Check** information and click **Next** to run a Network check to validate the network readiness for the new SupportAssist configuration. When the network check passes successfully, **Verify Contact Information** appears. If the contact information is correct, click **Next**. **Review Configuration** information appears. If the **Review Configuration** information is correct, click **Finish**.
   ● To disable SupportAssist (not applicable through **System** > **Service** > **Overview** > **SupportAssist**), select **Disable**. In the subsequent dialog box that appears, you must confirm the selection to disable SupportAssist.
   ● To manually refresh the SupportAssist configuration and state (not available through **Settings** > **Support Configuration** > **SupportAssist**), click the **Refresh** icon.