FORTRA

Fortra Secure Exchange Gateway

Version 6.4.0

Installation Guide

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1. About this guide

This guide provides information for administrators installing Fortra Secure Exchange Gateway onto a virtual machine or physical server. It covers the requirements and procedures necessary for a full installation.

Who is this guide for?

This guide is intended for use by:

- New and existing customers installing Secure Exchange Gateway version 6.4.0.
- Existing customers upgrading from version 6.x of Secure Exchange Gateway to version 6.4.0.

Identified issue in version 6.x

"Applying updates failed" error

You might encounter an error, stating “Applying updates failed”, when updating via **Cockpit** > **Software updates**. This is due to an issue with the Red Hat Cockpit component.

- To resolve the error, run `dnf upgrade` from the command line. If this does not work, use `dnf upgrade --nobest` instead.
- For more information, see this knowledge article in the Fortra Support Portal.

2. Before installing

This chapter outlines prerequisites and considerations you need to make before installing Secure Exchange Gateway. Secure Exchange Gateway runs on 64 bit Red Hat Enterprise Linux (RHEL) 9.8. You can install the product on a virtual machine or physical server.

Types of installation

You can install Secure Exchange Gateway using one of the following:

Installation type	Description	Where to start
Private cloud (e.g. VMware, Hyper-V and customer hardware)	Applies to users installing the product from an ISO image that contains both RHEL 9.8 and the Gateway software.	ISO installation
Public cloud (e.g. AWS, Azure or customer supplied OS)	Applies to users installing the product on an existing RHEL 9.8 platform.	Software installation

Prerequisites

Hardware requirements

Testing and demonstration environment: Your computer or virtual machine requires a minimum of 8 GB RAM and an 80 GB hard drive.

Production environment: We recommend a minimum of 200 GB hard drive, based on your storage and processing requirements.

For a production environment, we recommend the following, based on your storage and processing requirements where your Secure Exchange Gateway is configured so that your policy has:

- 1 anti-virus scanner
- Optical Character Recognition (OCR) disabled

Product spec	Estimated Throughput	CPU Cores/vCPU	RAM (GB)	Disk (GB)	Raid
Physical - Low Spec	Under 20,000 msgs/hour	2	16	200+	Optional
Physical - High Spec	75,000 msgs/hour	4	16	300+	Yes
Virtual - Low	Under 20,000	2	16	200+	Optional

Product spec	Estimated Throughput	CPU Cores/vCPU	RAM (GB)	Disk (GB)	Raid
Spec	msgs/hour				
Virtual - High Spec	75,000 msgs/hour	4	16	300+	Yes



We recommend increasing the size of the disk by a minimum of 25% if you intend to store message-tracking data for 2 years.

Installation media

The software ISO image (`EXCHANGE-6.4.0.iso`) is available from the Fortra Support Portal. See the ISO installation chapter of this guide for more information.

Secure Exchange Gateway Interceptor prerequisites

To install Secure Exchange Gateway Interceptor (SXG Interceptor), you must have the following:

- Windows Server 2016, 2019, 2022, 2025* (*see note for AD LDS)
- Microsoft Exchange Server 2016, 2019, Subscription Edition (SE)
- Microsoft Active Directory Lightweight Directory Services (AD LDS)

  Note that:

  - AD LDS is only required if the SXG Configuration Store component is selected during installation of SXG Interceptor. (By default, SXG Configuration Store is *selected*.)
  - Installation of SXG Configuration Store is only required during installation of SXG Interceptor on the first server in your organization.
  - Due to a change in functional levels in AD LDS in Windows Server 2025, if you already have SXG Configuration Store instances in your organization running on older versions of Windows Server, the SXG Configuration Store component should be *deselected* during installation of SXG Interceptor when installing it on Windows Server 2025.
- Microsoft .Net Framework 4+
- PowerShell 2.0+

3. ISO installation

If you are migrating from version 5.7.0 to 6.4.0, see the Migrate chapter of this guide for more information.

Before you start

Obtain the software ISO image

The software ISO image is available from the Fortra Support Portal.

- Log in to the Fortra Support Portal and select your product.
- On the **Secure Exchange Gateway** page, navigate to **Downloads** > **VIEW DOWNLOADS**.
- Download the Secure Exchange Gateway software ISO image from the Downloads page. Ensure that you are using the correct version of the ISO image (`EXCHANGE-6.4.0.iso`).

After downloading the ISO image, it is recommended that a MD5/SHA hash is generated and compared with the published hashes from the Downloads page.

If you would like to copy the ISO image to USB media, see the Appendix of this guide for more information.

Additional settings for your Secure Exchange Gateway

- **DISA STIG security profile**: If you wish to secure your Red Hat 9.8 server to DISA STIG compliance standards, you will need to apply this profile after installing Secure Exchange Gateway. See the Appendix of this guide for more information.

  STIG remediation may not be suitable for your installation. See the relevant chapter of this guide to check this.

Install RHEL 9.8 and Secure Exchange Gateway from the ISO image

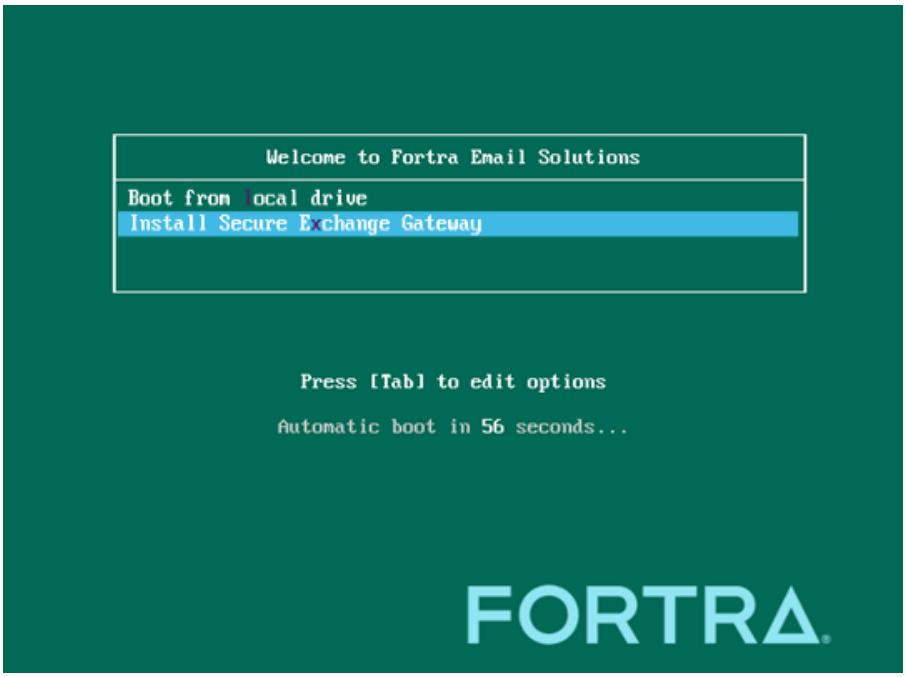
1. Connect the ISO image or the media containing the ISO image as a bootable device.

   Power on the server. The **Welcome** menu is displayed. If the load device can not be found, you might need to adjust your system boot sequence.

(Boot mode: UEFI)



(Boot mode: BIOS)



2. Use the arrow keys or keyboard shortcuts to select the **Install** option from the menu, and then press the **Enter** key. The install process begins.
3. The **Red Hat Installation Wizard** is displayed and prompts you to select the language to be used during the installation process.
4. Configure the server. On the **INSTALLATION SUMMARY** page:
   - Settings with ⚠ icon: these must be configured.
   - Other settings: these should not be modified unless advised by Support, as Fortra provides default configuration.
5. Set a password for the root user account and create an additional administrator account.

> See the Create administrator accounts section of this guide for more information.
>
> Creating additional administrator account(s) can also be done post-installation via Red Had Cockpit.

6. We recommend configuring your network and hostname settings now.

> By default, the network settings will be configured to use DHCP to obtain an IP address. If a DHCP server is not available you

will be unable to continue unless a static IP address has been configured.

7. Scroll to the bottom of the wizard configuration page.
8. Click **Network & Host Name**.
9. Select the Network Card to configure and click **Configure**.
10. Select the **IPv4** Settings tab. Select **Manual** entry and click **Add**.

As a standard, we recommend configuring each network card with a static network address, but you could leave this automatic. Configure as per your organization's requirements.

11. Enter your network settings and click **Save**.

Do not modify the **Device** field on the **Ethernet** tab as doing so could cause unexpected errors.

12. You can accept the default hostname, or enter your hostname in the **Host Name** field and click **Apply**.
13. Once satisfied that the hostname and network cards are configured correctly, click **Begin Installation**. This will configure Red Hat and install the Gateway.
14. The package installation takes approximately 15-20 minutes. Once complete, the Gateway automatically reboots.
15. Go to the Configure Gateway chapter of this guide and continue.

There are several actions you may need to perform at this point, including configuring the online repositories.

See the Post-install actions section (under the Configure Gateway chapter) of this guide for more information.

4. Software installation

The following steps describe how to install Secure Exchange Gateway on top of an existing Red Hat Enterprise Linux (RHEL) 9.8 Server (including a suitably configured AWS or Azure instance).



If you are migrating from version 5.7.0 to 6.4.0, see the Migrate chapter of this guide for more information.

Before you start

Prerequisites for installing Red Hat 9.8

- **Software Selection**: You should install Red Hat 9.8 as a **Minimal** installation, with a separate `/(root)` and `/var` partition.
- The `root` partition should be a minimum of 20 GB, and the `/var` partition should use a minimum of 80 GB for a test environment, and 200 GB for a production environment.
- **Network & Host Name**: Ensure that your Gateway has a hostname configured. To check this, run the following:

```
hostnamectl
```

DISA STIG security profile

DISA STIG security profile: If you wish to secure your Red Hat 9.8 server to DISA STIG compliance standards, you will need to apply this profile after installing Secure Exchange Gateway. See the Appendix of this guide for more information.



STIG remediation may not be suitable for your installation. See the relevant chapter of this guide to check this.

Install from the Secure Exchange Gateway ISO



We recommend disabling or removing any existing repositories in `/etc/yum.repos.d/` on Secure Exchange Gateway as they may cause conflicts.

To install Secure Exchange Gateway:

1. Open a Terminal and log in as root user.
2. Insert the media containing the ISO image, or attach the ISO image to your virtual machine as a DVD drive.
3. Mount the media to `/media/os`:

```
mkdir -p /media/os
mount /dev/cdrom /media/os
```

4. Import the Fortra GPG public key:

```
rpm --import /media/os/RPM-GPG-KEY-CS-PROD
```

5. Install the `cs-rhel9-media` package. The `cs-rhel9-media` package configures your system to install the Gateway from the ISO image:

```
dnf install -y /media/os/cs-iso-repo/cs-rhel9-media*.rpm
```

6. If you intend to update from the online repositories in the future, enter the following to install the required configuration files:

```
dnf install -y /media/os/cs-iso-repo/cs-rhel9-sxg-repo*.rpm
/media/os/cs-iso-repo/cs-rhel9-mirrors*.rpm
```

7. Enable the media repositories:

```
dnf config-manager --set-enabled cs-media,cs-rhel-9-media*
```

8. Remove rsyslog:

```
dnf -y remove rsyslog
```

9. Install the required product:

```
dnf install -y cs-sxg
```



If this step fails due to additional conflicts, you might need to remove the conflicting packages first using:

```
dnf remove <package name>
```

10. Reboot Secure Exchange Gateway.
11. Go to the Configure Gateway chapter of this guide and continue.

There are several actions you may need to perform at this point, including configuring the online repositories.

See the Post-install actions section (under the Configure Gateway chapter) of this guide for more information.

Install from the online repositories

To install Secure Exchange Gateway from repositories hosted online by Fortra, you will need the Internet access to them.

We recommend disabling or removing any existing repositories in `/etc/yum.repos.d/` on Secure Exchange Gateway as they may cause conflicts.

1. Assume root role at the command line.

   When downloading and installing files, we recommend that you check the downloaded file can be verified against the vendor public key.

2. Download the packages containing the online repository configuration files:

   (Click to open a page from where you can copy the commands and scripts.)

   ```
   curl -Of https://cs-products.fortra.com/rhel9/sxg/cs-rhel9-mirrors-1.0.1.rpm
   curl -Of https://cs-products.fortra.com/rhel9/sxg/cs-rhel9-sxg-repo-1.0.2.rpm
   ```

3. Download and install the Fortra GPG public key:

   ```
   rpm --import https://cs-products.fortra.com/RPM-GPG-KEY-CS-PROD
   ```

4. Verify the downloaded packages:

   ```
   rpm --checksig --verbose cs-*.rpm
   ```

This will display the results below, where all checks respond with OK:

```
cs-rhel9-mirrors-1.0.1.rpm:

Header V4 RSA/SHA256 Signature, key ID 9c75f096: OK
Header SHA256 digest: OK
Header SHA1 digest: OK
Payload SHA256 digest: OK
MD5 digest: OK
```

```
cs-rhel9-sxg-repo-1.0.2.rpm:

Header V4 RSA/SHA256 Signature, key ID 9c75f096: OK
Header SHA256 digest: OK
Header SHA1 digest: OK
Payload SHA256 digest: OK
MD5 digest: OK
```

5. Install the downloaded repository-file packages:

```
dnf -y install cs-*.rpm
```

6. Remove rsyslog:

```
dnf -y remove rsyslog
```

7. Install the required product:

```
dnf install -y cs-sxg --enablerepo=cs-*
```

This command temporarily enables access to the online repositories, and installs Secure Exchange Gateway.



If this step fails due to additional conflicts, you might need to remove the conflicting packages first using:

```
dnf remove <package name>
```

8. Reboot Secure Exchange Gateway.
9. Go to the Configure Gateway chapter of this guide and continue.



There are several actions you may need to perform at this point,



including configuring the online repositories.

See the Post-install actions section (under the Configure Gateway chapter) of this guide for more information.

5. Configure Secure Exchange Gateway

After the installation, you may need to perform some actions to set up your Secure Exchange Gateway, and then complete the Initial Setup Wizard.

During this process, all system administration actions should be performed using Red Hat Cockpit.

When you log in to Cockpit with the root user name for the first time after the installation, you might receive an error, stating that your user name and password are incorrect, even if you used the correct credentials. To resolve this, follow the steps in the Red Hat Documentation.

You should avoid changing network configuration at the command line as Secure Exchange Gateway may not be notified of these changes.

If changing network configuration at the command line is necessary, please contact Support for more information.

Post-installation actions

We recommend that you consider the following after installing Secure Exchange Gateway, but before configuring its Initial Setup Wizard.

Configure update repositories

(Applies to all installation types: ISO installation and software installation)

By default, the online repositories are disabled after installation. This means that any updates will need to be installed using the ISO of subsequent Secure Exchange Gateway releases.

Alternatively, if Secure Exchange Gateway has access to the Internet, it can receive updates from the online repositories. Switching from offline to the online repositories gives access to Red Hat security fixes, normally within 24 hours of their publication and subsequent testing to ensure there are no compatibility issues. We recommend this for most installations. However, you should only do this if you intend to also use the online repositories for future product upgrades.

Be aware that enabling the online repositories is an irreversible action.

To enable the online repositories:

1. Log in to Cockpit using the administrator credentials. Ensure that you have the **Administrative access** (not the **Limited access**) to the account.

   To access the Cockpit administration user interface, open a supported web browser and enter the IP address of your Secure Exchange Gateway, on port 9090:

   `https://<ip-address>:9090`

2. Navigate to **Fortra**. From **Product Actions** > **Enable online repositories**, click **Enable**.

   Do not install updates at this point. You can install updates after completing the Initial Setup Wizard using **`dnf upgrade`*** from the command line.

   * In case **`dnf upgrade`** gives an error, use **`dnf upgrade --nobest`** instead.

Firewall ports

(Applies to all installation types: ISO installation and software installation)

You may need to open firewall ports on your DMZ, depending on your network configuration. See Firewall ports in the Online Help for more information.

Create administrator accounts

(Applies to all installation types: ISO installation and software installation)

Before you start using the Gateway:

- Create a new (primary) administrator account
- Create a secondary administrator account - it is good practice, in case the password for the primary administrator account is lost.
- Disable the root user account as a security precaution

To do this:

1. Log in to Cockpit using the credentials created during the Red Hat installation. Ensure that you have the **Administrative access** (not the **Limited access**) to the account.

   To access the Cockpit administration user interface, open a supported web browser and enter the IP address of your Secure Exchange Gateway, on port 9090:

   `https://<ip-address>:9090`
2. Navigate to **Accounts** > **Create new account**.
   - Enter the name of the new administrator account and a strong password that meets the criteria defined in the password policy.
3. Click the new administrator account and enable the following role and policy:
   - Ensure that you assign appropriate **Groups** (e.g. `wheel`) to the account, so it has the administrator privileges. The administrator user can switch their privileges by selecting either the **Administrative access** or the **Limited access**.
   - In the **Options** section, click **edit**. In the **Account expiration** dialog, select **Never expire account** and click **Change**.
   - In the **Password** section, click **edit**. In the **Password expiration** dialog, select **Never expire password** and click **Change**.

     If you set the password expiry for any created accounts, ensure that you keep a record of it, as Red Hat does not automatically notify the user when the password is due to expire. If the administrator account becomes locked out, the only resolution is to take the system offline and boot into single user mode.
4. Log out of Cockpit and log back in using the new administrator credentials. Ensure that you have the **Administrative access** (not the **Limited access**) to the account.
5. Navigate to **Accounts**.
   - Expand the options (**...**) for the root user, and select **Lock account** to disable it.

Password policy

(Applies to all installation types: ISO installation and software installation)

See Password policy in the Online Help for more information.

crontab configuration

(Applies to software installation only)

The crontab configuration is modified. Pre-existing root cronjobs might be lost, but you can re-add them.

Install additional software

(Applies to software installation only)

The software installation process will not automatically disable any of your pre-existing repository configurations. From the command line, you will be able to install additional third-party software in the normal way. This includes additional Red Hat software.



If you use Cockpit to update your Gateway, only Fortra-provided updates will be applied. This ensures that only Fortra-trusted repositories are used during the process, and any unintended updates from third-party repositories will be blocked.

Complete the Initial Setup Wizard

Once you have gone through the post-installation actions above and have restarted Secure Exchange Gateway, run the Initial Setup Wizard.



If the installation media has been disconnected following the reboot, you must reconnect it before configuring the Initial Setup Wizard. The wizard requires access to the installation media to complete the setup of your Secure Exchange Gateway.

If you are installing from ISO, ensure that the media is mounted at `/media/os`.

1. To access the Secure Exchange Gateway's web user interface, open a supported web browser and enter the IP address of your Gateway:
   `https://<ip-address>`
2. The Initial Setup Wizard is displayed.
3. Complete the wizard to configure Secure Exchange Gateway.

4. The system might take around 5-10 minutes to apply the settings before you can use the Gateway. We recommend visiting the Configure Gateway topic in the Online Help when the interface is accessible.

Post-wizard actions

We recommend you consider the following after you ran the Initial Setup Wizard.

SSH access

If SSH access is required, you need to re-enable it through the web user interface. See SSH Access in the Online Help for more information.

DISA STIG security profile

(Applies to all installation types: ISO installation and software installation)

If you wish to secure your Secure Exchange Gateway to DISA STIG compliance standards, there are additional steps. See the Appendix of this guide for more information.

6. Upgrade from Secure Exchange Gateway 6.x

The method used for upgrading from version 6.x depends on whether you are upgrading from the ISO or the online repositories.



If you are installing Secure Exchange Gateway for the first time, go to the relevant chapter (ISO install or Software install) of this guide.

Security enhancement and required adjustments

From version 6.2.0, HTTP protocol is no longer supported in certain end-user functionalities, such as the Manage Message token/link in Inform, the Digest Messages in PMM and managing Trusted Senders in PMM. If you are currently using any of them via HTTP, you may need to reconfigure the Gateway after the upgrade.

See Version 6.2.0 Release Notes for more information.

Upgrade from the Secure Exchange Gateway ISO



When upgrading from the ISO using:

- **DNF** - use `dnf upgrade`. If this gives an error, use `dnf upgrade --nobest` instead.
- **Cockpit** - the process should complete without any issues.

Use Cockpit to install the upgrade from the version 6.4.0 ISO image.

1. You must make the version 6.4.0 ISO image available to your Secure Exchange Gateway.

   If you are using a DVD and if it does not mount automatically, you may have to type the following at the command-line:

   ```
   mount -r /dev/cdrom /media/os
   dnf clean all
   ```

2. Once all update have been installed, you need to reboot the Gateway.

   Use the reboot option at the end of the process, or navigate to **Overview** and select **Reboot**. Alternatively, you can navigate to **Terminal** and enter a command.

During the ISO upgrade process, you might see an error, stating "PackageKit crashed" in Cockpit, which will be resolved on its own.

Refresh the screen to check if all updates have been installed successfully. Secure Exchange Gateway should work without issues after the reboot.

Upgrade from the online repositories

When upgrading from the online repositories using:

- **DNF** - use `dnf upgrade`. If this gives an error, use `dnf upgrade --nobest` instead.
- **Cockpit** - the process should complete without any issues.

Unless "offline mode" is a very specific requirement for your system, you should upgrade Secure Exchange Gateway from the online repositories.

Offline mode is designed for installations that operate in a closed environment, disconnected from the Internet. To perform an offline upgrade, you require a copy of the latest release ISO mounted to suitable media (e.g. USB). If you need additional guidance, please contact Support.

To upgrade from the online repositories:

1. Ensure that your Gateway has access to the Internet and the online repositories are enabled. See the Configure update repositories section of this guide for more information.
2. Log in to Cockpit using the administrator credentials. Ensure that you have the **Administrative access** (not the **Limited access**) to the account.

   To access the Cockpit administration user interface, open a supported web browser and enter the IP address of your Secure Exchange Gateway, on port 9090:

   `https://<ip-address>:9090`
3. Navigate to **Software updates** and check for updates.
4. Install all updates to upgrade the Gateway.
5. Once all update have been installed, you need to reboot the Gateway.

Use the reboot option at the end of the process, or navigate to **Overview** and select **Reboot**. Alternatively, you can navigate to **Terminal** and enter a command.



After the upgrade, you may find that your upgrade mode has been reset to "offline". Ensure that you re-enable the online repositories.

Peer support

When upgrading your Secure Exchange Gateway, the following peer support rules are applicable:

- Secure Exchange Gateway version 6.4.0 can peer with another Secure Exchange Gateway version 6.4.0.
- Peer groups with mixed versions can co-exist with older versions to share message tracking, reporting and other peering features, but policy may not be applied remotely.

7. Migrate from Secure Exchange Gateway 5.x

In-place upgrade is not supported from version 5.x to version 6.4.0.

If you wish to restore your version 5.x configuration on version 6.4.0, you must first upgrade your Secure Exchange Gateway to version 5.7.0 and backup your system. Then, you can install version 6.4.0 and restore the version 5.7.0 backup to version 6.4.0.

Basic steps will be:

Upgrade: Upgrade your Gateway to version 5.7.0, if you are using the older versions

Backup: Backup all the system areas

Install: Install version 6.4.0

Restore: Restore the version 5.7.0 system backup to version 6.4.0

Pre and post-migration considerations

Beware of the following before and/or after you perform the backup and restore operations.

FTP command "LIST" (dir)

From version 6.0.0, `-a` option has been removed from the FTP command `LIST` (`dir`). This allows Secure Exchange Gateway to work with certain FTP servers to perform the backup and restore operations. If the old functionality is required, create a file `/opt/cs-gateway/custom/general.properties` and add the following to it:

```
ftpSwitches=-a
```

Security enhancement and required adjustments

From version 6.2.0, HTTP protocol is no longer supported in certain end-user functionalities, such as the Manage Message token/link in Inform, the Digest Messages in PMM and managing Trusted Senders in PMM. If you are using any of them via HTTP in older versions of the Gateway, you may need to reconfigure them before you start using version 6.4.0.

See Version 6.2.0 Release Notes for more information.

Backup and restore version 5.7.0 to version 6.4.0

See the Backup and restore chapter of this guide for more information.

Troubleshoot upgrading

Upgrade the Japanese Secure Exchange Gateway to version 5.7.0

When upgrading the Japanese Gateway to version 5.7.0, it is possible that the user interface and other components may become broken.

To resolve this:

1. Edit `control_cs_gw_stats.sh` and comment out the following in the ExecStart function:

   (Click to open a page from where you can copy the commands and scripts.)

   ```
   if [ ! "${_INFENV_INCLUDED}" ]; then . "${CS_SCRIPTS_DIR}"/_
   infenv; fi
   ```

2. Then, execute the following:

   ```
   sudo systemctl daemon-reload
   sudo systemctl restart cs-gw-stats
   sudo systemctl restart cs-gw-admin-ui.service
   ```

   After completing these steps, you will be able to backup the system and upgrade to version 6.4.0.

8. Backup and restore Secure Exchange Gateway

In the Secure Exchange Gateway's web user interface, navigate to **System** > **Configuration** > **Backup & Restore** to access the feature.

See Backup and Restore the system in the Online Help for more information.

Backup and restore version 5.7.0 to version 6.4.0

When migrating Secure Exchange Gateway from version 5.x to version 6.4.0, part of the process involves backup and restore operations.

Note that:

- The **User Interface Service** logs will not be restored.
- PMM protocol can be reset to HTTP, even if it was set to HTTPS in the backup. It can be set to HTTPS after the restore process.
- If the PMM IP address cannot be found or used, PMM modes will be disabled. In this case, PMM modes must be enabled again after you have completed the restore process and selected the new IP address.
- If you use PMM, it is necessary to join the domain after the restore process.

Backup and restore version 6.4.0 to version 6.4.0

If you installed a new instance of Secure Exchange Gateway or upgraded it from version 6.x to 6.4.0, you may still need to backup and restore your Gateway as part of regular maintenance.

Note that:

- If the PMM IP address cannot be found or used, PMM modes will be disabled. In this case, PMM modes must be enabled again after you have completed the restore process and selected the new IP address.
- If you use PMM, it is necessary to join the domain after the restore process.

9. Install SXG Interceptor

Depending on your organization's requirement and infrastructure, you have the following options:

	Number of Microsoft Exchange Server	Number of SXG Interceptor	Number of the Gateway
Option 1	1	1	1
Option 2	1	1	Multiple
Option 3	Multiple	Multiple	Multiple

Before you start

Before you install SXG Interceptor, the following steps need to be completed on Secure Exchange Gateway and Exchange Server.

Configure Secure Exchange Gateway

1. Install and set up Secure Exchange Gateway as described in this guide.
2. Create a DNS entry for Secure Exchange Gateway.
3. Add your Exchange Server to the Secure Exchange Gateway's web user interface, **System** > **Exchange Settings** > **Exchange Servers**.

   For more information, see Configure Gateway to Exchange Server communication in the Online Help.
4. Make a note of the Exchange Server's **Client ID**.

Configure Active Directory

You need to create a Universal security group and create a user that will be used to access the Configuration store.

1. Create the Universal security group.

   From **Active Directory Users and Computers**, create a group called *Clearswift SXG Administrators* in the root domain of the forest. Ensure **Group scope** is set to **Universal**.
2. Create the user to be used to access the Configuration Store.

   From **Active Directory Users and Computers**, create a user in the root domain of the forest. Select the **Password never expires** check box.
3. Add the user to the *Clearswift SXG Administrators* group.

4. Add the user that will be performing the SXG Interceptor install to the *Clearswift SXG Administrators* group.
5. Add any users that will be using the SXG Interceptor Powershell cmdlets to the *Clearswift SXG Administrators* group.
6. Log out and then log in to ensure permissions are activated.

Install single or first SXG Interceptor

This section mainly assumes the following setup:

- Single Microsoft Exchange Server
- Single SXG Interceptor
- Single Secure Exchange Gateway

Install SXG Interceptor

1. Log in to the Fortra Support Portal and navigate to the Downloads page.
2. Download the SXG Interceptor installer to a location on your Microsoft Exchange Server.
3. Log in to your Microsoft Exchange Server using an account that is a member of the *Clearswift SXG Administrators* group.
4. Using Windows Explorer, locate the downloaded SXG Interceptor installer and run it.
5. Follow the instructions in the setup wizard.

   You will find extra information about the wizard pages in the following table:

Wizard page	Extra information
Feature Selection	Select the following options for a first Interceptor install in a new deployment: ▪ SXG Interceptor ▪ SXG Interceptor Configuration Store ▪ Clearswift SXG Management Shell **Note**: Any features that you choose not to install are offered when the installer is run again. Clear the **New instance** check box if you do not want to install the configuration store on your Microsoft Exchange Server. **Note**: The configuration store must be installed on another server before you can install the Interceptor without a configuration store.
Prerequisite Checks	Make sure that all your versions of Exchange, PowerShell, Microsoft.Net and Active Directory Lightweight Directory Services (AD LDS) are supported.

Wizard page	Extra information
Installation Settings	If you are installing SXG Interceptor, you must provide the Exchange Server's client ID. **Tip**: Copy and paste the client ID from the Exchange Server page on the Exchange Gateway. If you have not got a client ID at this stage, you can set one after you have installed SXG Interceptor. For more information, see Configure Gateway to Exchange Server communication (Work with Client IDs section) in the Online Help.
Microsoft AD LDS Credentials	Provide the user name that you created to access the configuration store in the format *DOMAIN\username*. The account should have rights to install, and then access, the new instance of the SXG Interceptor configuration store.

Complete the installation

To complete the installation, you need to perform the following tasks as a minimum.

1. Add Secure Exchange Gateway
2. Enable Secure Exchange Gateway
3. Enable Secure Exchange Gateway Interceptor

Optionally, after these steps, you can:

- Add interception rules
- Enable monitor mode
- Configure performance counters
- Check that the installation is valid

This section describes the mandatory tasks.

To add Secure Exchange Gateway, use the **Add-SXGGateway** cmdlet.

1. Go to the **Start** screen and find Clearswift SXG Interceptor Management Shell. Click the icon to launch a PowerShell session with the **SXGInterceptor** module loaded.
2. Add the Gateway. From the command line, type the following:

```
Add-SXGGateway -Identity <GatewayIdentity>
```

   - `<GatewayIdentity>` is the Fully Qualified Domain Name (FQDN) of Secure Exchange Gateway you want to add.

You can find the FQDN from the Secure Exchange Gateway's web user interface, **System** > **System Settings** > **Ethernet Settings**.

Detailed cmdlet help is available from Clearswift SXG Interceptor Management Shell and each cmdlet has extended help options. For example, to see examples for `Add-SXGGateway`, type the following at the prompt:

```
Get-Help Add-SXGGateway -examples
```

For further technical information, type the following commands at the prompt:

```
Get-Help Add-SXGGateway -detailed
```

```
Get-Help Add-SXGGateway -full
```

To see a list of cmdlets, type the following at the prompt:

```
Get-Command -module SXGInterceptor
```

3. Enable the Gateway. From the command line type the following:

```
Set-SXGGateway -Identity <GatewayIdentity> -Enabled $true
```

   - `<GatewayIdentity>` is the FQDN of Secure Exchange Gateway you want to enable.

4. Enable the Interceptor. From the command line type the following:

```
Set-SXGInterceptor -Identity <InterceptorIdentity> -Enabled $true
```

   - `<InterceptorIdentity>` is the FQDN of the server where SXG Interceptor is installed.

By default, Interceptors will only use Exchange Gateways in the same peer group and in the same AD site. However, this behaviour can be manually overridden. For more information, see Configure Gateway to Exchange Server communication (Work with Automatic and Manual Site Assignment section) in the Online Help.

For help including configuration tasks you need to perform on your Exchange Gateway, interception rule creation, and performance monitoring, see the Online Help.

Validate the installation

You can validate the SXG Interceptor installation by running the following commands from Clearswift SXG Interceptor Management Shell.

```
Get-SXGSettings
```

Expected result: The AD LDS username, logging level and security protocol types should be displayed.

```
Get-SXGInterceptor
```

Expected result: Interceptor details should be displayed. Note that there will be no details if the first installation is a configuration store on a non-Exchange Server.

```
Get-SXGInterceptionRules
```

Expected result: Default rules should be displayed.

```
Get-SXGGateway
```

Expected result: The reported sites should include the site Exchange is in.

Test SXG Interceptor

1. On your Exchange Server computer, send a test email message using either Outlook or the Outlook Web App.
2. From the Secure Exchange Gateway's web user interface, navigate to **Home** and check the **Recent Messages** area.
3. View the SXG Interceptor log(s) located under: `C:\ProgramData\Clearswift\SXGInterceptor\logs`.
4. Using **Event Viewer**, view the **Applications** event log.

Install second and subsequent SXG Interceptors

This section guides you through the process of installing second, and subsequent SXG Interceptors.

Prerequisite checks

Make sure that all your versions of Exchange, PowerShell, Microsoft.Net and Active Directory Lightweight Directory Services (AD LDS) are supported.

Feature selection

Select the following options for each new Interceptor install:

- Clearswift SXG Interceptor (Required)
- Clearswift SXG Interceptor Configuration Store (Optional but recommended)
- Clearswift SXG Management Shell (Required)

Installation settings

You must provide the Exchange Server's client ID.



You can copy and paste the client ID from the Secure Exchange Gateway's web user interface, **System** > **Exchange Settings** > **Exchange Servers**.

Microsoft AD LDS credentials

Provide the user name that you created to access the configuration store in the format: `DOMAIN\username`.

The account should have rights to install, and then access, the new instance of the Clearswift SXG Interceptor Configuration Store.

Installation

1. Download the SXG Interceptor installer to a location on the next Microsoft Exchange Server.
2. Log in to your Microsoft Exchange Server using an account that is a member of the *Clearswift SXG Administrators* group.
3. Using Windows Explorer, locate the downloaded SXG Interceptor installer and run it.
4. Follow the instructions in the setup wizard.

Upon completion

When installation has completed, perform the following:

1. Go to the **Start** screen and find Clearswift SXG Interceptor Management Shell. Click the icon to launch a PowerShell session with the **SXGInterceptor** module loaded.
2. Check the Interceptor status by running the following command:

```
Get-SXGInterceptor
```

3. If the Interceptor is disabled, enable it by running the following command:

```
Set-SXGInterceptor -Identity <InterceptorIdentity> -Enabled $true
```

   - `<InterceptorIdentity>` is the FQDN of the server where SXG Interceptor is installed.

4. Send a test message through the Exchange Server.
5. From the Secure Exchange Gateway's web user interface, navigate to **System** > **Exchange Settings** > **Exchange Servers**. Verify the connectivity to the Exchange Server and confirm that the second (or subsequent) Interceptor is communicating to the Gateway.

10. Troubleshoot SXG Interceptor

This chapter can help you locate problems with your SXG Interceptor installation.

Display information about SXG Interceptor

1. Open Clearswift SXG Interceptor Management Shell.
2. Type the following:

```
Get-SXGInterceptor | Format-List
```

The following information is displayed with values applicable to your Interceptor:

```
Identity            : HUB1.example.com
InterceptorIdentity : HUB1.example.com
State               : Active
Enabled             : True
ClientID            : 94bbc203-81a2-45be-a5ff-54c6a3dadad3
MonitorModeEnabled  : False
QueueLength         : 0
Version             : 4.10.0.n
```



The State should read as `Active`, if SXG Interceptor is enabled and the Microsoft Exchange Transport Service has received a message.

Check if SXG Interceptor is installed as a transport agent

1. Open Microsoft Exchange Management Shell.
2. Type the following:

```
Get-TransportAgent
```

Information similar to the following is displayed. (Results may vary from those shown.)

```
Identity                        Enabled    Priority
--------                        --------   --------
Transport Rule Agent               True    1
Text Messaging Routing Agent       True    2
Text Messaging Delivery Agent      True    3
ClearswiftSXGInterceptor           True    4
```

Check if Secure Exchange Gateway is available in the same Active Directory as the Exchange Server

If SXG Interceptor cannot locate Secure Exchange Gateway, a message similar to the following will be shown in the SXG Interceptor log file:

```
2021-08-19 12:11:32,359 [111] WARN  Log4NetLogger (null) - No
gateways are available to process messages.
```

1. To check if there is a Secure Exchange Gateway in the same Active Directory site as your Exchange Server, run the following from the Clearswift SXG Interceptor Management Shell:

   ```
   Get-SXGGateway
   ```

   This will show which Secure Exchange Gateway(s) are available and which Active Directory sites they are in.

   To identify what Active Directory Site your Exchange Server is in, you can run `nltest /dsgetsite`.

2. To manually assign a Secure Exchange Gateway to the site that your Exchange Server is in, run the following command:

   ```
   Set-SXGGateway -Identity <SXG Gateway Name> -AssignedSites <Site
   Name>
   ```

Set the logging level

You can set the logging level by using the following command from Clearswift SXG Interceptor Management Shell.

```
Set-SXGSettings -LogLevel [Off|Error|Warn|Info|Debug]
```



The logs are generated in the `C:\ProgramData\Clearswift\SXGInterceptor\logs` directory on the Exchange Server.

Appendix: Install with USB installation media

The following steps describe how to copy the Secure Exchange Gateway software ISO image to USB media.

1. The software ISO image is available from the Fortra Support Portal.
   - Log in to the Fortra Support Portal and select your product.
   - On the **Secure Exchange Gateway** page, navigate to **Downloads** > **VIEW DOWNLOADS**.
   - Download the Secure Exchange Gateway software ISO image from the Downloads page. Ensure that you are using the correct version of the ISO image (`EXCHANGE-6.4.0.iso`).

   After downloading the ISO image, it is recommended that a MD5/SHA hash is generated and compared with the published hashes from the Downloads page.

2. Use Fedora Media Writer to create a bootable USB. The latest version is available from https://github.com/FedoraQt/MediaWriter/releases.
3. Plug in the USB and follow the ISO installation chapter of this guide to install the product.

   If you use USB media to install the product, it is important that you follow the remaining steps before you complete the Initial Setup Wizard. Do not run the wizard at this point.

4. Go to Cockpit and verify that the USB is still mounted at `/media/os`. If not, run the following commands.
   - To verify the USB device ID:

     ```
     realpath /dev/disk/by-label/CS_RHEL_GW
     ```

   - To mount the device (in this example, assuming it is `sda1`):

     ```
     mount /dev/sda1 /media/os
     ```

5. You can now run the Initial Setup Wizard.
6. After completing the wizard, verify your license and check that your licensed anti-virus-software services are installed.

Appendix: DISA STIG security profile

The Defense Information System Agency (DISA) publishes Security Technical Implementation Guides (STIG) which describe how to securely configure various computer systems and software.

Fortra provides a DISA STIG security profile that is tailored to meet the Secure Exchange Gateway's operational requirements. This profile needs to be applied after installing Secure Exchange Gateway.

Before you start

STIG remediation on different installation types

Applying the DISA STIG security profile has been successfully tested on the following:

- Hyper-V
- VMware ESXi
- Azure
- AWS instances with UEFI boot mode

Running the profile on other VM technology or on hardware is not recommended as this can cause the OS to become unusable and require a full reinstall.



STIG remediation on AWS instances that only support Legacy BIOS boot mode, such as *t2.xlarge* will fail.

Possible impact on the performance

Applying the DISA STIG security profile could reduce the performance of traffic-processing on your Secure Exchange Gateway . This is due to the increase in the level of auditing performed by the Red Hat audit service.

We recommend that you carefully monitor performance before and after applying the profile, and assign additional hardware resources if required.

Apply the DISA STIG security profile

After installing Secure Exchange Gateway:



You can apply the profile after completing the Initial Setup Wizard, and anti-virus scanners have been installed and configured.

1. If you have not enabled the online repositories, insert your Secure Exchange Gateway ISO.
2. Log in to Cockpit using the credentials for your administrator account. Ensure that you have the **Administrative access** (not the **Limited access**) to the account.

   To access the Cockpit administration user interface, open a supported web browser and enter the IP address of your Secure Exchange Gateway, on port 9090:

   `https://<ip-address>:9090`
3. If you are using the ISO, mount it using:

   ```
   sudo mount /dev/cdrom /media/os/
   ```
4. Navigate to **Terminal**. Assume root user privileges using the following command:

   ```
   sudo su
   ```
5. Execute the following script and wait for it to complete:

   ```
   /opt/clearswift/platform/stig/bin/remediate-disa-stig.sh
   ```
6. Once the script has completed, you must reboot the system in order for the DISA STIG security profile modifications to be applied.
7. After the reboot, your ISO will be dismounted. Ensure that you re-mount using:

   ```
   sudo mount /dev/cdrom /media/os/
   ```
8. Return to the Configure Gateway chapter of this guide and continue.

Evaluating Secure Exchange Gateway

To evaluate the DISA STIG compliance rating of your Secure Exchange Gateway, you can generate a report.

1. Log in to Cockpit using the credentials for your administrator account. Ensure that you have the **Administrative access** (not the **Limited access**) to the account.

   To access the Cockpit administration user interface, open a supported web browser and enter the IP address of your Secure Exchange Gateway, on port 9090:

   `https://<ip-address>:9090`

2. Navigate to **Terminal**. Assume root user privileges using the following command:

```
sudo su
```

3. Execute the following script:

```
/opt/clearswift/platform/stig/bin/evaluate-disa-stig.sh
```

4. The report will be available from:

```
/var/opt/clearswift/platform/stig/disa-stig-report.html
```



If you wish to validate your DISA STIG compliance, please contact Support and request a compliance document.

Contact Fortra

For more information about the Fortra products and cybersecurity solutions, please visit our website.

You can contact us for questions, and to receive technical bulletins, updates, program fixes and other information on your Secure Exchange Gateway via email or Internet.

Fortra Support Portal

Fortra Support Portal offers various helpful resources, such as product documentation and knowledge articles. You can also contact our Technical Support, using this Portal.

For support issues, please:

- Check this guide's table of contents and topics for information that addresses your concern.
- Check the Knowledge Base in the Fortra Support Portal for information that addresses your concern.
- Gather and organize as much information as possible about the problem, including job/error logs, screenshots or anything else to document the issue.