Clearswift SECURE Email Gateway

Installation & Getting Started Guide

Version 4.5.0

Document Revision 2.0

Copyright

Revision 2.0, November, 2016

Published by Clearswift Ltd.

© 1995–2016 Clearswift Ltd.

All rights reserved.

The materials contained herein are the sole property of Clearswift Ltd. unless otherwise stated. The property of Clearswift may not be reproduced or disseminated or transmitted in any form or by any means electronic, mechanical, photocopying, recording, or otherwise stored in any retrievable system or otherwise used in any manner whatsoever, in part or in whole, without the express permission of Clearswift Ltd.

Information in this document may contain references to fictional persons, companies, products and events for illustrative purposes. Any similarities to real persons, companies, products and events are coincidental and Clearswift shall not be liable for any loss suffered as a result of such similarities.

The Clearswift Logo and Clearswift product names are trademarks of Clearswift Ltd. All other trademarks are the property of their respective owners. Clearswift Ltd. (registered number 3367495) is registered in Britain with registered offices at 1310 Waterside, Arlington Business Park, Theale, Reading, Berkshire RG7 4SA, England. Users should ensure that they comply with all national legislation regarding the export, import, and use of cryptography.

Clearswift reserves the right to change any part of this document at any time.

Click here to read Copyright and Acknowledgments in full.

Contents

Copyright ..... **ii**

Contents ..... **iii**

1. About this guide **4**

1.1 Who is this guide for? 4

2. Before installing **5**

2.1 Types of installation 5

2.2 Obtaining the software 5

2.3 Prerequisites 5

Hardware requirements 5

Installation media 6

Browser support 6

3. Installing the Clearswift SECURE Email Gateway **8**

3.1 Installing the Clearswift SECURE Email Gateway 8

3.2 Installing from the ISO image 8

3.3 Running the Clearswift First Boot Console 9

Notes on using the Clearswift SECURE Email Gateway installation wizard . 13

3.3.1 How to re-enable TLS v1.0 on the 4.5.0 Gateway and update ciphers: 13

3.4 Enabling access to the Clearswift online repositories 14

4. Upgrading from version 3.8 of the Clearswift SECURE Email Gateway **16**

4.1 Back up your original system 16

4.2 Install the 4.5.0 Gateway 17

4.3 Restore the system backup 17

5. Upgrading from an earlier version 4 release to version 4.5.0 ..... **18**

Appendix A: Software install process **20**

Post installation considerations 21

Appendix B: USB installation media preparation **21**

1. About this guide

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

1.1 Who is this guide for?

This guide is intended for use by:

- New customers installing the Clearswift SECURE Email Gateway for the first time.
- Existing customers upgrading from the most up to date version 3.8 release of the Clearswift SECURE Email Gateway to a 4.5.0 release.

If you are upgrading from an earlier version 4 release of the Clearswift SECURE Email Gateway, see the 4.5.0 Readme for guidance.

2. Before installing

This section outlines prerequisites and considerations you need to make before installing the Clearswift SECURE Email Gateway. The Gateway runs on 64 bit Red Hat Enterprise Linux (RHEL 6.8). You can install the product on a physical server or virtual machine. See Prerequisites for more information on supported platforms.

2.1 Types of installation

You can install the Clearswift SECURE Email Gateway using one the following processes:

Installation process	Description	Where to start
Standard install process	Applies to users installing the product from an ISO image that contains both RHEL 6.8 and the Clearswift software.	Installing from the ISO image
Hardware install process	Applies to users deploying the product using pre-installed hardware supplied by Clearswift.	Running the Clearswift First Boot Console
Software install process	Applies to users installing the product on an existing RHEL 6.8 platform.	Appendix A: Software Install Process

2.2 Obtaining the software

You can obtain the Clearswift SECURE Email Gateway software from:

- The Clearswift download area where you can download the Clearswift SECURE Email Gateway ISO image.
- Clearswift, with your pre-installed hardware.

2.3 Prerequisites

Before installing, you should check that you have the following:

Hardware requirements

Your computer or virtual machine requires a minimum of 4GB RAM and a 60GB hard drive for use in testing and demonstration environments. Clearswift

recommends a minimum of 200GB hard drive for use in a production environment based on your storage and processing requirements.

Message Volume	Processor	Number of Processors	Memory	Disk	Raid
Low (<20,000 per hour)	Dual Core	1	4GB	320GB+ SATA/SCSI	Optional
Medium (<50,000 per hour)	Dual/Quad Core Xeon	1	4GB	320GB+ SATA/SCSI	Optional
High (<60,000 per hour)	Dual/Quad Core Xeon	1	6GB	2 x SAS 15k RPM	Yes (1)
Very High (>60,000 per hour)	Quad Core Xeon	2	6GB	Multiple SAS 15k RPM	Yes (1, 10)

Installation media

Please ensure you are using the correct version of the ISO image: EMAIL_451_151.iso.

After you download a copy of the ISO image from the online Clearswift Repository, there are a number of ways you can use it to install the software:

- Copying the ISO image to DVD. Clearswift recommends using this option when installing the Clearswift SECURE Email Gateway software.
- Copying the ISO image to USB media. See Appendix B of this guide for instructions.
- Attaching the ISO image as a virtual DVD drive. This applies to virtual machines only.

Browser support

The Clearswift SECURE Email Gateway supports connections using TLS 1.2 ciphers and has been tested with the following browsers:

- Internet Explorer IE10 (Windows 7)
- Internet Explorer IE11 (Windows 7 , Windows 8)
- Mozilla Firefox 17, 24, 30, 36+
- Google Chrome 40+
- Microsoft Edge (Windows 10)

3. Installing the Clearswift SECURE Email Gateway

You can install the Clearswift SECURE Email Gateway software from the ISO image that you downloaded from the Online Clearswift Repository.

The installation process includes the following phases:

1. Combined installation of Red Hat Enterprise Linux 6.8 operating system and the Clearswift SECURE Email Gateway from the installation media.
2. Running the console-based *System Configuration* wizard to adjust default system values, including network configuration.
3. Enable access to the Clearswift online repositories containing the latest software updates.

Once the Gateway has been installed, you will need to complete the *Clearswift Installation Wizard*.

3.1 Installing the Clearswift SECURE Email Gateway

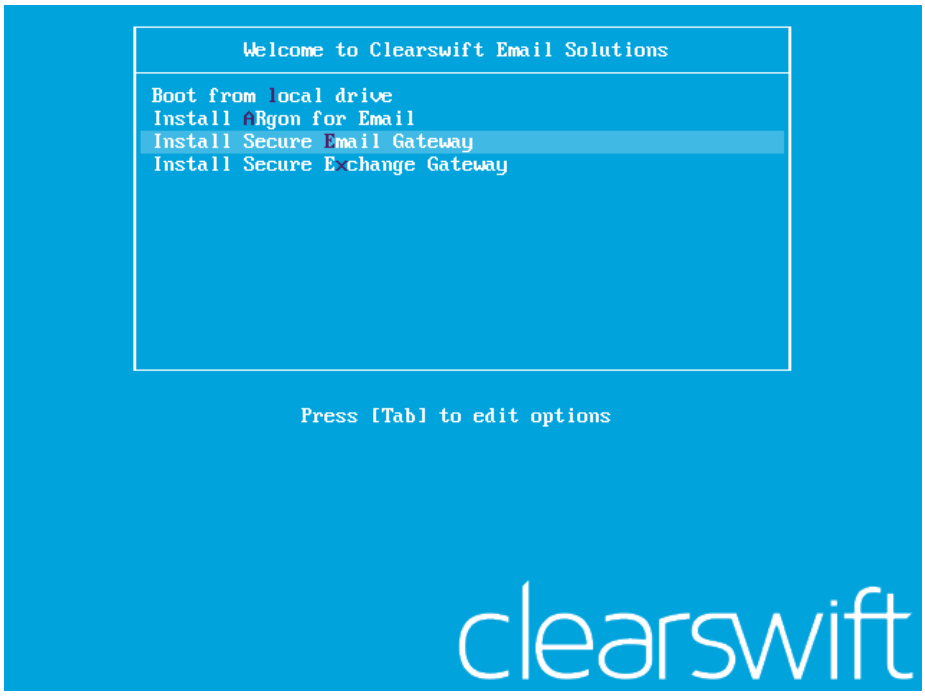
The following steps describe how to install the Clearswift SECURE Email Gateway.

> Section 3.2 Installing from the ISO image only applies if you are performing a standard installation using the ISO image containing both RHEL 6.8 and the Clearswift software.
>
> If you are performing the hardware install, go to Section 3.3 Running the Clearswift System Configuration wizard.
>
> If you are installing onto an existing RHEL 6.8 server, use the instructions in Appendix A of this guide to perform the installation. Then refer to Phase 2 of installing the Clearswift SECURE Email Gateway.

3.2 Installing from the ISO image

1. Insert the media containing the ISO image into the drive and power on the server.

   The *Welcome to Clearswift Email Solutions* should be displayed. If the load device can not be found you might need to adjust your system boot sequence in the BIOS.



2. Use the arrow keys or keyboard shortcuts to select **Install Secure Email Gateway** from the menu. Press the **Enter** key to select the installation.

   The install process begins and runs automatically.

> The entire install process, including post-installation scripts, takes between 10-15 minutes to complete. After *Package Installation* completes, the install process displays the message "Running post-installation scripts" for a period of up to 5 minutes. When this message is on screen, the install process still runs in the background and you should not interrupt it. At the end of the install process, the system reboots automatically. The *Welcome to Clearswift Email Solutions* boot screen appears again and **Boot from local drive** triggers automatically after a timeout of 60 seconds.

3.3 Running the Clearswift First Boot Console

Complete the following steps in the *First Boot Console*:

1. Log in as cs-admin using the default credentials:
   - Login: **cs-admin**
   - Password: **password**

   The *First Boot Console* appears and you can start the configuration process.
2. Follow the on-screen instructions to select:
   - **Locale Configuration**
   - **Keyboard Configuration**
   - **Timezone Configuration**

   > The Gateway derives its system time and locale settings from the selections made at this point. It is important that you set these correctly during installation as you cannot change system time and locale later.
3. On the **Network Configuration** page update the following settings:
   - System Hostname: Enter the new Hostname and press **Save**.
   - Network Adapters: Select a network adapter and press **Edit**. Press **IPv4 Addresses** and then **Edit** your selected IP address. After you have made your edits, press **Save**.
   - DNS Servers: Select a DNS entry and press **Edit**. Add **Search Domains** if required or leave blank.

     After you have made your edits, press **Save**.
4. Configure your repository settings on the **Repository Configuration** page.
5. On the **cs-admin password** page enter a new password for your cs-admin account. The complexity of this password depends on the password policy that is being enforced. The Clearswift password policy applies by default to standard installations from the ISO image. This policy requires you to set passwords that are a minimum of eight characters in length, do not resemble dictionary words (example: Pa55word), do not include sequences (example: 1234), and include at

least one from three of the following:

- Uppercase letters
- Lowercase letters
- Digits
- Symbols

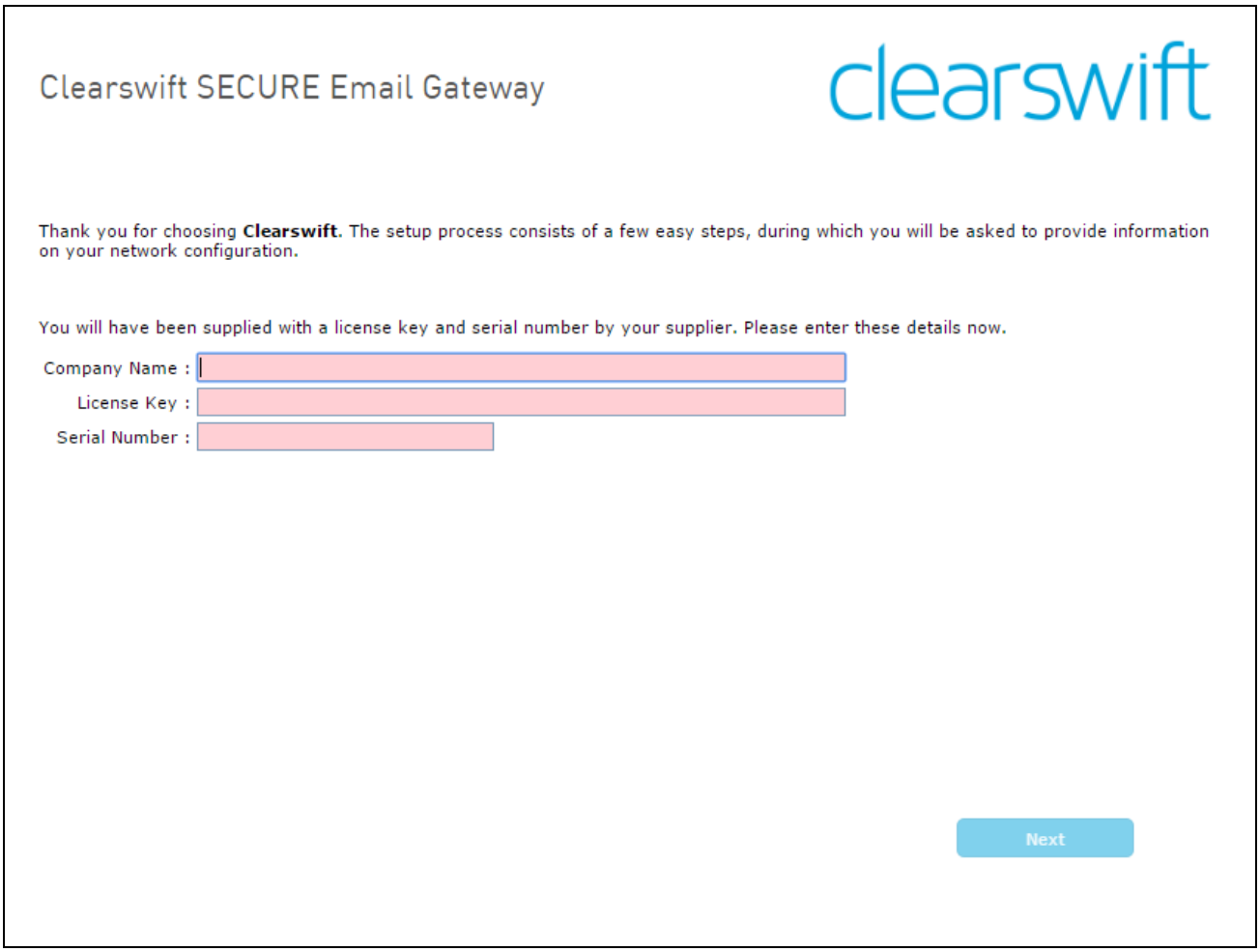
See Clearswift password policy requirements in the online help for more information, including examples. The online help also provides information on how to disable the password policy.

6. Apply your settings and confirm to reboot the server.
7. Following the reboot, open a browser and navigate to the Gateway IP address:

   https://<*ip-address*>/Appliance

   > To check your IP address, log in to the console using the default credentials.
   >
   > Select **View System Status** and click **OK**.

   The *Clearswift SECURE Email Gateway* installation wizard is displayed.



If the Clearswift installation media has been ejected following the reboot, you **must** ensure that it is re-inserted *before* configuring the Clearswift Installation Wizard. The wizard requires access to the installation media to complete the setup of your Gateway.

Notes on using the Clearswift SECURE Email Gateway installation wizard

The network settings displayed by the wizard reflect the settings you created when configuring Red Hat Enterprise Linux. These settings are displayed as read-only.

We recommend configuring the wizard immediately after the install and *before* configuring any additional network adapters. However, if you need to reboot the machine before configuring the installation wizard, you should disable your firewall as root user when your reboot is complete. To disable your firewall, run the *service iptables stop* command. After you complete the wizard, the firewall starts again automatically.

The system might take around 5-10 minutes to apply the settings before you can use the Clearswift SECURE Email Gateway. We recommend visiting the First Steps topic in the online help when the Gateway interface is accessible.

Peering between v3 and v4 Clearswift Gateways

Due to security hardening on v4 Clearswift Gateways, we no longer provide support for the TLS v1.0 protocol for peering. Only TLS v1.2 is supported.

If you wish to peer v3 Gateways (for example, using PMM or Web Gateway Reporter) with your v4 Gateway, you must **re-enable TLS v1.0** on the 4.5.0 Gateway and **update the ciphers**.

If you are already running PMM on a v4 Gateway, you do not need to follow this procedure.

These instructions should be applied *after* installing the 4.5.0 Gateway, and after configuring the Gateway using the *Clearswift Installation Wizard*.

3.3.1 How to re-enable TLS v1.0 on the 4.5.0 Gateway and update ciphers:

1. Search for the **sslEnabledProtocols** attribute in the following files:

   `/opt/tomcat/conf/`

   `server-bind.xml`

   `server-bind2.xml`

2. Change the value of each protocol from 'TLSv1.2' to 'TLSv1,TLSv1.2'.

   There are two instances in server-bind2.xml.

3. Search for the **ciphers** attribute in the same files:

   ```
   /opt/tomcat/conf/
   server-bind.xml
   server-bind2.xml
   ```

4. Add 'TLS_RSA_WITH_AES_256_CBC_SHA' to the end of the comma separated list in each file.

   There are two instances in server-bind2.xml.

5. Restart the UI using the following command:

   ```
   cs-servicecontrol restart tomcat
   ```

3.4 Enabling access to the Clearswift online repositories

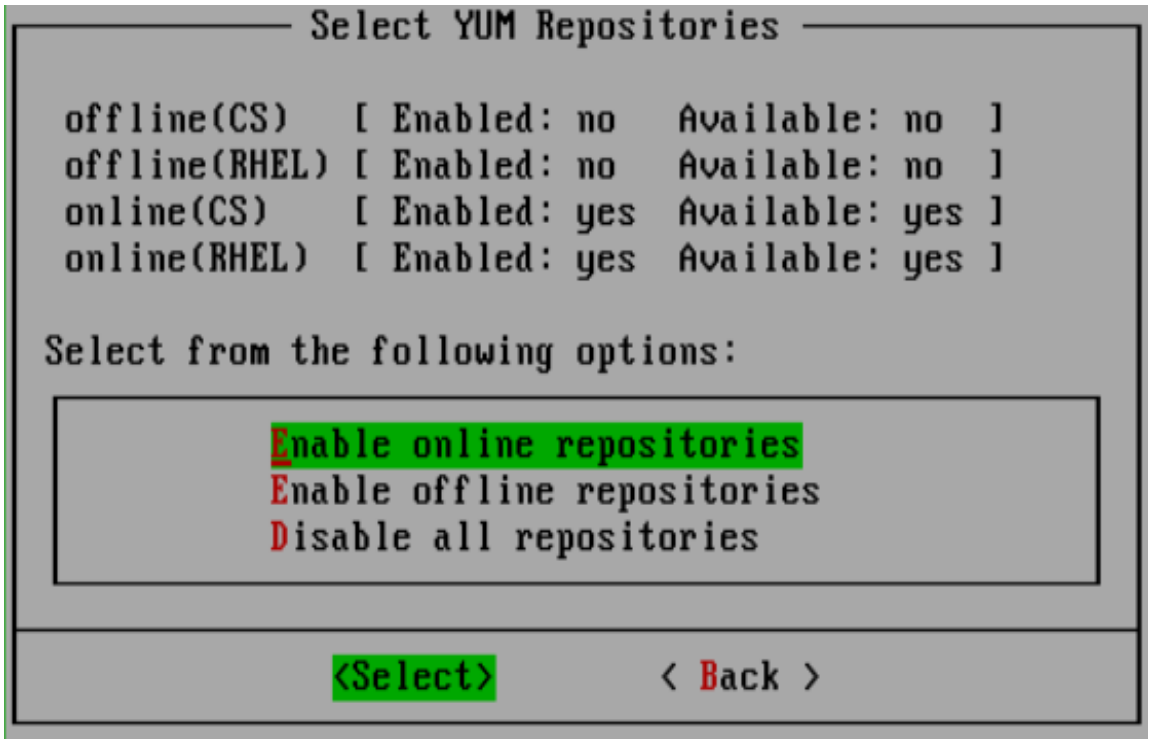
When you have installed the Clearswift SECURE Email Gateway, you need to enable access to the Clearswift online repositories containing the latest software updates. This is done in the Clearswift Server Console application:

1. From the Clearswift Server Console main menu, select **Configure System** > **Select Update Repositories**.

   Clearswift Server Console checks the status of your YUM repositories and the **Select YUM Repositories** page appears.

2. Select the option to **Enable online repositories**. When the operation completes, press **Done**.

   Clearswift Server Console rechecks the status of your YUM repositories and returns you to the **Select YUM Repositories** page where your online repositories will now appear as enabled:



3. Press **Back** to return to the **Configure System** page of the Clearswift Server Console.

4. Upgrading from version 3.8 of the Clearswift SECURE Email Gateway

If you are installing the Clearswift SECURE Email Gateway for the first time, please ignore this section.

If you are installing version 4.5.0 from an earlier version 3 Clearswift SECURE Email Gateway, please ensure your Gateway is fully upgraded to the latest 3.8 release and use the following instructions.

This section describes how to import your policy configuration and system settings from version 3.8 of the Clearswift SECURE Email Gateway to version 4.5.0. You should perform the backup steps *before* installing Clearswift SECURE Email Gateway 4.5.0.

Migrating from a V3 Gateway does not preserve network settings such as static hosts, static routes and DNS settings. Use the Server Console to re-apply your network settings when you have upgraded your Gateway. If you are using Client Integrated Authentication, you will also need to join the domain after migrating your Gateway.

4.1 Back up your original system

The system backup on an FTP server includes only the most recently applied configuration. If you require an earlier policy configuration along with quarantined messages, audit and tracking data and logs, you should first restore from the system backup and then restore the .bk file to your new Gateway, when installed.

1. Apply your configuration. This ensures that you are migrating the most up-to-date version.
2. Using your existing Gateway system, navigate to the **System Center** > **Backup & Restore** page.
3. Perform a System Backup using the **Backup System Now** option in the task panel.

We strongly recommend that you backup all available System Areas.

We recommend that you use system backups for a means of disaster recovery and for when planning to upgrade your system. Do not use them for any other purpose, for example, as a method of cloning Gateways when creating a peer group. For purposes other than disaster recovery and system upgrades you should use Configuration Backup and Restore.

4.2 Install the 4.5.0 Gateway

Follow the steps in section 3 of this installation guide to install the Clearswift SECURE Email Gateway.

When you have installed the Clearswift SECURE Email Gateway, you need to configure access to the Clearswift online repositories containing the latest software updates. See Enabling access to the Clearswift online repositories for more information.

4.3 Restore the system backup

1. Using the new, installed Gateway, navigate to the **System Center** > **Backup & Restore** page.
2. Select **Restore System** using the option in the task panel. Enter the FTP settings and click **Connect**.

The system restore includes all the areas you selected when you created your back-up, potentially including configurations, quarantined messages and audit logs. The Gateway reboots after the system restore is complete.

5. Upgrading from an earlier version 4 release to version 4.5.0

If you are installing the Clearswift SECURE Email Gateway for the first time, please ignore this section.

Perform the following steps to download and apply software updates when you upgrade to Clearswift SECURE Email Gateway 4.5.0.

Open an SSH session and access the Clearswift Server Console. Log in using your cs-admin access credentials.

Online or Offline mode?

Offline mode is designed for installations that operate in a closed environment, disconnected from the Internet. Unless this is a specific requirement for your system, you should install the Clearswift SECURE Email Gateway in online mode.

To perform an offline upgrade you require a copy of the latest release ISO mounted to suitable media (DVD/USB). Please contact Clearswift Technical Support if you need additional guidance on how to complete this step.

1. Confirm the upgrade is available:

   a. If you are performing an offline upgrade, insert the physical media (DVD/USB).

   b. Confirm the required repositories are enabled and available:

      Online mode:

      Configure System > **Select Update Repositories** > **Enable online repositories**

      Offline mode:

      Configure System > **Select Update Repositories** > **Enable offline repositories**

c. Check the upgrade is ready to install:

   View System Status

   If the expected upgrade is listed as the next "Available Upgrade", go directly to step 3. If it is not listed, refresh the status and it should appear.

2. Download update:

   a. From the Clearswift Server Console main menu, select:

      Configure System > **View and Apply Software Updates**> **Download New Updates** > **OK**

   b. All available updates will now be downloaded. This process may take several minutes. A rolling progress log will be displayed. When the *Operation Complete* message appears, select **Done** to complete the download.

3. Apply software updates:

   a. From the Clearswift Server Console main menu, select:

      Configure System > **View and Apply Software Updates** > **Apply Updates** > **OK**

   b. Confirm that you want to apply the updates by selecting **Yes**.

      All downloaded updates will now be installed. This process can take several minutes. A rolling progress log will be displayed. When the *Operation Complete* message appears, select **Done** to complete the install process.

Appendix A: Software install process

The following steps describe how to install the Clearswift SECURE Email Gateway on top of an existing Red Hat Enterprise Linux (RHEL) 6.8 Server (including a suitably configured AWS instance) using the ISO image.

> You should install RHEL 6.8 as a **Minimal** server installation, with a separate /(root) and /var partition. The root partition should be 20GB (minimum) and /var should use a minimum of 40GB for test environments and 120GB for production environments.

To install the Clearswift SECURE Email Gateway:

1. Assume root role at the command line.
2. Insert the media containing the ISO image and mount it onto /media/os:

   ```
   mkdir -p /media/os
   ```

   ```
   mount /dev/cdrom /media/os
   ```

3. Manually install the cs-repo-conf package. The cs-repo-conf package configures your system to be ready for you to install the Clearswift SECURE Email Gateway:

   ```
   rpm -ivh /media/os/cs-repo/Packages/cs-email-repo-conf...
   ```

4. Forcibly remove postfix, rsyslog and samba V3:

   ```
   yum -y remove postfix rsyslog samba-common
   ```

5. Install the required product using the following command:

   ```
   yum install cs-email
   ```

   > If Step 5 fails due to additional conflicts, you might need to remove additional packages during Step 4.

6. Log out completely, and log back in as cs-admin. Refer to Phase 2 of installing the Clearswift SECURE Email Gateway to continue.

Post installation considerations

After completing the software install process, the install process might have modified the following parts of your system:

1. Firewall configuration is now under Gateway control. If SSH access is required you need to re-enable it through the Clearswift SECURE Email Gateway user interface. See Configuring SSH Access in the Clearswift SECURE Email Gateway online help for more information.
2. All network configuration is now under Server Console control. You should avoid changing network configuration at the command line as the Gateway is not notified of these changes. If changing network configuration at the command line is necessary, please contact Clearswift Support for more information.
3. crontab configuration is modified. Pre-existing root cronjobs might be lost, but you can re-add them.

Appendix B: USB installation media preparation

The following steps describe how to copy the Clearswift SECURE Email Gateway software ISO image to USB media.

1. Download the Clearswift SECURE Email Gateway software ISO image from the Clearswift download area.

   > Please ensure you are using the correct version of the ISO image: EMAIL_451_151.iso.

2. Download a USB tool that maintains drive volume name. Clearswift recommends using Rufus Portable.

   > Do not use the standard version of Rufus for this process. Please ensure it is the portable version.

Although you can use USB tools other than Rufus, the following USB tools will not work with the Clearswift SECURE Email Gateway software ISO image:

- YUMI
- Universal USB Installer
- Fedora liveusb-creator

The below steps assume that you are using Rufus 2.11 Portable.

3. Run **rufus-2.11p.exe**.
4. Insert your USB media and select it from the **Device** drop-down menu.
5. Under **Format Options**, select **Create a bootable disk using** and click the disk icon to choose the Clearswift SECURE Email Gateway ISO you want to burn. Once Rufus scans the ISO, it fills in other options automatically.
6. Click **Start**. The **ISOHybrid image detected** dialog box appears. Select **Write in ISO Image mode (Recommended)** and then click **OK**. A dialog box appears to warn you that any existing drive date will be removed. Click **OK** if you are happy to proceed.
7. Return to Installing the Clearswift SECURE Email Gateway to complete the installation process.