

IBM Lotus Protector for Mail Security



# Upgrade Guide

*Version 2.8.1*

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## Chapter 1. Overview

Lotus® Protector for Mail Security 2.8.x runs on a SUSE Linux Enterprise Server 10 operating system that is installed along with the product. The upgrade to Lotus Protector for Mail Security version 2.8.1.0 upgrades the operating system to SUSE Linux Enterprise Server 11.

The upgrade process preserves all existing settings and data, and requires minimal downtime.

Read *Planning for the upgrade* for information describing the upgrade process and how to prepare for the upgrade.



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## Chapter 2. Planning for the upgrade

The upgrade process take place in phases. Make sure you understand how the upgrade works, the amount of time required, and how to prepare your environment. The overall installation lasts approximately 1 hour. However, you might require more time for preparation if you lack sufficient disk space for the upgrade. Disk cleanup can require between several hours and several days, depending on the amount of data that is stored.

The following table summarizes, in order, the events that occur during the upgrade:

*Table 1. Phases of the upgrade process.* This table lists the phases of the upgrade process and describes each phase.

Phase number	Phase summary	Description
1	Download the update	The time that is required to download the update varies depending on network traffic and the available bandwidth.
2	Install new operating system	<p>The updated operating system is installed as a background process. The operating system update takes place on a rescue partition that is separate from the partition that runs the current operating system. As a result, you can download and install the update while Lotus Protector for Mail Security continues to run. However, mail processing performance is reduced by approximately 50% during this phase, which requires approximately 20 minutes to complete.</p> <p>From this point forward, the installation process proceeds automatically and requires no user intervention.</p> <p>To reduce the effect of decreased performance, schedule your upgrade so that the installation of the new operating system occurs when usage is normally low.</p> <p>If an error occurs during the operating system upgrade, you can stop the upgrade process without affecting the running system.</p>
3	Service shutdown	The updated operating system requires a different format for message and configuration data. After the new operating system is installed, the system shuts down all services (Phase 3) and prepares to convert data to the required format. (Phases 4 - 5).
4	Prepare the Message store database for migration	To prepare for converting messaging data, the upgrade process backs up the message store database. During the period between Phase 4 and Phase 9, the system is unavailable. Expected downtime is 30 minutes or less on IBM® xSeries 3650 M3 Hardware. The actual downtime varies depending on available resources and the amount of data to be migrated. Upgrading a VMware system typically requires more time.
5	Automatic backup of the current configuration	To prepare for converting configuration data, the upgrade process backs up the current configuration data.
6	Restart of the physical or virtual device.	After conversion preparations complete, the system restarts.
7	Migration of data to the new Message store database	Existing message data is converted to the format required by SUSE Linux Enterprise Server 11. After this process completes, message data is no longer compatible with the previous version of the operating system.

Table 1. Phases of the upgrade process (continued). This table lists the phases of the upgrade process and describes each phase.

Phase number	Phase summary	Description
8	Installation of the new Configuration	Existing configuration data is converted to the format required by SUSE Linux Enterprise Server 11. After this process completes, configuration data is no longer compatible with the previous version of the operating system.
9	Cleanup	Removal of temporary files created during the migration.
10	Restart of all services	After the upgrade is complete, services are restarted and the system resumes normal operations automatically.

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## Upgrade system requirements

Before you begin the upgrade process, verify that your system is running the minimum firmware level and has sufficient disk space available.

### Firmware requirements

Your system must be running firmware version 2.8.0.0 or later to be eligible for the update. If the installed firmware version is 2.7.0.0 or earlier, upgrade to 2.8.0.0 before you proceed with the upgrade instructions in this document.

To view the current firmware level from the Lotus Protector Manager, click **Home > System**. The Lotus Protector Manager is the web-based management interface for Lotus Protector for Mail Security, and is sometimes referred to as the Local Management Interface or LMI.

### Disk space requirements

You must have at least 50% free space on the disks that are used for the Lotus Protector for Mail Security database and for email message storage. If either disk lacks the required free space, the upgrade process generates an error and exits, leaving the system unchanged. After you free more disk space, you can try running the upgrade again.

To view current disk usage, from the Lotus Protector Manager, click **Home > Resources**. You can also log in to the console with root privileges over SSH and run the following command: **df -h**

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## Reclaiming disk space

If you cannot proceed with the upgrade due to insufficient disk space, you can use Lotus Protector tools to reclaim disk space.

### About this task

The disks that host both the Lotus Protector for Mail Security database and the message store must have 50% available space to proceed with the upgrade. If needed, you can reclaim disk by reducing the length of time that Lotus Protector retains email messages and log data.

### Procedure

- To reduce email retention for Message stores, from the Lotus Protector Manager, click **Mail Security > Policy Objects > Message Stores**.
- To reduce SMTP log retention, from the Lotus Protector Manager, click **SMTP > Configuration > Maintenance**.
- To reduce message tracking log retention, from the Lotus Protector Manager, click **Mail Security > Policy > Message Tracking / Reporting**.

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## Cluster upgrades

You must upgrade clustered devices in sequence.

In deployments where Lotus Protector for Mail Security is clustered across multiple servers or instances, always upgrade the central device (Cluster Central) first. You can then upgrade other members.

All members of a cluster must be running version 2.8 or later of Lotus Protector for Mail Security. After you upgrade Cluster Central, you are not required to upgrade other cluster members immediately. However, to gain the maximum benefit from the 2.8.1.0 release, including increased speed and stability, it is important to upgrade every member of the cluster.

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## Configuration information lost during the upgrade

Some configuration information can be lost during the upgrade. IP address assignments can be altered and the ability to retrieve certain files that are referenced by policy objects might be disrupted.

### Changes in IP address assignments

If you use DHCP to assign IP addresses, after an upgraded device restarts, it might obtain a different address than it had before the upgrade. Because changes in address assignments can disrupt mail traffic, before you upgrade a device, temporarily assign it a static IP address. After the upgrade completes, you can return to using DHCP.

### No automatic migration of policy files referenced by the \$(FILE) macro

In some cases, policy objects use the \$(FILE) macro read the contents of a file. By default, the upgrade process does not preserve files that are referenced in this manner. As a result, policies do not function as expected. To ensure that the upgrade does not disrupt policy behavior, back up any file that is referenced by a \$(FILE) macro in a policy object. After the upgrade completes, copy the file back to the upgraded device.

**Note:** The default configuration for Lotus Protector for Mail Security does not use the \$(FILE) macro. Unless you have customized policies to use the \$(FILE) macro, no action is required.

You can view a list of policy objects that use the \$(FILE) macro. Log in to the console with root privileges over SSH, and then type the following command:

```
grep -B 1 "JChGSUxFL" /etc/mailsec/cpe/mailsec_policyobjects1_1.xml
```

Review the list of policy objects that the command returns and back up each file that is referenced.

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## System backup image unavailable

After the upgrade begins, the backup image of your Lotus Protector for Mail Security operating system and current configuration settings is overwritten and becomes unavailable until the upgrade completes.

Lotus Protector for Mail Security stores a complete backup image of the operating system and current configuration settings on a rescue partition. Only one system backup file exists at any time. During the upgrade process, the rescue partition serves as the installation target for the new operating system. To clear disk space for the installation, the system backup that is stored on the rescue partition is deleted. As a result, after the upgrade begins, you can no longer restore the system from the backup image on the rescue partition.

To preserve the ability to restore the system to its pre-upgrade state, before you begin the upgrade, create a system backup or snapshot. If Lotus Protector for Mail Security runs on virtualized hardware (for example, VMware), create a virtual machine snapshot. If your deployment runs on physical hardware, download one or more recent configuration snapshots.

To download a configuration snapshot, from the Lotus Protector Manager, click **Backup & Restore > System**, and then click **Manage Configuration Backups > Download**

If you exit the upgrade process after the operating system upgrade, but before the entire upgrade is complete, create a new rescue partition and back up the system. From the Lotus Protector Manager, click **Backup & Restore > System**, and then click **Manage System Backup > Create System Backup**.

After the upgrade, Lotus Protector for Mail Security creates a new rescue partition and backs up the updated version of the operating system automatically.



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## Chapter 3. Installation

To apply the upgrade, you must first download the new firmware and then initiate installation from the Lotus Protector Manager. After the process begins, it runs until completion and requires no further user intervention.

Before you begin the installation, review the information in the release notes and in *Planning for the upgrade*.

You initiate the installation from the Lotus Protector Manager or from the command line. After the installation is underway, you can check progress until services shut down following installation of the new operating system. Services remain unavailable until the upgrade completes.

As noted earlier, if you encounter an error during the upgrade of the operating system, you can stop the upgrade process without affecting the running system. However, the previous system backup is no longer available.

After the installation completes, you can check the logs to verify that the upgrade was successful.

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### Downloading the update

After the firmware update becomes available, the Lotus Protector Manager displays a notification on its home page.

#### Before you begin

You can begin the download after the notification appears.

#### About this task

If you enabled automatic firmware downloads on your system, the download process can begin automatically. Otherwise, begin the download by completing the following procedure.

#### Procedure

From the Lotus Protector Manager, click **Updates > Updates & Licensing** and then click **Download**. After you start the download, it continues until completion and requires no further user intervention. After the download completes, the home page and the Updates & Licensing page displays notifications to inform you that the firmware is ready to install.

#### What to do next

You are now ready to begin the installation.

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## Installing the update

You can begin the installation of the update from either the Lotus Protector Manager or from the command line.

### Before you begin

- After you download the update, a notification on the Lotus Protector Manager home page informs you that the firmware is ready to install.
- Read the planning information earlier in this document before you begin the installation.

### Procedure

- To start the installation from the Lotus Protector Manager, click **Updates > Updates & Licensing**, and then click **Install**.
- To start the installation from the command line, log in to the console with root privileges over SSH, and then type the following command: `update-control -i fw`

**Important:** DO NOT RESET OR TURN OFF THE SYSTEM while the installation is in progress. Disrupting the installation process can result in damage to the system and data loss. If you encounter a problem during the installation, contact support immediately.

On systems that store large amounts of data, the installation can require several hours to complete.

### What to do next

After the installation completes and services restart, you can check the logs to verify the status of the installation.

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## Verifying progress of the installation

The installation process does not provide detailed feedback on its progress automatically. Details about the process are available in the firmware log files.

### About this task

For a short time after you begin the first phase of the installation (operating system upgrade), you can view information about installation progress from the Lotus Protector Manager. To see greater detail about the progress of the update, open the log files, as described in the following procedure.

**Note:** After the upgrade of the operating system is completed, all services are shut down. The system is unable to accept connections from either the Lotus Protector Manager or the command line. Normal connectivity resumes after the installation completes and services restart.

### Procedure

From the command line, log in to Lotus Protector for Mail Security with root privileges over SSH. Use a text editor to open the firmware log files in the following directory: `/var/spool/updates/XPU`

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## Validating the installation

After the installation completes, view processing graphs and the event log to verify that the upgrade was successful.

### About this task

After the installation completes, all processes are restarted automatically and normal connectivity and operations resume. You can now connect to the system to confirm that upgrade was installed.

### Procedure

- To view processing graphs, open the Lotus Protector Manager home page.
- To view the event log, from the Lotus Protector Manager, click **System > Events**.



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## Chapter 4. Technical support

If you have any questions about the upgrade procedure or if you encounter a problem, you can contact IBM Support. IBM provides technical support to customers who are entitled to receive support.

### The IBM Support Portal

Before you contact IBM about a problem, see the IBM Support Portal at <http://www.ibm.com/software/support>.

### The IBM Software Support Guide

If you require technical support, contact IBM Support using the methods that are described in the IBM Software Support Guide at <http://www14.software.ibm.com/webapp/set2/sas/f/handbook/home.html>.

The guide provides the following information:

- Registration and eligibility requirements for receiving support
- Customer support telephone numbers for the country in which you are located
- Information that you must gather before you call



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