Knox E-FOTA On-Premises admin guide

Knox E-FOTA On-Premises

Knox E-FOTA On-Premises allows IT administrators to manage device firmware-over-the-air (FOTA) updates on their organization's network environment. With on-premises features that extend beyond its cloud counterpart, Knox E-FOTA On-Premises is a great FOTA management option for organizations that prioritize security and flexibility in their operations.
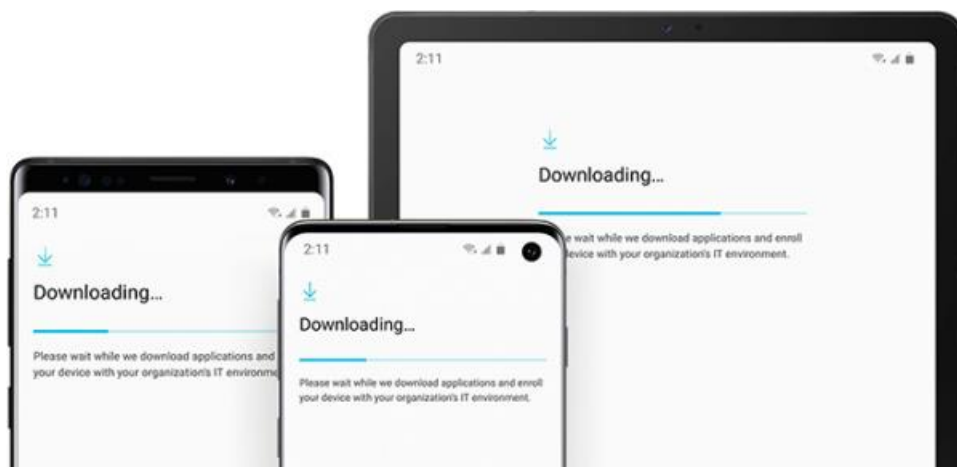
Audience

This document is intended for **IT admins**. Learn how to set up the Knox E-FOTA On-Premises web portal, manage firmware versions, and enroll devices.

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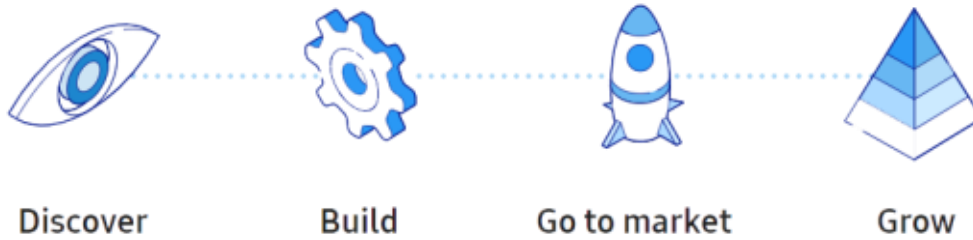
This tutorial walks you through how to install the Knox E-FOTA On-Premises agent app, add a license, and add and enroll your devices.

START LEARNING

About Knox E-FOTA On-Premises

NOTE — This admin guide only discusses features unique to Knox E-FOTA On-Premises. For more information on general Knox E-FOTA features, see the Knox E-FOTA admin guide.

Key features

- **Multitenant support** — If your organization has multiple business units, IT admins can work within their respective workspaces to avoid unwanted interactions between units.
- **Firmware testing** — Use the Knox E-FOTA On-Premises console to track firmware versions, mark them as tested, or block them from being installed on devices.

Key benefits

Like Knox E-FOTA, Knox E-FOTA On-Premises provides these key benefits:

- **Schedule updates** — Prevent business interruptions by configuring OS updates to install outside of business hours.
- **Selectively update OS versions** — Choose a specific OS version to roll out to your devices to avoid potential interference with business app functions.
- **Force update target devices** — Ensure devices are always up-to-date with the latest security updates, regardless of user input.
- **No user interactions** — Update device software without requiring user action, streamlining the device management process.

How it works

Knox E-FOTA On-Premises is comprised of three parts:

1. The web portal
2. The client app
3. The organization's network infrastructure

These three components interface to perform FOTA management in a containerized environment, isolated from the cloud. IT admins can log in to the web portal to enroll devices, create campaigns, update policies, and schedule firmware downloads—all from the safety of an organization's in-house infrastructure.

Step 1: Download and install the agent app

First, obtain access to Knox E-FOTA On-Premises from a Samsung reseller. Once your account is granted access, it's time to install the Knox E-FOTA On-Premises agent app. Contact a Samsung technical support engineer to get new agent app versions.

There are three ways to install the agent on your devices:

- Upload the package through the Knox E-FOTA On-Premises portal

  > **IMPORTANT** — Package uploading is only supported if the Knox E-FOTA agent is already installed and running on your devices.
- Manually install the package
- Install the client through your EMM

Upload the package through the Knox E-FOTA On-Premises portal

If you want to automatically install the agent on your devices, do as follows:

1. Log in to the Knox E-FOTA On-Premises admin console. Ensure you're in the correct workspace by verifying the workspace name in the upper-right corner of the console.
2. Click your account icon.
3. In the menu that's shown, click **Settings**.
4. The navigation sidebar pane refreshes with a new set of tabs. Click **Agent**.
5. Click **ACTIONS** > **Upload Agent**.
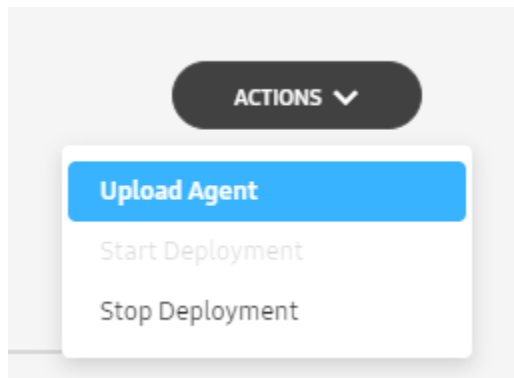
6. A popup is displayed prompting you to upload an agent file. Click **BROWSE** to launch your PC's file explorer and select the file. Then, click **UPLOAD**.

Upload Agent

Select an agent file you want to upload

BROWSER

UPLOAD

The **Agent** screen is then refreshed with the new agent information. Click **Actions** > **Start Deployment** to allow the devices in your workspace to download and install the new Knox E-FOTA On-Premises agent app.

Manually install the package

Alternatively, you can manually install the package on a device. This method is recommended if you want to test the agent before deploying it to the full device fleet.

Before you begin, ensure you have the following prepared:

- A PC running Windows 10
- Your organization's server, connected to the internet through Wi-Fi or a mobile network
- A device secured by Samsung Knox, connected to the internet through Wi-Fi or a mobile network

Create a configuration file

On your PC, you first need to create a file called efota_config. In a text editor of your choice, enter the URL of your on-premises server.

The on-premises server URL is defined by your organization and is used to access the Knox E-FOTA On-Premises web console. If you're not sure what this URL is, contact the Samsung installation engineer who configured your Knox E-FOTA On-Premises instance.

For example, the URL might be in one of the following formats:

- https://example-sec.fota.net:6443/admin/
- http://181.107.61.233:6380/admin/

Then, enter the server password on the line underneath and save the file. Ensure the file isn't saved with a file extension. Your efota_config file should look like the following:

```
https://example.server.url.com/admin/
password_of_server
```

Alternatively, you can choose to set the server URL and password through an Android intent. To do so, refer to the following sample code:

```
...
// package name, action
final String PACKAGE_NAME    = "com.samsung.android.efotaagent";
final String ACTION_CONFIG_MODE = PACKAGE_NAME + ".CONFIG_MODE";
final String ACTION_SERVER_URL = PACKAGE_NAME + ".SERVER_URL";
final String ACTION_BKS_PASSWORD = PACKAGE_NAME+".BKS_INFO";

// set Config mode
final String CONFIG_MODE_EXTRA = "MODE";
final String CONFIG_MODE_FILE = "file";
final String CONFIG_MODE_INTENT = "intent";
// set server URL
final String SERVER_URL_EXTRA = "URL";
final String SERVER_URL = "https://example.server.url.com/admin/";
// set server password
final String BKS_INFO_EXTRA = "BKS";
final String BKS_PASSWORD = "password_of_server";
...
// set config mode to intent
sendBroadcast(new Intent()
        .setAction(ACTION_CONFIG_MODE)
        .putExtra(CONFIG_MODE_EXTRA, CONFIG_MODE_INTENT)
        .setPackage(PACKAGE_NAME)
        );
// set URL by intent
sendBroadcast(new Intent()
        .setAction(ACTION_SERVER_URL)
        .putExtra(SERVER_URL_EXTRA, SERVER_URL)
        .setPackage(PACKAGE_NAME)
        );
// set password by intent
sendBroadcast(new Intent()
        .setAction(ACTION_BKS_PASSWORD)
        .putExtra(BKS_INFO_EXTRA, BKS_PASSWORD)
        .setPackage(PACKAGE_NAME)
        );
...
// set config mode to file (efota_config)
sendBroadcast(new Intent()
        .setAction(ACTION_CONFIG_MODE)
        .putExtra(CONFIG_MODE_EXTRA, CONFIG_MODE_FILE)
        .setPackage(PACKAGE_NAME)
        );
```

Copy the configuration file to the device

There are two ways to get the configuration file on your device:

- Use your EMM to push the file to your device's Downloads folder, or
- Use your PC's file explorer to manually copy the file to your device's Downloads

Then, connect your device to the PC through USB. In your PC's file explorer, locate the efota_config file and copy it to your device's Downloads folder. Ensure the Knox E-FOTA On-Premises APK you received from your local Samsung representative is also included in the Downloads folder.

Install the Knox E-FOTA On-Premises app

On the device, navigate to your Downloads folder and tap the Knox E-FOTA On-Premises APK to install it. After it's installed, launch the app.

Step 2: Add a license

After setting up the agent, the next step is to add a license. You should have obtained one from your Samsung representative along with your access to the Knox E-FOTA On-Premises service. If not, contact them to purchase or obtain one.

Once you have your license key prepared, do as follows:

1. On the Knox E-FOTA On-Premises console, click your account icon.
2. In the menu that's shown, click **Settings**.
3. The navigation sidebar pane refreshes with a new set of tabs. Click **License**.
4. Click **UPLOAD LICENSE**.
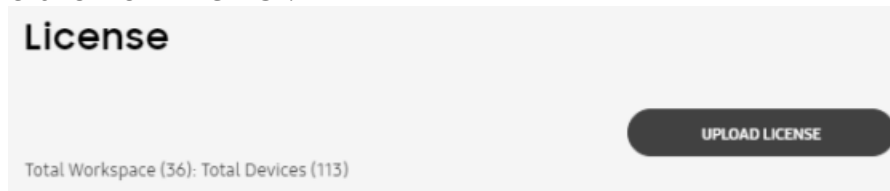
5. In the popup that's shown, click **BROWSER** to launch the file explorer, where you can locate your license file to upload. Select the file, then click **Open**.
6. Click **UPLOAD** to finish uploading the license.

The **License** screen then displays the details of your license.

Refer to Manage licenses to learn more.

Step 3: Add devices

Next, it's time to add devices to the console, which you can do by uploading a CSV file. Adding devices without enrolling them does not yet consume seats on your license.

To add devices to the Knox E-FOTA On-Premises console:

1. At the bottom of the navigation sidebar, click **Bulk Actions**.
2. Click **Upload Devices**.

UPLOAD DEVICES

3. Click **Download CSV template** and open the downloaded file.
4. In the first column, enter the IMEI/MEIDs or serial numbers of the devices you want to upload. Enter one IMEI/MEID or serial number per row.

   > **NOTE** — Do not include a header row, do not leave any rows empty, and do not duplicate IMEI/MEIDs or serial numbers. Otherwise, your devices may not be added properly.

5. Save the file.
6. In the Knox E-FOTA On-Premises portal, click **Browse** and select your CSV file.
7. (Optional) Auto-enroll or assign the devices to a campaign. If you skip this step, you can enroll and assign devices at any time.

   > **IMPORTANT** — Each device you enroll consumes one license seat.

   Choose one of the following options:
   - **Auto Enroll/Lock Firmware** — If you choose this option, select the license to be used.
   - **Assign default campaign** — You can only assign devices if you already created a campaign. If you choose this option:
     - Select the campaign to assign the devices to.
     - Select the license to be used to enroll the devices.

8. Click **Submit**.

A message shows and confirms that the CSV file was uploaded. When your devices are verified and added to your inventory, they're added to the **Devices** tab with the status **Not enrolled**.

Step 4: Enroll devices

If you chose not to enroll devices when adding them in the previous step, you can do that now by selecting specific devices for enrollment through the device list. This action is only available for devices in **Not enrolled** and **Enrollment pending** states.

To enroll your devices:

1. In the sidebar of your Knox E-FOTA On-Premises console, click **Devices**.
2. In the devices list, select the checkboxes next to the devices you want to enroll.
3. Click **ACTIONS**, then **Enroll Devices**.
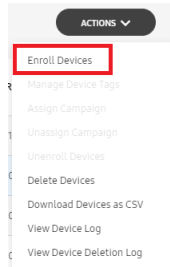
4. In the confirmation popup that appears, click **ENROLL**.
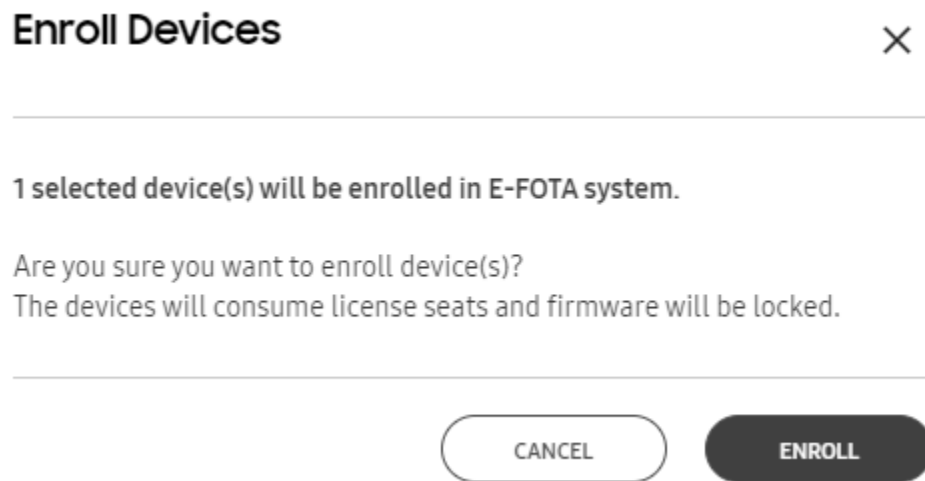
The next time the devices poll the server, they are then enrolled in Knox E-FOTA On-Premises, locking their firmware versions and consuming the corresponding number of license seats.

Create a campaign

Optionally, you can also create and assign your devices to a campaign. Here, you can configure download and installation settings, including scheduled install times, required device battery life, and network limitations.

While creating a campaign in Knox E-FOTA On-Premises is similar compared to Knox E-FOTA, the process is broken down into four steps instead:

1. **BASIC INFO** — Enter a campaign name and description.
2. **TARGET FIRMWARE** — Choose one or more target firmware versions that were uploaded in the **Versions** menu. These firmware versions are pushed to your devices once the campaign activates.
3. **POLICY** — Select policies for download network, minimum battery level, and allowed number of postponements.

   > **IMPORTANT** — Knox E-FOTA On-Premises does not provide the option to block factory resets or enter support contact details.
4. **SCHEDULE** — Select a start and end date for your campaign, as well as the window of time during which the firmware download and installation occur.

See the Knox E-FOTA admin guide for detailed steps on how to create a campaign.

NOTE — Ensure you instruct each device user to manually launch the Knox E-FOTA On-Premises agent on their device to complete enrollment.

Manage devices

Like Knox E-FOTA, Knox E-FOTA On-Premises lets you manage devices directly from the console.

To view the device list:

1. Log in to the Knox E-FOTA On-Premises admin console. Ensure you're in the correct workspace by verifying the workspace name in the upper-right corner of the console.
2. In the left sidebar, click **Devices**.

A device list opens with the following information:

- **DEVICE** — The IMEI/MEID or serial number of the device.
- **ENROLLMENT** — The enrollment status of the device, which can be one of the following:
    - **Enrollment pending**
    - **Enrolled**
    - **Unenrollment pending**
    - **Not enrolled**
- **SALES CODE** — The country-specific code, or CSC, of the device.
- **FIRMWARE VERSION** — The OS version the device is currently running. Hover over the version to display the full name.
- **CAMPAIGN** — The Knox E-FOTA On-Premises campaign the device is currently assigned to. Hover over the campaign name to display the full name in a tooltip.
- **UPDATE STATUS** — The download and installation status of the new firmware.
- **MODIFIED** — The date the device information was last modified.
- **SOURCE** — The method through which the device was uploaded.

TIP — See <u>Manage devices</u> in the Knox E-FOTA admin guide for descriptions of device actions and statuses.

Manage campaigns

The campaigns in Knox E-FOTA On-Premises have the same functionality as the campaigns in Knox E-FOTA.

To view your campaigns:

1. Log in to the Knox E-FOTA On-Premises admin console. Ensure you're in the correct workspace by verifying the workspace name in the upper-right corner of the console.
2. In the left sidebar, click **Campaigns**.

A list of campaigns is displayed with their statuses, assigned devices, repeat frequency, start and end dates, and last modified date. Click a campaign name to view its details or modify it.

If there are no available campaigns, click **CREATE CAMPAIGN** in the upper-right corner to create one.

TIP — See Create a campaign in the Knox E-FOTA admin guide for detailed instructions on how to create a campaign.

Select a campaign and click the **ACTIONS** menu to access the following features:

- **Activate Campaign** — Activates the campaign if it has been deactivated, and starts the firmware rollout.
- **Deactivate Campaign** — Deactivates the campaign if it's currently active, and stops the firmware rollout.
- **Modify Campaign** — Allows you to change the configured campaign policies, including the target firmware and campaign period.
- **Delete Campaign** — Deletes the selected campaign.

View the activity log

The activity log displays a list of activities that were performed in the admin portal. Use these logged events to troubleshoot issues and track user actions.

To view the activity log:

1. Log in to the Knox E-FOTA On-Premises admin portal. Ensure you're in the correct workspace by verifying the workspace name in the upper-right corner of the console.
2. In the navigation sidebar, click **Activity Log**.
3. Filter the list as needed by doing any of the following:
   - Click **Show all** and select **Last 7 days** or **Last 30 days**.
   - Filter the activity log by **Name** (of the admin), **Category**, **Event**, or a combination of those.
   - Sort the list by **Date**.
   - Enter a keyword in the search bar.
4. To download the full activity log, click **DOWNLOAD AS CSV** in the upper-right corner of the screen.

Update firmware through Ethernet

With Knox E-FOTA On-Premises, you can also update the OS version of a device through a USB Ethernet connection. To do so, ensure you have the following:

1. A network connection
2. A LAN cable
3. A USB-C Ethernet adapter

First, you need to set up your campaign to support the Ethernet connection:

1. Log in to the Knox E-FOTA On-Premises admin portal. Ensure you're in the correct workspace by verifying the workspace name in the upper-right corner of the console.
2. In the left sidebar, click **Campaigns** and create a new campaign or modify an existing one.
3. On the **Create campaign** or **Modify campaign** screen, in the **POLICY** tab and under **Download network**, select **Any (Wi-Fi or Mobile)**.
4. If creating a new campaign, click **CREATE,** or if you're modifying an existing one, click **UPDATE**.

After the device receives the new campaign details, do as follows:

1. Connect the LAN cable to the Wi-Fi access point and the USB-C Ethernet adapter.
2. Plug the USB-C Ethernet adapter into the device.

A notification appears on the device confirming the Ethernet connection, and it can now download and install the OS update according to the campaign policy.

Use the Knox E-FOTA firmware downloader

To help you manage firmware versions, Knox E-FOTA On-Premises supports a firmware downloader that allows you to select and download firmware versions of your choice.

The Knox E-FOTA firmware downloader uses two JSON files — a scenario JSON file, which contains a list of the firmware versions currently hosted on your Knox E-FOTA On-Premises server, and an input JSON file, which contains a list of target firmware versions you can then import into your server. You need both these files to download select firmware versions.

Prerequisites

Before you can start using the Knox E-FOTA firmware downloader, you first need to:

1. Export a scenario JSON file from the Knox E-FOTA On-Premises console
2. Get the firmware downloader
3. Get an input JSON file from the Knox Admin Portal

If your PC is behind a proxy server, you also need to enter the proxy server host IP and proxy server port later.

Export a scenario JSON file

If you've just installed Knox E-FOTA On-Premises, make sure your devices are successfully enrolled before following these steps. Otherwise, you won't be able to export the proper firmware version information.

To get a scenario JSON file:

1. On the Knox E-FOTA On-Premises console, click **Versions**.
2. On the **Versions** page, click **ACTIONS** > **Download Versions Scenario**.
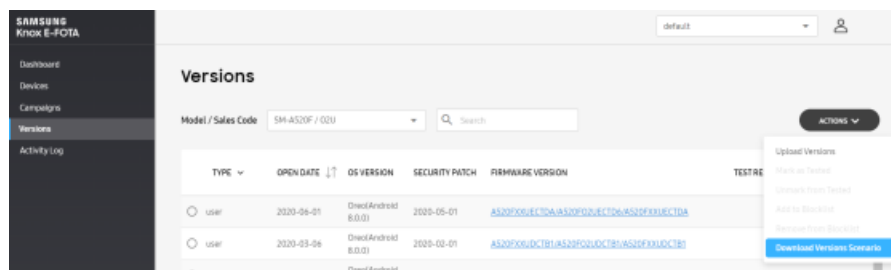
The scenario JSON file begins downloading to your PC.

Get the firmware downloader

To get the Knox E-FOTA firmware downloader:

1. Sign in to the Knox Admin Portal.
2. On the Knox Admin Portal homepage, under Knox E-FOTA On-Premises, click **Get started**.

3. On the page that opens, click **Download Firmware Files**.
4. Enter your Knox E-FOTA On-Premises license key, then click **CONTINUE**.
5. Next to the firmware downloader tooltip, click **DOWNLOAD HERE**.

After the firmware downloader is saved to your PC, open it.

Get an input JSON file

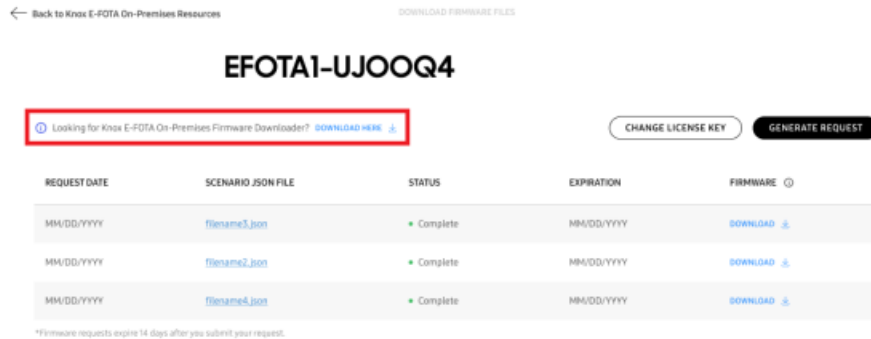Before following these steps, make sure you exported the scenario JSON file. The input JSON file also requires the scenario JSON file so that the firmware delivery servers can prepare the corresponding firmware versions for your devices.

To download the input JSON file:

1. Sign in to the Knox Admin Portal.
2. On the Knox Admin Portal homepage, under Knox E-FOTA On-Premises, click **Get started**.
3. Click **Download Firmware Files**.
4. Enter your Knox E-FOTA On-Premises license key, then click **CONTINUE**.
5. A page is shown with your license key. Click **GENERATE REQUEST**.
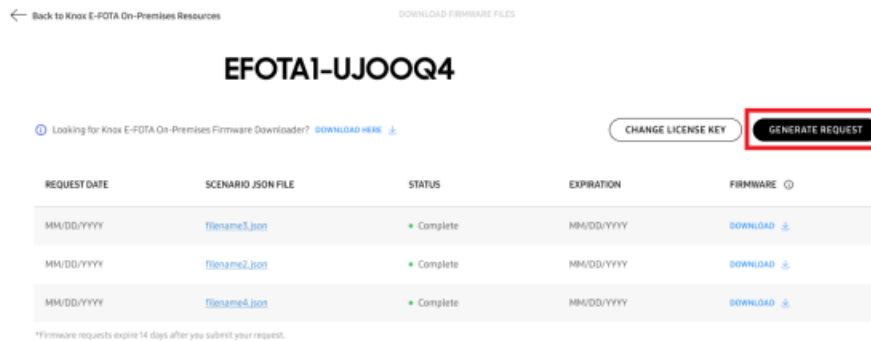
6. In the dialog that opens, click **BROWSE** and select the scenario JSON file.
7. Click **GENERATE REQUEST**.

The console notifies you that your request was successfully submitted, and the input JSON file is ready for download after your request is completed.

Download specific firmware versions

The following steps assume the prerequisites outlined previously are met.

To download specific firmware versions using the Knox E-FOTA firmware downloader:

1. Launch the Knox E-FOTA firmware downloader.
2. Under **<input.json>**, click **Browse** and select the input JSON file you downloaded from the Knox Admin Portal.
3. Under **Target firmware**, click **SELECT FIRMWARE**.
4. A dialog opens with the firmware list specified by the input JSON file. Select the firmware versions you want to host in Knox E-FOTA On-Premises, then click **SELECT**.
5. Under **<scenario.json>**, click **Browse** and select the scenario JSON file you exported from the Knox E-FOTA On-Premises console.
6. Under **Origin firmware**, click **SELECT FIRMWARE**.
7. A dialog opens with the firmware list specified by the scenario JSON file. Select a firmware version equal to or lower than the lowest firmware version that your devices are running.
8. Under **Save directory**, click **Browse** to choose a location for your firmware download.
9. (Optional) If your PC is behind a proxy server, enter the **Proxy host** and **Proxy port**.
10. Click **DOWNLOAD**.

The target firmware versions are then downloaded to the location you selected, and can be imported to your Knox E-FOTA On-Premises server.

Settings menu overview

While Knox E-FOTA On-Premises has a similar feature set to its cloud counterpart, Knox E-FOTA, certain functionalities are extended to accommodate on-premises setups. These features are located in a separate menu on the Knox E-FOTA On-Premises console.

NOTE — Only Super Admins can access the **Settings** menu with the on-premises features.

To navigate to the Knox E-FOTA On-Premises **Settings** menu:

1. Log in to the Knox E-FOTA On-Premises admin console.
2. Click your account icon.
3. In the menu that's shown, click **Settings**.

The console view updates to show a new sidebar with the following features exclusive to Super Admins:

- Workspaces — Manage separate admin consoles within one Knox E-FOTA On-Premises instance.
- Users — View and edit user roles and information.
- License — Upload licenses and view their information.
- Versions — Upload and view firmware versions.
- Agent — Manage Knox E-FOTA On-Premises app package versions.

To return to the main console view, click the **Knox E-FOTA** logo in the top-left corner of the console.

Manage workspaces

Unique to Knox E-FOTA On-Premises, workspaces allow larger organizations to divide their teams or business units into separate admin consoles. You can easily switch between workspaces using the dropdown menu to the left of your username.

As a Super Admin, you can view and manage a list of your organization's workspaces:

1. Log in to the Knox E-FOTA On-Premises admin console.
2. Click your account icon.
3. In the menu that's shown, click **Settings**.
4. The left sidebar refreshes with a new set of tabs. Click **Workspaces**.

The following workspace actions are also available to you through the **ACTIONS** menu:

- **Add Workspace** — Select this option to launch a popup where you can enter the name and description for a new workspace. Click **Save** to confirm.

- **Assign Users** — Select the checkbox next to a workspace in the list to enable this option in the menu. A modal appears with a list of all users in the Knox E-FOTA On-Premises instance, across all workspaces.

Assign Users

	NAME ↓↑	ID ↓↑	ROLE ∨ ↓↑	JOIN DATE ↓↑
☑	svmc02@s.com	svmc02@s.com	Super-Admin	2020-08-26
☑	svmc03@s.com	svmc03@s.com	Super-Admin	2020-08-26

Select the checkboxes next to the users you want to assign to the workspace, then click **ASSIGN**.

- **Modify Workspace** - Launches a popup that allows you to edit the workspace name and description.
- **Delete Workspace** — Select this option and click **Delete** in the confirmation popup to delete a workspace.
- **Download Workspace as CSV** — Downloads a CSV file with the information of the selected workspaces.

Add, edit, and delete users

With Knox E-FOTA On-Premises, Super Admins can manage users and their roles directly from the admin portal.

To access the users list:

1. Log in to the Knox E-FOTA On-Premises admin console.
2. Click your account icon.
3. In the menu that's shown, click **Settings**.
4. The navigation sidebar pane refreshes with a new set of tabs. Click **Users**.

The users list is then displayed, which includes the name, ID, role, status, and join date of each user.

Add a user

1. On the **Users** screen, click **ACTIONS** > **Add User**.

2. A popup is shown, prompting you to enter the user's details. Fill in the required fields as shown, then click **SAVE**.

User Add ✕

ID *

testadmin@test.org

Name*

Test Admin

Password*

••••••••••••

Confirm Password*

••••••••••••

Role*

Admin ▼

Status

Active ▼

CANCEL   SAVE

After saving, the new user is added to the list. The user's role, assigned password and status can be changed at a later date.

Edit a user

1. On the **Users** screen, select the checkbox next to the user you want to modify.
2. Click **ACTIONS** > **Edit User**.
3. Select one of the available options:
    - **APPROVE** — If the user's status is **Pending**, click **APPROVE** to change their status to **Active** and grant them console access.
    - **PASSWORD MODIFY** — Set a new password for the user. Depending on how your Knox E-FOTA On-Premises instance is configured, a password length policy may apply. By default, the minimum length for a password is 8 characters, and the maximum length is 12.
    - **EDIT** — Change the user's name, role, status, or time zone.

Delete a user

1. On the **Users** screen, select the user you want to delete.
2. Click **ACTIONS** > **Delete User**.
3. In the confirmation popup that appears, click **PROCEED**.

The user is then removed from the list and can no longer access the Knox E-FOTA On-Premises instance.

Manage licenses

Knox E-FOTA On-Premises uses special licenses that can only be obtained through a Samsung representative. For steps on how to add a license, see Step 2: Add a license in the **Get started** tutorial.

To view your license information:

1. Log in to the Knox E-FOTA On-Premises admin console.
2. Click your account icon.
3. In the menu that's shown, click **Settings**.
4. The navigation sidebar refreshes with a new set of tabs. Click **License**.

The **License** page is displayed, with a list of the total workspaces and devices. As one license services all the workspaces within your Knox E-FOTA On-Premises instance, you can review this list to see how your license seats are distributed.

Underneath the workspace list, the Knox E-FOTA On-Premises license information is shown:

- **Purchased** — The total number of seats on your license.
- **Assigned** — The number of seats currently consumed by devices.
- **Remaining** — The number of seats available to be consumed by devices.

Your license key, its type, status, start date and expiry date are listed below the seat counts. You can also view your license expiration date in the welcome message on your **Dashboard.**

IMPORTANT — To prevent unexpected workflow issues, please renew or extend your license before its expiry date. If your license expires:

- You can still sign in to the console and view or retrieve information, but you won't be able to perform any campaign-related actions.
- You can still delete and unenroll devices from the console. If you unenroll a device, it reconnects to the B2C FOTA server and continues to receive regular firmware updates.

Manage firmware versions

To better organize and track firmware versions, Knox E-FOTA On-Premises includes a versions list that allows you to record firmware test results and block certain versions.

To view the versions list:

1. Log in to the Knox E-FOTA On-Premises admin console.
2. Click your account icon.
3. In the menu that's shown, click **Settings**.
4. The navigation sidebar pane refreshes with a new set of tabs. Click **Versions**.

The version list is then displayed with the following information:

- **TYPE** — Indicates whether the firmware is intended for deployment on devices (**user**), or for testing (**dummy**). See Create a test campaign to learn more.
- **OPEN DATE** — The date the firmware version was publicly released.
- **OS VERSION** — The Android version that corresponds to the firmware version.
- **SECURITY PATCH** — The date the security patch was publicly released.
- **FIRMWARE VERSION** — The full name of the firmware version. Click the name to view the firmware details, which includes a description and specific device information.

Above the list, you can filter by device **Model / Sales Code** or search by firmware version ID to quickly identify the firmware versions you need.

Click the **ACTIONS** menu to access more features:

- **Upload Versions** — Select and upload new firmware versions from your PC.
- **Mark as Tested** — Adds an icon to the **TEST RESULT** column to indicate that the firmware version was successfully tested for compatibility with business apps. When creating a campaign, selecting **Latest firmware (Tested)** as the target version allows you to update the latest tested firmware version from the **Versions** menu without modifying the campaign settings.
- **Unmark from Tested** — Removes the icon from the **TEST RESULT** column.
- **Add to Blocklist** — Locks the firmware version, preventing it from being downloaded and installed on devices.
- **Remove from Blocklist —** Unlocks the firmware version and allows it to be downloaded and installed on devices again.
- **Download Versions Scenario** — Downloads a JSON file that contains device version scenario information, including a list of changes between the current firmware version and the target version.

View the device agent version

The **Agent** tab provides an overview of the Knox E-FOTA On-Premises package version, or agent, that is to be or is currently deployed to your devices.

This screen displays the following details:

- **Deployment** — The deployment status of the agent, either **Started** or **Stopped**.
- **Package Version** — The version number of the agent.
- **Package Name** — The full name of the agent.
- **Release Date** — The date the agent version was made publicly available.

Click the **Actions** menu to view more options:

- **Upload Agent** — Opens a popup to upload an agent file. Click **BROWSER** to launch your PC's file explorer and select the file. Then, click **UPLOAD**.

The **Agent** screen is then refreshed with the new agent information.

- **Start Deployment** — Prompts the devices to start downloading and installing the agent the next time they poll for updates.
- **Stop Deployment** — Stops the devices from downloading and installing the current agent version.

Knox E-FOTA On-Premises 23.04 release notes

Improvements to the Knox E-FOTA firmware downloader

To reduce the number of firmware versions you need to download for your on-premises server, the Knox E-FOTA firmware downloader now allows you to select target firmware versions to download for your on-premises server.

The latest list of available firmware versions can be obtained as a input.json file from the Knox Admin Portal homepage. You can browse for this file in the firmware downloader, as well as a scenario.json file containing the current firmware versions of your enrolled devices.

After uploading these two files, you can then select specific firmware versions for download. Note that if your PC is behind a proxy server, you also need to enter your proxy server host IP and port before you can download the firmware.

Support for a certificate password field in configuration file

The Knox E-FOTA On-Premises agent now allows you to input required passwords through an additional field in the efota_config file. If you're familiar with the Android API, you can also add an [Android intent listener](#) to define the password.

See [Step 1: Download and install the agent app](#) for more details.

Improvements to service performance

Starting with the 23.04 release, Knox E-FOTA On-Premises now automatically evenly polls device groups for updates. If you allocated a maximum bandwidth per device in the campaign policy, the agent ensures it meets the download speed limit by stopping and starting the firmware download as needed.

Enhancements to bulk device deletion

Previously, Knox E-FOTA On-Premises didn't require additional confirmation from you when bulk deleting devices.

With the 23.04 release, when you delete devices in bulk, a dialog asks you to confirm before the operation begins.

Enhancements to device tags

Prior to the 23.04 release, Knox E-FOTA On-Premises only supported device tags up to 10 characters long. When the maximum device tag length was reached, no error message would display in the console.

To allow for easier differentiation between devices, device tags up to 45 characters long are now supported. Tag limitations are also dynamically shown as you enter the device tag — for example, an error message notifies you when you enter a tag 46 characters long.

Knox E-FOTA On-Premises 22.09 release notes

Support for high-availability clusters on Ubuntu OS

With the 3Q 2022 release, Knox E-FOTA On-Premises for the Ubuntu platform now supports high-availability (HA) clusters. Current Ubuntu installations of Knox E-FOTA On-Premises can be upgraded to enable HA support.

IMPORTANT — Only the Ubuntu installation package supports HA.

For the latest installation and upgrade guides, refer to [Knox E-FOTA On-Premises installation and upgrade guides](#).

Knox E-FOTA On-Premises 22.06 release notes

Support for Redhat Enterprise Linux (RHEL) 8.4

Previously, the Knox E-FOTA On-Premises installation package only supported RHEL 8.3. The RHEL 8.3 installation ISO image has since been removed from the project's official download center.

With this release, the Knox E-FOTA On-Premises installation package now supports RHEL 8.4.

Knox E-FOTA On-Premises 22.04 release notes

Updates to password hash algorithm

Previously, Knox E-FOTA On-Premises used the [bcrypt](#) password hash algorithm.

Starting with this release, passwords are now hashed with the [PBKDF2](#) algorithm to offer more flexible password security measures for high-security enterprises.

Benefits of the PBKDF2 algorithm include:

- Longer salt length and key length — 128 bits or higher

- Higher key iteration count — 10,000 or higher

- Lightweight pseudorandom function (PRF) — HMAC-SHA256 or HMAC-SHA512

Password length configuration

To comply with enterprise security regulations, Samsung installation engineers can now set a minimum and maximum length for user passwords. By default, the minimum password length is set to 8 characters, and the maximum is set to 12. The minimum password length that an installation engineer can set is 8-20 characters. The maximum length can be 12-30 characters.

IMPORTANT — Existing user passwords are not affected by this change. However, when an old password is updated, the new password must conform to the current policy.

Knox E-FOTA On-Premises 21.09 release notes

Support for Redhat Enterprise Linux 8

This Knox E-FOTA On-Premises release adds support for Redhat Enterprise Linux (RHEL) 8. This allows a wider range of support for RHEL from version 8 onwards. RHEL 8 offers container tools to support containerized applications, and also provides compatibility across new hardware architectures and environments.

Knox E-FOTA On-Premises 21.06 release notes

Support for firmware updates through Ethernet connection

This Knox E-FOTA On-Premises release adds a new feature that allows IT admins to update the firmware of devices through a USB Ethernet connection. This feature requires the use of a LAN cable and a USB-C Ethernet adapter.

See [Update firmware through Ethernet](#) for more details.