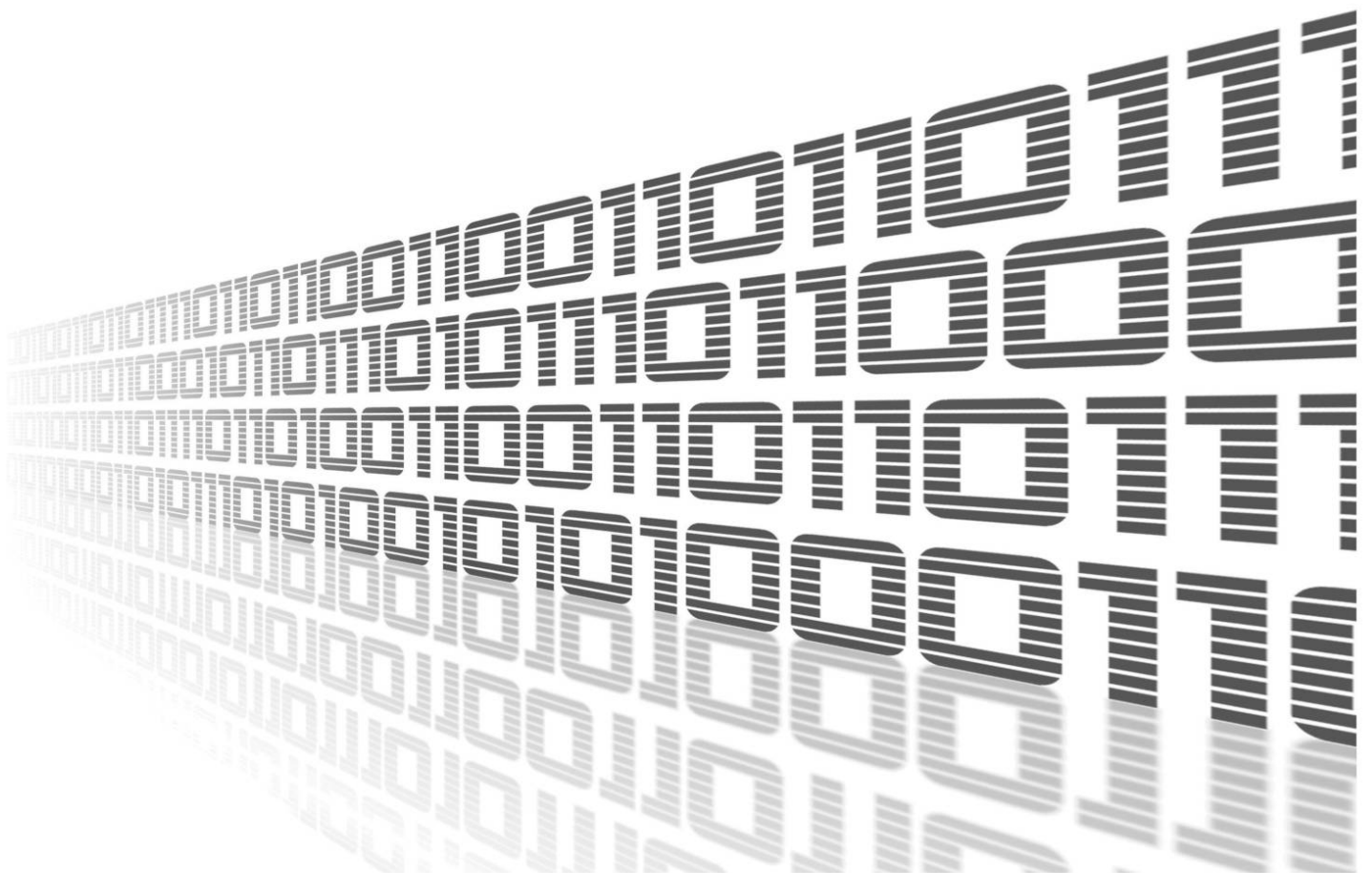


ADVANTECH



FOTA



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Used symbols



Danger – Information regarding user safety or potential damage to the router.



Attention – Problems that can arise in specific situations.



Information – Useful tips or information of special interest.

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1. Router App Introduction

1.1 FOTA Operation

The *FOTA* (Firmware Over-The-Air) is an additional feature for Advantech routers, enabling automatic or manual firmware updates for their cellular modules. It is important to note that only the cellular module’s firmware is updated, not the router’s main firmware.

For proper operation, the router must have an active Internet connection to access a FOTA server—either the default Advantech server or a custom-configured one.



Figure 1: FOTA Operation

1.2 FOTA Router App



Uploading incorrect cellular module firmware may irreversibly damage the device. **Updating firmware from any source other than the Advantech FOTA server is done at your own risk!**



The *Firmware Over-The-Air* router app is not included in the standard router firmware. Instructions for uploading this router app can be found in the Configuration manual (see Chapter [Related Documents](#)). This router app is not available for routers from the v2 production line.

Refer to the router’s configuration manual, specifically the section *Customization* → *Router Apps*, for information on how to install a router app. Once the FOTA router app is installed, access its web interface by clicking on the router app’s name. The left side of the interface will display the router app’s menu, as shown in Figure 2. To return to the router’s main web interface and menu, use the *Return* button located in the *Administration* section.

Status
Supported Modules
System Log
Configuration
Settings
Administration
Update
Return

Figure 2: Router App Menu

2. Status

2.1 Supported Cellular Modules

The *Supported Modules* page provides a list of cellular modules compatible with the FOTA router app. These modules are logically grouped by their respective manufacturers for easier navigation.

2.2 Logging Information

The *System Log* page displays log messages specifically related to the FOTA router app. This allows users to monitor the app's operation and identify any messages pertaining to configuration issues. Users can download these log messages as a text file (`.log`) by clicking the *Save Log* button. Additionally, a detailed report (`.txt`) can be generated for communication with technical support by clicking the *Save Report* button.

3. Configuration

3.1 Automatic Updates

This chapter details the configuration process for the FOTA router app when setting up automatic updates. If you prefer to perform only manual checks and updates, refer to the instructions in Chapter *Administration* → *Online Update*. To access the configuration settings, navigate to the *Settings* page within the *Configuration* section. To enable automatic updates, select the *Enable automatic update* checkbox and click *Apply*. The following table provides a comprehensive description of the configuration options and their impact on the FOTA router app's behavior.

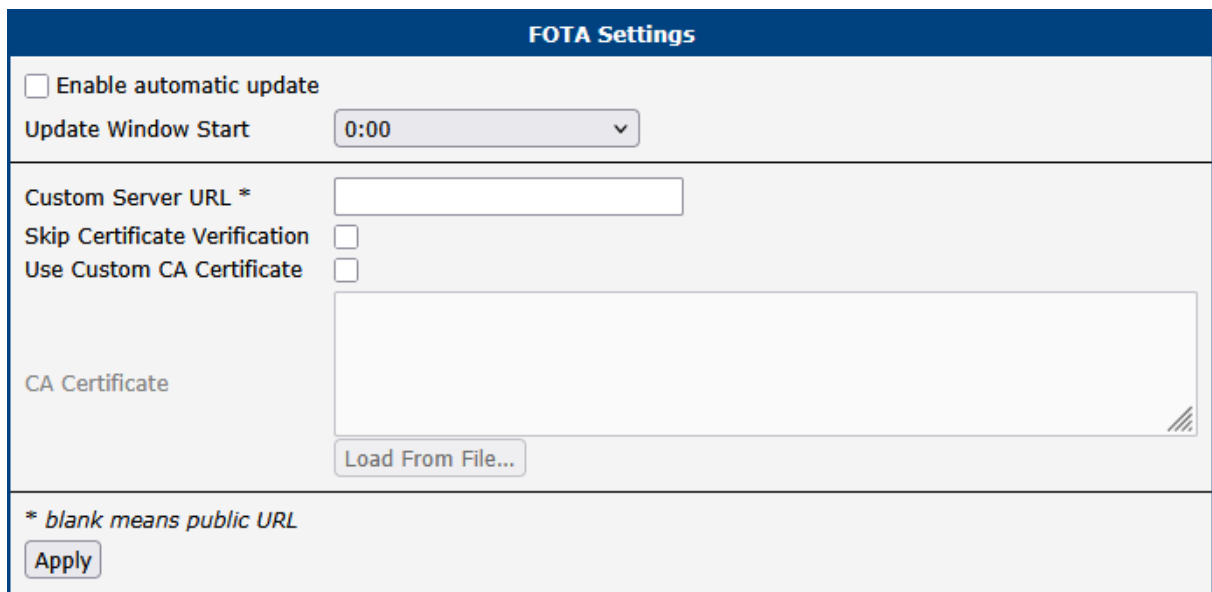


Figure 3: Automatic Update Configuration

Item	Description
<i>Enable automatic update</i>	Enables scheduled automatic updates. This option uses a preset connection to the Advantech FOTA server, which contains up-to-date firmware information.
<i>Update Window Start</i>	Allows selection of the specific hour when automatic updates should be performed. Users can also choose between <i>daily</i> or <i>weekly</i> update frequencies. Note that the update process may start with a delay of a few minutes from the scheduled time.
<i>Custom Server URL</i>	Provides an optional field to specify a different FOTA server address. You can specify either a <code>https:</code> path or a local <code>file:</code> path. A local path entry, for example for a mounted flash drive, may look like this: <code>file:///mnt/update</code> . Note that this custom URL must host a JSON file containing firmware information along with the actual firmware files. For more details, please contact the Support department.
<i>Skip Certificate Verification</i>	When enabled, this option allows the router to bypass the server's certificate verification process.
<i>Use Custom CA Certificate</i>	Enable this option to utilize a custom CA certificate instead of the default Advantech CA certificate.
<i>CA Certificate</i>	This field is used to paste or upload your custom CA certificate.

Table 1: FOTA Configuration

3.2 Firmware Update Process

Once automatic updates are enabled, the router establishes a connection to the configured server to check for new firmware. This check is performed according to the period specified in the *Update Window Start* setting.

The FOTA server hosts a JSON file that contains critical information, including cellular module names, associated firmware release numbers, dependencies, and links to the firmware files. The router app downloads this JSON file and compares the available firmware releases with the version currently installed on the device. If a newer firmware version is available, the corresponding file is downloaded. For a successful download, the router requires a stable Internet connection and a continuous power supply.

The router app consistently checks for new firmware updates when connected to the Internet, regardless of which interface is in use.

4. Administration

4.1 Online Update

The *Update* page, which serves as the main interface for the FOTA Router App, displays the currently installed cellular firmware version at the top. Below this, it lists all compatible firmware packages available for installation from the FOTA server, with the newest version shown first. To manually refresh this list, click the *Reload Available FOTA Packages* button. You can initiate the upgrade process for any compatible firmware by clicking its corresponding *Install* button.



It is also possible to perform an online update from a custom server by configuring its path in the *Custom Server URL* field, as detailed in the *Automatic Updates* section.

FOTA Online Update				
Module Model	ML620DE			
Release	0.3.4.1/ML620EUV14_RELEASE_20250516			
Load Available FOTA Packages Last check 2025-07-28 13:19:08				
0.3.4.1/ML620EUV14_RELEASE_20250616	18 MB	Install		
0.3.4.1/ML620EUV14_RELEASE_20250516	18 MB	Install	not upgradable from your version	
0.3.4.1/ML620EUV13_RELEASE_20240731	18 MB	Install	not upgradable from your version	

Figure 4: Update Page

The list below outlines messages you may observe in the last column of the available firmware list, along with recommended actions:

- *not upgradable from your version* → choose the highest upgradable version
- *requires ICR-OS x.y.z* → update the router’s firmware first
- *requires FOTA x.y.z* → update the FOTA router app first



When you hover the mouse over a firmware entry in the list, a pop-up window appears showing the compatible firmware versions available for an upgrade. Similarly, hovering over the firmware size will display the actual filename of the firmware.

4.2 Return

The *Return* button allows you to navigate back to the router’s main web interface and the primary menu.

5. Related Documents

You can obtain product-related documents on the *Engineering Portal* at the icr.advantech.com address.

To get your router's *Quick Start Guide*, *User Manual*, *Configuration Manual*, or *Firmware*, go to the [Router Models](#) page, find the required model, and switch to the *Manuals* or *Firmware* tab, respectively.

The *Router Apps* installation packages and manuals are available on the [Router Apps](#) page.

For the *Development Documents*, go to the [Development](#) page.