FortiExtender - Release Notes

Version 4.1.1

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July 8, 2019
FortiExtender 4.1.1 Release Notes

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Change log

Date	Change Description
July 8, 2019	First revision, adding specific information about modem firmware upgrade in the "Special notes" section.
June 18, 2019	FortiExtender 4.1.1 initial release.

Introduction

This Release Notes highlights the important information about FortiExtender 4.1.1 (Build 126). It covers the following topics:

For more information, see the FortiExtender 4.1.1 Admin Guide.

What's new in FortiExtender 4.1.1

- FortiExtender-201E, a new hardware platform which features one WAN port and four LAN ports.

Supported hardware models

FortiExtender 4.1.1 supports the following hardware models:

- FortiExtender-40D-AMEU
- FortiExtender-201E

All built-in modems can be upgraded with compatible, operator-specific modem firmware. Both FortiExtender-40D-AMEU and FortiExtender-201E use the Sierra LTE-A EM7455 modem.

Special notes

- When upgrading to the FortiExtender 4.1.1 software image, you must upgrade the modem firmware as well. You can either upgrade the entire firmware package Version 19.0.0 or only the firmware/pri Version 02.30.01.01 inside the package.
- Upon reboot, FortiExtender tries to discover FortiGate or FortiExtender Cloud that manages it, depending on your existing configuration. Because of this, there could be a delay of a minute of two when the device is trying to reconnect to FortiGate or FortiExtender Cloud after reboot.

Upgrade instructions

You can upgrade to FortiExtender 4.1.1 from FortiExtender 3.3.x and up.

The Sierra LTE-A EM7455 modems residing in FortiExtender-40D-AMEU and FortiExtender-201E must also be upgraded with compatible operator-specific modem firmware.

Firmware upgrade procedures

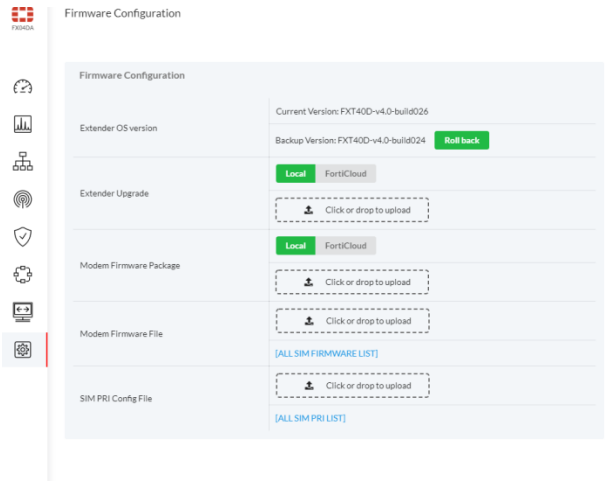
Modem firmware packages with `.out` extensions can be downloaded and unzipped from Fortinet Support website. Your unzipped package contains the Sierra LTE-A EM7455 modem firmware, which consists of two types of files:

- A PRI file with the filename extension ".nvu"
- A firmware file with the filename extension ".cwe"

Both types of files are required to be flashed onto the modem to connect to the operator of your choice.

Upgrade via the FortiExtender (device) GUI:

1. Log into FortiExtender.
2. On the navigation bar on the left, click **Settings**.
3. From the top of the page, select **Firmware.**
4. Select **Extender Upgrade > Local,** as illustrated below.



When connected to the Internet, FortiExtender is able to pull the OS images and modem firmwares directly from FortiExtender Cloud, irrespective of its deployment status.

Product integration and support

Modes of operation

FortiExtender 4.1.1 can be managed from FortiGate, FortiExtender Cloud, or locally independent of FortiGate or FortiExtender Cloud. When deployed in the Cloud, FortiExtender can be centrally managed from FortiExtender Cloud; when managed by FortiGate, the device searches for a nearby FortiGate to transition to Connected UTM mode; when managed locally, it functions as a router providing services to other devices. For more information, see FortiExtender Cloud Admin Guide and FortiExtender 4.1.1 Admin Guide.

The table below describes FortiExtender's modes of operations in these scenarios.

Management scenario	Mode of operation	
	NAT	IP Pass-through
FortiGate	No	Yes
FortiExtender Cloud	Yes	Yes
Local	Yes	Yes

Integration with FortiExtender Cloud has not been implemented yet.

Supported Web browsers

FortiExtender 4.1.1 supports the latest version of the following web browsers:

- Google Chrome
- Mozilla Firefox

Other Web browsers may function as well, but have not been tested.

Configuration help

FortiExtender 4.1.1 supports the following CLI commands for device status and configuration. For more use cases and advanced configuration options, refer to the FortiExtender 4.1.1 Admin Guide.

Status commands

Command	Description
`get system version`	Displays the device's hardware and software versions.
`get modem status`	Displays detailed modem status information.
`get extender status`	Displays the connectivity status of the FortiExtender device to its master.
`get cpm status`	Displays SSL tunnel information and connectivity status.

Configuration commands

Typically, when deployed in the Cloud, FortiExtender is able to download its configuration from FortiExtender Cloud. However, you can still configure the device locally, using the commands below.

To change the default SIM

The default SIM is sim1. You can change it to sim2 using the following commands:

```
config lte setting modem1
   set default-sim sim {1 | 2}
end
```

To select a preferred carrier

```
config lte setting modem1
   set preferred-carrier <carrier name>
end
```

To enable SIM-switch

```
config lte setting modem1
   set smart-switch enable
end
```

To add a new carrier profile

```
config lte carrier
edit <carrier>
```

```
   set firmware <firmware name>
   set pri <pri name>
next
```

To add new operator/carrier

```
config lte simmap
edit <carrier>
   set mcc <first 3 digits of the IMSI number>
   set mnc <next 2 digits the IMSI number>
   set carrier <carrier name from the newly created carrier profile>
next
```

To add new data plan

```
config lte plan
   edit <plan name>
      set carrier <carrier name>
      set apn <carrier apn>
      set capacity <data plan in MB>
      set billing-date <billing date>
      set overage {enable | disable}
   next
end
```

To manage FortiExtender locally (without FortiGate or FortiExtender Cloud)

```
config system management
   set discovery-type local
   config local
      set mode ip-passthrough
   end
end
```

Known issues

The following are the known issues discovered in FortiExtender 4.1.1.

Bug ID	Description
0543535	When using thinner-than-normal SIM cards, the user may need to use some extra materials such as a tape to fit them into the SIM card sockets properly
0559512	DHCP server configurations may not be applied correctly.
0562982	FortiExtender-201E does not support VLAN mode.

Resolved issues

The following are the issues fixed in FortiExtender 4.1.1.

Bug ID	Description
0532889	The user was able to delete the default predefined service configuration from the GUI.
0531678	FortiExtender Cloud should allow users to configure their SIM pins.
0535692	The standalone/local mode GUI needs improvements.
0536967	The GUI should provide some hint or tip to help the user configure port ranges correctly.
0536792	The CLI needs some modifiers to fine-tune the display of modem firmware information.
0535976	A screen message is needed to inform the user of the status of OS upgrade.
0534278	TX and RX enhancements are needed in the GUI.
0531626	The GUI should show CPU and memory usage.
0531362	Disabling data plan overage may not work properly.
0534063	The user was allowed to create duplicate SIM MAP entries.
0526725	Route configurations were erased after upgrade or reboot.
0540500	The `'get modem status'` command gets incomplete modem status information.
0537293	The IPSEC daemon would create duplicate VPN tunnels.
0536734	The system needs to support for non-default capwap data channel port (other than 25246).
0516174	The CLI should allow the user to sniff packets on the wireless LAN interface.
0564683	The user was unable to change the password after factory reset.