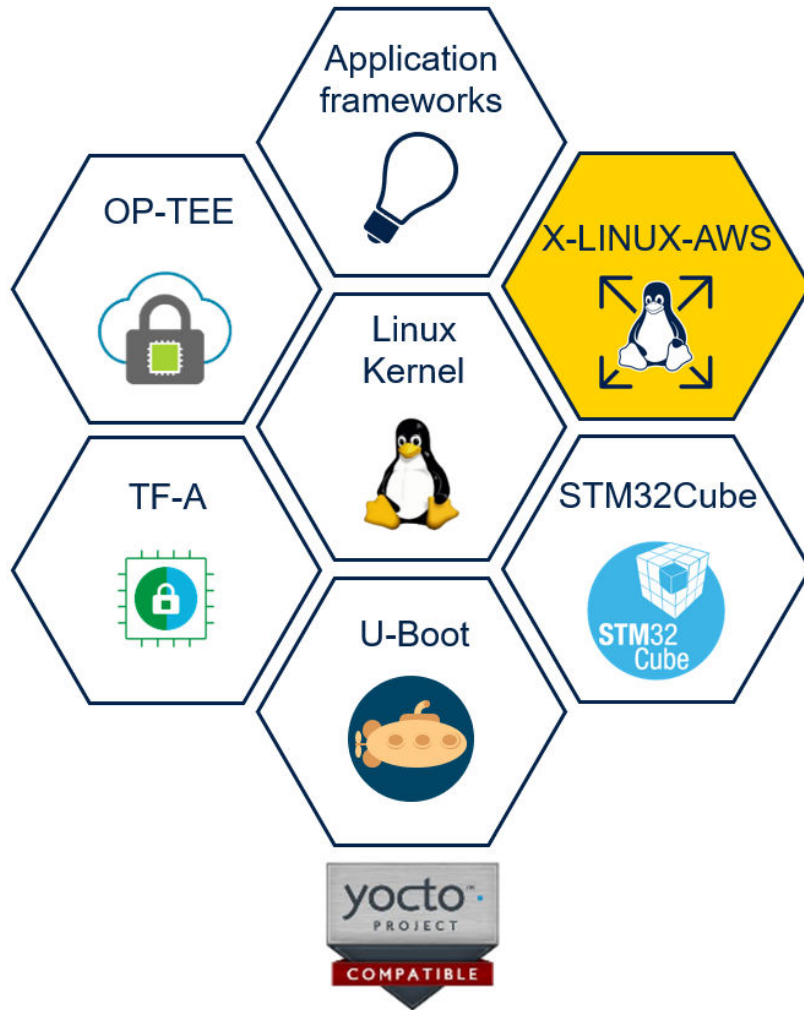


AWS IoT Greengrass™ Expansion Package for STM32 MPU OpenSTLinux



DT73557V1

Product status link

[X-LINUX-AWS](#)



## Features

- AWS IoT Greengrass™ V2 integration
- Secured credential storage with OP-TEE or the [STPM4RasPI](#) extension board
- Application sample based on GTK® to publish and subscribe on MQTT topics
- Compatible with the Yocto Project® build system MickleDore
- Validated over the OpenSTLinux Distribution v5.1 on [STM32MP135F-DK](#) and [STM32MP257F-EV1](#)

## Description

X-LINUX-AWS is an STM32 MPU OpenSTLinux Expansion Package that targets Amazon Web Services® AWS IoT Greengrass™ V2 for STM32MP13xx and STM32MP25xx microprocessors.

It integrates the Greengrass nucleus component to connect to AWS IoT Core™ to start and accelerate the development of an IoT solution.

In addition, this OpenSTLinux Expansion Package provides good security practices with the integration of a secure solution for credential storage. This solution is based on the usage of OP-TEE and TPM.

X-LINUX-AWS includes a demonstration application in which the AWS IoT Greengrass™ core device subscribes and publishes on a local MQTT network and on AWS IoT Core™. This is achieved through the component deployment of an MQTT broker and bridge.

## 1 General information

The X-LINUX-AWS Expansion Package runs on STM32 microprocessors based on Arm® Cortex® processors.

*Note:* Arm is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.



### 1.1 Ordering information

X-LINUX-AWS is available for free download from the [www.st.com](http://www.st.com) website.

### 1.2 Versioning

Since its release v5.1.0, the major and minor versions of the X-LINUX-AWS OpenSTLinux Expansion Package are aligned on the major and minor versions of the OpenSTLinux Distribution. This prevents painful backward compatibility attempts and makes dependencies straightforward.

The X-LINUX-AWS generic versioning vx.y.z is built as follows:

- **x:** major version matching the OpenSTLinux Distribution major version. Each new major version is incompatible with previous OpenSTLinux Distribution versions.
- **y:** minor version matching the OpenSTLinux Distribution minor version. Each new minor version might be incompatible with previous OpenSTLinux Distribution versions.
- **z:** patch version to introduce bug fixes. A patch version is implemented in a backward-compatible manner.

### 1.3 License

X-LINUX-AWS is delivered under the *Mix Ultimate Liberty+OSS+3rd-party V1* software license agreement (SLA0048).

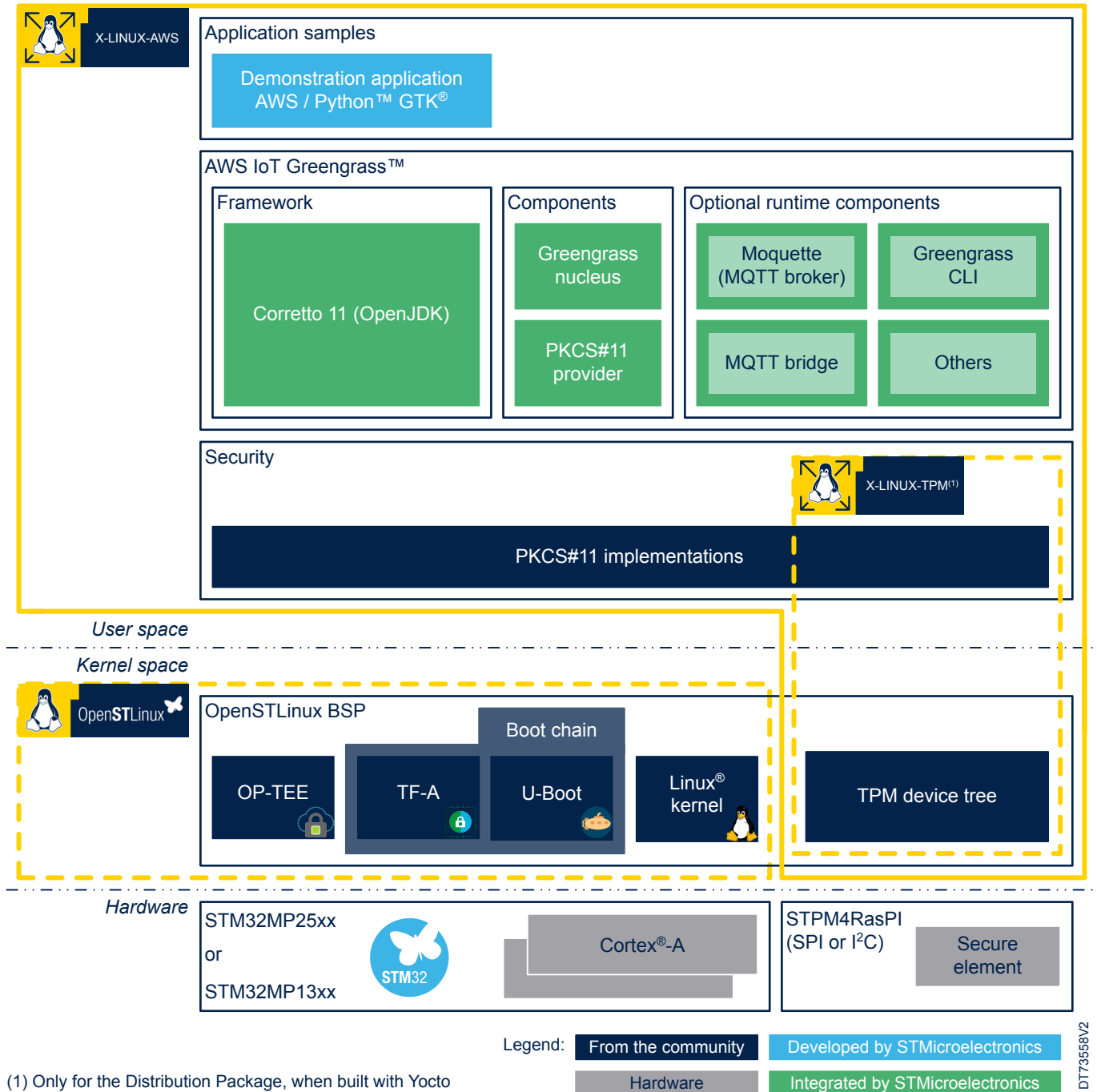
#### Software component license agreements

The software components provided in this package come with different license schemes. Refer to [wiki.st.com/stm32mpu/wiki/X-LINUX-AWS\\_licenses](http://wiki.st.com/stm32mpu/wiki/X-LINUX-AWS_licenses) for details.

## 2 Software architecture

The top-level architecture of the X-LINUX-AWS OpenSTLinux Expansion Package is shown in Figure 1.

**Figure 1. X-LINUX-AWS architecture**



## Revision history

**Table 1. Document revision history**

Date	Revision	Changes
29-Feb-2024	1	Initial release.
25-Jun-2024	2	Updated: <ul style="list-style-type: none"><li>• Ecosystem 5.1</li><li>• <a href="#">Versioning</a></li></ul> Added: <ul style="list-style-type: none"><li>• Support for STM32MP257F-EV1</li></ul>

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