X-CUBE-AZURE

Microsoft® Azure IoT software expansion for STM32Cube

Data brief

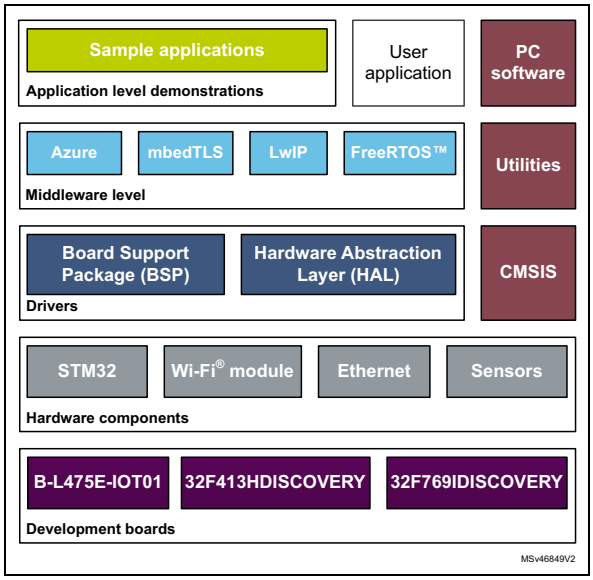
Features

- Ready to run firmware example using Wi-Fi® and Ethernet connectivity to support quick evaluation and development of Microsoft® Azure cloud applications
- Interface to configure the board for connection to the Microsoft® Azure IoT Hub
- Microsoft® Azure IoT Hub, and bidirectional communication examples implemented
- Specific features on the B-L475E-IOT01 board such as measurement of humidity, temperature, 3-axis magnetic data, 3D acceleration, 3D gyroscope data, atmospheric pressure and time-of-flight

Description

The X-CUBE-AZURE software expansion package consists of a set of libraries and application examples for STM32L4 Series, STM32F4 Series and STM32F7 Series microcontrollers acting as end devices.

X-CUBE-AZURE runs on three platforms. The B-L475E-IOT01 and 32F413HDISCOVERY boards support Wi-Fi® connectivity with an on-board Inventek module. The 32F769IDISCOVERY board natively provides an Ethernet interface.



For the three boards, a sample application configures the Wi-Fi® parameters if Wi-Fi® is used, and illustrates the various ways for an Azure device to interact with an Azure IoT Hub.

Ordering information

X-CUBE-AZURE is available for free download from the *www.st.com* website.

License

The X-CUBE-AZURE embedded software package runs on STM32 microcontrollers, based on Arm® cores.

X-CUBE-AZURE is delivered under the *Mix Liberty + OSS + 3rd party V1* license.

The software components provided in this package come with different license schemes as shown in *Table 1*.

For more details, refer to the license agreement of each component.

Table 1. Software component license agreements

Software component	Owner	License
Microsoft® Azure IoT SDKs	Microsoft® Corporation	MIT
Board Support Package (BSP)	ST	Open source BSD
Cortex®-M CMSIS	Arm®	Open source BSD
FreeRTOS™	2016 Real Time Engineers Ltd	Modified GNU GPL(1)
HAL STM32 L4/F4/F7	ST	Open source BSD
Inventek driver	ST	Ultimate Liberty (source release)
LwIP	2001-2004 Swedish Institute of Computer Science	Open source BSD
mbedTLS	Arm®	Apache License - Version 2.0
Project examples	ST	Ultimate Liberty (source release)

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Revision history

Table 2. Document revision history

Date	Revision	Changes
06-Jul-2017	1	Initial release.
18-Oct-2017	2	Updated *License*.