

Cypherbridge® Systems Cyclone™ IoT Device Kit



**Cypherbridge
Systems**

Overview

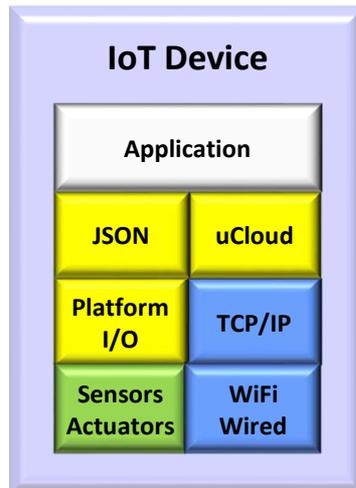
The Cyclone IoT Device Kit delivers a leading edge solution for connected devices. The explosive growth of internet connected devices calls for solutions to meet the surging demand for big data security and scalability.

The CDK is built with the industry proven uSSL TLS 1.2 SDK

The uCloud Device Client connects with the Cyclone cloud server. Device and server are authenticated on multiple levels. Data topics are subscribed and published by the device. Device sensors, interfaced through the platform I/O layer, generate messages to the cloud. Messages are replicated to subscribers that dispatch data updates to actuators via the platform I/O layer.

The uCloud TCP/IP interface supports WAN connectivity via Wired Ethernet, WiFi, and cellular.

The CDK is ideal for Gateway products that interface wireless LAN device networks including ZigBee, Enocean, NFC and Bluetooth.

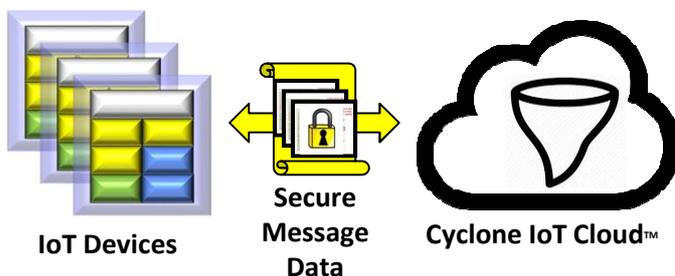


Cloud Transfer

The CDK connects to the Cloud using TLS protocol. The session includes optional 2WAY X509 certificate authentication. After the TLS channel is up, then the cloud authenticates the device providing an additional security layer and ability to manage and revoke access for a specific device or project deployment. Access to project groups and topics are defined by Access Control Lists to grant or deny publish and subscribe access.

Using the CDK

The application linked to the CDK library starts the uCloud data topic subscriber, publisher or both. Multiple data topics can be defined by wildcard. Wired and wireless I/O channels including ModBus, CAN, I2C, SPI, can be integrated with uCloud I/O layer as message topics to add cloud capability to product designs.



Encrypted File System

The uFile Toolkit implements a FAT32 based file system that uses the shared uSSL TLS uCRYPT library to encrypt files on the media. At-rest media is protected on the embedded platform and removable media, to insure privacy and data integrity for a complete end-to-end system security model.

Features

- ✓ Add cloud based control and visualization support
- ✓ Replicate and Synchronize highly scalable big data
- ✓ MQTT standards based Direct-to-Cloud connection interoperates with leading cloud services
- ✓ System level solution includes Cyclone IoT cloud managed service
- ✓ uCloud Device Client includes MQTT, tiny JSON, platform I/O layer
- ✓ TLS secure MQTT v3.1.1 protocol includes sub/pub APIs with session options, unique client ID generation, Auth credentials, QoS levels 0,1,2, Wildcard topics, Last will topic
- ✓ Multi-layer authentication, access control and data security
- ✓ Supports IAR, Keil, GCC and all other toolchains

Options

- ✓ Protect at-rest data using uFile encrypted file Toolkit, FAT32 compatible for SD, USB and other media.

For Pricing and Availability

Cypherbridge Systems, LLC
7040 Avenida Encinas #104211
Carlsbad CA 92011 USA +1 (760) 814-1575
www.cypherbridge.com
sales@cypherbridge.com

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