KitOS
FEATURES

Firmware And Device Support

Out-of-the-box support for common single-board computers (Raspberry Pi, Beagle Bone)

Buildroot-based toolset for porting to any Linux-capable system

Simple and robust firmware upgrade strategy to recover from bad firmware upgrades

Firmware Security

Secure Boot

Filesystem encryption

Hardware security module integration

Networking

Support for Ethernet, WiFi and Cellular network interfaces

Smart network interface selection strategy

On-Device Applications

Docker-based API and container runtime for running applications on the device

Device API for firmware, configuration and device management

Device API is exposed to on-device applications using multiple transports: HTTP/WebSocket and Redis

Device API can optionally be exposed to other devices on the local network

Near-Device Integration

Device API can optionally be exposed devices nearby via. Bluetooth

Cloud Integration

Optional cloud uplink to expose the Device API for remote management (MQTT based)

On-Device Data Processing

Local data bus for real-time stream processing

Stream Uplink

Real-time data delivery to cloud

Robust local storage on connection failure to avoid data loss