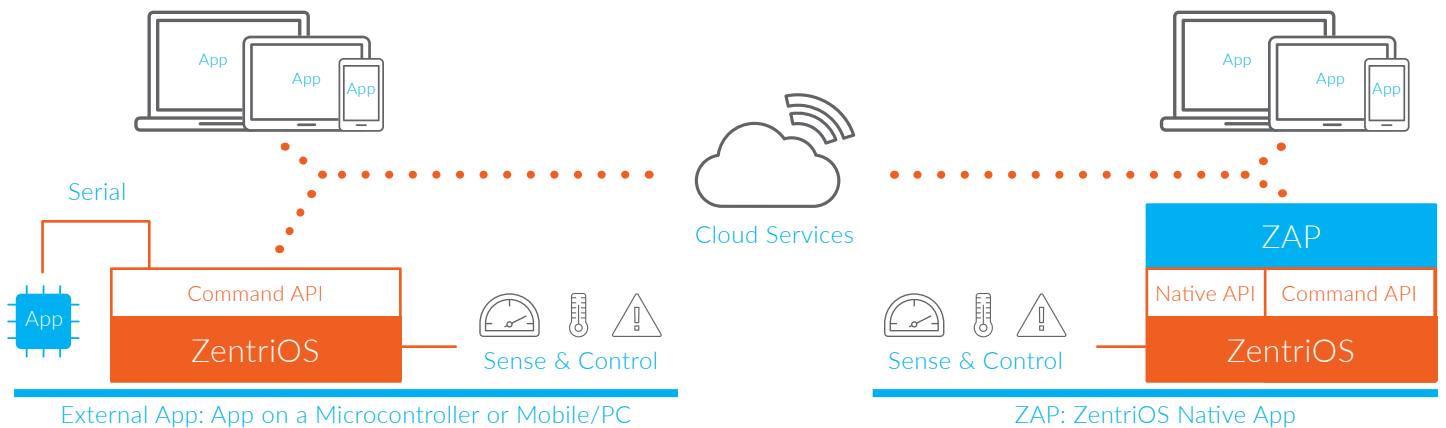


ZentriOS is the connectivity operating system of choice for resource constrained Internet of Things (IoT) devices. ZentriOS accelerates time-to-market by providing a common software foundation across multiple product lines.

ZentriOS, part of the Zentri Secure Connected Platform for IoT, provides integrated security, sophisticated network connectivity features, file management, rich peripheral interfaces, and much more. ZentriOS abstracts the complexity of connectivity so developers can focus on what they do best - build great products.



Applications can be run in an External App or as a ZAP, embedded directly in an encrypted sandbox within ZentriOS

ZentriOS provides the secure connectivity foundation that enables a device to wirelessly connect and be delivered to market in weeks versus years.

It can be used either with an external app, as the central operating system with a native app (see image above for both scenarios), or as a hybrid of both. These scenarios enable optional product portfolio manageability through the device management service, ZentriDMS, and can instantly connect into any other cloud service with Zentri Cloud Connectors.

Running ZentriOS as the core operating system in a primary microcontroller reduces overall development, manufacturing, product launch, and product maintenance costs, while preserving pivotal product security.

The ZentriOS SDK enables an organization's development of lightweight, custom embedded applications, called ZAPs. ZAPs add product-specific functionality or features in only a few hundred lines of code or less in applications that would otherwise require tens of thousands of lines of code. They can collect and send product specific data to the designer's

selected cloud service and can optionally receive over the air (OTA) updates and premium upgrades through ZentriDMS. Authorized product users can efficiently browse, download, or deploy the ZAPs that are centrally located in the ZAP store, the organization's Embedded Application Store.

ZentriOS is designed to run on resource constrained hardware platforms such as ARM Cortex® M-series processors with less than 100kB RAM. The feature rich web server allows any internet connected device to easily communicate with the embedded device from a web browser or app via secure HTTP/HTTPS or RESTful API/Websockets. ZentriOS also integrates a read/write flash memory based file system with a capacity of up to 128MB.

ZentriOS is a component within the Zentri Secure Connected Platform for IoT which includes Zentri Cloud Services with the advanced device management service, ZentriDMS and the Zentri Mobile App SDK to transform product purchases into secure product experiences.

CONNECTIVITY

ZentriOS provides products with a common connectivity interface, allowing familiar access to connectivity features. All connectivity features are accessible via a physical serial interface or wireless interface including web browsers or mobile apps.

SUPPORTED CONNECTIVITY INCLUDES

Wi-Fi: ZentriOS supports concurrent Wi-Fi client and softAP modes and network and cloud services, including a webserver with REST API, secure wireless OTA update, failsafe bootloader, and extensive support for peripherals.

Bluetooth Low Energy (BLE): A configurable version of ZentriOS runs on BLE modules with significant resource constraints to deliver best in class power performance and cost.

Cellular Fail Over Support: ZentriOS provides interfaces and customizable options to connect with cellular modules when a local network connection is unavailable.

Ethernet: ZentriOS supports Ethernet and is ready to deliver high levels of deterministic connectivity performance for products when a wired network connection is available or preferred.

Multi-connection, SoftAP & Network Discovery: Soft access point modes (SoftAP) allow direct connectivity between ZentriOS and mobile devices (smartphones/tablets) with multiple connections so a customer's connection won't drop even when there is no internet.

The range of products powered by ZentriOS includes those with low power, high response/low latency requirements, applications, and those with strict security and compliance standards, such as those for financial or medical institutions.

SECURITY

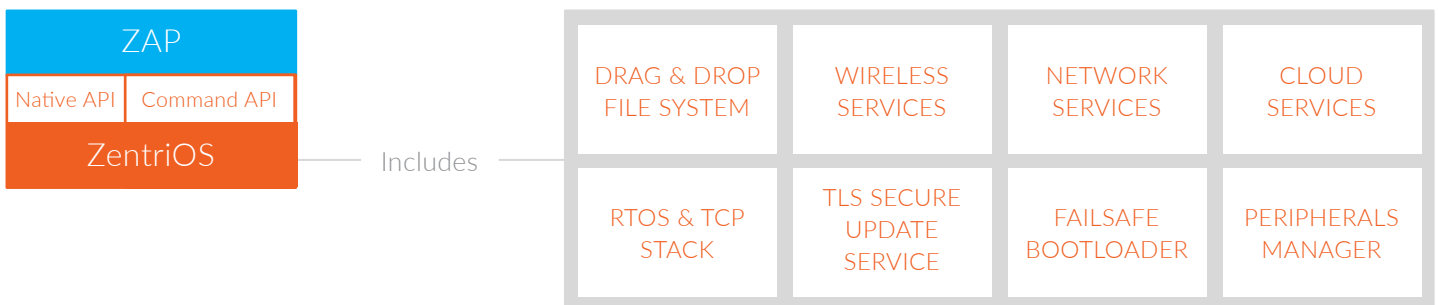
ZentriOS was purpose-built for resource constrained IoT connected devices to defend the product and the customer's brand reputation from security threats. Security is often ignored or addressed as an afterthought in most IoT designs despite assumptions of adequate security. This casual thinking promotes vulnerabilities and can expose valuable consumer data to those with malicious intent.

Zentri differentiates itself with production-level security able to scale with multiple product lines. The employed security model starts in production, extends to both the data at rest and the software image on the device, and to the data in motion where all data is protected from end to end.

Security is deeply integrated in the platform and is easily consumed by the product developer and the end users. ZentriOS, embedded applications, and data are secured with a random, per-device, unique encryption key while enterprise grade device management is provided with per-device X.509 digital certificates signed per-company.

When connecting to a cloud service, ZentriOS supports the latest TLS protocols that use client and server verification, because ultimately, data is only as secure as the data on the device.

ZentriOS is available on both Zentri branded hardware and licensable on a number of 3rd party platforms.



BUILD YOUR SECURE CONNECTED PRODUCT TODAY

Get your evaluation development kit at www.zentri.com or contact us now to advance your IoT product time to market with the Zentri platform.