USSP and all hardware are designed and built in the United States

UNIVERSAL SMART SENSOR PLATFORM (USSP)

The Universal Smart Sensor Platform (USSP) is a fully integrated, interoperable and scalable IoT Platform with built-in intelligence, extended wireless capabilities, enhanced security and power management, allowing for standardized, streamlined, cost-effective IoT deployments and applications.

Click for details

Cost Effective

Interoperable

Plug & Play

AES-256 Encryption

Over-the-Air Programming

Integrated Network Solutions

Unlock the Potential of IoT

Integrated
Network Solutions

For More Information
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Intelligence at the Edge
USSP devices have built-in processing and remote programming capabilities to enable AI and distributed computing capabilities.

Device & Data Security
The USSP Operating System is programmed directly on our own unique firmware, AES-256 encryption is used with a 4-Phase Commit strategy ensuring the integrity of each data packet.

Extended Wireless Range
Sensors transmit up to 1/2 mile (line-of-site) and may be extended up to 20 miles. The USSP Protocol does not interfere with devices using other protocols such as Wi-Fi, Bluetooth, ZigBee or LoRaWAN.

Interoperability
The USSP platform seamlessly integrates with other IoT technologies and protocols. Any sensors with up to a 3.5-volt input or less can be added to the platform.

Power Management
Battery powered USSP Devices last for up to 10+ years depending on system and update requirements. Rechargeable sensors can also be wired to existing or renewable power sources.

USSP Protocol — AES-256 Data Packets

USSP Sensor Devices — USSP Routers & Gateways — IoT Platform — IoT Client
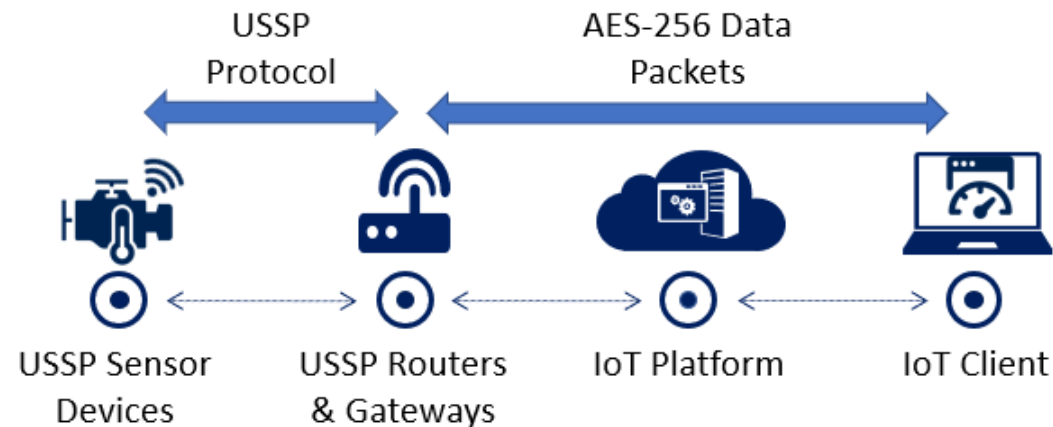
Key Elements

- USSP Readers automatically recognize and connect with USSP Sensor Devices and with other USSP Readers and Routers enabling mesh networking capabilities.

- Each Reader can connect to over 500 simultaneous Sensor Devices and can be further extended as needed.

- The USSP Protocol uses AES-256 encryption to protect sensor data from the point of capture until it is successfully received and decrypted by the IoT client.

- A "4 Phase Commit" strategy is implemented to verify the integrity of each data packet throughout the transmission channel.

Integrated Network Solutions

The USSP Difference

Internet of Things (IoT) technology is the foundation for sensor-based systems to gather, process and share information. The growth of IoT continues at an exponential growth rate across all sectors including business, industrial, healthcare and personal applications. The global IoT market is expected to grow from $544 billion in 2022 to $3.3 trillion in 2030 representing a compounded annual growth rate of 26%.

Even with this pace of adoption, the IoT ecosystem remains divided into four segmented silos adding costs, risks and unnecessary complexities to IoT deployments.

1. Local Wireless Sensor Networks
2. IoT "Edge" components including Sensors, Gateways and Routers
3. IoT Applications
4. IoT Cloud Servers or Back-End Databases

This segmentation of technologies and lack of standards are becoming critical issues in the market as IoT systems become larger and more mission critical. USSP addresses all these challenges by providing a customizable plug & play IoT platform that is secure, scalable and affordable.

USSP Solutions

Existing IoT USSP Applications and Solution Frameworks include:

- Industrial Performance Management & Injury Prevention
- Monitor Livestock for Health, Breeding, Activity & Location
- Automotive "One Wire" Solution
- Concussion/Overheating Monitoring & Prevention
- Tremor Testing, Monitoring & Analysis
- Athletic Performance Management
- Trucking & Logistics
- Smart Agriculture & Field Management
- HVAC Theft & Vandalism Prevention