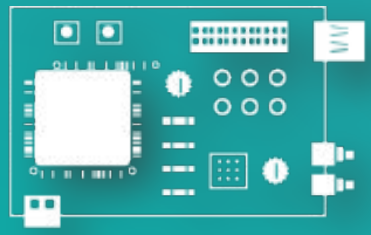
Cobweb IO

A Social Network for Smart Devices

Cloud based middleware solution for Internet of Things

Understanding Cobweb IO



Your device or gateway

We start with your device, be it a sensor, a gateway or something else.
To find out how to get it connected, search our recipes.

MQTT/CoAP/HTTP

Your device data is sent securely up to the cloud using the open, lightweight MQTT messaging protocol.

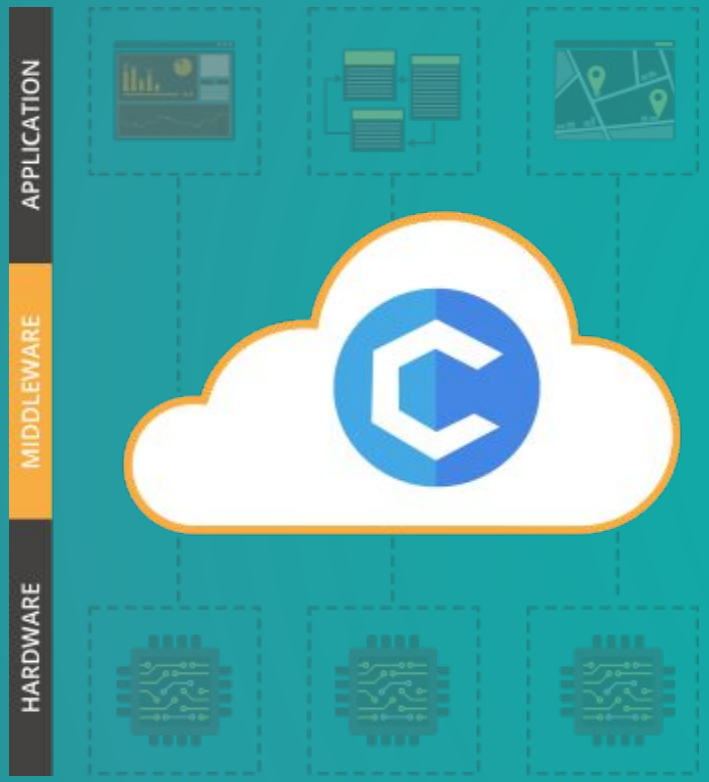
REST & Real-time APIs

Use our secure APIs to connect your apps with the data coming from your devices.

Cobweb IO

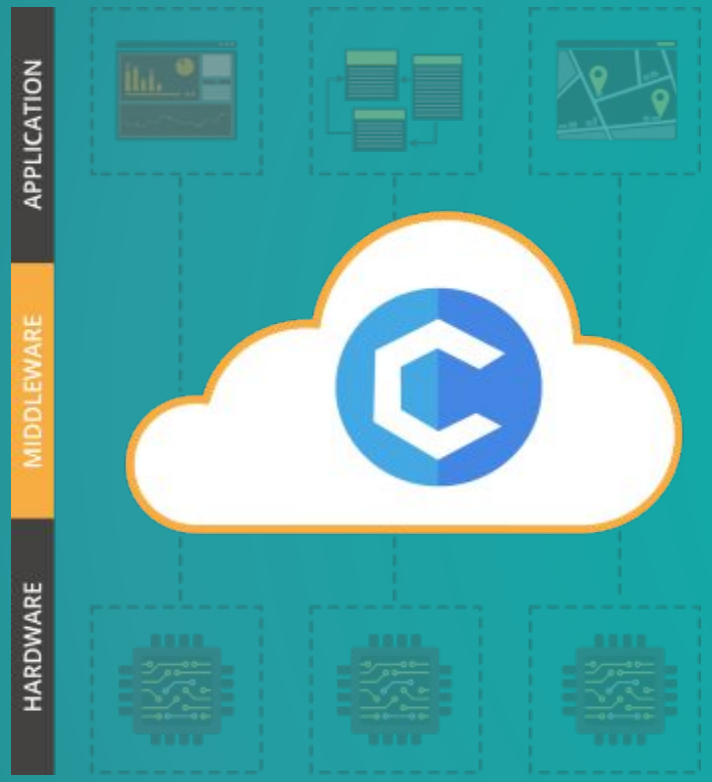
Your application and analytics

What is Cobweb



- ✓ Cobweb is a middleware platform for rapid creation of IoT solutions
- ✓ Reliable foundation for developing your connected products
- ✓ Customizable middleware that implements necessary functional patterns for the IoT
- ✓ Transport-agnostic link between the hardware and application worlds
- ✓ Feature-rich platform for advanced applications — much more than just a message bus
- ✓ Cloud enablement software for your hardware products

What Cobweb Does

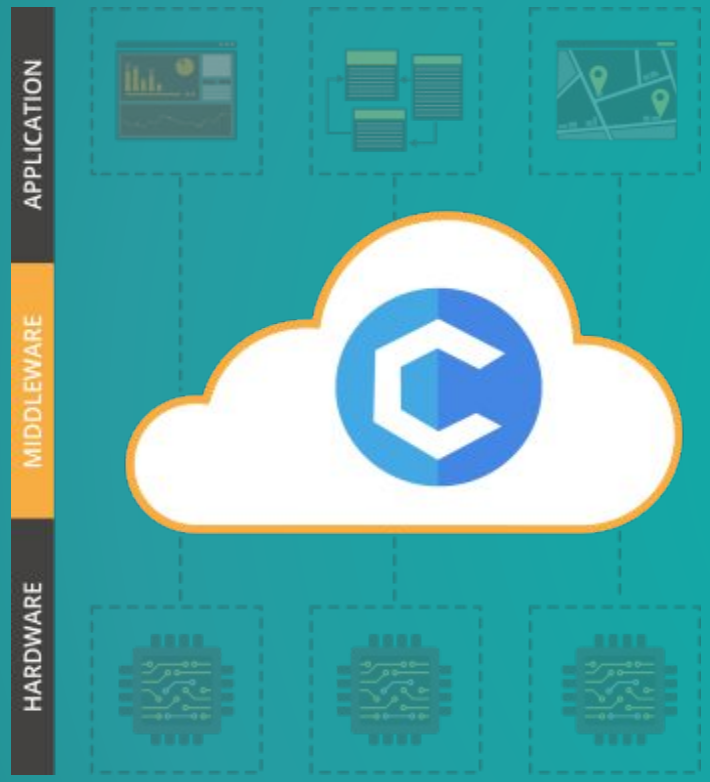


Cobweb significantly expedites the time to market for connected products, greatly reduces the associated price and risk, and scales up organically as the business grows

With Cobweb you can:

- ✓ Build active device inventory, capture physical and logical specs for each device
- ✓ Collect and analyze real-time telemetry data
- ✓ Perform device management, provisioning, and configuration
- ✓ Enable near real-time communication across devices
- ✓ Make engineers happier by leaving complex, time-consuming, and mundane tasks to Cobweb

Why Cobweb is Different

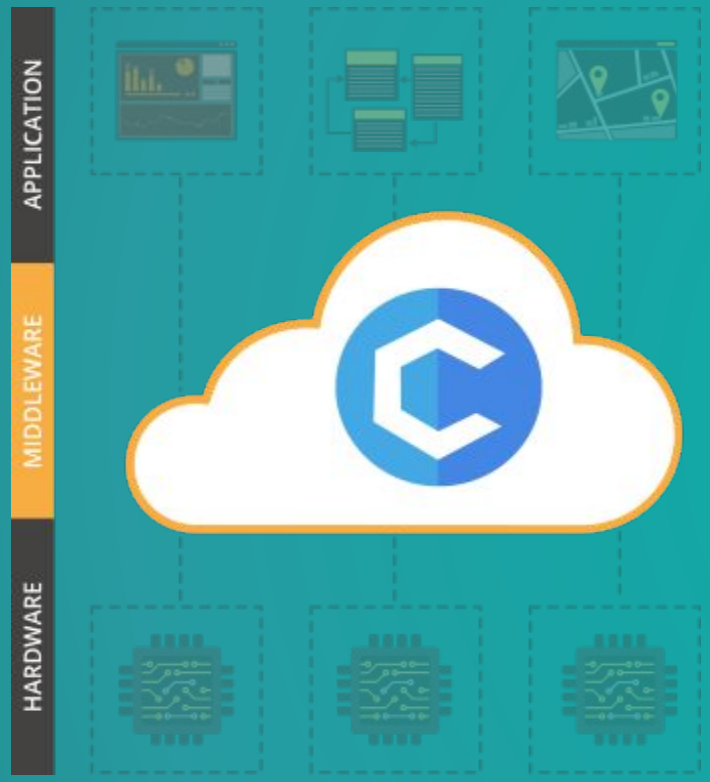


Cobweb is an IoT platform like no other

Here's why:

- ✓ 100% open-source and free to use
- ✓ Can be deployed anywhere: on-premises, in cloud, or mixed
- ✓ Supports virtually any hardware from low-power MCUs to major Oss
- ✓ Transport-agnostic, can use virtually any communication layer
- ✓ Promotes structured data that is easy to use and handle
- ✓ The Cobweb server can be scaled up, with zero downtime, to handle millions of connected devices by merely adding more nodes to the cluster

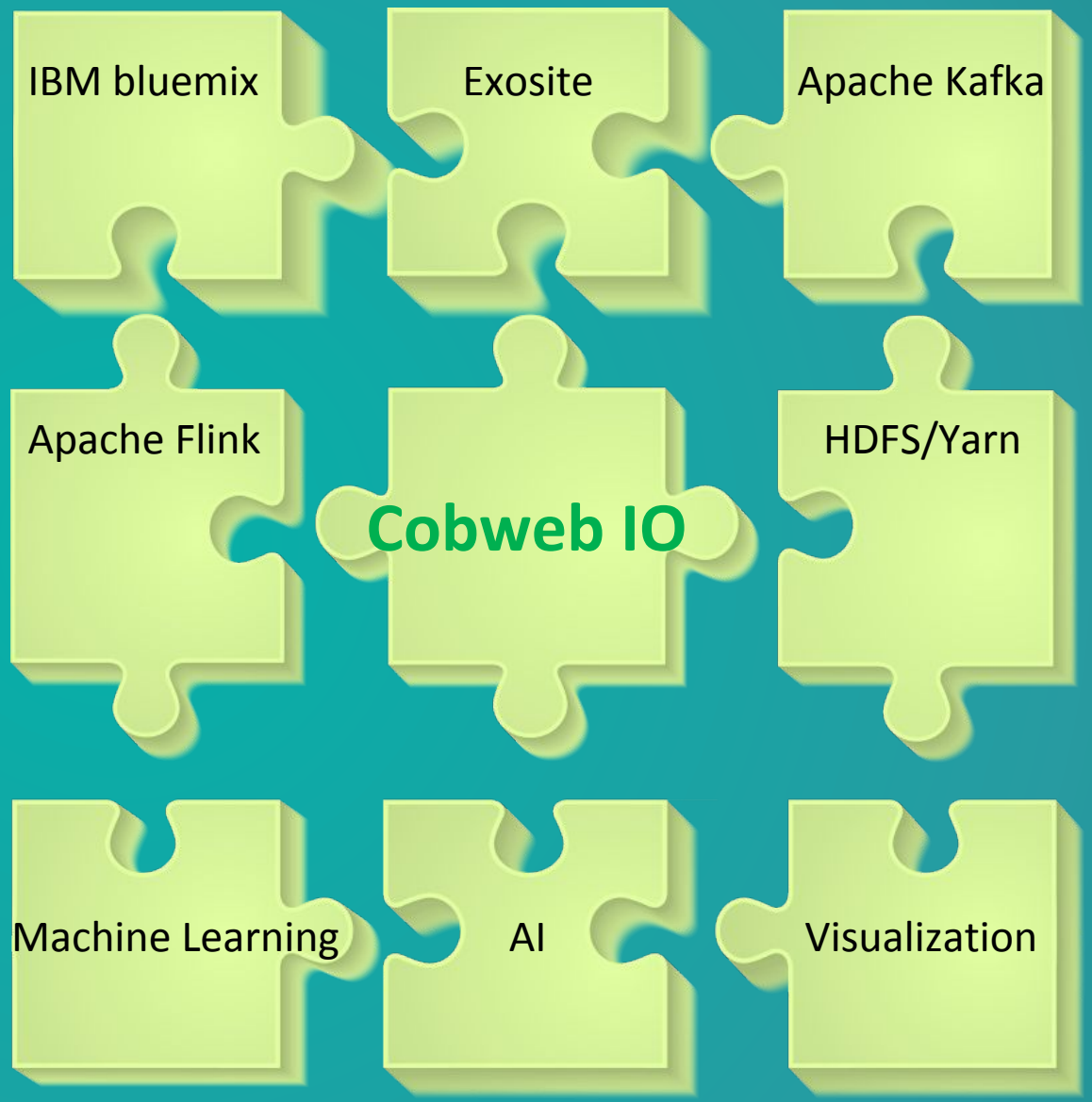
What about the backend



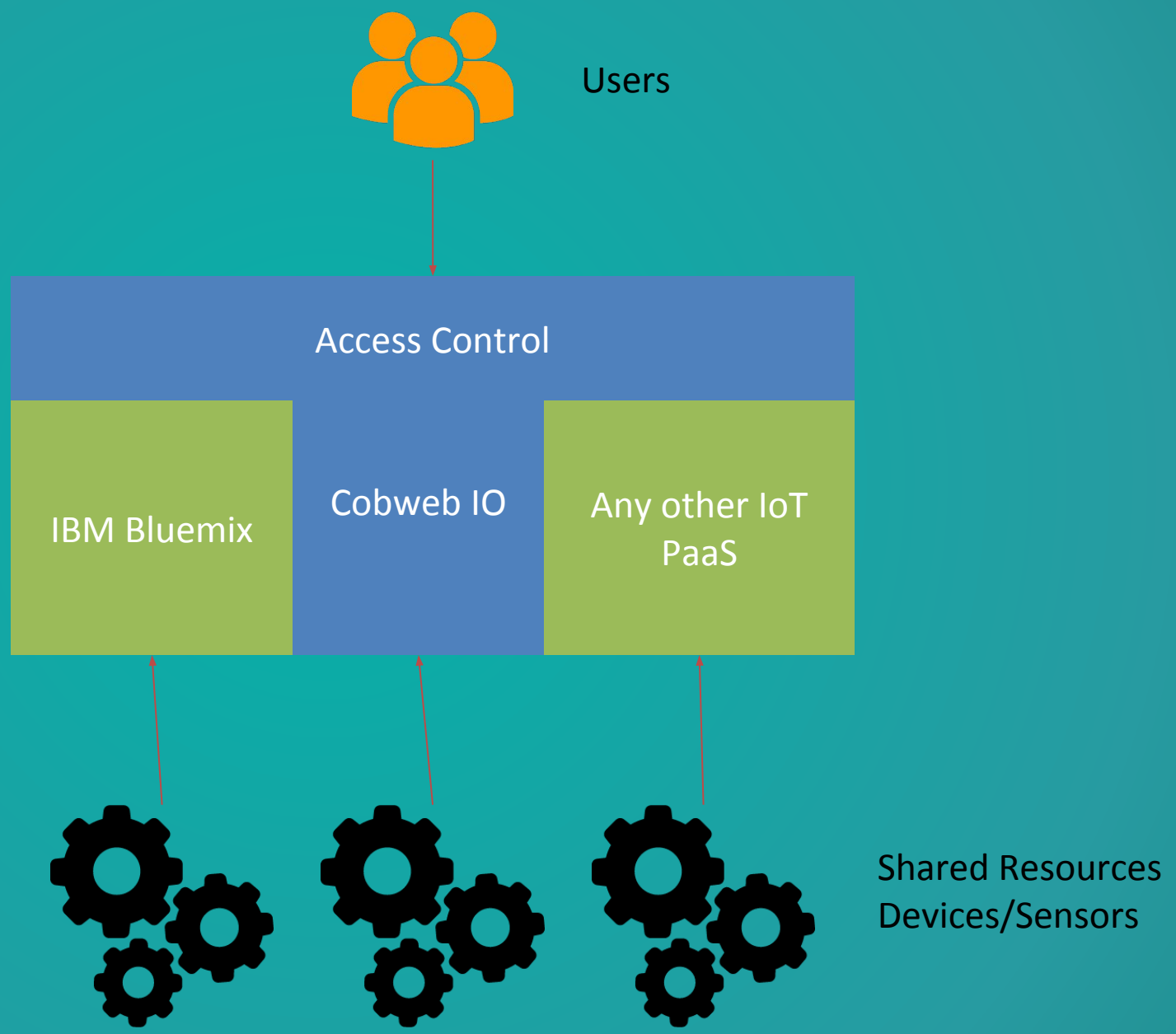
Cobweb servers are designed to act as a foundation for your system back-end. They are easy to customize, build upon, and integrate with.

- ✓ REST interfaces for server integration
- ✓ Data output via standard interfaces (REST, etc.)
- ✓ Powerful plug-in system for modular extensions
- ✓ Pre-integrated with industry-leading data processing systems

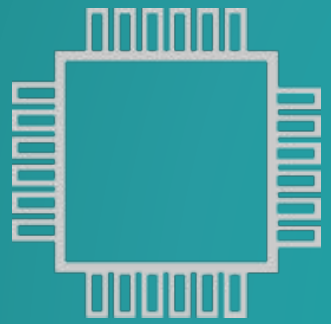
Pluggability & Scalability



User Management
Access Control
&
Authorization



Why Choose Cobweb



Straightforward hardware integration procedure

Minimizes the cost and risk of application development

Handles millions of devices and scales elastically

Reduces time to market from months to weeks

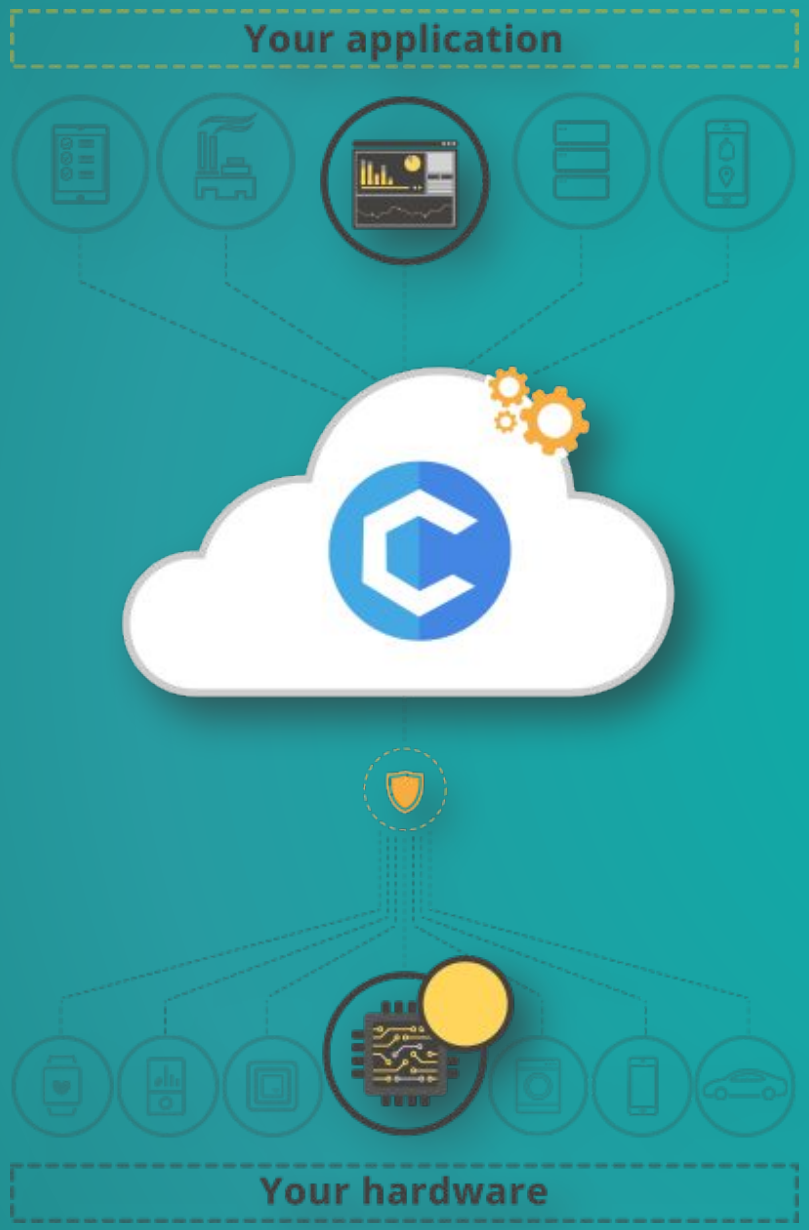
Pre-integrated with data management systems

Easily tailored for any business applications

Rapidly evolving, with new features being added for free

Both community and commercial support available

100% open-source and free



- ✓ Data management for connected objects and your back-end infrastructure by providing the server and endpoint SDK components
- ✓ Cobweb get embedded into your connected device and implement real-time bi-directional data exchange with the server.
- ✓ Capable of being integrated with virtually any type of connected device or microchip
- ✓ The Cobweb server provides all the back-end functionality needed to operate even large-scale and mission-critical IoT solutions
- ✓ It handles all the communication across connected objects, including data consistency and security, device interoperability, and failure-proof connectivity
- ✓ Well-established interfaces for integration with data management and analytics systems, as well as with your product-specific services
- ✓ Foundation for your back-end system that you are free to expand and customize to meet the specific requirements of your product

Top Use Cases

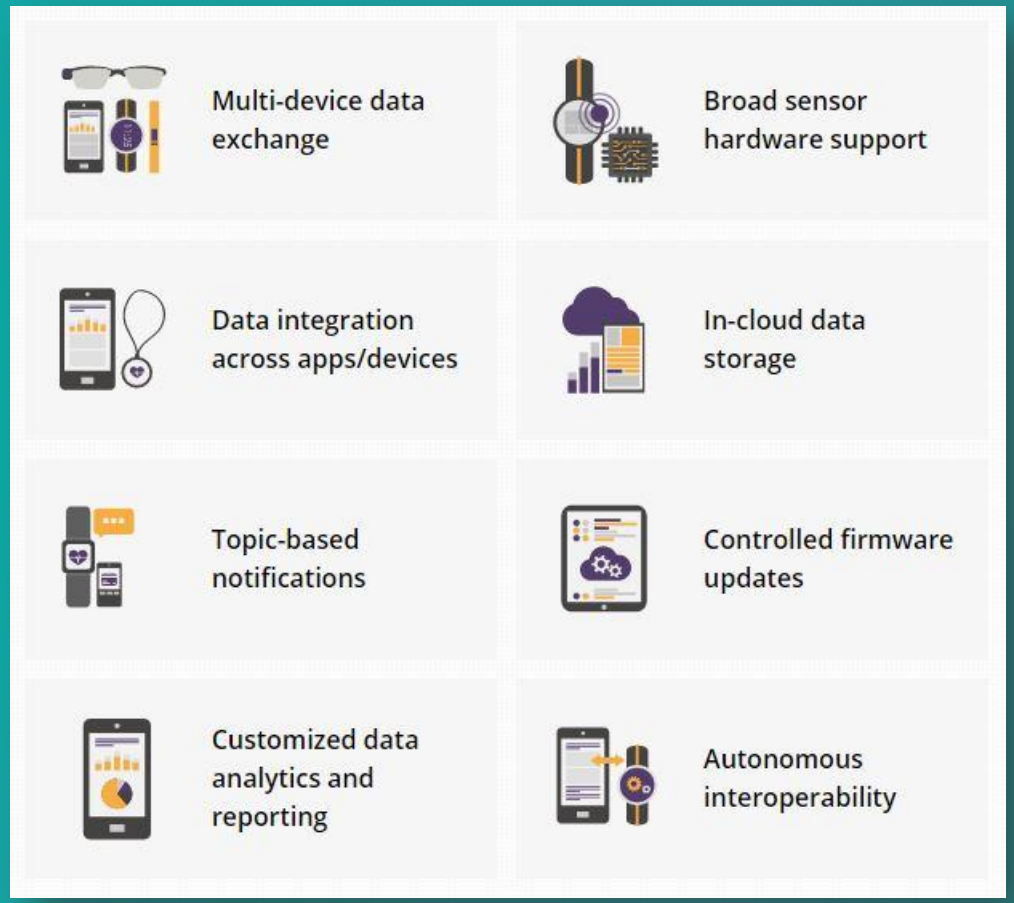
- Wearables
- Healthcare
- Agriculture
- Industrial Automation
- Consumer Electronics
- Sports and Fitness

Wearables

Wearable technology is a hallmark of the Internet of Things and the most ubiquitous of its implementations to date.

The efficiency of data processing achieved by various smart wrist wear, hearables, and smart glasses is gradually dispelling inert skepticism among the public and is getting closer to where wearables will bring exceptional value to our lives.

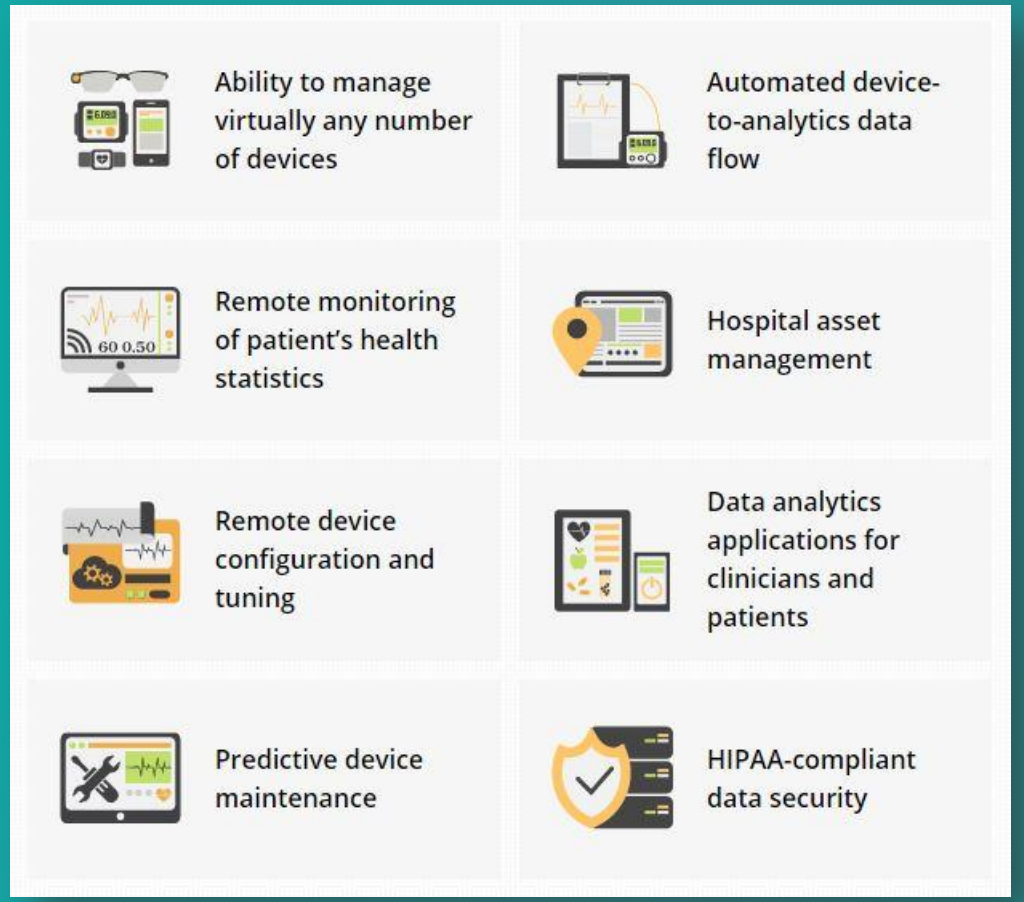
- ✓ Cobweb is easily integrated with tiny microchips in wearable devices
- ✓ Enables instant interoperability, profile management, data collection, notifications, security, and other features.
- ✓ Provides scalable backend functionality to ensure loss-free communication between wearable devices and to connect them with data analytics and visualization tools



Healthcare

The Healthcare industry remains among the fastest to adopt the Internet of Things. The reason for this trend is that integrating IoT features into medical devices greatly improves the quality and effectiveness of service. Some estimates (Mckinsey, 2015) predict that spending on IoT by the Healthcare industry will reach $1 trillion by 2025.

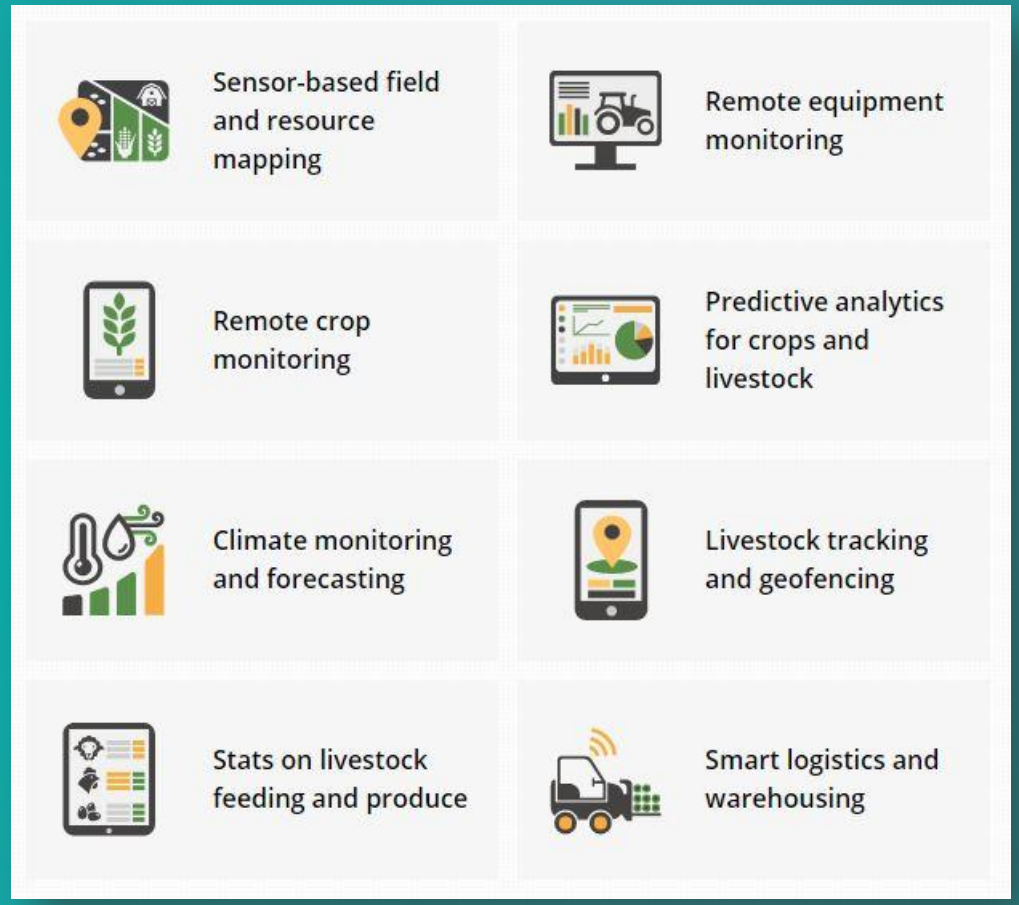
- ✓ Allows OEMs and healthcare systems integrators to establish connectivity and enable smart interactions between medical devices and related software systems
- ✓ Healthcare companies - developing hardware or software products - that have chosen to integrate Cobweb's functionality into their products were able to achieve IoT goals faster and without pain.
- ✓ Cobweb is battle tested and 100% open-source, which means reliability, scalability and full ownership of your Cobweb-powered solution



Agriculture

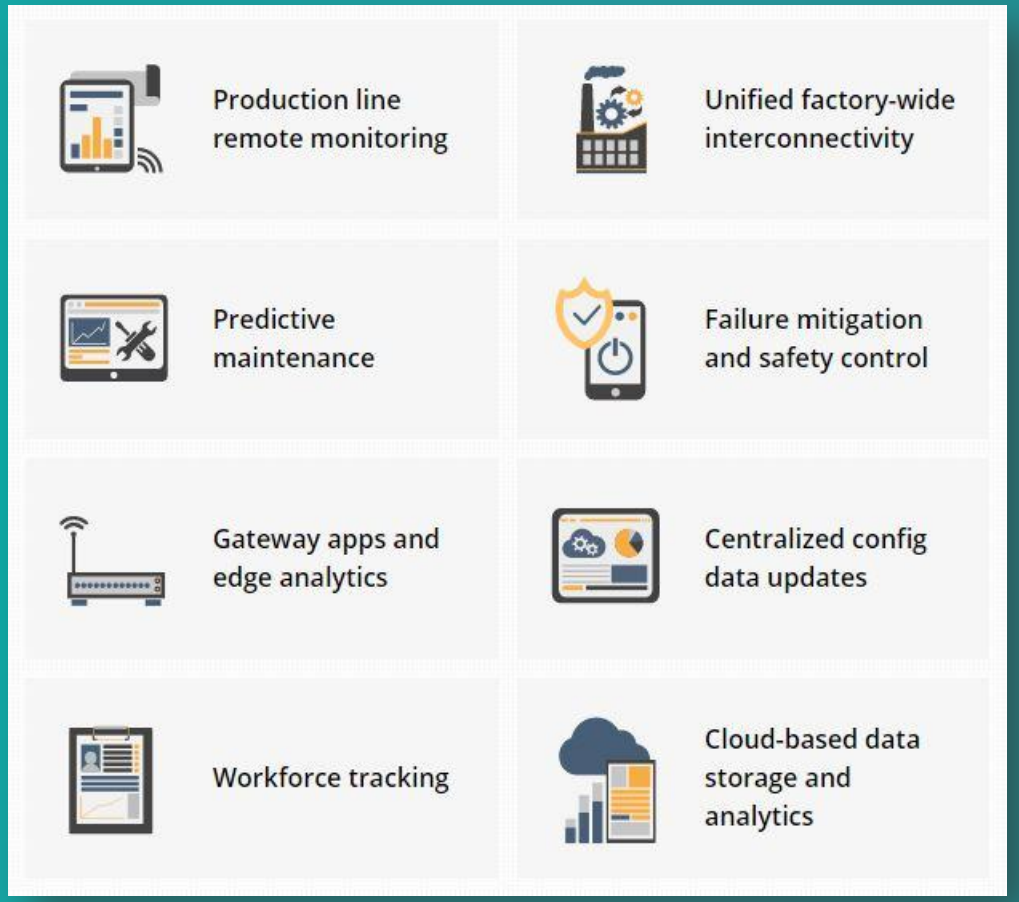
For farmers and growers, the Internet of Things has opened more productive ways to cultivate soil and raise livestock with the use of cheap, easy-to-install sensors and abundance of insightful data they offer. Smart farming, as an IoT-enabled form of agriculture, makes use of this sensor technology as well as cellular, IoT, and Big Data solutions to provide 24/7 visibility into soil and crop health, machine and storage condition, animal behavior, and energy consumption.

- ✓ Cobweb is an IoT middleware that connects different hardware, such as sensors and metering devices
- ✓ Enables real-time data collection and integration
- ✓ Allows analyzing that data and displaying it on a mobile device



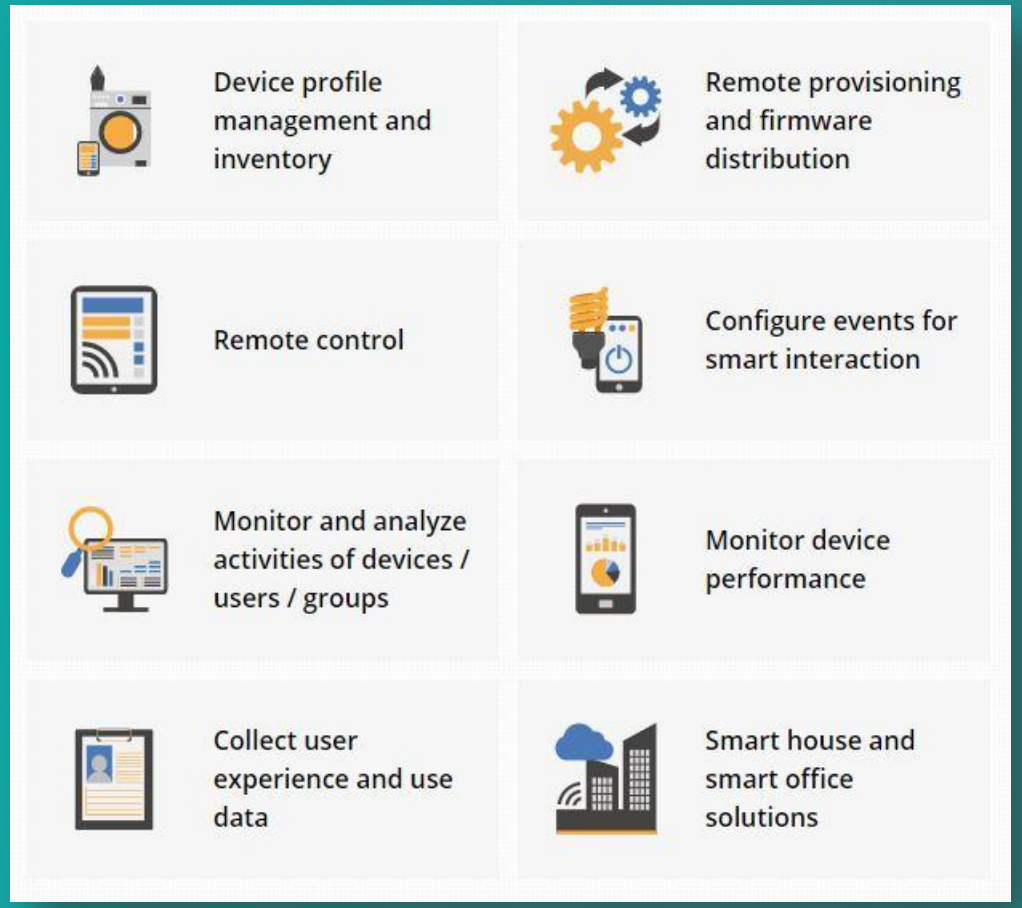
Industrial Automation

- ✓ Cobweb is easily integrated with a broad variety of sensors, controllers, machines, and device gateways, enabling many-to-many interoperability between them
- ✓ Through this interoperability and unified data sharing, separate parts of the production line become more responsive and capable to instantly react to different events or change their configuration settings accordingly.
- ✓ Failure prediction and troubleshooting also become reliable and straightforward.



Consumer Electronics

- ✓ The Cobweb IoT Platform meets every conceivable requirement necessary for enabling, large and small scale, commercial IoT implementations of smart electronics
- ✓ Out-of-the box Cobweb establishes data connectivity between any software system and hardware device - smart TVs, home appliances, tiny sensors, wearables, and microchips
- ✓ Other ready-to-go Cobweb features provide detailed remote monitoring and control over devices as well as interoperability between devices - allowing exchanging of operational data, triggering events, and even autonomously collaborating on specific tasks



Sports and Fitness

- ✓ The Cobweb IoT Platform delivers all these capabilities into your smart sport & fitness products as production-ready features
- ✓ Automatically collect data from virtually any sensors, fitness trackers and smart sporting gear, then analyze it and visualize on equipment consoles and mobile devices, in this way delivering end-to-end training solutions for the customer
- ✓ Cobweb also provides you with a feature-rich toolset for building your own IoT applications for sport & fitness solutions of any scale - ranging from activity tracker apps to infrastructure management systems for sports venues