

endian

Secure everyThing
www.endian.com

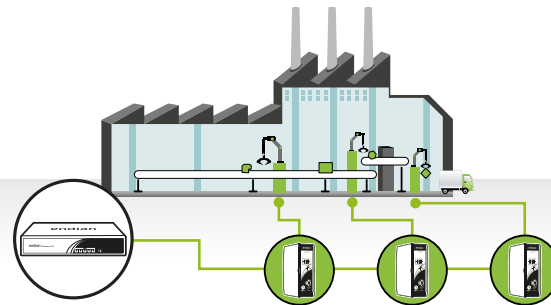
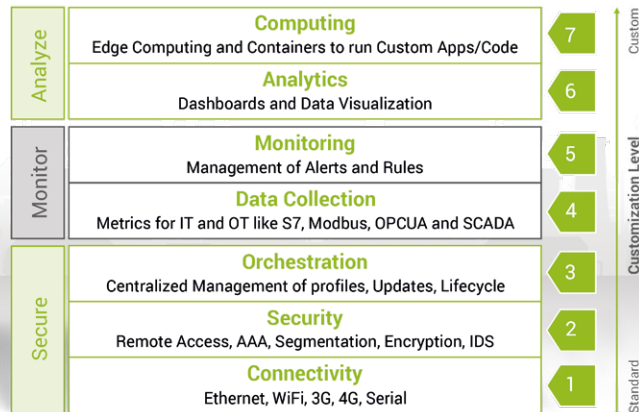
INDUSTRIAL IOT IN 7 STEPS

Guide to Digitally Transform
Your Business

Anatomy of a Secure Digital Platform (for Industry 4.0)

The structure of a secure digital platform in Industry 4.0 is composed of many parts all working together to form a complete solution.

This guide explains the most important seven parts of the platform.

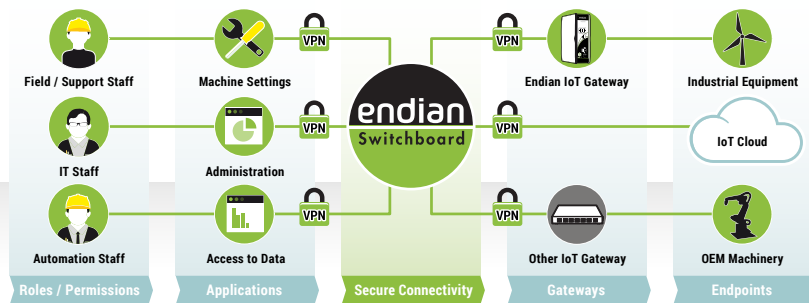


Connectivity - Connecting and linking machines

In order to secure every thing you must connect to every thing. Our products support multiple forms of Internet and SCADA connectivity including Ethernet, WiFi, 3G/4G, Serial (RS-232/485) and Digital Input/ Digital Output. They also come available in industrial form factors with DIN rail mount, desktop mount, 24V DC power input and with support for wide temperature for the most rugged deployments.

- **Endian Industrial IoT Security Gateways**
Ruggedized industrial VPN router with a wide temperature option and integrated 3G/4G options
- **Endian UTM Gateways**
All-In-One UTM hardware, software or virtual appliances

2



Security - Remote access, segmentation and encryption

Solutions

- **Endian Switchboard**

Connect securely your global workforce to their field equipment in order to access information, monitor equipment status, provide enhanced remote services and much more.

Security is the key to a successful digital IoT transformation. Endian has been a leader in creating easy-to-use security products for over 15 years. Connect Platform combines secure remote access and comprehensive user/device permission management. 4i Edge devices provide powerful network security including network segmentation, complete firewall control, deep-packet IPS/IDS system and layer-7 filtering capabilities.

Orchestration - Central management of user profiles, updates and lifecycles

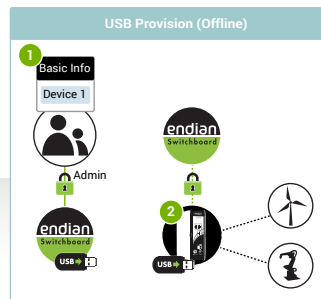
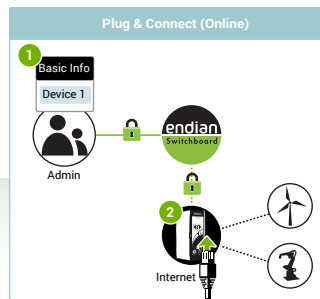
Given the number of industrial devices and the geographical span of global businesses, you need the tools to make deployment and management easy. The Endian Connect Platform gives you multiple Zero Touch deployment options including Plug & Connect and USB stick options to cover online and offline remote sites.

- **Endian Management Center**

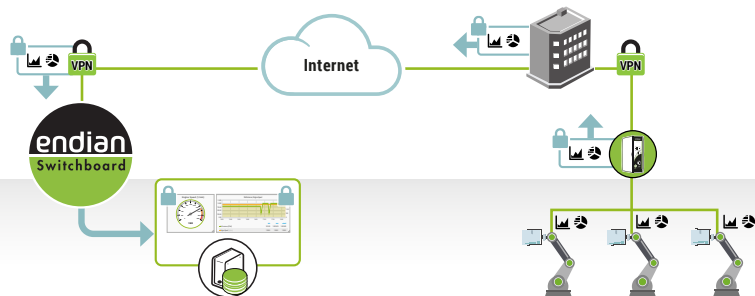
Centrally manage all your Endian appliances. Reduce administrator management time and effort and save valuable staff resources with centralized management made easy with Endian Management Center.

Solutions

3



4



Data collection - Mastering different machine languages

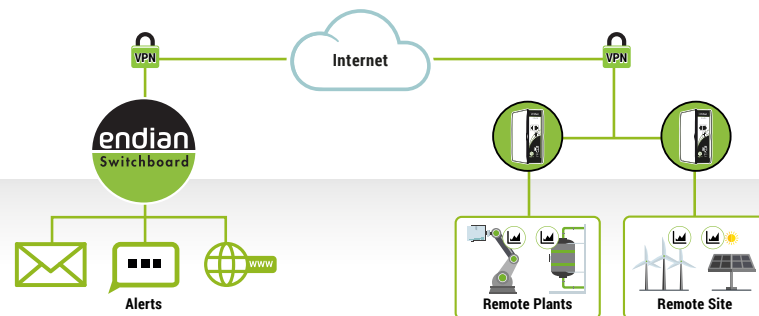
Solutions

- **Endian Industrial IoT Security Gateways**
The Endian 4i Edge series brings an unparalleled level of hardware performance and features to the Industrial Internet Security and Industrial VPN router market.

Collecting data from your IoT devices can enable companies to “see” their data in a new way that enables real-time services and creates a product feedback loop to enable faster and better product development. 4i Edge devices act as a collector of SCADA data using common protocols like Modbus (TCP/RTU), OPCUA, and Siemens S7.

OPC UA MQTT Modbus SIEMENS S7

5

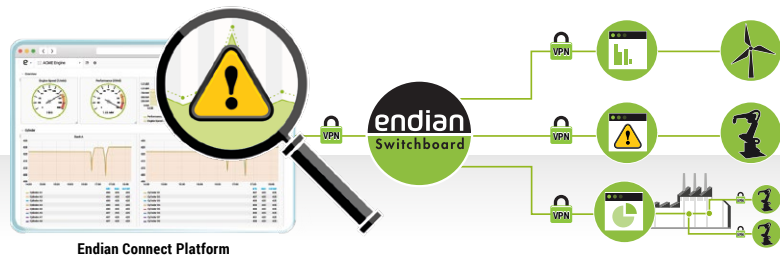


Monitoring - Observe machine states

Industrial infrastructure is critical to the core operations of business and requires the highest levels of availability. The Connect Platform provides integrated monitoring capabilities to monitor and alert on virtually anything so business can react instantly to potential problems.

- **Endian Connect Platform**
Endian Connect Platform provides the ability to collect data from globally distributed sites. These data form the basis for predictive maintenance and the optimization of machines.

Solutions

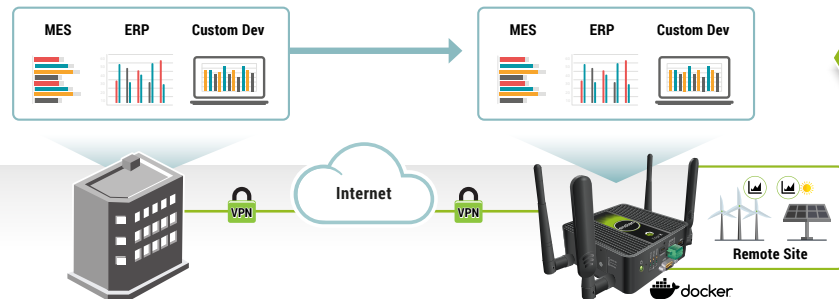


Analytics - Predictive Maintenance

• Endian Connect Platform

Endian Connect Platform provides the ability to collect data from globally distributed sites. These data form the basis for predictive maintenance and the optimization of machines

Once you have all of your industrial data aggregated, the next step is to analyze the data in order identify patterns and anomalies that can help predict failures and solve product issues before they become major problems. The Connect Platform can provide dashboards with completely customizable interfaces.



Computing - Advantages of the edge

Containers are revolutionizing the IT world with the concept of wrapping applications into a portable and highly available system. The new Connect Platform and Endian 4i Edge X product will now support installing and managing containers at the industrial network edge.

• Endian 4i Edge X

The new 4i Edge X product is the only industrial security appliance that can run application (Docker containers) at the industrial network edge.

Industrial Edge Computing Has Arrived

Industrial Edge Computing allows companies to securely run applications directly at the remote site (plant, factory, etc.). This can have many benefits



- ✓ Very low latency for data collection/analysis
- ✓ More security with data on the local network
- ✓ Reduced bandwidth and cost savings
- ✓ Enhanced performance and efficiency
- ✓ Cloud connectivity for storage and analysis

Apps at the Edge

The new 4i Edge X product is the only industrial security appliance that can run application (containers) at the industrial network edge. This means you can deliver your enterprise or industrial applications in a centralized, distributed fashion. By getting the applications closer to the data, you can decrease data transmissions and increase security (with less data sent across the Internet).

The Secure Digital Platform to Bridge the IT & OT Divide

Our platform is the only one that combines the best IT technology with the easiest OT usability to create a complete solution

Make it Yours

Our solution was built from the ground up to make it easy to OEM (white-label) the solution as your own by simply uploading your own logo and company information. This means you can offer the solution as a premium product and/or service that can greatly enhance your IoT market presence.

Open API

The Connect Platform is only one in the industry to provide an open API which gives companies the flexibility to integrate data from the platform into their in-house apps and/or services. This can create tremendous value in terms of opportunities either now or in the future.

Integrated Analytics

Deploy the only single solution to provide security, remote access, monitoring, edge computing and analytics. The integrated analytics includes SCADA data collection from the edge devices and secure transmission and storage on the central side. In addition, you can create unlimited dashboard visualizations to get users the data they need when they need it.



Industrial IoT Security Gateways

The Endian 4i Edge series brings an unparalleled level of hardware performance and features to the Industrial Internet Security and Industrial VPN router market.



Endian 4i Edge X

The Future of Industrial Security & Edge Computing

The 4i Edge X is the most powerful Endian 4i device yet and supports Edge Computing technology (using Docker). This means you can deliver your enterprise or industrial applications to each remote site and have them run locally.

Endian 4i Edge X provides endless connectivity options including Ethernet, 4G or even WiFi client (as an uplink). This device is perfect in almost any environment and any network.

Highlights

- 0 to +60°C operating temperature
- 3 Gigabit Ethernet ports
- Support for 4G module (internal)
- WiFi Client (Uplink)
- Simple and secure VPN access
- Edge Computing available



 **docker**
Edge Computing Available

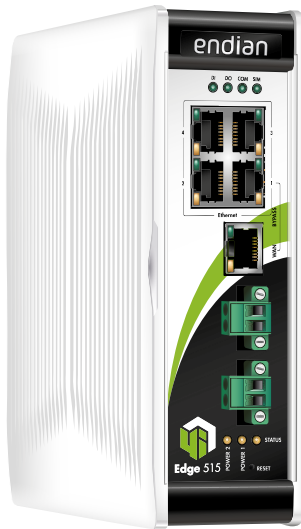
Endian 4i Edge 515

The most robust industrial solution

The Endian 4i Edge 515 brings an unparalleled level of hardware performance and features to the industrial VPN router market. All of this carefully blended with the most intuitive and easy-to-use web interface available makes this product perfect for almost any industrial application.

The 4i Edge 515 works in extreme temperature environments and is ideal for machine building, manufacturing, infrastructure, healthcare and communication industries.

- -20 to +70°C operating temperature
- Simple, secure VPN access
- 3G Module (optional)
- Dual power input 24V DC
- 4G Ready



Endian 4i Edge 112

Powerful desktop industrial solution

The powerful and scalable desktop industrial solution. All the features included in the product ensure that your remote industrial networks have the highest levels of availability which keeps your business running smoothly.

An intuitive and easy-to-use web interface makes it perfect for almost any industrial application. The Endian 4i Edge 112 is the ideal solution for infrastructure, healthcare and communication industries. Available in DIN rail and wall mount version.

- 0 to +60°C operating temperature
- Simple and secure VPN access
- Support for 3G module (external)
- 2 Gigabit Ethernet ports
- Power input 24V DC



References

Successfully used by

LIEBHERR



Provide secure remote access to construction and production machinery.



Granular user- and group- level permission management in Endian Connect Switchboard.

CATERPILLAR®



Run remote diagnostics and deliver software updates to gas engines for distributed power generation.



Endian 4i box installed directly into the endpoint to enable remote servicing and maintenance. Endian Connect Switchboard for granular management of access privileges.



Werfen

Diagnostic Solutions for Life



Connect diagnostic equipment located in hospitals and laboratories to unsecure LAN segments for remote monitoring and predictive maintenance.



Attach 4i Edge to every machine to get plug-and-protect security deployed with zero training for field service personnel. Remote management and central monitoring via Endian Connect Switchboard.

Want to learn more? Get in touch www.endian.com