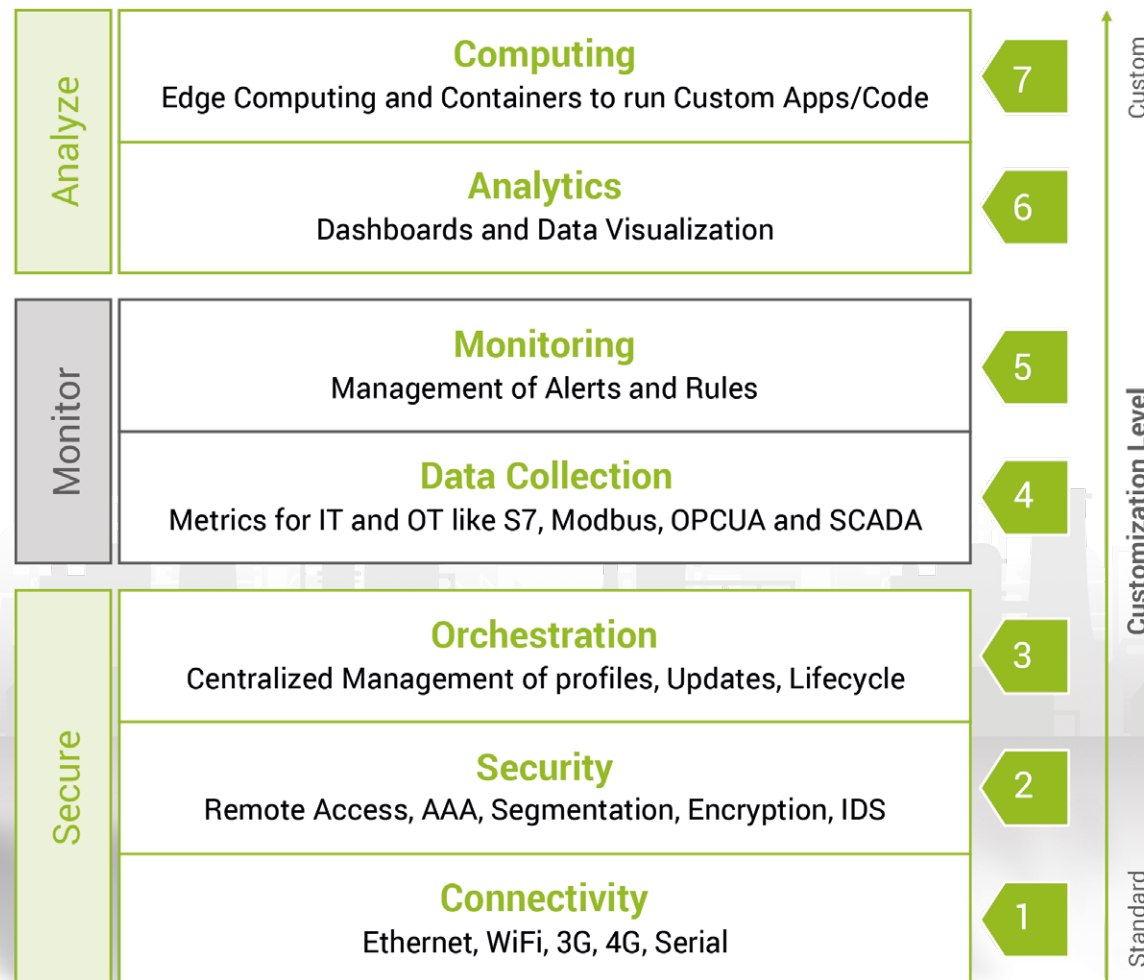# ENDIAN SECURE DIGITAL PLATFORM
FOR IOT AND INDUSTRY 4.0

The simplest and most secure platform for connecting your users and devices

docker

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Anatomy of a Secure Digital Platform

Analyze	**Computing** — Edge Computing and Containers to run Custom Apps/Code	7
	Analytics — Dashboards and Data Visualization	6
Monitor	**Monitoring** — Management of Alerts and Rules	5
	Data Collection — Metrics for IT and OT like S7, Modbus, OPCUA and SCADA	4
Secure	**Orchestration** — Centralized Management of profiles, Updates, Lifecycle	3
	Security — Remote Access, AAA, Segmentation, Encryption, IDS	2
	Connectivity — Ethernet, WiFi, 3G, 4G, Serial	1

Customization Level — Custom / Standard

1 Connectivity

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.
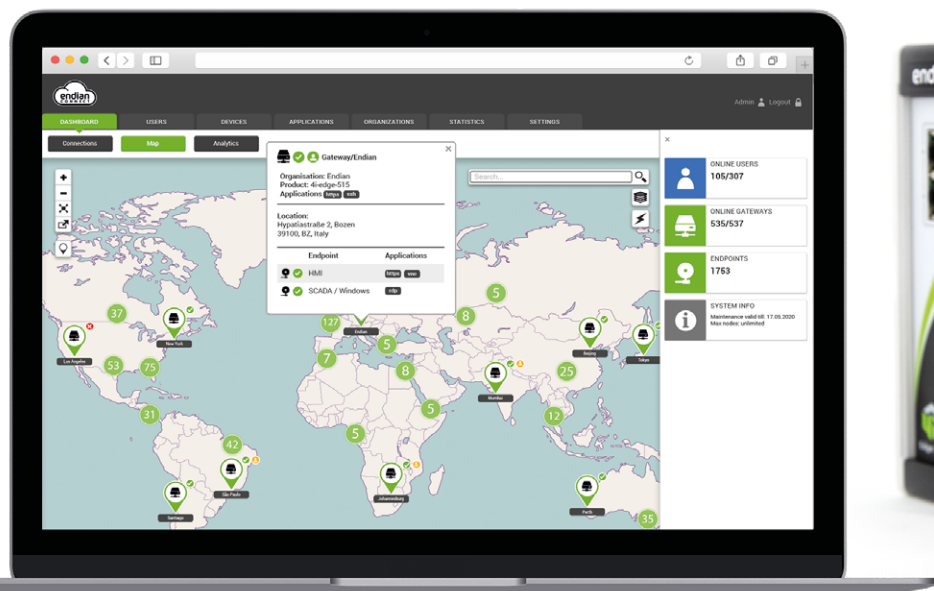
2 Security

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.

3 Orchestration

Given the number of industrial devices and the geographical span of global businesses, you need the tools to make deploy-ment 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.

4 Data Collection

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 commons protocols like **Modbus** (TCP/RTU), **OPCUA**, and **Siemens S7**.

5 Monitoring

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.

6 Analytics

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

7 Edge Computing

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.

MES   ERP

Custom Dev

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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

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

IT Benefits

- Industry leading IT security features ✔
- Centralized management of devices ✔
- On-premise retains security & privacy of stored data ✔
- Familiar IT tools and protocols ✔

OT Benefits

- ✔ Comprehensive OT network security
- ✔ Central remote access & dashboards
- ✔ Complete OT data security & privacy
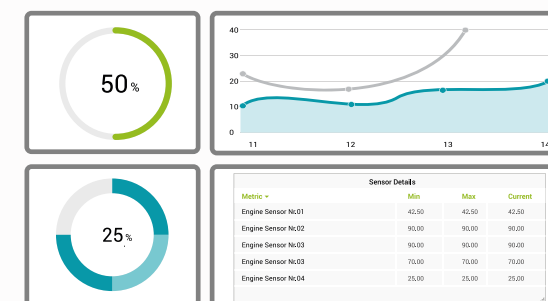- ✔ Simple tools for OT access and use

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).

MES ERP Custom Dev

MES ERP Custom Dev

Internet

Remote Site
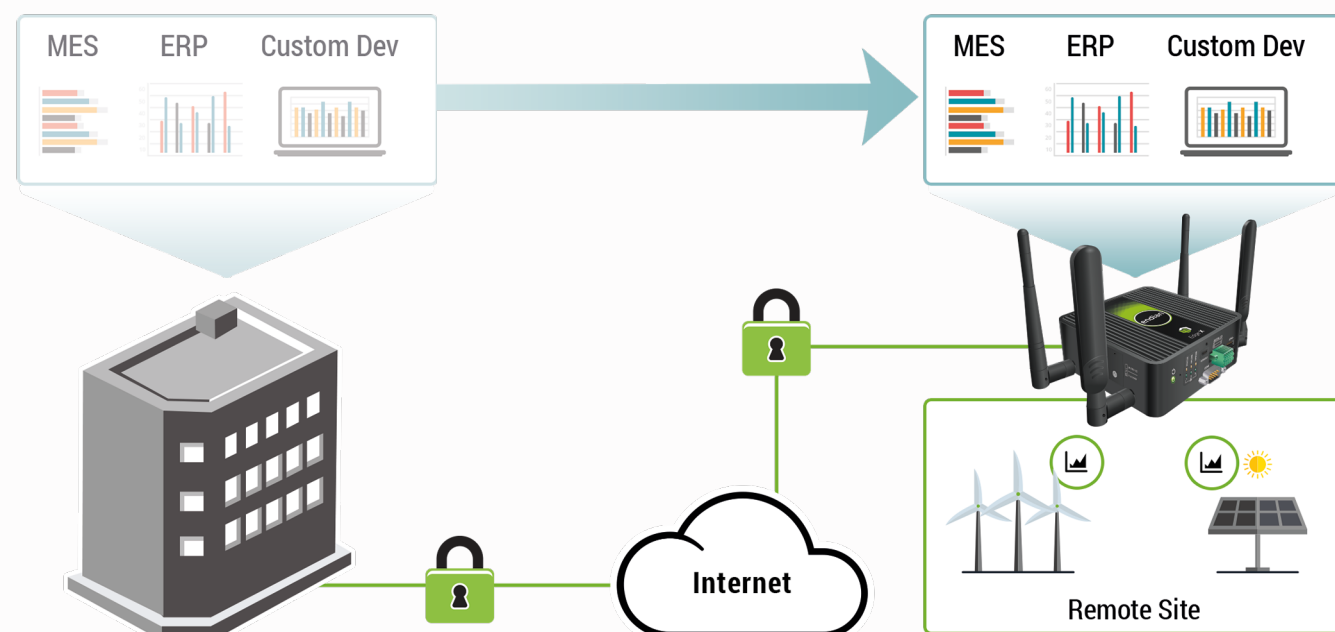
Make it Yours

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.

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MyCompany

50 %

25 %

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.

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.

50 % 25 %

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Live Map

Visualize your network like never before using the Dashboard with live maps feature which shows all your remote sites and user activity in real-time.

Analyze and Monitor Dashboard

Build custom real-time dashboards to monitor and analyze data coming from remote field equipment. Add your company branding as well to further enhance your business profile.

Live global map view of all your remote sites

Detail view gives you site information and quick links for remote access

Search for site information or filter the map view to show only specific sites

Real-time gauge gives instant insight into remote device health

Create custom graph to record and analyze remote device metrics

Brand the dashboard as your own with your company logo

See remote site status updated in real-time

See who is connecting to remote sites with real-time user information

Dashboard view gives you at-a-glance usage information

Collect data points and create informative table views for users

Add specific device information and image to dashboard

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 which lowers bandwidth and app latency and increases security with less data over the Internet.

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.

Edge Computing Available

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

Recommended for
- Machine building
- Manufacturing
- Infrastructure
- Healthcare
- Communications

Performance

Firewall Throughput:	3 Gbit/s
VPN Throughput:	250 Mbit/s
IPS Throughput	300 Mbit/s
Concurrent Sessions	300,000

Endian 4i Edge 313
The DIN rail industrial solution

The Endian 4i Edge 313 is the ideal appliance to protect industrial network and securing data flow and the perfect solution for standard conditions and temperature environments.

The 4i Edge 313 comes with all new M2M features to help you to better communicate with your remote equipment in real-time. Try it in machine building, infrastructure and manufacturing environments.

Highlights
- 0 to +60°C operating temperature
- Simple, secure VPN access
- 3G Module (optional)
- Power input 24V DC
- 4G Ready

Recommended for
- Machine building
- Manufacturing
- Infrastructure

Performance

Firewall Throughput:	120 Mbps
VPN Throughput:	30 Mbps
IPS Throughput	20 Mbps

Endian 4i Edge 515
The most robust industrial solution

4i Edge 515 is the strongest ruggedized appliance of the new series. Its powerful hardware is conceived to work in critical conditions and under extreme temperatures.

The solution guarantees an even more stable and scalable VPN connection between head quarter and branch offices or production sites.

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

Recommended for
- Machine building
- Manufacturing
- Infrastructure
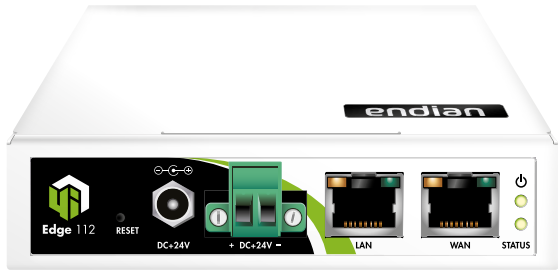- Healthcare
- Communications

Performance

Firewall Throughput:	120 Mbps
VPN Throughput:	30 Mbps
IPS Throughput	20 Mbps

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.

The Endian 4i Edge 112 is the ideal solution for infrastructure, healthcare and communication industries. Available in DIN rail and wall mount version.

Highlights
- 0 to +60°C operating temperature
- Simple, secure VPN access
- Power input 24V DC

Recommended for
- Infrastructure
- Healthcare
- Communications

Performance

Firewall Throughput:	120 Mbps
VPN Throughput:	30 Mbps
IPS Throughput	20 Mbps

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One Solution that Fits Any Industry

Our platform provides tremendous cost-savings, market leading security and revenue generating features to all industries
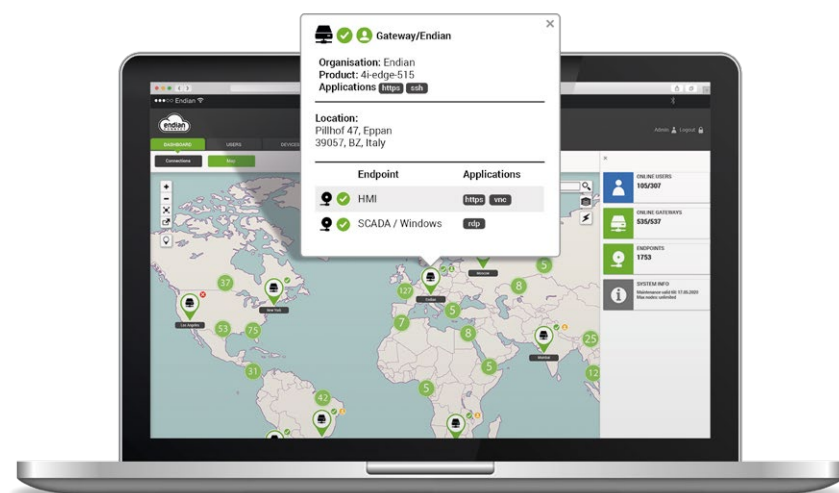
Endian Customers

Thousands of businesses in over 50 countries trust the protection of their networks and sensitive data to Endian. Here's a few of our satisfied customers:
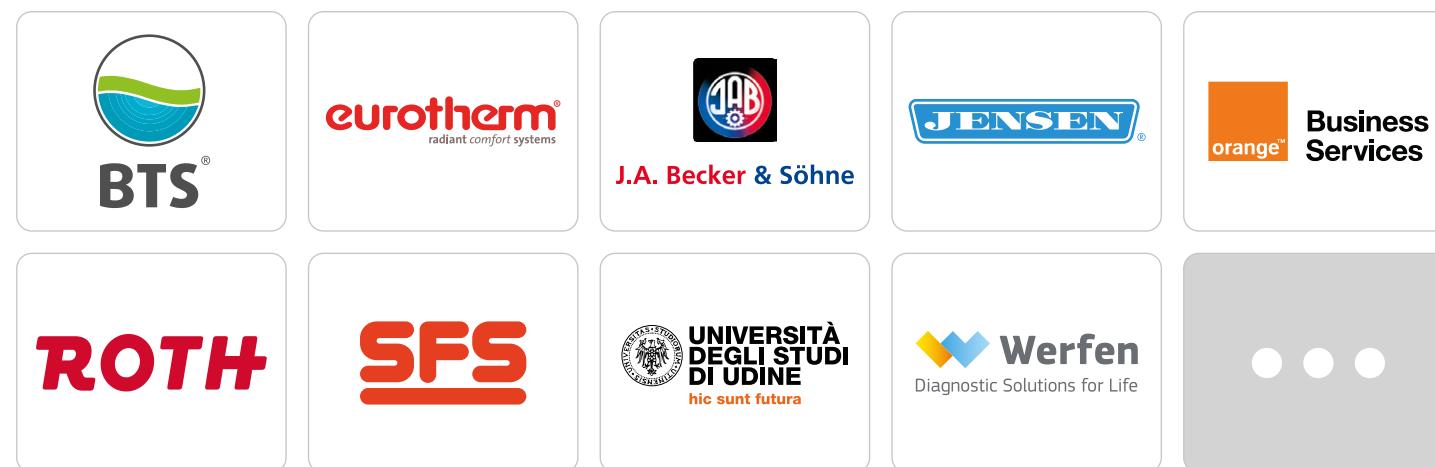
Machine / Device Manufacturers

Machine and device manufacturers have many challenges when it comes to the IoT digital transformation. They have many locations and are often globally distributed with numerous devices and device types they need to connect and protect.

Critical Infrastructure

The protection of critical infrastructure not only safeguards economic security but also the physical security of those that utilize the infrastructure. Enabling remote access and monitoring can bring tremendous value but must be done so carefully with high levels of security.
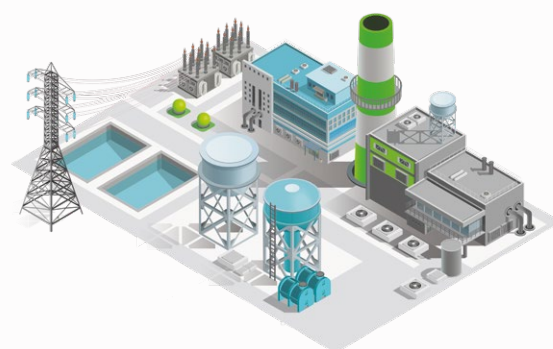
Smart Factory

The smart factory brings huge value and opportunity but also poses many risks that require attention. From factories all over the world to production line efficiency and security. Also protecting the factory from insiders, outsiders and vendors is paramount.

Endian Switchboard secures Caterpillar Energy Solutions

With customers worldwide, Caterpillar Energy Solutions develops powerful products, services and technologies for decentralized energy supply for gas engines. Consequently, they are challenged with the critical task of providing real-time support and equipment diagnostics for their clients within a highly distributed network. Furthermore Caterpillar Energy Solutions provides secure, remote access to critical systems for maintenance purposes. This requires stability, security and the capacity to handle multiple levels of access permission rules for varying levels of workers.

Solution for secure remote maintenance

Liebherr, a world leader for the manufacture of construction machinery, has selected Endian Switchboard for its highly complex, access policy management project.

The first priority for Liebherr was optimizing remote maintenance for customers all over the world; making it secure, easy and cost effective. Additionally, the network infrastructure may differ from one end user to another, so machinery management and security rules could suddenly change or become stricter at a moment's notice.

Endian Helps to Support Hera Group to Provide Utilities & Services

Hera is now among the nation's largest multi-utilities, born in 2002 out of the aggregation of 11 municipal companies operating in Emilia-Romagna, Italy. The first corporation of its kind nationwide, Hera worsks mainly in the environment (waste management), water (aquaduct, sewage and purification) and energy (electricity, gas distribution and sales, energy services) sectors. Other services offered include public lighting and telecommunications.

OPC UA   MQTT   *Modbus*   SIEMENS S7

about us

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Endian is an emerging market leader in the area of Industrial IoT security. We have a proven track record in delivering innovative security solutions and a strategic commitment to the needs of industrial customers. We provide integrated software and hardware solutions that maximize effective security. Endian Connect for Industrial IoT helps customers protect their business with best-in-class security and minimal operating cost. **Secure everyThing.**