FREEWAVE

Optimize the Edge for Highly Dispersed Sites

Organizations with a sprawling network of installations require extreme edge optimization. The FreeWave Elements™ ES1000 with embedded FreeWave Zentry™ solution is an ideal fit. The ES1000 is a rugged, on-site industrial gateway with the Zentry solution, providing an intelligent zero-trust security layer to bridge the gap between vastly dispersed sites and real-time intelligence.

Uninterrupted uptime is a top goal for those with hundreds or even thousands of installations. The ES1000 with Zentry streamlines connectivity and protects a network end-to-end before a cyber attack hits by making the network "invisible." The solution also accelerates ROI by unifying high-volume data flows, creating less deployment complexities and less IT overhead.
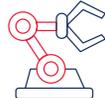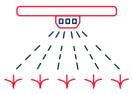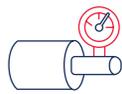
Industries

Oil and Gas

Water/Wastewater

Energy

Manufacturing

Agriculture

Chemical Processing

Data Sources

- Network performance data
- IoT devices
- Gateways
- Servers
- Asset trackers
- Modems
- Critical incident data
- Sensors and field data
- Programmable Logic Controllers (PLCs)
- SCADA systems
- Operator workstations
- Remote terminal units (RTUs)

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Access Interval Data

When operations span remote, diverse environments, it is common for each site to generate critical interval data from a myriad of network devices. Provisioning modems and network devices becomes a challenge, especially when there's a mix of legacy hardware, modems, and routers across varying cellular carriers.

Ensure Security

Many security vulnerabilities exist with traditional security, which is made "visible" through IPs on the public internet, ports, and virtual private networks (VPNs). Cybersecurity concerns are paramount, as traditional setups lack robust zero-trust protections, and consolidating multiple devices for edge computing can be inefficient.

FreeWave Solutions

FreeWave's ES1000 with embedded Zentry offers a compact, multi-carrier SIM with a single invoice and data rate. When a network is in disparate, oftentimes harsh environments, the rugged ES1000 edge gateway paired with the Zentry console delivers end-to-end visibility, zero-trust security, and effortless provisioning.

Key features include:

- **High-Throughput Connectivity:** Handling fleet-scale data ingestion with bundled hardware, software, and SIM cards for simplified invoicing.
- **Edge Compute Power:** Integrating and supporting applications for local processing, reducing latency, and device count.
- **Zentry Console Remote Access:** Enabling secure troubleshooting from any authorized location, critical for minimizing field visits. Identity-driven access ties every connection to a verified user, device, and policy for precise control.
- **AI-Ready Analytics:** Supporting Linux and running a self-provided video monitoring and pixel-change detection application to trigger alerts, feeding data lakes for machine learning (ML) insights.

What's the Impact?

Edge optimization through the Elements ES1000 with embedded FreeWave Zentry solution bridges the gap between dispersed sites and real-time intelligence. Impacts include:

- Faster deployments
- Shorter installation times
- Reduced IT touchpoints and software tools for productivity
- Remote troubleshooting via Zentry minimizes truck rolls
- Lower operational costs
- Improved data pricing
- Consolidated vendor management
- Enhanced video analytics for proactive site monitoring

What Sets Our Solution Apart

The ES1000 with Zentry is a full ecosystem that unifies diverse sites, making deployment truly plug-and-play. Remotely managing a large number of installations is made simple with fast resolution time compared to connectivity silos.

The ES1000's flexibility enables organizations to tailor a solution that not only meets their immediate scalability needs but positions them for AI innovation down the line.

Field technicians benefit from the zero-configuration setup: multi-carrier SIMs auto-switch for optimal coverage, while the Zentry console provides real-time, anywhere access for monitoring. Integration with legacy Modbus devices is seamless and online-enabled remote sessions cut support times dramatically.

Technician training is addressed through Zentry's intuitive interface and FreeWave's dedicated onboarding support. In a short time, an organization can expect to transition from fragmented management, where data can easily get scattered across various systems, applications, and storage locations, to a single-pane view, with initial tests validating data throughput.

Zentry creates an invisible attack surface – what can't be found, can't be hacked! Access appears

only when needed and disappears when complete, leaving no standing exposure. Deterministic control removes noise, helping small security teams focus on real threats with no false positives. Unlike traditional security, there are no public IPs, open ports, or static tunnels to scan or exploit.

Looking to Optimize the Edge for Better Performance?

For teams looking to spend less time on configurations and more on value-add analytics, FreeWave's zero-trust overlay and edge capabilities fortify networks without added complexity. The ES1000 with the FreeWave

Zentry solution is built for the edge where OT, IoT, and disconnected environments prevent most zero trust tools from operating.

What are your network goals? Do you have highly dispersed network assets? Do you operate on the edge, close to end-users and devices? Is your data vulnerable as it moves through your network? Don't settle for complex, costly solutions that add to your tech stack without adding value. Partner with FreeWave today to tailor a zero-trust solution for your industrial challenges.

Schedule a demo at www.FreeWave.com/contact or reach out at sales@freewave.com. Together, let's make your industrial world simple, secure, and connected.

SCHEDULE A DEMO →

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