



Datasheet

Unwired Edge Compute

Scalable, secure container orchestration for centrally managed industrial edge devices



Feature List

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Intro

Unwired Edge Compute brings cloud-native application orchestration directly to your vehicles – **from lean container runtime environments on embedded devices to full Kubernetes clusters on high-performance vehicle routers**. Specifically designed for use in the bus and rail sectors, the platform enables reliable and secure execution, configuration, and monitoring of containers across large fleets.

Flexible Orchestration

- Fleet-wide container rollouts and versioning
- Operation in Lightweight or Kubernetes mode
- Application lifecycle independent of device OS
- Orchestration APIs for CI/CD pipelines

Container runtime & virtualization

- Support for all OCI-compliant containers
- Runtime isolation and instance-specific configuration
- LAN/WAN bridging and CloudLink uplink bundling
- Persistent storage and resource control
- Direct access to vehicle-side hardware interfaces

Monitoring & Deployment

- Metrics via OpenMetrics API
- CDN-supported container distribution
- Health monitoring and automatic rollbacks
- Registry support: GCR, GHCR, private repositories

Areas of application

- Passenger information & on-board services
- Video surveillance and analysis
- Occupancy and people count
- Custom OT integrations with CAN, GPIO, NPEs

Technical Highlights

- Linux-based, secure network operating system
- Automatic subnet assignment for multi-role devices
- Roaming and WAN redundancy with CloudLink
- API key injection per container with restricted access
- Time synchronization validation (RTC + system)

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The logo for Unwired Networks features the word "Unwired" in a green sans-serif font above the word "Networks" in a larger, bold green sans-serif font. Above the letter "i" in "Unwired" is a stylized signal icon consisting of three concentric arcs and a central dot.

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