

Tropos Product Line Overview

The Tropos product line, used to construct private wireless IP broadband networks for Smart Grid, Smart City, mining and industrial applications, consists of Tropos mesh routers, directional radio systems and network management.

Smart Grid, Smart City, mining and industrial applications require an industry standards-based wireless IP broadband network that creates a solid foundation upon which multiple demanding, mission-critical applications can be deployed. The Tropos product line includes outdoor, mobile and indoor mesh routers; the patented Tropos Mesh OS built from the ground-up to meet the challenges of mission critical outdoor network deployments; directional radio systems for point-to-point and point-to-multipoint communications; and a carrier-class centralized management and control system. Using these building blocks, Tropos systems are used to construct the most resilient, scalable, high performance, and secure networks for utilities, municipalities, mining and industrial customers.

FEATURES AND BENEFITS

Software

- ❖ Decentralized architecture optimizes throughput in real-time and ensures scalability
- ❖ Dynamic selection of optimal end-to-end path delivers the highest performance
- ❖ Network performance and capacity maximized by automatic optimization of power and rate on per-connection and per-packet basis
- ❖ Comprehensive management system streamlines deployment, optimization, maintenance, and control of large, outdoor networks

Platform

- ❖ Ruggedized and weatherized to operate in hostile environments
- ❖ Open-standards-based 802.11a/b/g/n radios optimized for outdoor use
- ❖ Supports the industry's widest array of power input options
- ❖ Ideal for providing source PoE to collocated devices
- ❖ Mobile routers enable field workforce applications



Tropos Mesh Routers

Tropos mesh routers build highly resilient wireless networks with high capacity for aggregating multiple, mission-critical applications covering broad geographic areas.

All Tropos mesh routers run Tropos Mesh OS. Tropos Mesh OS leverages each router's on-board intelligence to minimize network congestion and adapt on a real-time, packet-by-packet scale. This distributed approach optimizes performance and throughput by minimizing control traffic, delivers a highly scalable solution, and helps provide a quality user experience for network clients.

Tropos Mesh OS is the key to delivering high throughput and scalability. It is the industry's only mesh routing software that dynamically selects end-to-end paths through the mesh based on maximizing client-server throughput and minimizing latency.



- ❖ **Tropos 7320 Mesh Router:** The highest performance, full-size dual radio router with support for 802.11a/b/g/n. Architected for maximum flexibility, configurability, and resiliency including: PoE output, user-selectable antennas, and integrated battery backup. Typically used as a gateway or to power third party devices such as metering collectors and surveillance cameras or in harsh outdoor mining and industrial applications.



- ❖ **Tropos 6320/6310 Mesh Router:** A small, lightweight high-performance router with integrated antennas in single or dual radio configurations and support for 802.11a/b/g/n. Typically used as a mesh node.



- ❖ **Tropos 1410 Wireless Mesh Router and Wireless Bridge:** Compact, easy to install devices used to build field area communication networks for automation applications. Integrated firewalls and VPNs plus DNP3 over serial and Ethernet support provide enterprise-class security and future-proof operation to legacy automation devices installed in the field.



❖ **Tropos 1310 Distribution Automation Mesh Router:** Economical high performance router for connecting a wide range of distribution automation devices to a Tropos mesh network, reducing operational cost and network management complexity. Supports DNP3 protocol over serial and Ethernet ports.



❖ **Tropos 4310 Mobile Mesh Router:** A single-radio router which uses 802.11b/g to create a mobile infrastructure to extend a Tropos fixed wireless mesh network and expand client coverage area. Its integrated Ethernet port can be used to directly connect a client device(s).



❖ **Tropos 3320/3310 Indoor Mesh Router:** A small, lightweight router for seamlessly extending an outdoor Tropos mesh network indoors. It supports 802.11g/n and is available in single or dual radio configurations.

Tropos Directional Radio Systems

Tropos Directional Radio Systems provide a long-range, high capacity wireless network solution for economical sparse suburban and rural coverage areas or deployed as backhaul for Tropos mesh networks. Typically installed on towers or pole tops, the directional radio systems are outdoor-hardened and secure.



❖ **Tropos PTP/PTMP Radios:** Designed to support high-bandwidth Point-to-Point (PTP) links or high-bandwidth Point-to-Multipoint connectivity (PTMP), the Tropos PTP/PTMP radios deliver high throughput, low latency, and robust Line-of-Sight (LOS) and Non-Line-of-Sight (NLOS) connectivity. They can be configured to operate in different frequency bands including 3.65 GHz, 4.9 GHz Public Safety, 5.4 GHz and 5.8 GHz.

Tropos Network Management

❖ **Tropos Control Centralized Management:** Powerful control and analysis tools, allowing network administrators to perform a range of critical functions to configure, monitor and operate the network. This includes over-the-air configuration and software updates of Tropos mesh routers; real-time end-to-end network performance monitoring and statistical capture; data mining, trend analysis and client connectivity monitoring.



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