

Corporate Overview

Tropos Networks is the market leader in wireless broadband networks enabling enterprises to own and control a smart, affordable, IP infrastructure that provides a cost effective foundation for securely and reliably deploying multiple high-value applications. Municipalities use Tropos to improve the efficiencies of mobile workers and for improving resource conservation. In harsh outdoor industrial environments such as shipping ports, mines, and construction sites, Tropos networks are used for applications such as video security and for improving operational effectiveness.

Tropos has more than 500 customers worldwide and a growing list of solution partners that provide best-of-breed complementary products to help customers implement complete solutions.

HIGH VALUE MUNICIPAL APPLICATIONS

Tropos solutions are used today to deliver a range of metro-scale Wi-Fi applications that improve mobile workforce efficiency, provide cost savings, and enable a broad range of new data-, voice and video-centric applications. A single wireless broadband infrastructure can be used securely as the foundations for one or many high value city services.

- **Public Safety** - Providing mobile public safety workers with high-speed access to information such as mug shots and fingerprints for improving safety within the community. Public safety productivity can improve 20% or more.
- **Video Surveillance** - Enabling police to monitor areas (high crime, public schools, municipal buildings, etc.) or events from a remote location without increasing the workforce, and while providing hard evidence for court cases. Video surveillance can reduce crime rates by 50% or more.
- **Automated Utility Meter Reading** - Centralized meter monitoring and management improves resource conservation, reduces operating costs, enables faster and more accurate pinpointing of outages and leaks, and results in better customer service.
- **Intelligent Transportation Systems** - Improving traffic flow, reducing vehicle emissions, and synchronizing the timing of traffic signals to expedite the way for public transportation and emergency vehicles are just a few of the benefits of an ITS system. In addition, video applications can be added to the network for traffic observation as well as public safety applications such as red light runner monitoring.

- **Mobile City Workforce** - Enabling access to office applications from the field - the ability to complete and file reports and download information improves their effectiveness in serving the community. With more than 50% of city workers mobile, this can mean significant savings.
- **Extended College Campus Access** - Complimenting existing campus networks and extending outdoor Wi-Fi reach to almost anywhere around town. This keeps students connected with their schools and provides flexibility in how they learn and play.
- **Digital Divide** - Provides a valuable resource that can improve quality of life in under privileged communities, encouraging education, computer literacy, and economic development.

TECHNOLOGY

Tropos MetroMesh is the first wireless picocell architecture purpose-built from the ground up for delivering low-cost, high-capacity, high coverage fixed and mobile broadband on a metro-scale. It has been enhanced and refined based on experience from customers using the network in a wide variety of applications and terrains. MetroMesh fractionalizes backhaul, self-configures and self-optimizes, collects and analyzes performance and activity data and ensures reliable client connectivity in unlicensed and licensed spectrum. MetroMesh easily scales to thousands of Tropos routers covering hundreds of contiguous square miles.

Tropos has proven that MetroMesh delivers industry leading symmetrical client throughput at the lowest total cost of ownership in the world's largest metro-scale Wi-Fi mesh networks in operation today.

Our patented MetroMesh™ architecture features unique technologies that set us apart in the industry. This includes:

- **Predictive Wireless Routing Protocol (PWRP)™** - intelligent software that creates a self-organizing and self-healing wireless mesh network that intelligently selects the optimum end-to-end path through the mesh.
- **Advanced Mesh Connectivity (AMCE)™** - compensates for Wi-Fi client variations thereby improving connection reliability.
- **Spectrum and Application Based routing Engine (SABRE)™** - provides rule-based routing and traffic segmentation, allowing assignment of traffic to particular radio interfaces under certain user-defined conditions.
- **Mesh Edge System Management (MESM)™ IP Services Software** - builds secure, multi-use networks and applies QoS and mesh edge airtime limiting.

- **Virtual Radio Interface** - Provides multi-protocol radio support to bring the benefits of MetroMesh to new radio technologies.
- **Correlated Mesh Data Protocol (CMDP)™** - Distributed pre-processing with centralized collection and correlation for efficient optimization and business analytics.
- **Tropos Outdoor- Optimized Router Family** - Tropos designs its own RF power amplifiers and router hardware to ensure best coverage, highest link reliability and lowest MTBF in the industry.

TROPOS SOLUTION TODAY

The growing Tropos MetroMesh solution combines the industry's most sophisticated distributed mesh intelligence with purpose-built hardware platforms and centralized configuration, management and analysis tools. Each MetroMesh router is based on open-standard Wi-Fi (802.11 a/b/g) technology, and includes all of the robust features of the MetroMesh OS.

Tropos MetroMesh Routers:

- Tropos 5320 dual mode outdoor MetroMesh router
- Tropos 5210 single mode outdoor MetroMesh router
- Tropos 4210 mobile MetroMesh router
- Tropos 9532 outdoor public safety (4.9 GHz) MetroMesh router
- Tropos 9422 outdoor mobile public safety (4.9 GHz) MetroMesh router
- Tropos 3210 indoor MetroMesh router

Tropos MetroMesh OS™:

- Layer 4 IP mesh routing software distributed on every Tropos MetroMesh Router

Tropos Configuration, Management and Optimization:

- Tropos Control - centralized configuration and network work health monitoring
- Tropos Insight - advanced analysis, reports, network performance and client visibility

Tropos has the most extensive list of best-of-breed solution partners that help build the complete ecosystem solution for customers for a broad range of applications — public safety, public Internet access, automated meter reading (AMR), intelligent traffic control (ITS), and many more.

BENEFITS

- Mesh topology > Highest capacity, best coverage, lowest-cost metro-scale broadband
- Fractional backhaul > Low installation and operating costs
- Self-organizing > Easy design and installation without RF experts
- Self-healing > High reliability in tough, dynamic outdoor environments
- Performance-based path selection > Always highest client-server throughput with low latency
- Lightweight control protocol > Network scales with low control overhead for citywide coverage
- Virtual network infrastructure > One infrastructure securely serves multiple user types
- Metro-scale mobility > Citywide IP session persistence for continuous connectivity
- Secure > Multi-layer security for the most demanding environments
- Centralized system management > Full network visibility, reporting and control
- Upgradeable > New radio technology can be introduced easily

CUSTOMERS

Tropos has over 500 customers and 100 resellers in 30 countries around the world. We serve municipalities, enterprises, service providers, and government agencies.

INVESTORS

Benchmark Capital
Boston Millennia Partners
Duff Ackerman & Goodrich
Integral Partners
Intel Communications Fund
Voyager Capital
WK Technology Fund

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