

# Corporate Overview

Tropos Networks is the best-of-breed provider of wireless IP broadband networks used for Smart Grid and Smart City applications. Its solutions are used as a regional communications foundation for aggregating multiple high-value applications that cost effectively increase efficiencies and reduce operational costs. Tropos delivers the highest levels of reliability, scalability, and security in the industry. Founded in 2000, Tropos Networks is headquartered in Sunnyvale, California.

## Customers

Tropos has an installed base of more than 800 customers in over 30 countries around the world.

### Smart Grid

Utilities deploying a Smart Grid use Tropos to build a private distribution area communications network covering hundreds to thousands of square miles. Tropos fulfills a key component needed for building the Smart Grid -- an IP broadband network that creates a reliable and secure base upon which multiple demanding smart grid applications such as distribution automation, substation automation, video security and automated metering infrastructure (AMI) backhaul can be deployed. Tropos Smart Grid customers include: Avista, DTE Energy, Glendale Water & Power, Burbank Water & Power, and Silicon Valley Power.

### Smart Cities

Smart Cities utilize Tropos to create a wireless broadband communications infrastructure for a wide range of municipal applications. On average, 50-70% of city workers are mobile (public safety, utility field workers, building inspectors, animal control,...). Enabling them with broadband access in the field has proven to increase worker efficiencies, provide cost savings and reduce vehicle emissions. In addition, Tropos can be used for machine-to-machine applications that improve operational efficiencies such as, Utilities: distribution automation, meter reading (water/gas/electric), SCADA. Transportation: intelligent traffic signal management, transit signal priority, variable message signs, and red light enforcement cameras.

## Products

Tropos products are based upon the Tropos System Architecture which utilizes industry standards and is a decentralized, highly flexible approach. Each Tropos router makes coordinated intelligent routing and airtime management decisions in real-time, maximizing bandwidth and system performance by eliminating the latency and overhead associated with a centralized architecture. It eliminates single points of failure by automatically rerouting traffic around problems, minimizing downtime. Multi-layer standards-based security protects the network, data and users, and Tropos products are FIPS 140-2 certified. The Tropos System Architecture easily scales from tens to hundreds and even thousands of routers participating in a single mesh network with fixed and mobile nodes. Tropos has been granted 30 patents and has an additional 30 pending.



## Mesh Routers

Tropos Mesh Routers combine the industry's most advanced mesh networking intelligence with purpose-built hardware. Each router includes open-standards-based 802.11 a/b/g/n radios optimized for outdoor usage. The router enclosures are ruggedized and weatherized to withstand extreme conditions. Fixed and mobile Tropos mesh routers can be used in any combination on a single network. Each Tropos mesh router makes coordinated intelligent routing and airtime management decisions in real-time, maximizing bandwidth and system performance by eliminating the latency and overhead associated with a centralized architecture. It eliminates single points of failure by automatically rerouting traffic around problems, minimizing downtime. Tropos has been granted 30 patents and has an additional 30 pending related to its unique mesh technologies.

## Directional Radio Systems

Tropos Directional Radio systems are economical long range, point-to-multipoint high capacity wireless network solutions for sparse suburban/rural areas or as backhaul for Tropos Mesh networks.

## Network Management

Tropos Network Management provides unified management and visibility across wireless networks, aggregating and simplifying configuration-, performance-, and network fault management. It is designed to deliver complete visibility and manageability of wireless Smart Grid networks, minimizing costs and complexity in all aspects of deployment, provisioning, operations, and network optimization. It is a powerful control and analysis tool that enables network administrators to perform a range of critical functions.

## Professional Services

Tropos Professional Services are a complete set of offerings that ensure deployment of reliable, secure and efficient end-to-end wireless networks for customer, including: network planning, design, project management, deployment, training, and integration.

## Management

Tom Ayers – President and CEO  
Narasimha Chari – Co-founder and CTO  
John Eichhorn – CFO  
Mike Bailey – Vice President Engineering and Operations  
Rob Pilgrim – Vice President Business and Corporate Development  
Roman Arutyunov – Vice President Product Development  
Cyrus Behroozi – Chief Scientist

## Advisory Board

Reed Hundt, Former Chairman, FCC

## Investors

Benchmark Capital  
Boston Millennia Partners  
Cipio Partners  
Duff Ackerman & Goodrich  
Hanna Ventures  
Integral Capital Partners  
Voyager Capital

## Board of Directors

David Hanna, Hanna Ventures, Chairman  
Curtis Feeny, Voyager Capital  
Bill Gurley, Benchmark Capital  
Tom Ayers, Tropos Networks



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