

SAFARI™

WIRELESS NETWORK CONTROLLER



SAFARI™ WIRELESS NETWORK CONTROLLER

OVERVIEW

The SAFARI Wireless Network Controller is a universal device for implementing indoor and outdoor wireless broadband solutions.

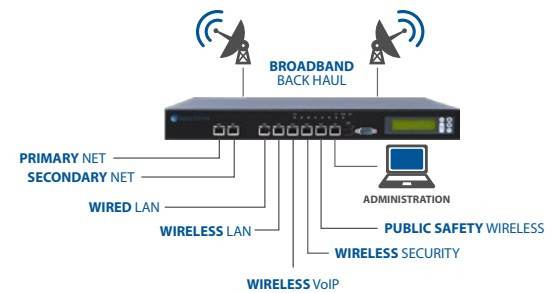
The SAFARI Controller provides a “one box” unified solution for integrating broadband infrastructure and last link connectivity into a single, cost effective, manageable network.

The SAFARI Controller is a spectrum independent equipment platform for easily building stand-alone wireless networks or interlinking a wide range of today’s wireless devices and systems, including the following: unlicensed WiFi, carrier-based 3G/4G/LTE, and VHF/UHF/800 MHz P25 and Tetra LMR systems into a seamless converged IP architecture.

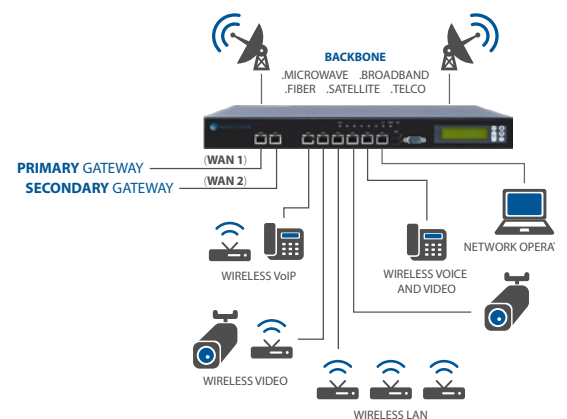
SAFARI’s flexible software and equipment architecture allows IT managers and service providers to quickly implement and manage connectivity for a wide variety of clients requiring fixed mobile solution options.

APPLICATIONS

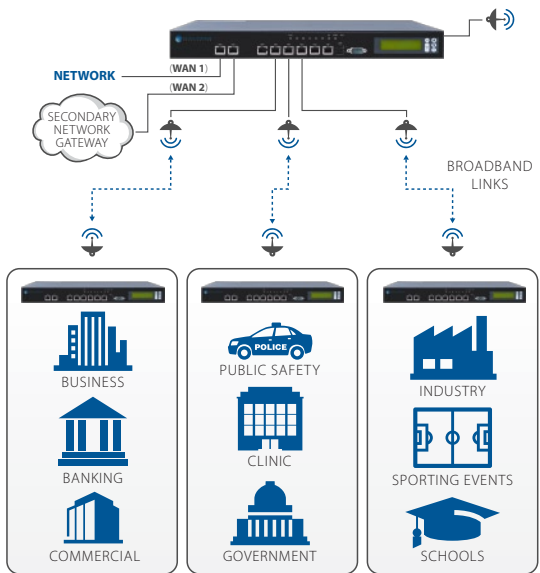
- Redundant end-to-end backbone and last mile enterprise, commercial and governmental communications systems solutions
- High reliability in-building and wide-area secure industrial SCADA and control systems
- Specialized networks for defense and industry



SAFARI NETWORK CONTROLLER HUB provides the capability to interface and intelligently route secure data between wired and wireless architectures.



SAFARI'S END-TO-END QoS capability enables concurrent multiple application support. Primary and secondary gateways provide seamless cutover between network providers to provide uninterrupted up-time performance.



SECURE MUNICIPAL & COMMERCIAL CONNECTIVITY Safari economically enables secure, reliable and cost effective private and public internet services.

- Secure and reliable public safety, health, and education infrastructure
- In-building and mobile enterprise and business networks

BENEFITS:

- Minimizes cost and effort associated with implementing and operating indoor and outdoor infrastructure networks
- Least cost approach of integrating legacy (*non-IP*) and network based equipment into a unified, administered network
- Minimum equipment solution for integration of infrastructure and local end-to-end public, private, and carrier based solutions
- Easy to implement multi-client revenue generation networks

CAPABILITIES

- Integrates with network based unlicensed 802.11, WIMAX, 3/4G, LTE systems
- Supports non-networked radio interfaces (*synchronous, HDLC, X.25, etc.*)
- Robust security options allows multiple independent users to share common radio channels
- Compatible with a wide range of network-based fixed and mobile devices
- Multiple redundancy options maintains overall system delivery reliability

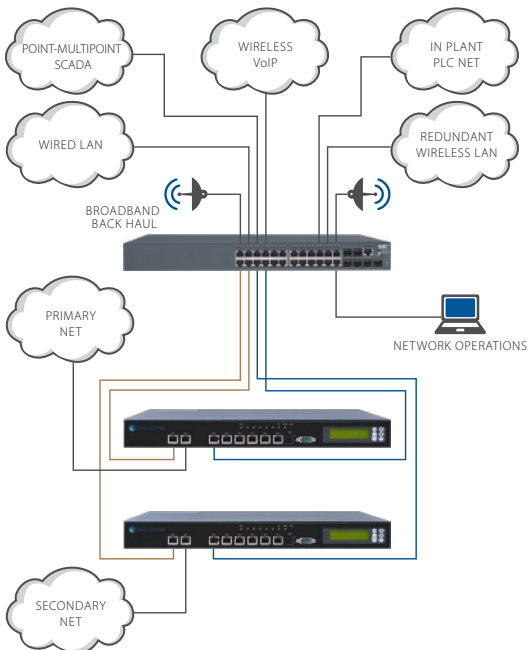
FEATURES

- Government-type FIPS 140-1 Type 1 VPN security provides client-to-client security for high value operations
- SafariView, Safari's powerful embedded web-based provisioning and configuration tool for in-depth administration, monitoring and network maintenance.
- Secure VPN remote access provides trusted administrator and client access
- Robust integrated firewall guards against broad spectrum of network threats
- Standard 2 Year limited warranty covers key hardware and software upgrades.
- Quality of Service (QoS) functions enable tiered services to support differentiated service offerings

GENERAL TECHNICAL SPECIFICATIONS

PHYSICAL PORTS

- Number of WAN Ports: Two (2) each (10/100/1000 based auto configure)
- Number of LAN Ports: Six (6) each 10/100/1000 Base-T Auto configure
- Two (2) USB 2.0 expansion ports
- One (1) RS-232 Console Port



INDUSTRIAL APPLICATIONS

Safari's multi-level, fault-tolerant, multihoming and redundancy features make it an ideal core element for new and retrofit high-value mission critical industrial, defense and civil communications infrastructure. Safari's integrated wired/wireless mesh routing assures continued connectivity.

PHYSICAL DIMENSIONS

- Form Factor: 1U
- Weight: 1.36 kg/3 lbs.
- Dimensions: Length: 430 mm, Width: 411mm, Height: 44 mm (16.93" x 16.18" x .5")

OPERATING CHARACTERISTICS

- Operating Temperature: 0° to 45°C / 32° to 113° F
- Storage Temperature: -20° to 70°C/ -4°F to 158°F
- Power AC Voltage 110-240 VAC, 50-60 Hz 100 Watts

MEMORY

- Memory: 8GB industrial flash with auto sector repairGLOB
- Optional long term solid state archived memory (SATA)

CALCULATED RELIABILITY

- Calculated mean time between failure: 50,000 hours
- Historical in field failure rate: <.01% per year

NETWORKING SPECIFICATIONS

QUALITY OF SERVICE

- User-configurable QoS: by Enet port, VPN, VLAN and wireless link
- Application-based QoS, by network port
- Rate limiting per VLAN user
- Load balancing between gateway WAN ports (*WAN1 and WAN 2*)
- VoIP QoS services

SECURITY FEATURES

- Firewall: SPI, NAT/PAT, ip tables, net filter, knetfilter
- User authentication, local web-based authentication
- Embedded intrusion detection: SNORT, CLAMAVE, RKHUNTER
- Validated FIPS 140-2 TYPE 1 VPN cryptographic encryption on a client-to-client or link basis

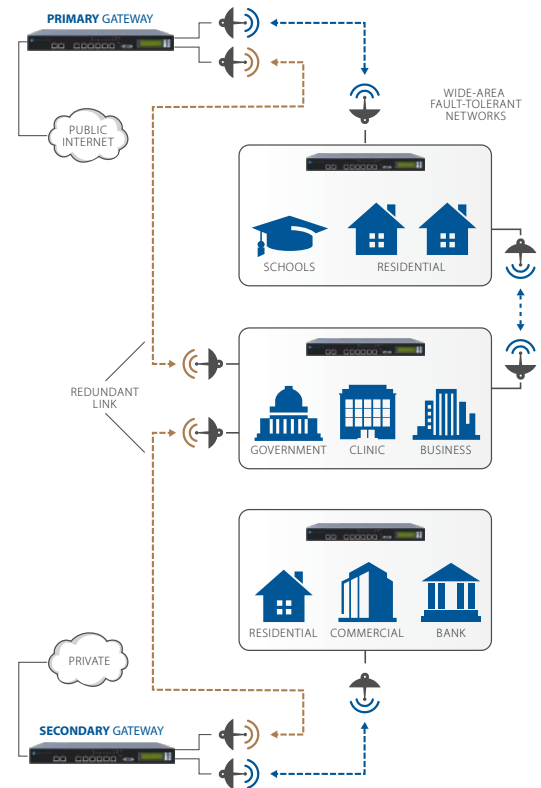
NETWORK MANAGEMENT

- SAFARIVIEW v.3 Embedded Network configuration, administration, monitoring and maintenance manager
- Command Line interface (CLI), TELNET, SSH, RS-232 console port

REDUNDANCY

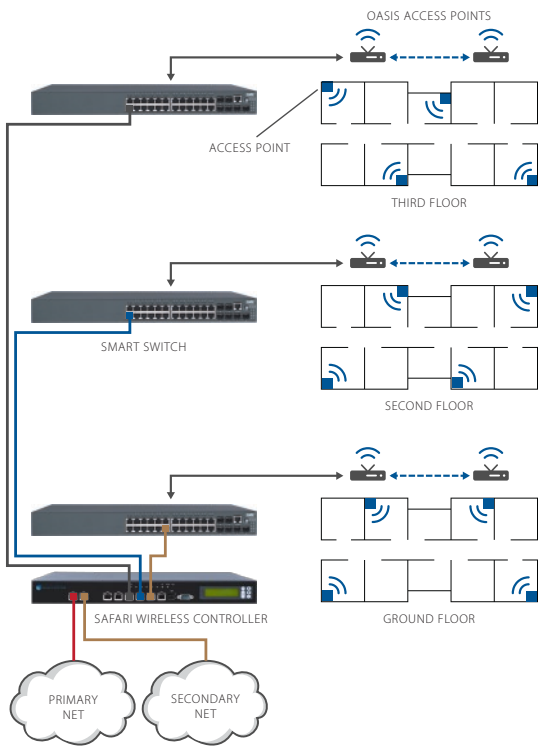
(see figure to the right)

- Wired dual gateway fail-over (*dual WAN*)
- Hot standby secondary backup unit support
- Wireless Auto rerouting via mesh network



WIDE-AREA FAULT TOLERANT NETWORKS

The Safari Network Controller is an enabling tool to quickly and economically upgrade existing digital communications services and deploy new services. Safari's end-to-end service differentiation and security capabilities allow communication providers to offer premier and measured revenue services simultaneously to multiple independent end-users and clients.



INBUILDING COMMUNICATIONS

Safari's inbuilding centralized wireless LAN software option simultaneously supports up to 75 Access Points (AP) with each AP supporting 20 clients. Safari automates the labor intensive task of managing AP configuration, upgrades and system performance. The Safari provides as standard features: roaming, internet gateway firewall services, government type FIPS 140 security and extensive reporting capabilities.



WEBSITE:
www.MetricSystems.com

EMAIL:
swc@metricsystems.com

ADDRESS:
1315 Hotspring Way, Ste. 106
Vista, CA 92081

TELEPHONE:
(760) 560-0348

TOLL FREE:
(800) 549-7421

Fax:
(760) 560-0356

ROUTING

- Mesh: MANET, OLSR
- RIPV2, STATIC, BGP

ROAMING OPTIONS

- Wide-area between infrastructure nodes
- In-building between cells

STATISTIC AND REPORTING

Wide Area Wireless and Wireless LAN (Traffic, Alarm, etc)

- Radio ports (Ethernet, synchronous, asynchronous)
- Wired ports
- WLAN Access Ports
- Enterprise LAN System support (requires OASIS 21011 802.11 AP)
- Supports 75 Oasis Access Points per Safari Controller
- Client stations support up to 20 clients per AP
- Network and AP Alarms
- Network usage per AP
- Network Usage Per SSID

ENTERPRISE WLAN SUPPORT

(Requires OASIS 21011 802.11 Access Point)

- Supports 75 Oasis Access Points per Safari Controller
- Auto Set-up minimizes or eliminates pre-installation field surveys
- Automatic Firmware updates
- Centralized administration, maintenance and diagnostics
- Robust reporting system
- Embedded Gateway and AP/Client security options
- Configurable number of clients (up to 50) per AP.

RADIO NETWORK ARCHITECTURES SUPPORTED

- Point-to-Point, Relay, Mesh, Ad Hoc
- WiFi infrastructure, Station, Monitor, Ad Hoc
- Gateways to 3G/4G
- P25 and Tetra Public Safety radio systems (Tetra may require audio to digital converters)
- Microwave Systems: Ethernet and non-ethernet interfaces
- Broadband licensed and unlicensed radio systems (UHF to 20 GHz)
- WiFi/WiMAX (900 MHz, 2.3-2.6 GHz, 3.3 GHz, 5-6 GHz)
- Specialized defense and security applications

* Subject to export regulations. DOC Classification EAR 99. All brands and trademarks are the property of their respective owners. Specifications subject to change without notice. Rev. 0610 Made in the USA.