



# MeshReach 6000

## IEEE 802.11a/b/g Intelligent Outdoor Multi-Radio High Capacity Mesh Backhaul with Integrated Wireless Access Point

### Feature Highlights

- OSI layer 2 wireless mesh, auto discovery and dynamic configuration of new network nodes
- Provides infrastructure for multiple branded wireless services with diverse security policies
- Support of economical single radio and multiple 802.11 radio modules for low latency, high bandwidth applications
- Industry standard WPA2 (AES) protocol provides security for intra-mesh traffic
- Preservation of 802.1Q and 802.1P tags in intra-mesh transport
- 802.11e wireless QoS support for services and intra-mesh data transfers
- Platform independent Graphical mesh monitoring software
- Remote Configuration Management System (RCMS) support

### Key Benefits

- Combined benefits of mesh networking and high power point to point links
- High power access point that provides broad coverage to 802.11b/g subscribers
- Supports MeshReach CPE for fixed internet access services to enterprise and residential subscribers
- End to end security and QoS for VoIP
- Minimise deployment costs in auto-discovery and quick provisioning



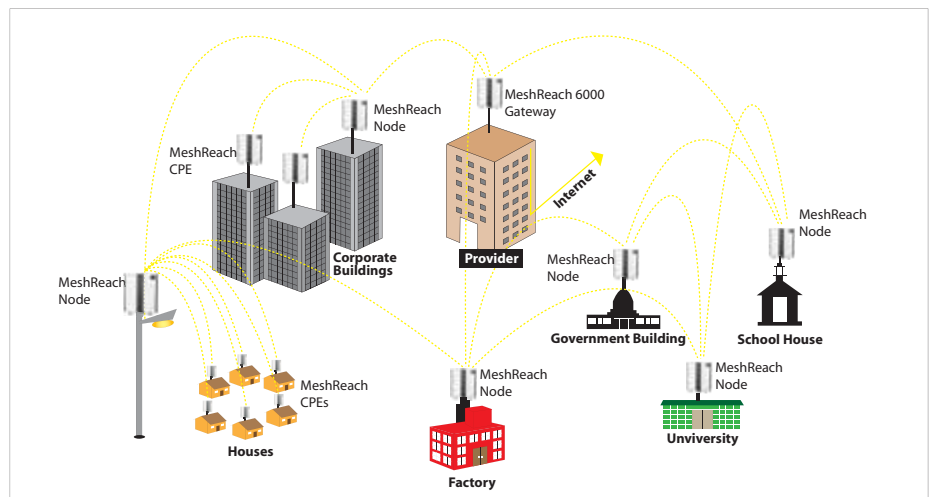
The nex-G MeshReach 6000 is an intelligent Outdoor Multi-Radio Wireless mesh device that integrates long-range, high throughput mesh backhaul and industry standard 802.11 access point which brings to service providers real cost-performance flexibility in deploying Mesh Wi-Fi access networks. The MeshReach 6000 connected to a wired backbone will function as Mesh Gateway and in addition to Node functionality, Mesh Gateway can act as a bridge, router, firewall and access controller.

Using the nex-G Intelligent ReachWireless OS platform, the MeshReach 6000 can be configured for greater coverage forming large metro area Hotzones in both commercial and residential districts.

The high performance technology innovations in the ReachWireless platform offers network scalability, extended wireless coverage, expansion in network capacity, powerful routing engine, ease of installation and management via the nex-G RCMS system.

The ReachWireless Multi-Radio architecture delivers a significant 2.4 GHz Service Set i.e. a 802.11b/g access point which is dedicated to service provisioning for 802.11 clients (notebook computers, PDAs, Wi-Fi phone sets, etc.). It covers the functionality of comprehensive high grade 802.11 access point including MBSSID (Virtual APs) and individual security settings; while the Mesh Set, a 5GHz radio, connects to the high capacity mesh backhaul and 5 GHz MeshReach CPEs.

The nex-G MeshReach 6000 offers a most practical deployment for service operators looking to leverage on existing investments in mesh networking to deliver carrier class wireless services to multiple market segments such as campuses, hospitality, healthcare, warehousing, and wider metropolitan and municipal areas in applications from broadband Internet access and VoIP to video surveillance and security.



nex-G MeshReach 6000 - Multi-Service Mesh Network

At a Glance

# Technical Specifications

## Management

- WEB management via HTTPS
- Command line management via SSH and serial console
- Configuration file upload via HTTPS and FTP
- RCMS configuration, firmware management and status reporting agent with NAT/Firewall traversal functionality
- Subnet or VLAN for management traffic
- Management access control list
- Administrator authentication via RADIUS or TACACS
- SNMP V1/2/3
- SNMP Traps

## Security

- WPA/WPA2 personal and enterprise (with dynamic key from remote RADIUS server) TKIP, AES (CCMP)
- Secure WDS mode, WDS inter access point traffic is secured by WPA/WPA2 in personal or enterprise modes
- Static and dynamic WEP
- 802.1x with EAP-MD5, EAP-TLS, EAP-PEAP, EAP-TTLS, EAP-SIM, EAP-LEAP
- Layer 2 intra access point client isolation
- SSID broadcasting suppression
- Static wireless Access Control List, MAC address filtering

## Physical and Electrical

- Power over Ethernet (PoE) compliant with 802.3af (-48V)
- Power consumption: 15 Watts
- LEDs: Power, Radio and Ethernet lamps
- Antenna Connector: N Female x 2
- Network Connection: Single weatherproof, industrial-grade RJ45 (10/100 Base T Auto MDX)
- USB Serial Console: Mini USB interface for configuration
- Dimensions: 207mm (W) x 243mm (H) x 71mm (D)
- Weight : 2.4kg with mounting brackets

## Warranty

- Hardware: One (1) year on parts and labour : return to point of purchase
- Software: 90 days extendable
- Optional standard and premium support packages available

## Product Description & Code

- nexG6100 : MeshReach Gateway
- nexG6210 : Single Radio MeshReach Node
- nexG6220 : Dual Radio MeshReach Node
- nexG6230 : 3 Radio MeshReach Node\*
- nexG6240 : 4 Radio MeshReach Node\*

\* available in Q2 2007

## Wireless

- Multiple-radio platform up to 4 radios – access and backhaul radio IEEE 802.11 a/b/g
- Modulation:
  - 802.11a, 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK)
  - 802.11b: DSSS (CCK, DQPSK, DBPSK)
- Frequency Band:
  - 2.400–2.483 GHz; 4.940–5.150, 5.150–5.250, 5.250–5.350,
  - 5.420–5.725, 5.725–5.850 GHz
  - (Channel availability subject to country specific regulatory approvals)
- TX Power: Up to 4W EIRP depending on antenna configuration
- 7dBi – 12dBi Omnidirectional antennas (optional – order separately)
- Transmit Power Control (TPC)
- Dynamic Frequency Selection (DFS)
- RX Sensitivity:

2.4GHz	5GHz
97dBm @ 1Mbps	94dBm @ 6Mbps
92dBm @ 11 Mbps	74dBm @ 54 Mbps

## Networking

- VLAN tagging, up to 4096 VLAN tags, VLAN pass-through
- Bridging, spanning tree protocol (STP)
- IP routing
- DHCP server, client, relay
- DNS relay/proxy
- NTP and internal clock support
- Per VLAN, Virtual AP (MBSSID), IP tunnel or physical interface networking settings
- 802.1x authenticator
- 802.1x supplicant
- MAC filtering per interface
- IP filtering per interface
- Stateful inspection firewall
- Digital certificates for device identification
- IPsec with static keys and dynamic re-keying, hardware acceleration for the nex-G platform
- Multiple GRE tunnels
- NAT/NAPT/ IP masquerading per interface and VLAN/Virtual AP (MBSSID)
- IP level QoS for VoIP and multimedia
- QoS per service (HTTP, SSH) or per a host IP address and port
- Dfsserv with 802.1p mapping
- DOS protection
- P2P traffic management

## Environmental Specifications

- Operating Temperature: -40° C to +60°
- Storage Temperature: -40° C to +85° C
- Weather Rating: IP66 / Nema 4 Rating
- Wind Survivability: > 265 km/h
- Operating Humidity: 5% to 95% non-condensing
- Wind Loading (265 km/h): ~ 1020 Newtons
- Shock & Vibration: ETSI 300-019-1-4

## Approvals

- Radio: FCC part 15
- CE mark

## Package Accessories

- Mounting Bracket and accessories
- PoE
- Hardware Installation Guides

## Optional Accessories

- 7 - 10dBi omni directional antenna 2.4GHz / 5.8GHz

