

## Indoor Access Point EAP3033

The best solution for High-Density WiFi networks

Edgewater Wireless WiFi3™ powered access point products enable innovative service providers to plan, build and deploy reliable, high-capacity services for high-density wireless data demand in virtually any environment.

Do more with less! Fewer access points delivering high quality service at a lower overall deployment cost is what makes our patented WiFi3™ technology the right choice for your next WiFi network.



# The Advantages of WiFi3™ for High-Density User Environments

## Advantages of WiFi3™ for High Density User Environments

Edgewater Wireless' WiFi3™ powered access points are designed to address the needs of carrier-class WiFi deployments – indoor and outdoor. Our wideband, 802.11 WiFi3™ radio architecture, provides up to 50x greater performance over single-channel access points and offers a rich, carrier feature set that includes integrated, real-time spectral surveillance, right out of the box.

Each EAP3000 integrates one or more WiFi3™ powered radios capable of supporting up to three concurrent channels simultaneously. Each channel supports four virtual SSIDs providing unbeatable flexibility for configuration. Each WiFi3™ integrated radio supports Edgewater Wireless' Spectrum Surveillance Architecture (SSA™) with the ability to identify interferers and security threats. Independent transmit power control is supported on each channel and can be configured by the operator to optimize the network deployment.

Our products are designed to be managed with our comprehensive, user friendly and intuitive Element Management System – EdgeNet. It gives service providers tremendous flexibility to configure and independently monitor each 802.11 channel in the network without the high-cost of unnecessary controller based architecture.



At Edgewater, it's about delivering the highest Quality of Service WiFi without additional annual licensing fees for customers!

Most traditional WiFi networks were designed based on the ranges for distance and performance delivered by 802.11 standard operating 2.4Ghz protocols. This model worked when everyone was walking around with just one Wi-Fi enabled device.

Fast-forward to today. The average user has 2-3 WiFi enabled devices drawing down data from the network and seriously impacting network performance.

Network operators and service providers can leverage Edgewater Wireless WiFi3™ powered solutions to deliver reliable, high-capacity indoor/outdoor WiFi services for high-density data demand and user environments.

# WiFi3™ Features

## Unparalleled Advantages of WiFi3™

- Multi-channel radio architecture offering up to three concurrent channels per radio. Mitigating co-channel and adjacent channel interference, which has plagued traditional WiFi solutions.
- SSA™ real-time, integrated Spectral Surveillance Architecture dramatically lowers operational expense.
- ICA™ Intelligent Channel Association enables the operator to configure each channel to support different media. Media such as voice, video and data, different levels of QoS, security or throughput performance.
- Load Balancing enables the operator to offload heavily loaded channels to other channels and deliver the highest QoS to the most users on the network with integrated dynamic load balancing across multichannel radio architecture.
- PowerZoning™ – with independent transmit power control per channel, APs can be configured to minimize inter-AP interference for APs that are deployed in close proximity to each other without compromising network performance. It maximizes frequency reuse to deliver a high performance / high QoS end user experience with the highest channel density available.

### Connecting the Crowd

The exponential growth of WiFi is happening on a global scale and with this impressive growth, comes the challenge of WiFi interference, security and performance.

Edgewater Wireless Aps with WiFi3™ mitigates interference and dramatically improves network performance common in dirty, high density & complex environments.

Edgewater Wireless WiFi3™ powered APs have applications for virtually any high-density indoor or outdoor application. It is ideal for data offload & mobile backhaul, casino and resort WiFi, hotels & marinas, enterprise & campus WiFi and stadiums.

Carriers and service providers can now take advantage of the unique capabilities that Edgewater Wireless Access Points deliver with WiFi3™.

# The WiFi3™ Advantage

## Multi-Channel WiFi Features

### UNIQUE PERFORMANCE ADVANTAGES

- Multiple, independent channels per radio and multiple radios per Access Point (AP) that deliver exceptional throughput advantages over conventional Access Points.
- 162Mbps per radio •
- Basic (3-channel) configuration provides over 50x increased throughput performance versus single channel access points.
- Uses industry leading, proprietary data converter technology.
- Roving Monitor that acts as a sniffer looking for rogue or unauthorized access. Spectral Signature Recognition identifies types of signals such as frequency hoppers, microwave ovens, radar, OFDM, CCK, Bluetooth, cordless phones
- Enables continuous, concurrent scanning and simultaneous data communications.



### HIGH FLEXIBILITY

- Three independent channels per radio chipset
- Four Virtual APs per channel expandable to multiple radios per AP.
- QoS, encryption, data/media-types configured on a per VAP basis.
- Enhanced Quality of Service with WiFi3™s, supporting multiple SSID's per channel, enable enhanced QoS for data, video, voice - priority communication, variable classes 802.11i security on per SSID basis.
- Extendible from 3 channels to 6 channels (3 channels per radio, 162Mbps to 324Mbps).
- Interoperability verified through WiFi and UNH certification.
- Unsurpassed security monitors entire communications spectrum and provides spectrally aware security across all 802.11 frequency bands.
- 3 Channels per radio, 4 VAPs/channel, QoS, Security enabled on a per VAP basis.
- Wideband enables spectral surveillance of the entire 802.11b/g/n band simultaneously with data transfer across three channels.
- Locating with multiple APs
- Certified "WiFi Compliant" & 802.11i (AES)

# EAP3033 Product Specifications

The EAP3033 offers the flexibility of a dual-band AP with three channels in 2.4GHz and 3 channels in 5GHz band.

The EAP3033 has three independent 2.4GHz channels and three 5GHz channels to concurrently support voice, video, data, security cameras and other WiFi enabled media while offering high-performance connectivity to the users.

<b>NETWORKING CAPABILITIES</b>	<ul style="list-style-type: none"> <li>• MAC Filtering</li> <li>• Ethertype Filtering</li> <li>• Link Aggregation</li> <li>• 802.3ad-wireline &amp; 802.3as – wireless</li> <li>• Layer 2 Roaming (802.11 (IAPP) Spanning Tree Protocol (802.1d/s/w)</li> </ul>	<ul style="list-style-type: none"> <li>• MAC ACL</li> <li>• DMAC Substitution</li> <li>• SMAC Substitution</li> <li>• MACin MAC</li> </ul>
<b>WARRANTY AND OTHER SERVICES</b>	<ul style="list-style-type: none"> <li>• 1 year Hardware replacement</li> <li>• Technical support: 90 days</li> </ul>	
<b>PHYSICAL DESCRIPTION</b>	<ul style="list-style-type: none"> <li>• 2 External Antennas</li> <li>• Optional Wall/Ceiling Mounting Adapter</li> <li>• Dimensions: 11" x 7" x 1.5"</li> </ul>	
<b>ANTENNAS</b>	<ul style="list-style-type: none"> <li>• External 2.4Ghz</li> <li>• Dual Band External, 2.4GHz</li> </ul>	
<b>MANAGEMENT</b>	<ul style="list-style-type: none"> <li>•Enterprise Grade Web GUI</li> <li>•SNMP v1/2</li> <li>•HTTPS</li> </ul>	<ul style="list-style-type: none"> <li>• CLI-SSHv2</li> <li>• CLI-TELNET</li> <li>• CLI-SERIAL</li> </ul>
<b>POWER SUPPLY</b>	<ul style="list-style-type: none"> <li>•48Vdc</li> <li>•100 -240Vac, 50–60Hz, AC Adapter</li> <li>•PoE IEEE 802.af compatible</li> </ul>	
<b>ENVIRONMENTAL</b>	<ul style="list-style-type: none"> <li>•Operating Temperature: -40 to 50°C</li> <li>•Storage Temperature: -40 to 85°C</li> <li>•Humidity: 0 to 95% non-condensing</li> </ul>	<ul style="list-style-type: none"> <li>• Media Interfaces</li> <li>• 10/100 Base-T (RJ45)</li> <li>• 10/100 PoE (RJ45)</li> <li>• RS-232</li> </ul>
<b>OPERATIONAL MODES</b>	<ul style="list-style-type: none"> <li>•Point-to-Point</li> <li>•Point-to- Multipoint</li> <li>•Repeater (WDS Root, WDS Repeater)</li> </ul>	
<b>LEDs</b>	<ul style="list-style-type: none"> <li>•Power 802.11b/g</li> <li>•Ethernet 1</li> <li>•Ethernet 2</li> </ul>	

RADIO	<ul style="list-style-type: none"> <li>• Transfer Data Rates: 802.11g: 54,48,36,24,18,12,9,6,5.5,2,1 802.11b: 11,6,5.5,2,1,</li> </ul>	<ul style="list-style-type: none"> <li>• Modulation type: DSSS OFDM</li> <li>• Channels/frequency range Multi-channel 802.11b/g: 2.4Ghz</li> </ul>
SECURITY	<ul style="list-style-type: none"> <li>• Authentication Null 802.1X(EAP-TLS) 802.1X(EAP-TTLS) 802.1X (PEAPv0- MSCHAPv2) 802.1X (PEAPv1- MSCHAPv2) 802.1X (PEAPv1/EAP- GCT) 802.1X(EAP-SIM) WPA2 – Pre-authentication WPA-PSK Pre-Shared Key</li> </ul>	<ul style="list-style-type: none"> <li>• Encryption Null 128 bit CCMP-CBC TKIP 64bit WEP 128 bit WEP</li> </ul>
LAYER 2	<ul style="list-style-type: none"> <li>• 802.1Q</li> <li>• Management VLAN</li> </ul>	
RADIO SUPPORT	<ul style="list-style-type: none"> <li>• 802.11g Protected Mode Dynamic</li> <li>• Automatic Channel Select</li> <li>• Tx Power</li> <li>• Maximum Station Data Rate</li> <li>• Multicast Data Rate</li> <li>• Antenna Type</li> <li>• Antenna Diversity</li> <li>• Fragmentation Length Beacon interval Data Beacon Rate</li> </ul>	<ul style="list-style-type: none"> <li>• RTS threshold</li> <li>• Preamble Mode</li> <li>• Integrated Rogue AP detection</li> <li>• Station - Station Detect/ Prevention</li> <li>• WiFi<sup>3</sup> Spectral Scanner</li> <li>• Spectral Signature Recognition</li> <li>• Promiscuous MAC Mode</li> </ul>
RFC COMPLIANCE	<ul style="list-style-type: none"> <li>• IP: RFC C791</li> <li>• ICMP: RFC792</li> <li>• TCP: RFC793</li> <li>• TFTP: RFC783</li> <li>• ARP: RFC826</li> <li>• UDP: RFC791</li> <li>• IP over Ethernet: RFC894</li> </ul>	<ul style="list-style-type: none"> <li>• NMPv1: RFC1157</li> <li>• SNMP MIB II: RFC1573</li> <li>• SNMP v2c: RFC1905, 1906</li> <li>• SNTP: RFC2030</li> <li>• HTTPS: RFC2068</li> <li>• Syslog: RFC3164</li> <li>• Telnet: RFC3164</li> <li>• SSH: SSHv2</li> </ul>
STANDARDS	<ul style="list-style-type: none"> <li>• Wi-Fi Certified</li> <li>• UL/CSA 1950</li> <li>• FCC Part 15 Class B</li> </ul>	



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