

# 3COM WIRELESS ACCESS CONTROLLERS



3Com Wireless Unified LAN  
Controller 3Com WX3008



3Com Wireless Unified LAN  
Controller 3Com WX3010



3Com Wireless Unified LAN  
Controller WX3024



3Com Wireless LAN  
Controller Blade for the  
S7900E/S7500E Chassis

## OVERVIEW

Enterprise-class wireless user access control and management provide wireless networks with expanded system capacity, enhanced performance and powerful control capabilities. 3Com® Wireless Access Controllers are ideal for deployment in branch offices and campus networks where centralized management of wired and wireless resources is critical. They provide redundancy, quality of service (QoS), and enhanced authentication and security features that surpass those of standalone wireless networks. Featured controllers include the 3Com WX 3008, 3Com WX3010, 3Com WX3024 and 3Com Wireless Controller Blade for the S7900E Chassis.

## KEY BENEFITS

### Expands Wireless Control over the Growing Enterprise

3Com employs an innovative authentication mechanism based on user identities, rather than ports or devices to guarantee network mobility and security. During authentication, an authentication server assigns a user profile to a device. If the user passes authentication, the device uses the configuration contents in the user profile to restrict the accessible resources of the user. When this user goes offline, the device disables the user profile. As a result, user profiles are applicable to online users rather than offline users. This includes users who did not pass authentication.

Information exchanged through access controllers in the WLAN network enables consistent access and security policies across the entire network. In addition, Advanced

Encryption Standard (AES), Temporal Key Integrity Protocol (TKIP) and Wired Equivalency Protocol (WEP) encryption functions based on a combination of Wi-Fi Protected Access (WPA™)/(WPA2™) and 802.1X authentication enhance network security.

### Centralizes Management of 802.11n APs

3Com Wireless Controllers series can be used to manage 802.11a/b/g/n Access Points (APs). In 802.11n mode, the 3Com 802.11n-based AP can provide wireless access rates equivalent to six times the wireless access rates provided by a conventional 802.11a/b/g network, expanding coverage and capably deploying wireless multimedia applications.

The 3Com WX3000 Series also provides an embedded portal server to provide security authentication for users in places where clients cannot be installed.

### Provides Advanced Wireless User Management

Using MAC-based authentication and access control, a user can configure and modify the rights of user groups on the AAA server, and can configure the rights of specific users. This fine user rights control method greatly enhances the availability of the wireless network and enables network administrators to easily allocate access rights to various levels of users or user groups.

### Enables Flexible Data Forwarding Modes

To ensure the seamless transmission of data, 3Com Wireless Controllers support both centralized and distributed data forwarding. Combining their mutual



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## KEY BENEFITS (continued)

advantages, users can configure local forwarding for data traffic from clients with a specified service-set identifier (SSID), virtual LAN (VLAN), or SSID+VLAN and centralized forwarding for data traffic from other clients. This architecture, which effectively separates control traffic from data traffic, reduces or eliminates potential access controller (AC) processing performance bottlenecks.

### Supports Location-Based User Access Control

3Com Wireless Controllers supports AP-based user access control, enabling administrators to control the location a wireless user can access in the network. When a wireless user attempts to access the network, the authentication server forwards a list of APs that the user can access to the AC, ensuring that the wireless user can access only specified and pre-determined APs.

### Applies Quality of Service Policies on a Per-User Basis

For networks based on user authorization, a user is authenticated before accessing a network. This authorization controls the network areas that a user can access as well as the network QoS (such as the access bandwidth and access priority) the user can obtain.

Administrators configuring a group of policies based on a user group or a group of customized policies in the profile of each user allocate a profile in advance to each user group or each specific user. When the user has passed authentication and is online, the port through which the user accesses the network dynamically forwards the profile data, complete with the access priority and bandwidth associated with their profile. When the user is offline, the configuration data of the user is removed from this port and the special access rights of the user is disabled on this port. The QoS profile can carry the following configuration data:

- › access control list (ACL) data
- › QoS data (priority, bandwidth control, 802.1p and Differentiated Services Code Point (DSCP) mark)
- › VLAN data

In a network where users are often on the move, the QoS profile provides a more modularized, simpler means of facilitating routine management tasks.

### Controlled, Secure Access to Mission-critical Data

To ensure users accessing a network comply with its security policies—minimizing the risk of security breaches or network downtime caused by poorly protected devices—3Com Wireless Access Controllers

provide an Endpoint Admission Defense (EAD) solution. EAD integrates secure clients, security policy servers, network access devices and existing IT resources, and forcibly applies enterprise security policies to terminals accessing the network, controlling network behavior and proactively defending the network from malicious, external attacks.

### Exceptional Reliability Ensures Optimum Uptime

3Com Wireless Access Controllers support a range of redundancy options to ensure uptime and availability.

#### N+N Redundancy

When N WX3000 Series or the S7900E Blade ACs are deployed in a WLAN, the N+N redundancy feature enables an AP to choose an optimal AC for access. This mechanism implements both AC redundancy and load sharing. Users can configure the AP to select the optimal AC according to the loads or predefined priorities of the AC. To implement N+N redundancy, the N-1 ACs must be capable of managing all the deployed APs.

#### N+1 Redundancy

N+1 redundancy is the best solution in terms of reliability and economy in which N S790E Blade ACs operate independently and another AC operates as a standby AC. When one of the N ACs fails, the standby AC will replace it. When the active AC recovers, APs will again associate with it.

#### 1+1 Redundancy

The S7900E Blade supports fast handover-capable 1+1 redundancy and can be deployed in scenarios requiring high reliability. In such a deployment, one AC is the active AC, and the other is the standby AC. FIT APs establish CAPWAP links with both the ACs, but only the links to the active AC are active. When the active AC fails, the heartbeat mechanism between the two ACs ensures that the standby AC can sense the failure within 300 ms and then inform APs to use links to it, thus ensuring service continuity.

### Robust AP Support

A standard WX3000 Series wireless access controller can support up to 24 APs and 1,024 wireless users for small-sized deployments and remote offices. A standard S7900E blade wireless access controller can support up to 128 APs and, through license upgrades, can support up to 640 APs and 20,480 wireless users for large-sized WLAN deployments.

# WIRELESS FEATURES

## Mobility Architecture

### Network and Mobility Domains

Groups of 3Com wireless controllers share user information and authorizations as users roam, supporting uninterrupted mobility and enforcing security across the entire wireless network.

### Distributed Forwarding

Optimize traffic flow, reducing latency and improving performance.

### Topology Independence

By providing a Layer 2 path for Layer 3 traffic, 3Com wireless controllers, switches and MAPs operate as an integrated infrastructure separated by L2/L3 devices even in distributed remote networks, making it easy to expand or modify the WLAN as needed.

### Fast Roaming

Quick handoff of user information and authorizations within the Network and Mobility Domain enables seamless roaming with session integrity and mobility robust enough to support voice traffic.

### Multiple Per-User Queues

Class-based traffic queuing at the MAP helps ensure that voice and other real-time applications receive the class of service and QoS they need over the WLAN.

### Pay-as-You-Grow Scalability

As the customer network grows and higher density is needed, customers simply order an upgrade license for their S7900E chassis blade and upgrades their number of APs supported in increments of 128 to a limit of 640 APs, the highest density controller in the industry (LIS-WX-128).

## Encryption

### Enterprise-Class Encryption

WPA2, AES, TKIP and WEP encryption performed at the MAP help protect and secure all communications.

### Per-User Encryption Assignment

Different security policies are enforced on a per-user or per-group basis for flexible, in-depth security control and management.

## AAA Security

### Local or RADIUS Server IEEE 802.1X Authentication

Centralized authentication control and management of all network users helps ensure that only authorized users access the network.

### Virtual Private Group Support

IT staff can assign policies that control per-user or per-group network access throughout the WLAN for secure seamless roaming and to keep user traffic separate and secure.

### Mobility Profile

IT staff can dynamically apply access permissions based on attributes returned by the AAA server indicating which MAP or LAN authentication ports a user or group can use.

### AAA Integration and RADIUS Offloading

Wireless access controllers can shoulder back-end encryption key generation and authentication tasks, reducing the processing load and increasing the scale and efficiency of central AAA RADIUS servers while reducing AAA traffic over the WLAN.

### User, MAC and VLAN “Globbing”

IT staff can assign AAA policies to user, subnet or device groups for convenient, efficient, cost-effective WLAN administration.

### Bonded Authentication

By bonding 802.1X machine authentication with 802.1X user authentication, only trusted users and client devices are provided network access.

### Time-of-Day/Day-of-Week/Location Access

IT staff are able to control and restrict network resource access based on building location and/or on an hourly, daily, or weekly basis.

### Location Policy Enforcement

IT staff can add or override AAA-defined access permissions based on user location, providing a choice of centralized or location-specific policy implementation.

## RF Security and Control

### Rogue AP Detection

Scheduled or on-demand RF scans identify unauthorized APs and ad-hoc networks and alert central IT staff; dedicated APs can continually sweep the airspace for 24x7 protection in environments that require higher security.

### Dual-Band RF Scans

Both dual- and single-radio APs can sweep both 2.4 GHz and 5 GHz 802.11n bands and associated channels while the WLAN stays up and running.

### Real-time RF Monitoring and Control

RF scans measure signal strength and usage; software tools dynamically adjust traffic loads, power, RF footprint or channel assignments to maximize coverage with capacity.

### Managed Access Point Control

Centrally maintained and distributed MAP settings eliminate the need to individually configure each device. The MAPs also enable granular bandwidth management on a per-user or SSID basis and load balancing features that vastly improve network performance and end-user experience.

## Central Control and Management

### Identity-Based Networking

Provides all services based on user identity so things like virtual private group membership, ACLs, authentication, roaming policies and history, location tracking, bandwidth usage and other authorizations all stay with users as they roam; also tells the IT manager who is connected to the network, where they are, where they have been, what services they are using and what services they've used.

## SWITCH FEATURES

### Advanced Gigabit Switching

Integrated 10/100/1000 switching ports give high-speed connections for Access Points or wired users. Achieve up to a 10-times performance improvement with Gigabit switching over Fast Ethernet. Tri-speed operation provides full backward compatibility for desktops not yet upgraded to Gigabit.

### Available 10 Gigabit Uplinks

The 3Com Wireless Unified LAN Controller WX3024 model supports 10 Gigabit uplinks to tie into an evolving core network infrastructure. They are XENPAK transceiver ready, requiring no additional module for 10 Gigabit XENPAK support. For those wishing for XFP-based 10 Gigabit support, a module for 10 Gigabit XFP support is also available. In either case, the proper transceiver—XENPAK or XFP—must be separately ordered.

### Common Operating System

3Com Wireless Unified LAN Controller WX3000 models use the same proven 3Com Comware Operating System software as used in the 3Com premium enterprise switches such as the Switch 4200G, 4500G, 4800G, 5500G and S7900E families and enterprise routers like the 3Com MSR router families.

### Advanced Convergence Features

3Com Wireless Unified LAN Controller WX3000 models combine unified wireless management, high performance Gigabit switching, QoS and traffic management features to help ensure essential applications get the appropriate priority for efficient utilization of network resources.

With available Power over Ethernet, these models ready your network for running converged applications such as wireless, voice and video surveillance over the network.

### Flexible Basic Layer 3 Routing

Layer 3 static routing, with 32 definable static routes, gives this unified switch added flexibility to handle more complex networking needs.

### Redundant Power System Support

The 3Com Wireless Unified LAN Controller WX3024 model supports a redundant power system (RPS) connection. For this model, the RPS unit delivers redundant power so there is continued operation should the switch unit power supply fail. This allows for

continuous operation of advanced Enterprise networks. Available are 3Com H3C RPS solutions. These are enterprise-class power redundancy systems that work with many 3Com devices. 3Com Corporation manufactures networking equipment under the H3C brand for sale into many markets. The H3C RPS 1000 is 1U high and provides multiple power output connections to support multiple switch units at the same time. Two power rectifiers can be installed for 1+1 load sharing and power redundancy. It supports switches with -54V RPS connections, and delivers sufficient power to fully provision all PoE ports of a switch with full power redundancy.

### Advanced Security

Switch-level security features include:

- › IEEE 802.1X network access control, a standards-based security combined with RADIUS authentication.
- › RADIUS Authenticated Device Access Authentication to authenticate attached devices via MAC address for an additional (RADA) level of endpoint security.
- › Access Control Lists (ACLs) Enable usage policies at each point of access to the network via the switch

#### Other Switching Features

The 3Com Wireless Unified LAN Controller WX3000 models support:

- › Multicast filtering using IGMP snooping versions 1, 2 and 3 to eliminate unneeded traffic on the network, and improve network efficiency.
- › Spanning Tree, Rapid Spanning Tree, and Multiple Spanning Tree support to improve network resiliency and availability.

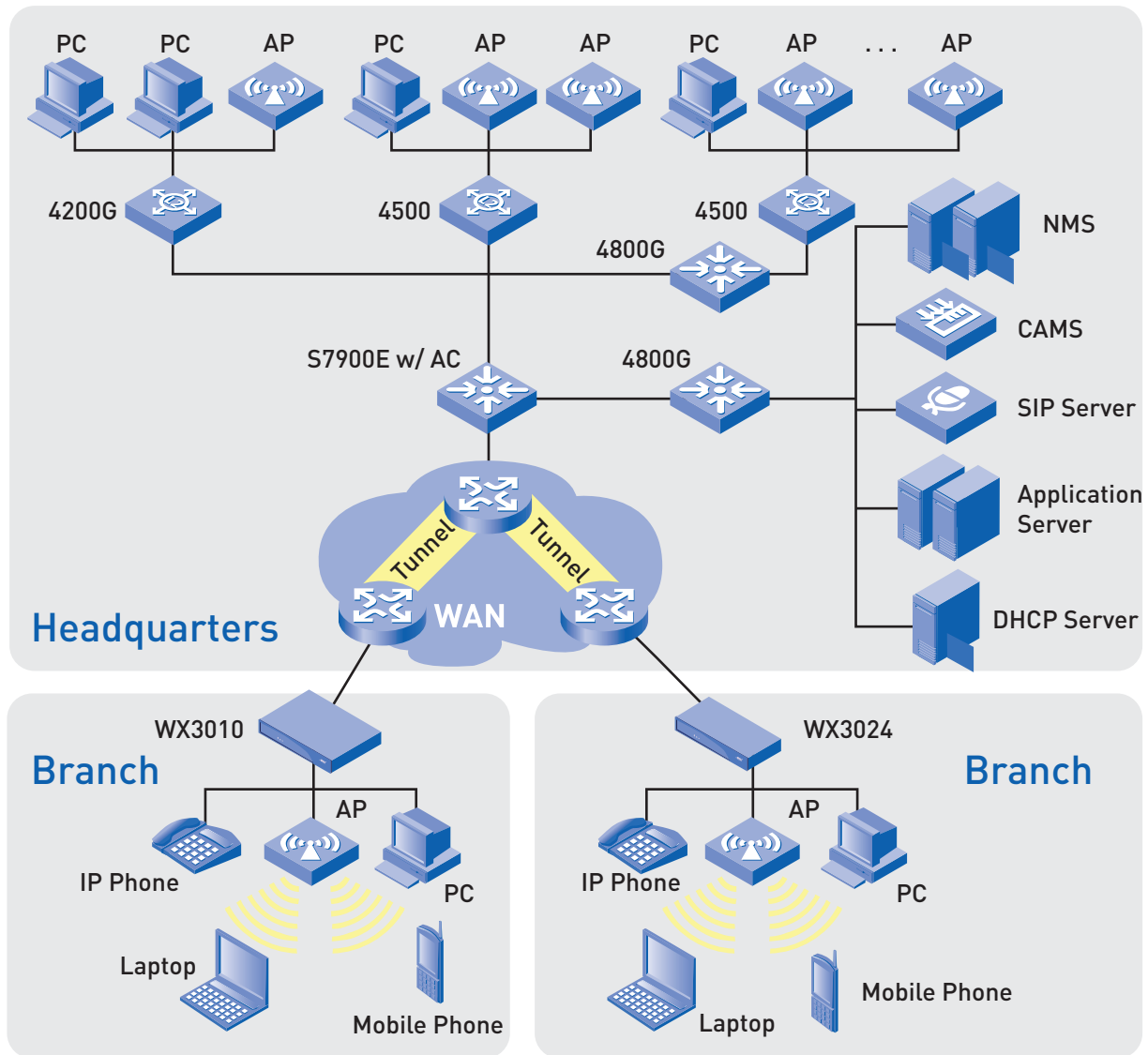
## NETWORKING APPLICATION

### Mobile Network Solution for Headquarters of Large-Sized Enterprises

A mobile network solution integrating wired and wireless access for headquarters of large-sized enterprises is a typical application for S7900E Blade for integrated controller.

The S7900E Blade controller integrated switches can be used with WX3000 Series wireless access controllers to provide a perfect solution for networking between the headquarters and branches of a large-sized enterprise.

The S7900E Blade wireless access controller cards provide large capacity and high processing performance. Their support for large numbers of APs ensures wireless coverage to almost anywhere a signal can reach.



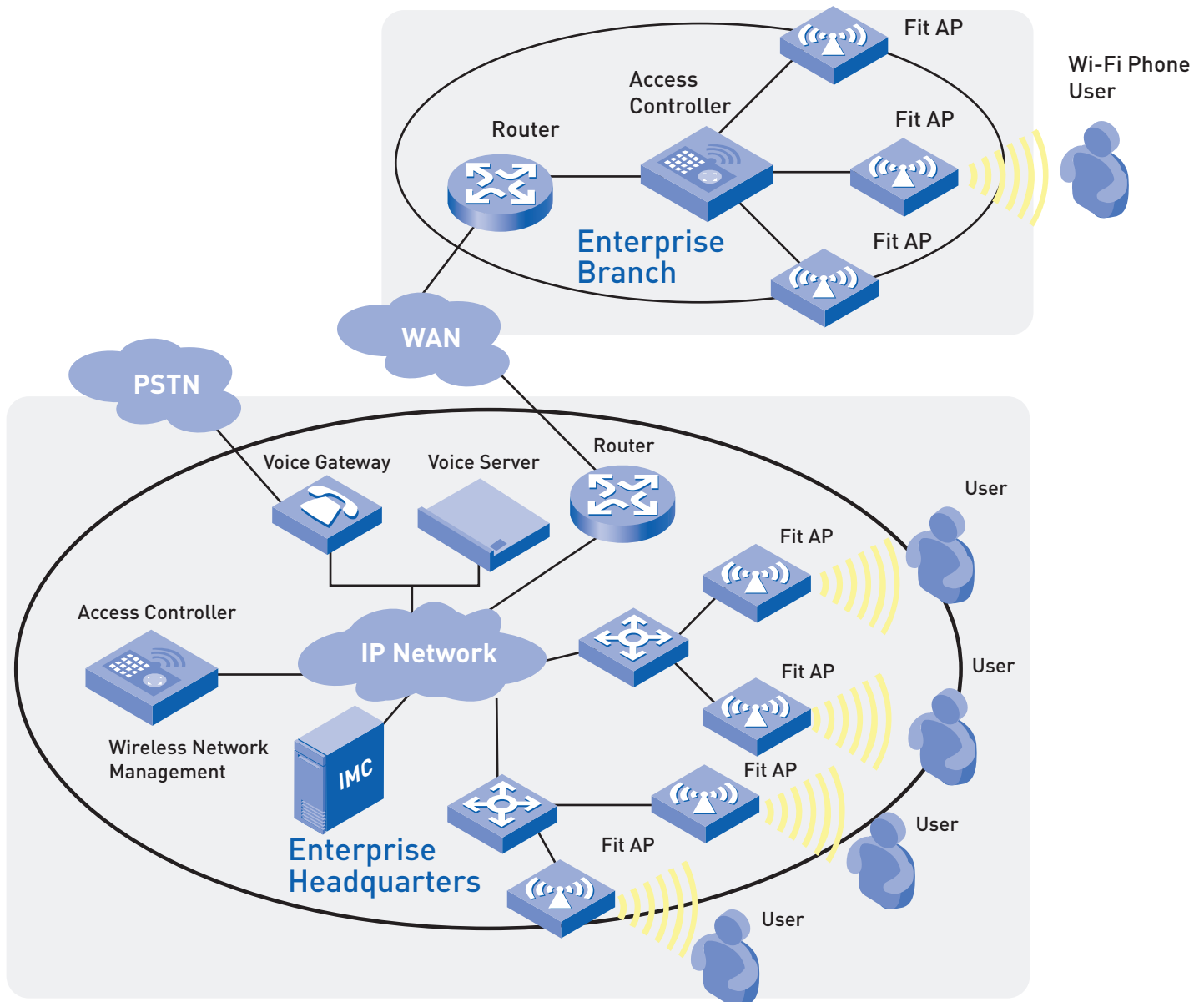
With this solution, the headquarters of a large enterprise can easily construct a large-capacity wireless IT network

## Enterprise-Level Wireless Data and Voice Access Integrated Solution.

### Further applications include:

- 1) Data services for fixed-access wireless users to access wired networks at high speed, or for wireless users to communicate with one another. For instance, employees of an enterprise using wireless terminals (such as wireless computer terminals, wireless communication terminals and wireless locators) to access the wired network resources of the enterprise through a wireless network, or two laptops communicating with each other through a wireless network.
- 2) Multimedia services for fixed-access wireless users enabling users to receive multimedia training through a wireless network.
- 3) Voice services of low-speed moving wireless users enabling users to make phone calls through Wi-Fi® phones.
- 4) Data services for low-speed moving wireless users to access wired networks. For instance, a doctor uses a mobile terminal to access the hospital's wired network to view and edit electronic cases.

To implement wireless voice and data services, WX3000 Series wireless access controllers must be deployed together with Ethernet switches and routers to construct a wireless-enabled network for the services, as shown below.



Enterprise-level wireless data and voice access integrated solution

## SERVICE AND SUPPORT

3Com Global Services offers the resources and talents of a major corporation plus more than three decades of experience in resolving network challenges and delivering business benefits to enterprises around the world.

Global support with a personalized focus in the local language helps drive productivity and minimize expenses. Because 3Com understands both the technology and the business, we're the partner you need to maintain your competitive edge and remain strong.

### Additional Service, Support and Training Offerings

#### 3Com Guardian<sup>SM</sup> Maintenance Service

This service provides comprehensive on-site support and includes advance hardware replacement, expedited telephone technical support and software upgrades

#### 3Com Express<sup>SM</sup> Maintenance Service

This service provides speedy access to 3Com shipment of advance hardware replacements (including a four-hour option), expedited telephone technical support and software upgrades

#### Network Health Check

An activity-auditing service focused on improving network performance and productivity

Includes traffic monitoring, utilization analysis, problem identification, and asset deployment recommendations

Extensive report provides blueprint for action

#### Network Installation and Implementation Services

Experts set-up and configure equipment and integrate technologies to maximize functionality and minimize business disruption

For large and complex sites, implementation services include personalized configuration, project management, extended testing and coaching on network administration

#### Project Management

Provides extra focus and resources that special projects demand

3Com engineers manage entire process from initial specifications to post-project review

Using structured methodology, requirements are identified, projects planned and progress of implementation activities tracked

#### Global Education and Training

Self-paced and instructor-led technology and product courses, plus certification programs

For additional information, please visit [www.3Com.com/services](http://www.3Com.com/services)

## PRODUCT WARRANTY

The 3Com Wireless Access Controllers have a 1-year hardware warranty that includes the power supply and fan assembly.

# SPECIFICATIONS

## TOTAL PORTS

### WX3008

8 10/100/1000BASE-T ports, and serial console port

### WX3010

8 10/100/1000BASE-T ports, 2 SFP ports will accommodate either of the following SFP: 1000BASE-SX or 1000BASE-LX or 1000BASE-LX BIDI or 1000BASE-LX BIDI BX10-D or 1000BASE-LX BIDI BX10-U or 1000BASE-LX BIDI BX10-U or 100BASE-FX or 100BASE-LX SFP, and serial console port.

### WX3024

24 10/100/1000BASE-T ports, in which four are combo ports, will accommodate either of the following SFP: 1000BASE-SX or 1000BASE-LX or 1000BASE-LX BIDI or 1000BASE-LX BIDI BX10-D or 1000BASE-LX BIDI BX10-U or 1000BASE-LX BIDI BX10-U or 100BASE-FX or 100BASE-LX SFP, and serial console port.

## MAP SUPPORT

### WX3008

Ships with support for up to 4 MAPs per switch depending on the capacity and coverage requirements of the wireless installation.

### WX3010

Ships with support for up to 12 MAPs per switch depending on the capacity and coverage requirements of the wireless installation.

### WX3024

Ships with support for up to 24 MAPs per switch depending on the capacity and coverage requirements of the wireless installation.

## Controller Blade

Basic managed APs: 128

Maximum managed APs: 640 (through license upgrade)

License step increments: 128

## POWER

### WX3008

W/O PoE: 29W

PoE Budget: 125W

Max. Power (unit+PoE+overhead): 185W

### WX3010

W/O PoE: 37W

PoE Budget: 125W

Max. Power (unit+PoE+overhead): 185W

### WX3024

W/O PoE: 63W

PoE Budget: 370W

Max. Power AC (unit+PoE+overhead): 470W

Max. Power DC (RPS): 700W

## Power over Ethernet

(WX3000 Units Only)

- IEEE 802.3af to 15.4W per port.

- PoE+ pre-standard IEEE 802.3 to 30W per port.

WX3008: 125W PoE budget. Ports 1-4 only.

WX3010: 125W PoE budget.

WX3024: 370W PoE budget.

## Controller Blade

100W Max.

## Operating voltage:

WX3008, WX3010, WX3024

100-240 VAC, 47-63 Hz

Amperage draw: (W/O PoE devices attached)

### WX3008

1.6 A at 115 V

0.8 A at 230 V; max.

### WX3010

1.6 A at 115 V

0.8 A at 230 V; max.

### WX3024

4.0 A at 115 V

2.0 A at 230 V; max.

## LEDs

Port status and traffic management, power management, PoE/POE+ and alarm power, RPS LED (RPS), Extension slot LED

Controller Blade: Management only

## DIMENSIONS

### WX3008

Height: 4.4 cm (1.7 in), or 1U

Width: 26.9 cm (10.5 in)

Depth: 30.0 cm (11.8 in)

Weight: 3.0 kg (7.0 lbs)

### WX3010

Height: 4.4 cm (1.7 in), or 1U

Width: 26.9 cm (10.5 in)

Depth: 30.0 cm (11.8 in)

Weight: 3.0 kg (7.0 lbs)

### WX3024

Height: 4.4 cm (1.7 in), or 1U

Width: 42.9 cm (17.0 in)

Depth: 40.0 cm (15.8 in)

Weight: 7.2 kg (16.0 lbs)

## Controller Blade

Height: 34 cm (13.38 in), or 1U

Width: 36.7 cm (14.4 in)

Depth: 43.6 cm (1.71 in)

Weight: 3.27 kg (7.2 lbs)

## ENVIRONMENTAL

Operating temperature: 0 to 45°C (32 to 113°F)

Storage temperature: -40 to 70°C (-40 to 158°F)

Humidity: 5 to 95% non-condensing

MTBF: 40 yrs (350,000 hrs)

## REGULATORY/AGENCY APPROVALS

### Safety

- AS/NZS CISPR22 CLASS A

- CAN/CSA C22.2 No 60950-1

- CISPR 22 CLASS A

- CISPR 24

- EN 55022 CLASS A

- EN 55024

- EN 60601-1-2

- EN 60950-1

- EN 61000-3-2

- EN 61000-3-3

- EN 61000-4-2

- EN 61000-4-3

- EN 61000-4-4

- EN 61000-4-5

- EN 61000-4-6

- EN 61000-4-8

- EN 61000-4-11

- FCC Part 15 (CFR 47) CLASS A

- ICES-003 CLASS A

- IEC 60950-1

- VCCI CLASS A

- UL 60950-1

## MANAGEMENT

- Web interface management remotely over HTTPS secure connection

- Command line interface access via local console or remotely via SSHv2 or Telnet on all models

- Local Ethernet management

- SNMP MIB II

- 3Com Wireless Service Manager (separately ordered recommended product); interoperates with 3Com IMC

## SECURITY AND AAA

- RFC 2246 Transport Layer Security (TLS)

- RFC 2865 RADIUS Authentication

- RFC 2284 EAP

- RFC 2866 RADIUS Accounting

- RFC 2315 PKCS #7: Cryptographic Message Syntax, Version 1.5

- RFC 2869 RADIUS Extensions

- RFC 2548 Microsoft RADIUS VSAs

- RFC 2716 PPP EAP-TLS Authentication Protocol

- RFC 2986 PKCS #10: Certification Request Syntax, Specification Version 1.7

- RFC 2759 Microsoft PPP CHAP Extensions, Version 2

- RFC 3580 IEEE 802.1X RADIUS Guidelines

## Security Standards

- IEEE 802.1X

- IEEE 802.11d

- IEEE 802.11h

- IEEE 802.11i

## Encryption

- WPA and WPA2

- WEP 40/64 and 104/128-bit; TKIP: RC4 40-bit

- AES (CCMP): 128-bit (FIPS-197)

- SSL and TLS: RC4 128-bit and RSA 1024-bit and 2048-bit

## General Networking

- IEEE 802.1Q (VLAN tagging)

- IEEE 802.1D (Spanning Tree)

- RFC 1393 Traceroute

- RFC 1122

## Host requirements

- RFC 1519 CIDR

- RFC 1591 DNS (client)

- RFC 1769 SNMP

- RFC 768 UDP

- RFC 783 TFTP

- RFC 791 IP

- RFC 792 ICMP

- RFC 793 TCP

- RFC 826 ARP

- IEEE 802.3ad (static config)

- RFC 2131 DHCP

## MANAGEMENT AND CONTROL

- RFC 854 Telnet (server and client) SSHv2—

- Secure Shell v2

- RFC 2068 HTTP

- IP Multicast

- RFC 1157 SNMP v1/v2c

- RFC 1213 MIB-II

- RFC 1866 HTML

- RFC 1112 IGMP v1

- RFC 1907 SNMP v2

- RFC 2660 HTTPS

- RFC 3164 Syslog

- RFC 2236 IGMP v2

## Quality of Service

- RFC 2597 DiffServ Assured Forwarding

- RFC 2472 DiffServ Precedence

- RFC 2598 DiffServ Expedited Forwarding

- Wi-Fi® Multimedia (WMM®)

## WARRANTY AND OTHER SERVICES

Limited Hardware Warranty for one year.

Limited Software Warranty for 90 days. 90 days free telephone technical support.

Refer to [www.3com.com/warranty](http://www.3com.com/warranty) for details

## ORDERING INFORMATION

PRODUCT DESCRIPTION	NOTES	SKU
<b>3COM WIRELESS ACCESS CONTROLLER</b>		
3Com Wireless Unified LAN Controller WX3008	Supports 4 APs	3CRUWX300875
3Com Wireless Unified LAN Controller WX3010	Supports 12 APs	3CRUWX301075
3Com Wireless Unified LAN Controller WX3024	Supports 24 APs	3CRUWX302475
3Com Wireless LAN Controller Blade for the S7900E/S7500E Chassis	Supports 128 to 640 APs	0231A81K
3Com Upgrade License for S7900E/S7500E Wireless Controller	Add 128 APs support	3130A0E2
<b>MODULES AND TRANSCEIVERS</b>		
3Com 1-Port 10 Gigabit Module (XFP)	Optional XFP Module	3C17666
3Com 1-Port Gigabit Ethernet Module (SFP)	Optional SFP Module	0231A085
3Com 100BASE-LX BIDI SFP Transceiver, Single Mode	TX1310/RX1550, 15km, LC	0231A12T
3Com 100BASE-LX BIDI SFP Transceiver, Single Mode	TX1550/RX1310, 15km, LC	0231A12U
3Com 100BASE-FX SFP Transceiver, Multi-Mode	1310nm, 2km, LC	0231A320
3Com 100BASE-LX SFP Transceiver, Single Mode	1310nm, 15km, LC	0231A564
3Com 1000BASE-SX SFP Transceiver, Multi-Mode	850nm, 550m, LC	0231A562
3Com 1000BASE-LX SFP Transceiver, Single Mode	1310nm, 10km, LC	0231A563
3Com 1000BASE-LX BIDI SFP Transceiver, Single Mode	TX1310/RX1490, 10km, LC	0231A11U
3Com 1000BASE-LX BIDI SFP Transceiver, Single Mode	TX1490/RX1310, 10km, LC	0231A11V
3Com 10GBASE-SR XENPAK, Multi-Mode	850nm, 300m, SC	0231A363
3Com 10GBASE-LR XENPAK, Single Mode	1310nm, 10km, SC	0231A323
3Com 10GBASE-SR XFP, Multi-Mode	850nm, 300m, LC	0231A494
3Com 10GBASE-LR/LW XFP, Single Mode	1310nm, 10km, LC	0231A438
<b>3COM WIRELESS ACCESS CONTROLLER AND SERVICE MANAGER LICENSES</b>		
3Com Wireless Access Controller License, Additional 128 Managed APs	For the S7900E/S7500E Blade	3130A0E2
<b>3COM WIRELESS LAN MANAGED ACCESS POINTS</b>		
3Com Wireless AP 9150 Single-Radio 11a/b/g/n Access Point	802.11a/b/g/n	3CRWE915075
3Com Wireless AP 9552 Dual-Radio 11a/b/g/n Access Point	802.11a/b/g/n	3CRWE955275
3Com Wireless AP 7760 Single-Radio 11a/b/g Access Point	802.11a/b/g	3CRWE776075
3Com Wireless AP 8760 Dual-Radio 11a/b/g Access Point	802.11a/b/g	3CRWE876075
<b>3COM GLOBAL SERVICES</b>		
3Com Network Health Check, Installation Services and Express Maintenance	<a href="http://www.3com.com/services_quote">www.3com.com/services_quote</a>	
3Com Global Education and Training	<a href="http://www.education.3com.com">www.education.3com.com</a>	

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