

wSwitch

Access Controller

KEY FEATURES

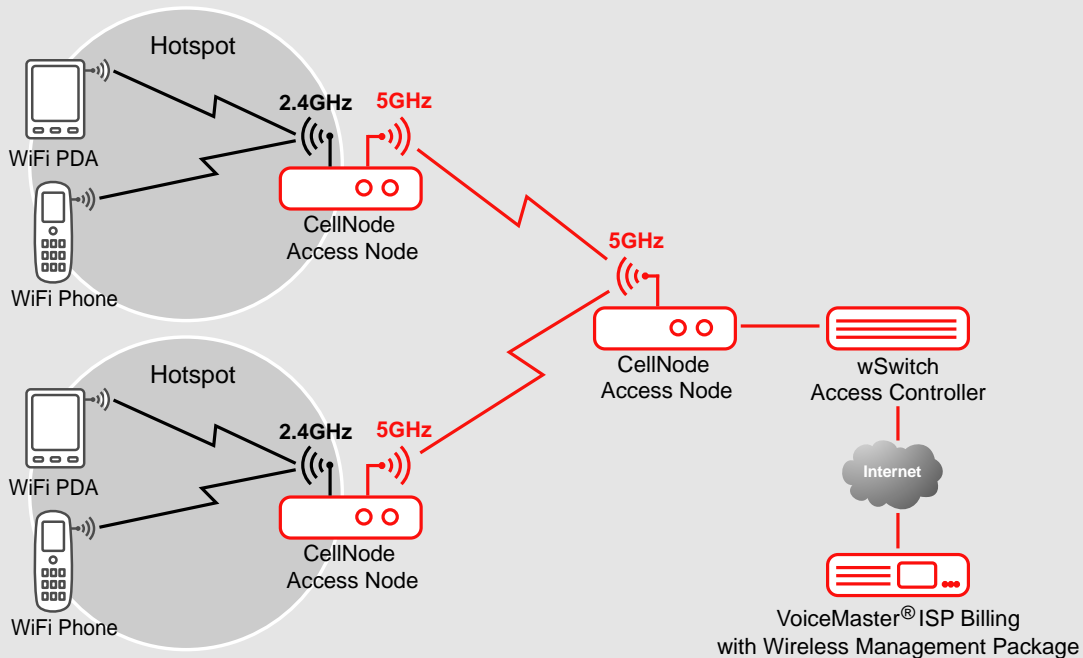
- Dynamic Authentication for Data and Telephony Sessions
- Traffic and Bandwidth Optimization with Dynamic Firewall and QoS
- Client Session Management with Access Control
- Client DHCP and Name Services
- Dynamic Session Roaming
- Client Session, Traffic, and System Monitoring
- Client Billing and Account Management Services

Product Overview

wSwitch is a wireless access controller that provides dynamic session authentication, traffic and bandwidth optimization, and client session management for CellNode based wireless networks. The product also supports session roaming within such networks so that individual client sessions can be transferred from CellNode to CellNode without interruption. Combined with other SysMaster products, wSwitch enables providers to build robust wireless networks and offer mobile access, IPTV, and VoIP telephony services to subscribers.

WSWITCH ACCESS CONTROLLER

NETWORK DIAGRAM WITH WSWITCH



wSwitch

Access Controller

Dynamic Authentication for Data and Telephony Sessions

wSwitch supports dynamic data and telephony session authentication utilizing MD5 encryption and dynamic firewall rules. The access controller allows subscribers to authenticate via PIN and/or Username/Password. It dynamically controls each session and can disconnect it at any time. wSwitch also supports subscriber blocking and time-based session termination for both data and telephony sessions.

Traffic and Bandwidth Optimization with Dynamic Firewall and QoS

wSwitch provides bandwidth optimization and traffic management services for maximum throughput of each CellNode. The product manages system wide and individual CellNode throughput via dynamic firewall QoS filters. In congested networks, for example, the access controller can reduce the number of unnecessary broadcasts and intersystem data exchanges and enforce QoS and traffic shaping rules to each individual subscriber.

Client Session Management with Access Control

wSwitch supports client session management with access control where every session is individually tracked, logged, and managed. To track data (ISP) sessions, the access controller utilizes dynamic firewall rules where a firewall rule is applied and removed every time a new session is initialized. To track telephony sessions, wSwitch utilizes SIP proxy based control.

Client DHCP and Name Services

wSwitch also supports DHCP and Name services for easy integration with LAN and WAN client environments. All clients are assigned private IP addresses that are used for authentication and roaming purposes. Once the private IP address is assigned to a client, it is preserved throughout the duration of its session. The system has built-in protection against spoofing and IP replication attacks.

Dynamic Session Roaming

wSwitch supports dynamic session roaming within CellNode enabled wireless networks. After wireless clients are authenticated, they can move freely within the network boundaries while preserving network connectivity. In the background, wSwitch will transparently transfer client sessions from one CellNode to another.

Client Session, Traffic, and System Monitoring

wSwitch offers advanced tools for client session, traffic, and system monitoring. Administrators can check client status and current network usage in real-time. Real-time monitoring enables administrators to filter clients, prevent DoS and flood attacks, or detect over-utilization of individual CellNodes.

Client Billing and Account Management Services

wSwitch works in conjunction with the VoiceMaster[®] ISP Billing server to support session and VoIP telephony billing. The access controller passes all subscriber information to VoiceMaster[®] for session based billing and parameter management.



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