



Configuration Guide

Airspace Wireless Enterprise Platform – AireOS

AS-2000 switch/controller
with AP-10xx Access Point

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Contact Information

Please contact your Polycom Authorized Reseller for assistance.

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Introduction

Customers have reported that the WLAN products described in this document operate adequately with SpectraLink Wireless Telephones at their location using the software version listed below. For Field Verified WLAN products, Polycom has not conducted any testing and therefore cannot guarantee interoperability or performance. Polycom technical support of interoperability issues for WLAN products running versions of software not listed in the table may be subject to time and materials charges.

This document describes the configuration of the Airespace Wireless Enterprise Platform and the AireOS for best known operation with SpectraLink Wireless Telephones.

Product Summary

Manufacturer:	Airespace: www.cisco.com	
Approved product(s) :	AS-2000 switch/controller with AP-10xx access point	
RF technology:	Direct-sequence spread spectrum (DS), 2.4 GHz	
Radio:	2.4 – 2.484 GHz (802.11b/g)	
Required AP software version:	Firmware version 2.0 †	
SpectraLink handset models: **	e340/h340/i640	8020/8030
SpectraLink radio mode:	802.11b	802.11b
Maximum telephone calls per AP:	12 *	12 *
AP configuration parameters:	See <i>Access Point Configuration</i> below	
Indoor range (typical):	See vendor specifications for AP	
Required network topology:	Switched Ethernet	
Network constraints:	Dedicated segment for wireless, single subnet	
WEP capability:	Yes *	
ESSID auto-learn function:	Yes *	

† Earlier and later software versions have not been validated except as noted.

* Telephone calls per AP must be configured in the system per documentation provided by Polycom.

** SpectraLink handset models 8020/8030, e340/h340/i640 and their OEM derivatives are known interoperable at one or more customer sites with the WLAN hardware and software identified in the table. Throughout the remainder of this document they will be referred to collectively as “SpectraLink Wireless Telephones”.

Access Point Capacity and Positioning

Please refer to the Polycom [Deploying Enterprise-Grade Wi-Fi Telephony](#) white paper. This document covers the security, coverage, capacity and QoS considerations necessary for ensuring excellent voice quality with enterprise Wi-Fi networks. For more detailed information on wireless LAN layout, network infrastructure, QoS, security and subnets, please see the [Best Practices Guide for Deploying SpectraLink 8020/8030 Wireless Telephones](#). This document identifies issues and solutions based on Polycom's extensive experience in enterprise-class Wi-Fi telephony, and provides recommendations for ensuring that a network environment is adequately optimized for use with SpectraLink 8020/8030 Wireless Telephones.

VLAN Support

The Airespace Wireless Enterprise Platform with the AireOS operating system has the ability to manage different VLANs, each with a unique SSID. Many times customers will choose to place voice devices on a separate VLAN from data devices or they may choose to segment their network based on security policies.

When VLANs are enabled, the Wireless Enterprise Platform uses 802.1Q tags on traffic entering onto the wired network. These tags must be removed by a VLAN-capable switch before the packets reach the SpectraLink 8000 Telephony Gateway or SpectraLink 8000 SVP Server. On most switches, the switch port to which the SpectraLink 8000 Telephony Gateway or SpectraLink 8000 SVP Server is connected must be configured as a non-trunked, or access port dedicated to the voice VLAN. If the port is set to trunked, the SpectraLink 8000 System equipment will not recognize the packet.

If you are using a switch that is not capable of removing these 802.1Q tags, the SpectraLink Wireless Telephones must reside on the native (or management) VLAN.

Notes on Configuration



The AP must support SpectraLink Voice Priority (SVP). Contact your AP vendor if you need to upgrade the AP software.

If you encounter difficulties or have questions regarding the configuration process, please contact the Customer Support Hotline at (800) 775-5330. The hotline is open Monday through Friday, 6 a.m. to 6 p.m. Mountain time.

Access Point Configuration

1. Connect to the Airespace switch or controller via Netscape or Internet Explorer by navigating to the URL `http://<IP_Addr>` (where `<IP_Addr>` is the IP address of the switch or controller).
2. The following table shows additional settings for the 802.11b Network configuration. Navigate to this page by clicking the **Wireless** tab at the top of the screen and **802.11b Network** in the navigation pane.

Parameter	Setting	Criticality
802.11b Network Status	Checked	Required
Data rates:	1.0	Mandatory
	2.0	Mandatory
	5.5	Mandatory/Supported *
	11	Mandatory/Supported *
Beacon period (Kusec)	100	Required
Antenna	Diversity	Required
Enable short preamble	Not Checked	Required

* For optimum capacity, set Mandatory if handsets are all operating at 11 Mb/s and the SpectraLink 8000 SVP Server is installed.

3. Click the **Apply** button to save the changes.
4. Click the **Auto-RF** button, to the right of the **Apply** button.
5. The following table shows additional parameters for the **Auto-RF** configuration. Scroll to the bottom of the page to enter these parameters.

Parameter	Setting	Criticality
Noise measurement	3600	Required
Load measurement	3600	Required
Signal measurement	3600	Required
Coverage measurement	3600	Required

6. The following table shows additional settings for the **Switch/General** configuration. Navigate to this page by clicking the **Switch** tab at the top of the screen and **General** in the navigation pane.

Parameter	Setting	Criticality
Enable multicast support	Enabled	Required

7. Click the **Apply** button to save the changes
8. The following table shows additional settings for the **WLAN** configuration. Navigate to this page by clicking the **WLAN** tab at the top of the page and then clicking the **Edit** button for the WLAN you are using for the SpectraLink Wireless Telephones.

Parameter	Setting	Criticality
Radio policy	802.11b only	Recommended
Admin status	Checked	Required
Session timeout	0 (zero)	Required
Quality of service	Gold	Required
Blacklist timeout	60	Recommended
DHCP required	As required by installation	
DHCP server IP address	As required by installation	
VLAN	As required by installation	
Layer 2 security	Static WEP	Recommended
MAC filtering	Not checked	Recommended
Layer 3 security	None	Required
Web authentication	Not checked	Required
WEP key size *	40 or 104 bits	Recommended
Key index *	As required for installation	Recommended
Encryption key *	As required for installation	Recommended
Key format *	Hex	Recommended

* These parameters are required if Static WEP is selected for Layer 2 security.

9. Click the **Apply** button to save the changes.
10. Click the **Save Configuration** link at the top of the browser window to ensure the configuration is available across system restarts.

The Airespace Wireless Enterprise Platform is now ready for use with SpectraLink Wireless Telephones. No restart of the system is required. All parameters take effect when applied.

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