



VIEW Certified Configuration Guide

Bluesocket

BlueSecure Controllers
BSC1100, BSC 2100, BSC 5000

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Introduction

Polycom's Voice Interoperability for Enterprise Wireless (VIEW) Certification Program is designed to ensure interoperability and high performance between SpectraLink Wireless Telephones and WLAN infrastructure products.

The products listed below have been thoroughly tested in Polycom's lab and have passed VIEW Certification. This document details how to configure the Bluesocket BlueSecure Wireless System with SpectraLink Wireless Telephones.

Certified Product Summary

Manufacturer:	Bluesocket, Inc. http://www.bluesocket.com	
Approved products:	Wireless Controllers	Access Points
	BSC 1100 BSC 2100 BSC 5000 †	BSAP1500 † BSAP1540 †
RF technology:	802.11b/g	
Radio:	2.4 – 2.484 GHz	
Security:	WPA-PSK and WPA2-PSK	
AP firmware version certified:	Release 5.3.1-3	
Controller firmware version certified:	Release 5.3.1-11	
SpectraLink handset models certified: **	e340/h340/i640	8020/8030
SpectraLink handset software certified:	89.134	122.010 or greater
SpectraLink radio mode:	802.11b	802.11b
Maximum telephone calls per AP:	12	12
Recommended network topology:	Switched Ethernet	

† Denotes products directly used in VIEW Certification testing.

** SpectraLink handset models 8020/8030, e340/h340/i640 and their OEM derivatives are VIEW Certified 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".

Service Information

If you encounter difficulties or have questions regarding the configuration process of the Bluesocket equipment, please contact Bluesocket by calling 866-633-3358 (toll free) and pressing the 2 key, or by e-mailing support@bluesocket.com.

Known Limitations

- The Bluesocket AP (BSAP) must in run in AP mode rather than Dual mode. Dual mode is used for RF intrusion detection and RF management and will periodically go off-channel to scan other channels in the 2.4 GHz band. Going off-channel will severely impact voice quality and could cause the handsets to disconnect.
- The Bluesocket Wireless System does not support Layer 3 roaming of SpectraLink Wireless Telephones.

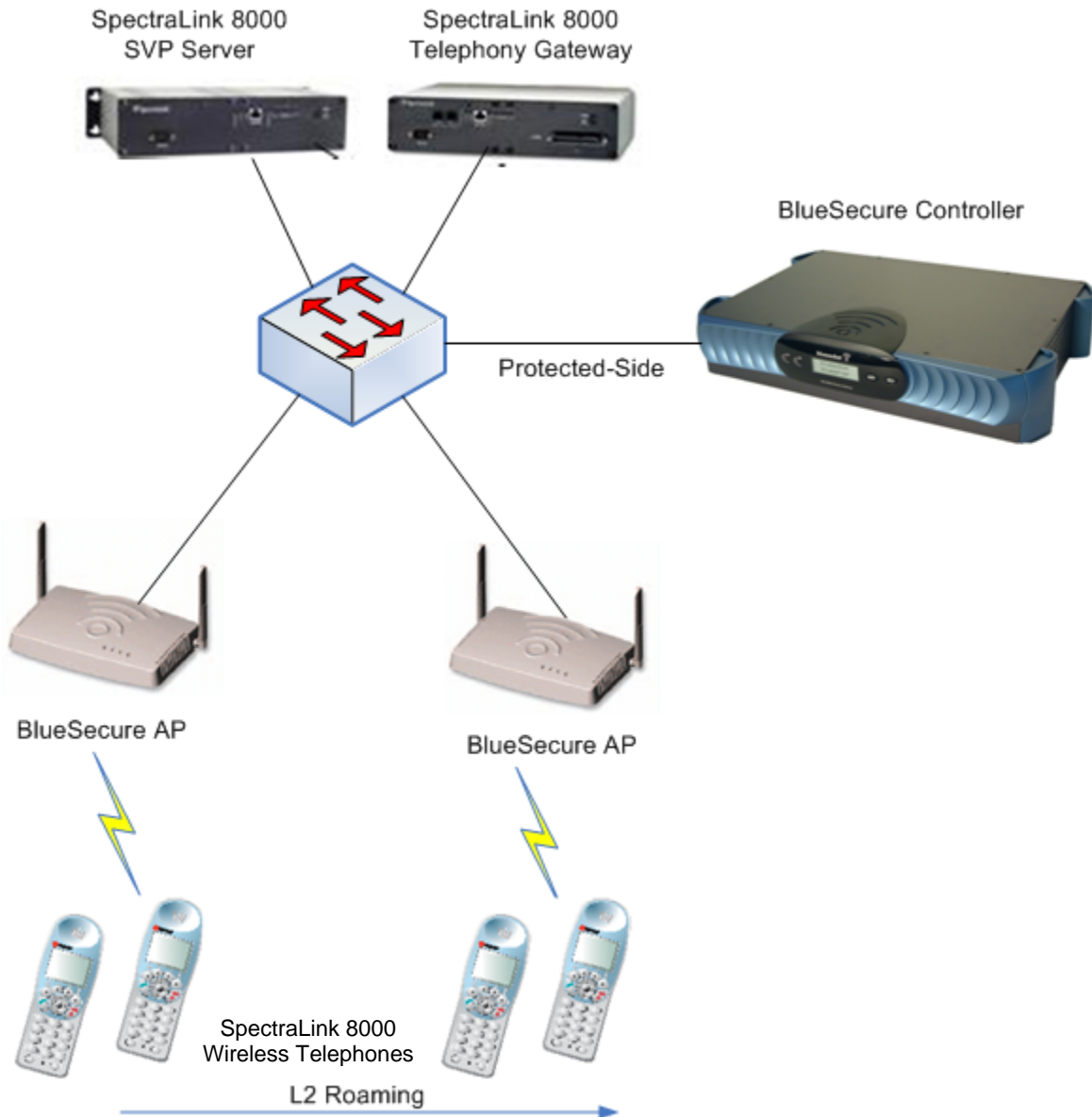
Access Point Capacity and Positioning

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.

Network Topology

The following topology was tested during VIEW Certification Testing. Only Layer 2 roaming was tested between APs on the same controller.

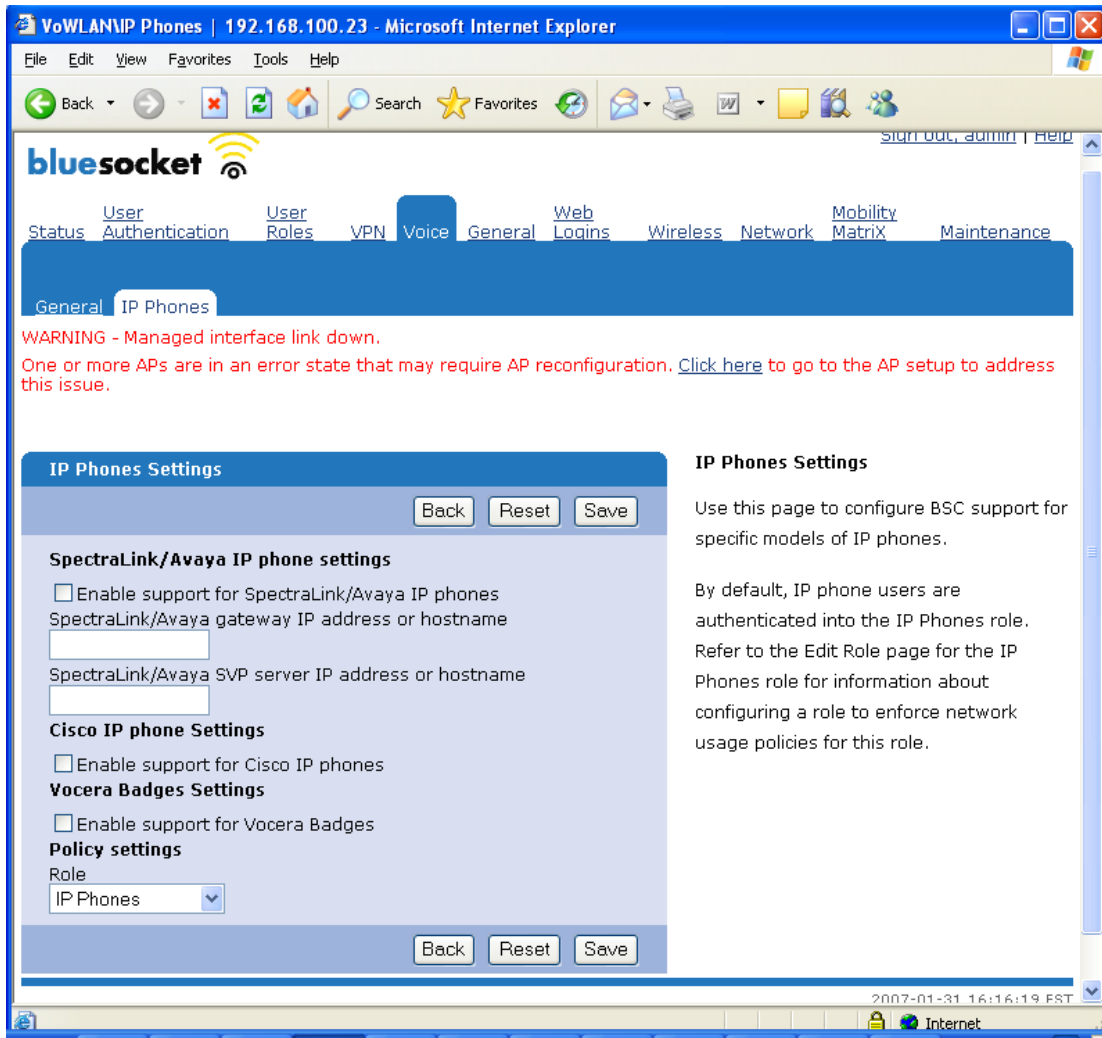


Configuration Settings


All of the AP configuration parameters can be configured through the BlueSecure Controller (BSC) Administrative Console. This guide provides an overview of the configuration, details about specific configuration settings can be obtained in the on-line help of the BSC. The **Help** link in the upper-right corner of the BSC's UI will open the User Guide.



The BSC has a configuration option under **Voice tab->IP Phones** to set up an SVP Server and gateway (see page below). This configuration isn't necessary with the current software release, so please leave the **Enable support for SpectraLink/Avaya IP Phones** check box cleared.




Enabling SVP Support on the Bluesocket Access Point

1. Click the **Wireless** tab.
2. Click the **AP** tab.
3. Click the  icon for the BSAP for which you want to enable SVP support. By default, the **Edit AP System Settings** screen displays.
4. Select the **Enable SVP?** check box.



Make sure **Enable Voice Call Admission Control?** is disabled.


Sign out, admin | Help

Status User Authentication User Roles VPN Voice General Web Logins **Wireless** Network Mobility Matrix Maintenance
Create...

System | [802.11b/g](#) | [802.11a](#)

Edit AP System Settings - 00:12:cf:09:fd:e6

Back Reset Default Delete Save Next

BlueSecure Access Point 1500

Enable AP
Check to enable this configuration

MAC

Wired side MAC address of the AP

Hostname

Optional hostname

Location

Optional location

Firmware
BSAP-1540 and BSAP-1500

Load Balancing

Average user count per AP Enforcement

Average number of associations per AP (1-56) before balancing clients.

Voice Call Admission Control

Enable Voice Call Admission Control?

Enable SVP?
Check to enable Spectralink/Avaya Voice Protocol(SVP)

Display

Custom User Login

Choose a login page for all users on this AP, otherwise choose Normal to use Location/VLAN based login page

Diagnostics

Allow remote diagnostics?
Check to enable remote SSH diagnostics

Back Reset Default Delete Save Next


Edit AP System Settings - 00:12:cf:09:fd:e6

Complete this form to modify the system settings for this APs.

Fields shown in this color are using default settings from global tab. You can reset all fields to default value by clicking the "Default" button.

2006-11-02 13:52:22 EST
Administrative user: admin

AP configuration – 802.11b/g radio setup

1. In the **Wireless** screen, click the **AP** tab.
2. Click the  icon for the BSAP you want to configure.
3. Click the **802.11b/g** link. The **Edit 802.11b/g Settings** page displays.
4. Set **Operational Mode** to **AP Mode**.
5. Set **Wireless Mode** to **802.11b**.
6. An RF site survey should be used to determine optimum power and channel settings for your environment. The SpectraLink Wireless Telephones should be configured to match the highest transmit power of the access points.
7. Set **Beacon Interval** to **100 ms**.
8. Set preamble to **Long/Short Preamble**.
9. Set **DTIM** to **3**.

Edit 802.11b/g Settings - 00:12:cf:0c:09:97

Back Reset Default Delete Save Next

Enable 802.11b/g Radio
Check to enable the 802.11b/g Radio

Operational Mode
AP Mode

Wireless Mode and Rate

<small>Wireless Mode</small>	<small>Transmit Rate</small>
802.11b	Auto

Choose auto for optimal transmit rate

Channel Options

Auto Channel Select
Automatically determine optimal channel

Channel
1
Manually set channel

Transmit Power

20 dBm = 100 mW 100%
Radio output power level

SSID Settings
Use default SSIDs

Advanced Settings for the 802.11b/g Radio

Display Advanced Settings for the 802.11b/g Radio?

Beacon Interval
100
Interval in milliseconds, Values (20-1000)

Fragmentation Threshold
2346
Packet length in bytes for fragmentation, Values (256-2346)


RTS Threshold
2346
Packet length in bytes when RTS/CTS are used, Values (256-2346)

Preamble
 Long Preamble Long/Short Preamble

DTIM
3
Send broadcast and multicast every (DTIM * Beacon Interval), Values (1-255)

AP configuration – 802.11b/g SSID setup

Out-of-band VAP/WPA-PSK example

1. In the **Wireless** screen, click the **SSID** tab.
2. Click the  icon to display the **Edit SSID** page for the BSAP.
3. Select **WPA-PSK** from the **Authentication Type** drop-down list.
4. Select **TKIP** from the **Cipher Type** drop-down list.
5. Click the **Allow** option for **Client to Client Traffic**. This is needed for PTT mode on the handsets.
6. Select the **Enable** check box for **Out-of-Band VAP**.



The check box **Use WMM to apply QoS** may be left in its default state (i.e. selected) because WMM is automatically disabled when SVP mode is enabled in the BSAP.

Edit SSID - Spectralink

Enable by default on the b/g radio
Check to enable this SSID for the b/g radio

Enable by default on the a radio
Check to enable this SSID for the a radio

General Settings

SSID: VLAN:
Enter SSID and VLAN tag (2-4094, 0 for no VLAN)

Client to Client Traffic

Allow Block Forward to Controller

Broadcast SSID

Broadcast SSID

Out-of-Band VAP

Enable
If out-of-band VAP is enabled, wireless traffic will not be filtered through the BSC.

Security Types

Authentication Type: Cipher Type:

WPA Key Settings

Group Rekey Time:
Rekey time is in minutes

WPA PSK Settings

Passphrase:

Confirm passphrase:

BSAP-1540 and BSAP-1500

QoS Settings

Default QoS for SSID:

Use WMM to apply QoS