



## Avaya Wireless AP-3 (DS)

This document details the specifications for configuring the Avaya Wireless AP-3 series access point in an Avaya 3606, 3616, or 3626 Wireless IP Telephone installations.

### Summary

Manufacturer	Avaya
Approved product(s)	Avaya Wireless AP-3
RF technology	Spread Spectrum, Direct Sequence (DS), 2.4 GHz
AP software version ††	Release 1.4 (version 222) firmware release
Telephone calls per access point (maximum)*	7†
Access point 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
Auto Learn function*	Yes

† A call is defined as the Wireless Telephone going off hook. If the Avaya Voice Priority Processor (AVPP) Server is not being used in the system, the maximum calls per AP is 7. As each Wireless Telephone requires bandwidth, 7 Wireless Telephones may be in an active state; additional telephones may receive a signal for no bandwidth available. Access Points should be installed to overlap. Without the AVPP Server, the phones will not operate at 5.5 Mb/s or 11 Mb/s.

†† Earlier and later software versions have not been tested for AVPP compliance, except as noted. Refer to the AVPP Compliance Matrix for field verified AP software versions.

\* Telephone calls per AP must be configured in the system per documentation provided by Avaya. WEP and Automatic Learn are programmed into each wireless telephone in addition to being configured in the AP.

### The Avaya Wireless IP Telephones

The 3606/3616/3626 Wireless IP Telephones uses voice over IP technology on IEEE 802.11 compliant wireless local area networks (LANs). The Avaya Wireless IP Telephones are part of a system that includes third-party Access Points (APs) cabled together via a switched hub. The APs utilize radio frequencies to transmit signals to and from the Avaya Wireless IP Telephones.

After configuring the APs according to the instructions below, telephone calls per AP must be configured in the system per the AP system installation documentation. WEP and Automatic Learn must be programmed into each Wireless Telephone per the following documents:

- *Avaya 3606 Wireless IP Telephone Installation and Configuration Guide*
- *Avaya 3616/3626 Wireless IP Telephone Installation and Configuration Guide.*

## Configuration Note

Note: Preliminary release, AVPP testing is still in progress.

### Access Point Capacity and Positioning

Each site is unique in its AP requirements. Please take the following points into account when determining how many APs are needed and where they should be placed in the facility:

- **Wireless Telephone range:** There must be wireless LAN coverage wherever the Avaya Wireless IP Telephones will be used. Wireless telephones are likely to be used in areas where data devices are not typically used, such as stairwells and outdoor areas.
- **Number of Wireless Telephones per access point:** Estimate the number of Wireless Telephones and their anticipated call volume per access point area to ensure that the maximum number of calls per access point will not be exceeded. In this estimate, consider the data rates at which the telephones will operate. Typically, higher data rates can only be sustained while well within the range of the access point. If the Wireless Telephones will be operating near the limits of the RF coverage from the access point, they will automatically drop to 1 Mbps operation. Avaya Wireless Telephones require approximately 10% of the available bandwidth per call for 2 Mbps operation, approximately 15% of the available bandwidth per call for 1 Mbps operation, approximately 7% of the available bandwidth for 5.5 Mb/s operation and 5% of available bandwidth for 11Mb/s operation .

Note: if an AVPP Server is not being used in the system, the phones will not operate at the 5.5 Mb/s and 11 Mb/s data rates.

Note: the maximum number of telephone calls per access point quoted in the Summary table above is based on 11 Mbps operation, and will be reduced if some or all Wireless Telephones are operating at 1, 2 or 5.5 Mb/s.

- **LAN bandwidth:** Estimate anticipated peak call volume to ensure that the LAN has enough bandwidth available to handle the network traffic generated by all of the wireless devices. Avaya Wireless IP Telephones require approximately 150 kb/s of bandwidth per call. Network traffic can be monitored/analyzed using a network sniffer or a simple network management protocol (SNMP) workstation.
- **Number of other wireless devices per access point:** The Avaya Wireless IP Telephones share bandwidth with other wireless devices. To ensure adequate RF bandwidth availability, consider the number of wireless data devices in use per AP.
- **Enabling the MAC address-filtering feature on the AP can result in reduced capacity, especially as the number of MAC addresses in the filter list grows.**

### Access Point Configuration

If you encounter difficulties or have questions regarding the configuration process, please contact our **Customer Support Hotline at (800) 775-5330**. The Hotline is open Monday through Friday, 7:00 AM to 6:00 PM Mountain Time.



The AP must support the Avaya Voice Priority Processor. Contact your AP vendor if you need to upgrade the AP software.

1. Connect to the AP via Netscape or Internet Explorer by navigating to the URL [http://<IP\\_Addr>](http://<IP_Addr>) (where <IP\_Addr> is the IP address of the AP). Note: these configuration steps can also be accomplished using the SNMP-based Avaya/Orinoco ScanTool program.
2. From the main page, click on the **Configure** link.

## Configuration Note

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3. To configure WEP settings, obtain the key values from the local network administrator and use the Avaya AP-3 User Guide for guidance in programming the encryption settings. The WEP configuration screen is reached from the main menu by clicking on **Configure**, followed by **Security**, followed by **Encryption**. Note that the wireless telephones must each be configured manually with the identical WEP settings.
4. Click **Configure**, then click the **Interfaces** link and choose the appropriate radio (Slot A or Slot B) to configure.
5. From the **Interfaces** tab confirm that the **RTS/CTS Medium Reservation Threshold** is greater than 600 or disabled.
6. In the **Multicast Transmit Rate** field, verify that **2Mb/s fixed** (default) is selected.
7. Next go to the **Bridge** tab, select **SpectraLink VoIP** to ensure that Voice Priority is enabled.

Conditional: If the AP's software version is 2.5.xx or later, AVPP must be activated using the Avaya Command Line Interface (CLI).

- a. Connect to the Access Point via serial interface or Telnet.
- b. Check to see if AVPP is enabled by typing **show spectralinkstatus**, then press enter, **enabled** or **disabled** will display.

Enable AVPP by typing **set speclinkstatus enable**, then press Enter.

8. Also from the **Bridge** tab, select **Advanced Filtering**. Enable the **Proxy ARP** function and disable **IP/ARP Filtering**.
9. From the **Commands** tab, restart the AP.

The AP is now ready for use with the Avaya Wireless IP Telephones.