IP Office DECT R4 Installation

April 12, 2023

Notices

DECT R4

Avaya DECT R4 is a Digital Enhanced Cordless Telecommunications system connecting multiple base stations using an IP LAN to provide an IP based cordless telephony and messaging system. This installation manual covers the installation of DECT R4 systems using the firmware supported by IP Office Release 11.0.

This document is a basic manual covering the most common install scenarios for DECT R4 with an IP Office system. For more advanced options and complex install scenarios refer to the full set of Avaya DECT R4 manual.
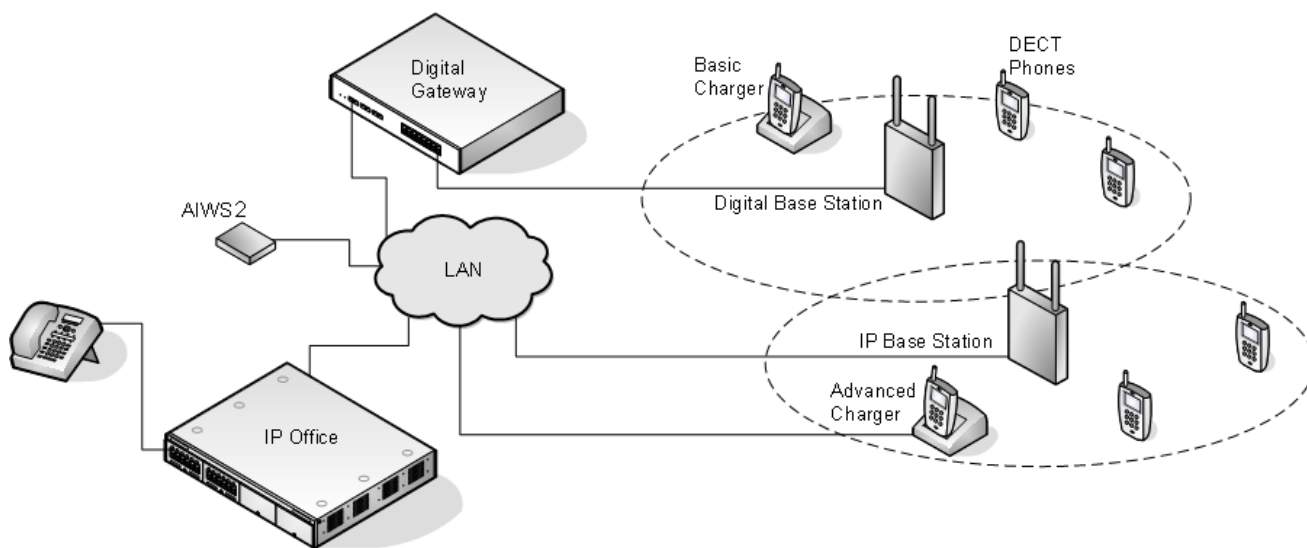
DECT R4 Hardware

The following table summarizes the different hardware that can be used in a DECT R4 system.

IP Base Stations:	Up to 256 base stations (1 master + 255 slaves) are supported. • **Standard** IP DECT Base Station (IPBS) Standard stations have eight channels used for speech and messaging, and one channel which is reserved for broadcast messages. During installation

	one is configured as the master base station, to which the other base stations synchronize as slave base stations. Each base station can host up to 8 simultaneous phone conversations in its coverage area. • **Compact Base Stations:** Compact base stations are identical to standard base stations but only supports up to 4 simultaneous calls.
Digital Base Stations	You can connect digital base stations to the DECT system using an IP DECT Gateway . These base stations are physically similar to the IPBS1 base stations, using the same casings and mounting brackets, but connect directly to an IP DECT Gateway using traditional 4-wire telephone cabling. Digital base stations are available in variants with internal and external aerials. There is no digital variant of the Compact Base Station base station.
Phones	Up to 750 DECT phones are supported (384 on IP500 V2 systems). The Avaya 3700 Series phones supported are the **3720**, **3725**, **3730**, **3735**, **3740** and **3749**. See Phones. Other DECT phones, including the 3701 and 3711, are supported but only for basic telephony and only using the DECT GAP and DECT CAP standards.
Chargers	A number of different types of charger exist for 3700 Series phones. See Chargers. Some of the chargers are advanced chargers which allow the phone docked with the charger to be accessed using the Device Manager application (browser access via the AIWS unit and charger LAN port or WinPDM application via the USB port).
IP Office	DECT R4 is supported on IP Office systems running IP Office 5.0 and later software. This manual is for systems running IP Office Release 11.0 in any mode other than IP Office Basic Edition mode.

Licenses	Each phone subscribed via the DECT R4 systems requires an **Avaya IP Endpoint** license in the IP Office configuration.
Configuration Tools	The tools and applications for DECT R4 are included as part of the IP Office Manager user and administration DVD. This includes the appropriate base station and phone firmware for their operation with the IP Office release. ⭐ **Note:** While the configuration tools are included in a .zip archive on the User and Administration DVD, the IP-DECT firmware needs to manually be installed. IP DECT firmware is also downloadable on the Avaya IP Office support site.
AIWS	This unit allows SMS messaging between handsets. It also allows wireless software upgrades and configuration of the handsets (without an AIWS, handsets can only be upgraded and configured when in an advanced charger). For IP Office Release 5 this unit provides directory integration between the IP Office and the DECT R4 system. For IP Office Release 6 directory integration can be done by the master base station but without SMS support. If both SMS and directory integration are required then an AIWS unit must be used. See Avaya In-Building Wireless Server (AIWS).
IP DECT Digital Gateway	The IP DECT Gateway allows Digital base stations to be connected to the DECT system (see Digital Base Stations). An IPBL is intended to be used only if Digital base stations will be deployed in an IP-DECT system. Up to 16 RFPs can be connected to the IPBL. The IPBL has eight channels for each RFP used for speech, message and alarm. The IPBL also has two channels which are reserved for messaging and alarm. Totally the IPBL has 40 speech channels. Up to 16 digital base stations can be connected to a gateway, using traditional 4-wire telephony cabling. The gateway itself connects to the IP Office and

	other IP based elements of the system via the IP LAN. See IP DECT Digital Gateway (IPBL).

What's New

The following changes have been made for DECT R4 support in IP Office Release 11.0:

- **Maximum DECT Extension Capacity Increased on Linux-Based Systems:**
  For DECT R4 systems linked to a Linux-based server, the maximum DECT R4 extension capacity has been increased from 384 to 750. The maximum limit on IP500 V2 systems (including Server Edition expansions) remains at 384.
- **Maximum Base Stations Capacity Increased:**
  The maximum number of base stations supported in a DECT R4 system connected to IP Office has been increased from 128 to 256.
- **Compact Base Station Capacity Limitations Removed:**
  The previous maximum limit of 5 for compact base stations has been removed. Any mix of compact and non-compact base stations is supported up to the overall base station limit above. Note however that base station mirroring between a compact and non-compact base stations is still not supported.

Reset /Restart Switch

The base stations (all types), IP DECT Gateway and AIWS2 all include a reset switch. To press it requires a fine point. How long the switch is depressed affects the type of reset.

Action	Duration	Effect
Short press	Less than 1 second	Restart
Medium press	Approximately 3 seconds	Restart in TFTP mode. This mode is intended for development only.

Action	Duration	Effect
Long press	Approximately 10 seconds	Factory reset. All configuration parameters will be set to default values.