



**IP Office 9.0
IP Office Server Edition Reference
Configuration**

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Chapter 1: Introduction

Purpose

This document describes the product or solution architecture, suggested topologies, capacities, and interoperability. This document also describes the features and functional limitations of certain configurations. With this information, sales design specialists can make decisions about designs that meet the business needs of a customer.

Intended audience

This document is intended for personnel who determine the best design to meet the business needs of a customer.

Related documents

This section lists the related documents for the products and the solution components referenced in this document.

	Document	Document ID
1	IP Office Server Edition Solution Overview	15-604133
2	IP Office Manager	15-601011
3	Deploying IP Office Server Edition Solution	15-604134

Chapter 2: Architecture overview

Solution architecture

This section describes the architecture of IP Office Server Edition Solution.

IP Office Server Edition Solution is based on a fixed star network topology that provides comprehensive features and their management. The solution provides a flexible and modular architecture which can scale up the number of users and sites by networking multiple servers. The components function as a single logical unit through an integrated management system.

IP Office Server Edition Solution provides the following features:

- A single Server Edition Primary server provides IP Office Server Edition, Voicemail Pro, and Avaya one-X[®] Portal.
- You can optionally add a Server Edition Secondary server to increase the capacity and ensure resilience.
- IP Office Server Edition Solution supports up to 30 expansion systems which provide additional capacity, support analog or digital interfaces, and remote sites.
- Server Edition Expansion System can be an existing IP500 V2 or IP Office Server Edition server.
- The IP Office Server Edition Solution users can be configured on IP Office Server Edition server or Server Edition Expansion System.
- IP Office Server Edition software distribution includes the components such as IP Office Server Edition Manager, System Status Application (SSA), Voicemail Pro client, and SoftConsole.
- You can set up Server Edition Secondary or Server Edition Expansion System either centrally or at a remote site.
- You can optionally configure a separate application server dedicated to Avaya one-X[®] Portal to provide more Power User capacity above the maximum that Server Edition Primary supports.
- You can add new servers and expansion systems any time.

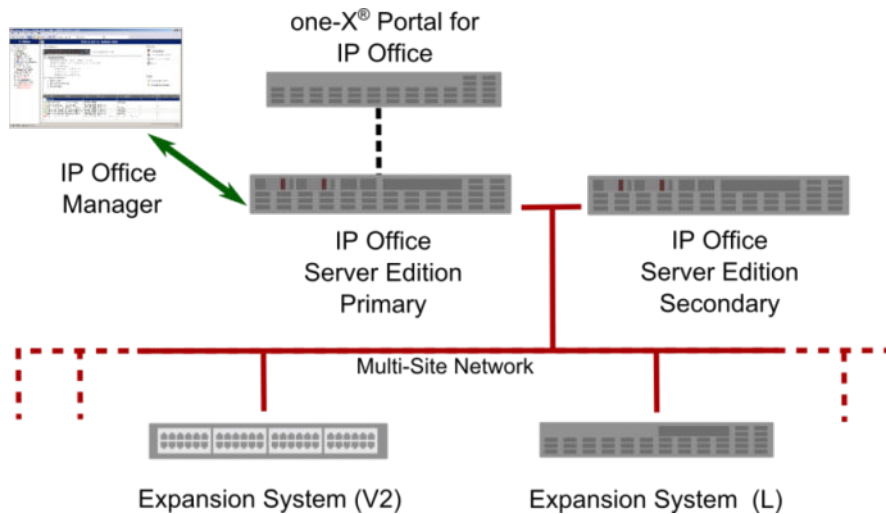


Figure 1: Solution Architecture

Customer requirements

This reference configuration supports the following customer requirements:

- Offers low Total Cost of Ownership (TCO)
- Offers highly cost effective solution
- Offers ease of installation and maintenance
- Offers centralized licensing and administration
- IP Office supports IP, analog and digital extensions, and trunks
- Browser-based administration of IP Office for Linux server
- Integrates messaging, collaboration, mobility, and presence features

Components

Component	Platform and Material code	Reference Configuration Characteristics
Server Edition Primary	Material code for DL360G7 server — 270393 Material code for R210 server — 302788	<ul style="list-style-type: none"> • 1500 configured users on a DL360G7 server and 750 users on a DL120G7/ R210 server. • 250 registered SIP trunks • 256 active multi-site network channels

Component	Platform and Material code	Reference Configuration Characteristics
	Material code for DL120G7 server — 270395	<ul style="list-style-type: none"> • 256 active non direct media VoIP calls • 128 conferencing channels • 75Voicemail Pro channels. • 300 activeAvaya one-X® Portal for IP Office users • Up to 30 Server Edition Expansion Systems
Server Edition Secondary	Material code for DL360G7 server — 270393 Material code for R210 server — 302788 Material code for DL120G7 server — 270395	<ul style="list-style-type: none"> • Additional 1500 users on a DL360G7 server and 250 users on a DL120G7/ R210 server. • Backup for users configured on a Server Edition Primary and Server Edition Expansion System • Additional 250 SIP or H.323 trunks • Backup solution management web portal
Server Edition Expansion System (L) — optional component to support remote locations	Material code for R210 server — 302788 Material code for DL120G7 — 270395	<ul style="list-style-type: none"> • 750 users on a DL120G7 server. • 250 SIP or H.323 trunks • 128 conference calls • You can manage Server Edition Expansion System (L) locally. • You can backup the users configured on a Server Edition Expansion System (L) on a Server Edition Primary server or Server Edition Secondaryserver
Server Edition Expansion System (V2) — optional component to support remote locations and as a gateway	IP500 V2	<ul style="list-style-type: none"> • 384 users • 125 SIP or H.323 trunks • 204 analogue trunks • 128 conference calls • Supports all IP Office Essential/ Preferred Edition capabilities other than embedded messaging <p>You can backup the users configured on a Server Edition Expansion System (L) on a Server Edition Primary server orServer Edition Secondary server</p>
Avaya one-X® Portal for IP Office — optional component to increase Avaya one-X® Portal	Material code for DL360G7 server — 270393 Material code for R210 server — 302788	<ul style="list-style-type: none"> • 750 users on DL360G7 • 500 users on a DL120G7/R210 server • Moves processing from IP Office Server Edition server to a separate server

Component	Platform and Material code	Reference Configuration Characteristics
for IP Office users and call processing capacity	Material code for DL120G7 — 270395	

Chapter 3: Configuration details

Single Server Edition server

This reference configuration is for a customer who has only one location, IP telephony, not more than 1500 users inclusive of 300 Avaya one-X® Portal for IP Office users and requires no resilience.

In this configuration, a single Server Edition Primary server supports all telephones configured as a centralized IP Office Server Edition Solution system. The Server Edition Primary server is an integrated media, feature, messaging, productivity and mobility, and license server that also provides browser based management.

Dual Server Edition servers

This reference configuration is for a customer who has one or two locations, IP telephony, and more than 1500 users or requires resilience.

In this configuration two Server Edition servers are configured:

- Server Edition Primary — You can configure trunks, users, and extensions on a primary server. You can distribute and administer all hunt groups on a primary server. The primary server offers resilience for the IP Phone and users of the secondary server.
- Server Edition Secondary — You can configure trunks, users, and extensions on a secondary server. The secondary server offers resilience for IP Phone, Voicemail Pro, and hunt group of the primary server.

For an IP only telephony

In this configuration a minimum two Server Edition servers are configured in IP Office Server Edition Solution.

For an hybrid of IP/analogue/TDM telephony

In this configuration a minimum two Server Edition servers are configured in IP Office Server Edition Solution. To add capabilities for an analogue or digital interface network you need a Server Edition Expansion System (V2).

Caveats and limitations

Note:

You cannot set up a Server Edition Expansion System(L) in the Standard IP Office mode of operation in the IP Office Server Edition Solution.

You cannot re-provision a Server Edition server without a complete reinstall. For example, you cannot convert a primary server to a secondary or expansion system.

You must configure both Server Edition Primary and Server Edition Secondary on either HP DL360G7 or HP DL120G7/Dell R210. You cannot have a combination of HP DL120G7/Dell R210 and HP DL360G7.

Multiple Server Edition servers

This reference configuration is for a customer who has more than three locations and up to 32 locations.

You can configure a Server Edition Expansion System (V2) in a location where there are analogue or digital interfaces.

You can configure a Server Edition Expansion System (V2) or a Server Edition Expansion System (L) in a location where there are only IP interfaces.

Caveats and limitations

*** Note:**

You cannot set up a Server Edition Expansion System (L) in the Standard IP Office mode of operation in the IP Office Server Edition Solution. You cannot convert a Server Edition Expansion System (V2) to a Server Edition Primary or Server Edition Secondary server.

A standalone Avaya one-X[®] Portal for IP Office

An integrated Server Edition Primary server supports a maximum of 300 active Avaya one-X[®] Portal for IP Office users. You can disable Avaya one-X[®] Portal for IP Office service on Server Edition Primary server and dedicate a separate Avaya one-X[®] Portal for IP Office to support up to 750 users.

Caveats and limitations

*** Note:**

You cannot setup an integrated and a standalone Avaya one-X[®] Portal for IP Office in the same deployment.

Resilience

This section provides an overview of the network configurations that are resilient.

To provide resilience you need to set up two IP Office Server Edition servers, the Server Edition Primary, and Server Edition Secondary. You can set up the IP Office Server Edition and the expansion components on the same or separate subnets and enables local or geo-redundancy. You can administer IP Office Server Edition Solution using the active primary or secondary server.

- Server Edition Primary — You can configure the users, extensions, and hunt groups on a primary server. You can distribute and administer all hunt groups on a primary server. Primary server offers IP Phone resilience to the secondary server.
- Server Edition Secondary — You can configure the users and extensions on a secondary server. Secondary server offers IP Phone, Voicemail Pro, and hunt group resilience to the primary server.

Either the primary or the secondary server offers IP Phone resilience to the expansion systems.

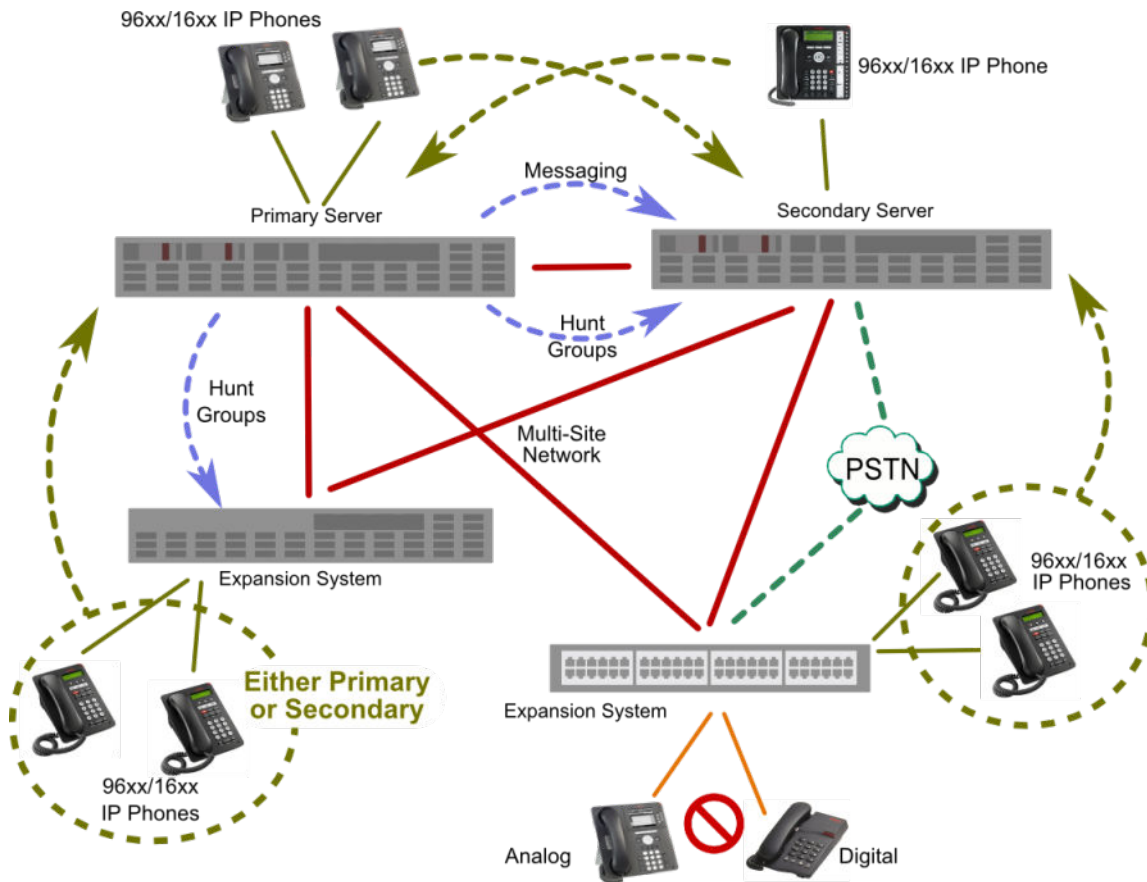


Figure 2: Resilience

*** Note:**

The single Server Edition configuration is not resilient.

The dual Server Edition configuration provides resilience for users, IP extensions, hunt groups, and messaging.

The multiple Server Edition configuration provides resilience for users, IP extensions, hunt groups, and messaging. In addition there is diverse network routing and an option of either the primary or secondary server that provides resilience to the phone/user of the expansion system.

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