

***Malaz Technology & Communication Co.***

# ***Avaya IP Phones 1600 & 9600 Series***

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## 1. Avaya one-X Deskphone Value Edition

The Avaya one-X Deskphone Value Edition is a family of cost effective IP telephones that deliver familiar features at an attractive price for the customer with basic communications needs. Avaya one-X Deskphone Value Edition telephones combines traditional telephone features, such as LED lights and fixed feature buttons (for example, conference, transfer, and hold), with the latest user features, such as softkeys, a navigation wheel, and a context sensitive user interface in select models. Avaya Distributed Office supports the Avaya one-X Deskphone Value Edition 1603, 1608, and 1616 IP telephones.

### 1.1. Avaya 1603 IP Telephone

Designed as a Low-end "walk-up" telephone, the Avaya 1603 IP telephone provides basic telephony features.

#### Avaya 1603 IP Telephone



Features of Avaya 1603 IP telephone include:

- 2 x 16 Character Backlight Display
- Three (3) Administrable Feature Keys
- Nine (9) Hard Function Keys for Hold, Mute, Conference, Drop, Transfer, Speaker, Volume Up, Volume Down, and Menu
- Full duplex 2-way speaker with Omni directional microphone
- Paper Labels
- Two (2) LEDs (Red/Green) per feature button
- Message Waiting Indicator

- Wedge stand
- Wall mountable
- IP H.323 support only
- Codecs include G.711, G.729A/B, G.726
- Quality of Service (QoS) using 802.1p/Q and/or DiffServ
- 802.3af PoE supported (Power Class 1), as well as optional 5VDC adapter
- UI support includes English, Dutch, French, German, Italian, Portuguese, Russian, and Spanish.

## 1.2. Avaya 1608 IP Telephone

The Avaya 1608 IP telephone is designed as the "Everyday" desk phone, providing telephony features and the capability to add a PC.

### Avaya 1608 IP Telephone



Features of Avaya 1608 IP telephone include:

- 3 x 24 Character Backlight Display
- Eight (8) Administrable Feature Keys
- Three Soft Keys
- 14 Hard Function Keys for Hold, Mute, Conference, Drop, Transfer, Speaker, Volume Up, Volume Down, Menu, Contacts, Call Log, Phone Screen, Headset, and Messages
- Contacts application with up to 100 entries
- Call Log application with up to 100 entries. Main view shows a Consolidated List, but Left/Right arrows can be used to show Missed, Answered, and Outgoing entries.
- Navigation Cluster
- Integrated Ethernet Switch
- Full duplex 2-way speaker with Omni directional microphone
- Paper Labels
- Two (2) LEDs (Red/Green) per feature button
- Message Waiting Indicator
- Adjustable angle flip stand
- Wall mountable
- IP H.323 support only

- Codecs include G.711, G.729A/B, G.726
- Quality of Service (QoS) using 802.1p/Q and/or DiffServ
- 802.3af PoE supported (Power Class 2), as well as optional 5VDC adapter
- UI support includes English, Dutch, French, German, Italian, Portuguese, Russian, and Spanish.

### 1.3. Avaya 1616 IP Telephone

The Avaya 1616 IP telephone is designed as the "Navigator" Tool for Receptionists, and so forth, providing telephony features, the ability to add feature buttons for increased capacity and functionality via the SBM32 Button Module, and the capability to add a PC.

#### Avaya 1616 IP Telephone



Features of Avaya 1616 IP telephone includes:

- 4 x 24 Character Backlight Display
- 16 Administrable Feature Keys
- Three Soft Keys
- 14 Hard Function Keys for Hold, Mute, Conference, Drop, Transfer, Speaker, Volume Up, Volume Down, Menu, Contacts, Call Log, Phone Screen, Headset, and Messages
- Contacts application with up to 100 entries
- Call Log application with up to 100 entries. Main view shows a Consolidated List, but Left/Right arrows can be used to show Missed, Answered, and Outgoing entries.
- Navigation Cluster
- Integrated Ethernet Switch
- Full duplex 2-way speaker with Omni directional microphone
- Paper Labels
- Two (2) LEDs (Red/Green) per feature button
- Message Waiting Indicator

- Adjustable angle flip stand with separately adjustable display
- Wall mountable
- IP H.323 support only
- Codecs include G.711, G.729A/B, G.726
- Quality of Service (QoS) using 802.1p/Q and/or DiffServ
- 802.3af PoE supported (Power Class 2), as well as optional 5VDC adapter
- UI support includes English, Dutch, French, German, Italian, Portuguese, Russian, and Spanish.

## 2. Avaya one-X™ 9600 Series IP Telephones

Designed to meet the specific communication needs of different workers—everyday communicators, users for whom the telephone is essential, and more—the Avaya one-X™ Deskphone Edition offers a new experience in communications.

Avaya one-X™ Deskphone Edition is a family of next-generation IP telephones that delivers a new and unique communications experience to drive increased productivity. Created by users for users, the Avaya one-X Deskphone Edition solution family features an intuitive user interface which helps to make users proficient and confident in performing common telephone tasks such as setting up a conference or completing a transfer. With enhanced high-fidelity audio, it's much easier to hear and understand others, which speeds business while reducing fatigue and stress.

The one-X Deskphone Edition models are built with future growth and enhancement in mind with many modular add-ons that can be included as they are needed—protecting investments and leading to improved total cost of ownership. The new telephones also feature a very stylish and professional design.

Avaya one-X™ is a portfolio of communications solutions which deliver a powerful and consistent communications experience for the end user—across a variety of devices and interfaces. Based on extensive market research, the Avaya one-X™ Deskphone Edition includes specific phone models to meet the needs of all workers.

Are you an “essential communicator”—someone for whom the telephone is essential in order to do your job—with a phone to your ear all day long? An “everyday communicator” who also relies heavily on IM or email but still requires a high quality phone for several calls each day? Would you like one-touch access for mobility features—such as forwarding your calls? How about having applications like Microsoft Outlook right on the display of your phone to remind you of your next meeting? All that and much more is possible now with the new Avaya one-X Deskphone Edition.

### Features

#### High-fidelity audio

Avaya one-X Deskphone Edition provides audio quality that sets a new standard in telephony—you'll have to hear it to believe it. Based on the latest VoIP chip technology, Avaya has changed the acoustic design of the phone body and handset to reduce background noise and provide a broader range of audio frequencies to improve audio quality. As a result, participants on calls can better hear each other—eliminating repetition, reducing fatigue and enhancing overall communication. With support for the open standards based G.722 wideband audio codec, along with Avaya Communication Manager integration, you are now able to communicate and collaborate like never before.

#### Investment protection and flexibility for the future

The Avaya one-X Deskphone Edition for 9600 Series IP Telephones is designed for future growth and enhancement. The adapter interface on the backs of the phones provides support for additional wired and wireless network environments. Gigabit Ethernet, adapters for 802.11 WiFi and Bluetooth wireless networks will all be available in the future. The Module interface on the phones will support a growing list

of devices integrated at each desktop. A 24-button expansion module, wideband speakerphone and video modules are also planned.

The modular design of the 9600 Series allows <CUSTNAME> to leverage initial phone investments with enhanced capabilities as needed in the future. This flexibility provides enhanced total cost of ownership.

### **Cutting-edge and sleek architectural design**

Phone features have evolved over the years, but a complete overhaul of phone design and user interface creates a new opportunity for enhanced end user experience. The 9600 Series telephones have been completely reengineered to provide a professional and timeless design that delivers a new level of functionality and efficiency within—plus visual appeal throughout.

### **Security**

- Denial of Service Protection - 9600 Series IP Telephones are designed to continue to function, even during active calls in the event of a denial of service attack.
- Authenticate downloaded software – the 9600 Series telephones authenticate all downloaded software via a digital signature to ensure that only authentic Avaya software is ever installed in the telephone.
- 802.1X support - forwarding and supplicant – 9600 Series telephones support several modes of 802.1X operation that include supplicant operation for true authentication of the telephone, pass-through of 802.1X messages for authentication of an attached PC, and a multi-supplicant mode in which both the telephone and the PC can be authenticated. Proxy-logoff is also supported to alert the network if an authenticated PC is disconnected from the telephone.
- VLAN separation – 9600 Series telephones support VLAN separation to ensure that traffic from an attached PC cannot get onto the voice VLAN, and to ensure that any traffic on the data VLAN does not affect telephone operation or voice quality. The VLAN ID and QoS priority of frames transmitted by an attached PC can be "re-marked" with specific administered values.

## 2.1. Avaya 9610 IP Telephone

The Avaya 9610 IP Telephone, part of the Avaya one-X™ Deskphone Edition family, is designed for a "walk-up" user profile, for use in common areas such as building lobbies, break rooms and hallways.

### *Avaya 9610 IP Telephone*



The 9610 IP Telephone features a 3.33-inch diagonal monochrome backlit display, which is enhanced with higher resolution (1/4 VGA) versus other monochrome telephones available from Avaya.

Avaya 9610 IP Telephones are specifically designed for walk-up use, meaning use in common areas such as lobbies, secondary conference rooms, and printer or copier rooms. The 9610 is not intended to be associated with an individual user, but rather is associated with a location and will usually be shared by visitors and building employees. With this in mind, the 9610 interface is simple and intuitive. Extra features and buttons typically required by power users were removed from the 9610 to keep the experience simple and easy for walk-up users.

Through its integrated web browser and backlit display, the 9610 supports productivity enhancing phone applications such as access to building directories,

visitor information, and news and events. With its dual position flip stand, the 9610 makes a smart-looking addition to any building lobby or visitor area.

## Features

- *Intuitive User Interface* – the intuitive, context-sensitive interface on the 9610 is designed to facilitate simple and intuitive usage by featuring context-driven menus with on-screen prompts, enabling straightforward access to a welcome menu and contact directory. Building visitors, and other users in common areas, will find the 9610 to be simple and easy to use. The 9610 enables easy access to features helpful for building visitors. The 9610 and its user interface are designed for use in common areas, versus for an individual user. The 9610 features a significantly larger display than is typically found in a lobby phone. This, along with an embedded web browser and the ability to host phone applications, makes the 9610 a helpful portal of information.
- *Design and Display* – the 9610 features a higher resolution display supporting 1/4 VGA gray scale with backlighting. A four-way navigation button cluster is another new addition to the 9610. This provides a familiar, cell phone-like interface for navigation and feature selections for the everyday user. The design also facilitates better usage of the display and the built-in browser to improve access to information and use of telephone features.

## Benefits

- *Productivity of Users* - the productivity of end users is greatly enhanced through prompting for common telephony tasks, one-touch access to key features, and superior high fidelity audio.
- *Richer Communication* - the superior audio capabilities make conference calls and meetings more effective by requiring less reiteration. This has been found to reduce employee stress and fatigue.
- *Investment Protection* - utilizing open standards, with a modular platform that supports a wide range of modules and adapters, further enhances user productivity.

With enhanced protection against denial of service attacks and support for 802.1x, as well as improved VLAN separation, the 9610 delivers a high level of security and reliability.

Avaya 9600 Series IP Telephones are manufactured in China by Flextronics.

## Technical Information

- The 9610 uses the g.722 codec open standard for wideband audio, which provides uncompromised sound quality.
- *Electrical Power* – the Avaya 9610 IP Telephone requires electrical power from either an 802.af Power over Ethernet switch or a local power Avaya power supply. The 9610 is a Class 2 PoE device.

## 2.2. Avaya 9620 IP Telephone

A member of the Avaya one-X™ Deskphone Edition family, the Avaya 9620 IP Telephone is specifically designed for the everyday telephone user—those who rely on multiple communications tools such as e-mail and IM, yet still require a high quality and intuitive telephone for voice communications.

### *Avaya 9620 IP Telephone*



The 9620 IP Telephone features a 3.45 inch (9 cm) diagonal monochrome backlit display - which has been enhanced with higher resolution (1/4 VGA) compared with other available monochrome telephones from Avaya. The 9620 supports up to 12 call appearances and/or administered feature keys - with three concurrent line appearances visible at any time.

The 9620 features several LED lights and buttons. LED lights on the side of the display provide explicit status of different line appearances, while LEDs built into several buttons on the phone such as Mute, Message, and Headset provide an intuitive and simple experience for the everyday end user.

The user interface on the 9620 is helpful and intuitive, so completing call transfers and setting up ad hoc conference calls is simple and can be executed with confidence - even for the casual, everyday user.

Key Feature	Benefit
<p><b>Intuitive User Interface</b> – the intuitive, context-sensitive interface on the 9620 is designed to facilitate confident usage by featuring context-driven menus with on-screen prompts, facilitating straightforward access to the contact directory and call log. Everyday users have full control of conference calls, including selective drop and mute.</p>	<p>Easy access to common features such as Conference, Transfer, and Hold are greatly enhanced with the helpful prompts and tight integration with phone numbers in the contact list and call logs. The user interface on the 9620 provides easy access to critical Communication Manager features, and ultimately increases the end user's confidence with the phone and their productivity.</p>
<p><b>Superior Audio Quality</b> – the unique high-fidelity acoustics of the Avaya 9620, including a full duplex speaker and wideband audio in the handset, deliver industry-leading audio that minimizes ambient noise. With the enhanced audio across high and low frequencies, it is easier for users to better understand others with different speech nuances or accents.</p>	<p>Because of the enhanced audio, calls are more productive, team members are better able to collaborate. On conference calls, users find it easier to distinguish and understand multiple speakers, aiding in collaboration and communications. Overall, communications are richer.</p>
<p><b>New design and display</b> – the 9620 features an improved, higher resolution displays - supporting ¼ VGA gray scale with backlighting. A four way navigation button cluster is another new addition to the 9620 - providing a familiar, cell phone-like interface for navigation and feature selections for the everyday user.</p>	<p>The new design facilitates better usage of the display and the built in browser to improve access to information and use of telephone features.</p>
<p><b>Investment Protection - Modules and Adapters</b> – based on open standards with a modular platform, the Avaya 9620 allows enterprises to add a wide range of modules and adapters to further enhance employee productivity. This facilitates individual choice between Bluetooth, monaural - wideband or binaural - wideband headsets. A standard USB interface accommodates a range of USB devices. In the future, additional adapters and modules including those for Gigabit Ethernet and Bluetooth will be available.</p>	<p>Investment protection and reduced total cost of ownership are key benefits of the 9620. Traditionally, the only way to receive new telephone capabilities was to purchase a completely new phone. Designed with the future in mind, the Avaya 9620 provides a flexible approach for adding future functionality to current telephones.</p>

Key Feature	Benefit
<p><b>9620 Designed just for the everyday user</b> -- traditionally, desk phone design has focused on a paradigm of buttons and size of display. The higher the level of the intended user meant more buttons and larger displays - regardless of the functional needs of the individual. For many workers who fall into the everyday user profile (meaning they rely upon several communication tools such as email, instant messaging and the telephone) these workers often found themselves with too much in terms of buttons and functionality.</p> <p>The 9620 is designed specifically for the everyday user - who might make or receive only five to six calls per day. Providing just the right mix of functionality within a simple and intuitive interface.</p>	<p>Having a match between the communications needs of the everyday end user and the phone on their desk provides an office with great advantages. Allowing the user to confidently, proficiently perform their job, and make effective use of the right set of telephone features. Casual, everyday phone users have the base set of functionality in the 9620's smaller display with simple access to the basic features they need.</p>

### Additional Features

- Display – 4-level Grayscale with backlighting – 3.45” 320x160
- Handset – Hi-fidelity, wideband
- Speakerphone – Hi-fidelity
- Headset (additional) – Hi-fidelity, wideband
- Additional buttons and LEDs – 4 soft-keys: Applications Menu, Contacts, Call Log, Messages
- Line appearances / features (scrollable) – 12
- USB interface
- Adapter slots – 1
- Module interface – 1
- Supported # of 24-button modules – 0
- Ethernet switch (2 interfaces) – 10/100 – Gigabit module can be added
- PoE 802.1af – Class 2
- Adjustable display
- Wall mountable
- 2-position flip stand
- Customizable faceplate

- 12-month warranty
- G.722 wideband codec
- Hearing-aid, TDD compatible
- Mute and volume buttons
- WML applications
- 2 message-waiting lights
- Unicode support for 14 languages
- 4-way navigation key
- Call log, and Contacts applications
- Security, Authentication, QoS, H.323, and SIP compatibility

### **Manufacturing Info**

Avaya 9600 Series IP Telephones are manufactured in China by Flextronics.

## 2.3. Avaya 9630 IP Telephone

A member of the Avaya one-X Deskphone Edition family, the 9630 IP Telephone is specifically designed for the essential telephone user—those for whom the telephone is essential in order for them to complete their job. Sales people, relationship managers, and attorneys are typical examples of the essential user's profile. The 9630 provides superior, high fidelity audio, built in "one touch" access to key Avaya Communication Manager mobility features, and a stylish and professional design.

### *Avaya 9630 IP Telephone*



The 9630 IP Telephone features a 3.8 inch (9.65 cm) diagonal monochrome backlit display - which has been enhanced with higher resolution (1/4 VGA) as compared with other available monochrome telephones from Avaya. The 9630 supports up to 24 call appearances and/or administered feature keys - with six concurrent line appearances visible at any time.

The 9630 has several LED buttons throughout the front of the phone. Six LED line appearance buttons on the side of the display provide explicit status of different line appearances and administered features, while LEDs built into several buttons on the phone such as Mute, Message, and Headset provide an intuitive and simple experience for the everyday end user.

The user interface on the 9630 is helpful and intuitive. So completing call transfers and setting up ad hoc conference calls is simple and can be executed with confidence. The 9630 has a dedicated Call Forward / Mobility button, which provides direct access to Communication Manager Mobility features such as Extension to Cellular and Extend Current Call - features critical to the essential user.

The 9630 supports a 24 button expansion module. This provides the essential user with additional call appearances, bridged appearances and administered feature keys including speed dials.

## Avaya 9630 IP Telephone with SBM24 Expansion Module



Key Feature	Benefit
<p><b>Intuitive User Interface</b> – the intuitive, context-sensitive interface on the 9630 is designed to facilitate confident usage by featuring context-driven menus with on-screen prompts, enabling straightforward access to contact directory and call log. Essential users have full control of conference calls, including selective drop and mute. In addition, the 9630 provides a dedicated Call Forward / Mobility button - for "one touch" access to mobility features within Avaya Communication Manager. These include Extension to Cellular as well as Extend Current Call to cell phone.</p>	<p>Easy access to common features such as Conference, Transfer, and Hold are greatly enhanced with the helpful prompts and tight integration with phone numbers in the contact list and call logs. The user interface on the 9630 provides easy access to critical Communication Manager mobility features, allowing them to be reached transparently whether at their desk or on the go.</p>

Key Feature	Benefit
<p><b>Superior Audio Quality</b> – the unique high-fidelity acoustics of the Avaya 9630, including wideband audio support in the speaker, handset, and headset deliver industry-leading audio that minimizes ambient noise. With the enhanced audio across high and low frequencies, it is easier for users to better understand others with different speech nuances or accents.</p>	<p>For the essential end user, the person constantly on the telephone, the enhanced audio allows calls to be more productive with team members better able to collaborate. On conference calls, users find it easier to distinguish and understand multiple speakers, aiding in collaboration and communications. Overall, communications are richer.</p>
<p><b>New design and display</b> – the 9630 features an improved, higher resolution display - supporting ¼ VGA gray scale with backlighting. A four way navigation button cluster is another new addition to the 9630 - providing a familiar, cell phone-like interface for navigation and feature selections for the everyday user.</p>	<p>The new design facilitates better usage of the display and the built-in browser to improve access to information and use of telephone features.</p>
<p><b>Investment Protection - Modules and Adapters</b> – based on open standards with a modular platform, the Avaya 9630 allows enterprises to add a wide range of modules and adapters to further enhance employee productivity. This facilitates individual choice between Bluetooth, monaural - wideband or binaural - wideband headsets. A standard USB interface accommodates a range of USB devices. In the future, additional adapters and modules including those for Gigabit Ethernet and Bluetooth will be available.</p>	<p>Investment protection and enhanced total cost of ownership are the key benefits. Traditionally, the only way to receive new telephone capabilities - was to purchase a completely new phone. Designed with the future in mind, the Avaya 9630 provides a flexible approach for adding future functionality to current telephones.</p>

Key Feature	Benefit
<p><b>9630 is designed just for the essential user</b> – the 9630 is designed specifically for the essential user - for whom the telephone is critical for them to perform their jobs. The 9630 features a larger display, with additional LED buttons and wideband audio support throughout. The 9630 supports a 24 button expansion module - allowing the essential user to access additional call appearances and feature keys. Finally, with one touch access to mobility features, the 9630 user is reachable seamlessly.</p>	<p>Having a match between the communication needs of the essential end user and the phone on their desk provides a business with great advantages -- especially given the importance of the roles held by essential users (sales, customer facing associates). Allowing the 9630 user to make effective use of the right set of telephone features confidently, enables them to perform their job more proficiently, and ultimately helps to satisfy customers and provide competitive advantages.</p>

- Display – 4-level Grayscale with backlighting – 3.8” 320x240
- Handset – Hi-fidelity, wideband
- Speakerphone – Hi-fidelity, wideband
- Headset (additional) – Hi-fidelity, wideband
- Additional buttons and LEDs – 4 soft-keys, 6 line buttons: Applications Menu, Contacts, Call Log, Messages, Mobility
- Line appearances / features (scrollable) – 24
- USB interface – Yes
- Adapter slots – 2
- Module interface – 1
- Supported # of 24-button modules – up to 3 (with Communication Manager, Release 4.0)
- Ethernet switch (2 interfaces) – 10/100 – Gigabit module can be added
- PoE 802.1af – Class 2 (including button module)
- Adjustable display
- Wall mountable
- 2-position flip stand
- Customizable faceplate
- 12-month warranty
- G.722 wideband codec
- Hearing-aid, TDD compatible
- Mute and volume buttons

- WML applications
- 2 message-waiting lights
- Unicode support for 14 languages
- 4-way navigation key
- Call log, and Contacts applications
- Security, Authentication, QoS, H.323, and SIP compatibility

## 2.4. Avaya 9640 IP Telephone

A member of the Avaya one-X Deskphone Edition family, the 9640 IP Telephone with high resolution color display is specifically designed for the essential telephone user. Essential users are those who rely on the telephone as an essential tool for doing their jobs. Sales people, relationship managers, and attorneys are typical examples of essential users. The 9640 provides superior high fidelity audio, built-in "one touch" access to key Avaya Communication Manager mobility features, and a stylish and professional design.

The 9640 IP Telephone features a 3.8 inch (9.65 cm) diagonal high resolution color backlit display. The telephone supports up to 24 call appearances/administered feature keys with six concurrent line appearances visible at any time. The 9640 has several LED buttons throughout the front of the phone. Six LED line appearance buttons on the side of the display provide explicit status of different line appearances and administered features, while LEDs built into several buttons on the phone such as Mute, Message, and Headset provide an intuitive and simple experience for the everyday end user.

### *Avaya 9640 IP Telephone*



The user interface on the 9640 is helpful and intuitive. Completing call transfers and setting up ad hoc conference calls is simple and can be executed with confidence. The 9640 has a dedicated Call Forward/Mobility button, which provides direct access to Communication Manager Mobility features. Some of these features, such as Extension to Cellular and Extend Current Call, are critical to the essential user.

The 9640 supports a 24-button expansion module. This provides the essential user with additional call appearances, bridged appearances and administered feature keys including speed dials.

### Key Benefits

- *Productivity of Users* – The productivity of end users is greatly enhanced through prompting for common telephony tasks, one-touch access to key features, and superior high fidelity audio.
- *Richer Communication* – The superior audio capabilities make conference calls and meetings more effective by requiring less reiteration. This has been found to reduce employee stress and fatigue.
- *Investment Protection* – Built on open standards with a modular platform that supports a wide range of modules and adapters to further enhance user productivity

Feature	Benefit
Intuitive User Interface	<p>The intuitive, context-sensitive interface on the 9640 is designed to facilitate confident usage by featuring context-driven menus with on-screen prompts, enabling straightforward access to contact directory and call log. Essential users have full control of conference calls, including selective drop and mute. In addition, the 9640 provides a dedicated Call Forward/Mobility button for one-touch access to mobility features within Avaya Communication Manager. These include Extension to Cellular as well as Extend Current Call to cell phone.</p> <p>Easy access to common features such as Conference, Transfer, and Hold are now greatly enhanced with helpful prompts and tight integration with phone numbers in the contact list and call logs. The user interface on the 9640 provides easy access to critical Communication Manager mobility features, allowing users to be reached transparently whether at their desks or on the go.</p>

Feature	Benefit
Superior Audio Quality	<p>The unique high-fidelity acoustics of the Avaya 9640, including wideband audio support in the speaker, handset, and headset deliver industry-leading audio that minimizes ambient noise. With the enhanced audio across high and low frequencies, it is easier for users to better understand others with different speech nuances or accents.</p> <p>For the essential end user, the person constantly on the telephone, the enhanced audio allows calls to be more productive by making team members better able to collaborate. On conference calls, users find it easier to distinguish and understand multiple speakers, aiding in collaboration and communications. Overall, communications are richer.</p>
New design and color display	<p>The 9640 features an improved, higher resolution display supporting 1/4 VGA color with backlighting. A four-way navigation button cluster is another new addition to the 9640, providing a familiar, cell phone-like interface for navigation and feature selections for the essential user.</p> <p>The new design facilitates better usage of the display and the built-in browser to improve access to information and use of telephone features.</p>
Investment Protection - Modules and Adapters	<p>Based on open standards with a modular platform, the Avaya 9640 allows enterprises to add a wide range of modules and adapters to further enhance employee productivity. This facilitates individual choice between Bluetooth, monaural (wideband or binaural) wideband headsets. A standard USB interface accommodates a range of USB devices. In the future, additional adapters and modules including those for Gigabit Ethernet and Bluetooth will be available.</p> <p>Investment protection and enhanced total cost of ownership are the key benefits. Traditionally, the only way to receive new telephone capabilities was to purchase a completely new phone. Designed with the future in mind, the Avaya 9640 provides a flexible approach for adding future functionality to current telephones.</p>

Feature	Benefit
9640 Designed just for the essential user	<p>The 9640 is designed specifically for essential users--those who deem the telephone as critical for doing their jobs. The 9640 features a larger color display, with additional LED buttons and wideband audio support throughout. The 9640 supports a 24-button expansion module, which allows the user to access additional call appearances and feature keys. Finally, with one-touch access to mobility features, the 9640 user is reachable seamlessly.</p> <p>Matching the communication needs of the essential user with the phone on the user's desk gives a business great advantage--especially given the importance of the roles held by essential users (sales, customer-facing associates). The 9640 user can make confident, effective use of the right set of telephone features, which enables them to perform their jobs more proficiently and ultimately helps to satisfy customers and provide competitive advantages.</p>

### Technical Information

- The 9640 uses the g.722 codec open standard for wideband audio, which provides uncompromised sound quality.
- Software Requirements - Avaya Communication Manager Release 3.0 or greater
- Electrical Power - one-X Deskphone Edition telephones require electrical power, either from an 802.af Power over Ethernet switch or a local power Avaya power supply. The 9640 is a Class 2 PoE device.
- Manufacturing Information - The 9600 Series IP Telephones are manufactured in China by Flextronics.

### Security Features

- Denial of Service protection – the 9600 Series IP Telephones are designed to continue to function, even during active calls in the event of a denial of service attack
  - Authenticate downloaded software – the 9600 Series telephones authenticate all downloaded software via a digital signature to ensure that only authentic Avaya software is ever installed in the telephone
  - 802.1X support - forwarding and supplicant – the 9600 Series telephones support several modes of 802.1X operation that include supplicant operation for true authentication of the telephone, pass-through of 802.1X messages for authentication of an attached PC, and a multi-supplicant mode in which both the telephone and the PC can be authenticated. Proxy-logoff is also supported to alert the network if an authenticated PC is disconnected from the telephone
- VLAN separation – the 9600 Series telephones support VLAN separation to ensure that traffic from an attached PC cannot get onto the voice VLAN, and to ensure that any traffic on the data VLAN does not affect telephone operation or voice quality. The VLAN ID and QoS priority of frames transmitted by an attached PC can be "re-marked" with specific administered values.

## 2.5. Avaya 9650 IP Telephone

A member of the one-X Deskphone Edition family, the 9650 IP Telephone is specifically designed for what we call the "navigator" telephone user. Navigators, such as building receptionists and executive admin staff, manage calls for themselves and for groups of people as a big part of their jobs. The 9650 features built-in button module functionality with one-touch access to bridged call appearances, speed dials and feature keys. When used with Avaya Communication Manager, Release 4.0, the 9650 supports up to three SBM 24-button expansion modules.

### *Avaya 9650 IP Telephone*



Smart, sleek, stylish, and highly functional, the Avaya 9650 IP Telephone is designed for the Navigator user profile—someone who primarily speaks on the phone for the majority of each day. Common "navigator" tasks include answering incoming calls, transferring callers to other extensions and monitoring several bridged appearances throughout the day. The Avaya 9650 IP Telephone delivers advanced communications capabilities, high definition audio, an integrated WML application interface, and comprehensive one-touch access. This is the ideal solution for receptionists, executive assistants, contact center agents, as well as knowledge workers who need quick access to features and call appearances.

The Avaya 9650 IP Telephone supports higher quality wideband audio in both the handset as well as the speakerphone, which provides crystal clear audio with the elimination of background noise. The backlit display and intuitive interface simplifies access to Avaya Communication Manager features. Some features simultaneously manage multiple calls while selectively muting and dropping conference call participants. The 9650 supports built-in button module functionality (eight physical buttons with shift capability for a total of 16 feature keys) to provide simple one-touch access to bridged appearances, speed dials and feature keys. And, with its dual position flip stand, the 9650 makes a smart-looking addition to any desk. Through its integrated web browser and application interface, the 9650 supports productivity enhancing phone applications such as LDAP corporate directories and integration with Microsoft Outlook calendars.

### Key Benefits

- *Productivity of Users* - The productivity of end users is greatly enhanced through prompting for common telephony tasks, one-touch access to key features, and superior high fidelity audio.
- *Richer Communication* - The superior audio capabilities make conference calls and meetings more effective by requiring less reiteration. This has been found to reduce employee stress and fatigue.
- *Investment Protection* - Utilizing open standards, with a modular platform that supports a wide range of modules and adapters, further enhances user productivity.

Feature	Benefit
Intuitive User Interface	<p>The intuitive, context-sensitive interface on the 9650 is designed to facilitate simple and intuitive usage for receptionists and executive admin staff. Both the display, as well as the feature key arrangement, provide built-in button module functionality for the user who is constantly answering incoming calls, picking up bridged appearances and transferring callers to other extensions.</p> <p>The 9650 user interface is designed for users who monitor their own extensions. Along with the line appearances of others, this interface enables confident one-touch access to features and speed dials. For the user who often has multiple calls at once, the 9650 allows the building receptionist or executive admin staff to handle calls with ease.</p>
New Design and Display	<p>The 9650 features a higher resolution display supporting 1/4 VGA gray scale with backlighting. A four-way navigation button cluster is another new addition to the 9650. This provides a familiar, cell phone-like interface for navigation and feature selections for the phone intense user.</p> <p>The new design facilitates better usage of the display and the built-in browser to improve access to information and use of telephone features.</p>

Feature	Benefit
Superior Audio Quality	<p>The unique high-fidelity acoustics of the Avaya 9650, including wideband audio support in the speaker and headset, deliver industry-leading audio that minimizes ambient noise. With the enhanced audio across high and low frequencies, it is easier for users to better understand others with different speech nuances or accents.</p> <p>For the navigator end user, the person constantly on the telephone, the enhanced audio allows calls to be more productive with team members allowing improved collaboration. On conference calls, users find it easier to distinguish and understand multiple speakers, aiding in collaboration and communications. Overall, communications are richer using the Avaya 9650 IP Telephone.</p>

### Technical Information

- The 9650 uses the g.722 codec open standard for wideband audio, which provides uncompromised sound quality.
- Software Requirements - Avaya Communication Manager Release 3.0 or greater
- Electrical Power - one-X Deskphone Edition telephones require electrical power, either from an 802.af Power over Ethernet switch or a local power Avaya power supply. The 9650 is a Class 2 PoE device.
- Manufacturing Information - The 9600 Series IP Telephones are manufactured in China by Flextronics.

### Security Features

- Denial of Service protection – the 9600 Series IP Telephones are designed to continue to function, even during active calls in the event of a denial of service attack
- Authenticate downloaded software – the 9600 Series telephones authenticate all downloaded software via a digital signature to ensure that only authentic Avaya software is ever installed in the telephone
- 802.1X support - forwarding and supplicant – the 9600 Series telephones support several modes of 802.1X operation that include supplicant operation for true authentication of the telephone, pass-through of 802.1X messages for authentication of an attached PC, and a multi-supplicant mode in which both the telephone and the PC can be authenticated. Proxy-logoff is also supported to alert the network if an authenticated PC is disconnected from the telephone
- VLAN separation – the 9600 Series telephones support VLAN separation to ensure that traffic from an attached PC cannot get onto the voice VLAN, and to ensure that any traffic on the data VLAN does not affect telephone operation or voice quality. The VLAN ID and QoS priority of frames transmitted by an attached PC can be "re-marked" with specific administered values.