



UNISTim Software Release 5.5.9 for 1100 / 1200 Series IP Deskphones: Read me Document

Avaya is pleased to announce the availability of UNISTim Software Release 5.5.9 for the 1100 and 1200 Series IP Deskphones. UNISTim Software Release 5.5.9 is primarily a maintenance release but also includes support for security and management enhancements.

UNISTim Software Release 5.5.9 is available in the following software versions for the following IP Deskphones:

UNISTim Software Release 5.5.9	
Hardware Model	Software
1110 IP Deskphone	0623C97
1120E IP Deskphone	0624C97
1140E IP Deskphone	0625C97
1150E IP Deskphone	0627C97
1165E IP Deskphone	0626C97
1210 IP Deskphone	062AC97
1220 IP Deskphone	062AC97
1230 IP Deskphone	062AC97

UNISTim Software Release 5.5.9 for IP Deskphones is available for download from <http://support.avaya.com/>. Select "Downloads", and then enter the product name "1100 Series IP Deskphones", or "1200 Series IP Deskphones". Choose "UNISTim 5.x" from the "Choose Release" pull-down menu and click on "UNISTim Software Release 5.5.9 for IP Deskphones".

This release is being provided as a no charge update to all customers. These software loads have been introduced as the default loads for the IP Deskphones shipped from Avaya.

Avaya recommends an upgrade to this release of software for all applicable IP Deskphones and Call Servers at the earliest convenience. This software is compatible with the following Call Server platforms:

- Avaya Communications Server 1000 (CS1000)
- Avaya Aura Device Adapter (ADA)

See the section on "Call Server Compatibility and Requirements" later in this document for minimum software and Release requirements.

What's new in UNISStim 5.5.9

The UNISStim Software Release 5.5.9 for IP Deskphones continues to improve the overall quality of the IP Deskphone software through the resolution of several Avaya identified work items, and a number of externally reported issues from customers.

UNISStim 5.5.9 provides the following new capabilities:

- Supports FIPs 140-2 compliance.
- Supports "dbgshell" mode for capability to gather log files without access to "vxshell" mode.

Resolved issues

External ticket	Internal ticket	Summary of Resolved issue
	IPCLIENTS-12942	After reset to factory defaults phone can't use HTTPS
	IPCLIENTS-12849	12xx phone displays wrong format time on home screen.
1-13709076035	IPCLIENTS-12786	Intermittent - Dot1x: re-auth fails, phone loses network connectivity
	IPCLIENTS-12722	11xx phone tagged valid VLAN can accept untagged packets from switch.
	IPCLIENTS-12663	Zero value can be entered into fields of "Ping" and "Hop" widgets in "Network Diagnostic Tool" menu.
	IPCLIENTS-12614	Cannot enable Bluetooth by device config file after resetting IP Phone to factory.
	IPCLIENTS-12602	1120/1140: Unable exit Network configuration menu by "Cancel" SK or "Quit" button in specific scenario
	IPCLIENTS-12601	Keys from EM should be handled in diag test key mode
	IPCLIENTS-12525	11x0 IP Phone: Message Enter value 80-65535 still display at Push Port field when input invalid value
	IPCLIENTS-12364	Can't enter VLAN ID for VoiceVLAN or DataVLAN
	IPCLIENTS-12330	Error message does not disappear after quitting from the Advanced Diagnostics Tools menu on "Apply" softkey.

	IPCLIENTS-12125	Phone does not register to server after proceeding continue boot up with disabled VPN
	IPCLIENTS-11953	BkSpc and Clear softkey display in unedited options

IP Deskphone Compatibility

The following Software files contain UNISTim Software Release 5.5.9 compatible with the following IP Deskphones

IP Deskphone Compatibility		
PEC	Description	Software File
NTYS02xxxxxx	1110 IP Deskphone	0623C97.bin
NTYS03xxxxxx	1120E IP Deskphone	0624C97.bin
NTYS05xxxxxx	1140E IP Deskphone	0625C97.bin
NTYS06xxxxxx	1150E IP Deskphone	0627C97.bin
NTYS07xxxxxx	1165E IP Deskphone	0626C97.bin
NTYS18xxxxxx	1210 IP Deskphone	062AC97.bin
NTYS19xxxxxx	1220 IP Deskphone	062AC97.bin
NTYS20xxxxxx	1230 IP Deskphone	062AC97.bin

Call Server Compatibility and Requirements

UNISTim Software Release 5.5.8 is compatible with the Avaya Call Servers listed below.

Communication Server 1000

Communication Server 1000 Compatibility and Requirements	
Call Server Release	Notes and Advisements
CS1000 R7.6	<p>UNISTim 5.5.9 was tested and is supported with CS1000 R7.6. CS1000 R7.6 is the only supported release of CS1000 software. Issues reported on UNISTim 5.5.9 may be addressed in an upcoming UNISTim Maintenance Release for the IP Deskphones.</p> <p>Please see the Product Advisement related to Zero Touch Provisioning.</p>

Avaya Aura Device Adapter

ADA Compatibility and Requirements	
Call Server Release	Notes and Advisements
ADA 8.1	Latest UNISTim firmware 5.5.9 is integrated to the provisioning server of ADA 8.1 server. Device Adapter automatically upgrades the

	firmware to version 5.5.9 on the 11xx and 12xx series phones when these phones first register to Device Adapter.
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Compatibility For the latest and most accurate compatibility information, go to <https://support.avaya.com/CompatibilityMatrix/Index.aspx>.

IP phones compliance with FIPS 140-2 standard

IP phones comply with Federal Information Processing Standards Publication (FIPS) 140-2, Security Requirements for Cryptographic Modules, which specifies the security requirements that are to be met by the cryptographic modules. These cryptographic modules are used within the security system to protect sensitive information within a computer and telecommunications systems, including voice systems.

IP phone firmware contain Mocana version 6.5 with FIPS 140-2 compliant Cryptographic module.

IP Deskphone Software Upgrade Methods (Communication Server Dependent)

Upgrading the IP Deskphone software in a Communication Server 1000 environment

The 1100 Series and 1200 Series IP Deskphones support remote software upgrades through both an HTTP/TFTP process and the more automated UFTP process direct from the Communication Server 1000. UNISTim Software Release 5.5 added support for HTTPS.

Note that the 1200 Series IP Deskphones are only supported on Communication Server 1000 release 5.5 or later. Therefore, the software can be upgraded by either UFTP or HTTP/TFTP. UNISTim Software Release 5.5 added support for HTTPS.

Also note that the 1165E IP Deskphone is only supported on Communication Server 1000 release 5.0 or later. Therefore, the software can be upgraded by either UFTP or HTTP/TFTP. UNISTim Software Release 5.5 added support for HTTPS. For information on the HTTP/TFTP/HTTPS software upgrade process for the Communication Server 1000, please refer to the [IP Deskphones Fundamentals](#), NN43001-368.

For information on the UFTP software upgrade process for the Communication Server 1000, please refer to the [IP Line Fundamentals](#), NN43100-500.

System Compatibility and Requirements

System Compatibility and Requirements	
System	Notes and Advisements
Avaya (formerly Nortel) Contact Recording and Quality	The Secure Call Recording feature in UNISTim Software Release 4.0 and higher interworks with Avaya (formerly Nortel) Contact Recording and Quality Monitoring release 7.0.

Monitoring (CRQM) 7.0	For additional information on Avaya CRQM solution and its support for Secure Call Recording, please refer to the CRQM 7.0 Planning, Installation and Administration Guide, NN44480-300 See the Product Advisement related to Secure Call Recording.
Avaya (formerly Nortel) VPN Router (NVR) 8.00 or greater	The UNISlim VPN Client (UVC) feature in UNISlim Software Release 4.0 and higher interworks with Avaya (formerly Nortel) VPN Routers running release 8.00 and greater
Avaya (formerly Nortel) VPN Gateway (NVG) 8.0.1 or greater	The UNISlim VPN Client (UVC) feature in UNISlim Software Release 4.1 and higher interworks with Avaya (formerly Nortel) VPN Gateways running release 8.0.1 and greater
Nortel Application Gateway 2000 6.3 and higher	This software release provides support to interwork with Nortel Application Gateway 2000 (AG2000) release 6.3 The AG2000 does not support the 1150E IP Deskphone or 1165E IP Deskphone.

Product Advisements

The following is a list of advisements associated with UNISlim Software Release 5.5.9. Some advisements remain from previous releases of software, whereas other advisements reflect newly observed or changed behavior introduced with UNISlim Software Release 5.5.9. Advisements that are new to UNISlim Software Release 5.5.9 or have changed since previous releases of UNISlim software are prefixed with "NEW".

IMPORTANT NOTE for customer with 1210 IP Deskphones

New 1210 phone have different LCD which affects bus with flash memory. Older firmware may not be able to interact with flash memory correctly. Thus, downgrade to pre-U5.5.5 loads are blocked.

Parameters/commands changes in Release 5.5 SP4:

- 1) "wavplay" parameter enables playing audio intro on phone startup (Avaya 1100 and 1200 Series)
 - y for yes(default)
 - n for no
- 2) "showWavPlay" command allows checking "wavplay" state via pdt shell.
- 3) "reboot" command allows restarting phone remotely via pdt shell

IMPORTANT NOTE for customer with 1210 IP Deskphones

New 1210 samples carry different contrast table, incompatible with old firmware. Thus, downgrade to pre-U5.5.1 loads is blocked.

IMPORTANT NOTE for customers using Avaya Secure Call Recording and IP Deskphones.

Previously, a Product Advisement directed customers using secure call recording with Avaya Call Recorder (ACR) to **not** upgrade to UNISTim 5.3 or higher until an ACR patch (101055) was available. This was related to a CS1000 feature change for Secure Call Recording that was needed to address an issue with DTLS. A fix corrected the way the master secret used in SRTP key material generation was implemented. A corresponding change was needed on the ACR to allow Secure RTP to function. Patches were produced by Verint and tested for WFO 10.1.SP2 (patch 101052 or later) and the Controlled Introduction release ACR 10.1.SP2 FP (101201 or later). No changes were made for CRQM 7.0.

Note that the feature works with ACR 11.0 and above as part of the standard code. (No patch needed). The feature works with UNISTim 5.3 or above. The feature is enabled by setting the property file (acr.properties) entry on the ACR to dtls.nonstandard=2. If CS1K system is NOT using the DTLS sRTP master secret fix (UNISTim 5.3) then you DO NOT set this property and the patch will function as normal.

IMPORTANT NOTE for customers still using earlier UNISTim Software Releases related to expired digital signatures.

Earlier UNISTim Software Releases including UNISTim Software releases 4.2, 4.3, and 5.0 have expired digital signatures that prevent successful downgrade of the IP Deskphones' software to those loads. If a software downgrade to these loads is attempted the error message 'FW authentication failure' will appear, and the phone will not accept the downgrade. All Software loads can absolutely be upgraded to UNISTim Release 5.5.9. UNISTim Software Releases since 5.1 have included digital signatures with a 10-year duration.

Important: Product Advisement for customers who previously upgraded to UNISTim 5.0 using the workaround related to Zero Touch Provisioning and have not yet upgraded to UNISTim 5.1 or 5.2:

For customers who previously upgraded to UNISTim 5.0 and used the recommended workaround detailed in the UNISTim 5.0 Readme Product Bulletin, related to pre-configured REG entries, this workaround needs to be removed to successfully upgrade to UNISTim 5.1 or later (including UNISTim 5.2, 5.3, 5.4, 5.5, and 5.5.9). That is, customers who have pre-configured REG entries, (which includes the MAC address, the TN, and Node) within the provisioning file to enable Zero Touch for the IP Deskphones, were previously advised of a problem that could occur related to parsing of the REG entry which prevented the IP Deskphones from coming up as expected. The recommended workaround for customers upgrading to UNISTim 5.0 was to add a comma before the semi-colon of the REG entry within the provisioning file. As noted in the UNISTim 5.0 Readme Product Bulletin, this issue is now fully addressed in this UNISTim 5.1 and higher software maintenance releases, and customers who applied the workaround will need to remove the comma to successfully upgrade to UNISTim 5.1 or later software release (including UNISTim 5.2, 5.3, 5.4, 5.5, and 5.5.9).

Home page is not loaded automatically after authentication credentials are entered

If the first use of the WML browser is to load the home page and the user is prompted for authentication credentials, the home page will not be automatically displayed after successfully entering the credentials. The user must press the Home softkey to display the homepage.

Red LED does not flash on incoming call if Audio Push is being received at the same time

On the 1110 and 1200 Series IP Deskphones, if an Audio Push is active when there is an incoming call, the red Call Alerting LED will not flash to indicate there is an incoming call.

Slight change to the contrast level on the icons on the 1100 Series Expansion Module when the Module is attached to an 1165E IP Deskphone (applies to the 1165E IP Deskphone only)

After upgrading to firmware 0626C7J or higher on the 1165E IP Deskphone, if an 1100 Series Expansion Module is attached, the user will notice slight changes to the contrast levels on icons on the Expansion Module. The changes were necessary to improve the display quality during low contrast settings.

1110 IP Deskphone may experience a double reboot when upgrading software (applies to the 1110 IP Deskphone only)

If the 1110 IP Deskphone is upgraded (or downgraded) to (from) UNISTim Software Release 4.3 while Asian font files are installed in the phone, a double reboot may occur during the upgrade (or downgrade) procedure. After the second reboot, the phone will be fully operational and will maintain its selected language choice. This advisory is simply to provide notification that the upgrade (or downgrade) procedure may now be lengthened due to the double reboot.

IP Deskphone may appear locked when downloading large font files over the VPN (applies to the 1120E, 1140E, 1150E and 1165E IP Deskphones)

It has been discovered that when using the VPN feature on home-based phones, that the IP Deskphone may appear locked when downloading large files (such as font files) to the IP Deskphone. This issue is due to Internet delay and the fact that the IP Deskphone's TFTP client is inefficient to transfer large files across the Internet. Unfortunately, the IP Deskphone does not have a progress indication to inform the user that the download is still in progress and in fact the IP Deskphone is not locked.

Users are advised to wait should the IP Deskphone be downloading font files over the Internet. As an additional measure, one can also look to the back of the phone at the link activity LED to confirm network activity is still occurring and in fact that the phone is not locked.

Phone may reboot when applying an unreachable CA server, CA domain name and CA hostname

Usually unreachable CA server means no reply is provided to TCP SYN request which is correctly handled. In some configuration resulting in ICMP reply of "Time exceeded" the phone may reboot.

Minimum allowable software on the 1150E IP Deskphone for phone hardware vintages by PEC

Hardware changes in past vintages of 1150E IP Deskphones impose a restriction on the minimum allowable software version on these IP Deskphones. The latest phone hardware will absolutely accept an upgrade to this UNISTim Software Release. But the latest hardware 1150E IP Deskphone will NOT accept a downgrade to any software version previous to

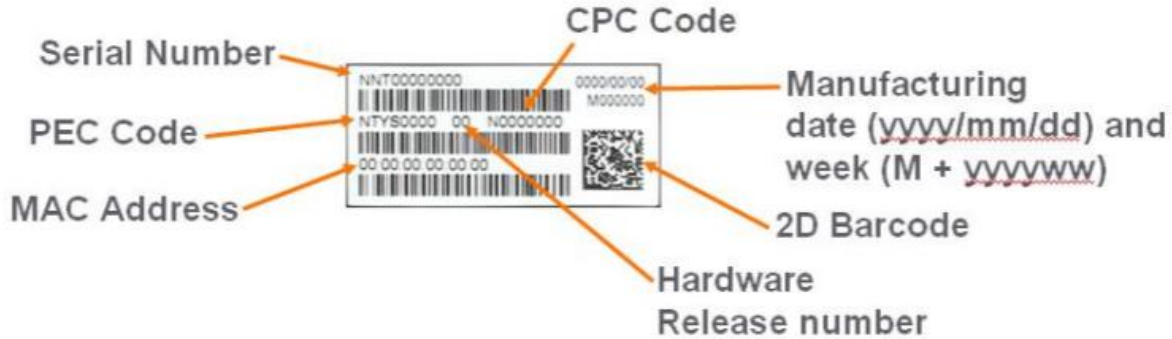
UNISTim Software Release 3.4 (0627C6T). Any attempt to download a software version previous to UNISTim Software Release 3.4 will result in the phone responding with a denial of software downgrade response.

The minimum allowable software is dependent on the phone's PEC and hardware release number and is provided in the table below:

Minimum Allowable Software			
PEC	Hardware Release	Description	Minimum Software
NTYS06AAE6	07	1150E IP Deskphone Graphite with Icon Keycaps (RoHS)	UNISTim 3.4 (0627C6T)
NTYS06BAE6	07	1150E IP Deskphone Graphite with English keycaps (RoHS)	UNISTim 3.4 (0627C6T)
NTYS06ABE6*	01	1150E IP Deskphone Graphite with Icon Keycaps (RoHS)	UNISTim 3.4 (0627C6T)
NTYS06BBE6*	01	1150E IP Deskphone Graphite with English keycaps (RoHS)	UNISTim 3.4 (0627C6T)
NTYS06ACE6*	01	1150E IP Deskphone Graphite with Icon Keycaps (RoHS)	UNISTim 3.4 (0627C6T)
NTYS06BCE6*	01	1150E IP Deskphone Graphite with English keycaps (RoHS)	UNISTim 3.4 (0627C6T)

* Note that these PECs are for the Avaya-branded 1150E IP Deskphones. Note that UNISTim Software Release 4.2 is the minimum release of IP Deskphone software that includes Avaya branding for the graphical user interface and features that appear on the phone's display. There is not an absolute requirement to run UNISTim 4.2 or higher on the Avaya-branded hardware, but Avaya recommends an upgrade to the latest release of software for all applicable IP Deskphones and Call Servers at the earliest convenience.

The Figure below provides an explanation of where to identify the PEC and Hardware Release Number on the white product label located on the back of the IP Deskphone.



If UFTP software download is used within the Communication Server 1000 environment, Avaya recommends that the software image for the 1150E IP Deskphone on the signaling server be upgraded minimally to UNISTim Software Release 3.4, if not UNISTim Software Release 5.5.9.

Communication Server 1000 Release 5.0, and greater, will interpret denial of software downgrade responses from the new hardware phones. However, Communication Server 1000 prior to release 5.0 requires patch MPLR23154 to interpret correctly the phone’s denial of software downgrade responses. Failure to install the patch introduces the risk that the call server may continuously try and downgrade the software thereby denying service to the phone. MPLR23154 is available at VO status on the Avaya ESPL website and is deployed only by contacting your Technical Support Representative

If TFTP software download is used, and the TFTP server is not upgraded to UNISTim Software Release 3.4 or higher, the TFTP server will continuously try and downgrade the software in the phone. The new hardware phone will prevent the downgrade resulting in the phone being denied service.

Minimum allowable software is required on specific hardware vintages of the 1120E IP Deskphone and 1140E IP Deskphone (applies to the specific hardware releases noted for the 1120E IP Deskphone and the 1140E IP Deskphone below by PEC and Release Number)

Some past hardware changes in 1120E IP Deskphones and 1140E IP Deskphones impose a restriction on the minimum allowable software version on these phones. The newer hardware phones will absolutely accept an upgrade to UNISTim Software Release 5.5.9, but the following hardware vintages of 1120E IP Deskphone and 1140E IP Deskphone will NOT accept a downgrade to any software version previous to either UNISTim Software Release 3.1 or UNISTim Software Release 3.4 respectively depending on the level of hardware changes. Any attempt to download a software version previous to minimum allowable software will result in the phone responding with a denial of software downgrade response.

The minimum allowable software is dependent on the phone’s Product Engineering Code (PEC) and hardware Release Number and is provided in the table below.

Minimum Allowable Software			
PEC	Hardware Release	Description	Minimum Software
NTYS18AD70E6	03	1120E IP Deskphone	UNISTim 5.5.8 (0624C96)
NTYS18BD70E6	03	1120E IP Deskphone	UNISTim 5.5.8 (0624C96)
NTYS03ADE6	01	1120E IP Deskphone Graphite with Icon Keycaps (RoHS)	UNISTim 3.1 (0624C6J)
NTYS03BDE6	01	1120E IP Deskphone Graphite with English keycaps (RoHS)	UNISTim 3.1 (0624C6J)
NTYS03BDGS	01	1120E IP Deskphone GSA	UNISTim 3.1 (0624C6J)
NTYS05ACE6	50	1140E IP Deskphone Graphite with Icon Keycaps (RoHS)	UNISTim 3.1 (0624C6J)
NTYS05BCE6	50	1140E IP Deskphone Graphite with English keycaps (RoHS)	UNISTim 3.1 (0624C6J)
NTYS05BCGS	01	1140E IP Deskphone GSA	UNISTim 3.1 (0624C6J)
NTYS03AEE6	01	1120E IP Deskphone Graphite with Icon Keycaps (RoHS)	UNISTim 3.4 (0624C6T)
NTYS03BEE6	01	1120E IP Deskphone Graphite with English keycaps (RoHS)	UNISTim 3.4 (0624C6T)
NTYS03BEGS	01	1120E IP Deskphone GSA	UNISTim 3.4 (0624C6T)
NTYS05AEE6	01	1140E IP Deskphone Graphite with Icon Keycaps (RoHS)	UNISTim 3.4 (0624C6T)
NTYS05BEE6	01	1140E IP Deskphone Graphite with English keycaps (RoHS)	UNISTim 3.4 (0624C6T)
NTYS05BEGS	01	1140E IP Deskphone GSA	UNISTim 3.4 (0625C6T)

NTYS03AFE6 *	01	1120E IP Deskphone Graphite with Icon Keycaps (RoHS)	UNISTim 3.4 (0625C6T) *
NTYS03BFE6 *	01	1120E IP Deskphone Graphite with English keycaps (RoHS)	UNISTim 3.4 (0625C6T) *
NTYS03BFGS *	01	1120E IP Deskphone GSA	UNISTim 3.4 (0624C6T) *
NTYS05AFE6 *	01	1140E IP Deskphone Graphite with Icon Keycaps (RoHS)	UNISTim 3.4 (0624C6T) *
NTYS05BFE6 *	01	1140E IP Deskphone Graphite with English keycaps (RoHS)	UNISTim 3.4 (0624C6T) *
NTYS05BFGS *	01	1140E IP Deskphone GSA	UNISTim 3.4 (0624C6T) *
NTYS03AFE6*	15	1120E IP Deskphone Graphite with Icon Keycaps (RoHS)	UNISTim 5.4 (0624C8L)
NTYS03BFE6*	15	1120E IP Deskphone Graphite with English keycaps (RoHS)	UNISTim 5.4 (0624C8L)
NTYS03BFGS*	16	1120E IP Deskphone GSA	UNISTim 5.5 (0624C8Q)
NTYS05AFE6*	18	1140E IP Deskphone Graphite with Icon Keycaps (RoHS)	UNISTim 5.5 (0624C8Q)
NTYS05BFE6*	18	1140E IP Deskphone Graphite with English keycaps (RoHS)	UNISTim 5.5 (0624C8Q)
NTYS05BFGS*	19	1140E IP Deskphone GSA	UNISTim 5.5 (0624C8Q)
NTYS18AD70E6	09	1210 IP Deskphone	UNISTim 5.5.1 (062AC8T)
NTYS18BD70E6	09	1210 IP Deskphone	UNISTim 5.5.1 (062AC8T)

* Note that these PECs are for the Avaya-branded 1120E and 1140E IP Deskphone hardware. Note that UNISTim Software Release 4.2 (and later) is the minimum release of IP Deskphone software that includes Avaya branding for the graphical user interface and features that appear on the phone's display. There is not an absolute requirement to run UNISTim 4.2 or higher on the Avaya-branded hardware, but Avaya generally recommends an upgrade to the

latest release of software for all applicable IP Deskphones and Call Servers at the earliest convenience.

To identify the PEC and Hardware Release Number, see the Figure presented above which provides a diagram on the information on the white product label located on the back of the IP Deskphone.

If UFTP software download is used within the Communication Server 1000 environment, Avaya recommends that the software image for the 1120E IP Deskphone and 1140E IP Deskphone on the signaling server be upgraded to the minimum allowable software for the respective PEC and Hardware Release, or ideally to the latest available software release, UNISTim 5.5.9. See the Product Advisement related to Zero Touch Provisioning in this Product Bulletin.

Communication Server 1000 release 5.0, and greater, will interpret denial of software downgrade responses from the new hardware phones. However, Communication Server 1000 prior to release 5.0 requires patch MPLR23154 to interpret correctly the phones denial of software downgrade responses. Failure to install the patch introduces the risk that the call server may continuously try and downgrade the software thereby denying service to the phone. MPLR23154 is available at VO status on the Avaya ESPL website and is deployed only by contacting your Technical Support Representative

If TFTP software download is used, and the TFTP server is not upgraded to the minimum allowable software, or greater, the TFTP server will continuously try to downgrade the software in the phone. The new hardware phone will prevent the downgrade resulting in the phone being denied service.

EAP-MD5 and Microsoft Windows Server 2008 (applies to all the IP Deskphones)

If access control is enabled on the IP Deskphone and MD5 is chosen as the EAP mode, realize that EAP can be turned on in the Microsoft Windows Server 2008 NPS¹ but it is not the default setting. Please refer to Microsoft support for more details on enabling EAP-MD5. In addition, minimally, Service Pack 2 is required on the Windows Server 2008 NPS to support the IP Deskphones using MD5 access control.

Minimum firmware required on the Algo 4900 USB ATA (applies when the USB ATA is connected to an 1120E, 1140E, 1150E or 1165E IP Deskphones)

The Algo 4900 USB ATA must have firmware version v1.00.32v or greater before connecting the adapter to the IP Deskphone. A Windows based configuration tool to upgrade the ATA firmware version can be found at the Algo web site:

<http://www.algosolutions.com/products/usbATA/fw-download.html>

Also note that the Algo 4900 USB ATA is classified as a high-power USB device and must be connected to an 1120E, 1140E and 1150E IP Deskphone through a powered USB hub. If it is connected to the IP Deskphone directly, it will cause the phone to completely shut off service to the USB port.

¹ In Windows Server 2008, IAS has been replaced with Network Policy Server (NPS)

The 1165E IP Deskphone can support the Algo 4900 USB ATA connected directly as long as the 1165E IP Deskphone is locally powered with an AC adapter. If the 1165E IP Deskphone is obtaining its power from the network via Power over Ethernet (POE) then the Algo 4900 USB ATA must be connected through a powered USB hub

IP Deskphone's performance will be diminished during broadcast storms (applies to all the IP Deskphones)

By default, network traffic to the IP Deskphone will be accepted based on the packet's destination MAC address. The phone will therefore accept, in addition to all unicast packets sent to the phones MAC address, all broadcast and multicast packets as well. If the network environment results in a high amount of broadcast or multicast traffic, the IP Deskphone's performance may be impacted.

If "Voice 802.1Q" is enabled on the phone, the phone can then be provisioned to filter some or all of the broadcast or multicast traffic. If "VLAN Filter" is enabled, packets will be accepted by the phone based on the packet's destination MAC address as well as the packet's VLAN tag. Untagged packets and packets with a VLAN tag different from the Voice VLAN ID will be prevented from reaching the phone. This will protect the voice application from excessive traffic sent to the broadcast address or to the multicast addresses. But please be aware, if VLAN filtering is enabled on the phone, one must ensure that voice packets are tagged with the appropriate VLAN ID as they exit the network switch, or else the packets will be dropped by the filter.

Change in behavior of entering an asterisk (*) to manually provision the "Provision" parameter in the network configuration menu (applies to the 1120E, 1140E and 1150E IP Deskphones)

In UNISTim software prior to release 3.2 (0621C6M, 0624C6O, 0625C6O and 0627C6O on the 1120E, 1140E, and 1150E IP Deskphones respectively) the asterisk (*) key could not be used to input the dot (.) for defining an IP address in the "Provision" parameter in the network configuration menu. Since the "Provision" parameter in the network configuration menu can accept both an URL as well as an IP address the entry is a text-based field causing the asterisk key to be accepted as an actual asterisk. But since this is different from other parameters that accept only an IP address where the asterisk key is used to represent the dot, the inconsistent behavior of this field can be confusing.

With UNISTim Software Release 3.2 and greater, the typing of the asterisk key in the "Provision" parameter in the network configuration menu has changed slightly. Now, if the asterisk key is pressed twice relatively quickly it will input the dot. Pressing the asterisk key once will still input the asterisk character consistent with previous behavior.

Throughput may be slow for large file transfers on conversions from GigE to 100Mbit (applies to the 1120E, 1140E, 1150E and 1165E IP Deskphones)

In networks in which a PC is connected to the IP Deskphone's PC port and the PC's NIC speed is 100Mbit, but the network speed is at GigE, large file transfers to the PC can take quite a long time. This is an issue with large file transfers only. Due to the speed mismatch between the phone's two ports the buffers in the phone can overflow resulting in retransmissions.

Although the IP Deskphones support Ethernet flow control (802.3x), the support is only implemented on the phone's PC port, not on the phone's network port. Ethernet flow control

is a mechanism where the IP Deskphone can request a brief "pause" from the transmitting Ethernet device if the IP Deskphone buffers are about to overflow.

Ethernet flow control cannot be implemented on the phone's network port since it impacts the phone's voice quality. As a result, in environments where the network is GigE, but the PC NIC is only 100Mbit, large file transfers from the network to the PC can take quite a long time. On the other hand, since Ethernet flow control is implemented on the phone's PC port, in environments where the PC NIC is GigE, but the network is only 100Mbps, large file transfers should be well managed by the phone's Ethernet flow control mechanism.

Receiving an LLDP MED Network Policy TLV from the network infrastructure will cause the IP Deskphone to ignore any DSCP value received from the Communication Server 1000 Element Manager and the Info Block (applies to all the IP Deskphones)

Because of the precedence order, in auto-provisioning mode (i.e. the value has not been overridden manually) if the IP Deskphone receives an LLDP MED Network Policy TLV from the network infrastructure, the phone will provision its DSCP from the LLDP MED Network Policy TLV and not from the Call Server or Info Block. When the phone receives a Network Policy TLV from the network infrastructure, it sets its voice VLAN, L2 Priority and DSCP to the value specified in the VLAN ID field, L2 Priority field and DSCP Value field respectively. Thus, if the Network Policy TLV is received, any QoS values also received from the Call Server (i.e. Telephony Manager and/or Element Manager) or Info Block it will be ignored.

Special Note: The feature "DSCP provisioning precedence override" available in UNISTim Software Release 3.3 and greater provides a work-around to this advisory.

IP Deskphone's default for Auto VLAN changed to "Enabled". Auto VLAN now supports a No VLAN option (applies to the 1110, 1120E, 1140E, 1150E, 1210, 1220 and 1230 IP Deskphones)

In software loads prior to UNISTim Software Release 2.2 for 1100 Series and 1200 Series IP Deskphones, one had to manually provision whether the phone was to be installed in an 802.1Q VLAN environment or not. The default configuration for the phone was assuming that the phone was not being deployed into an environment supporting a Voice VLAN. The default source for VLAN assignment was "no VLAN".

For the phones to be deployed into a voice VLAN environment, the phone had to be manually provisioned with either a Voice VLAN ID, or manually provisioned to accept an Auto VLAN assignment.

With UNISTim software commencing with release 2.2 and continuing with present UNISTim software the default configuration for the phone now has Auto VLAN assignment via DHCP enabled. Realizing that not all phones will be deployed in an 802.1Q VLAN environment, the Auto VLAN assignment support has also been updated to support both an 802.1Q VLAN environment and an environment without 802.1Q VLANs.

With Auto VLAN enabled, if VLAN information is provided within the DHCP option type VLAN-A, the phone will use the VLAN information to provision a voice VLAN. However, if no VLAN-A option type is provided by DHCP, the phone will assume that no VLAN is to be provisioned.

Although the default configuration for voice VLAN has changed, the new default configuration will not be applied to field upgrades. A limitation of the new functionality is that it could only apply to new phones being shipped from the factory with UNISTim Software Release 2.2 or

higher. The default configuration of "Auto" will not be applied to field upgrades. Upgrading software does not change any pre-established values already in the phones.

But as mentioned above, to allow phones already deployed in the field to change the source of their VLAN information, with UNISTim Software Release 3.2 a new parameter called "vvsources" has been added to the Info Block to allow VLAN source to be auto-provisioned.

Important Note: While these changes provide greater flexibility, the change might impact the deployment of new phones into an existing deployment.

Manually provisioned link speed and duplex mode restored to "Auto" after software upgrade (applies to the 1120E, 1140E and 1150E IP Deskphones)

In UNISTim Software Release 1.3 (0621C3N, 0623C3F, 0624C3F, 0625C3F and 0627C3F for 1110, 1120E, 1140E and 1150E IP Deskphones respectively) greater low-level network control available through the phone's configuration menus were introduced. The greater control included allowing the link speed and the duplex mode on the IP Deskphones to be provisioned independently for both the network port and the PC port

By delivering this greater network control, the software unfortunately had to reset link speed and duplex mode back to "Auto" after an upgrade. Regrettably, preservation of the forced manual override could not be maintained during the upgrade.

What this means is that if the IP Deskphone is running software prior to UNISTim Software Release 1.3 and if the link speed was manually provisioned to force the link to 10Mbit Full Duplex or 100Mbit Full Duplex, after upgrading the software to UNISTim Software Release 1.3 or greater (including the current UNISTim software), the link speed and duplex mode is reset to "Auto" representing Auto-negotiation. With the phone now configured for Auto-negotiation a duplex mode mis-match will occur if the other end of the link is still provisioned to force the link to 10Mbit Full Duplex or 100Mbit Full Duplex.

But, since UNISTim Software Release 3.1 for IP Deskphones, the means to provision the network port speed and the network port duplex mode has been available in the Info-Block. If a duplex mis-match occurs as a result of the software upgrade, the speed and duplex mode can be forced by provisioning them via the Info Block. This is possible because the auto-negotiation will pick the correct speed but the wrong duplex mode. Since the speed is correct, but the duplex mode is wrong, transmission can occur, albeit of poor quality. The duplex mismatch will impact the time taken for the phone to receive the Info Block, but re-transmission mechanisms built into the transmission protocols should allow the Info Block to eventually be received by the phone thus correcting the resetting of link speed and duplex mode to "Auto".

Proportional spacing may not be optimal (applies to the 1110, 1120E, 1140E, 1150E and 1210 IP Deskphones)

The 1110, 1120E, 1140E, 1150E and 1210 IP Deskphones support graphical fonts. The supported fonts include hinting – or 'intelligence' – to the font outline, making the font more readable by preventing the letters in the font from becoming distorted and difficult to identify. But in some rare instances, the hinting may impact the proportional spacing resulting in characters appearing too close or too far apart.

Some models of Plantronics Bluetooth headset may unexpectedly become unpaired (applies to the 1140E, 1150E and 1165E IP Deskphones)

An issue was uncovered with certain Plantronics Bluetooth headsets (including the formerly validated Plantronics Voyager 510/510S) in which the headset may unexpectedly become unpaired. If the unpair occurs during an active call, all audio will be lost to and from the headset. In such a situation the call will remain active and the user is recommended to switch to handset or handsfree. Due to the severity of this issue, Avaya does not recommend the use of the Plantronics Voyager 510/510S headset.

2-step upgrade may be required (applies to the 1120E and 1140E IP Deskphones)

One important note when upgrading the 1120E IP Deskphone and 1140E IP Deskphone to this software release from any load previous to 0624C1B or 0625C1B respectively is that a 2-step upgrade **will** be required. The 1120E IP Deskphone and 1140E cannot be upgraded directly to the newly released software if they are currently running software previous to 0624C1B and 0625C1B respectively. Instead, the phones must first be upgraded to 0624C1B and 0625C1B or newer (recommend 0624C3G and 0625C3G). Once the phones are running at least 0624C1B and 0625C1B software, they will accept being upgraded to UNISTim Software Release 5.5.9 respectively.

Running SRTP PSK with Communication Server 1000 release 5.0 requires a patch (applies to 1100 Series IP Deskphones)

In association with Communication Server 1000 release 5.0, UNISTim software since release 2.0 delivered media stream protection using SRTP UNISTim Keys (USK). However, running SRTP using PreShared Keys (PSK) is still a valid option in the IP Deskphones. But, if one wishes to run SRTP PSK with Communication Server release 5.0, patch MPLR24632 is required on the Communication Server 1000². The Communication Server 1000 patch is located in the Meridian PEP library at the <http://support.avaya.com/espl> web site.

Current release of SRTP PSK is not backward compatible with older version of SRTP PSK (applies to the 1110, 1120E, 1140E and 1150E IP Deskphones)

As stated above, running SRTP using PreShared Keys (PSK) is still a valid option in the IP Deskphones. But one important note when upgrading the IP Deskphones to the current releases of software is to realize that the current release of SRTP PSK is not compatible with older versions of SRTP PSK. The minimum software releases for which the current release of SRTP PSK is backward compatible is UNISTim Software Release 1.3 (0621C3N, 0623C3G, 0624C3G, 0625C3G and 0627C3G for the 1110, 1120E, 1140E and 1150E IP Deskphone respectively).

Backlight Interaction with USB devices (applies to the 1120E, 1140E and 1150E IP Deskphones)

Some USB devices (i.e. Mice or Keyboards) send regular coordinate update messages to the phone even when the device is not being used. This can cause the sleep mode for the backlight to not be properly invoked.

Contrast adjustments: Local & TPS contrast adjustments are not synchronized (applies to the 1110, 1120E, 1140E and 1150E IP Deskphones)

² The patch is not required on Communication Server 1000 Release 5.5

The 1100 Series IP Deskphones' graphical display contrast control can be adjusted either locally (on the phone) or through the call server (TPS) control. The Communication Server 1000 does not yet synchronize its contrast setting with the local control. This means if the local control is used exclusively, then whenever the phone has a power cycle, the contrast setting provided by the Communication Server 1000 is restored and the user may need to adjust contrast again.

The local contrast control on the 1110, 1120E, 1140E and 1150E IP Deskphones is accessed by a "double press" of the Services key and selecting "1. Preferences", then "1. Display Settings" in the menu. The contrast control from the Communication Server is accessed with a "single press" of the Services key, then selecting "Telephone Options", then "Contrast Adjustment".

Volume adjustments are not persistent across phone resets (applies to all the IP Deskphones)

Even though the speech volume and ringer volume are controlled by the IP Deskphone, the user selected preferences are stored by the Communication Server 1000. Prior to release 5.0 of the Communication Server 1000, the server did not save the user selected preferences across a phone reboot. Thus, if the phone rebooted, for whatever reason, the speech volume and ringer volume would be reset to their default values. Upgrading to release 5.0 or greater of the Communication Server 1000 corrects this issue.

Power disruption during software upgrade will corrupt the upgrade (applies to all the IP Deskphones)

During a software upgrade, if a power disruption is experienced by the phone, the software upgrade will fail. In some instances, a power disruption during an upgrade may also corrupt the existing software on the phone. If this corruption should occur, the phone will fail over into its boot code known as "BootC". BootC will automatically try to restore the phone's software from the image on a call server. But for the 1100 Series and the 1200 Series IP Deskphones, if the phone's software was obtained from a TFTP server instead, in order to restore, or upgrade, the software from BootC a manual TFTP download from BootC must be performed. The Manual TFTP Download from BootC Procedure is documented in the [IP Phones Fundamentals](#) NN43001-368. **Regardless, caution should be exercised to avoid power disruptions during software upgrades.**

References and Related Documents

For additional information on previous software releases and Readme Files for UNISTim Software Releases including those listed below, go to: <http://support.avaya.com/>. Select "Downloads & Documents", and then enter the product name "1100 Series IP Deskphones", or "1200 Series IP Deskphones", or "2000 IP Deskphones". Choose the appropriate link for the release you are interested in, for example "UNISTim 5.x" from the "Choose Release" pull-down menu and then click on the document version you would like to access.

Product Bulletin – PCN 1902S – New Minimum Software Requirement for Upcoming Hardware Releases of 1120E and 1140E IP Deskphones

Product Bulletin – Readme files for UNISTim 5.5.x Software Release for 1100 / 1200 / 2007 IP Deskphones

Product Bulletin – Readme file for UNISTim 5.4 Software Release for 1100 / 1200 / 2007 IP Deskphones

Product Bulletin – Readme file for UNISTim 5.3 Software Release for 1100 / 1200 / 2007 IP Deskphones.

Product Bulletin – Readme file for UNISTim 5.2 Software Release for 1100 / 1200 / 2007 IP Deskphones

Product Bulletin – Readme file for UNISTim 5.1 Software Release for 1100 / 1200 / 2007 IP Deskphones

Product Bulletin – Readme file for UNISTim 5.0 Software Release for 1100 / 1200 / 2007 IP Deskphones

Product Bulletin – Readme File for UNISTim 4.3 Software Release for 1100 / 1200 / 2007 IP Deskphones

Product Bulletin – Readme File for UNISTim 4.2 Software Release for 1100 / 1200 / 2007 IP Deskphones

Product Bulletin P-2010-0016-Global, UNISTim Software Release 4.1 for 1100 / 1200 / 2007 IP Deskphones

Product Bulletin P-2009-0143-Global, UNISTim Software Release 4.0 for 1100 / 1200 / 2007 IP Deskphones

IP Phones Fundamentals, NN43001-368

Signaling Server IP Line Applications Fundamentals NN43001-125

Individual IP Deskphone User Guides for CS1000, CS2100, AS5300

CRQM 7.0 Planning, Installation and Administration Guide, NN44480-300

Unresolved issues in UNISTim 5.5.9

The following table includes unresolved issues with this release of software which were known as of the issue date of this document.

Internal ID	Issue Description
IPCLIENTS-12954	If "Not Before" field in certificate is set to date in future the phone shows device certificate status as expired
IPCLIENTS-12959	Device certificate is removed when downgrade firmware from build C97 to build C96

IPCLIENTS-12906	SSH connection lost when run command printLogFile. After entering PDT command "printLogFile" and output a chunk of log file there is disconnection and error message "Incorrect MAC received on packet". <i>Workaround: use PuTTY SSH client and change SSH client's setting (Connection->SSH->Bugs->Chokes on PuTTY's SSH-2 'winadj' request->On)</i>
IPCLIENTS-12922	GXAS server unreachable display on phone screen. Phone doesn't send any packet to Application gateway

Appendix A: Certificate Installation (applies to all IP Deskphones)

Installing Device Certificates using PKCS#12

As of UNISlim software release 4.0, the IP Deskphone's certificate support was enhanced to support PKCS#12 device certificates as well.

PKCS#12 is a standard which allows a device certificate and its private key to be encrypted for secure transmission. A PKCS#12 file is encrypted by a user-defined password when it is created. Then to extract the device certificate with its private key, the recipient must know the password. After the PKCS#12 file is downloaded, the user is prompted to enter the password. If the prompt times out, the installation is aborted.

The advantage of using PKCS#12 rather than SCEP is that with PKCS#12 an administrator has full control over the device certificate attributes. The disadvantage of using PKCS#12 is that installed device certificates cannot be automatically renewed. It is up to the Administrator to keep track of when device certificates will expire. To update a device certificate that is about to expire, a new certificate must be generated as a PKCS#12 file and loaded onto the phone.

The PKCS#12 certificate is downloaded to the IP Deskphone via the IP Deskphone's configuration file (1120e.cfg, 1140e.cfg, and 1150e.cfg). A new section called [DEV_CERT] must be added to the configuration file to specify the PKCS#12 file to be loaded.

The [DEV_CERT] section supports five command lines:

- **DOWNLOAD_MODE** (required command) - The **DOWNLOAD_MODE** can be either **FORCED** or **AUTO**. If **FORCED**, the **VERSION** command is ignored, and the licenses files are always downloaded. If **AUTO**, the application looks at the **VERSION** and downloads the certificate files only if they are a newer version than what is currently stored on the phone.
- **VERSION** (optional command) - if this command is not present, version 0 is assumed). The **VERSION** command specifies the version of the certificates being downloaded. When certificates are written to the phone's memory, the value for the .cfg file's **VERSION** field (or "0" if **VERSION** is not in the file) becomes the new stored version value against which any future comparisons are made.

- FILENAME (required command) - the filename of the device certificate file to be downloaded. The individual device certificate file name is MAC.pfx or MAC.p12 where MAC is the phone's 12 characters MAC address to which the certificate is associated. The FILENAME command can either reference a specific certificate file (for which only the phone with that specific MAC address will load the file) or the FILENAME command can use the asterisk to represent all MAC addresses. If the asterisk is used, each individual phone will upon reading this command, substitute its own MAC address into the filename, thereby assuring that the phone only downloads its specific device certificate file.
- PROFILE (required command) - The PROFILE command specifies the index of the DCP where the device certificate is to be installed.
- PURPOSE (required command) - The PURPOSE command specifies which application(s) can use the PKCS#12 device certificate defined in the DCP. Supported values for PURPOSE are shown in the table below. To specify multiple purposes, simply add each application's value (for example to use the same certificate for both VPN and GXAS enter the value 24 (16 + 8). To indicate that the device certificate can be used by all applications enter the value of negative one (-1).

PURPOSE command values		
Application	Value	Note
EAP-TLS	1	
SIP TLS	2	
HTTPS	4	Not supported in UNISTim
GXAS	8	Not supported in UNISTim
VPN	16	
DTLS	32	
SCR	64	
Licensing	128	

Below is an example of a DEV_CERT section in a configuration file. In this example, a PKCS#12 device certificate will be downloaded into DCP #2 and will be marked as being available for all applications. The version associated with the device certificate will be marked as 5. Finally, the "*" in the filename is substituted with the IP Deskphone's MAC address so that each phone will download its own unique device certificate (e.g. 001365ff7d69.pfx).

```
[DEV_CERT]
DOWNLOAD_MODE AUTO
VERSION 000005
FILENAME *.pfx
PROFILE 2
PURPOSE -1
```

Limitations:

DTLS 1.2 with mutual authentication is available with certificates key length not less than 2048 bit. For this reason, device certificate which are installed via SCEP can't be used for DTLS1_2 connection establishment, since phone generates RSA key with 1024-bit length for SCEP request.

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