Avaya one-X® Deskphone SIP Release 6.3.1 Readme

This file is the Readme for the Avaya one-X® Deskphone SIP Release 6.3.1 software for the 9601, 9608, 9608G, 9611G, 9621G, and 9641G IP Deskphones. This file describes the contents of the January 2014 release software distribution package.

SIP 6.3.1 software is supported on the 9601, 9608, 9608G, 9611G, 9621G and 9641G IP Deskphones used with Avaya Aura® Communication Manager with Avaya Aura® Session Manager. The SIP 6.3.1 software will not load or operate on any other models.

This release supersedes all previous Avaya one-X® Deskphone SIP 6.x.x software releases. Avaya recommends that all customers using Avaya one-X® Deskphone SIP 6.x.x software upgrade to this version at their earliest convenience.

The information in this document is accurate as of the issue date and subject to change.



Please refer to the Advisements in this file for important information prior to deploying this software.

Avaya Aura® Compatibility

The 9601, 9608, 9611G, 9621G and 9641G IP Deskphones using one-X® Deskphone SIP Release 6.3.1 software are supported on:

- Avaya Aura® Communication Manager 6.0.1 SP10 or later with Avaya Aura® Session Manager 6.1 SP7 or later
- Avaya Aura® Communication Manager 6.2 SP3 or later with Avaya Aura® Session Manager 6.2 SP3 or later
- Avaya Aura® Communication Manager 6.2 SP4 or later with Avaya Aura® Session Manager 6.3.0 or later
- Avaya Aura® Communication Manager 6.3.0/6.3.1/6.3.2/6.3.3 with Avaya Aura® Session Manager 6.3.2/6.3.3/6.3.4/6.3.5
- IP Office 9.0 Service Pack 1 when deployed in a Centralized Branch configuration

Avaya Aura® Communication Manager 6.2 and Avaya Aura® Session Manager 6.2 are the minimum requirements to support the following features:

- Group Paging
- Hotline
- Team Button

Avaya Aura® Communication Manager 6.2 SP4 and Avaya Aura® Session Manager 6.3 are the minimum requirements to support the following features:

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- Mute Speakerphone with Shared Control (also requires Avaya one-X Communicator® 6.1.5 or later)
- Improved recovery during failover.

Avaya Aura® Communication Manager 6.3 and Avaya Aura® Session Manager 6.3.2 are the minimum requirements to support the following features:

- Multi Device Access
- 100 Emergency Numbers

Avaya Aura® Call Center Elite 6.2 is the minimum requirements to support the following feature:

- Call Center Elite features



The use of SIP 6.3.1 with Avaya Aura® Call Center Elite 6.2 requires prior approval from Avaya. Please contact sipagent@avaya.com to gain approval to use SIP 6.3 in conjunction with Avaya Aura® Call Center Elite 6.2.

Avaya Aura® Presence Services 6.2 is the minimum requirements for support of:

- Instant Messaging and Presence
- Access Control List (ACL)

Avaya Aura® Conferencing 7.0 is the minimum requirements for support of:

- Advanced Conferencing

Avaya Aura® Application Enablement Services 6.2 is the minimum version to support Application Enablement on the 9601/9608/9608G/9611G/9621G/9641G IP Deskphone with Avaya one-X® Deskphone SIP software.

Avaya Aura® Contact Center 6.2SP6 is the minimum version to support Contact Center on the 9608/9608G/9611G/9621G/9641G IP Deskphone with Avaya one-X® Deskphone SIP software.

Avaya Session Border Controller for Enterprise 6.2.0.Q48 is the minimum version to support remote 9601/9608/9608G/9611G/9621G/9641G IP Deskphones. Shared control of remote IP Deskphones requires Avaya one-X® Communicator 6.2 or later.

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New Features in SIP 6.3.1

Avaya one-X® Deskphone SIP Release 6.3.1 contains the following new features.

New with this release	Description
Support for 9608G IP Deskphone (700505424)	The 9608G is based upon the best-selling 9608 IP Deskphone with the added support for an integrated GigE switch. This makes it ideally suited for Everyday users who need the added throughput to support Gigabit Ethernet computers co-located with the IP Deskphone. The 9608G IP Deskphone has the same visual appearance as the 9608 IP Deskphone "Global".
Support for 9608 IP Deskphone Global (700504844/700507947)	The 9608 IP Deskphone "Global" is based upon the 9608 IP Deskphone and has been modified for global customers by removing the English text under the icons on the faceplate. In conjunction with the large number of languages supported on the screens of the IP Deskphone, this increases the usability of the 9608 IP Deskphone for all users around the world. The removal of the English text also brings Avaya in line with the majority of IP phone vendors.

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Documentation for SIP 6.3.0 (for reference)

- 9600 Series IP Deskphones Overview and Specification
- Installing and Maintaining Avaya 9601/9608/9611G/9621G/9641G IP Deskphones SIP
- Administering Avaya 9601/9608/9611G/9621G/9641G IP Deskphones SIP
- Using Avaya 9601 IP Deskphone SIP
- Using Avaya 9608/9611G IP Deskphones SIP
- Using Avaya 9621G/9641G IP Deskphones SIP
- Using Avaya 9608/9611G IP Deskphones SIP for Call Center Agents
- Using Avaya 9621G/9641G IP Deskphones SIP for Call Center Agents
- Avaya 9601 IP Deskphone SIP Quick Reference
- Avaya 9608/9611G IP Deskphones SIP Quick Reference
- Avaya 9621G/9641G IP Deskphones SIP Quick Reference
- Avaya 9608/9611G/9621G/9641G IP Deskphones SIP for Call Center Agents Quick Reference

This documentation is available on http://support.avaya.com under "9600 Series IP Deskphones" -> "SIP 6.3.x" -> Documents.

Documentation for SIP 6.3.1

The following documentation has been updated to support this release of software.

- Administering Avaya 9601/9608/9608G/9611G/9621G/9641G IP Deskphones SIP
- Using Avaya 9608/9608G/9611G IP Deskphones SIP
- Installing and Maintaining Avaya 9601/9608/9611G/9621G/9641G IP Deskphones SIP

This documentation is available on http://support.avaya.com under "9600 Series IP Deskphones" -> "SIP 6.3.x" -> Documents.

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SIP 6.3.1 Package Content

The SIP 6.3.1 package (96x1-IPT-SIP-R6_3_1-012014.zip) contains all the files necessary to upgrade Avaya new or previously installed Avaya 9601/9608/9608G/9611G/9621G/9641G IP Deskphones to the SIP 6.3.1 software.

- S96x1_SALBR6_3_1r13_V4r83.tar – The SIP 6.3.1 application upgrade tar file.
- S96x1_SALBR6_3_0r13_V4r83.orig.tar – The SIP 6.3.1 application tar file.
- S96x1_UKR_V18r2876_V18r2876.tar – The SIP 6.3.1 platform system tar file.
- 96x1Supgrade.txt – This file is downloaded by the IP Deskphones and instructs the deskphone on how to upgrade.
- Fifteen predefined language files plus Large English file for phone display:
    - Mlf_Arabic.xml
    - Mlf_BrazilianPortuguese.xml
    - Mlf_CanadianFrench.xml
    - Mlf_CastilianSpanish.xml
    - Mlf_Chinese.xml
    - Mlf_Dutch.xml
    - Mlf_Englarge.xml
    - Mlf_English.xml
    - Mlf_German.xml
    - Mlf_Hebrew.xml
    - Mlf_Italian.xml
    - Mlf_Japanese.xml
    - Mlf_Korean.xml
    - Mlf_LatinAmericanSpanish.xml
    - Mlf_ParisianFrench.xml
    - Mlf_Russian.xml
- Eight extended Korean ring tone files:
    - KoreanRT1.xml
    - KoreanRT2.xml
    - KoreanRT3.xml
    - KoreanRT4.xml
    - KoreanRT5.xml
    - KoreanRT6.xml
    - KoreanRT7.xml
    - KoreanRT8.xml
- Two certificate files:
    - av_prca_pem_2033.txt – Avaya Product Root CA certificate with an expiration date of 2033.
    - av_sipca_pem_2027.txt – Avaya SIP Root CA certificate with an expiration date of 2027
- Avaya-SparkIPTelephone-MIB.mib – mib file
- release.xml
- A "signatures" subdirectory containing signature files and a certificate file.

System specific parameters should be entered into the 46xxsettings.txt file which is available for separate download at http://support.avaya.com.

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Advisements with SIP 6.3.1 software

Minimum Software Release – 9608G and 9608 Global

The 9608G IP Deskphone (Comcode 700505424, Model ID 9608GD03A) and 9608 IP Deskphone Global (Comcode 700504844/700507947, Model ID 9608D02B) must use either Deskphone SIP 6.3.1 or later software or Deskphone H.323 6.3.1 or later software. ***Attempts to downgrade these models to lower versions of software will be rejected.*** If these models are implemented in an environment that uses lower versions of software for other 9601/9608/9611G/9621G/9641G IP Deskphones, it is recommended to use a mechanism to differentiate the software loads such as different HTTP servers or different GROUPs.

Microsoft Exchange Integration using EWS

If Microsoft Exchange Integration is enabled and the phone is connecting to Exchange Server 2007 or later, Exchange Web Services (EWS) is used for the connection. This connection is secured using HTTPS by default which means that the phone is required to validate the Exchange Server identity certificate. To validate the certificate, the TRUSTCERTS parameter in the settings file must include the root certificate of the Certificate Authority (CA) which issued the Exchange Server identity certificate. This configuration will work if the identity certificate was directly issued by the CA root certificate.

If a public CA such as Verisign is used to obtain an identity certificate for the Exchange Server, the identity certificate will be issued by an intermediate CA certificate and not by the root. In this case, both the root and intermediate CA certificates must be installed on the phone using TRUSTCERTS or the HTTPS connection will fail. In general, if the Exchange Server identity certificate is issued by an intermediate CA, all certificates from the intermediate CA up to the root must be included in TRUSTCERTS for installation on the phone so that the entire certificate chain is available for validation.

Avaya Presence Services - Instant Messaging (IM) and Presence

If IM is configured, it will be necessary to configure phones with the root CA certificate which issued an identity certificate to the Presence Server when it was installed. If SMGR was used to issue a certificate to the Presence Server, the root CA certificate can be obtained from SMGR under Services / Security / Certificates / Authority. Simply click on the "Download pem file" link and put the downloaded file on the http server in the same location as 46xxsettings.txt. Finally the following line needs to be added to the settings file (assuming the CA certificate filename is smgr_ca.txt).

SET TRUSTCERTS av_sipca_pem_2027.txt,smgr_ca.txt

Note: there must be no spaces in the certificate list

Instant Messaging and Presence is not supported when two sets are configured with the same extension via Multi Device Access (MDA).

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Session Manager Firewall – potential for service outage (Applies only to SM 6.3.0/6.3.1)

Starting with Avaya Aura® Session Manager 6.3, the SIP firewall function will be enabled by default. The SIP firewall will be turned on for new installations and for upgrades from systems where the SIP firewall had not been previously configured. Due to the default values chosen for firewall rules, SIP endpoint users that engage in more than 10 call related feature invocations within a 5 minute interval will encounter a brief service outage. Evidence of this can be seen in the System Manager Alarm logs. Call origination, hold/un-hold, transfer, conference, park/un-park are some examples of call related feature invocations that count toward this limit. If you have users that fit this traffic profile, it is recommended that the "ASM Default Configuration" be modified. Refer to the Session Manager Release Notes for additional information.

Restriction on Busy Indicators on Button Modules:

- 3 button modules can be connected
- The IEEE power switch on the back of the 9608G deskphone must be set to "H" (high) when connecting one or more button modules.
- The maximum combined number of busy indicators, team buttons and bridged appearances that can be configured on button modules is **48**.
- All button module lines can be configured as long as the restriction above is met.

Debug mode

As a general guide, it should be noted that response times could be impacted when debug or syslog is enabled

Microsoft Office Communicator - Instant messaging

Instant Messaging with Microsoft® Office Communicator is not supported

Server setting precedence

When upgrading a 9608/9608G/9611G/9621G/9641G SIP Deskphone from H.323 to SIP software please note that any setting that is set via the CRAFT menu (e.g. IP address) will take precedence over the information provided by DHCP when the phone is in SIP mode. For example if the HTTP server is set via that CRAFT menu in H.323 and then during the upgrade to SIP, if the phone requests new DHCP data, the DHCP data will not overwrite the data provided by the CRAFT menu.

SIP_CONTROLLER_LIST

This parameter consolidates SIP controller parameters for IP address, port, and transport protocol into a single configuration parameter. The parameter setting should be a list of controller information where the format for each controller entry is "host:port;transport=xxx" . The host should be specified only by an IP address. The use of Fully Qualified Doman Names (FQDN) is not supported. This applies to all sources of the SIP_CONTROLLER_LIST parameter which includes DHCP, LLDP, and the 46xxsettings.txt file

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SRTP

If SRTP is enabled, the following three parameters need to set in the 46xxSettings.txt file. Additionally, Communication Manager requires similar settings and also requires that the default value for ENFORCE_SIPS_URI be set.

SET ENFORCE_SIPS_URI 1
SET SDPCAPNEG 1
SET MEDIAENCRYPTION 1,9

EAP TLS

When EAP-TLS is enabled using the CRAFT menu, the phone should be rebooted to allow for proper EAP-TLS authentication.

Miscellaneous message

If you are manually programming IP addresses the error message "Subnet conflict" will appear if the router address entered is incorrect

Multi Device Access

Refer to the "Avaya Aura Multi Device Access White Paper" which is available on http://support.avaya.com for known limitations.

9601 & 9608 Language support

The 9601 phone cannot display Korean symbols when the current language is Chinese/Hebrew/Japanese.
The 9608 phone cannot display Korean symbols when the current language is Chinese/Japanese.

9601 and Topline Displays

The 9601 SIP Deskphone has a smaller screen size than other models and will sometimes display less information than other models. As an example, users may not always get a count of current and total calendar reminders.

Longer than normal upgrades

Intermittently, upgrades from one release of software to another may take longer than normal and will appear as an additional reboot cycle. There is no impact as the phone does complete the upgrade.

Ringtone and Ringtone Wave Files

Ringtone wave files should be placed in the root directory of the HTTPSRVR. Additionally, numeric only conventions should be avoided with ringtone names

Headset Profiles

SIP 6.3.0 introduced "Headset Profiles" to provide optimum performance for different brands of headsets. An up-to-date version of the profile <-> vendor cross reference can be found at https://downloads.avaya.com/css/P8/documents/100173755.

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Avaya Session Border Controller for Enterprise

For all IP Deskphones phones which are remotely connected through an SBCE, please ensure that the following is set in the 46xxsettings.txt file

SET WAIT_FOR_REGISTRATION_TIMER 40

The following features are not supported through SBCE:

- Exchange integration (Contact search and Calendar)
- Custom Applications in the Home menu
- Display Home Page when using the browser icon
- Report logs to a log file server.
- WML Browser
- WML Push
- More than one device registered with the same account outside of the SBCE.

SIPS

If there are any SIP endpoints not upgraded to SIP 6.3.x (i.e. running SIP 6.2.2 or earlier), those endpoints not upgraded should not enable SIPS mode unless all endpoints in the system are configured to register over TLS. Otherwise, SIPS calls from these endpoints to a TCP registered phone will fail, as the SIPS registered endpoint will not retry the request. SIPS mode is configured using "SET ENFORCE_SIPS_URI 1" and SRTP is enabled in the MEDIAENCRYPTION setting. Note that for all endpoints running SIP 6.3 this is not an issue as the endpoint will automatically retry failed calls.

SIP Transport Protocols

TCP or TLS are the recommended transport protocols. UDP transport is not supported with SIP 6.3.x software.

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SIP 6.3.1 Resolved Issues (since SIP 6.3.0)

The SIP 6.3.1 software release provides continued improvement and optimization to key audio functions as well as stability, robustness and reliability. The following table includes issues which are resolved with this release of software compared to SIP 6.3.0.

External ID	Internal ID	Issue Description
Reboot/Lockup		
1-4531595217	SIP96X1-10176	IP Deskphone is in shared control with one-X Communicator and a member of a call pickup group. IP Deskphone places a call to it's own pickup group and answers the resulting incoming call using one-X Communicator. IP Deskphone reboots.. *Note: This issue will not occur after the application of a CM patch for defsw132010.*
	SIP96X1-9754	Phone becomes stuck and reboots after pressing softkeys quickly many times during login.
User Interface		
1-4641097806	SIP96X1-10490	When using CM 6.2.2 or earlier, calls initiated from one-X Communicator or Avaya Aura Agent Desktop in shared control with IP Deskphone will initially be placed on "mute".
	SIP96X1-10404 SIP96X1-10554	When using the "Mute Speakerphone with Shared Control" feature, calls initiated from one-X Communicator or Avaya Aura Agent Desktop in shared control with IP Deskphone will be placed on "mute" after the call is answered instead of when the call is ringing.

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Unresolved issues in SIP 6.3.1

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

External ID	Internal ID	Issue Description
Reboot/Lockup		
	SIP96X1-9876	An incorrectly formatted SNTP IP address (with an extra "." at the end) will result in a core dump. *Workaround: Use a correctly formatted SNTP IP address.*
Failover		
	SIP96X1-9880	A phone whose presence is being monitored is on a call. If there is an SM failover and fail back, the phone will appear as "Available" instead of "On a Call".
User Interface		
	SIP96X1-9692	The 9601 does not display "Phone is MUTED" on topline when mute alert is configured.
	SIP96X1-9864	A user picks up a call using the "dir-pkup" button. If they hold, un-hold, and then hang up the call, the "dir-pkup" button shows as active.
	SIP96X1-9873	When using the "Touch Screen Cleaning" function on the 9621G/9641G, if the user touches the Missed icon on the topline, then the phone will incorrectly exit the cleaning function.
1-4536876572	SIP96X1-10065	Call Forward icon is not displayed on the top line if Enhanced Call Forward is enabled.
1-4351930133	SIP96X1-10291	Phone does not display virtual station name when "cover-all" is used in coverage path. *Workaround: Add the virtual station's extension in the 'public-unknown-numbering' form.*
1-4630137524	SIP96X1-10401	Enhanced local dialing does not work if the internal extension length (PHNDPLENGTH) is greater than the national number telephone length (PHNLDLENGTH).
1-4644777613	SIP96X1-7088	The display of characters on a BM24 is not as clear as when the IP Deskphone is deployed with H.323 software.
Contacts		
	SIP96X1-10029	If a phone number of a contact contains non-numeric characters (such as a comma), and the user assigns this contact as favorite, the favorite will later disappear following a new download from PPM.
1-4347098915	SIP96X1-9835	Cannot add "#" or "," in the contact number when adding a new contact.
Administration		
	SIP96X1-9910	User has accessed a submenu (for example, Avaya -> Options and Settings -> Call Settings). If the CRAFT -> SIP menu is then accessed and then EXITed, the user returns to the main Avaya menu screen instead of where they were befor accessing the CRAFT menu.

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External ID	Internal ID	Issue Description
	SIP96X1-9998	On a 9621G/9641G when using the CALIBRATION function in the Craft menu, if the "Default" function is used followed by the "Start" function, then a black screen is shown and the user cannot go back to the Craft menu. *Workaround: Reboot the phone and just do the "Start" function.*
Presence and Instant Messaging		
	SIP96X1-8720	If a phone with active calls fails over to a Branch Session Manager, terminates those calls and makes new calls, and then fails back, the new calls are disconnected and the dropped calls are re-established.
	SIP96X1-9034	An H323 user is created in SMGR and added to the contact list of a SIP user without being configured to monitor presence. When the SIP user logs into their phone, the H323 contact is incorrectly shown with a "person" icon.
	SIP96X1-9150	When many missed Instant Messsages are sent to the phone at the same time, they are not correctly shown in the History.
	SIP96X1-9662	Phone has an IM session open with another one-X Communicator user. If the Presence Server is rebooted, the phone is unable to send a IM to that user.
	SIP96X1-10628	Presence fails to use DNS to resolve FQDN of Presence Server
EC500		
1-4187727052	SIP96X1-9836	Incoming call is answered on the Deskphone and then extended to a mobile phone via EC500 and answered on the mobile phone. When the Deskphone disconnects, intermittently the call is disconnected.
Data Networking		
1-215PIWR	SIP96X1-9857	Phone registed on 'voice' VLAN sometimes boots on 'data' (0) VLAN
Interworking		
	SIP96X1-8979	If T.38 parameters is used in the SIP SDP, audio for some calls may be impacted. *Workaround: Disable shuffling.*
Contact Center		
	SIP96X1-7161	Completed Assist calls providing incorrect display to supervisor
	SIP96X1-9342	Caller Info cleared from phones after call Transfer or Assist

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Appendix 1 – Supported Hardware

SIP 6.3.0 software is supported on the following models of IP Deskphones. All models except the 9601 ship pre-installed with H.323 software and must be upgraded to SIP 6.3.0 as part of the installation process. The 9601 may not be shipped with SIP 6.3.0 software and should also be upgraded to SIP 6.3.0 as part of the installation process.

Comcode	Description	Note
700500254	IP PHONE 9601	Ships with SIP software.
700480585	IP PHONE 9608	
700504844	IP PHONE 9608 ICON ONLY	***Must use SIP 6.3.1 or later, or H.323 6.3.1 or later.***
700501428	IP PHONE 9608 (TAA)	
700507947	IP PHONE 9608 ICON ONLY (TAA)	***Must use SIP 6.3.1 or later, or H.323 6.3.1 or later.***
700505424	IP PHONE 9608G	***Must use SIP 6.3.1 or later, or H.323 6.3.1 or later.***
700480593	IP PHONE 9611G	
700501429	IP PHONE 9611G (TAA)	
700504845	IP PHONE 9611G ICON ONLY	Only orderable in Canada..
700480601	IP PHONE 9621G	
700500254	IP PHONE 9621G (TAA)	
700480619	IP PHONE 9621G WITHOUT FACEPLATE	
700480627	IP PHONE 9641G	
700501431	IP PHONE 9641G (TAA)	
700480635	IP PHONE 9641G WITHOUT FACEPLATE	

Appendix 2 – Release History

The following table provides a history of the SIP 6.2.x/6.3.x software releases.

Release	Date	Link to Readme file
6.2.0	August 2012	http://support.avaya.com/css/P8/documents/100165516
6.2.1	December 2012	http://support.avaya.com/css/P8/documents/100167697
6.2.2	July 2013	http://support.avaya.com/css/P8/documents/100170859
6.3.0	November 2013	http://support.avaya.com/css/P8/documents/100175296
6.3.1	January 2014	http://support.avaya.com/css/P8/documents/100177649

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