

# SIP Software Release 4.0 for 11xx/12xx IP Deskphones

Revision History		
Date	Revision #	Summary of Changes
13 December 2010	Original bulletin	This is the original publication
21 December 2010	Up-issue 1	Clarification that 1165E IP Deskphone is not supported on IP Office.

## Introduction

Avaya is pleased to announce the availability of SIP software Release 4.0 for the 1120E/1140E/1165E/1220/1230 IP Deskphones. SIP software release 4.0 provides a number of minor feature enhancements. Release 4.0 is available in the following software versions for the following IP Deskphones:

SIP Software Release 4.02	
IP Deskphone	Software
1120E IP Deskphone	04.00.04
1140E IP Deskphone	04.00.04
1165E IP Deskphone	04.00.04
1220 IP Deskphone	04.00.04
1230 IP Deskphone	04.00.04

Avaya recommends an upgrade to this release of software for all applicable IP Deskphones and Call Servers at the earliest convenience.

SIP software Release 4.0 for IP Deskphones is available for download from the "Downloads Page" on the Avaya Support Portal located at: [https://support.avaya.com/css/appmanager/css/support/Downloads/P0599#wlp\\_Downloads\\_Page](https://support.avaya.com/css/appmanager/css/support/Downloads/P0599#wlp_Downloads_Page). The software is available by phone model under "SIP 4.0".

**Note:** These SIP software loads have not been introduced as the default loads for the IP Deskphones shipped from Avaya.

## Enhancements

Several enhancements have been included in SIP Release 4.0 for the 11xx and 12xx Series Deskphones including:

- SRTP/TLS support on CS1000 Release 7.5
- Support on IP Office Release 6.1
- Improved fallback to primary
- Presence updates using PUBLISH

A description of each feature is provided in the following sections.

## **TLS/SRTP Support on CS1000 Release 7.5**

SIP Software Release 4.0 for 11xx/12xx IP Deskphones provides support for signaling and media encryption via TLS and SRTP in conjunction with CS 1000 Release 7.5. Support for TLS and SRTP was introduced earlier in SIP Software Release 3.2 for 11xx/12xx IP Deskphones. Release 4.0 extends this capability to interwork with the CS1000 R7.5 SIP Line Gateway.

Note: Only MKI mode is supported with SIP 4.0 and CS1000 Release 7.5. Non-MKI will be supported in a future release.

For additional information on TLS, SRTP and certificate management, refer to the following guides:

- NN43170-600 SIP Software for Avaya 1100 Series IP Deskphones – Administration
- NN43170-601 SIP Software for Avaya 1200 Series IP Deskphones – Administration

## **Interoperability with IP Office Release 6.1**

SIP Software Release 4.0 for 11xx/12xx IP Deskphones extends support to Avaya IP Office 6.1 systems. This is the first of several planned releases of SIP Software for 11xx/12xx IP Deskphones with IP Office, with each release providing additional capabilities to support customers transitioning from UNISTim based BCM solutions to IP Office based on SIP.

Release 4.0 provides a basic set of SIP features as defined in RFC 5359, including:

- Basic Call, hold, Transfer (attended/unattended)
- Calling Line Identification
- Message Waiting
- Multiple Call appearances (no line/bridged appearances)
- SIP based call forwarding
- Call Forward, Call Park/Pickup (using IP-Office Feature Activation keys)
- IP Office based conferencing (using Feature Activation keys)
- IP Office based Music on Hold
- Auto discovery and auto-provisioning with XML/TFTP/HTTP. IP Office is the DHCP server for those phones (where applicable)
- Server invoked remote reboot and auto-provisioning
- Includes version check and download of new software if available from IP Office server.
- Waive of licensing token

IP Office mode is enabled via a new parameter in the device configuration file:

IP\_OFFICE\_ENABLE      Y/N (default is N)

When the IP Office parameter is enabled, the following native features are disabled on the deskphone:

- Feature programming menu – all but supported options (speed-dial)
- Call Fwd
- DND
- Send IM

- Presence state

*Please note that the 1165E IP Deskphone with SIP Software Release 4.0 is not supported on IP Office.*

## **Presence updates using PUBLISH**

SIP Software Release 4.0 for 11xx/12xx IP Deskphones changes the method for updating presence information to use PUBLISH instead of REGISTER messages. The PUBLISH message now carries the presence data in the format defined by RFC 3863: Presence Information Data Format (PIDF).

This change assures that SIP messages pass through edge proxies such as Session Border Controllers (SBC), and enables the use of performance enhancing REGISTER caching on SBCs.

## **Survivable Branch Fallback to Primary**

SIP Software for IP Desksets have always had the ability to configure multiple controllers (i.e. S1, S2). If a communications failure occurs with the initial controller, the deskset would switch to the alternate controller and re-register. However, it would not fail back to the initial controller unless a failure occurred with the alternate as well.

In some configurations, the deskset may be deployed in a branch office with an Avaya CM/SM as the primary controller and a local Survivable Branch Gateway (i.e. AG 2330) as the alternate. If there is a failure with the primary, the phone will fail over to the branch. However, prior to Release 4.0 the deskset would never fail back to the primary controller, unless the phone was reset or the branch controller failed.

SIP Software Release 4.0 for 11xx/12xx IP Deskphones now supports a method based on RFC 5626 to automatically register to the primary controller whenever it comes back. This is consistent with the behavior of Avaya 96xx desksets; however the implementation is different and more limited than the approach taken with the 96xx desksets. With the 96xx, a SIP NOTIFY message is sent that tells the desksets to re-evaluate which SM to use as the "main". This may also be initiated through PPM to automatically use REGISTER messages to alert the desksets that the main SM is back online and to switch automatically.

With SIP Software Release 4.0, the SIP NOTIFY is not recognized as it does not support the AST (Advanced SIP Technology) protocol. After the deskset fails over to the alternate controller, the deskset will start to monitor the network connection of the primary (as defined in the configuration file). If the transport protocol is UDP, the deskset will send a UDP SIP PING message to the primary. Any response will indicate the primary is back, even 4xx or 5xx messages. For TCP, the deskset sends out TCP SYN packet. If the connection is successful, the deskset will know the primary is back. Before falling back to the primary, the deskset will check if there is an active call and defer switching until the call is terminated.

Note that multiple user login is not supported in the failover mode.

## IP Deskphone Compatibility

SIP software Release 4.0 for IP Deskphones is compatible with the following IP Deskphones:

IP Deskphone Compatibility		
PEC	Description	Software File
NTYS03xxxxxx	1120E IP Deskphone	SIP1120e04.00.04.00.bin
NTYS05xxxxxx	1140E IP Deskphone	SIP1140e04.00.04.00.bin
NTYS07xxxxxx	1165E IP Deskphone	SIP1165e04.00.04.00.bin
NTYS19xxxxxx	1220 IP Deskphone	SIP12x0e04.00.04.00.bin
NTYS20xxxxxx	1230 IP Deskphone	SIP12x0e04.00.04.00.bin

**Note: The following early models of 1120E/1140E are not supported**

IP Phone 1120E		
NTYS03AC	N0132697	IP Phone 1120E Graphite w/ Icon Keys w/o PS
NTYS03ACE6	N0132699	IP Phone 1120E Graphite w/ Icon Keys w/o PS (RoHS)
NTYS03BC	N0132698	IP Phone 1120E Graphite w/ Eng Keys w/o PS
NTYS03BCE6	N0132700	IP Phone 1120E Graphite w/ Eng Keys w/o PS (RoHS)
NTYS03BCGSE6	N0132701	IP Phone 1120E Graphite w/ Eng Keys w/o PS (RoHS)
NTYS03CAE6	N0142351	IP Phone 1120E (SIP) Graphite w/ Icon Keys w/o PS (RoHS)
NTYS03DAE6	N0142352	IP Phone 1120E (SIP) Graphite w/ Eng Keys w/o PS (RoHS)
IP Phone 1140E		
NTYS05AC	N0132702	IP Phone 1140E Graphite w/ Icon Keys w/o PS
NTYS05ACE6	N0132704	IP Phone 1140E Graphite w/ Icon Keys w/o PS (RoHS)
NTYS05BC	N0132703	IP Phone 1140E Graphite w/ Eng Keys w/o PS
NTYS05BCE6	N0132705	IP Phone 1140E Graphite w/ Eng Keys w/o PS (RoHS)
NTYS05BCGSE6	N0132706	IP Phone 1140E Graphite w/ Eng Keys w/o PS (RoHS)
NTYS05CAE6	N0142353	IP Phone 1140E (SIP) Graphite w/ Icon Keys w/o PS (RoHS)
NTYS05DAE6	N0142354	IP Phone 1140E (SIP) Graphite w/ Eng Keys w/o PS (RoHS)

## Call Server Compatibility and Requirements

SIP software release 4.0 is compatible with the Call Servers listed below.

- Avaya CS1000 Release 7.0, 7.5
- Avaya CS2100
- Avaya Aura™ Communication Manager 6.0
- Avaya Aura™ Session Manager 6.0
- Avaya IP Office 6.1 (1220/1230/1120E/1140E IP Deskphones only)

## ***References and Related Documents***

SIP Release 4.0 for IP Deskphones related documents are available on <http://support.avaya.com> using the following product path. Changes and Enhancements in SIP Release 4.0 have been documented in this product bulletin.

For SIP on 1100 Series IP Deskphones:

[http://support.avaya.com/css/Products/P0599/All\\_Documents](http://support.avaya.com/css/Products/P0599/All_Documents)

For SIP on 1200 Series IP Deskphones:

[http://support.avaya.com/css/Products/P0600/All\\_Documents](http://support.avaya.com/css/Products/P0600/All_Documents)

SIP Release 4.0 for IP Deskphones documentation includes the following materials:

- NN43112-101 Avaya 1120E IP Deskphone with SIP Software User Guide
- NN43113-101 Avaya 1140E IP Deskphone with SIP Software User Guide
- NN43170-100 Avaya 1165E IP Deskphone with SIP Software User Guide
- NN43110-301 Avaya 1100 Series Expansion Module for SIP Software User Guide
- NN43170-600 SIP Software for Avaya 1100 Series IP Deskphones - Administration
- NN43170-101 Avaya 1220 IP Deskphone with SIP Software User Guide
- NN43170-102 Avaya 1230 IP Deskphone with SIP Software User Guide
- NN43139-100 Avaya 1200 Series Expansion Module for SIP Software User Guide
- NN43170-601 SIP Software for Avaya 1200 Series IP Deskphones – Administration

## Product Advisements

The following is a list of advisements associated with SIP software release 4.0. Some advisements remain from previous releases of software, whereas other advisements reflect new or changed behavior introduced with SIP software release 4.0.

wi00841571	Secure calls (with MKI_ENABLED NO) fail when placed from UNISim or TDM phone to a SIP phone.
wi00825096	12xx Desksets. Pressing 0 on the dial pad in while in the Network menu can cause a reboot.
wi00706056	12xx Desksets. Wrong behavior calling into CallPilot Display still shows ringing after CallPilot has answered. The phone allows users to enter mailbox number/pw but is not displayed
wi00838476	12xx Desksets. Cannot release an active call by hanging up handset while in the Diagnostics menu. The call can be released by pressing the 'Goodbye' button.
wi00837286	All items except FIPS are changed to auto mode after rebooting.

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### About Avaya

Avaya is a global leader in enterprise communications systems. The company provides unified communications, contact centers, and related services directly and through its channel partners to leading businesses and organizations around the world. Enterprises of all sizes depend on Avaya for state-of-the-art communications that improve efficiency, collaboration, customer service and competitiveness. For more information please visit [www.avaya.com](http://www.avaya.com).



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References to Avaya include the Nortel Enterprise business, which was acquired as of December 18, 2009.

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