

BlackBerry AtHoc

Avaya IP Phone Blast NDS Installation and Configuration Guide

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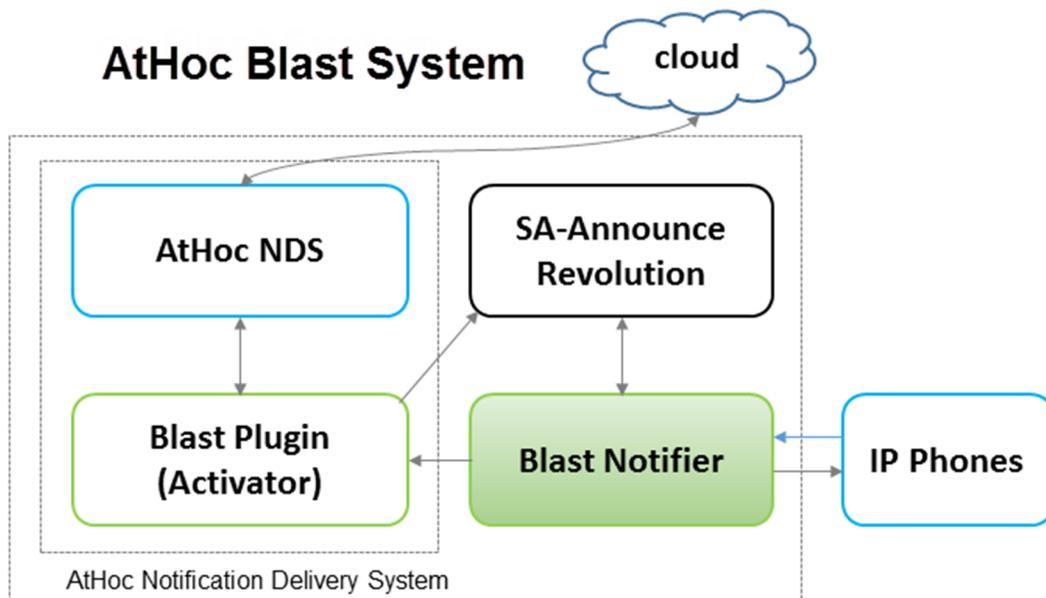
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AtHoc Blast system overview

The `BlastSystemSetup.exe` is an installation and configuration utility comprised of a collection of SA-Announce Revolution modules that integrate with AtHoc NDS to provide alert notifications to Avaya IP Phones. The utility installs all of the required Blast System modules and prompts the administrator to input configuration data.

The following modules are included:

- SA-Announce Revolution v1.1.0.58: Notification broker.
- Blast Activator (NDS plugin) v1.1.0.112: Receives notification activation events from NDS and passes them to Revolution for dispersal.
- Blast Notifier v1.1.0.112: Delivers content to Avaya IP phones. Provides feedback to the Activator, which provides it to NDS.



Avaya IP phones send registration information to the Blast Notifier, including phone IP address, machine address, model number, and extension number. Blast Notifier stores this information in memory, by extension number, and uses it to send notifications to registered phones. When a phone is rebooted, its information is resent to Blast Notifier. The information is matched based on extension number and the data is updated if there are changes. For example, if a newer phone model is assigned to the extension number. If a phone is offline, Blast Notifier still attempts to send notifications and logs an error in the phone logs.

IP Office and Aura® Communications Manager are not required for the Blast System. They are, required for the Avaya platform.

For information about how to set up IP Phone Blast in AtHoc, see the *IP Phone Gateway Setup and Operation Guide for Avaya and Cisco UCM Blast*.

For information about how to set up NDS for Cisco IP Phone Blast, see the *Cisco IP Phone Blast NDS Installation Guide*.

To see which BlackBerry AtHoc releases support this integration, see the *BlackBerry AtHoc Supported Integrations* document.

Verify installation prerequisites

The following section describes the system requirements that are necessary for installing and configuring IP Phone Blast System on the AtHoc Notification Delivery Server (NDS).

System Requirements

System requirement	Description
AtHoc NDS v2.8.5.2	If necessary, upgrade NDS before proceeding.
Windows 2008 R2, 2012, and 2012 R2	Supported Windows servers. Note: A number of Windows roles and features are required. These are automatically configured by the Blast System utility.
.NET Framework 4.5.1	Windows 2008 R2: If .NET 4.5.1 is not already installed, the Blast System utility attempts to install it. Windows 2012: This server comes with .NET 4.5 installed. If you have not upgraded to .NET 4.5.1, the Blast System attempts to install it. Note: If an Internet connection is not available, the utility aborts the Blast System installation. You must then manually install .NET 4.5.1. Download Microsoft .NET 4.5.1 full installer . Windows 2012 R2: This server comes with .NET 4.5.1 already installed.
Server	106.6 MB free space for installation 8 GB memory 2 CPU cores Single multicast IP address to endpoints for the text-to-speech functionality. This IP address is provided by your IT department.
Default Ports	Avaya phone registration and communication with SA Revolution occurs on port 8008. Avaya phone communication port 80. Ports are configurable.
Default Protocols	RTP and HTTP
Voice Streaming	RTP via multicast over UDP

Performance

Load / per sync of registered IP phones.

Registrations	Seconds
1000	2
2000	4
4000	7.7
8000	16.3
50,000	102

IP phones begin displaying text and playing notification audio after 75% of phones have responded to the activation command. The following table outlines some possible scenarios.

Number of phones to register	75% registered	Seconds until notification begins
1000	750	6
5000	3750	10
10,000	7500	15

For an environment with 1000 phones, after 750 (75%) have responded to the activation command, the text begins displaying and notification audio begins playing on all phones.

Caveats

Results may vary depending on network usage and the CPU usage of NDS other tasks and plugins. The above performance statistics should be viewed as guidelines.

Avaya supported IP phones

Avaya IP phone model
9670G
9650C
9641G
9640G
9630G
9621G
9620L/C
9611G

Avaya IP phone model
9610
9608

Blast supports the following notification functionality:

- Send text notifications and response options
- Send audio beep
- Send image in .jpg format to models that support images
- Convert text-to-speech, which uses multicast audio streaming

Caveats

- Per the Avaya developer documents, supported phones must be running H.323 software release 3.0 or later to support multicast audio streaming. 9601 SIP only does not support H.323 v 3.0, and therefore does not support text-to-speech.
- Avaya IP phones do not support multiple DNSs.
- Avaya IP phones support only JPG image files.
- The AtHoc Blast Activator sends a stop command to IP phones in accordance with the defined alert duration. However, this command is only capable of stopping an audio stream, which is only used with text-to-speech functionality. The Avaya API does not have a command to tell the phones to exit the browser or to set the screen to a different mode. The end user must manually clear the screen.
- IP phones register to the System when they boot up. Registration does not go through Avaya's Call Manager

Before you begin

- If your Windows server does not have Internet access, and does not have .NET 4.5.1, then click [Microsoft .NET 4.5.1 full installer](#) to download .NET 4.5.1 and manually install it before running the IP Phone Blast System utility.
- Ensure AtHocENS is installed prior to installing the IP Phone Blast System.
- The AtHocENS must be located at:

```
<DRIVE>:\Program Files (x86)\AtHocENS\Installation
```

Blast System installation fails if AtHocENS is located somewhere else.

- You will need the following data to input into the Blast System configuration UI that automatically launches after installation:
 - IP address of the server where the Blast System is being installed
 - Port number if not using the default 8008 port
- Place the Blast System executable file and the SA-Announce Revolution license file obtained from AtHoc sales in a working folder on the server on which the IP Phone Blast System will be installed.

Create a working folder

During the installation and configuration process, you will need to access files and export files from one system into a local directory. To make it easier to do this, before you begin any of the installation and configuration tasks, you should create a working folder on your local drive and add the following files to it:

- `AvayaBlastSystemSetup.exe`: Contact the BlackBerry AtHoc build and release group for this file.
- The `SA-AnnounceRevolution.license` file.

Install and configure the IP Phone Blast system on AtHoc NDS

This section describes how to install and configure the IP Phone Blast on the AtHoc Notification Delivery Server (NDS).

Install IP Phone Blast on NDS

The Blast System utility is a wizard that installs all three BlackBerry AtHoc modules. Complete the following steps to install the System Blast:

1. Go to the working folder where you placed the `AvayaBlastSystemSetup.exe` file.
2. Right-click the `AvayaBlastSystemSetup.exe` file and select **Run as administrator**.
3. Follow the instructions in the installation wizard. Verify the following information while installing the IP Phone Blast System:

Screen	Action
Information	<p>If the server meets all the listed requirements, click Next.</p> <p>If the server is running AtHoc NDS 2.8.5 or greater but does not have .NET 4.5.1 and VS++2010SP1x86 and has an internet connection, click Next.</p> <p>If the server is running AtHoc NDS 2.8.5 or greater but does not have .NET 4.5.1 and VS++2010SP1x86 and does not have an internet connection, click Cancel. You must manually install .NET 4.5.1 and VS++2010SP1x86, and then run the Blast System utility again.</p> <p>Note: The utility checks for the above mentioned specific versions. If they are not found, the installation aborts and displays an error message. Install the appropriate program versions and then re-run the Blast System utility.</p>
Select Destination Location	<p>Use the format <code><DRIVE>:\Program Files (x86)\Syn-Apps\AvayaBlastSystemSetup</code>.</p> <p>Note: Future Blast System updates target the folder designated here.</p>

4. By default, the Blast System utility automatically launches the Blast System Configuration interface after the installation is finished.

The `AvayaBlastSystemSetup.exe` extracts the installers needed to set up the Windows roles and features and installs the Blast System modules. However, these installers do not run until after you provide the necessary data in the `AvayaBlastSystemSetup` configuration interface.

Configure the Blast System on NDS

If you did not select **Launch AvayaBlastSystemSetup Configuration** on the last installation screen, you can open the Blast System Configuration UI through the Windows Start menu or by running `<DRIVE>:\Program Files (x86)\Syn-Apps\BlastSystem\Setup\Configuration>AvayaBlastSystemConfig.exe`.

1. In the **Blast System Configuration** screen, complete the following fields:

Field	Default values
IP	Displays the default IP Address of the server on which the Blast System is installed on. If this server has multiple IP addresses and if you want to use a different one, enter the IP address manually.
Port	Enter the port number as desired. The default port is 8008.
Pick License File	<p>You cannot proceed to configure the Blast System until a license file is selected.</p> <ol style="list-style-type: none"> a. Click Pick License File. b. Navigate to the AtHoc SA-Announce Revolution license located in the working folder. The Blast Setup utility copies the file to <DRIVE>:\Program Files (x86)\Syn-Apps\SAAnnouncesRevolution. <p>Note: To update the license file in the future, copy it over the existing file.</p>

2. After you finish entering the values in each of the fields, click **Configuration**. Several executable files start automatically. These files set the necessary Windows roles and features, and run the installers for the three Blast System modules: SA-Announce Revolution, Blast Activator, and Blast Notifier.
3. When the installation is finished, a configuration complete window is displayed. Click **OK** and the configuration UI automatically closes.

Advanced settings

Settings are retrieved from the configuration file. There is nothing to configure in Advanced Settings. Only make changes here at the request of BlackBerry AtHoc support.

Field	Description
IP, SAAnnounceIP, BlastActivatorIP	These are the same addresses because all Blast System modules are installed on the same server.
GUIAddress	Not relevant to the IP Phone Blast System.
SSLEnabled	Always 'False' because Avaya uses their Trusted Push Server List instead of SSL.
Port, SAAnnouncePort, BlastActivatorPort	Port number is the same because there is only one server.
ThankYouString	This field can be changed but it is not required.
PushPullPort	Do not change. If this field is changed, it must also be updated in the 46xxsettings.txt file.
ListenerMaxConnPerProc	No change required.

Field	Description
EnableReporter	Enables BlackBerry AtHoc reports. Leave this set to 'True'.

Reset phones

If Avaya phones are already connected to your network before you installed Blast, reset the phones so they can register with Blast.

1. Log in to **IP Office**.
2. Click **Monitor > Status > H323 Phone Status**.
3. Select the phones that need to register with Blast and then click **Reset**.

Configure Avaya IP phones

Avaya phone settings are controlled by the `46xxsettings.txt` file, which is downloaded and parsed each time a phone resets or reboots. The Trusted Push Server List allows Avaya IP phones to receive commands from an external server, in this case, the Avaya NDS server. The Subscription Server List allows Avaya IP phones to subscribe to the IP Phone Blast System.

There are two methods to update the `46xxsettings.txt` file; using the Aura® Utility Server or directly modifying the text file.

IP Phone settings configurations

- SET TPSSLIST-: Add IP address of the server where Blast is installed. Multiple addresses are comma separated.
- SET SUBSCRIBELIST-: Use the following format:

```
http://<ip address:port>/SubscriptionService
```

where: `<ip address:port>` is the IP address and port number for the server where Blast is installed.

You must reboot your Avaya phones after making changes to the `46xxsettings.txt` file.

Avaya IP phones can now receive notifications sent through BlackBerry AtHoc.

For more information on how to update `46xxsettings.txt`, see the Avaya documentation.

BlackBerry AtHoc Customer Support Portal

BlackBerry AtHoc customers can obtain more information about BlackBerry AtHoc products or get answers to questions about their BlackBerry AtHoc systems through the Customer Support Portal:

<https://support.athoc.com/customer-support-portal.html>

The BlackBerry AtHoc Customer Support Portal also provides support via computer-based training, operator checklists, best practice resources, reference manuals, and user guides.

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