



SOLUTION MANUAL

Paging and Loud Ringing with Algo 8180 and VVX600 for BroadWorks

Application Note



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Conventions Used in Polycom Guides

Polycom guides contain graphical elements and a few typographic conventions. Familiarizing yourself with these elements and conventions will help you successfully perform tasks.

Information Elements

Polycom guides may include any of the following icons to alert you to important information.

Icons Used in Polycom Guides

| Name | Icon | Description |
|-------------------|---------|---|
| Note | | The Note icon highlights information of interest or important information needed to be successful in accomplishing a procedure or to understand a concept. |
| User Tip | | The User Tip icon highlights techniques, shortcuts, or productivity related tips for users. |
| Administrator Tip | R. S. | The Administrator Tip icon highlights techniques, shortcuts, or productivity related tips. |
| Caution | <u></u> | The Caution icon highlights information you need to know to avoid a hazard that could potentially impact device performance, application functionality, or successful feature configuration. |
| Warning | A) | The Warning icon highlights an action you must perform (or avoid) to prevent issues that may cause you to lose information or your configuration setup, and/or affect phone, video, or network performance. |
| Web Info | | The Web Info icon highlights supplementary information available online such as documents or downloads on support.polycom.com or other locations. |
| Timesaver | | The Timesaver icon highlights a faster or alternative method for accomplishing a method or operation. |
| Power Tip | | The Power Tip icon highlights faster, alternative procedures for advanced administrators already familiar with the techniques being discussed. |
| Troubleshooting | S. Car | The Troubleshooting icon highlights information that may help you solve a relevant problem or to refer you to other relevant troubleshooting resources. |
| Settings | Eng. | The Settings icon highlights settings you may need to choose for a specific behavior, to enable a specific feature, or to access customization options. |

Typographic Conventions

A few typographic conventions, listed next, are used in Polycom guides to distinguish types of in-text information.

Typographic Conventions

| Convention | Description |
|----------------------|--|
| Bold | Highlights interface items such as menus, menu selections, window and dialog names, soft keys, file names, and directory names when they are involved in a procedure or user action. Also used to highlight text to be entered or typed. |
| Italics | Used to emphasize text, to show example values or inputs (in this form: <example>), and to show titles of reference documents available from the Polycom Support Web site and other reference sites.</example> |
| Blue Text | Used for cross references to other sections within this document and for hyperlinks to non-Polycom web sites and documents such as third-party web sites and documentation. |
| Blue Text in italics | Used for hyperlinks to Polycom resources outside of this document such as the Polycom Support web site, Polycom product web pages, or Polycom documentation. |
| Courier | Used for code fragments and parameter names. |

Before You Begin

This guide covers paging and loud ringer applications with Algo 8180 Audio Alerter and Polycom VVX600 phones in a BroadSoft environment. Once the Algo 8180 device registers with a BroadWorks server, its extensions can be reached via other BroadWorks extensions. BroadWorks' Simultaneous Ringing feature also allows for up to ten Algo 8180 loud ringers to sound when a call is made to a Polycom VVX600 phone.



8180 SIP Audio Alerter



Web Info: An Online Version of this Document is Available

Note that if you are reading this document in PDF format, an online version is available on the Polycom Technet web site.

Audience, Purpose, and Required Skills

This guide describes how to setup an Algo 8180 Audio Alerter and a Polycom VVX600 phone for paging and loud ringer applications in a BroadSoft environment. Readers of this guide are assumed to have a basic understanding of SIP, the Polycom infrastructure, and BroadWorks by BroadSoft. The Algo 8180 SIP Audio Alerter firmware used in this guide is 2.4.

Users should have functional knowledge of the following third-party products:

- BroadWorks
- Algo 8180 SIP Audio Alerter

Frequently Asked Questions

Refer to the frequently asked questions (FAQs) to help answer questions you may have about the solution before you begin.

How do I obtain the IP address of the 8180 SIP Audio Alerter?

Directions to obtain the IP address of the SIP device, can be found in Algo 8180 SIP Audio Alerter User Guide pages 8-9.

How do I configure an Algo 8180 device with BroadWorks?

For detailed information about configurations with BroadSoft, see BroadSoft Partner Configuration Guide: Algo 8180 SIP Audio Alerter.

How do I get the Algo 8180 to ring when the phone rings?

In order for the Algo 8180 SIP Audio Alerter to ring at the same time as a phone, the Algo 8180 extension needs to be configured with BroadWorks' Simultaneous Ring Personal settings. See section Simultaneous Ringing for more details.

How can I configure multiple Algo 8180 devices to ring when a target phone rings?

The Algo 8180 devices will need to be configured with BroadWorks' Simultaneous Ring Personal settings. See section Simultaneous Ringing for more details.

How do I configure the Algo 8180 to ring only or page only function?

See Advanced Ring and Page Configurations section.

Hardware and Software Dependencies

For loud ringing and paging is an Algo 8180 SIP Audio Alerter, a Polycom VVX600 phone, and BroadWorks by BroadSoft.

Get Help

For more information about installing, configuring, and administering Polycom products, refer to Documents and Downloads at *Polycom Support*. For technical questions about the Algo 8180 SIP Audio Alerter contact Algo support: at 604-454-3792 or support@algosolutions.com.

Polycom and Partner Resources

To find all Polycom partner solutions, see Strategic Global Partner Solutions.

For more information about the SIP 8180 Audio Alerter, refer to the Algo 8180 SIP Audio Alerter User Guide. For detailed information about configurations with BroadSoft, see BroadSoft Partner Configuration Guide: Algo 8180 SIP Audio Alerter.

The Polycom Community

The *Polycom Community* gives you access to the latest developer and support information. Participate in discussion forums to share ideas and solve problems with your colleagues. To register with the Polycom Community, simply create a Polycom online account. When logged in, you can access Polycom support personnel and participate in developer and support forums to find the latest information on hardware, software, and partner solutions topics.

Configuring Algo 8180 SIP Audio Alerter

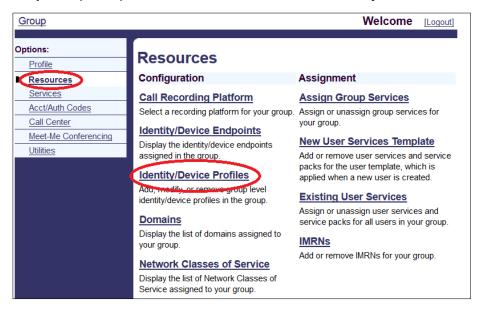
Configuring Algo 8180 via Broadworks

The Algo 8180 SIP Audio Alerter will first need to be configured via BroadWorks. For detailed information on configuring Algo 8180 with BroadWorks, see BroadSoft Partner Configuration Guide: Algo 8180 SIP Audio Alerter. The steps outlined below will briefly cover the steps of configuring a new instance of the 8180 device with BroadWorks and setting up users/extensions.

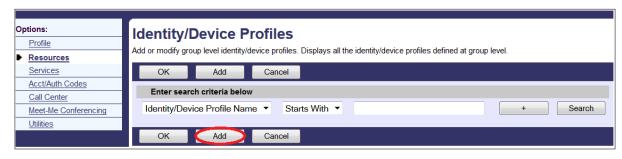
Configure a new Algo 8180 Device Profile

After the Algo 8180 configurations have been uploaded to BroadWorks, a device profile should be created for each 8180 that will be used in the setup.

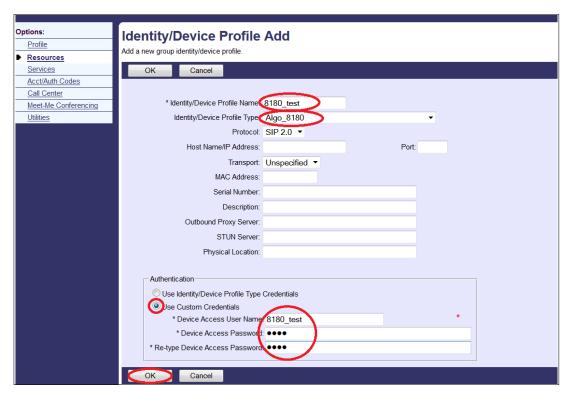
1. In Options panel, proceed to Resources and choose Identity/Device Profiles.



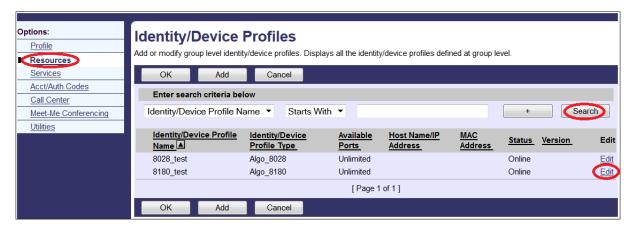
2. In the **Identity/Device Profiles**, click **Add**. (Note: devices list is hidden, but can be retrieved either by pressing **Search** for the full list, or searching with specific keywords.)



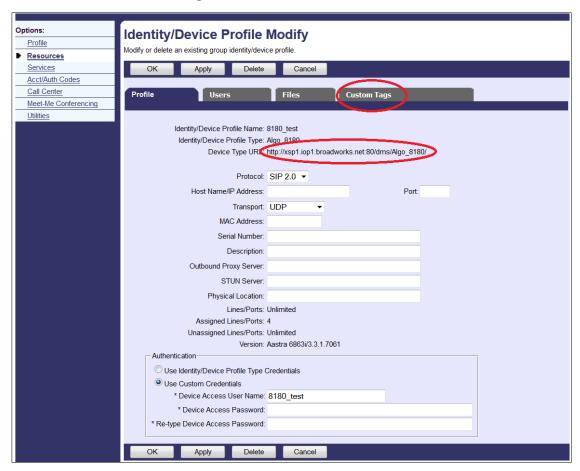
- 3. Specify an Identity/Device Profile Name for the new device.
- 4. Pick the Algo 8180 device from the Identity/Device Profile Type drop-down list.
- 5. In Authentication, select Use Custom Credentials and specify a Device Access User Name and Password. Note: the Device Access User Name will be used later as a group name to link one or more users/extensions to the device. Likewise, the Authentication settings will be used in the Algo 8180 configurations.
- 6. Click OK to save the new device.



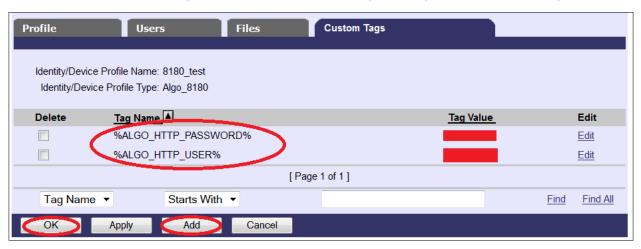
- 7. Once the device profile is saved, the device's authentication tags should be configured. In **Options** go to **Resources** and **Identity/Device Profiles** again.
- Click Search to retrieve the entire device list or enter the keywords for the device that has just been created.
- **9.** Beside the target device, click **Edit** to enter the device's settings.



- **10.** In **Identity/Device Profile Modify** settings, note the **Device Type URL**, it will be required for 8180 provisioning in the future
- 11. In the tabs, choose Custom Tags



12. In **Custom Tags**, click **Add** to add the password and user tags shown below. The tag values would be the custom user name and password that have been set up for that particular device in step 5.



13. When done, click **OK** to save the tags.

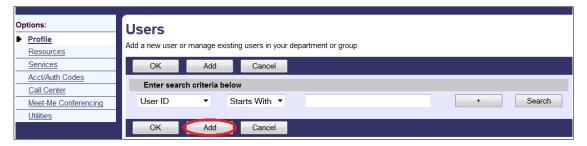
Configure a BroadWorks User/Extension

A user profile will need to be created for each device/extension that will be used in this setup.

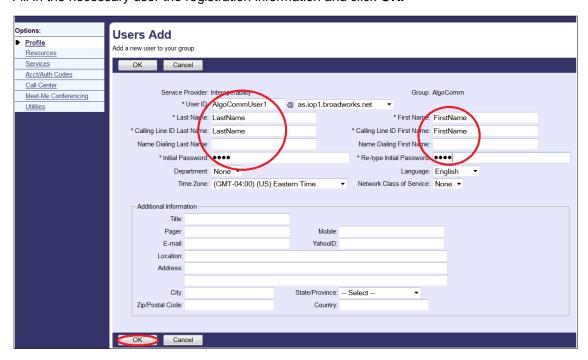
1. In Options, click on Profile and then Users



2. In the **Users** settings, click **Add**. (Note: The users list is hidden, but can be retrieved either by pressing **Search** for the full list, or searching for specific keywords.)

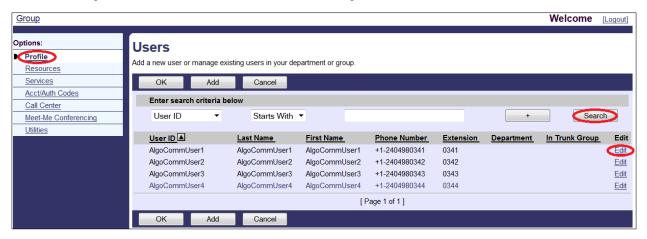


3. Fill in the necessary user the registration information and click OK.

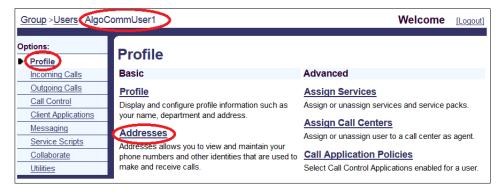


Note: the first user assigned to the 8180 **Device Profile Name** group will be linked to the 8180 ring function and the second to the page function. For more information, see Advanced Ring and Page Configurations section below.

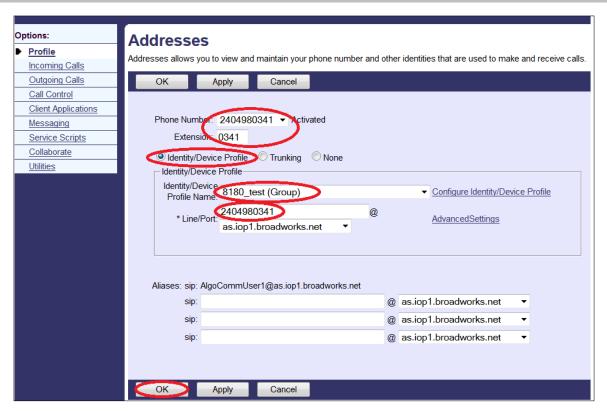
- 4. Once the user is saved, it should be linked to a device. In Options go to Profile and Users again.
- 5. Click **Search** to retrieve the entire user list or enter the keywords for the user that has just been created.
- **6.** Beside the target user, click **Edit** to enter the user's settings.



7. In the user's Profile, pick Addresses.



- **8.** In the **Addresses**, pick a **Phone Number** from the drop down list. The corresponding **Extension** should appear automatically.
- 9. Choose Identify/Device Profile and pick the name of the target device from the Identify/Device Profile Name drop-down list (see step 5 in registering new Algo 8180 Device Profile section).
- 10. Enter the phone number from step 8, into the Line/Port field.

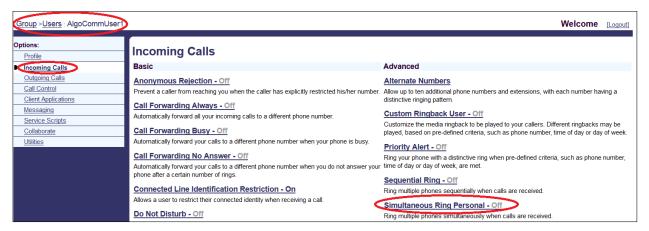


11. Click **OK** to save the settings.

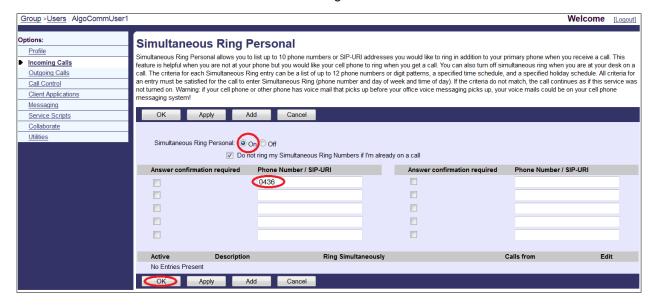
Simultaneous Ringing

In order for the Algo 8180 SIP Audio Alerter(s) to ring at the same time as a phone, the Algo 8180 extension(s) need to be configured with BroadWorks' Simultaneous Ring Personal settings associated with the phone's extension.

1. In the BroadWorks interface, pick the user extension registered with the target phone. In **Options** go to **Incoming Calls** settings and **Simultaneous Ring Personal**



- 2. In the Simultaneous Ring Personal settings
 - a. Turn the settings On
 - b. Include **Phone Number/SIP-URI** or extensions of the Algo 8180 devices that should ring when the target phone rings.
 - c. Click **Ok** in the bottom left corner for the settings to be saved.



3. With these settings, the Algo devices will ring either when they are called directly or when the target phone rings. The phone will not ring when the SIP devices are called.

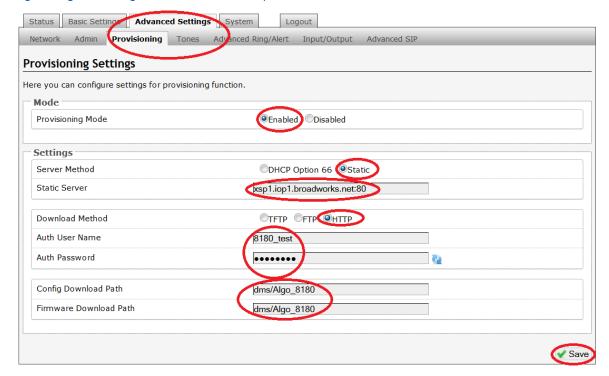
Configure Algo 8180 via Algo Web Interface

Once the IP address of the target 8180 is known, the device can be configured from the web interface. For directions to obtain the IP address, see Algo 8180 SIP Audio Alerter User Guide pages 8-9.

1. To configure 8180 online, open an empty web browser, enter the device's IP address in the address field, and press *Enter*

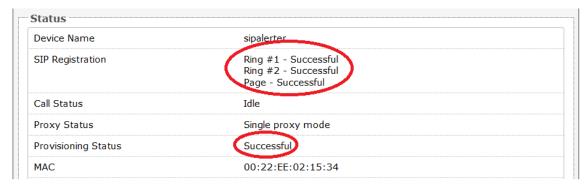


- 2. In the web interface, enter the password to log in. The default password is algo.
- 3. Click on Advanced Settings and Provisioning
- 4. In the Provisioning Settings, make sure that the Provisioning Mode is Enabled
- 5. In Settings select Static for the Server Method and enter the Static Server information (<server>:<port>) from BroadWorks Device Type URL (see step 10 in Registering a new Algo 8180 Device Profile)
- **6.** Select **HTTP** for the **Download Method** and enter the custom **Auth User Name** and **Auth Password** of the device, as configured in BroadWorks (see step 5 in Registering new Algo 8180 Device Profile)
- 7. For the Config Download Path and Firmware Download Path specify the download path (/dms/<device type name>) of the device, from BroadWorks Device Type URL (see step 10 in Registering a new Algo 8180 Device Profile)

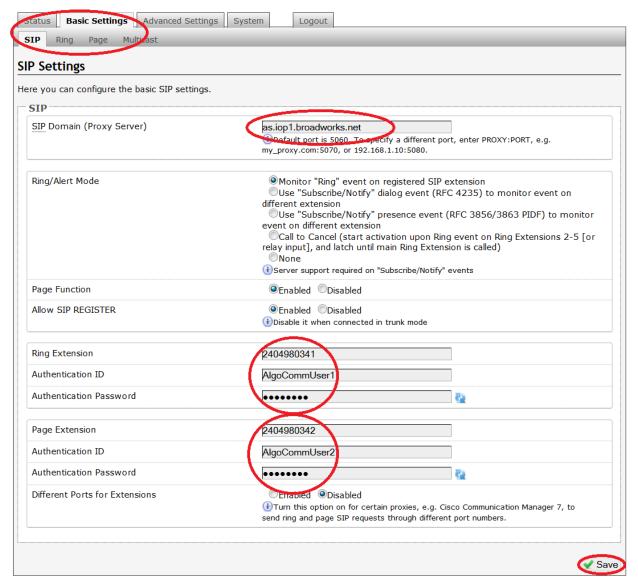


8. Once all of the settings have been entered, click **Save** in the bottom right corner. The changes should request a reboot. Click **Reboot** to update the device.

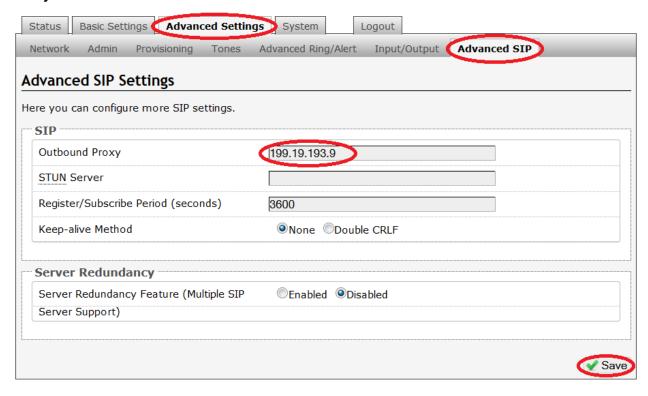
- 9. After the device reboots, you may need to log into the interface again.
- 10. To check if the provisioning was successful, you can check the Status tab.



11. Once logged in, click on the **Basic Settings** tab and go to the **SIP** tab. The BroadWorks users should appear in the sip settings along with the appropriate **SIP Domain**.



12. Finally, proceed to **Advanced Settings** tab and the **Advanced SIP** tab to check that the **Outbound Proxy** has been filled in.



Advanced Ring and Page Configurations

The Algo 8180 Audio Alerter can be configured to page and/or ring as well as multiple ring extensions. For detailed information on configuring Algo 8180 with BroadWorks, see BroadSoft Partner Configuration Guide: Algo 8180 SIP Audio Alerter and Algo 8180 SIP Audio Alerter User Guide for other configurations.

In the device configuration file, as seen below, "sip.alert1" tags are associated with 8180 ring extensions and "sip.u1" with the page extension. By default, the first user assigned to the 8180 **Device Profile Name** group, in BroadWorks, will be linked to the 8180 ring function (ie. 1% user field) and the second to the page function (ie. 2% user field). These default extensions (highlighted in yellow below) will appear on the main SIP registration page of the Algo web interface (step 11 of Configuring Algo 8180 via Algo Web Interface).

An 8180 device can also register with up to 5 additional ring extensions (highlighted in gray below), see Multiple Ring Extensions for more details.

Sample Algo 8180 Config File for BroadWorks

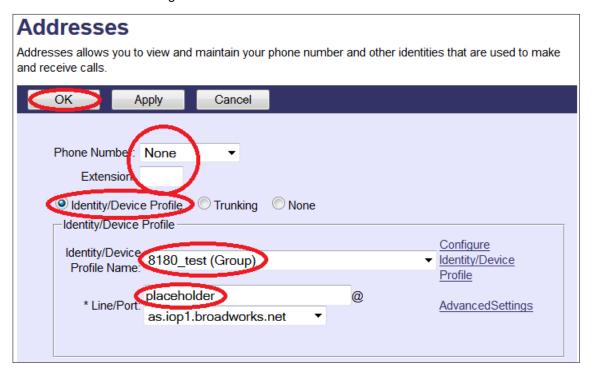
```
sip.alert1.auth = %BWAUTHUSER-1%
sip.alert1.event =
sip.alert1.mode =
sip.alert1.pwd = %BWAUTHPASSWORD-1%
sip.alert1.user = %BWLINEPORT-1%
sip.alert2.auth = %BWAUTHUSER-3%
sip.alert2.pwd = %BWAUTHPASSWORD-3%
sip.alert2.use = 0
sip.alert2.user = %BWLINEPORT-3%
sip.alert3.auth = %BWAUTHUSER-4%
sip.alert3.pwd = %BWAUTHPASSWORD-4%
sip.alert3.use = 0
sip.alert3.user = %BWLINEPORT-4%
sip.alert4.auth = %BWAUTHUSER-5%
sip.alert4.pwd = %BWAUTHPASSWORD-5%
sip.alert4.use = 0
sip.alert4.user = %BWLINEPORT-5%
sip.alert5.auth = %BWAUTHUSER-6%
sip.alert5.pwd = %BWAUTHPASSWORD-6%
sip.alert5.use = 0
sip.alert5.user = %BWLINEPORT-6%
sip.bkproxy1 =
sip.bkproxy2 =
sip.diffport = 0
sip.ka.method = 0
sip.ka.period = 30
sip.mwi.event = 0
sip.mwi.mode = 0
sip.obproxy = %SBC ADDRESS%:%SBC PORT%
sip.proxy = %BWSERVERADDRESS%
sip.regexp = 3600
sip.registrar =
sip.ssr.chkact = 0
sip.ssr.interval = 120
sip.ssr.method = 0
sip.ssr.nofb = 0
sip.stun =
sip.ul.auth = %BWAUTHUSER-2%
sip.ul.pwd = %BWAUTHPASSWORD-2%
sip.ul.user = %BWLINEPORT-2%
```

Placeholder User: Ring or Page Only Configuration

As mentioned above, by default, the first user assigned to the 8180 **Device Profile Name** group will be linked to the 8180 *ring* function and the second to the *page* function. Therefore, to achieve a **page only** configuration the *placeholder* user can be linked to the unused ring. By default, only adding a ring extension, will allow for a **ring only** configuration.

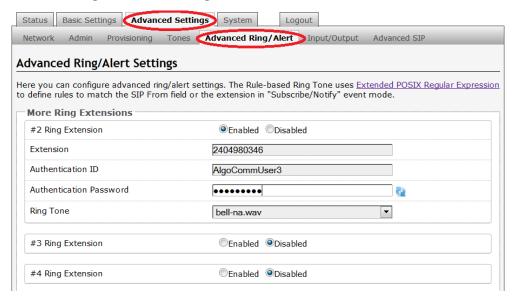
To create a *placeholder* user in BroadWorks:

- 1. Follow steps 1-7 from Configure a BroadWorks User/Extension, using an appropriate user name
- 2. In the **Addresses** settings for the *placeholder* user, pick **None** for the **Phone Number**, leaving the **Extension** field blank
- 3. Choose Identity/Device Profile and pick the name of the target 8180 device group from the Identity/Device Profile Name drop-down menu
- 4. In the Line/Port field, put the placeholder user name that will appear in the Algo 8180 web interface
- 5. Click **OK** to save the settings



Multiple Ring Extensions

The Algo 8180 device can register with 5 additional ring extensions. These can be can be accessed in the **Advanced Settings**, **Advanced Ring/Alert** tab.



To register additional ring extensions, the ring extensions should be added to the 8180 **Device Profile**Name group (3rd user onwards), using the steps listed in Configure a BroadWorks User/Extension. To enable the additional ring extensions (highlighted in gray below), the "use" configuration (eg. "sip.alert2.use") should be changed from 0 to 1. For detailed information on configuring Algo 8180 with BroadWorks, see BroadSoft Partner Configuration Guide: Algo 8180 SIP Audio Alerter.

Sample Algo 8180 Config File for BroadWorks

```
sip.alert1.auth = %BWAUTHUSER-1%
sip.alert1.event =
sip.alert1.mode =
sip.alert1.pwd = %BWAUTHPASSWORD-1%
sip.alert1.user = %BWLINEPORT-19
sip.alert2.auth = %BWAUTHUSER-3%
sip.alert2.pwd = %BWAUTHPASSWORD-3%
sip.alert2.use = 0
sip.alert2.user = %BWLINEPORT-3%
sip.alert3.auth = %BWAUTHUSER-4%
sip.alert3.pwd = %BWAUTHPASSWORD-4%
sip.alert3.use = 0
sip.alert3.user = %BWLINEPORT-4%
sip.alert4.auth = %BWAUTHUSER-5%
sip.alert4.pwd = %BWAUTHPASSWORD-5%
sip.alert4.use = 0
sip.alert4.user = %BWLINEPORT-5%
sip.alert5.auth = %BWAUTHUSER-6%
sip.alert5.pwd = %BWAUTHPASSWORD-6%
sip.alert5.use = 0
sip.alert5.user = %BWLINEPORT-6%
```

Troubleshoot Issues

Use the following list as a guide to resolving issues, problems, or common difficulties you may encounter while deploying this solution.

The Algo 8180 extension is not ringing.

Check the **Status** page in the Algo web interface to see if the provisioning and SIP registration have been successful. See step 10 in Configure Algo 8180 via Algo Web Interface for details.

The Algo 8180 extension is not ringing when called and there is no busy signal.

Check that the **Outbound Proxy** has been filled in the Polycom and Algo web interface. See step 12 in Configure Algo 8180 via algo Web Interface and sep 8 in Configuring Polycom VVX600.

The ring extension produces an 8180 page and the page extension produces an 8180 ring.

By default, the first user assigned to the 8180 **Device Profile Name** group will be linked to the 8180 *ring* function and the second to the *page* function. For more details, See Advanced Ring and Page Configurations.

The additional ring extensions do not work.

The configuration file may need to be changed to enable the extensions, or the extensions can be manually enabled in the Algo web interface. See Multiple Ring Extension section.

References

For more information about the Algo SIP 8180 Audio Alerter, see Algo 8180 SIP Audio Alerter User Guide. For detailed information on configuring Algo 8180 with BroadWorks, see BroadSoft Partner Configuration Guide: Algo 8180 SIP Audio Alerter.

For detailed information on configuring Polycom phones online, refer to *Polycom Web Configuration Utility User Guide*. For further information about the Polycom VVX600 phone and other settings, refer to *Polycom VVX 500 and Polycom VVX 600 Business Media Phones User Guide*.