



**ADVANCED**  
NETWORK DEVICES

## Configure an AND IP Device as a SIP Device

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### Static Electric Warning



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User Support: <https://www.anetd.com/user-support/>  
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## OVERVIEW

Most AND IP devices can act as a phone, making and receiving calls. You can use the microphone and speaker of the device to perform two-way, full-duplex intercom calls with other AND devices, as well as configure them as SIP devices. Our devices integrate with VoIP and SIP-based phone platforms.

This document shows how to configure an AND device as a SIP device via the device configuration file (typical for regular to larger sized installations), or via the web page (only for smaller installations).

## OPTION 1: AND DEVICE SETUP VIA GLOBAL CONFIGURATION FILE

We recommend this method to maintain all the per-device SIP information in a single file.

1. Edit the global configuration file (e.g., *IPSpeaker.cfg* or *InformaCastSpeaker.cfg*) to set the IP address of the SIP server and point to the aggregate speaker configuration file that will contain the specific SIP information for each AND device on the network:

<i>SIP_server_addr</i>	SIP server IP address
<i>AggregateSpeakerConfigFile</i>	File containing device-specific information

Example excerpt from *IPSpeaker.cfg*:

```
<SIPConfig
  SIP_server_addr="10.10.7.168"
/>
<AggregateSpeakerConfigFile file="AllSpeakers.cfg" />
```

2. Edit the aggregate speaker configuration file (e.g., *AllSpeakers.cfg*) to set the specific SIP information for each AND device on the network:

<i>id</i>	Match an available <i>extension number</i> on the SIP server (e.g., 7003)
<i>password</i>	Match the <i>password</i> configured for this extension on the SIP server
<i>digest_username</i>	Match the <i>digest user</i> configured for this extension on the SIP server
<i>push_to_talk_ip1</i>	(optional) If using the push-button to generate a callback to another SIP device, set this parameter to the extension of the line to ring when the button is pressed. Alternately, you can specify the MAC address or IP address of another AND device instead of an extension.

Example excerpt from *AllSpeakers.cfg*:

```
<AllSpeakers>
  <Speaker mac="2046f9010203">
    <SIPConfig
      id="7003"
```

```
password="password123"  
digest_username="Dan"  
push_to_talk_ip1="7000"  
/>  
</Speaker>  
</AllSpeakers>
```

3. Reboot the AND device to begin using the new settings.

## OPTION 2: AND DEVICE SETUP VIA MAC-SPECIFIC CONFIGURATION FILE

If an administrator prefers to keep individual configuration files for each device, use this method, which can help when generating configuration files programmatically per device.

1. Edit the AND device's specific configuration file, *IPSpeaker2046f9010203.cfg*, where 2046f9010203 is the MAC address of the device to configure.
2. In the *SIPConfig* tag, set the following parameters:

<i>id</i>	Match an available <i>extension number</i> on the SIP server (e.g., 7003)
<i>SIP_server_addr</i>	SIP server IP address
<i>password</i>	Match the <i>password</i> configured for this extension on the SIP server
<i>digest_username</i>	Match the <i>digest user</i> configured for this extension on the SIP server
<i>push_to_talk_ip1</i>	(optional) If using the push-button to generate a callback to another SIP device, set this parameter to the extension of the line to ring when the button is pressed. Alternately, you can specify the MAC address or IP address of another AND device instead of an extension.

3. Reboot the AND device to begin using the new settings.

Example excerpt from *IPSpeaker2046f9010203.cfg*:

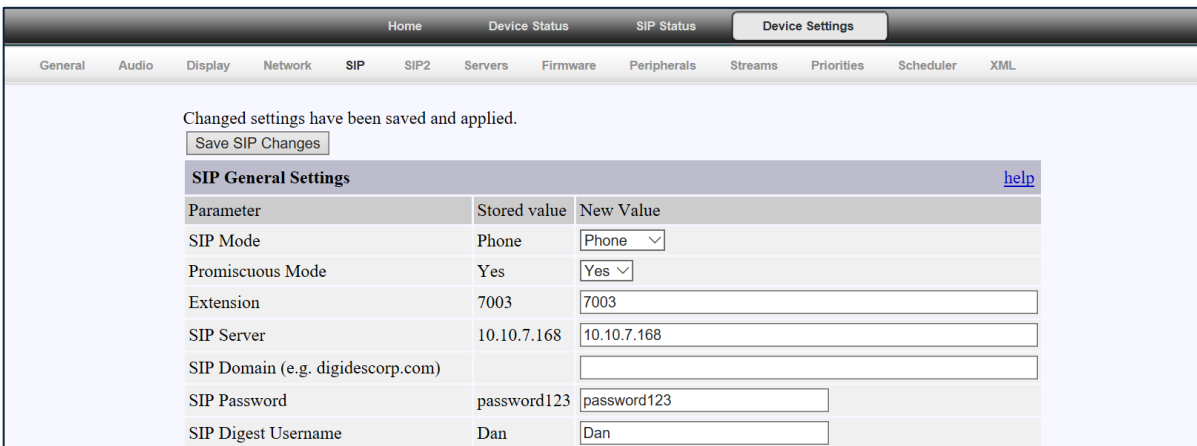
```
<IPSpeakerConfiguration>  
...  
<SIPConfig  
  id="7003"  
  SIP_server_addr="10.10.7.168"  
  password="password123"  
  digest_username="Dan"  
  push_to_talk_ip1="7000"  
/>  
...  
</IPSpeakerConfiguration>
```

## OPTION 3: AND DEVICE SETUP VIA WEB PAGE

1. On the AND device's web page, select **Device Settings** → **SIP**.
2. Enter the following information:

<i>Extension</i>	Match an available <i>extension number</i> on the SIP server (e.g., 7003)
<i>SIP Server</i>	Match the IP address of the SIP server
<i>SIP Password</i>	Match the <i>password</i> configured for this extension on the SIP server
<i>SIP Digest Username</i>	Match the <i>digest user</i> configured for this extension on the SIP server

3. If using the optional push-button to generate a callback to another SIP device, set the *Push-*



Home Device Status SIP Status **Device Settings**

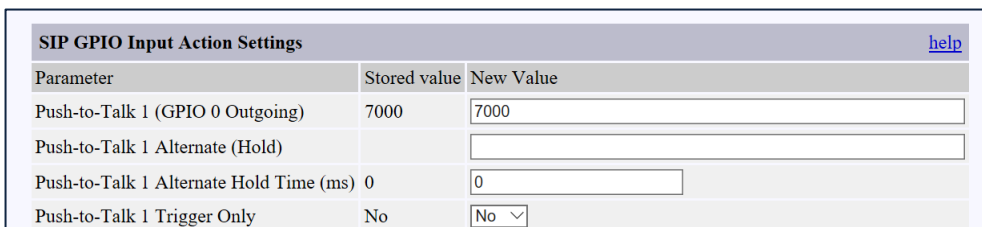
General Audio Display Network **SIP** SIP2 Servers Firmware Peripherals Streams Priorities Scheduler XML

Changed settings have been saved and applied.

**SIP General Settings** [help](#)

Parameter	Stored value	New Value
SIP Mode	Phone	Phone ▾
Promiscuous Mode	Yes	Yes ▾
Extension	7003	7003
SIP Server	10.10.7.168	10.10.7.168
SIP Domain (e.g. digidescorp.com)		
SIP Password	password123	password123
SIP Digest Username	Dan	Dan

*To-Talk 1* to the extension of the line to ring when the button is pressed. Alternately, you can specify the MAC address or IP address of another AND device instead of an extension.



**SIP GPIO Input Action Settings** [help](#)

Parameter	Stored value	New Value
Push-to-Talk 1 (GPIO 0 Outgoing)	7000	7000
Push-to-Talk 1 Alternate (Hold)		
Push-to-Talk 1 Alternate Hold Time (ms)	0	0
Push-to-Talk 1 Trigger Only	No	No ▾

4. Click the *Save SIP Changes* button.
5. Reboot the device to begin using the new settings.

## OPERATION

You can confirm operation and identify any issues via the device web server **SIP Status** page.