ASP720x-IP

Configuration Guide ver 5.x

Netgenium

THE SPECIFICATIONS AND INFORMATION FOR THE HARDWARE AND SOFTWARE PRDUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL INFORMATION AND RECOMMENDATIONS IN THIS MANUAL WERE ACCURATE AT THE TIME OF WRITING BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.
IN NO EVENT SHALL NETGENIUM SYSTEMS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL.

Table of Contents

1 Overview

The Netgenium ASP720x operating system is common to all Netgenium speakers in the ASP720x-IP family.

This manual describes the how to configure the operating system in its environment.

For details of the harware characteristics for each model, please refer to the relevant Installation guide.

2 Configuration

This chapter describes how to set up the ASP720x-IP speakers for connectivity to the LAN and configure the speaker in its environment.

Initial Network Setup

Connect the ASP720x-IP speaker to a PoE capable network switch or via a mid-span device.

To logon for the first time, open a web browser and type the IP address of the speaker in the address bar. Each unit is pre-configured with a default IP address of 10.100.1.172 when it leaves the factory.

The default username and password are as follows:

Username: netgenium
Password: netgenium

The home page provides basic information on the speaker such as software version, serial number etc. Navigation around the menu structure is via the tabs shown at the top of the home page.

Each tab redirects the browser to the master page for the configuration section selected. In each section a sub menu is accessible via the links on the left of the page.

To set the speakers IP address:

Navigate to: Setup

Configure the options as described below then click the **Apply** button.

General

Device Name: The name for the device (usually a description of the location)

Network

IP Address:	*IP address of the device*
Network Mask:	*Subnet Mask of the device*
Default Gateway:	*Default Gateway for the device*
Netgenium Primary PolicyServer:	*The IP Address of the primary PolicyServer*
Netgenium Secondary PolicyServer:	*The IP Address of the secondary*
PolicyServer Registration Mode:	*Autonomous or registered with PolicyServer*
Registration Status:	*Current registration status.*

DNS Settings

Domain Name.	*Not used.*
Primary DNS.	*Not used.*
Secondary DNS.	*Not used.*

Time & Date

Navigate to: Setup>Time & Date

This page enables you to set the system time and date.
The options are:

Set to Computer Time:	*This option sets the time and date to that of your computer when the Apply button is clicked.*
Set Manually:	*Enter the time and date in the textboxes provided and click the Apply button.*
Use NTP:	*With this option enabled the controller will synchronize its time and date with an NTP server every 5 minutes.* *Enter the IP Address of the NTP server and click the Apply button.*

If the controller is configured to register with PolicyServer the unit will automatically be synchronised with PolicyServer's date and time.

The system time has no significance at all to the operation of the speaker. Its only function is to provide a time stamp to any log entries.

Users

Navigate to: Setup>Users

Use this page to manage the accounts used to administer the unit.

The default settings are:

Username: netgenium
Password: netgenium

To add a new user account, enter the username and password and click the **Update** button.

To remove an account, highlight the name to delete and click the **Delete** button.

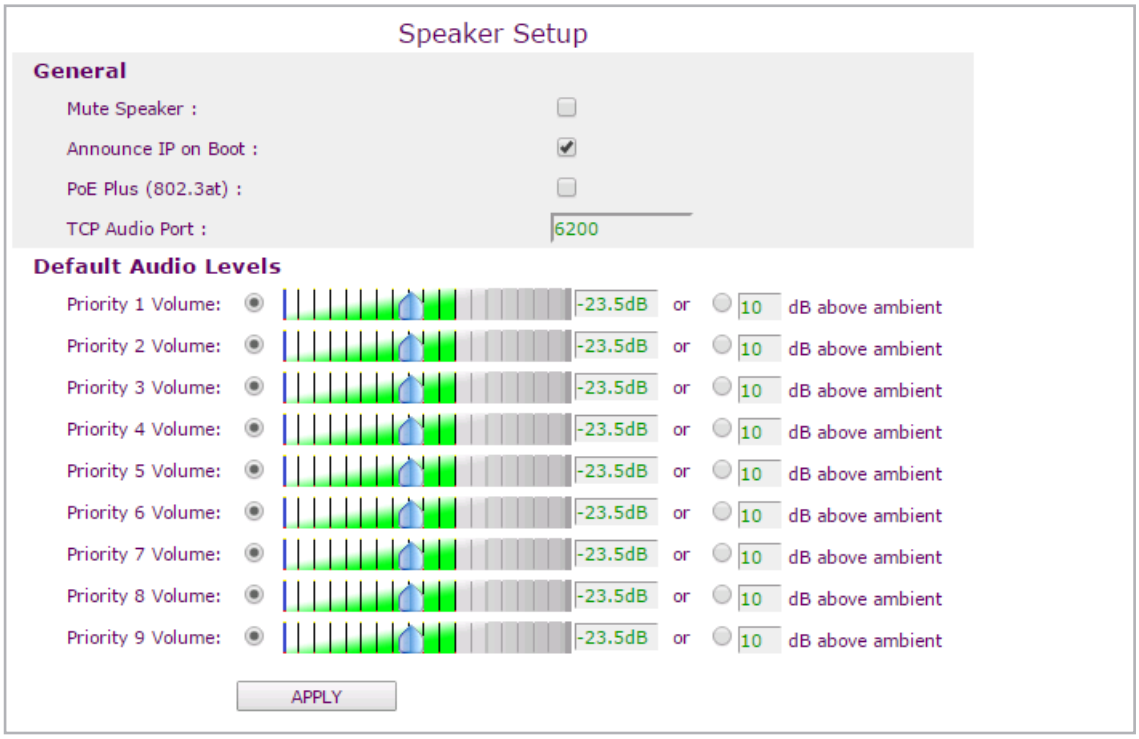
System

Navigate to: Setup>System

The system password is used to authenticate requests between PolicyServer and the end devices.

The default setting is netgenium.

Speaker



The Speaker tab gives access to General speaker settings and audio volume settings

Navigate to: Speaker

General

Mute Speaker	*Mutes the speaker.*
Announce IP on Boot	*The speaker will announce its IP Address when it boots up.*
PoE Plus	*Selects PoE+ mode. This will extend the audio volume capability of the speaker. Only select this setting if you have a PoE+ power source.* *POE + mode is not available on the ASP7201-IP*
TCP Audio Port	*Not used in Ver 5.*

Audio Priority

The speaker supports 9 audio priorities (1-9). 1 is the lowest and 9 is the highest. The default priority is 5.

Each priority level can be assigned its own volume setting.

If a speaker is making an announcement and it receives an announcement at the same or lower priority it will be ignored. An announcement with a higher priority will take precedence.

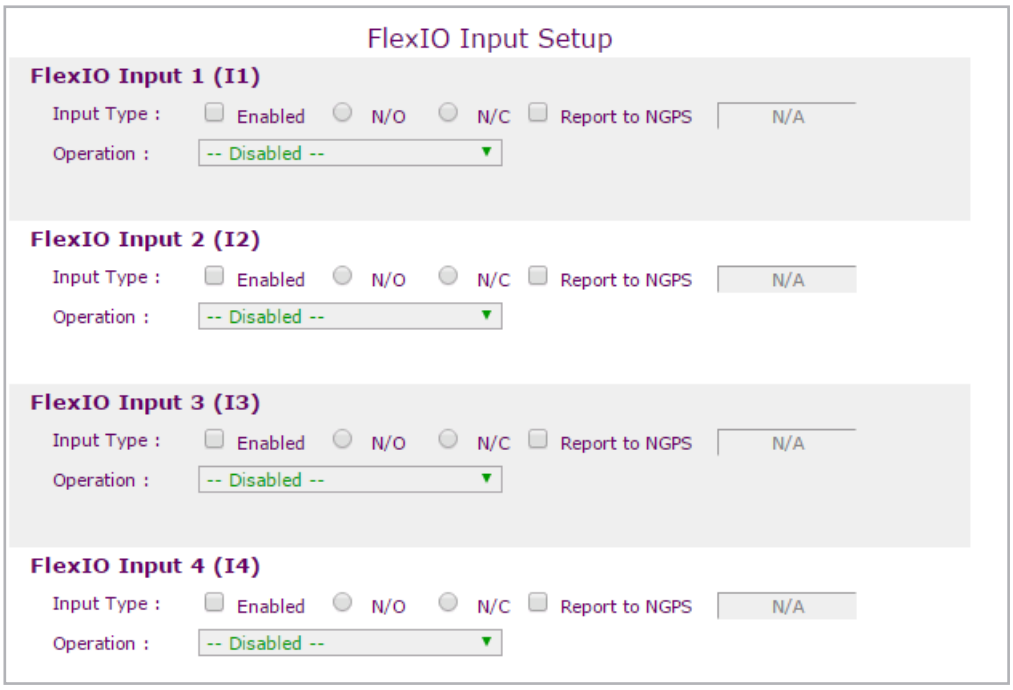
Audio Volume

Set the volume level for the desired priority with the slider and click the **Apply** button.

Microphone

Not used in Ver 5.

Flex Inputs



Navigate to: Speaker>Flex-IO Inputs

The speaker supports upto 4 Flex Inputs. Each input can be triggered by a volts free contact (relay contacts for example).

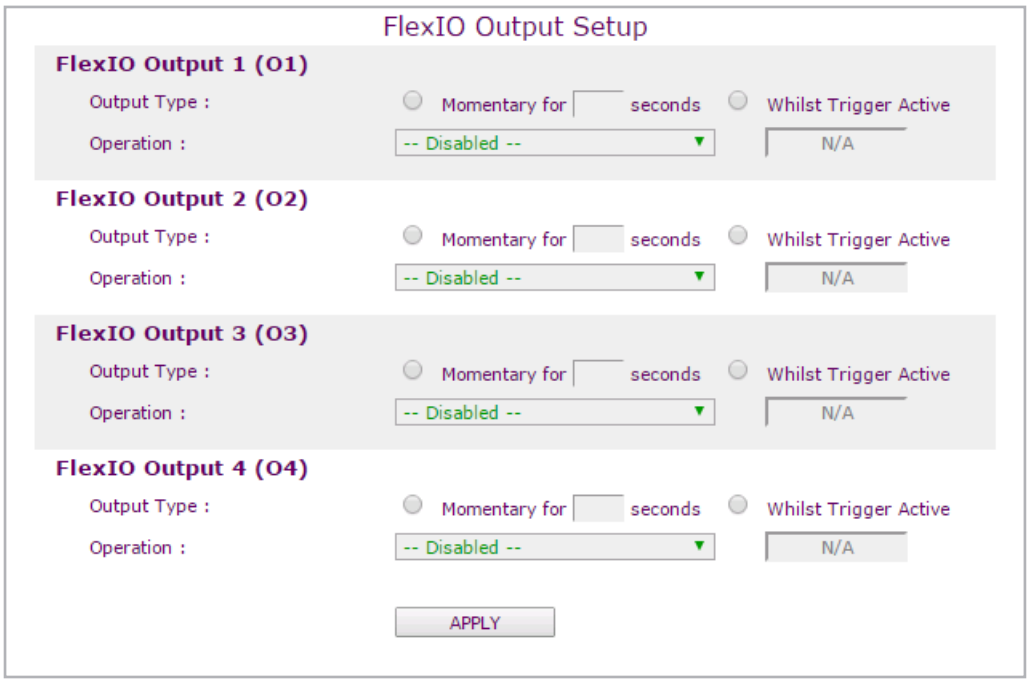
All Flex Inputs are disabled by default.

To configure a Flex Input:-

1. Enable the desired Flex Input.
2. Select the ‘normal’ state of the contacts. N/O or N/C.
3. Select the desired speaker operation when the inputs change state. This selection is made using the ‘Operation’ list box.
4. Ensure the Flex Input is wired correctly.
5. Click **Apply**

Flex Outputs

Navigate to: Speaker>Flex-IO Inputs



The speaker supports upto 4 Flex Outputs. Each output can supply a switched negative +12Vdc supply to a third party device, typically a relay. The output is turned on as a result of a pre selected speaker condition. The output can also be controlled by PolicyServer

All Flex Outputs are disabled by default.

To configure a Flex Output:-

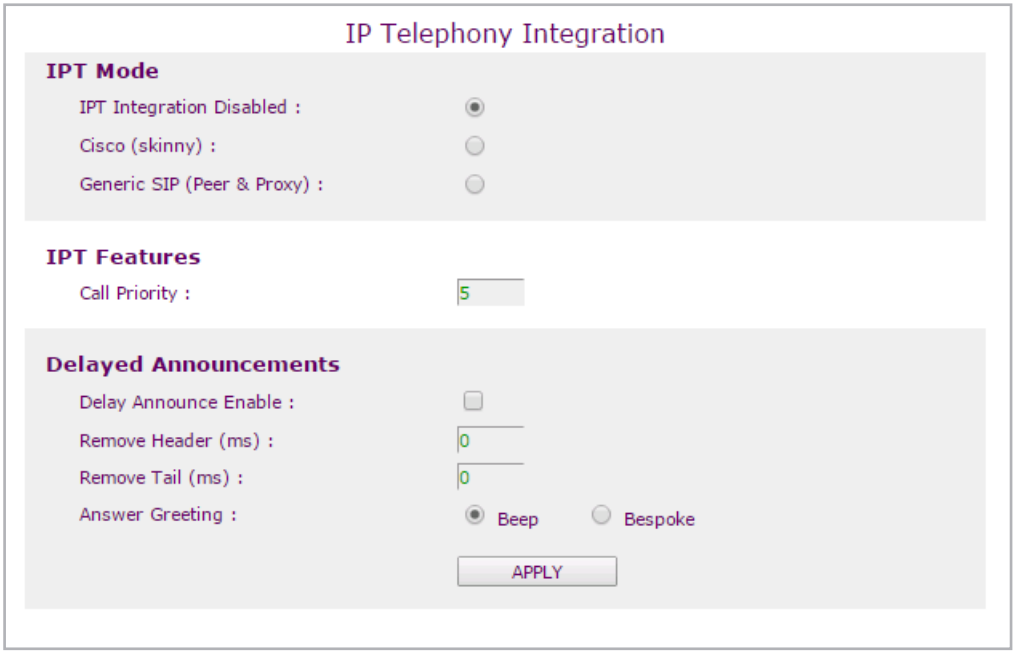
1. Enable the desired Flex Output by selecting the speaker condition that activates the output from the 'Operation' list box.

2. Set the duration the output is active (Momentary or Whilst Trigger Active)

3. Ensure the Flex Output is wired correctly.

4. Click **Apply**

IP Telephony



Navigate to: IP Telephony

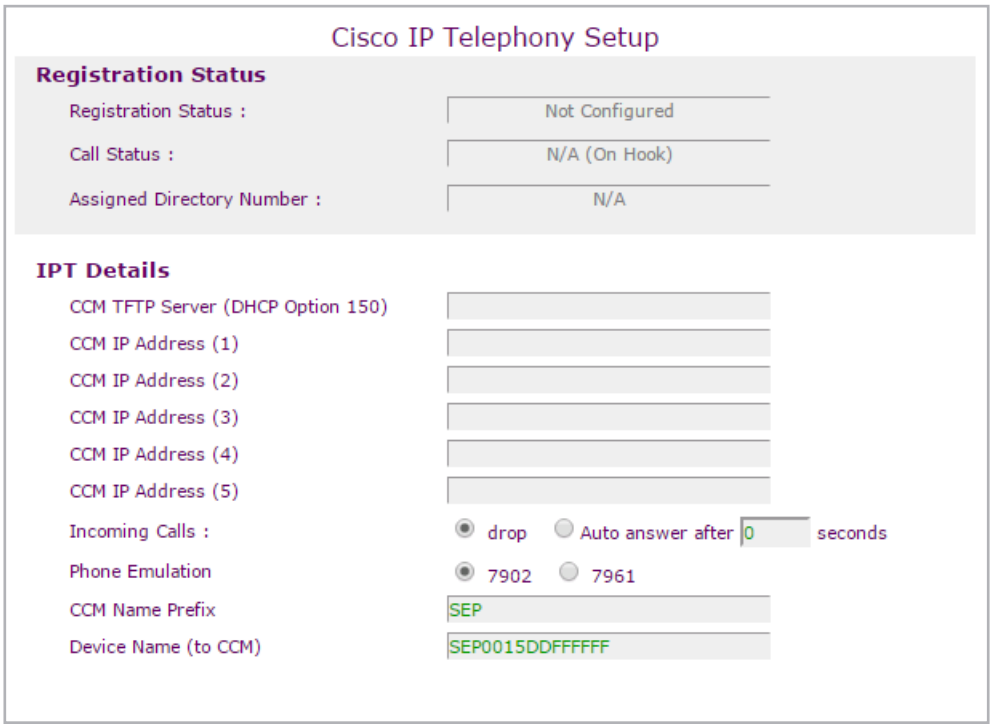
The speaker can register with an IP telephony system as a telephony end point using either SIP or Skinny (Cisco propriety) call control protocols. This allows the speaker to be dialled from a telephone handset and a live announcement made

A priority level for telephony based announcements can be configured.

If Delayed Announcement is enabled, the announcement will be stored in speaker memory and played when the call is terminated.

Before configuring SIP or Skinny parameters the call control protocol must be selected. Then click the **Apply** button.

Cisco IPT



Navigate to: IP Telephony>Cisco IPT

1. Enter the IP address of the Primary Call Manager server in CCM IP Address (1).

2. Select how incoming calls will be handled (dropped or auto answer)

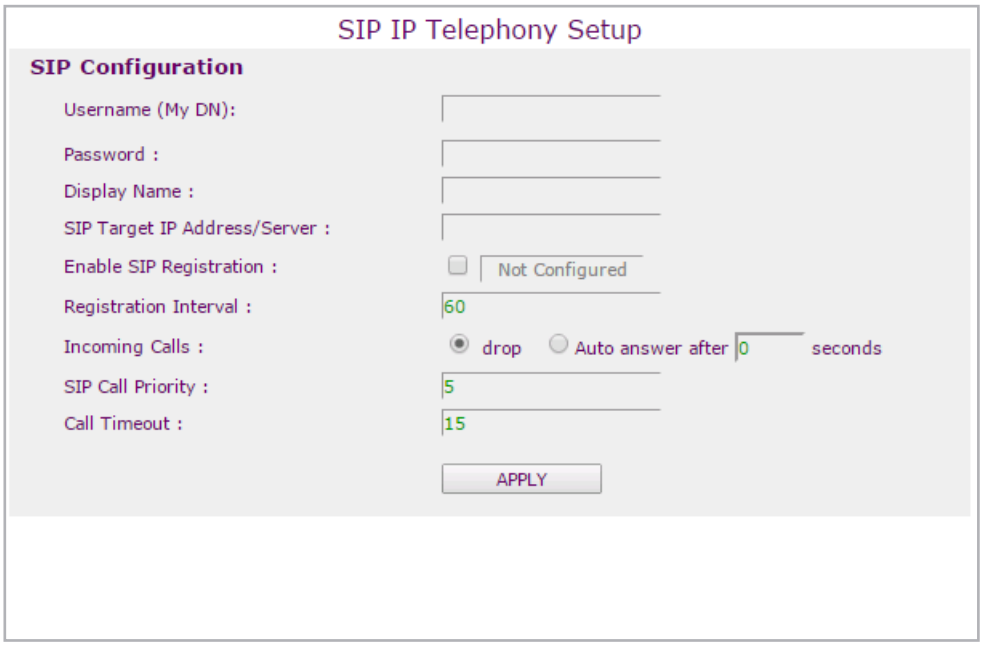
3. Select the phone type to emulate.
   The 7902 is a single line extension.
   The 7961 has multiple lines.

4. Click **Apply**.

If auto registration is enabled on the Call manager server the speaker will attempt to register with the server.

This page does not auto refresh. Click the Apply button to monitor the registration status.

SIP



Navigate to: IP Telephony>SIP

1. Enter the SIP Username for your SIP account.
2. Enter the Password for the account.
3. Enter the Display Name.
4. If you are registering with a SIP server, select Enable SIP Registration checkbox and set the Registration Interval.
5. Select how you wish to handle incoming calls.
6. Set the audio priority for telephony.
7. Call Timeout is the maximum duration of a SIP call is seconds.
8. Click **Apply**.

3 Utilities

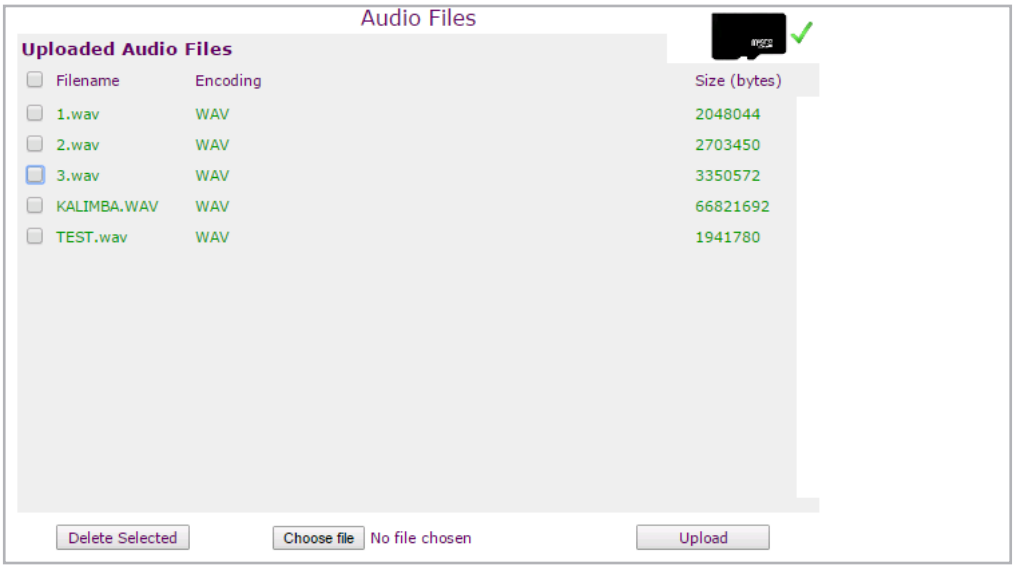
This chapter describes the utilities and features available with the ASP720x-IP. family of speakers.

Audio Files

Navigate to: Utilities>Audio Files

Audio files can be stored in the onboard flash file system. The stored files can be triggered to play by a local event using Flex IO or by an IP event received over the network.

Before attempting to upload any files to the speaker, ensure that the flash file system is installed. The flash file system is stored on a Micro SD flash card See Chapter 1.



The status of the flash file system on the speaker is indicated by the icon in the top right hand corner of the page.

The Micro SD card has been detected with a valid flash file format

The Micro SD card has NOT been detected.

The Micro SD card has been detected. The flash file system cannot be read.

To upload an audio file to the speaker:-

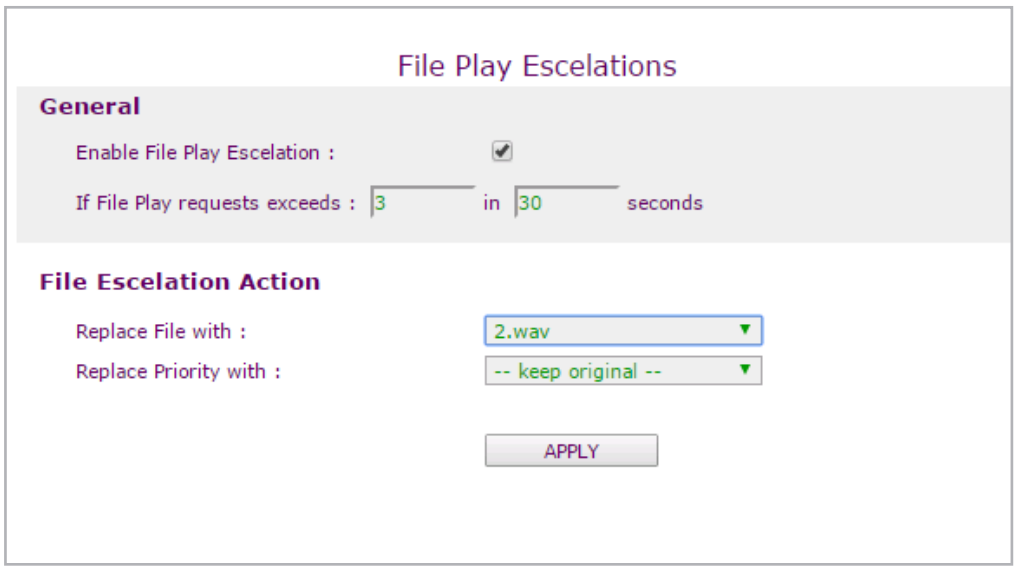
1. Ensure that the audio file is .WAV format.
2. Click the **Choose File** button and select the file.
3. Click the **Upload** button.

To delete an audio file:-

1. Select the files to be deleted by clicking on the checkboxes as shown below.

2. Click the **Delete Selected** button.

Escalations



The Escalation feature will change the audio announcement played if the number of play requests exceeds pre-defined limits.

To enable this feature:-

Navigate to: Utilities>Escalations

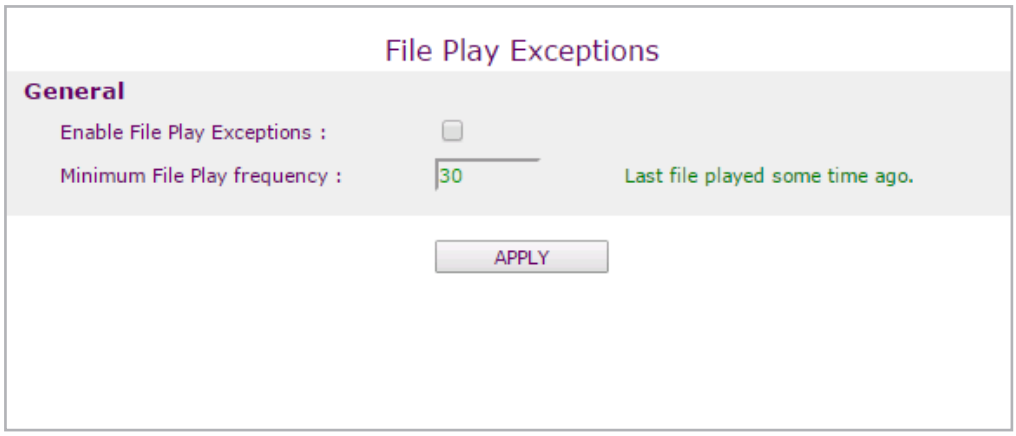
1. Enable the Escalations feature.

2. Set the play frequency and time parameters.

3. Select the audio file to be played when the escalation parameters are exceeded.

4. Click **Apply**.

Exceptions



The Exceptions feature limits the frequency at which announcement will be played. By specifying a time frame in seconds, it is possible to prevent an announcement from being constantly broadcast due to multiple trigger conditions.

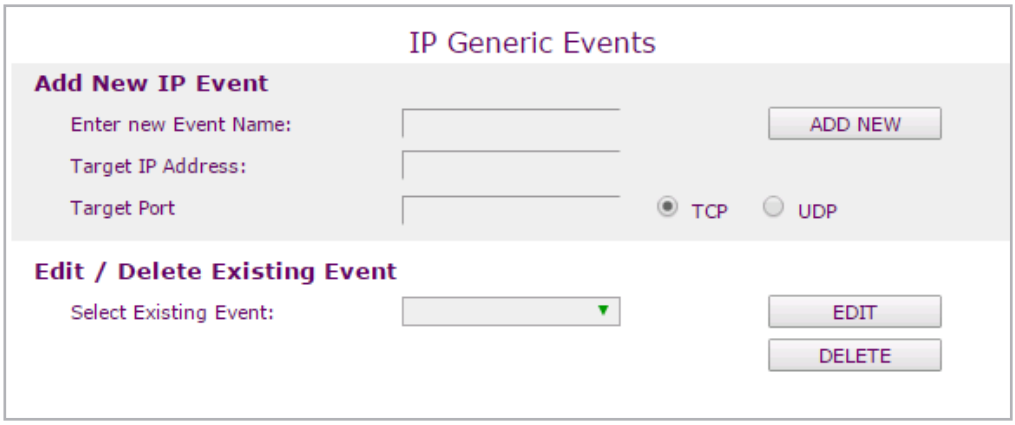
For an example, a value of 30 seconds will result in the announcement being played a maximum of once in 30 seconds.

To enable this feature:-

Navigate to: Utilities>Exceptions

1. Enable the feature
2. Set the time parameter.
3. Click **Apply**.

IP Events



IP Events can be triggered as a result of Flex IO inputs being triggered.

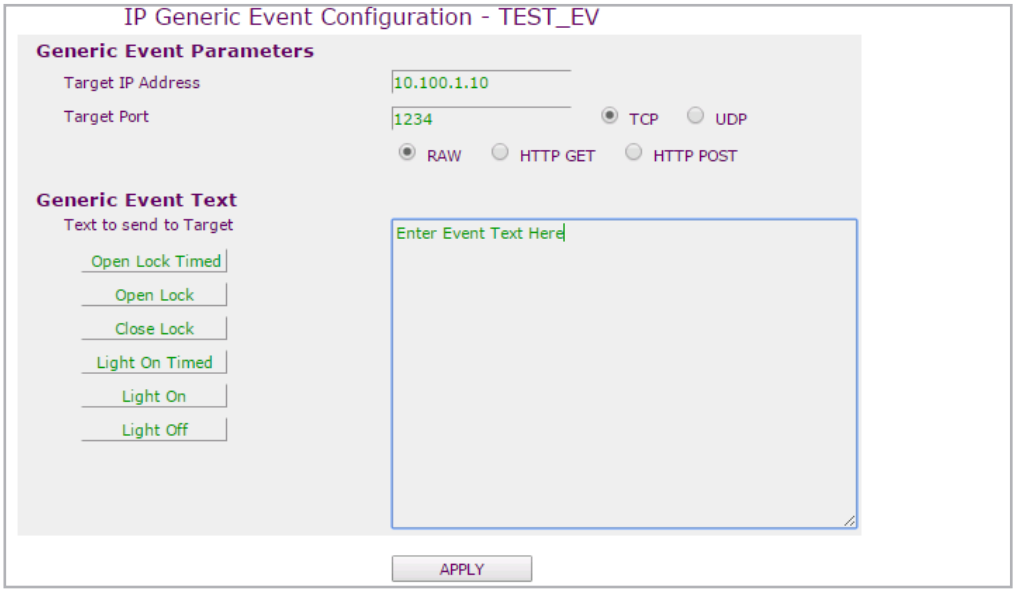
To setup a new Event:-

Navigate to: Utilities>IP Events

1. Enter a name for the new event.
2. Enter a target IP address and tcp/udp port for the event.
3. Click **Apply.**

The event must now be edited and the event data added.

4. Select the newly added event from the dropdown listbox and click **Edit**.
5. Add the event text to the textbox and click the **Apply** button.



Immix

Not available in ver.5

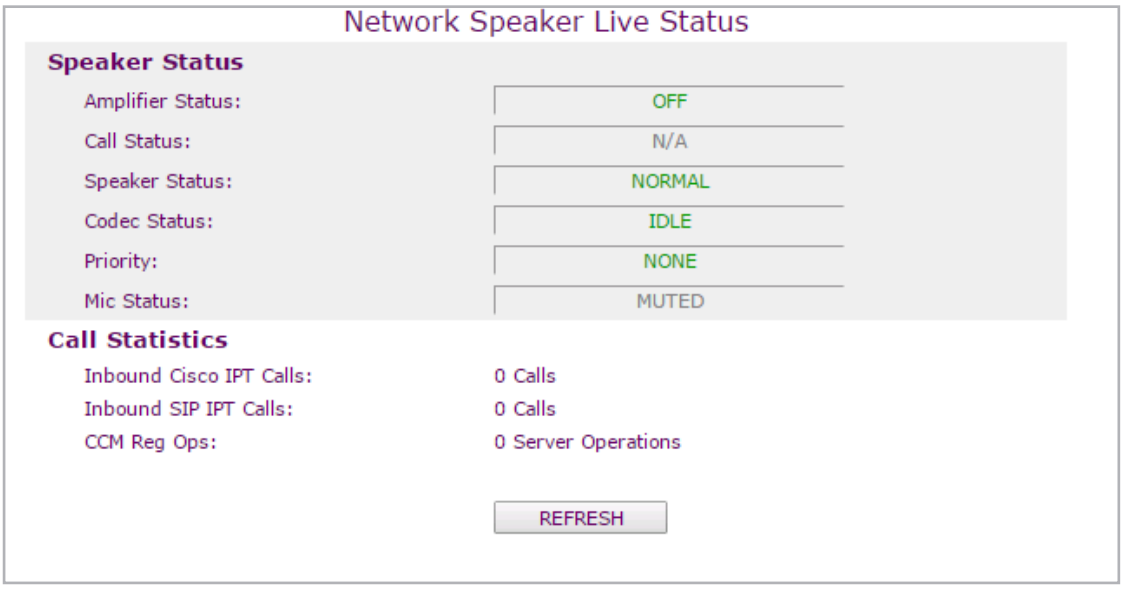
4 Maintenance & Diagnostics

The diagnostics features of the ASP720x-IP OS is found under the Maintenance tab in the web interface.

The feature displays the current status of the speaker and allows diagnostics to be performed from a web browser.

Status

Navigate to: Maintenance>Status

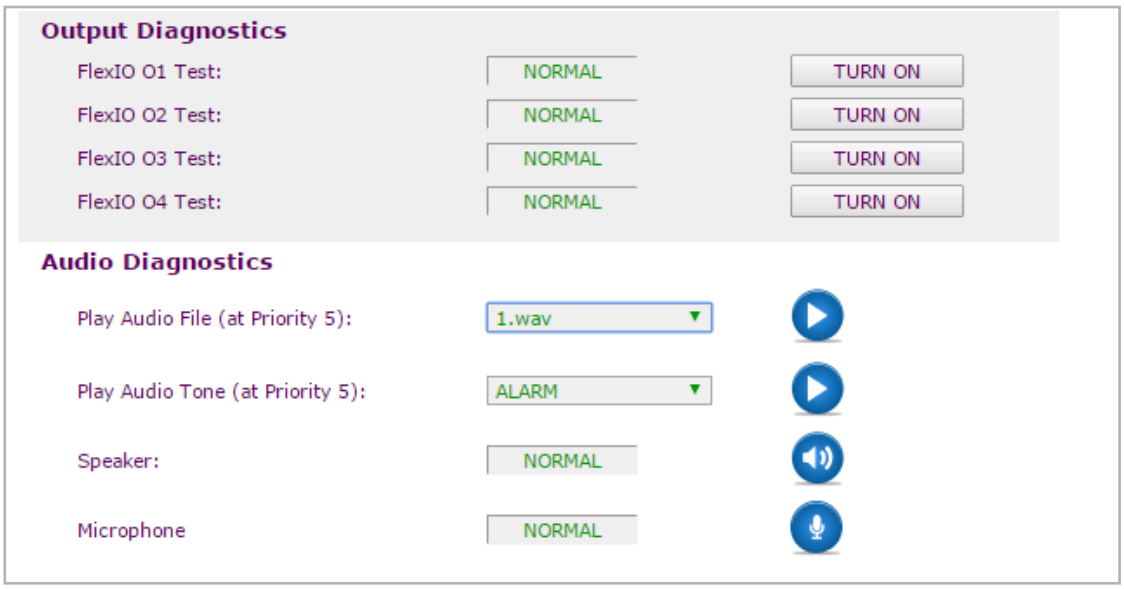


The Status page shows the current status of the speaker.

The page does not auto refresh in a browser.

Diagnostics

Navigate to: Maintenance>Diagnostics



Audio files stored in flash memory can be used to test the audio function of the speaker.

To perform an audio test. Select an audio file from the dropdown list and click the play button.

The speakers Flex IO Outputs can be turned on and off manually using the diagnostic button for each output.

Logs

Navigate to: Maintenance>Logs

IP Speaker System Logs

Log History

13:00:18 17/07/15	Last Unicast 27752 RTP stream received 0 packets.
13:00:18 17/07/15	codec rate=1411200, channels=2
13:00:18 17/07/15	Granted; playing local file 1.wav.
13:00:18 17/07/15	Request to play local file 1.wav at priority 5.
13:00:03 17/07/15	codec rate=256000, channels=1
13:00:02 17/07/15	NGX Codec Driver Initialised.
13:00:02 17/07/15	Codec Map from SD Card loaded OK (155);
13:00:00 17/07/15	NGX UDP(S) Stream Started.
13:00:00 17/07/15	NGX UDP(P) Stream Started.
13:00:00 17/07/15	NGX SERVER Process Started.
12:59:59 17/07/15	NGX MEDIA Mounted OK.
12:59:59 17/07/15	NGX CORE Services Started.
12:59:59 17/07/15	NGX AUDIO Supervisor Started.
12:59:59 17/07/15	NGX IO Process Started.
12:59:59 17/07/15	NGX MONITOR Process Started.

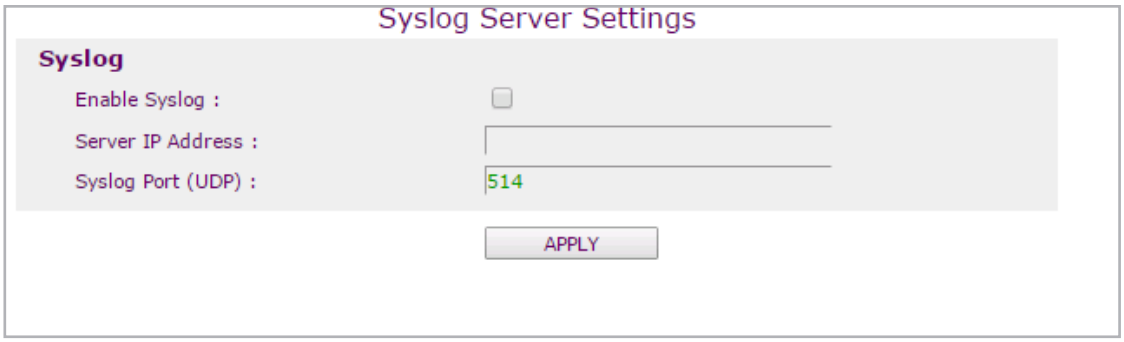
The speakers have a rolling 50 line log used for fault diagnostics. Each log entry is time and date stamped using the units system time.

This log is memory resident and will be lost when the unit is rebooted.

The log is intended as an aid to fault diagnosis and not as a event archive. The Syslog feature, if configured, will send the log entries to a Syslog server on your network.

Syslog

Navigate to: Maintenance>Syslog

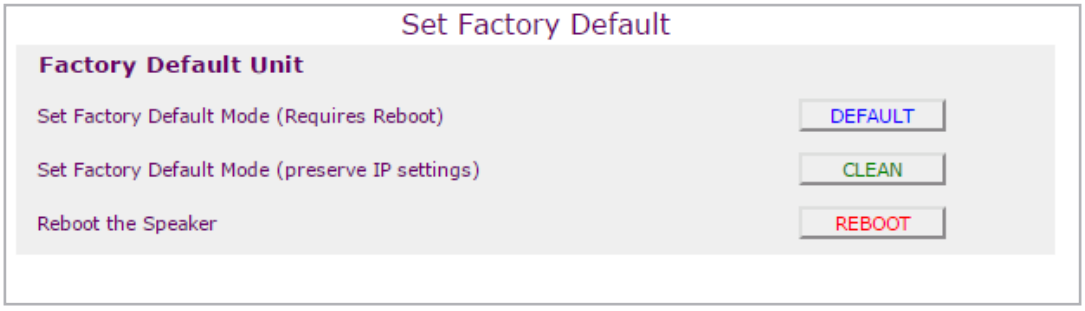


To send log entries to a Syslog server on your network:-

1. Enable syslog
2. Enter the Syslog server IP address.
3. Enter the udp port the Syslog server is using.
4. Click **Apply**.

Default

Navigate to: Maintenance>Default



To return the speaker to factory default settings click the **Default** button and reboot the speaker.

To preserve IP configuration and return speaker settings to default values click the **Clean** button and reboot the speaker.

To reboot the speaker click the **Reboot** button or power cycle the device.

Update Firmware

The remote update feature is available on software version 5.7.1 onwards.

The update process is completed using the web browser interface. Google Chrome is recommended.

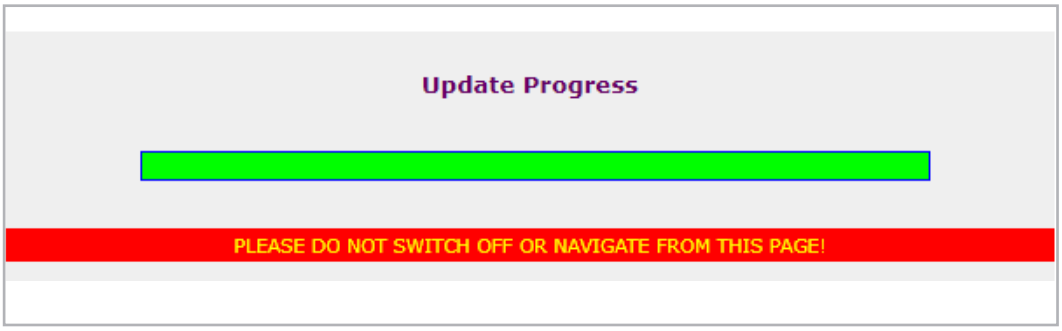
Before you start you will need the new image (with a **.ngx** file extension) on the hard disk of your computer.

Browse to the IP address of the device you want to upgrade.

Navigate to: Maintenance>Update Firmware

Update Firmware (ctd)

1. Click the **Choose File** button.
2. Select the new image file on your computer.
3. Click **Apply**.
4. Click the **Upload To Store** button.
   The new file will be uploaded to the New Image Store of the device.
5. Click the the **Upgrade To New Image** button.



The speaker will upgrade and reboot.

Ensure that the device stays powered on and connected to the network during this entire process.

If this device is reset during this process it may not recover !

Netgenium Systems
Technology House
5 Walton Road
Pattinson North
Washington
Tyne & Wear
NE38 8QE

Netgenium