IPX Series

Quick Start Guide

Once the IPX endpoint is connected to the network, the IP address is required to access the WebUI (Web User Interface) for endpoint configuration. A few common methods for determining the unit's IP address include:

- View the installed DHCP server and match the MAC address of the endpoint to the MAC address on the server, which will also show the endpoint's IP address.

- If the endpoint is equipped with an LCD display, the endpoint's IP address will scroll across the LCD once it is connected to the network.

- Press and hold the "service" switch, located on the endpoint's PCB, for one second. Once it is released the endpoint will announce its IP address.

All IPX endpoints include a feature that enables them to self-assign an IP address when a DHCP server is not present on the network.

- If DHCP is not available, the IPX endpoint will configure a link-local address after 60 seconds. This allows the installer to set a static IP address for the endpoint if no DHCP server is present.

- If DHCP is not available, a reboot will be scheduled until an IP address is received or manually configured. The initial reboot is set for 5 minutes. Each consecutive reboot will increase by 5 additional minutes, e.g., initial reboot after 5 minutes of up-time, 2nd after an additional 10 minutes and third after 15 more minutes. This results in 3 reboots in the first 30 minutes.

The endpoint's WebUI can be accessed by visiting the endpoint's IP address in a web browser. AtlasIED recommends Google Chrome, Mozilla Firefox, Microsoft Edge, or Apple Safari.

- Default username: admin

- Default password: **Last 6 Digits of MAC Address**, lower case characters (For Firmware versions 1.6 and higher)

- Default password: admin (For Firmware versions 1.3.2 and below)

IPX endpoints can register with multiple third-party software platforms using the specified protocols. By default, all services are enabled.

InformaCast® uses multiple discovery methods.

- Service Location Protocol (SLP):
    - IPX will send an SLP Discovery multicast query to 239.255.255.253. All available servers should respond to the endpoint directly with information about registration servers. Note: Multicast must be enabled and routed between server and endpoint.

- Domain Name System Service (DNS SRV) records:
    - DNS SRV is a well-defined standard in RFC 2782 and RFC 6335 for performing service discovery, and its priority and weight features allow for straightforward load distribution.
    - In addition, DNS SRV's sub-domains and GeoDNS allow steering IP speakers to specific on-premises servers based on their locations, and it's not dependent upon multicast like SLP. DNS SRV is the preferred method of speaker configuration file discovery, especially because it allows for creating records specific to InformaCast Fusion and it can support multiple DNS domains for failover-enabled and/or distributed activation environments.

- DHCP Option 150:
    - The IP address of either a TFTP server or InformaCast can be entered to receive an InformaCast specific or generic config file for registration.

- Static assignment:
    - The configuration server address can be statically set in the WebUI on the service tab within the InformaCast® section.

Syn-Apps® uses multiple discovery methods.

- DHCP Option 72:
  - The IP address of the Revolution server must be set in option 72 of the DHCP response.
- Static assignment:
  - The Notifier Address can be statically set in the WebUI on the service tab within the Syn-Apps® section.

GLOBALCOM uses IEDNet for IPX registration. AtlasIED recommends that GLOBALCOM and IPX endpoints be on the same VLAN. Refer to the GCK SMC manual for more information.

The priority level of the registered software platform is automatically assigned to the highest level in the Audio Priorities field located on the services tab within the IPX WebUI.

AtlasIED recommends disabling any third-party service that is not currently in use. To disable a service, go to the services tab within the IPX WebUI and unchecking the "Enable" checkbox next to service title not used, then click on save. This change requires a reboot to become active.

All IPX endpoints include a Permanent Stream (Static Multicast Audio Stream) feature that enables them to listen up to 10 Static multicast audio stream receptions.

Static Multicast Audio Stream Reception

Multicast addressing is used to specify up to 10 network audio sources that an IPX IP endpoint device/s will continually listen to for RTP audio packets and play them back automatically when received.

- Disable Slauson Mode by unchecking the enable box located on the debug page within the IPX WebUI. Next, click the "Clear Permanent Audio Routes" button. Finally, reboot the IPX IP endpoint.
- To configure the IPX IP endpoint multicast listen mode, select the "+ Add" button on the audio priorities field located on the services tab within the IPX WebUI.
- A setup window will now open and provide fields for entering description, IP address (multicast address), port, and codec selection. Adjusting volume levels, activating relay, and activating the flasher with color selection are also available in this setup window.
- The priority level is automatically set to the lowest level when adding a stream to the audio priorities field.
- To manually specify the order of audio source playback when using more than one audio stream, move that listed audio stream to a higher level in the audio priorities field. The 1st listing in the field is set for the highest priority while the last listing is lowest priority.
- IPX devices will use host applications (InformaCast, Revolution, GCK, and SIP) as a priority by default when static multicast audio stream reception is used.

All IPX endpoints include a Permanent Stream (Static Multicast Audio Stream) feature that enables them to broadcast two Static multicast audio streams.

Line level input to Static Multicast Audio Stream Broadcast

IPX IP endpoints line in audio can be set to broadcast audio to other IPX IP endpoint devices via Multicast address, port destination, and Codec selection.

- To configure the IPX IP endpoint line-in to multicast broadcast mode, click on the "Mode" field in the Line-In Routing field located on the hardware tab within the IPX WebUI and select the "Line in To Multicast Transmit Mode" from the dropdown line-in routing menu.
- Once the "Line in To Multicast Transmit Mode" is selected, additional fields will appear for entering description, IP address (multicast address), port, and selecting codec, and adjusting volume levels of the audio broadcast stream.
- Any number of IPX IP endpoints can listen to this multicast destination address via a static multicast audio stream reception configuration.
- The device generating the broadcast can also listen on its own audio stream, useful for actuating features on the local device when line in data is received, based on message priorities, e.g., flashers.

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Mic Input to Static Multicast Audio Stream Broadcast

IPX IP endpoints Mic input audio can be set to broadcast audio to other IPX IP endpoint devices via Multicast address, port destination, and Codec selection.

- To configure the IPX IP endpoint Mic to multicast broadcast mode, click on the "Mode" field in the Line-In Routing field located on the hardware tab within the IPX WebUI and select the "Mic To Multicast Transmit Mode" from the dropdown line-in routing menu.

- Once the "Mic To Multicast Transmit Mode" is selected, additional fields will appear for entering description, IP address (multicast address), port, and selecting codec, and adjusting volume levels of the audio broadcast stream.

- Any number of IPX IP endpoints can listen to this multicast destination address via a static multicast audio stream reception configuration.

All IPX endpoints include a registration dropped visual and audio prompt feature

Registration dropped visual notification

- Once an IPX IP endpoint with a display has lost registration with the host software platform, it will automatically attempt to re-register while scrolling "Searching for Registration" on its display and reboot every 20 minutes until it re-registers. This feature is enabled by default.

Registration dropped audio announcement

- Once an IPX IP endpoint has lost registration with the host software platform, it will automatically attempt to re-register while announcing "Searching for Registration" reboot every 20 minutes until it re-registers. This feature is enabled by default.

For additional support AtlasIED Tech Support can be reached at 1-800-876-3333 or www.atlasied.com/support.