Solving problems with Gagl connections to Comrex codecs

Setting up a Comrex codec to accept connections from Gagl requires that the codec, network, and Gagl settings are all configured properly. If pressing the "Connect Codec" button in Gagl does not provide a stable two-way audio connection to your Comrex codec, then you should follow the checklist below to help resolve that issue.

Gagl Codec Connection Checklist:

☐ Is the codec running current firmware?

☐ Is the codec set to Accept Incoming Connections via SIP?

☐ Is the codec set to Use STUN Server?

☐ Is the SIP IP Port (UDP 5060 by default) forwarded to codec?

☐ Is the SIP RTP Port (UDP 6014 by default) forwarded to codec?

☐ Is the SIP RTCP Port (one port higher than the RTP port, UDP 6015 by default) forwarded to codec?

☐ Is inbound and outbound traffic on all ports above allowed by firewall?

☐ Is Gagl Admin set up with codec's IP address and port?

What supporting services are needed for Gagl to connect to a codec?

☐ Codec must be able to resolve a public IP address from a domain via DNS

☐ Codec must be able to communicate with the STUN server

☐ Codec must be able to determine its public IP address via STUN process

Accessing the codec's SIP settings

The codec's SIP settings are accessible via its web interface. Enter the codec's IP address in a web browser, and enter a **Username** and the **Password** to log in. Once logged in, click on **System Settings**, or **Instance Settings** on the ACCESS MultiRack. You must move the toggle control on that page to the "Advanced" setting, then open **Alternate Modes** to get to the EBU3326/SIP settings.

Requesting network access from your IT staff

To allow the SIP connection from Gagl to reach your codec, first confirm what three port numbers your codec is actually using for SIP, then make sure to ask the IT folks to "forward" or "NAT" those three UDP ports to your codec, and make sure that the firewall will not block any traffic on those ports. Don't just ask IT to "open" those ports, since that may just get the firewall part without the critical forwarding/ NATting part. Note that Gagl may use various IP addresses and source ports to make that connection, so that must be allowed.

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Accessing your Gagl account's Admin Portal

To change which IP address and port will be used by Gagl to connect to your codec, you must first log into the **Gagl Admin Panel**. (https://gagl-admin.comrex.com/login)

Once you have logged in, click the **Set Up Codec** button, then enter a name to identify the codec in the top box, and the **public IP address** followed by a colon (:) and the codec's **SIP IP Port number**, **which is 5060 by default**. Check that information for typos, then click the **Save** button.

Testing a SIP connection

Failed SIP connections may show activity on the codec's **Connections** page, and the calling device or system may indicate it is "connected", **but to make sure that the SIP connection is working properly, you need to confirm that audio is being passed in both directions**. That connection must be maintained for **over one minute**, since failed connections will be dropped automatically after 30 or 60 seconds. If two-way audio stays working for at least a minute, that indicates a good SIP connection.

What to do when unable to use STUN, or when using separate public IP addresses for inbound and outbound data

If STUN cannot be used, or if the codec uses a different public IP address to accept incoming connections from the address used for its outbound traffic to the Internet, then the **SIP Public IP Override** setting must be used to set the public IP address that the codec will use to accept SIP connections.

Changing the SIP port from its default to reduce nuisance connections

Changing the default SIP IP Port to some port number other than the default (UDP 5060) will greatly reduce unwanted SIP connection attempts to the codec, but if that is done, **make sure that all codec, router, firewall, and Gagl settings properly specify the port number selected**.

Contacting Comrex for help

If you have followed the guidance provided above, but you are still having problems, **make sure to identify the codec that you are working with before contacting the Comrex Techies**. There is a label on the back or bottom of the codec that will show its serial number, but if you are not able to see that label, then you can provide the codec's **Node ID (MAC address)** instead. From the codec's web interface, click the **Menu** icon in the upper left corner, then click on **About This Product**. We can look up the codec's serial number from that Node ID, or vice versa if needed.

To contact the Comrex Techies, email techies@comrex.com or call +1 978-784-1776
(Monday - Friday, 9:00AM to 5:00PM Eastern)

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