Firewall/Router Self-Configuration Guide
for MegaPath Hosted Voice

This document outlines MegaPath's recommendations for settings that may need to be applied on your firewall or router, in order to ensure MegaPath phone traffic can pass between your network and MegaPath's. Please be advised that MegaPath is not responsible for configuration or support of equipment not supplied by MegaPath. We recommend that you consult your Network or IT consultant prior to configuring your router/firewall equipment.

Depending on the make and model of your equipment, some of the following settings may not apply. If you have multiple routers or firewalls, you may need to apply these settings on each device.

UDP Timeout Setting

This setting is known by multiple names, including:

- UDP timeout
- UDP session timeout
- UDP NAT timeout
- Session TTL

On most equipment, this setting defaults to between 60 and 300 seconds. Any setting 60 seconds or lower will result in reliability issues.

If your router/firewall has support for specifying rules for specific types of traffic, refer to the "Protocol Setting" section below. If it does not have that capability (many small-business routers/firewalls do not), refer to the "Global Setting" section below.

Protocol Setting

In your router/firewall configuration, build a rule as follows:
- **From**: LAN interface
- **To**: WAN interface
- **Protocol**: UDP
- **Destination port**: 5060 *or* 5089
- **UDP/session timeout**: 700 seconds

Apply this rule and restart your router/firewall to clear the network session list.

Global Setting

In your router/firewall configuration, locate the setting for UDP timeout. Set the value to 70 seconds. Save the setting and restart your router/firewall to clear the network session list.

Application Layer Gateway (ALG) Setting

Many routers and firewalls have an ALG feature that can interfere with MegaPath Voice traffic. It is known by several names, depending on the manufacturer:

- SIP ALG
- Voice ALG
- VoIP ALG
- SIP Helper
- SIP Transformations

The location of the setting varies between manufacturers and models. Sometimes it will be labeled as described above under a "Voice" or "VoIP" config section. It may also be under an "Advanced Firewall" section.

Some routers/firewalls have an entire configuration page dedicated to different Application Layer Gateway features. If yours has such a page, look for a "SIP" setting.

Check your router/firewall configuration for any setting matching this description and disable it if you are having one-way audio, phone registration issues, or other unusual behavior.

Command-Line Configuration

All of the above applies to routers and firewalls with graphical (usually web-based) configuration. If your router/firewall is configured through a command-line interface (such as telnet or SSH), you will need to consult the administrators' guide to locate the appropriate commands. Here are some tips for locating the settings:

- ALG setting may be located within "voice," "voip" or "sip" related configuration sections.

- UDP timeout location varies widely by manufacturer. You may need to consult your hardware vendor to locate this setting.

DNS Issues

Certain routers/firewalls have problematic DNS support. Specifically, they lack support for "SRV" type DNS records, which are rarely used outside of VoIP.

If your router/firewall cannot be configured to deliver DNS servers that support SRV, contact MegaPath Support. Depending on your service type, we can either switch to an "A record" or apply special configuration to resolve the issue.

The instructions below will allow you to test for SRV support from a PC.

Windows

1. Open the Command Prompt by either:
    1. Locating it in the Start menu
    2. Going to Start > Run and typing "cmd"

2. Enter this command and press enter:
    nslookup -type=all _sip._udp.ca01-access.megapathvoice.net

3. The results should look something like this:

    Non-authoritative answer:

    _sip._udp.ca01-access.megapathvoice.net SRV service location:
           priority   = 1
           weight   = 50
           port   = 5060
           svr hostname   = lsancagb-access01.megapathvoice.net

    _sip._udp.ca01-access.megapathvoice.net SRV service location:
           priority   = 2
           weight   = 50
           port   = 5060
           svr hostname   = asbnvacz-access01-fo.megapathvoice.net

    Note that there are two entries that say "SRV service location." If you do not see any lines that say this, or if you get an error such as "non-existent domain," the router does not support SRV.

Mac / Linux

1. Open the Terminal app (Mac) or shell (Linux).

2. Enter this command and press enter:
    host -t SRV _sip._udp.ca01-access.megapathvoice.net

3. The output should look something like this:

    _sip._udp.ca01-access.megapathvoice.net has SRV record 2 50 5060 asbnvacz-access01-fo.megapathvoice.net.

    _sip._udp.ca01-access.megapathvoice.net has SRV record 1 50 5060 lsancagb-access01.megapathvoice.net.

    Note there are two entries that say "has SRV record." If you do not see any lines that say this, or if you see "not found: 3(NXDOMAIN)," the router does not support SRV records.