Router/Gateway Requirements

The requirements below will not guarantee that the router will work properly, but they should get most routers working. Outdated and/or unstable router firmware and other network problems can cause unexpected phone issues that changing the settings below cannot resolve.

1. Disable SIP ALG.
    - **This is the most important and critical setting to change**.
    - This is also known as SIP Transformations
    - If you don't have an option, call Intermedia Technical Support to use our SIP ALG Detector Tools to verify if a device has SIP ALG enabled or not.
2. Ensure the router/firewall does not block the phones' NAT Binding/Keep-Alive packets.
    - Most routers do not block the phones' Keep-Alive packets by default, but many high-end firewalls, like Barracudas, do.
    - Some firewalls don't have an option to allow the packets, so an alternate solution is to set the phone's UDP session timeout to 300 seconds since the phones send a SIP packet re-registration request every 5 minutes.
3. Allow phones to connect outbound to Intermedia servers:
    - Most routers/firewalls allow this by default since the Intermedia phones & other devices initiate the outbound connection to our servers, which isn't a security risk.
    - However, some advanced firewalls/security appliances and highly restricted networks may require manually creating rules to do this. Please contact Intermedia to obtain the IPs that need to be whitelisted.
    - See the article Network Ports and Protocols for HPBX 2.0 Phones and Service and Configuration - Port information for Intermedia Unite for more details.
4. This step is recommended for all devices:
    - Disable DNS proxy/relay on all DHCP and DNS servers on your network
    - Set the DHCP DNS servers (DHCP option 6) to a set of efficient DNS server addresses such as:
        - Google's DNS:
            - 8.8.8.8
            - 8.8.4.4
        - Or OpenDNS:
            - 208.67.222.222
            - 208.67.220.220
    - The reason the DNS servers above need to be used is that many ISP or LAN DNS servers take too long to relay DNS lookup requests, which can cause some phones to intermittently lose registration.
    - If you need to use your own private DNS server addresses, then you will need to set Stub DNS Forward Zones on your own private DNS server, like a Windows Server, that forwards all requests for Intermedia directly to our DNS server (contact Intermedia to obtain the IPs if you need

them).

5. The phones and other Intermedia devices must be behind a NAT-enabled firewall and must get their private IP addresses via DHCP.
    - The phones and other VoIP devices cannot be configured with static private IP addresses or public IP addresses.
6. Strongly Recommended:
    - Set up Bandwidth Management/Rate Control/Traffic Shaping to reserve the exact amount of bandwidth your phones need at all times.
    - For more information, see the article VoIP Bandwidth Requirements.

Note: IPv6 is not supported in Intermedia Unite systems.