Routers with Known Issues

Scope: This is not a definitive list, but is representative of known problems and resolutions available, if any.

Routers That Should Not Be Used

Mesh Routers - Mesh routers are great for lots of things, but VOIP is absolutely not one of them, at least not without heavy modification. Instead of a mesh system, please do the responsible thing and purchase a traditional router (wired or WiFi) with wireless access points (not extenders!!!).

Comcast home version with wireless - have them change to Comcast business version. The home version with wireless gets used by Comcast to also support their open Wi-Fi network (Hotspot) and this can lead to overutilization and voice quality issues. It is reported that it can be disabled, instructions are here http://bgr.com/2014/06/11/how-to-disable-comcast-xfinity-wi-fi-hotspot/. If this does not work then a call to Comcast customer service is needed.

Motorola SBG-650 - (used by Time Warner). The problem with this one is that under high load, it starts buffering (or even freezing) packet output and it doesn't seem to be a way to set QOS to still allow RTP so it will end up with voice quality issues.

Dlink DIR-655 – SIP ALG is enabled by default as well as the router will stop passing the audio packets after 10 seconds of connection reporting that the port is not available.

Ubee modem/router (used by Time Warner). This modem has been reported as causing loss of audio. As reported to us by a Time Warner engineer, there is a cache that crashes and then stops RTP from passing.

Arris modem/gateway - This device running DOCSIS 2.0 has limited bandwidth support. If more than 4 simultaneous calls are connected, it will discard packets causing audio issues. DOCSIS version 3.0 has greater bandwidth support and looks to be able to support up to 16 calls.

Verizon FiOS G1100 - SIP ALG is enabled by default and Verizon/Frontier has not provided a method for the end-user to disable SIP ALG. Needs to be configured to a set of efficient DNS servers in order to prevent issues with registration on Polycom phones. Request for replacement router to be sent. Currently, Actiontec MI424 is the only option.

Verizon FiOS G3100 - SIP ALG is enabled by default and Verizon/Frontier has not provided a method for the end-user to disable SIP ALG. Needs to be configured to a set of efficient DNS servers in order to prevent issues with registration on Polycom phones. There is no suitable replacement provided by Verizon. Alternative solutions include installing a third-party router or configuring the phone using TCP as the transport type for the Outbound Proxy.

Routers With SIP ALG On By Default

Motorola - SBG6580 - (SurfBoard Extreme Wireless Cable Modem Gateway) No Registration possible

behind NAT as the device changes Call-ID and causes the responses to be discarded by SIP clients/ATAs
No Solution at this time (SIP ALG, called SIP Pass-Through, can not be disabled). Must disable NAT and
put the device in bridge mode (check Motorola website for guide).

SpeedTouch - ST560 v6 - (firmware >= 5.4.0.13 comes with SIP ALG enabled by default.) NAT type:
symmetrical Issues: No incoming calls. It replaces the private IP appearing in SIP headers with the public
IP using a dumb text replacement. If for example, the private IP appears in the "Call-ID" it replaces it, too
(that is completely unnecessary).
To disable SIP ALG:
~# telnet router
→ connection unbind application=SIP port=5060
→ saveall

Zyxel - 660 family - comes with SIP ALG enabled by default. NAT type: symmetrical Issues: No incoming
calls. SIP protocol is broken making 50% of outgoing calls impossible because the wrong values are
inserted into SIP headers. To disable SIP ALG:
~# telnet router
Menu option "24. System Maintenance."
Menu option "8. Command Interpreter Mode."
ip nat service sip active 0

Netgear - WGR614v9 Wireless-G Router, DGN2000 Wireless-N ADSL2+ Modem Router
Firmware V1.0.18_8.0.9NA To disable SIP ALG: From Wan Setup Menu, NAT Filtering, uncheck the box
next to "Disable SIP ALG"

SMC - ToDo- NAT type: No symmetrical Issues: The ALG doesn't replace the private address in "Call-ID"
header (that is correct) but it does replace the "call-id" value in "Refer-To" header so SIP transfer is
broken. To disable SIP ALG: No idea of how to disable it.

Linksys - WRV200, WRT610N - NAT type: Symmetrical Issues: The ALG replaces the private address in
"Call-ID" header (not needed at all). Some phones (as Linksys with the latest firmware) encode the "Call-
ID" value in the "Refer-To" header (by escaping the dots) so the private IP appearing there is not
replaced with the public IP. This causes that the call transfer fails since the proxy/PBX/endpoint will not
recognize the dialog info. To disable SIP ALG on WRV200; no ALG related options found via web and
telnet. No idea of how to disable it. To disable SIP ALG on WRT610N: Web Interface: Administration,
Management, underside heading 'Advanced Features' SIP ALG, can be disabled.

Fortinet - All models come with SIP Helper enabled by default To disable SIP helper (v6.2 and up):
config system settings
set default-voip-alg-mode kernel-helper based
end
config system session-helper
delete 13
end
NOTE: The section below clears any currently active sessions, if you're applying the new settings live it
prevents needing to reboot
di sys session filter dport 5060
di sys session clear

di sys session filter clear
di sys session filter sport 5060
di sys session clear

To disable SIP helper (lower than v6.2):
~# telnet firewall
config system settings
set sip-helper disable
set sip-nat-trace disable
end
config system session-helper
show ←— use this to find out which entry is configured for typically 12 or 13
delete 12
end

For SIP Trunks
If using Virtual IPs under objects make sure to turn OFF NAT within each IPv4 rule for VoIP. If not using Virtual IPs under objects make sure to turn ON NAT under each IPv4 rule for VoIP.
The preferred solution is to configure the SIP ALG. Policies that use the SIP ALG will not use SIP helper.
Full documentation at http://docs.fortinet.com then pick FortiOS for the version on your device, then VoIP solutions: SIP.

Cisco - 800 series - To disable the NAT services for SIP in IOS, just run these commands: no ip nat service sip tcp port 5060 no ip nat service sip udp port 5060

Juniper/Netscreen - SSG Series - To disable SIP ALG: In the Web interface: Security → ALG

Asus RT-AC66U - with their most current firmware enables their SIP ALG by default. THERE IS NO GUI OPTION TO DISABLE IT. To disable the SIP ALG manually, you enable telnet to the device via the WWW interface Telnet to the device (from a command line enter "telent 192.168.1.1" or the appropriate IP address for the device.) Issue the following commands:
nvram get nf_sip
(It should return a "1")
nvram set nf_sip=0
nvram commit
Reboot
Then reboot the router for the changes to take effect.

Under firmware 3.0.0.4.374_257 SIP ALG is located in (via the web interface):
Log into the router's web interface.
Go to Advanced Settings / WAN on left side.
From the tabs across the top, choose NAT Pass through.
Change SIP pass through to "Disable." Hit apply.
For phones to pick up the change immediately, reboot each of them, otherwise they will pick up the new NAT table with changes during their next registration.

Comcast DPC3939B - has ALG pre-installed and cannot be turned off.

Comcast Netgear Gateway Model CG3000 DCR - will not allow customers to disable SIP ALG. The

only true way to work around this is to place the CG3000 into bridge mode and then place a router/firewall behind it. *(note - this change does not always work and we suspect is that it does not function in a true bridge mode.)

Arris TG862G and TG862G-CT - SIP ALG is enabled and no way to disable it. These are often used by Comcast as a Gateway. Bright house default password is "motorola"

AT&T Uverse Arris NVG589 - SIP ALG is enabled by default and cannot be disabled. By default it will not support hosted phones, AT&T may be able to open port 5060 for SIP traffic but it is reported to us it is not possible for user-level admin to do so.

ACTIONTEC model GT784WNV - (Used by Verizon). The manual states that ALG is assigned automatically and there is no mention of a way to disable.

Verizon FiOS G1100 & G3100 - This modem has SIP ALG enabled by default and Verizon has not provided a method to disable this feature. Verizon has also not released if it can be disabled by Verizon itself. The best recommendation at this time is not to use this modem. White page link https://hosting.intermedia.net/support/kb/default.asp?id=3343.

originally published by: https://voipdocs.io/en/articles/246-routers-with-known-issues

From:
https://wiki.ring-u.com/wiki/ - **support wiki**

Permanent link:
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