

# Troubleshooting phone registration errors

Applies to VoipNow 3 and higher!

This article describes the most common reasons for phone registration errors and suggests solutions to troubleshoot them.

## Check your firewall

Most registration problems are caused by firewall applications. To make sure your problem is not caused by the firewall, you need to open all VoIP ports on the phone firewall/router. If you want to create strict rules, then make sure that at least the UDP ports 5060-5070, 10000-20000, and 53 are not blocked.

## VoipNow settings

In the VoipNow web interface, go to **Cloud Management** and check if the server IP is properly set for **SIP** and **PBX** roles.

Then, if your phone registers to a hostname instead of an IP, make sure the hostname was added to the **Add accepted domain for SIP** field in the **Unified Communications Zero Priority SIP** tab.

For example, if you register to voip.myvoip.com, you must add voip.myvoip.com to the list. Make sure you do not add the phone IP or the hostname to a channel because this prevents the phone/channel from registering correctly.

## My phone registers, but after a while I cannot receive any calls

This problem most likely occurs if the phone is behind a NAT, thus losing its connectivity to the server. While default phone settings work correctly in environments without a NAT, phones behind a NAT must change the phone time-out period, i.e. the amount of time after which the phone tries again to register to the server.

Most phones have a **Registration expires/ Re-register timeout/Registration timeout** setting. The name may vary, but the function is always the same. Default values are 1 hour or 3,600 seconds. While this is alright for typical connections that are normally closed after 7,200 seconds, for connections behind NAT the value must be set to 60 seconds or 1 minute, or, in some cases, lower than 120 seconds. This is mandatory because most routers close the connection after 120 seconds. So, if a call comes from a public IP after the 120 seconds have passed, the router just drops it since it does not know what to do with the packets.

This may also be caused by router settings. So, it is probably best to try different settings. If nothing else works, consider using a STUN server (there are public STUN servers available on the Internet).

## Related articles

- [How to use the VoipNow built-in firewall](#)
- [How to use VoipNow 3 behind a firewall](#)
- [How to allow registration to a domain name instead of a server IP](#)
- [How to configure the time for a Phone Terminal through provisioning](#)
- [How to use the Password Protection feature](#)