

Orca Communications SIP Trunking



What is a SIP trunk?

A SIP Trunk allow you to route concurrent calls over the Internet to an IP capable PBX system. OrcaCom uses the SIP protocol to deliver calls to your PBX platform. If you do not have a PBX or VoIP Gateway - or your existing PBX/gateway is not SIP capable then the OrcaCom SIP trunking service is not for you and you should never enable this feature on your account. SIP trunking can be seen as a low cost replacement for traditional PRI or analog circuits - using the Internet to make/receive calls instead. This means cost savings for you the customer since you do not need to order expensive circuits from your telecommunications provider and can use your existing broadband connection to terminate/place calls instead.

What do I need to setup SIP trunking?

SIP trunking is not for everyone and is primarily used by businesses. To setup SIP trunking you will need the following:

- A static Internet (IP) Address. Dynamic DNS hostnames are not allowed. You must specify an IP address for OrcaCom to act as your endpoint for inbound calls.
- No firewall rules or NAT blocking traffic between OrcaCom's servers and your IP-PBX. You may setup firewall rules to limit traffic to OrcaCom's servers or setup port forwarding if required for security reasons. See below for more details.
- You need a SIP (v2) compatible PBX platform or gateway. OrcaCom does not support H.323 or other VoIP protocols. A popular example of an IP-PBX platform is Asterisk/Trixbox, although there are a multitude of other hardware versions such as the Epygi gateways for example.

If you are unsure whether your IP-PBX is compatible with OrcaCom then contact support@OrcaCom.co.nz for more information.

Do I have to use SIP trunking if I have an IP-PBX?

This depends. Many IP-PBX platforms can register (login) with OrcaCom as a normal phone would. In fact this is what many Asterisk users do using the 'register' directive in their SIP configuration. If you do not have a static IP address or your IP-PBX is behind NAT then you cannot use SIP Trunking and you will need to register your devices with OrcaCom and use the 'Inbound trunking' feature on each line instead to achieve a similar goal.

What are the benefits of using SIP trunking?

Many IP-PBX's cannot be configured to register/login to OrcaCom as a client, so for these types of devices SIP trunking is the only way you can interconnect with OrcaCom. SIP trunking has many other benefits over a dynamic registration including:

- Your device does not need to be logged in or registered, so calls will **always** be routed to your IP-PBX. This means that if your internet connection was reset or went down temporarily you would start receiving calls immediately once your internet connection comes back up (instead of having to wait for a re-registration or login)
- You can route all your numbers easily to your IP-PBX with no further configuration required. If you add more numbers to your account then they will automatically be routed down your trunk.
- You save bandwidth since there is no need for SIP registrations or 'polling' traffic usually sent to devices that are behind NAT.
- SIP trunks have the concept of a 'pilot' number. You can present any caller ID number down your trunk and if it is not recognised as being on your account then the caller ID will be set to the trunk number. This makes configuration simpler and avoids outbound calls ever being rejected.

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How do I setup SIP trunking on my OrcaCom account?

Firstly ensure that your IP-PBX is configured correctly and ready to receive calls from OrcaCom. Then decide which OrcaCom number you wish to act as you 'pilot' number (primary number) on your trunk and send a request to support@orcacom.co.nz requesting a SIP trunk account specifying the static IP address of your IP-PBX in the 'Primary Host IP Address' text box if you have a second IP-PBX to act as a 'failover' host then also provide this.

Can I login to OrcaCom with a phone while I have SIP trunking enabled?

No, you cannot have SIP trunking enabled on the account at the same time as logging in/registering from another phone/device. When you enable SIP trunking on your account you instruct OrcaCom to always send calls to your IP-PBX system and nowhere else. If you try to login/register to OrcaCom on one of your numbers while SIP trunking is enabled then your login/registration will fail. If you want to use SIP trunking and a standard VoIP phone with OrcaCom then you will need to setup 2 separate accounts to do this.

How do I configure my IP-PBX to connect to OrcaCom?

This of course depends on what type of IP-PBX you are using. The main setting you need to configure is the 'host' or 'proxy' address of your outbound trunk. You should set this to:

trunk.orcacom.co.nz

NOTE: This is different to the default host name you use to connect to OrcaCom (which is sip.orcacom.co.nz). The rest of your settings will likely be specific to your PBX platform. If you must enter an IP address as your host then perform a lookup of the above host name to find out it's IP address (In windows you can open a command windows (Start -> Run -> 'cmd') and type 'nslookup trunk.orcacom.co.nz'. The IP address may differ depending on your geographical location etc.

One of the most common IP-PBX platforms in use today is Asterisk (or one of it's variants such as trixbox). Below is an example 'SIP peer' definition for Asterisk allowing you to route calls to OrcaCom via your SIP trunk:

```
[OrcaCom]
type=friend
context=default
host=trunk.orcacom.co.nz
dtmfmode=rfc2833
insecure=very
nat=never
qualify=no
canreinvite=no
disallow=all
allow=gsm
allow=alaw
```

This is only an example. You will need to decide which codecs and context you wish to use in your own setup. You may then route calls out through your OrcaCom trunk by adding a directive such as the one below into your extensions configuration:

```
exten => _X.,1,Dial(SIP/OrcaCom/${EXTEN},,T)
```