



## Ports IPs and our Network

Mike Johnstone - 2024-05-17 - PBX, Peering, Ports and IPs

### Settings

|                   |                                     |
|-------------------|-------------------------------------|
| Proxy             | call.sipcity.com.au                 |
| TCP/TLS Proxy     | call.sipcity.com.au port 5061       |
| SIP Peering       | 103.55.116.65 (or 103.55.116.0/24)  |
| SIP Registration  | 103.55.116.65 (call.sipcity.com.au) |
| SIP Port - UDP    | 5060                                |
| SIP Port - TLS    | 5061 (ensure transport = TLS)       |
| Firewall IP Range | 103.55.116.0/24AS                   |
| Number            | 63971                               |

### Other Ports

|               |  |
|---------------|--|
| RTP and UDPTL | Set by your router (our port range is 30,000 – 40,000) |
| t.38 (faxing) | 4000-6000  |
| Fax           | fax.sipcity.com.au                                     |
| Primary NTP   | au.pool.ntp.org  |

### Overview of our physical setup

Our Australia DC is located in the Equinix SY4 internet exchange in Sydney with failover to our US data centre in Los Angeles. All services are deployed against Proxmox VE containers with data held against a distributed CEPH storage cluster. All core systems including phone, video, fax, and messaging therefore deployed across HA containers, apart from the database which is an InnoDB cluster mounted on LXC containers with their own separate SSD storage.

## **IP Transit**

For customers connecting over the public internet, we advertise our assigned IP via BG using Vocus and TPG internet transit.

## **Megaport**

We use the Megaport IX to connect with Australian ISP's whom we are unable to directly peer with namely Optus and Telstra.

## **What's the difference between UDP & TCP?**

UDP and TCP SIP are both used to send data over the Internet or a local network with UDP being older but more common protocol and TCP with its guarantees of transmission the more modern & preferred protocol for companies like Microsoft. While UDP is the more efficient transport for service providers and customers alike — we still prefer TCP because packet transmission and order is guaranteed and with modern internet speeds and CPU processing power the costs of TCP in our view are academic.

We support both UDP and TCP.

## **Real-Time Protocol (RTP)**

RTP is the protocol used to deliver audio and video over IP networks. RTP uses the UDP protocol because its efficient in low-quality networks such as phones communicating over the public internet. (NB – while your router sets the specific RTP port, we will accept communication between the 30-40k range).

## **TLS Support**

While most VoIP service providers recommend disabling SIP ALG on customers' routers, we recommend setting TLS over port 5061 as the alternate and more resilient mechanism to prevent unauthorised firewall intrusion.