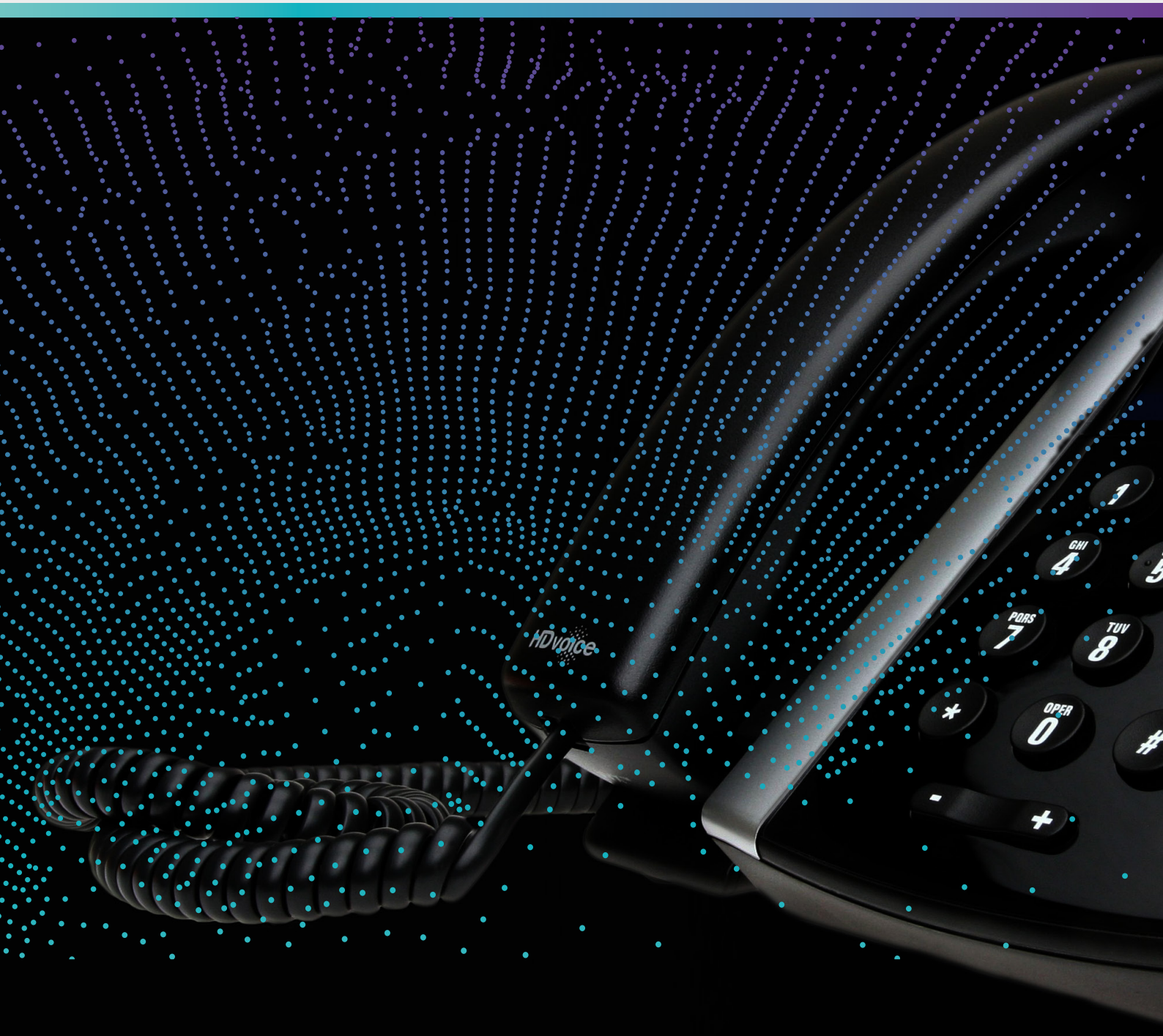
VOICE
MOBILE
DATA
IT

Focus Cloud Network Configuration Guidelines

V1.1



The Complete Business Solution

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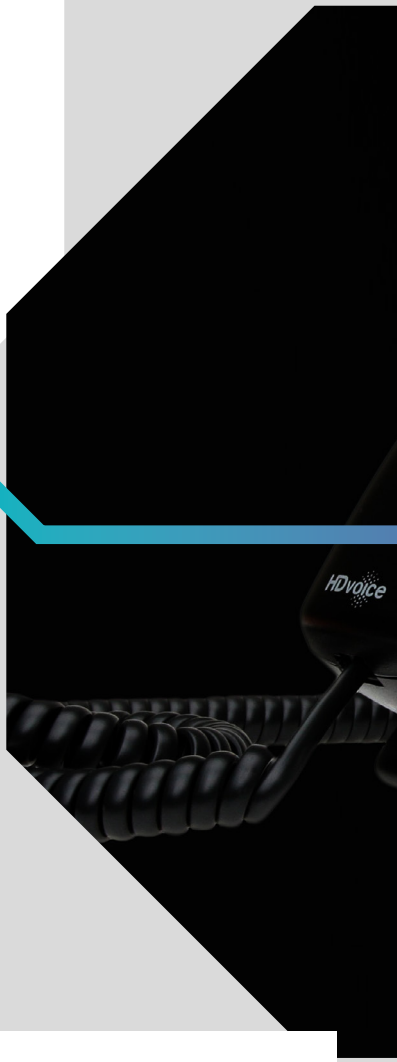

Version	Date	Author	Reason
1.0	10/06/2020	Matt Wynne	Initial document creation
1.1	27/01/2021	Matt Wynne	Updated Firewall port information

1.0 Introduction

While Focus Group always prefer to install our own dedicated on-net bandwidth and LAN for our VOIP products we recognise that some customers have existing data services they make like to use.

The purpose of this document is to define the network requirements for Focus Cloud to be used over a public internet connection.

If a customer wishes to utilise another data provider or ISP, they need to ensure that the access can meet the following requirements and functionality. Failure to meet the access requirements below will result in quality and setup/support issues.

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2.0 Public Access via Internet

2.1 Access Control

Customers must ensure that the following IP addresses and ports (both directions) are available and not blocked by firewalls. If these ports are not opened (i.e. a customer or network-based firewall is blocking them), or IP addresses allowed, Focus Cloud will not function correctly

Focus recommends that only trusted IPs are allowed to send and receive traffic via port 5060 and 5588.

Domain Name	Ports	Function
185.110.180.0/24	UDP: 5588	IPKTS Handset Registration/Signalling and Provisioning
185.110.180.0/24	UDP: 30000 TO 65525	IPKTS/LIP Handset Media & IPECs ONE Media
185.110.180.0/24	UDP/TCP: 5060 UDP: 16384 to 17384	UCE Softclient, XMPP SIP Media
185.110.180.0/24	TCP: 80, 443	Portal Access
185.110.180.0/24	TCP 8643	IPECs ONE collaboration service
185.110.180.0/24	UDP 10000	IPECs ONE collaboration Video

2.2 SIP ALG

Many of today's commercial routers implement SIP ALG (Application-level gateway), coming with this feature enabled by default. SIP ALG is intended to help solve NAT related problems when VOIP devices are sat behind a firewall. However many router and firewall manufacturers ALG implementations are incorrect and can cause several issues with SIP.

If enabled SIP ALG can cause several issues including one-way audio, dropped calls, problems transferring calls, handset dropping registration and making or receiving internal calls.

The iPECS LIP handsets use a protocol called IPKTS rather than SIP. The iPECS LIP handsets are less susceptible to issues caused by SIP ALG than traditional SIP handsets. However, if you are experiencing any of the SIP ALG issues previously detailed we still recommend disabling SIP ALG.

Please note that if you are using any 3rd party SIP devices or Skype for business integration with the Focus Cloud we recommend disabling SIP ALG.

Note: For instructions on disabling this feature please refer to the specific router user guide.

3.0 The LAN

3.1 Support for VLAN

The Ericsson-LG handsets support LLDP however this is switched off by default. To enable this feature you simply need to navigate to the option 9 in the Network Configuration section of the menu from the handset. To enable LLDP simply toggle LLDP-MED from OFF to ON.

If you wish to use this function on the customers LAN then you should enable LLDP function on the customer's network equipment and disable any alternative options. For example, if you are using LLDP make sure CDP (Cisco Discovery Protocol) is disabled on the customer's network equipment.

The iPECS handsets also have the ability to set VLAN tags from the device:

VLAN Priority (LAN)
VLAN ID (LAN)
VLAN Priority (PC)
VLAN ID (PC)

3.2 Quality of Service

We strongly recommend that QoS is enabled on both LAN and WAN side of your network; to give priority to the voice packets over data packets.

QOS settings are as follows:

iPECS LIP handsets: EF (DSCP 46)