Innovaphone Virtual Appliance

SIP Trunk configuration guide for Swisscom Enterprise SIP

Enterprise SIP – SIP Trunk configuration guide

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1 Introduction

This document provides a summary of required hardware, software, list of supported features, limitations and describes the configuration necessary on Innovaphone VA version 12r1 dvl IPVA [12.0594] to interoperate with Swisscom Enterprise SIP.

2 SIP Trunk Network Architecture

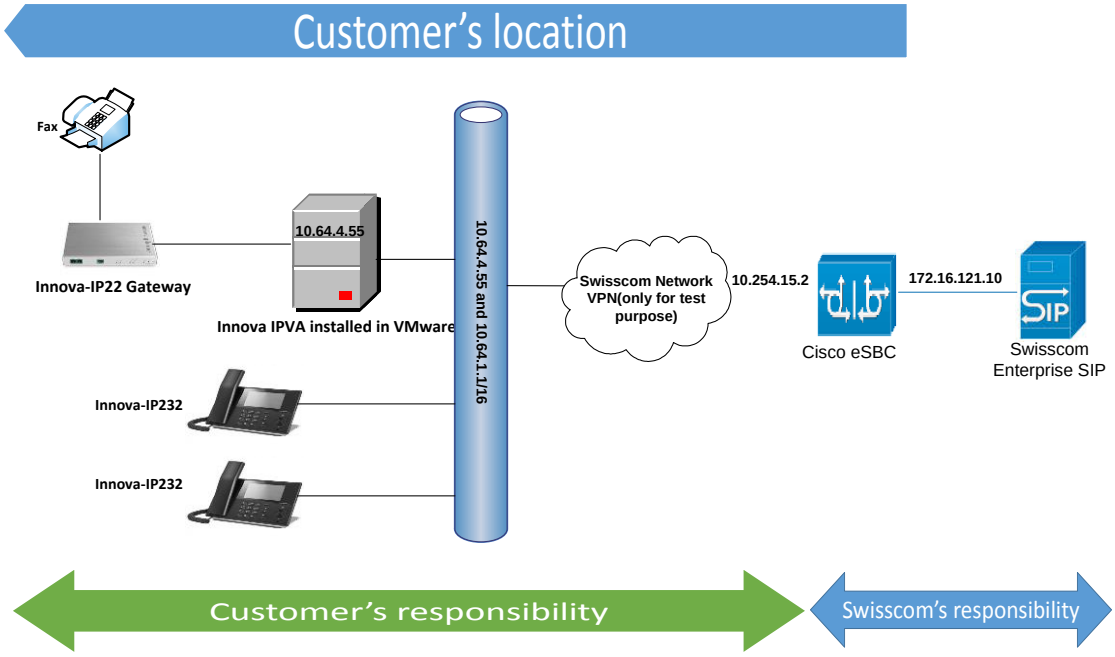


Figure 1

2.1 Hardware Components

The following hardware components ~~that~~ were used for homologation purpose:

- Cisco UCS-C240-M3S VMWare Host
- Innovaphone VA, IP232 phones
- Innovaphone IP22 Gateway

2.2 Software Requirements

The following software was used for homologation:

- Cisco UCS-C240-M3S VMware vSphere Image Profile: ESXi-5.5.0-1331820-standard
- Innovaphone VA version 12r1 dvl IPVA [12.0594], Boot code [1000]
- Innovaphone IP22 Gateway Version 11r2 dvl IP22[11.3236], Boot code [113236]

3 SIP Trunk Features

3.1 Features Supported

Below are the features that were tested:

- Basic inbound and outbound calls
- Long duration calls
- DTMF after call connect
- DTMF before call connect
- Calls to busy subscriber
- Calls to early media phone
- International calls
- Calls to short numbers
- Calls with special arrangement (spoofing calling party number with +41800XXXXXX/+4179XXXXXXX)
- CLIP—Calling Line Identification Presentation
- CLIR—Calling Line Identification Restriction
- Attended call transfer
- Blind call transfer
- CFU—Call Forwarding Unconditional
- CFB—Call Forwarding Busy
- CFNA—Call Forwarding No Answer
- Call hold and resume
- Conference call
- Inbound/outbound FAX with T.38
- Inbound/outbound FAX with G.711 Pass-through

3.2 Features Not Supported

- Geo Location support on emergency calls
- Modem Voice Band Data Mode (not tested)

4 Caveats and known Restrictions

These are the known limitations, caveats, or integration issues:

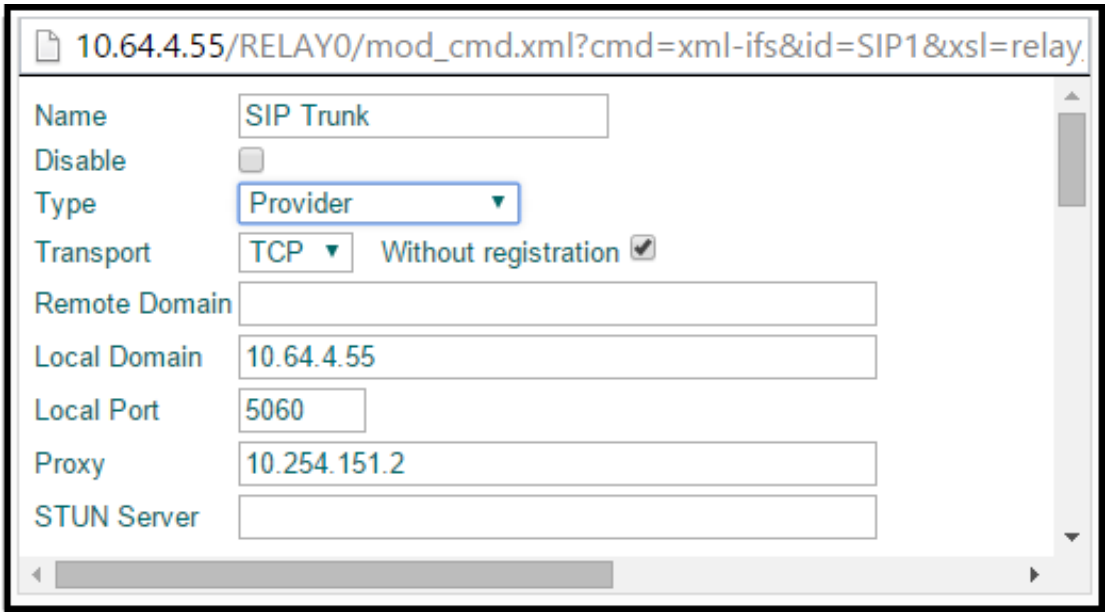
- PBX sends PPI header in the sip provisional response (180 ringing) (this issue will be fixed in a next version, so that PAI (instead of PPI) will be also used for 180 ringing).

5 IPVA Configuration

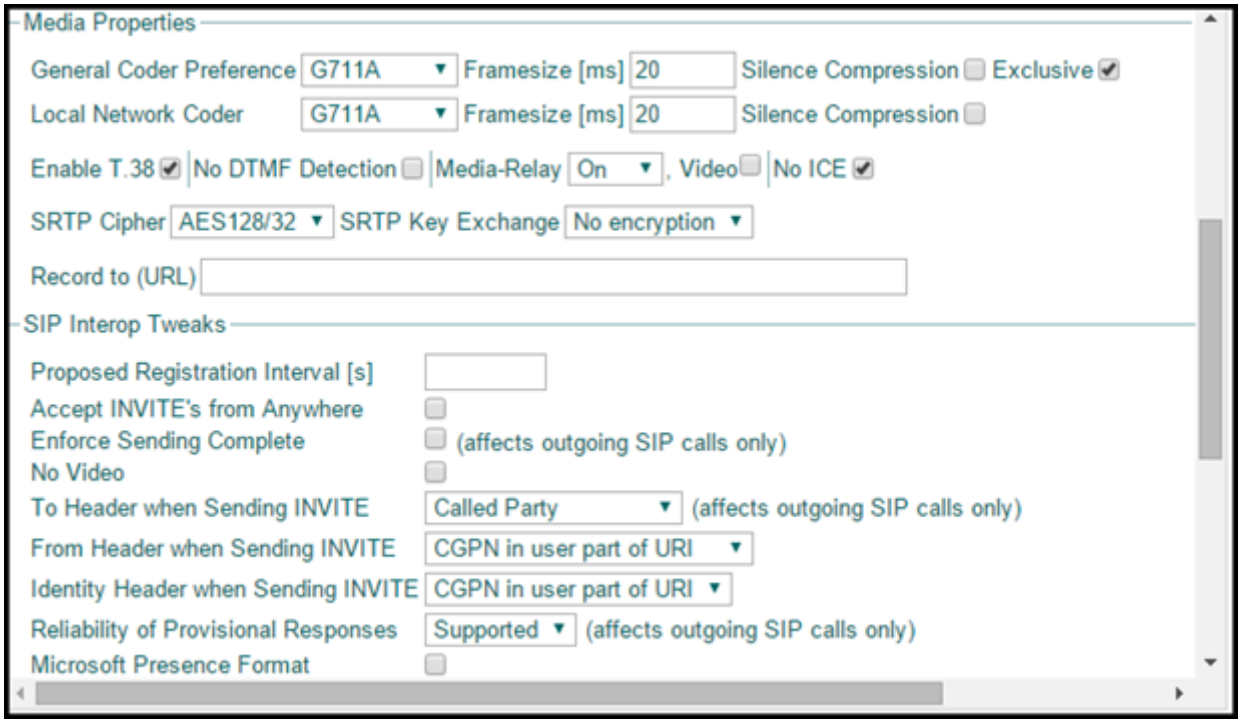
5.1 SIP Trunk Configuration

Below is the procedure to setup SIP Trunk on the PBX.

1. Login into the IPVA.
2. Navigate to **Gateway → SIP → Interface → SIP1**
3. Select **Type as Provider** in the drop down and **Transport Type as TCP**.



4. Local Domain – IP address/Domain name of the PBX, In this case: **10.64.4.55**
5. Local Port – PBX SIP listening Port, In this case: **5060**
6. Proxy IP - IP address of the Remote of the Trunk, In this case: **10.254.15.2**
7. Trunk does not require registration and therefore the option without registration is checked.

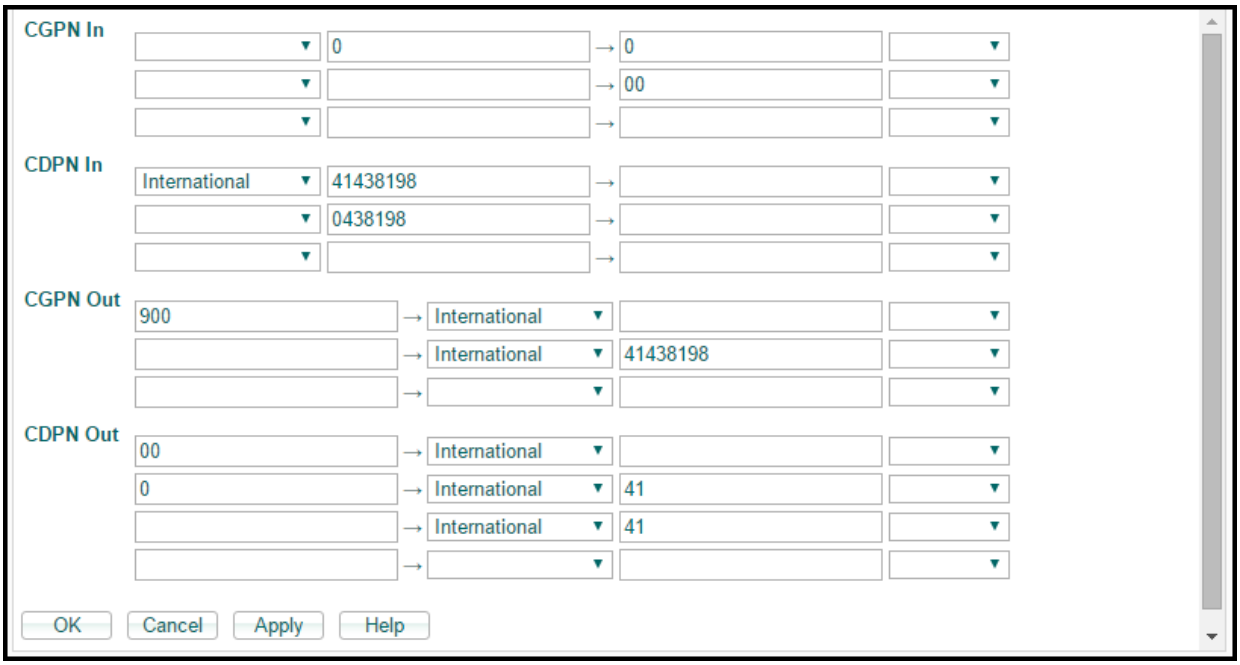


Media Properties

8. Under the Media Properties, select the General Coder Preference as **G711A.**
9. **Enable T.38** for Fax support.
10. Media-Relay: Select Media-relay **ON.**

Number Mapping

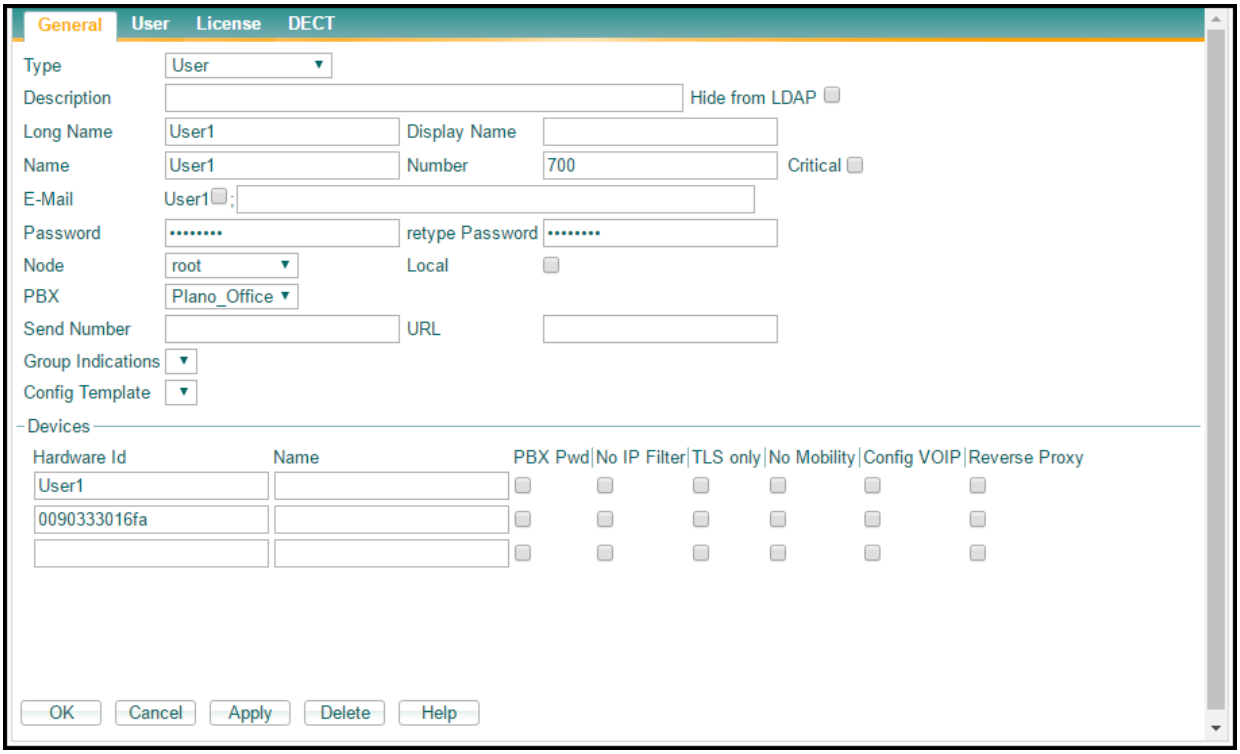
The Provider will send and receive all numbers (CGPN & CDPN) in international number format.



5.2 Configuring SIP Extension

Below is the configuration of a SIP extension on the PBX used for the test.

1. Login into IPVA → PBX → Objects
2. To create a new extension, Select **User** from the drop down menu.
3. Add a new user by clicking the **NEW** button
4. Select **the Name and Number**.
5. Provide the mac address and the user id (User1) of the phone as shown below and clock **Apply**.



5.3 Configuring FAX Extension

Below is the configuration of a SIP extension on the PBX used for the test.

1. Login into IPVA → PBX → Objects
2. To create a new extension, Select **User** from the drop down menu.
3. Add a new user by clicking the **NEW** button
4. Select **the Name and Number**.
5. Provide the mac address and the user id (User3) of the phone as shown below **Apply**.