

DMP 128 Plus C V

DMP 128 Plus C V AT

RingCentral Configuration Guide

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Revision Log

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1.0 Introduction

This document provides essential instructions for registering DMP 128 Plus C V (AT) VoIP lines as a RingCentral cloud-based SIP extension.

DMP 128 Plus C V / C V AT Firmware Version **1.01.0010** or higher is required.

2.0 Configuring RingCentral for DMP 128 Plus C V (AT) VoIP Registration

Prior to proceeding with this guide, contact RingCentral in order to add or purchase SIP extensions for use with the DMP 128 Plus C V (AT). The DMP behaves as a **3rd party SIP device**. The following credentials are required for each line that is to be used on the system –

- 1) SIP Domain and Port Number
- 2) Outbound Proxy and Port Number
- 3) User Name
- 4) Password
- 5) Authorization ID



3.0 Configuring DMP 128 Plus C V (AT) VoIP Lines

VoIP configuration of the DMP 128 Plus is handled exclusively through a web interface, served from the device itself. The VoIP landing page is accessed through an address of the format -

<http://192.168.254.254/www/voip.html>

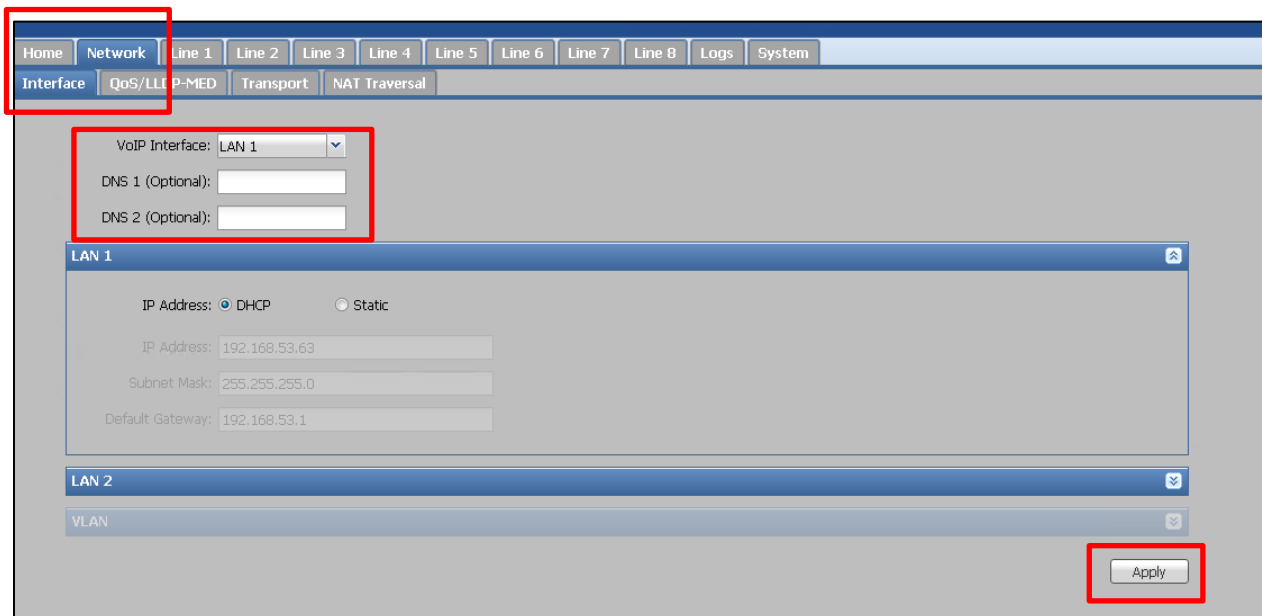
- where 192.168.254.254 in this example is the default IP address of the DMP 128 Plus device.

Up to 8 lines may be configured. Note that each line intended for use will require a unique Extension to be specified as part of the IP Office configuration process.

3.1 Network Interface Configuration

Click on the **Network** tab followed by **Interface** tab to set up the desired network interface on the DMP 128 Plus; either LAN1 or LAN2 may be used for VoIP. VLAN tagging is available on either interface if required. Up to two DNS entries may be manually specified.

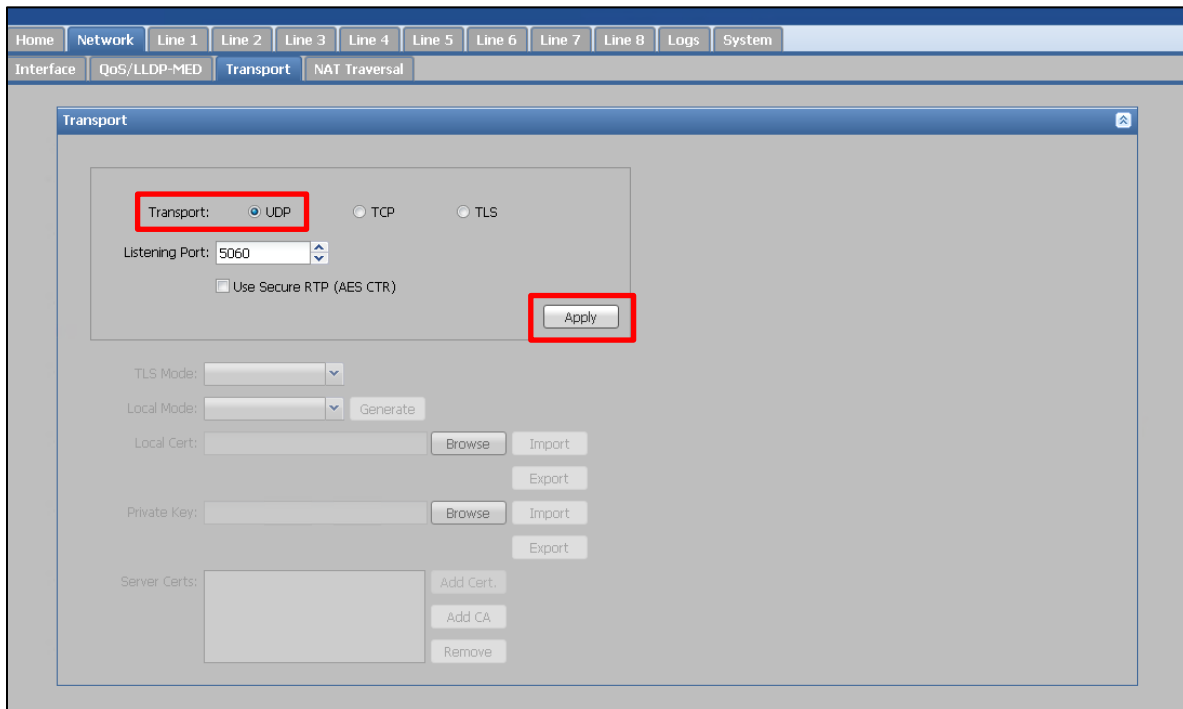
Click **Apply** after making any changes in order to restart the networking services on the device.



3.2 Transport Configuration

Click on the **Transport** tab to access signaling transport configuration. Check that the transport is set to UDP.

In the event that changes need to be made, click **Apply** to commit any adjustments to the device.

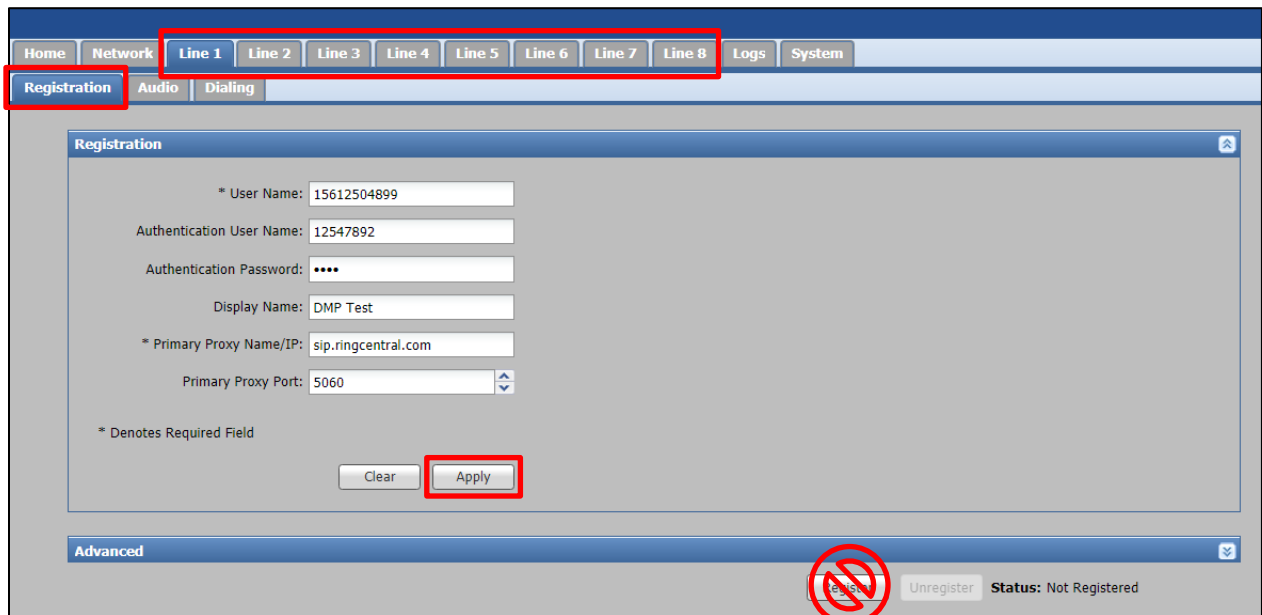


3.3 Line Registration

Click on the first line tab to be configured as part of the system, e.g. **Line 1**. Refer to the credentials provided by RingCentral (Section 2.0).

- 1) **User Name:** Set this to match the **User Name** from RingCentral.
- 2) **Authentication Name:** Set this to match the **Authorization ID**.
- 3) **Authentication Password:** Set to match the **Password**.
- 4) **Display Name:** Optional. Specify an identifier for the line if required.
- 5) **Primary Proxy Name/IP:** Enter the **SIP Domain**
- 6) **Primary Proxy Port:** Specify the **SIP Domain Port Number**.

Once the above settings have been entered, click the **Apply** button to save to the device.
Do not attempt to register the line at this stage.



3.4 Outbound Proxy

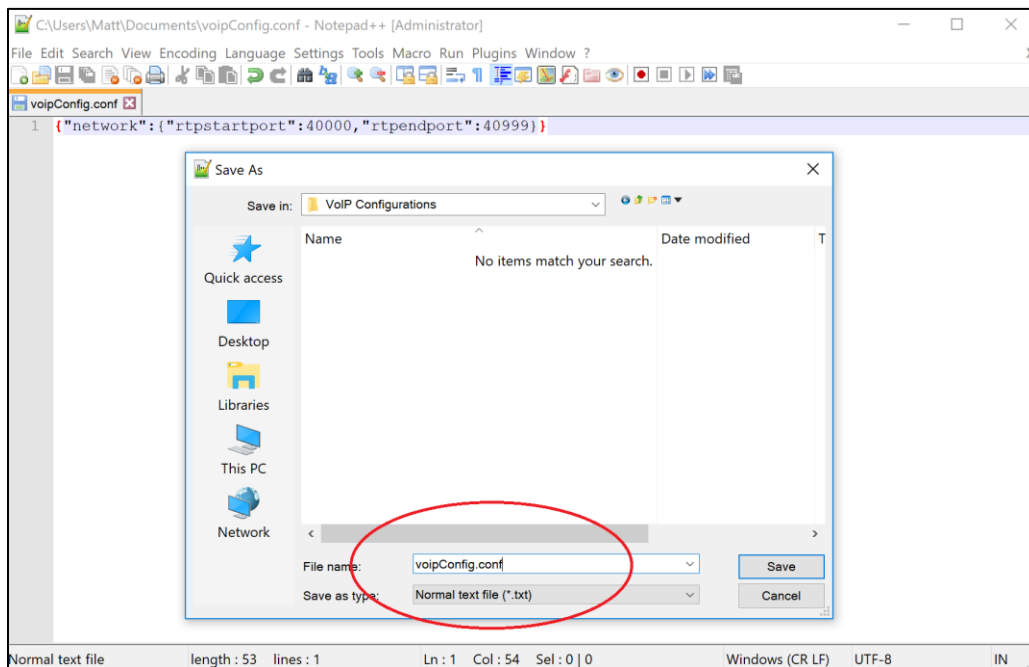
NOTE:

The following steps must be carried out in order to set the **Outbound Proxy** and **Port Number** required for RingCentral registration.

1. Create a new blank text file using a suitable basic text editor.
2. Enter the following text into the document, replacing the '1' in 'line1' with the required DMP line ID (1 – 8):

```
{"users": [{"id": "line1", "outbound_proxy": "sip10.ringcentral.com", "outbound_proxy_port": "5090"}]}
```

- Replace “sip10.ringcentral.com” with the **Outbound Proxy Address** provided by RingCentral (Section 2.0), if different.
 - Change “5090” to the **Outbound Proxy Port** provided by RingCentral (Section 2.0), if different.
3. Save the file as **voipConfig.conf**.



4. Navigate to the DMP VoIP configuration webpage and click on the **System** tab.
5. Under **Export System Configuration**, click the **Export** button to back up the current VoIP configuration to disk. The file will be saved in the default web browser download directory.
6. Under **Import System Configuration**, click the **Browse** button to locate the **voipConfig.conf** file created in steps 1 to 3.

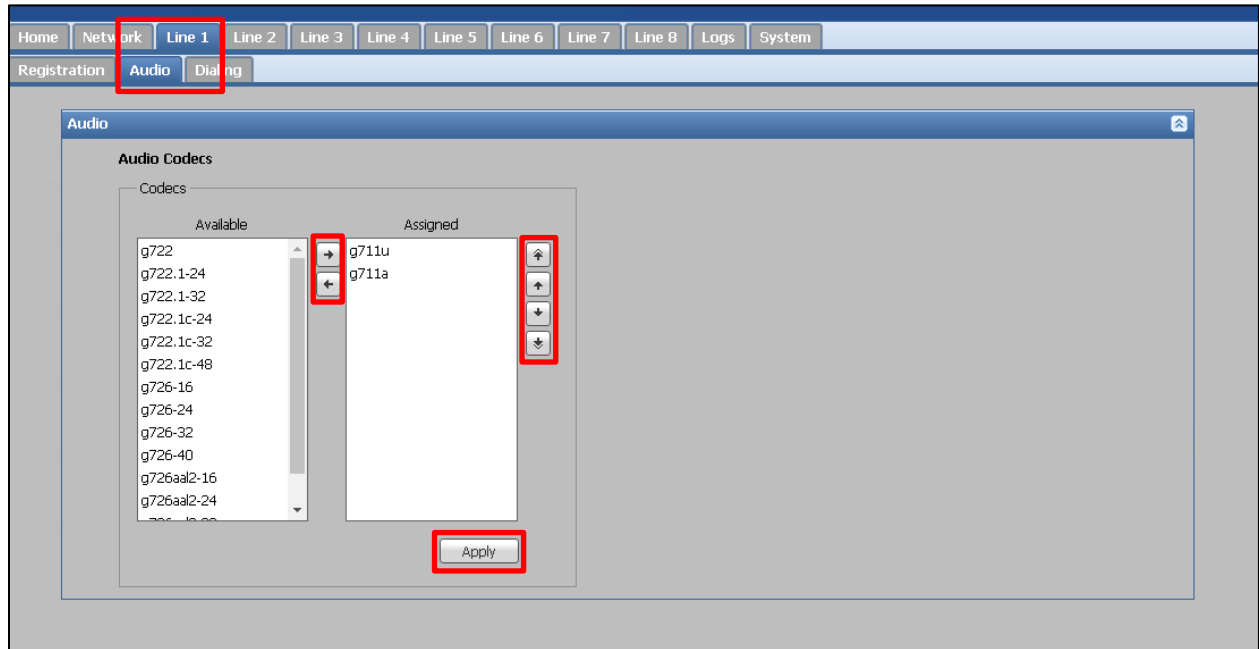


7. Click the **Import** button to update the DMP with the new outbound proxy settings. A notification will appear once the settings have applied successfully.
8. Return to the **Line - Registration** tab and click **Register** to complete the registration process.

3.5 Codecs

The availability and priority of codecs may be changed from within the **Audio** tab. Codecs will only be available for use within phone calls if they are moved from the **Available** to the **Assigned** column. By default, G.711u and G.711a are assigned to the system. Codec assignment and priority can be set per line.

Click the **Apply** button to commit any changes to the device.

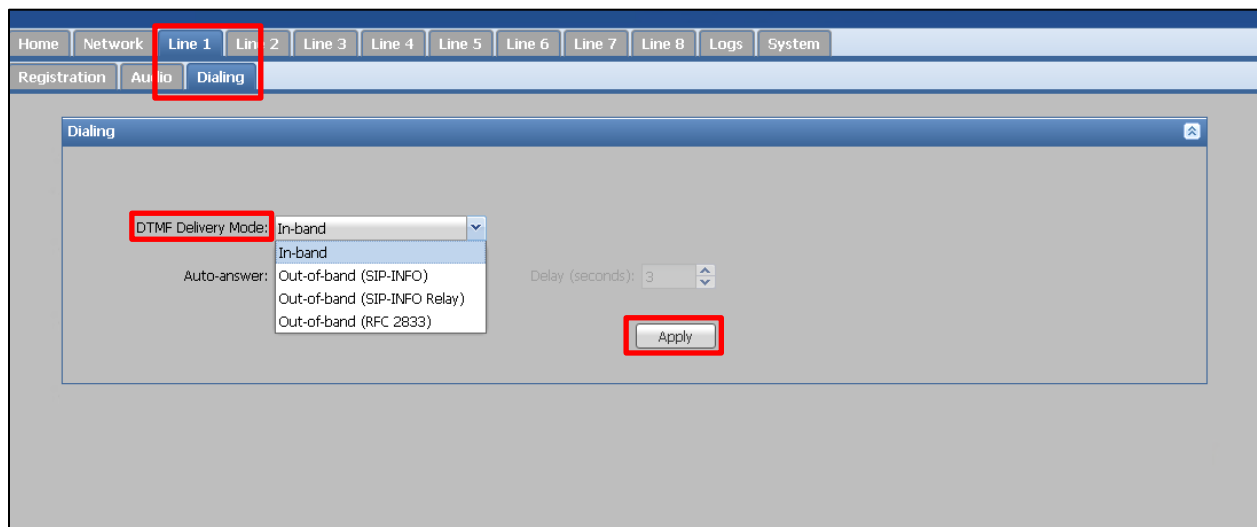


3.6 Dialing

Use the **Dialing** tab to select the desired DTMF signaling method. The default DMP 128 mode is In-Band. Other available options are as follows:

- Out of Band – SIP INFO
- Out of Band – SIP INFO (RELAY)
- Out of Band – RFC 2833

Click **Apply** after selecting the desired DTMF signaling method for the line. This can be set per line.



3.7 System Overview

Once all required lines have been registered to RingCentral, use the **Home** tab to view a summary of the system, as required. In the example below, one of two registered lines (line 3) is currently in an active call. Appearance-specific (caller-specific) details for active calls can be accessed by clicking on the corresponding Line entry.

The screenshot shows the RingCentral management interface. At the top, there is a navigation bar with tabs for Home, Network, Line 1 through Line 8, Logs, and System. The 'Home' tab is selected and highlighted with a red box. Below the navigation bar, the 'VoIP Status' section displays a table with the following data:

	Registration	Audio DSP	Call Status	Packets Rx	Packet Drop	Jitter Rx (ms)	Duration
Line 1	Not Configured	Configured	--	--	--	--	--
Line 2	Not Configured	Configured	--	--	--	--	--
Line 3	Registered - Primary	Configured		1169	0	55	00:00:24
Line 4	Registered - Primary	Configured		--	--	--	--
Line 5	Not Registered	Configured		--	--	--	--
Line 6	Not Registered	Configured		--	--	--	--
Line 7	Not Registered	Configured		--	--	--	--
Line 8	Not Registered	Configured		--	--	--	--

Below the VoIP Status table, the 'Details Line 3' section shows a table with the following data:

Appearance	Codec	Duration	Packets Rx	Packet Drop	Jitter Rx (ms)
1	g711u	00:00:24	1169	0	55

3.8 Troubleshooting

In the event of failure to register, review the following:

- Check that the credentials provided by RingCentral are correctly entered into the registration fields for each line.
- Check network interface settings, including DNS fields.
- Click on the **Logs** tab to inbound and outbound SIP transactions. The absence of inbound transactions indicates a network routing problem. Registration-specific problems may be indicated by corresponding SIP responses such as *403 – Forbidden*.

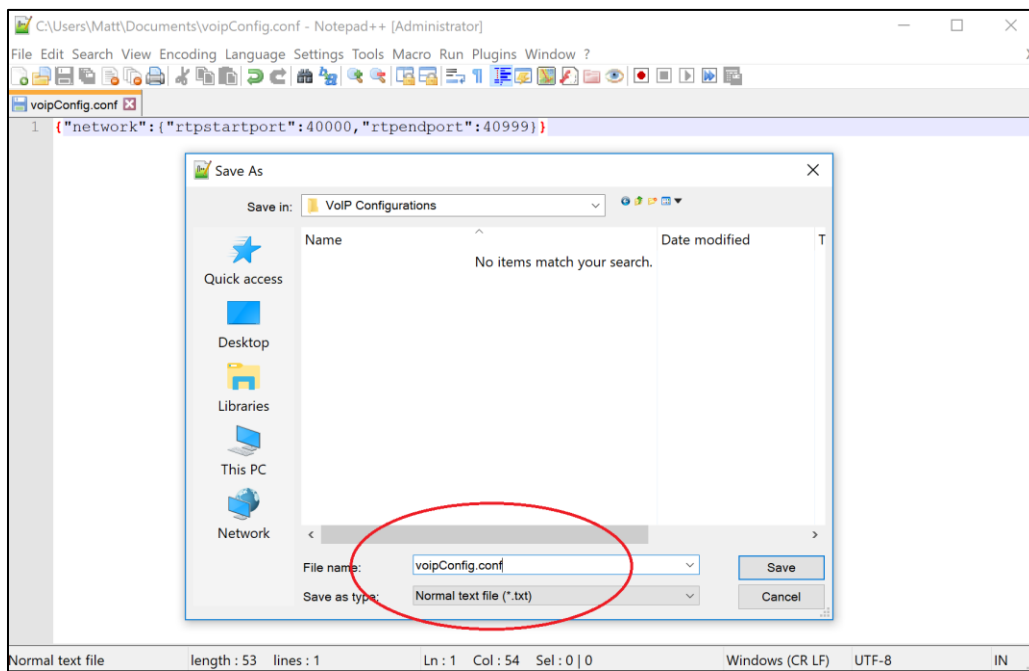
Appendix A: RTP Port Range

The default port range for VoIP RTP traffic on the DMP is **50000 – 50999**. To change this range, the following steps must be carried out.

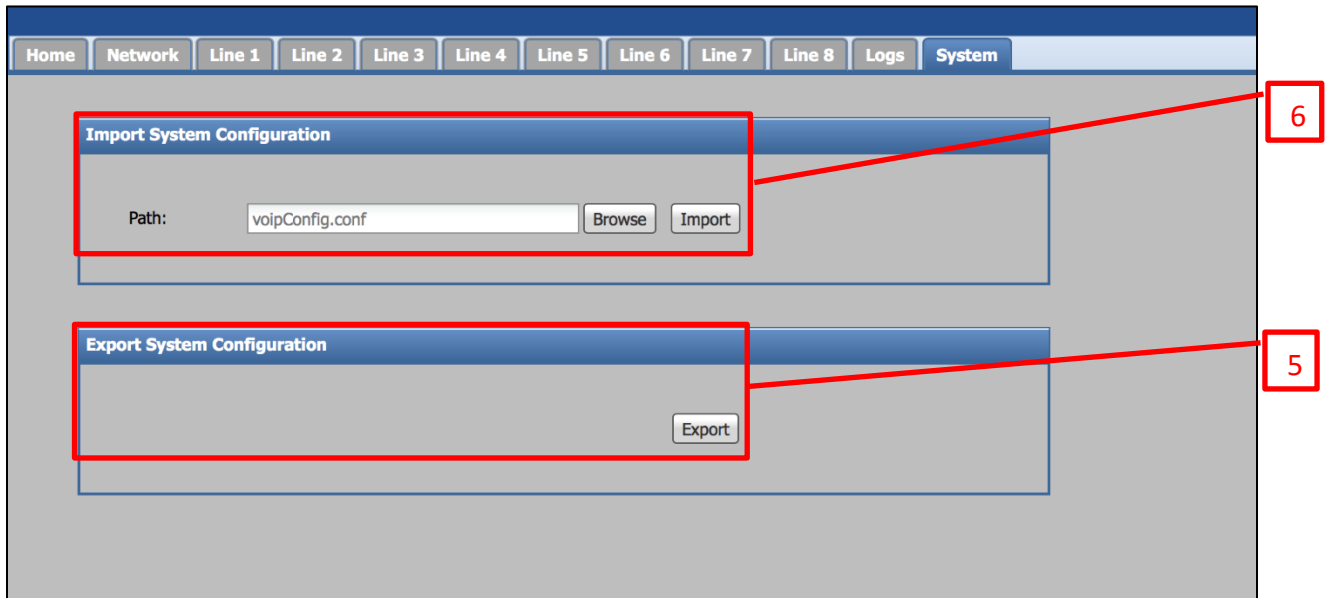
1. Create a new blank text file using a suitable basic text editor.
2. Enter the following text into the document (in this example, the port range is being changed to 40000-40999; replace these values with the desired range) -

```
{"network":{"rtpstartport":40000,"rtpendport":40999}}
```

3. Save the file as **voipConfig.conf**.



4. Navigate to the DMP VoIP configuration webpage and click on the **System** tab.
5. Under **Export System Configuration**, click the **Export** button to back up the current VoIP configuration to disk. The file will be saved in the default web browser download directory.
6. Under **Import System Configuration**, click the **Browse** button to locate the **voipConfig.conf** file created in steps 1 to 3.



7. Click the **Import** button to update the DMP with the new RTP Port Range settings. A notification will appear once the settings have applied successfully.