Extron DMP Plus Series 12×8 ProDSP Digital Matrix Processors User Guide

Contents

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Revision Log

Date	Version	Notes
June 26th 2018	1.0	First Release: Applies to Firmware **1.01.0010**
Feb 12, 2020	1.1.0	Updated DMP Plus Series
Sep. 1st 2020	1.2.0	Added VoIP Configuration file
Sep. 12 2022	1.2.2	Updated Appendix

Introduction

This document provides essential instructions for registering the VoIP lines of DMP Plus Series, C V and C V AT models, as a RingCentral cloud-based SIP extension.
DMP Plus Relates to the following products:

- DMP 128 Plus C V / C V AT
- DMP 128 FlexPlus C V AT
- DMP 64 Plus C V / C V AT

Note: Requires Firmware Version 1.08.0002 or higher

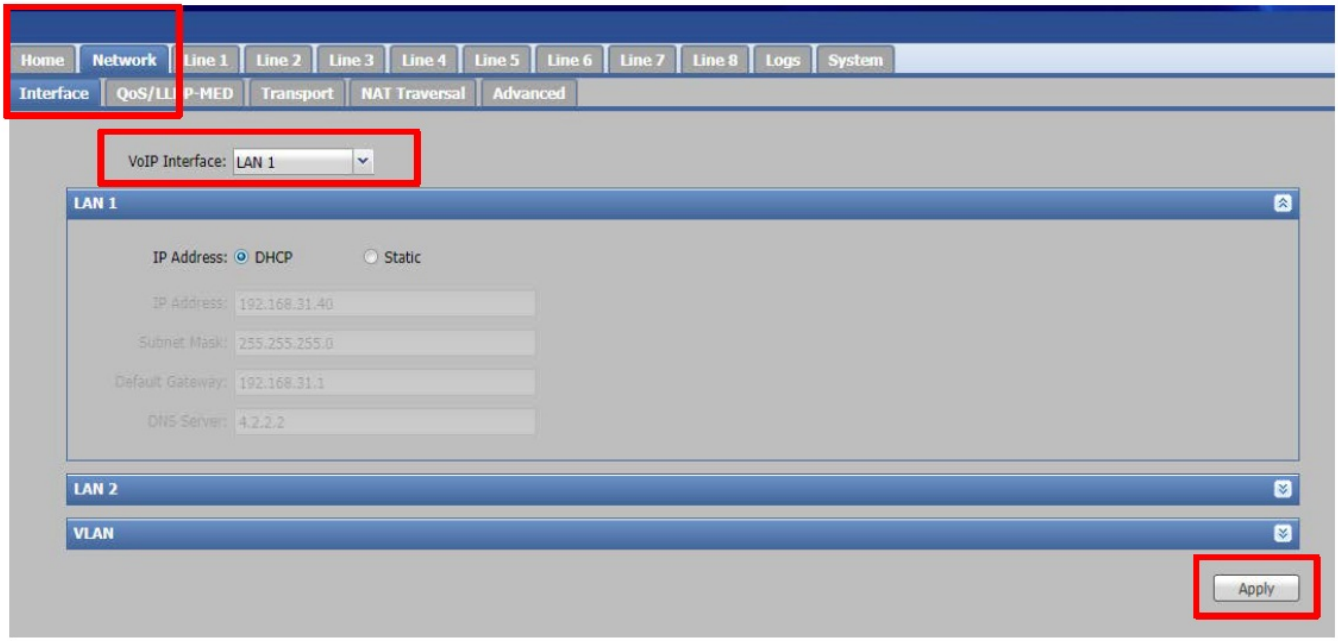
Configuring RingCentral for DMP Plus Series C V (AT) VoIP Registration
Prior to proceeding with this guide, contact RingCentral in order to add or purchase SIP extensions for use with the DMP Plus Series C V (AT). The DMP Plus Series behaves as a 3rd party SIP device. The following credentials are required 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

Configuring DMP Plus Series C V (AT) VoIP Lines

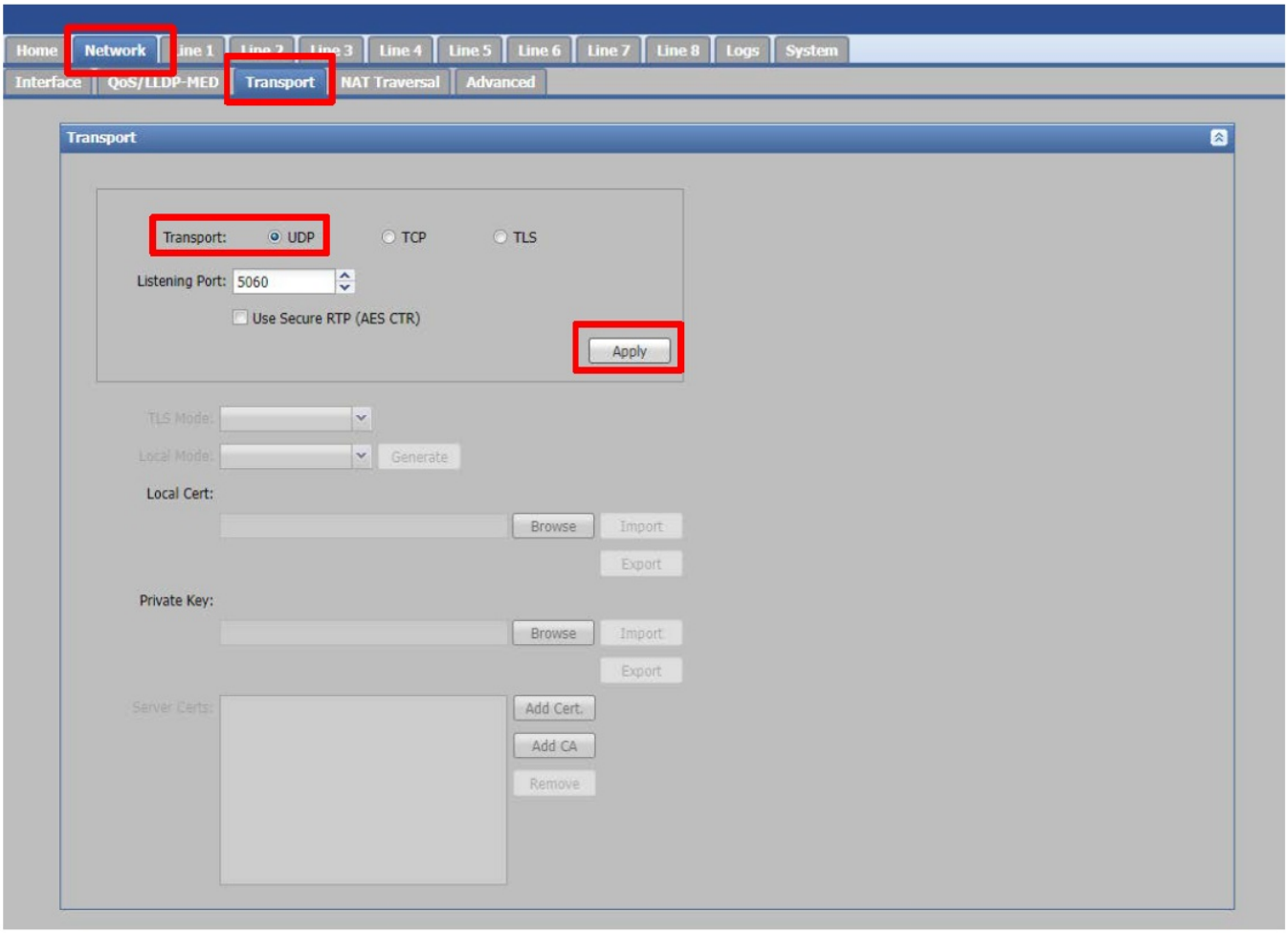
VoIP configuration of the DMP Plus Series is handled exclusively through a web interface, served from the device itself. The VoIP landing page is accessed through an address of the format –
http://192.168.254.254/www/voip.html
where 192.168.254.254 in this example is the default IP address of the DMP Plus Series 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.

Network Interface Configuration
Click on the Network tab followed by Interface tab to set up the desired network interface on the DMP Plus Series; 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.



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.



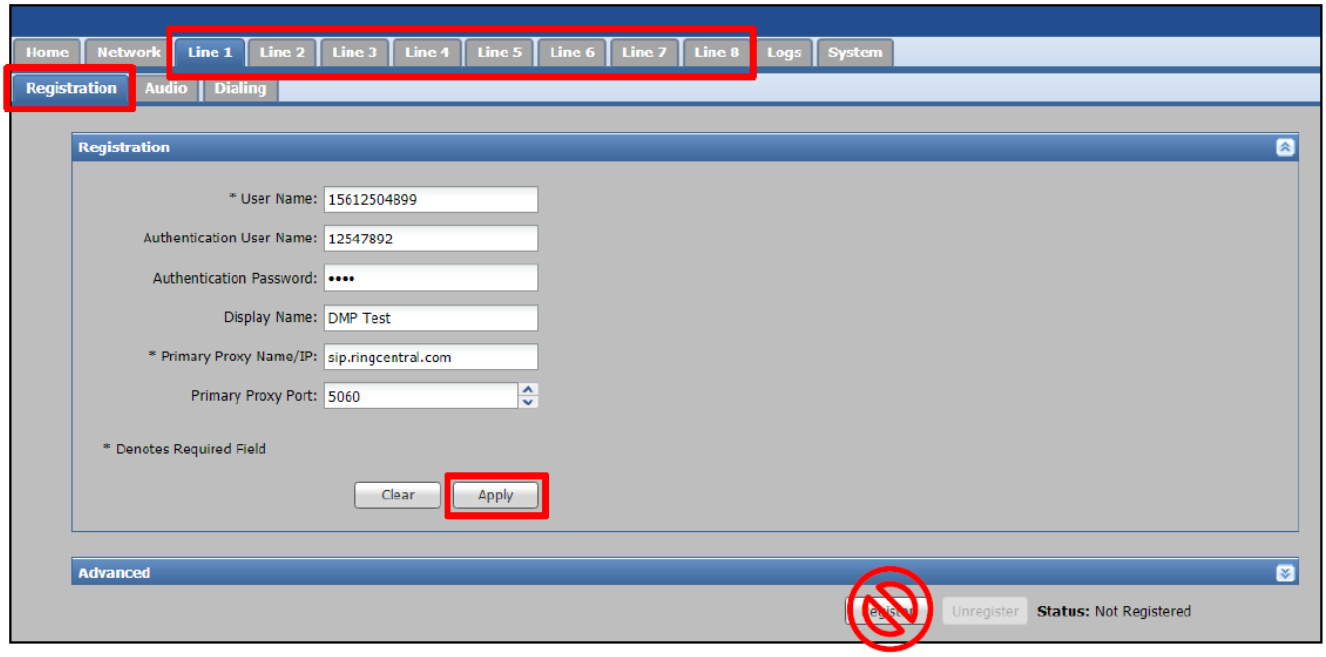
Line Registration

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.



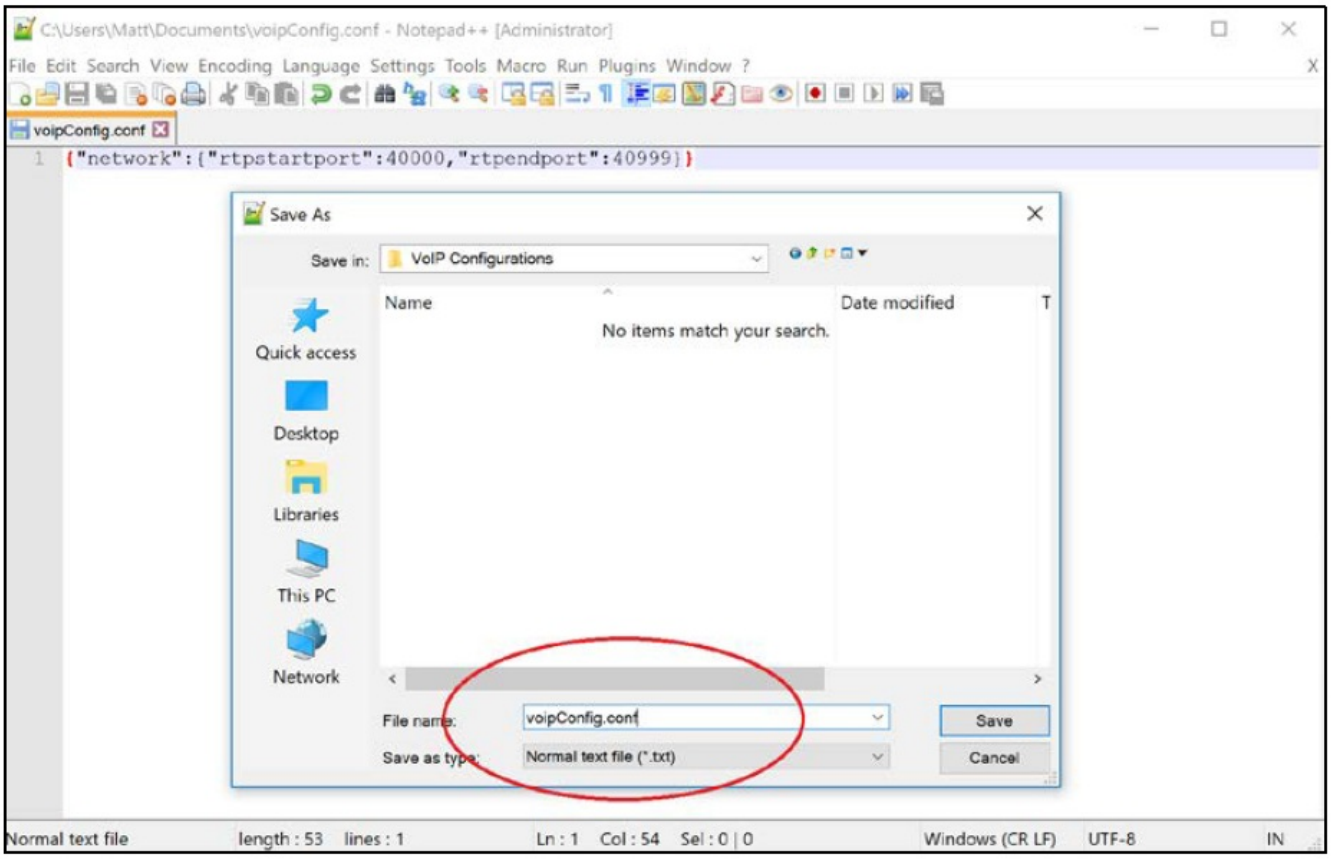
Outbound Proxy
NOTE: The following steps must be carried out in order to set the Outbound Proxy and Port Number required for RingCentral registration.

1. Create a new blank text file using a suitable basic text editor.
   a. Example “voipConfig.conf”is attached to this PDF, see Section 3.9
   i. Attached file is configured for Line1
2. Enter the following text into the document, replacing the ‘1’ in ‘line1’ with the required DMP Plus Series line ID (1 – 8):

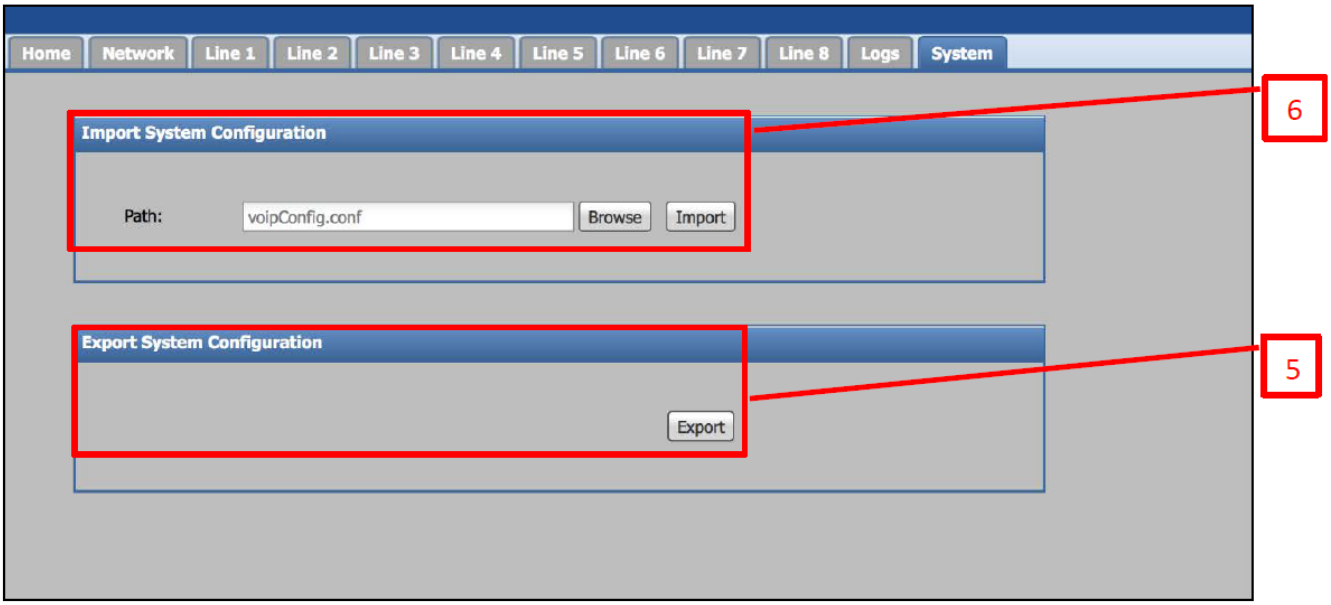
{“users”:[{“id”:”line1″,”outbound_proxy”:”sip10.ringcentral.com“, “outbound_proxy_port”:”5090″}]}

- 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 Plus Series 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.

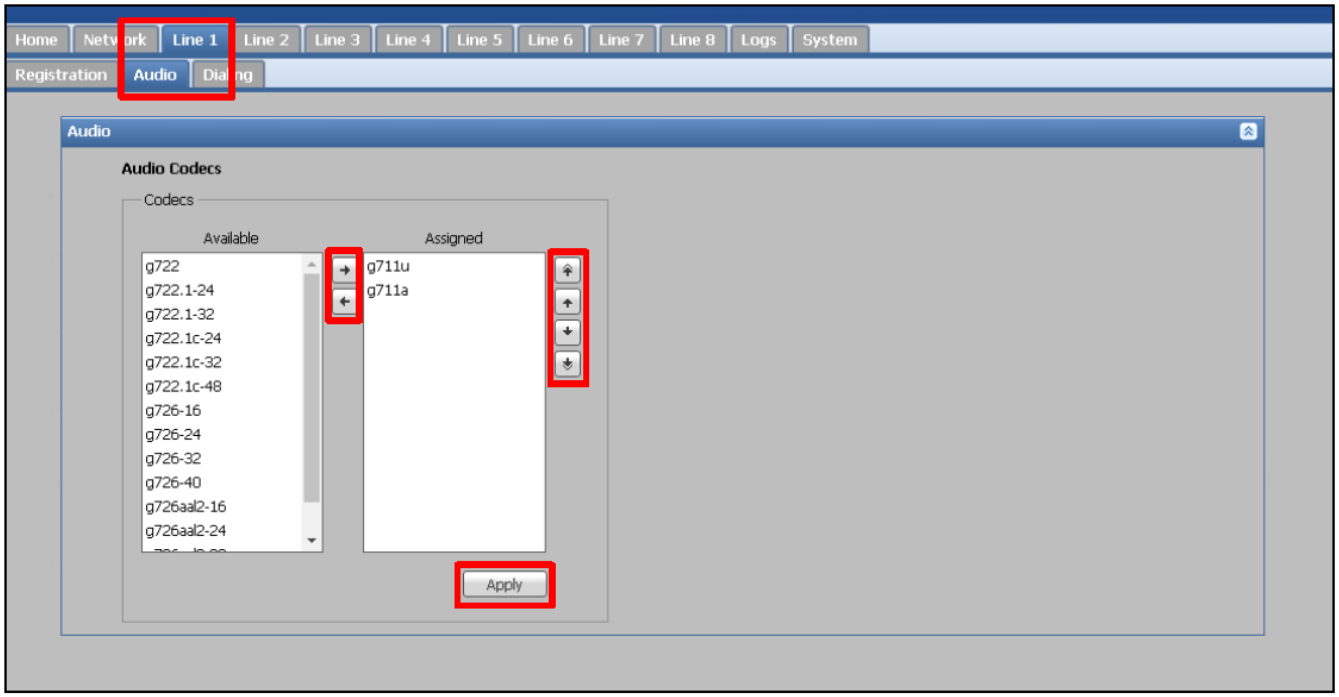


7. Click the Import button to update the DMP Plus Series with the new outbound proxy settings. A notification will appear once the settings have applied successfully.
8. Return to the Line – Registration tab and click Register to complete the registration process.

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.

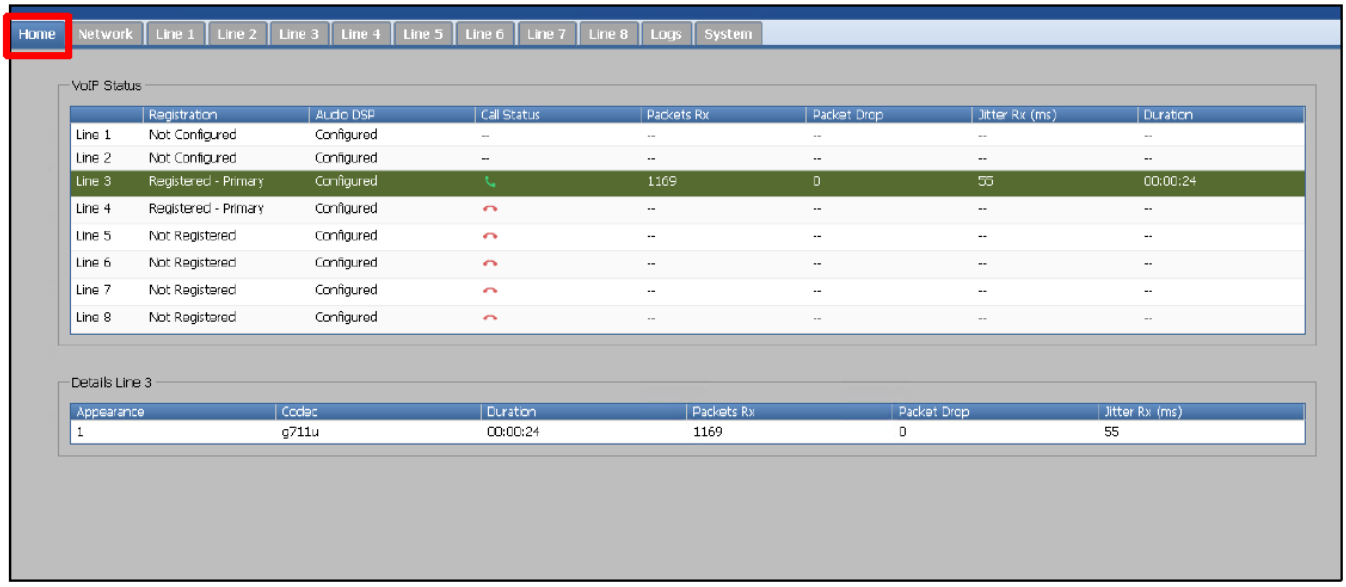


Dialing
Use the Dialing tab to select the desired DTMF signaling method. The default DMP Plus Series mode is In-Band. Other available options are as follows:

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

Recommend DTMF delivery method is Out of Band – RFC 2833
Click Apply after selecting Out of Band – RFC 2833 DTMF signaling method for the line. This can be set per line.

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.



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.

Configuration File – Attached to PDF
If needed, the configuration file “VIP config.conf” is attached to the PDF

- To access the file select “Attachments” from the left side bar – see figure A1
- Then save the attachment, before uploading to DMP Plus – see Figure A2 below

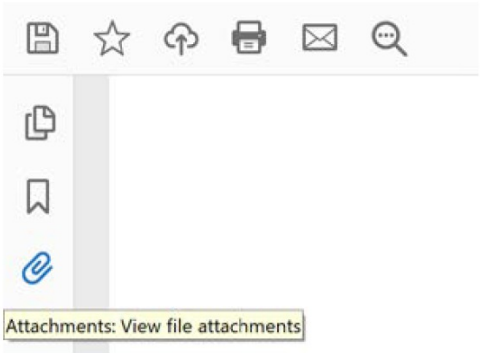


Figure A1 Save Attachment

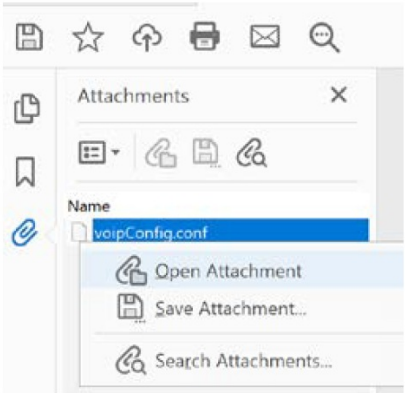


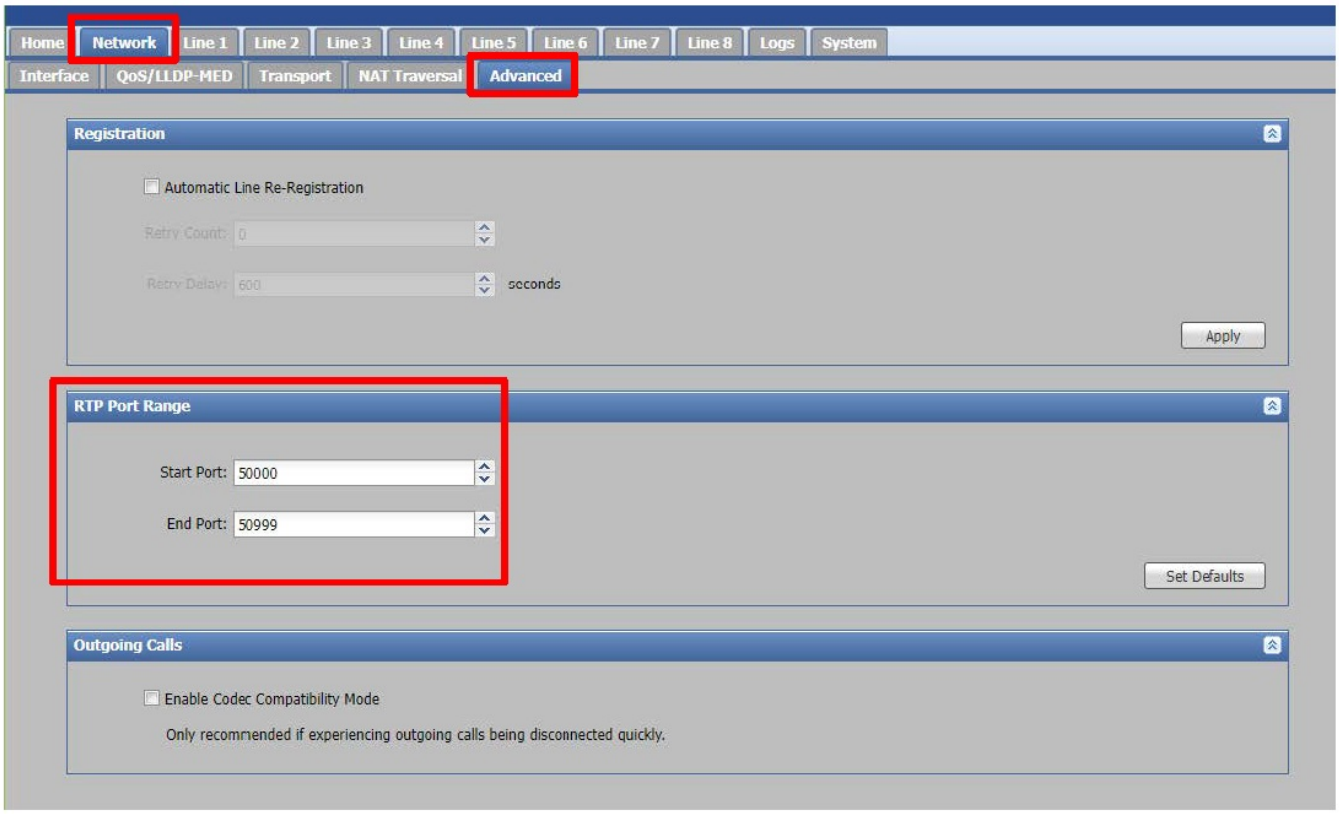
Figure A2 Show Attachments

Appendix A: RTP Port Range
The default port range for VoIP RTP traffic on the DMP Plus Series is 50000 – 50999. To change this range, the following steps must be carried out. There are two methods that can be used to change adjust the RTP port Range

Note: Requires Firmware 1.08.0002 or later.

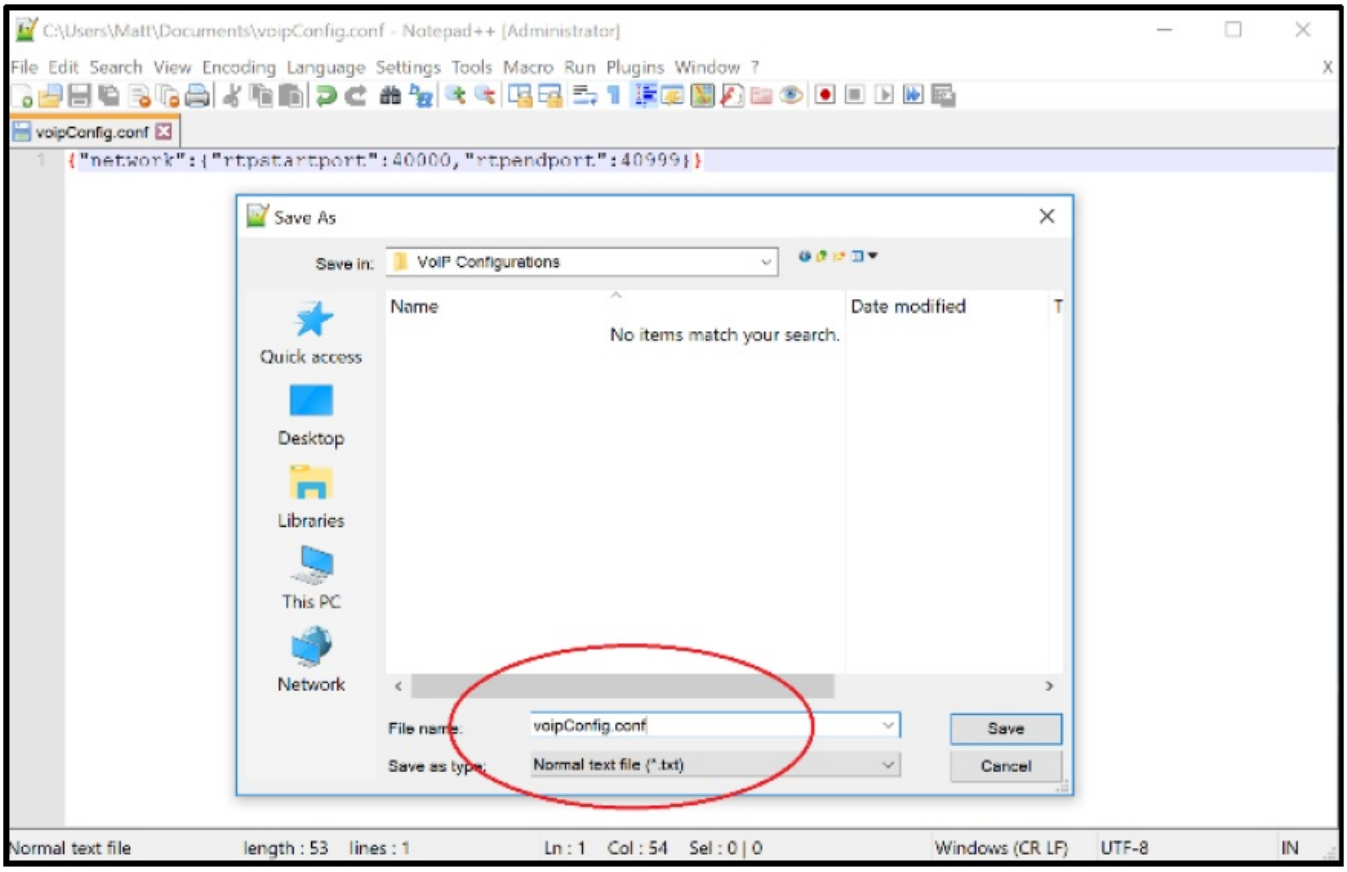
Method 1 – Internal Webpage

1. From internal webpage Select Network then Advanced Tab
2. Adjust the Start and End port for RDP

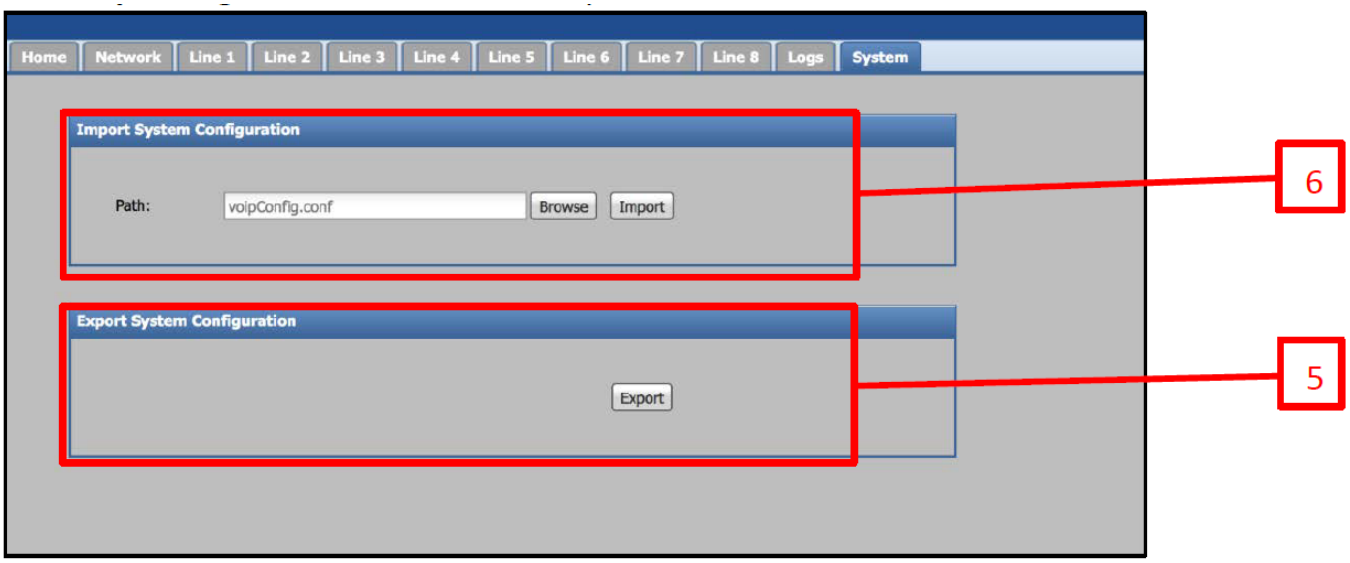


Method 2 – Configuration file

a. Create a new blank text file using a suitable basic text editor.
i. Example “voipConfig.conf”is attached to this PDF, see Section 3.9
b. Enter the following text into the document (in this example, the port range is being changed to 50000 – 50999; replace these values with the desired range) – {“network”:{“rtpstartport”:50000,”rtpendport”:50999}}
c. Save the file as voipConfig.conf.



d. Navigate to the VoIP configuration webpage and click on the System tab.
e. 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.
f. Under Import System Configuration, click the Browse button to locate the voipConfig.conf file created in steps 1 to 3.



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

Appendix B: Automatic Line Re-Registration

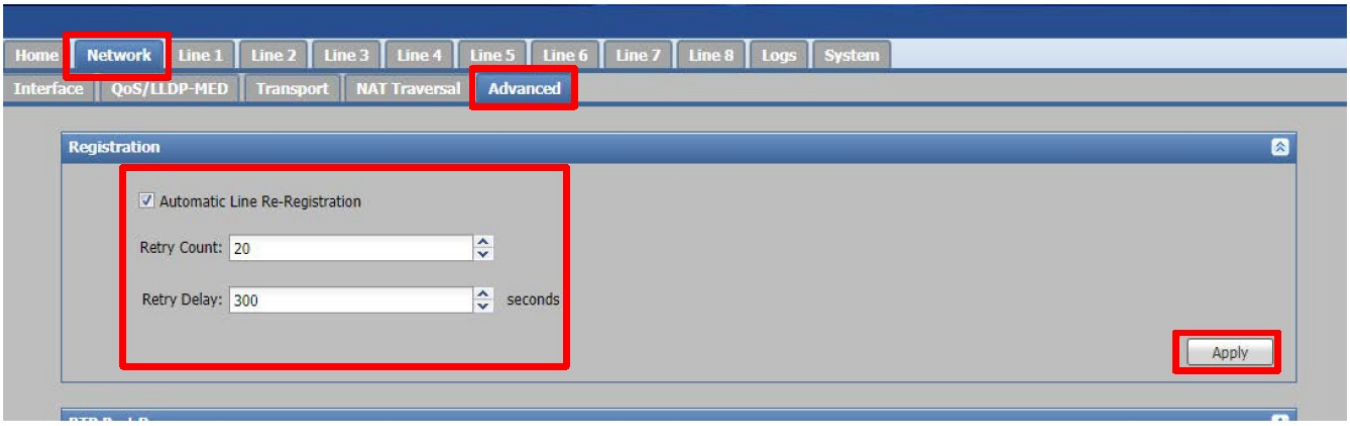
Some call managers and networks go into maintenance windows which do not allow VoIP endpoints to register or maintain their registration. To help resolve this issue the Automatic Line Re-Registration function can be configured to re-register a line if line registration is unexpectedly lost. This function causes the VoIP interface to re-attempt a line re-registration if the first automatic re-registration attempt fails.
In order to use this feature, the line must first be registered to the call manager.

Note: When enabled, this function will attempt re-registration once the SIP timer has expired. By default the SIP timer is set to 3600 seconds (60 mins). By default, the Automatic Line Re-Registration feature is disabled, with the "registration_fail_retry_count" set to zero (0).
To set up Automatic Line Re-Registration, the following steps must be carried out.

Requires Firmware 1.08.0002 or later.

Method 1 – Internal Webpage

1. From internal webpage Select Network then Advanced Tab
2. To Enable the Automatic Line Re-Registration select the check box
3. Enter Retry Count (0 – 99)
   a. This is the number of attempts a Line will make to re-register
      1. Example below is set to twenty (20) reconnections attempts
      2. If this is set to zero (0), the feature is disabled
4. Enter Retry Delay (120 – 3600 seconds)
   a. Amount time between registration attempts in seconds
      1. Example above is set to 300 seconds (5 mins) between reconnections attempts
5. Once Set hit Apply



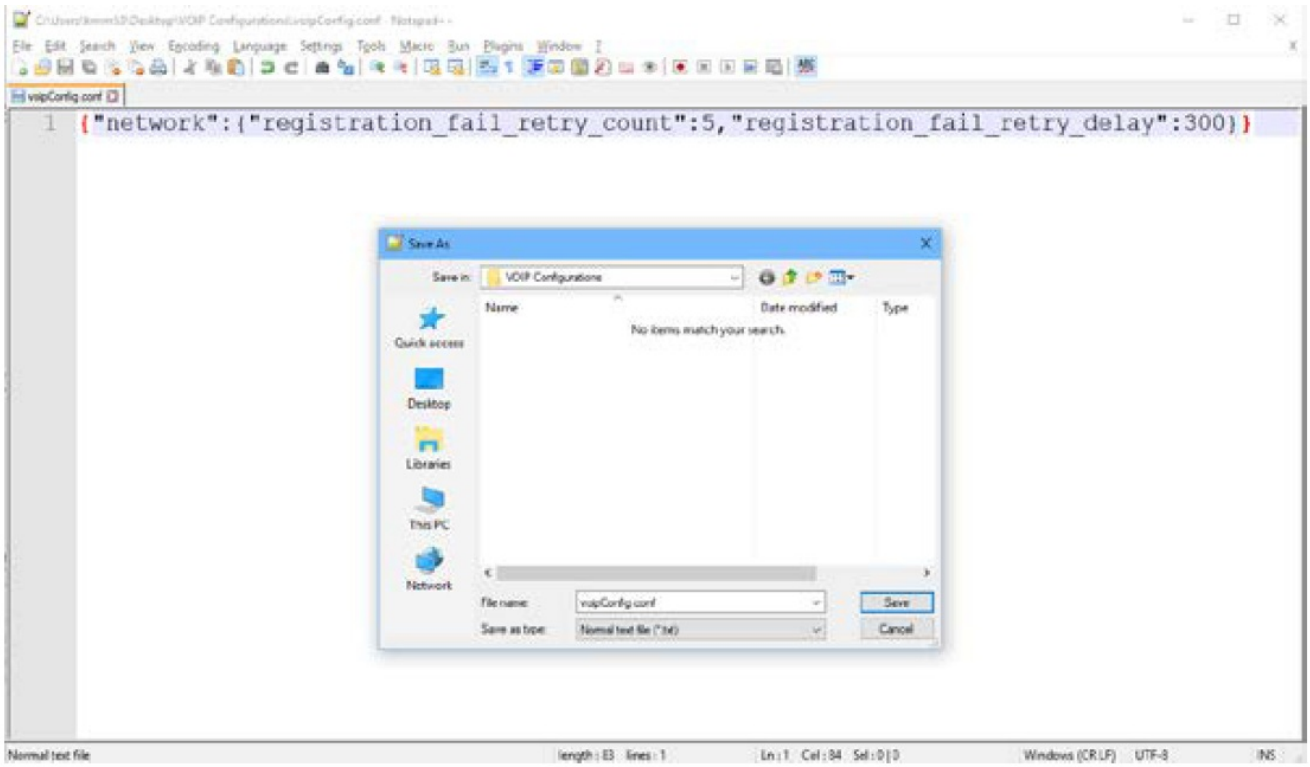
Method 2 – Configuration file

1. Create a new blank text file using a suitable basic text editor
   a. Example "voipConfig.conf"is attached to this PDF, see Section 3.9
2. Enter the following text into the document – {"network":
   {"registration_fail_retry_count":5,"registration_fail_retry_delay":300}}
   a. registration_fail_retry_count":5 This is the number of attempts a Line will make to re-register
      1. Example above is set to five (5) reconnections attempts
      2. If this is set to zero (0), the feature is disabled
      3. Valid Range of values: 0 – 99

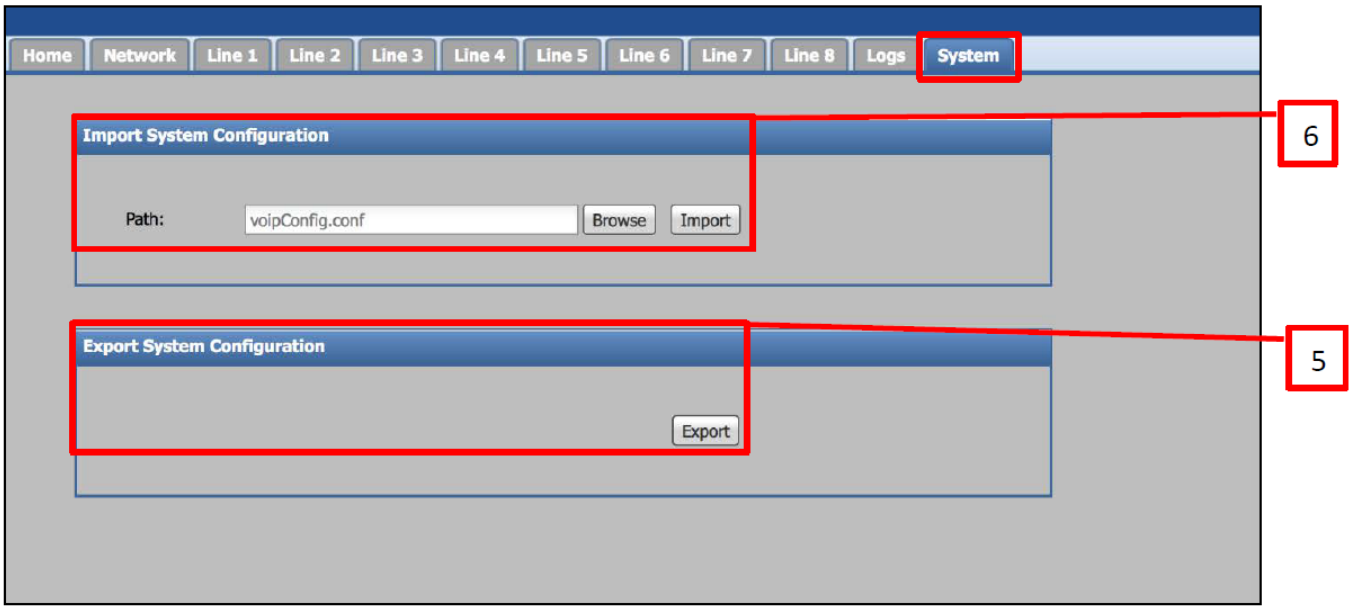
b. registration_fail_retry_delay":300 Amount time between registration attempts in seconds

1. Example above is set to 300 seconds (5 mins) between reconnections attempts
2. Valid Range of values: 120 – 3600

3. Save the file as voipConfig.conf.



4. Navigate to the VoIP configuration webpage and click on the System tab.
5. Under Export System Configuration, click the Export button in order 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.

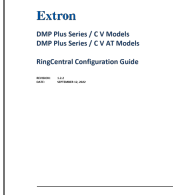


Click the Import button to update the DMP Plus Series with the new settings. A notification will appear once the settings have applied successfully.

To disable to Auto-Reregistration mode, send the following string using the same method:

{“network”:{“registration_fail_retry_count”:0,”registration_fail_retry_delay”:200}}

Documents / Resources

	**Extron DMP Plus Series 12x8 ProDSP Digital Matrix Processors** [pdf] User Guide DMP Plus Series, 12x8 ProDSP Digital Matrix Processors, Digital Matrix Processors, 12x8 Pro DSP Matrix Processors, Matrix Processors, Processors