



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for Extron DMP 128 Plus C V with Avaya Aura® Communication Manager and Avaya Aura® Session Manager - Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required to integrate Extron DMP 128 Plus C V with Avaya Aura® Communication Manager and Avaya Aura® Session Manager. The Extron DMP 128 Plus C V is a digital matrix processor suitable for conferencing applications. Configuration is performed via the Extron DSP Configurator, which provides a GUI for easy visualization of all the signal paths within a single window and the ability to adjust all input levels, DSP processing parameters, mixing points, and output levels. VoIP configuration is performed via a dedicated webpage, simplifying the setup and management for IT personnel. Extron DMP 128 Plus C V registers to Avaya Aura® Session Manager as a SIP endpoint. These Application Notes also apply to the Extron DMP 128 Plus C V AT (although not explicitly tested), which only differs in that it provides DANTE support.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

# 1. Introduction

These Application Notes describe the configuration steps required to integrate Extron DMP 128 Plus C V with Avaya Aura® Communication Manager and Avaya Aura® Session Manager. The Extron DMP 128 Plus C V is a digital matrix processor suitable for conferencing applications. Configuration is performed via the Extron DSP Configurator, which provides a GUI for easy visualization of all the signal paths within a single window and the ability to adjust all input levels, DSP processing parameters, mixing points, and output levels. Extron DMP 128 Plus C V registers to Avaya Aura® Session Manager as a SIP endpoint. These Application Notes also apply to the Extron DMP 128 Plus C V AT (although not explicitly tested), which only differs in that it provides DANTE support.

## 2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing. The feature testing focused on establishing calls between DMP 128 Plus, Avaya SIP/H.323 desk phones and the PSTN, and exercising basic telephony features, such as hold, mute, and conference. Additional telephony features, such as call forward, follow me, and call pickup were also verified using Communication Manager Features Access Codes (FACs).

The serviceability testing focused on verifying that DMP 128 Plus returned to service after re-connecting the Ethernet cable or rebooting DMP 128 Plus.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in this DevConnect Application Note included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and Extron DMP 128 Plus C V did not include use of any specific encryption features as requested by Extron.

## 2.1. Interoperability Compliance Testing

Interoperability compliance testing covered the following features and functionality:

- SIP registration of DMP 128 Plus with Session Manager.
- Calls between DMP 128 Plus and Avaya SIP/H.323 deskphones with Direct IP Media (Shuffling) enabled and disabled.
- Calls between DMP 128 Plus and the PSTN.
- UDP transport protocol.
- Support of G.711 and G.729 codecs.
- Proper recognition of DTMF tones.
- Basic telephony features, including hold, mute, redial, multiple calls, conference, and long duration calls.
- Extended telephony features using Communication Manager FACs for Call Forward, Follow Me, Call Unpark, and Call Pickup.
- Proper system recovery after a restart of DMP 128 Plus and loss of IP connectivity.

## 2.2. Test Results

All test cases passed with the following observations noted:

- During the compliance test, the Phone Dialer tool, available through the Extron DSP Configurator, was used for placing and answering calls. The Phone Dialer is designed for basic test purposes only. Typically, customers would use the Extron CCI Pro 700 TouchLink Pro Conference Room Control Interface, or one of Extron's many other customizable touchpanel devices, which provides a more robust experience and audio tone feedback for each call.
- DMP 128 Plus does not support call transfer.
- DMP 128 Plus supported conferencing by configuring the DSP to automatically mix audio from all active call appearances.
- Only one codec should be configured on DMP 128 Plus for compatibility with Communication Manager.
- TLS/SRTP is not fully supported between DMP 128 Plus, Communication Manager, and Session Manager at this time. UDP transport over a clear line was used for audio calls.

## 2.3. Support

For technical support on the Extron DMP 128 Plus C V, contact the S3 Support Hotline via phone or website.

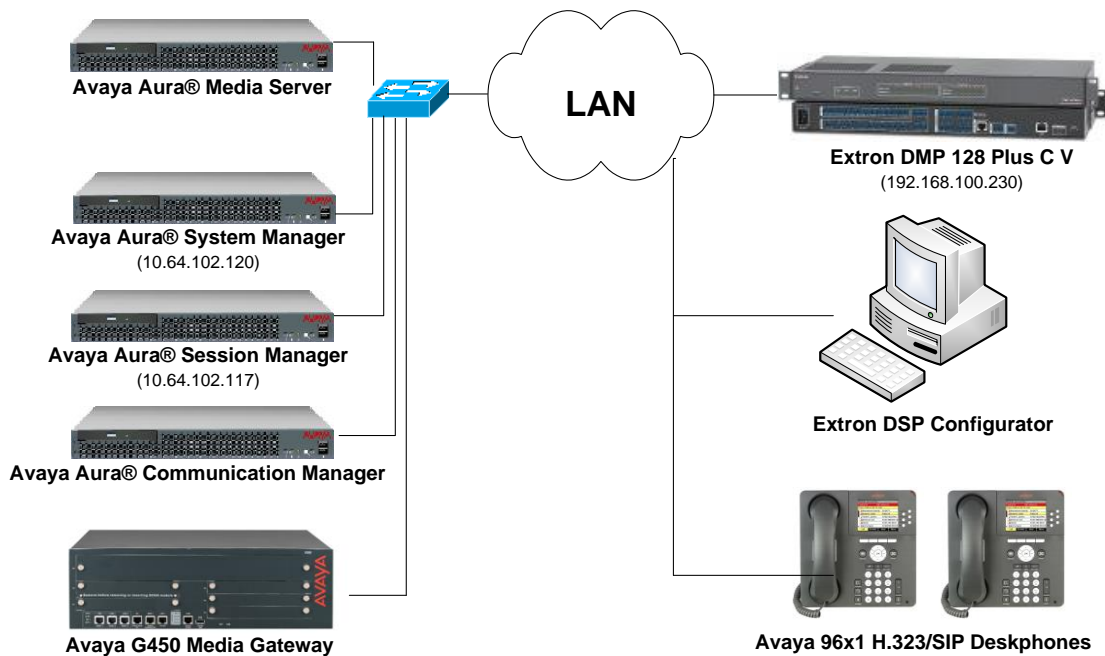
- **Phone:** +1 (800) 633-9876
- **Web:** <https://www.extron.com/company/contactform.aspx?action=techsupport>

### 3. Reference Configuration

**Figure 1** illustrates a sample configuration with an Avaya SIP-based network that includes the following products:

- Avaya Aura® Communication Manager running in a virtual environment with an Avaya G450 Media Gateway. The Avaya G450 Media Gateway was connected to the PSTN via an ISDN-PRI trunk (not shown).
- Media resources in the Avaya G450 Media Gateway and Avaya Aura® Media Server.
- Avaya Aura® Session Manager connected to Communication Manager via a SIP trunk and acting as a Registrar/Proxy for SIP telephones.
- Avaya Aura® System Manager used to configure Session Manager.
- Avaya 96x1 Series H.323 and SIP Deskphones.
- Extron DMP 128 Plus C V, Extron DSP Configurator with Phone Dialer for establishing calls.

Extron DMP 128 Plus C V registered with Session Manager and was configured as Off-PBX Stations (OPS) on Communication Manager.



**Figure 1: Avaya SIP Network with Extron DMP 128 Plus C V**

## 4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment/Software	Release/Version
Avaya Aura® Communication Manager	7.1.1 FP1 (R017x.01.0.532.0 with Patch 23985)
Avaya G450 Media Gateway	38.20.1
Avaya Aura® Media Server	7.8.0.333
Avaya Aura® Session Manager	7.1.1.0711008
Avaya Aura® System Manager	7.1.1.0 Build No. 7.1.0.0.1125193 Software Update Revision No. 7.1.1.0.046931 Feature Pack 1
Avaya 96x1 Series IP Deskphone	6.6506 (H.323) 7.1.1.0.9 (SIP)
Extron DMP 128 Plus C V	V1.01.0009-b001
Extron DSP Configurator	2.18.0.10

## 5. Configure Avaya Aura® Communication Manager

This section provides the procedure for configuring Communication Manager. The procedure includes the following areas:

- Verify Communication Manager license
- Administer IP Network Region and IP Codec Set

Use the System Access Terminal (SAT) to configure Communication Manager and log in with appropriate credentials.

**Note:** It is assumed that basic configuration of Communication Manager has already been completed, such as the SIP trunk to Session Manager. However, implementers should ensure sufficient Maximum Administered SIP Trunks licenses are available to accommodate the traffic between Communication Manager and Session Manager. The SIP station configuration for Extron DMP 128 Plus C V is configured through Avaya Aura® System Manager in **Section 6.2**.

### 5.1. Verify License

Using the SAT, verify that the Off-PBX Telephones (OPS) option is enabled on the **system-parameters customer-options** form. The license file installed on the system controls these options. If a required feature is not enabled, contact an authorized Avaya sales representative.

On **Page 1**, verify that the number of OPS stations allowed in the system is sufficient for the number of SIP endpoints that will be deployed.

display system-parameters customer-options		Page 1 of 12
OPTIONAL FEATURES		
G3 Version: V17	Software Package: Enterprise	
Location: 2	System ID (SID): 1	
Platform: 28	Module ID (MID): 1	
		USED
Platform Maximum Ports:	6400	60
Maximum Stations:	2400	22
Maximum XMOBILE Stations:	2400	0
Maximum Off-PBX Telephones - EC500:	9600	0
<b>Maximum Off-PBX Telephones - OPS:</b>	<b>9600</b>	<b>14</b>
Maximum Off-PBX Telephones - PBFMC:	9600	0
Maximum Off-PBX Telephones - PVFMC:	9600	0
Maximum Off-PBX Telephones - SCCAN:	0	0
Maximum Survivable Processors:	313	0
(NOTE: You must logoff & login to effect the permission changes.)		

## 5.2. Administer IP Network Region and IP Codec Set

In the **IP Network Region** form, the **Authoritative Domain** field is configured to match the domain name configured on Session Manager. In this configuration, the domain name is *avaya.com*. By default, **IP-IP Direct Audio** (shuffling) is enabled to allow audio traffic to be sent directly between IP endpoints without using media resources in the Avaya G450 Media Gateway or Avaya Aura® Media Server. The **IP Network Region** form also specifies the **IP Codec Set** to be used for calls routed over the SIP trunk to Session Manager.

```
change ip-network-region 1                                     Page 1 of 20

                                IP NETWORK REGION

Region: 1
Location: 1      Authoritative Domain: avaya.com
Name:                               Stub Network Region: n
MEDIA PARAMETERS      Intra-region IP-IP Direct Audio: yes
      Codec Set: 1      Inter-region IP-IP Direct Audio: yes
      UDP Port Min: 2048      IP Audio Hairpinning? n
      UDP Port Max: 50999
DIFFSERV/TOS PARAMETERS
      Call Control PHB Value: 46
      Audio PHB Value: 46
      Video PHB Value: 26
802.1P/Q PARAMETERS
      Call Control 802.1p Priority: 6
      Audio 802.1p Priority: 6
      Video 802.1p Priority: 5      AUDIO RESOURCE RESERVATION PARAMETERS
H.323 IP ENDPOINTS      RSVP Enabled? n
      H.323 Link Bounce Recovery? y
      Idle Traffic Interval (sec): 20
      Keep-Alive Interval (sec): 5
      Keep-Alive Count: 5
```

In the **IP Codec Set** form, select the audio codec type supported for calls routed over the SIP trunk to DMP 128 Plus. The form is accessed via the **change ip-codec-set 1** command. Note that IP codec set '1' was specified in IP Network Region '1' shown above. The default settings of the **IP Codec Set** form are shown below. DMP 128 Plus was tested using G.711 and G.729 codecs.

```
change ip-codec-set 1                                         Page 1 of 2

                                IP CODEC SET

Codec Set: 1

Audio      Silence      Frames      Packet
Codec      Suppression  Per Pkt   Size (ms)
1: G.711MU      n           2        20
2:
3:
4:
5:
6:
7:
```

## 6. Configure Avaya Aura® Session Manager

This section provides the procedure for configuring Session Manager. The procedures include the following areas:

- Launch System Manager
- Set Network Transport Protocol for DMP 128 Plus
- Administer SIP User

**Note:** It is assumed that basic configuration of Session Manager has already been performed. This section will focus on the configuration of a SIP user for DMP 128 Plus.

### 6.1. Launch System Manager

Access the System Manager web interface by using the URL “https://ip-address” in an Internet browser window, where “ip-address” is the IP address of the System Manager server. Log in using the appropriate credentials.

Recommended access to System Manager is via FQDN.  
[Go to central login for Single Sign-On](#)

If IP address access is your only option, then note that authentication will fail in the following cases:

- First time login with "admin" account
- Expired/Reset passwords

Use the "Change Password" hyperlink on this page to change the password manually, and then login.

Also note that single sign-on between servers in the same security domain is not supported when accessing via IP address.

User ID:

Password:

[Change Password](#)

**Supported Browsers:** Internet Explorer 11.x or Firefox 48.0, 49.0 and 50.0.



## 6.2. Set Network Transport Protocol for Extron DMP 128 Plus

From the System Manager **Home** screen, select **Elements** → **Routing** → **SIP Entities** and edit the SIP Entity for Session Manager shown below.

The screenshot shows the AVAYA Aura System Manager 7.1 interface. The breadcrumb navigation is Home / Elements / Routing / SIP Entities. The page title is 'SIP Entity Details' with a 'General' tab selected. The form contains the following fields:

- Name: devcon-sm
- FQDN or IP Address: 10.64.102.117
- Type: Session Manager
- Notes: (empty)
- Location: Thornton
- Outbound Proxy: (empty)
- Time Zone: America/New\_York
- Minimum TLS Version: Use Global Setting
- Credential name: (empty)

Buttons for 'Commit' and 'Cancel' are visible at the top right of the form area.

Scroll down to the **Listen Ports** section and verify that the transport network protocol used by DMP 128 Plus is specified in the list below. For the compliance test, DMP 128 Plus used UDP network transport.

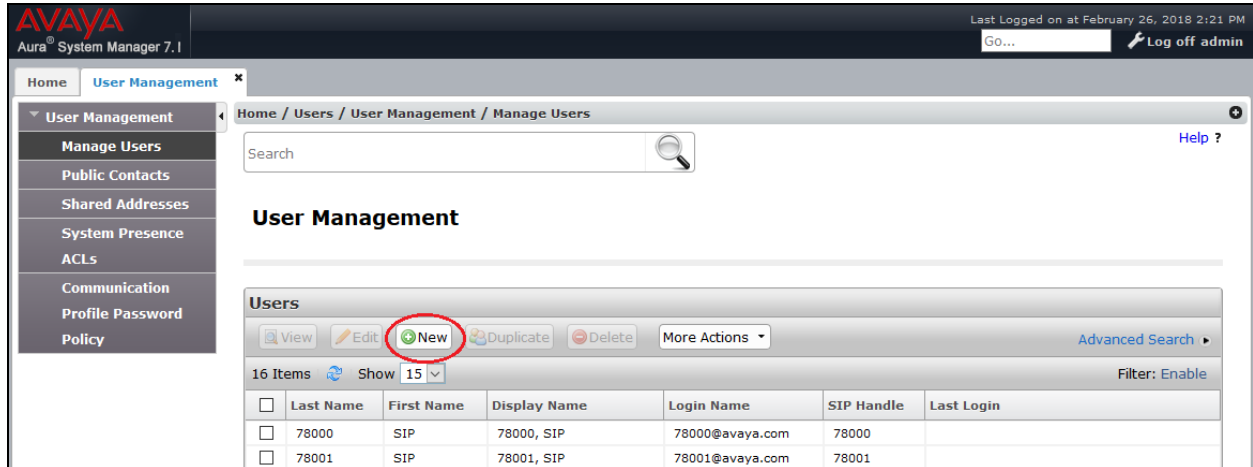
The screenshot shows the 'Listen Ports' section with a table of 3 items. The table has columns: Listen Ports, Protocol, Default Domain, Endpoint, and Notes. The second row, representing UDP on port 5060, is highlighted with a red rectangle.

Listen Ports	Protocol	Default Domain	Endpoint	Notes
<input type="checkbox"/> 5060	TCP	avaya.com	<input checked="" type="checkbox"/>	
<input type="checkbox"/> 5060	UDP	avaya.com	<input checked="" type="checkbox"/>	
<input type="checkbox"/> 5061	TLS	avaya.com	<input checked="" type="checkbox"/>	

Buttons for 'Add' and 'Remove' are at the top left. A 'Filter: Enable' link is at the top right. A 'Select: All, None' link is at the bottom left.

## 6.3. Administer SIP User

In the **Home** screen (not shown), select **Users** → **User Management** → **Manage Users** to display the **User Management** screen below. Click **New** to add a user.



### 6.3.1. Identity

The **New User Profile** screen is displayed. Enter desired **Last Name** and **First Name**. For **Login Name**, enter “<ext>@<domain>”, where “<ext>” is the desired DMP 128 Plus SIP extension and “<domain>” is the applicable SIP domain name from **Section 5.2**. Retain the default values in the remaining fields.

The screenshot shows the 'New User Profile' screen in the AVAYA Aura System Manager 7.1. The 'Identity' tab is selected. The 'User Provisioning Rule' is set to 'User Provisioning Rule:'. The 'Identity' section contains the following fields:

- \* Last Name: DMP128
- Last Name (Latin Translation): DMP128
- \* First Name: Extron
- First Name (Latin Translation): Extron
- Middle Name:
- Description:
- \* Login Name: 78020@ava.com
- Email Address:
- User Type: Basic
- Password:
- Confirm Password:

### 6.3.2. Communication Profile

Select the **Communication Profile** tab. For **Communication Profile Password** and **Confirm Password**, enter the desired password for the SIP user to use for registration.

AVAYA  
Aura® System Manager 7.1

Last Logged on at February 26, 2018 2:21 PM  
Go... Log off admin

Home User Management x

Home / Users / User Management / Manage Users

Help ?

**New User Profile**

Commit & Continue Commit Cancel

Identity \* Communication Profile Membership Contacts

Communication Profile

Communication Profile Password: .....

Confirm Password: ..... Generate

### 6.3.3. Communication Address

In the **Communication Address** sub-section, click **New** to add a new entry. The **Communication Address** sub-section is updated with additional fields as shown below. For **Type**, retain *Avaya SIP*. For **Fully Qualified Address**, enter and select the SIP user extension and domain name to match the login name from **Section 6.3.1**. Click **Add**.

Communication Address

New Edit Delete

Type	Handle	Domain
No Records found		

Type: Avaya SIP

\* Fully Qualified Address: 78020 @ avaya.com

Add Cancel

### 6.3.4. Session Manager Profile

Scroll down to check and expand **Session Manager Profile**. For **Primary Session Manager**, **Origination Application Sequence**, **Termination Application Sequence**, and **Home Location**, select the values corresponding to the applicable Session Manager and Communication Manager. Retain the default values in the remaining fields.

☒ **Session Manager Profile**

#### SIP Registration

\* Primary Session Manager

devcon-sm

Primary	Secondary	Maximum
16	0	16

Secondary Session Manager

Survivability Server

Max. Simultaneous Devices

1

Block New Registration When Maximum Registrations Active?

#### Application Sequences

Origination Sequence

DEVCON-CM App Sequence

Termination Sequence

DEVCON-CM App Sequence

#### Emergency Calling Application Sequences

Emergency Calling Origination Sequence

(None)

Emergency Calling Termination Sequence

(None)

#### Call Routing Settings

\* Home Location

Thornton

Conference Factory Set

(None)

#### Call History Settings

Enable Centralized Call History?

JAO; Reviewed:  
SPOC 4/9/2018

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ExtronDMP-SM

### 6.3.5. CM Endpoint Profile

Scroll down to check and expand **CM Endpoint Profile**. For **System**, select the value corresponding to the applicable Communication Manager. For **Extension**, enter the SIP user extension from **Section 6.3.1**. For **Template**, select *9600SIP\_DEFAULT\_CM\_7\_0*. For **Port**, click and select *IP*. Retain the default values in the remaining fields. Click the Endpoint Editor to configure the appropriate number of call appearances.

☒ **CM Endpoint Profile** ▼

\* System

devcon-cm ▼

\* Profile Type

Endpoint ▼

Use Existing Endpoints

☐

\* Extension

78020

Endpoint Editor

\* Template

9600SIP\_DEFAULT\_CM\_7\_1 ▼

Set Type

9600SIP

Security Code

Port

IP

Voice Mail Number

Preferred Handle

(None) ▼

Calculate Route Pattern

☐

Sip Trunk

aar

Enhanced Callr-Info display for 1-line phones

☐

Delete Endpoint on Unassign of Endpoint from User or on Delete User.

☒

Override Endpoint Name and Localized Name

☒

Allow H.323 and SIP Endpoint Dual Registration

☐

Navigate to the **Button Assignments** tab and configure four call appearances as shown below. DMP 128 Plus was configured with four call appearances in **Section 7.4**. Click **Done** to return to the previous web page and then **Commit** to save the configuration (not shown).

General Options (G) *		Feature Options (F)		Site Data (S)		Abbreviated Call Dialing (A)		Enhanced Call Fwd (E)	
Button Assignment (B)		Group Membership (M)							

Main Buttons		Feature Buttons		Expansion Module	
1	call-appr ▾				
2	call-appr ▾				
3	call-appr ▾				
4	call-appr ▾				
5	None ▾				
6	None ▾				
7	None ▾				
8	None ▾				

\* Required

Done Cancel

## 7. Configure Extron DMP 128 Plus C V

This section provides the procedures for configuring DMP 128 Plus. The procedures fall into the following areas:

- Launch WebInterface
- Administer Network Settings
- Administer SIP Settings
- Configure the DSP

### 7.1. Launch Web Interface

DMP 128 Plus was configured via the web interface by using the URL “https://ip-address/www.voip.html” in an Internet browser window, where “ip-address” is the DMP 128 Plus IP address. The web page displayed in the following section is displayed.

### 7.2. Administer Network Settings

To configure IP network settings, navigate to **Network** → **Interface** and configure the **LAN 1** settings. For the compliance test, a static IP address, *192.168.100.230*, was assigned to DMP 128 Plus as shown below. Alternatively, DHCP may be used. Click **Apply**.

**DMP 128 Plus C V**  
Digital audio matrix processor with AEC and VoIP  
Firmware: v1.01.0009

Extron.

Logged in as: admin

Home Network Line 1 Line 2 Line 3 Line 4 Line 5 Line 6 Line 7 Line 8 Logs System

Interface QoS/LLDP-MED Transport NAT Traversal

VoIP Interface: LAN 1

DNS 1 (Optional): 192.168.1.1

DNS 2 (Optional):

**LAN 1**

IP Address: ☐ DHCP ☒ Static

IP Address: 192.168.100.230

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.100.1

**LAN 2**

VLAN

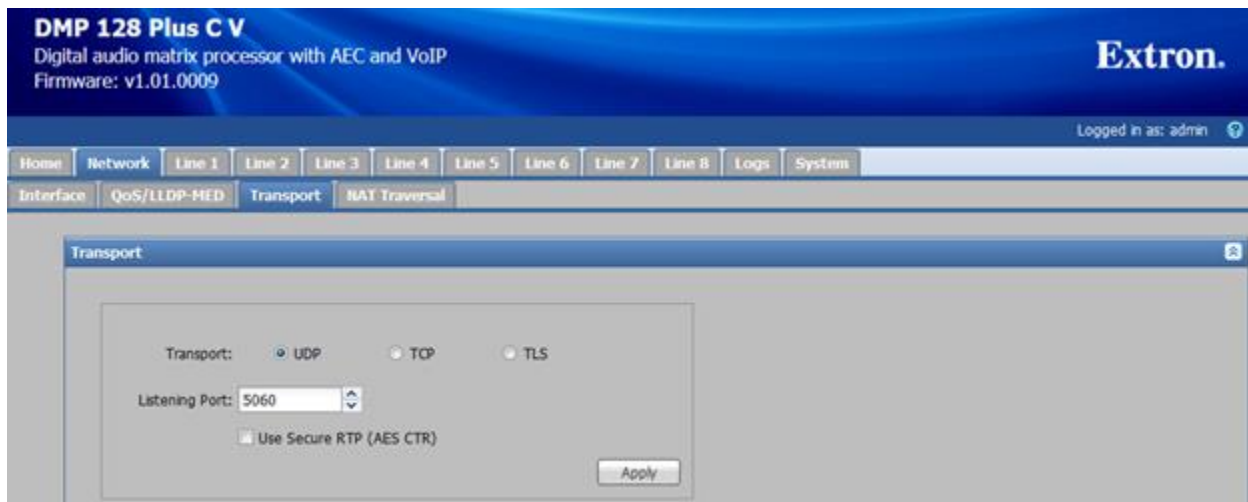
Apply

### 7.3. Administer SIP Settings

To configure SIP settings, select the **Network** tab followed by the **Transport** sub-tab. click **Configuration** and then select the **SIP** tab. Configure the following fields:

- **Transport** Specify the *UDP* transport protocol.
- **Listening Port** Specify port 5060.
- **Use Secure RTP (AES CTR)** Disable SRTP.

Click **Apply**.





Navigate to **Line 1** tab to configure the SIP registration settings. Configure the following fields:

- **User Name** Specify the SIP extension configured on Session Manager.
- **Authentication User Name** Specify a user name.
- **Authentication Password** Specify the SIP password used to register with Session Manager.
- **Display Name** Provide a display name.
- **Primary Proxy Name/IP** Specify the Session Manager IP address (10.64.102.117).
- **Primary Proxy Port** Specify SIP port 5060.

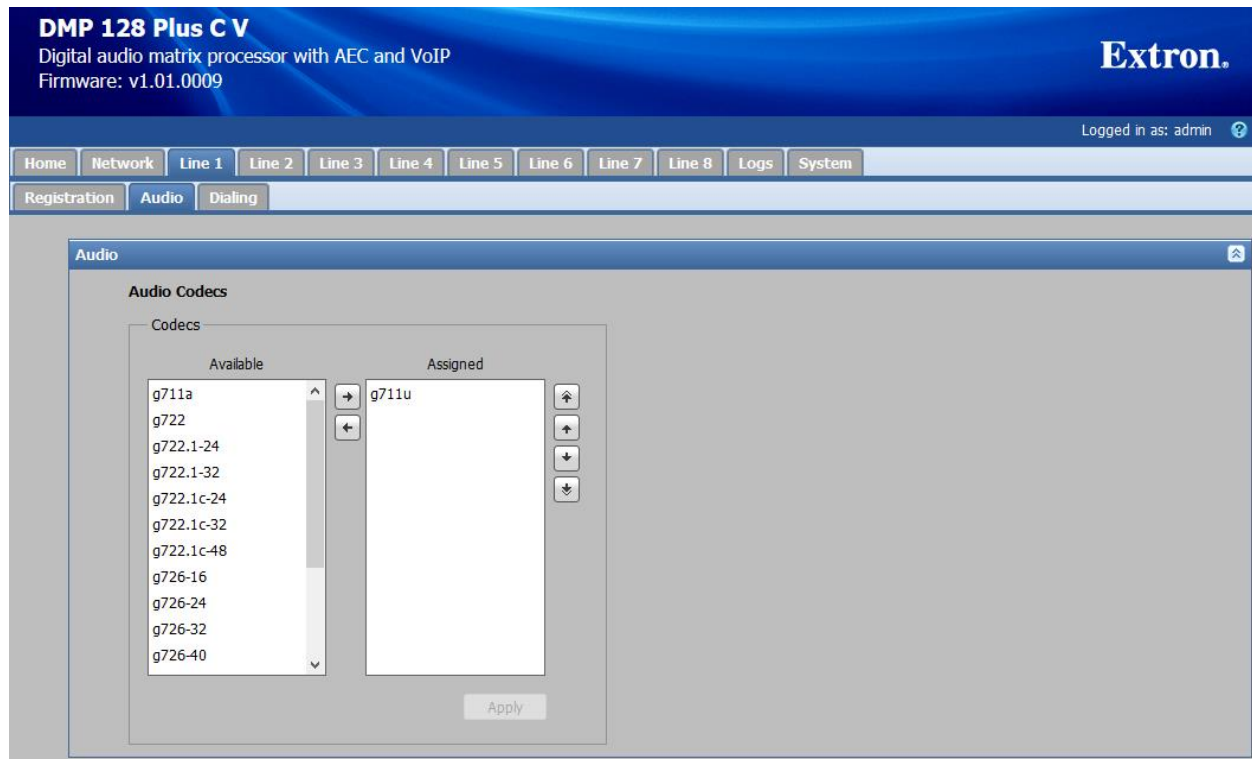
Click **Apply** to submit the changes and then click the **Register** button to register DMP 128 Plus with Session Manager after all the configuration is in place.

The screenshot shows the web interface of the Extron DMP 128 Plus C V. The top header includes the device name, model, and firmware version (v1.01.0009), along with the Extron logo and a login status (Logged in as: admin). The navigation menu includes tabs for Home, Network, Line 1 (selected), Line 2, Line 3, Line 4, Line 5, Line 6, Line 7, Line 8, Logs, and System. Below the navigation menu, there are sub-tabs for Registration (selected), Audio, and Dialing. The main content area is titled 'Registration' and contains the following fields:

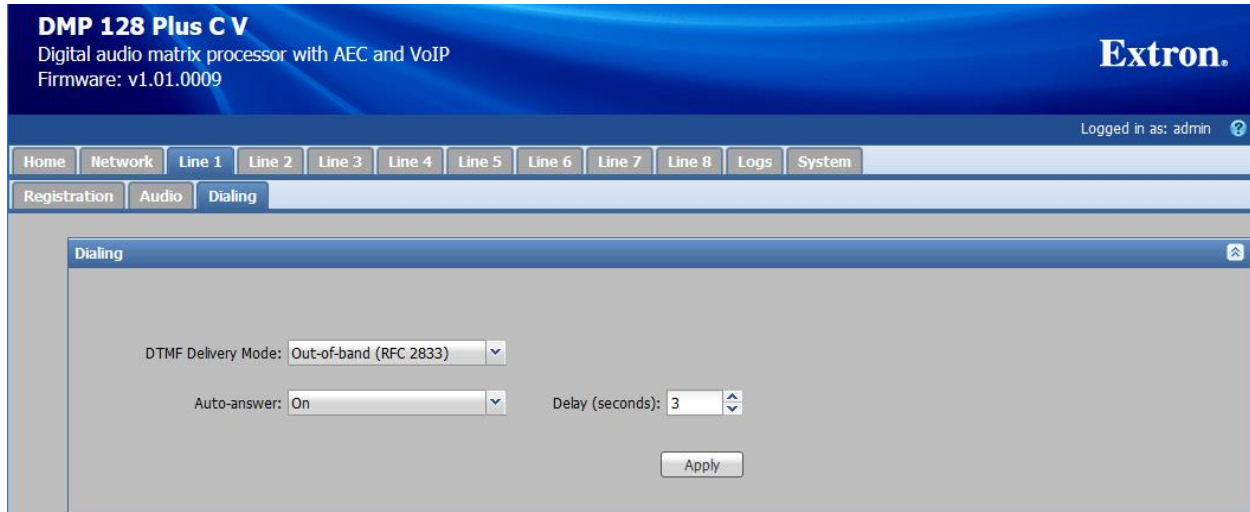
- \* User Name: 78020
- Authentication User Name: 78020
- Authentication Password: \*\*\*\*
- Display Name: DMP128
- \* Primary Proxy Name/IP: 10.64.102.117
- Primary Proxy Port: 5060

A note at the bottom left states: \* Denotes Required Field. An 'Apply' button is located at the bottom right of the form. Below the form, there is an 'Advanced' section with a dropdown arrow. At the bottom of the page, there are 'Register' and 'Unregister' buttons, and a status indicator that reads 'Status: Not Registered'.

In the **Audio** sub-tab, specify the desired codec, G.711 and G.729, but not both. Refer to the note on codec negotiation in **Section 2.2**. Click **Apply**.



In the **Dialing** sub-tab, accept the default settings shown below.



The screenshot shows the Extron DMP 128 Plus C V web interface. The header includes the product name and firmware version (v1.01.0009) on the left, and the Extron logo on the right. A navigation bar at the top contains tabs for Home, Network, Line 1 through Line 8, Logs, and System. Below this is a sub-tab bar with Registration, Audio, and Dialing. The Dialing sub-tab is active, displaying a configuration window with the following settings: DTMF Delivery Mode set to 'Out-of-band (RFC 2833)', Auto-answer set to 'On', and Delay (seconds) set to '3'. An 'Apply' button is located at the bottom right of the configuration area.

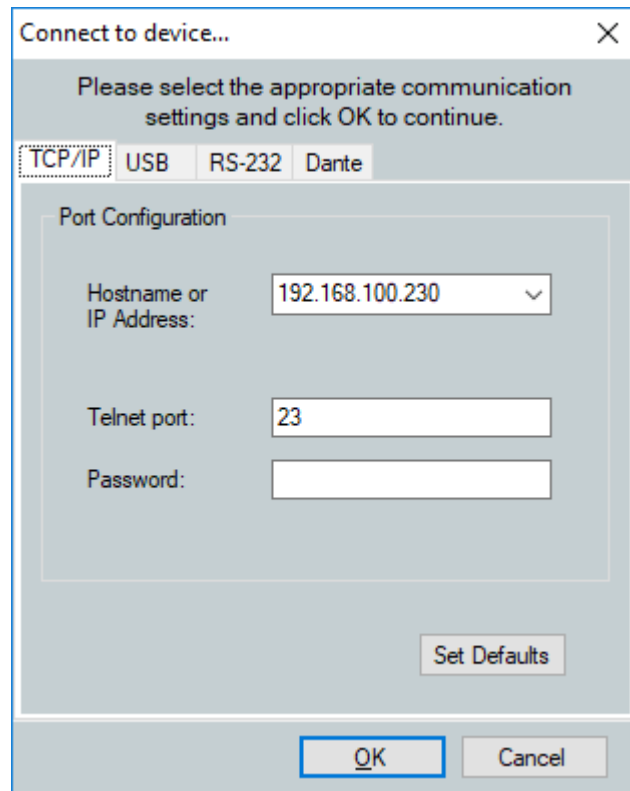
## 7.4. Configure the DSP

Although the DSP configuration is outside the scope of these Application Notes, the following information is provided for informational purposes only.

Launch the **DSP Configurator**, select **Connect...** in the drop-down field, and click **OK**.



In the **Connect to device...** window shown below, enter the DMP 128 Plus IP address in the **Hostname or IP Address** field and click **OK**.



The image shows a 'Connect to device...' dialog box. At the top, it says 'Please select the appropriate communication settings and click OK to continue.' Below this are four tabs: 'TCP/IP' (which is selected and has a dotted border), 'USB', 'RS-232', and 'Dante'. The 'Port Configuration' section contains three fields: 'Hostname or IP Address' with a dropdown menu showing '192.168.100.230', 'Telnet port' with a text box containing '23', and 'Password' with an empty text box. At the bottom right of the configuration section is a 'Set Defaults' button. At the very bottom of the dialog are 'OK' and 'Cancel' buttons.

Connect to device...

Please select the appropriate communication settings and click OK to continue.

TCP/IP USB RS-232 Dante

Port Configuration

Hostname or IP Address: 192.168.100.230

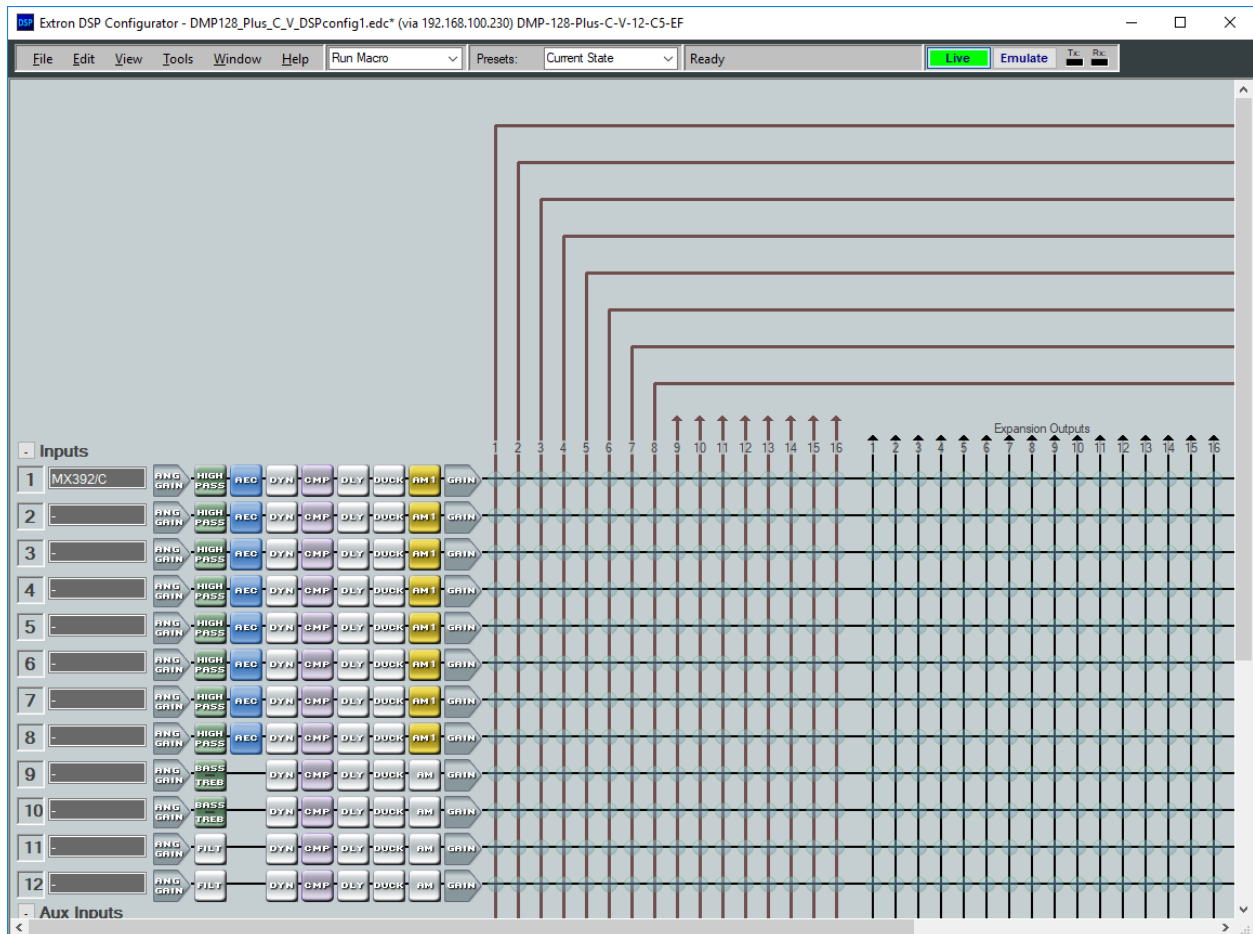
Telnet port: 23

Password:

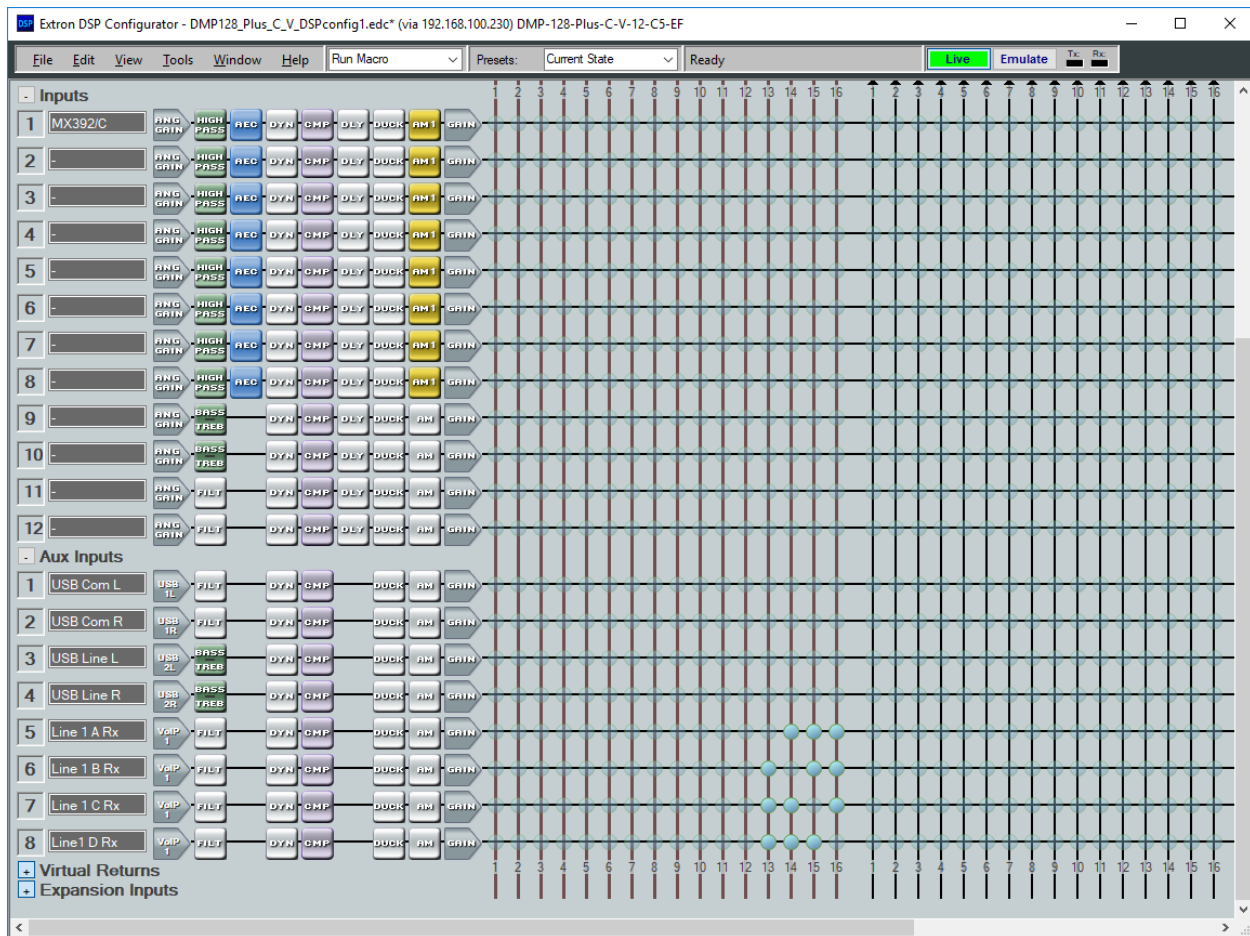
Set Defaults

OK Cancel

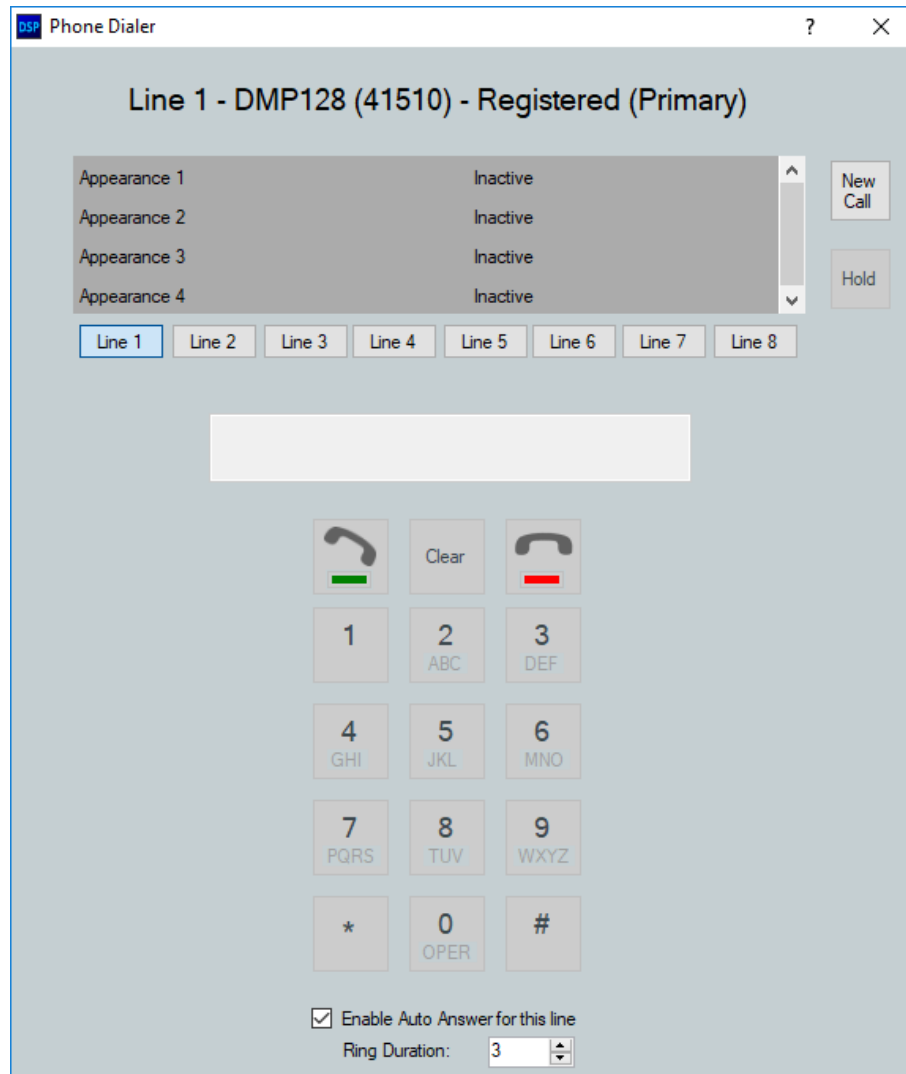
Once connected to DMP 128 Plus, the **DSP Configurator** is displayed as shown below.



Scrolling down shows that four call appearances were configured for the SIP line and that the audio call appearances were mixed together. This results in all calls being conferenced together automatically.



Calls were originated and answered using the **Phone Dialer** accessible from the **DSP Configurator** menu (i.e., **Tools → Phone Dialer**). Typically, the **Extron CCI Pro 700 TouchLink Pro Conference Room Control Interface** would be used by customers for this purpose, which would provide audio tone feedback for each call.



## 8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Aura® Communication Manager, Avaya Aura® Session Manager, and Extron DMP 128 Plus C V.

1. Verify that DMP 128 Plus has successfully registered with Session Manager. In System Manager, navigate to **Elements** → **Session Manager** → **System Status** → **User Registrations** to check the registration status.

AVAYA  
Aura® System Manager 7.1

Last Logged on at February 26, 2018 2:21 PM  
Go... Log off admin

Home / Elements / Session Manager / System Status / User Registrations

### User Registrations

Select rows to send notifications to devices. Click on Details column for complete registration status.

View: Default Force Unregister AST Device Notifications: Reboot Reload Failback As of 2:47 PM

15 Items Show All Filter: Enable

<input type="checkbox"/>	Details	Address	First Name	Last Name	Actual Location	IP Address	Remote Office	Shared Control	Simult. Devices	AST Device	Registered
											Prim Sec Surv
<input type="checkbox"/>	Show	78030@avaya.com	Agent	SIP	---	192.168.100.49	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (AC) <input type="checkbox"/>
<input type="checkbox"/>	Show	---	SIP	78000	---	---	<input type="checkbox"/>	<input type="checkbox"/>	0/1	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/>	Show	78020@avaya.com	Extron	DMP128	---	---	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/>	Show	---	SIP	78400	---	---	<input type="checkbox"/>	<input type="checkbox"/>	0/1	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

2. Alternatively, the registration status may be viewed on the DMP 128 Plus web interface in the **Registration** tab or in the **Phone Dialer** shown on the next page.

DMP 128 Plus C V  
Digital audio matrix processor with AEC and VoIP  
Firmware: v1.01.0009

Extron.

Logged in as: admin

Home Network Line 1 Line 2 Line 3 Line 4 Line 5 Line 6 Line 7 Line 8 Logs System

Registration Audio Dialing

Registration

\* User Name: 78020

Authentication User Name: 78020

Authentication Password: \*\*\*\*

Display Name: DMP128

\* Primary Proxy Name/IP: 10.64.102.117

Primary Proxy Port: 5060

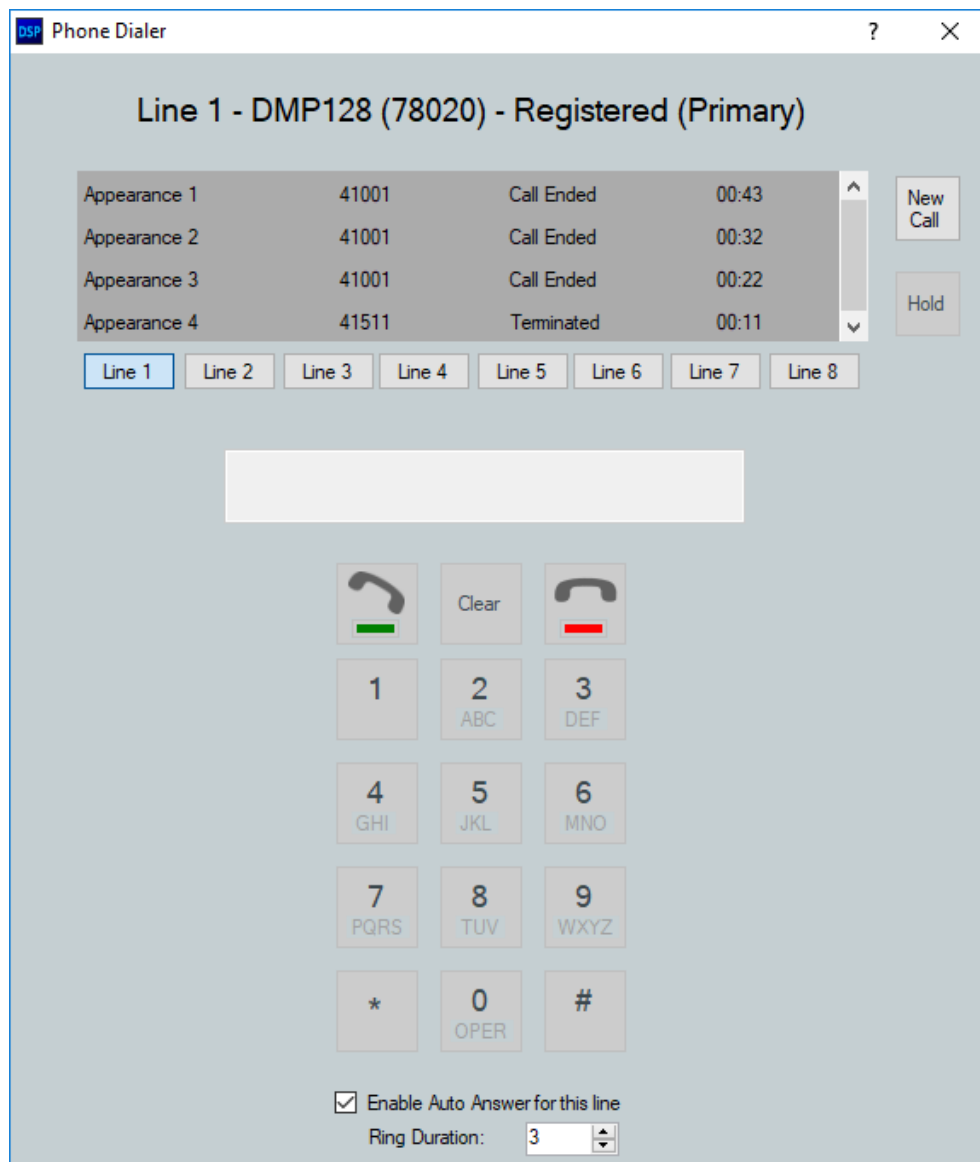
\* Denotes Required Field

Apply

Advanced

Register Unregister Status: Registered - Primary





3. Verify basic telephony features by establishing calls between DMP 128 Plus and local phones.

## 9. Conclusion

These Application Notes described the configuration steps required to integrate Extron DMP 128 Plus C V with Avaya Aura® Communication Manager and Avaya Aura® Session Manager. Extron DMP 128 Plus C V was able to establish calls with H.323 stations, SIP stations, and the PSTN. In addition, basic telephony features were verified. All feature and serviceability test cases were completed successfully with observations noted in **Section 2.2**.

## 10. References

This section references the Avaya and Extron documentation relevant to these Application Notes. The Avaya product documentation is available at <http://support.avaya.com> and the Extron documentation is available at <https://www.extron.com>.

- [1] *Administering Avaya Aura® Communication Manager*, Release 7.1, Issue 1, May 2017.
- [2] *Administering Avaya Aura® System Manager 7.1.2*, Issue 10, January 2018.
- [3] *Administering Avaya Aura® Session Manager*, Release 7.1.2, Issue 3, December 2017.
- [4] *Extron DMP 128 Plus User Guide*, 68-2826-01 Rev.D, 01 18.

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