



Generic SIP Interface

Configuration Guide

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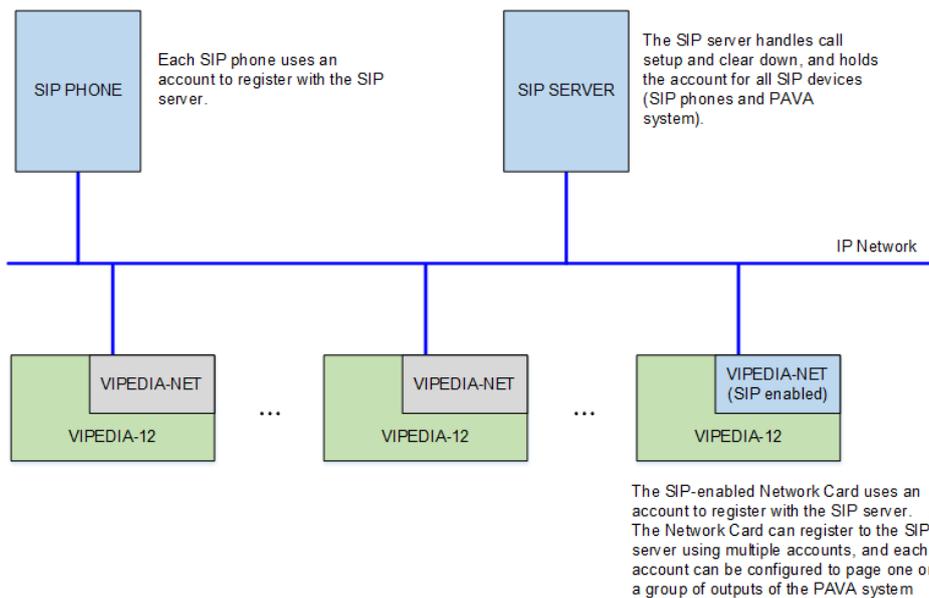
1 Introduction

The VIPEDIA-NET Network Card (V3.0.2.35 or later) provides a generic SIP¹ Interface which enables announcements into the ASL PAVA² system from third party SIP devices such as SIP telephone; see diagram below.

The SIP Interface is configured using the PAVA System Configuration Tool (PAVA SCT) and File Transfer Tool (FTT).

This Configuration Guide describes how to configure the Generic SIP Interface on the VIPEDIA-NET Network Card.

Figure 1 Simplified system overview (example)



Notes:

- 1) The SIP accounts and passwords that are used by the Network Card to register with the SIP server and receive calls should be provided by the SIP server administrator.

The engineer responsible for configuring the PAVA system is only required to specify the number of SIP accounts used by the Network Card. The SIP server administrator can then add these accounts to the server and provide the engineer with the username and password for each account.

The SIP server administrator should also provide the SIP server settings such as IP address, SIP scheme and associated port.

- 2) SIP Interface is not EN 54-16 certified.
- 3) The following software versions are required to support the SIP Interface:

	Software/Firmware	Version
VIPEDIA-12	Host CP	V3.0.2.0 (or later)
VIPEDIA-NET	NET-VIPA	V3.0.2.035 (or later)
Tool	PAVA System Configuration Tool (PAVA SCT)	V3.0.2.3.P (or later)

¹ SIP = Session Initiation Protocol

² PAVA = Public Address and Voice Alarm

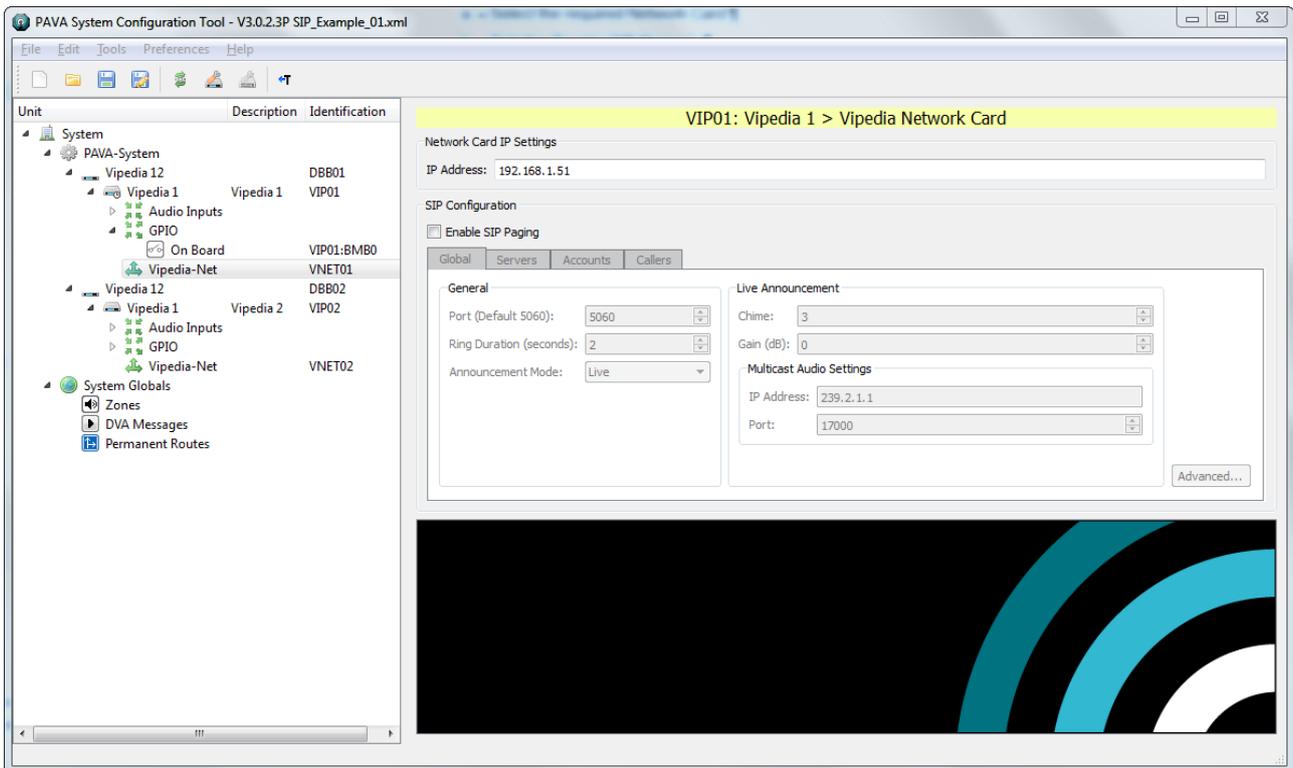
2 Configuration

1. In the PAVA-System tree:
 - a. Select the required Network Card.

Note:

At the time of the publication of this document, only one Network Card in the PAVA system can be configured to provide the SIP Interface.

- b. Check the “Enable SIP Paging” check box.



2. On the “Global” tab, configure the settings for the SIP announcements.
 - a. Configure the General and Live Announcement settings.

VIP01: Vikipedia 1 > Vikipedia Network Card

Network Card IP Settings
IP Address: 192.168.1.51

SIP Configuration
 Enable SIP Paging

Global Servers Accounts Callers

General
Port (Default 5060): 5060
Ring Duration (seconds): 2
Announcement Mode: Live

Live Announcement
Chime: 3
Gain (dB): 0

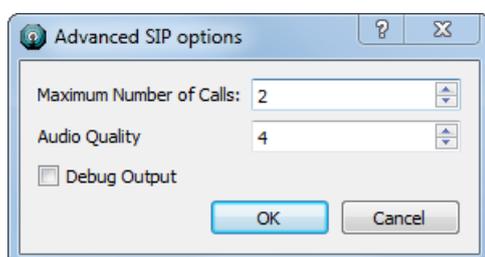
Multicast Audio Settings
IP Address: 239.2.1.1
Port: 17000

Advanced...

Group	Field	Description
General	Port (Default 5060)	Identifies the port used to monitor the incoming SIP traffic (as provided by the SIP server administrator). Default setting: 5060 (commonly used port for non-encrypted signalling traffic)
	Ring Duration (second)	Defines how long the ringing tone will be played before a call is either answered or set as busy by the Network Card. Default setting: 2 seconds
	Announcement Mode	Identifies the paging announcement mode: <ul style="list-style-type: none"> • Live: announcement is broadcast live • Store and Forward: announcement is recorded and then broadcast Default setting: Live
Live Announcement	Chime	Identifies the pre-announcement chime. Available options: <ul style="list-style-type: none"> • 0: No pre-announcement chime • 1: single-note chime • 2: two-note descending overlapping pattern chime • 3: three-note descending overlapping pattern chime Default setting: 3 Notes: At the time of publication of this document, chime is no played for Store and Forward announcements.
	Gain (dB)	The gain level applied to the incoming SIP announcement audio. Valid range: -18 dB to +18 dB Default setting: 0

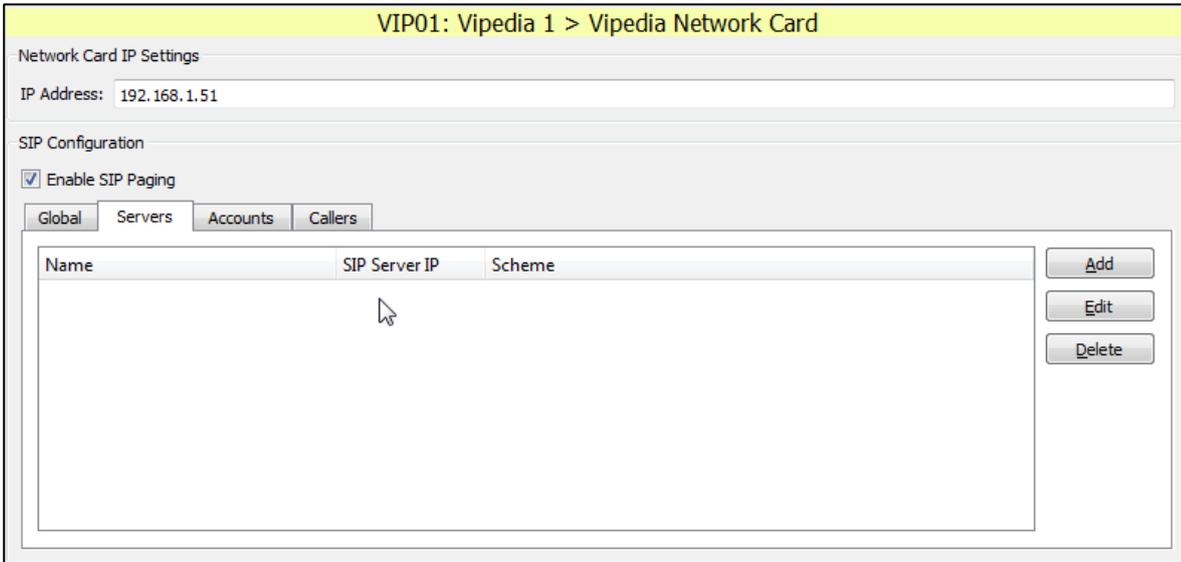
Group	Field	Description
	IP Address	The multicast IP address used within the PAVA system to redirect the incoming SIP call. Valid range: A valid multicast address (range 224.0.0.1 to 239.255.255.255). Default setting: 239.2.1.1
	Port	The port number used within the PAVA system to redirect the incoming SIP call. Valid range: 1024 to 65535 Default setting: 17000

- b. Click the “Advanced” button and configure the options as required.

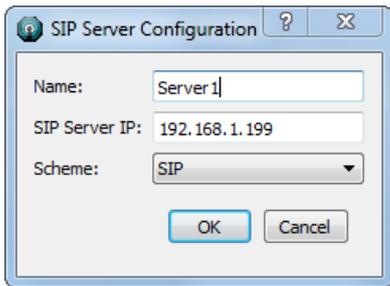


Field	Description
Maximum Number of Calls	Defines the maximum number of simultaneous SIP calls that can be handled by the Network Card. Valid range: 1 to 5 Default setting: 2
Audio Quality	Specifies the quality of the audio that the will be output by the Network Card. Valid range: 1 to 4 Default setting: 4
Debug Output	If enabled, all logging output from the PJSIP library will be processed by the Network Card.

3. On the “Servers” tab, configure the SIP servers that the Network Card registers with.



- a. To add a SIP server, click on the “Add” button.



Field	Description
Name	The SIP Server name. Valid range: Alphanumeric string of any size. Notes: For reference only.
SIP Server IP	IP address of the SIP server that the Network Card registers with as provided by the SIP server administrator. Valid range: Valid IP address Default setting: 192.168.1.199
Scheme	The SIP scheme that the Server supports (refer to the SIP server administrator). Available options: <ul style="list-style-type: none"> SIP: scheme <i>sip</i> SIPS: scheme <i>sips</i> (if secure transmission is required). May require specific Global > General > Port. Default setting: SIP

- b. To delete a SIP server, select the required server and then click on the “Delete” button.
- c. To change the settings of a SIP Server, select the required server and then click on the “Edit” button.

4. On the “Accounts” tab, configure the PAVA system SIP accounts.

VIP01: Vipedia 1 > Vipedia Network Card

Network Card IP Settings

IP Address: 192.168.1.51

SIP Configuration

Enable SIP Paging

Global Servers Accounts Callers

Name	Secret	Priority	Route Type

Add Edit Delete

- a. To add a SIP account, click on the “Add” button.

SIP Account Configuration

Account Credentials

Name:

Secret:

Route Options

Priority: 10

Route Type: Normal

Zones

Zones/Outputs

- VIP01: Vipedia
 - VIP01/OP01: output-01-01
 - VIP01/OP02: output-01-02
 - VIP01/OP03: output-01-03
 - VIP01/OP04: output-01-04
 - VIP01/OP05: output-01-05
 - VIP01/OP06: output-01-06
 - VIP01/OP07: output-01-07
 - VIP01/OP08: output-01-08
 - VIP01/OP09: output-01-09
 - VIP01/OP10: output-01-10
 - VIP01/OP11: output-01-11
 - VIP01/OP12: output-01-12
- VIP2: Vipedia

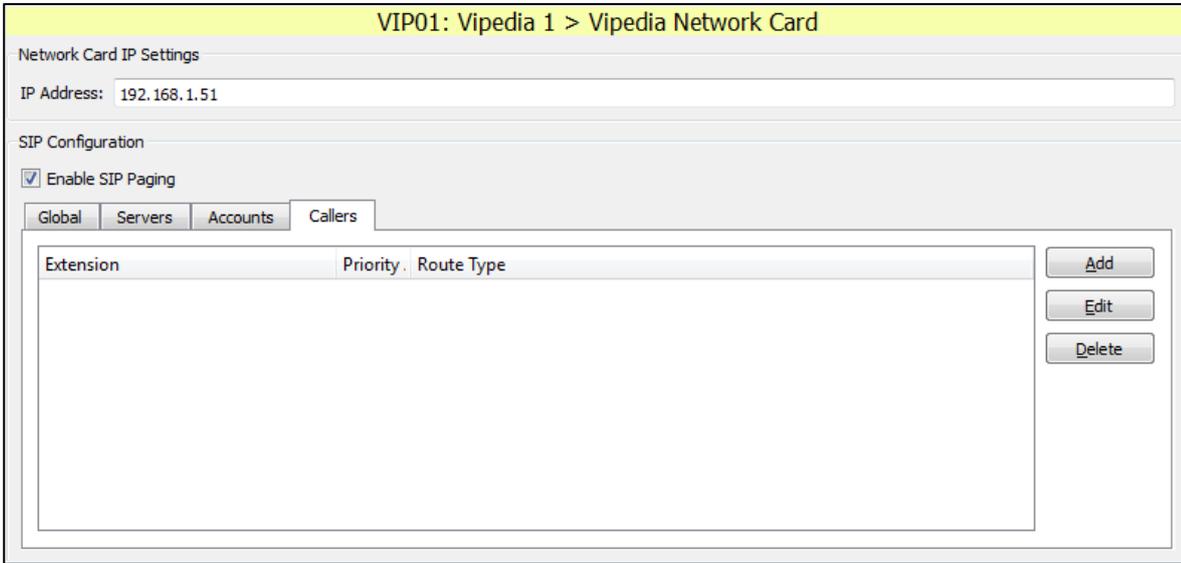
OK Cancel

Group	Field	Description
Account Credentials	Name	The SIP account name as provided by the SIP server administrator. This is the account that is called by a SIP device (e.g., telephone) when it pages outputs of the PAVA system.
	Secret	The SIP account password as provided by the SIP server administrator.

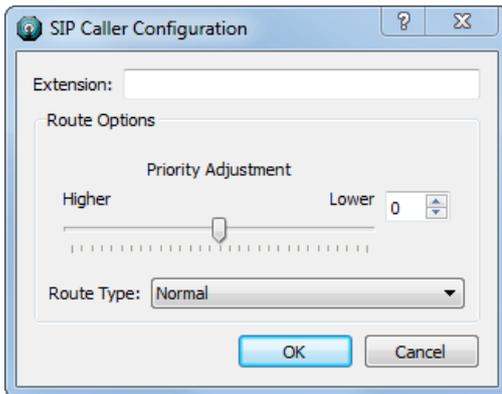
Group	Field	Description
Route Options	Priority	<p>Defines the priority at which the SIP announcement route is made within the PAVA system.</p> <p>Valid range: 1 – 63 (1 = highest priority)</p> <p>Default setting: 10</p> <p>Warnings: Care should be taken in ensuring that emergency audio sources have a high priority, and non-emergency audio sources, such as non-emergency DVAs, paging microphones, and music sources have low priorities. This is to ensure that emergency inputs can override normal inputs.</p> <p>Notes: Assignment of equal priorities means that those routes operate on a “first-come-first-served” basis.</p>
	Type	<p>Defines the emergency class for the SIP announcement.</p> <p>The route class defines how the VA indications are driven when the route is active.</p> <p>It also defines the route behaviour as follows:</p> <ul style="list-style-type: none"> • If NVC is enabled, it is only applied to Normal (Non-Emergency) routes. • If a Silence contact is active, Normal (Non-Emergency) routes are not allowed. Only the activation of a Cancel Silence contact will set the system back to normal operation allowing any routes through. <p>Available options:</p> <ul style="list-style-type: none"> • Normal (Non-Emergency): no VA indications are activated. • Emergency (High): <ul style="list-style-type: none"> - VA indication on the VA indication on the VIPEDIA-12’s front panel illuminates steadily - Main VA indication on microphones illuminates steadily - Zone VA indication on microphones illuminates steadily - VA relay: activated - Digital output VA (any) indication: activated - Digital output VA (high) indication: activated <p>Default setting: Normal</p> <p>Warnings: Emergency type should not be used in in EN 54-16 systems.</p> <p>Notes:</p> <ol style="list-style-type: none"> 1) Emergency: if one or more outputs are busy, the Store and Forward announcement is broadcast to available outputs. 2) Normal: if one or more outputs are busy, the Store and Forward announcement is queued and broadcast when all outputs are available.
Zones	Zones/Outputs	<p>Identifies the outputs of the PAVA system to which an incoming SIP call to this account will be made.</p> <p>Valid range: Any output of any Vipedia unit in the system that is fitted with a Network Card.</p>

- b. To delete a SIP account, select the required account and then click on the “Delete” button.
- c. To change the settings of a SIP account, select the required account and then click on the “Edit” button.

5. On the “Callers” tab, configure the SIP devices that can override the default settings of the PAVA system SIP accounts.



- a. To add a Caller, click on the “Add” button.



Field	Description
Extension	Extension number or account name (as provided by the SIP server administrator) from where the SIP call is originated. Notes: Extension number may not work depending on the SIP server configuration. If not working, use the account name.
Priority Adjustment	Defines the adjustment to the default priority defined for SIP account (see above) SIP announcements originated from this caller. The adjustment is a relative value that is added to the default priority. Thus, if the relative value is negative, the resultant priority is a lower value (higher priority). Valid range: -15 to +15
Route Type	Defines the emergency class for the SIP announcement when originated from this caller. Available options: <ul style="list-style-type: none"> • Normal • Emergency Refer to “Accounts” tab above for further details.

- b. To delete a caller, select the required caller and then click on the “Delete” button.
- c. To change the settings of a caller, select the required caller and then click on the “Edit” button.

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