

Configuration Manual Web Interface

VIPCOS 590 Smart Audio Controller



L. No. 10294 (old: 702590)

Vonamic GmbH
Im Lipperfeld 27
46047 Oberhausen
Germany

Phone: +49 (0) 208 / 30 99 06 - 0
Fax: +49 (0) 208 / 30 99 06 - 99

Web: <http://www.vonamic.com>
Mail: info@vonamic.com

Translation of the German original

Subject to technical modifications

Content

Content.....	2
1. Introducing the VIPCOS Web Interface.....	3
1.1 Overview.....	3
1.2 How to get access to the web interface.....	4
2. Distribution of the web interface.....	7
2.1 Network Settings	7
2.2 Web / SIP Settings	8
2.3 Device Settings	9
2.4 Time Synchronization	10
2.5 Key Configuration	11
2.6 Group Selection	13
2.7 Store / Restore of Config Files.....	13
3. Configuration Description	14
3.1 IP address and device ID.....	14
3.1.1 Preparation.....	14
3.1.2 Set and adjust IP.....	15
3.1.3 Setup and adjust ID	16
3.1.4 Determine device IP-Address (Troubleshooting)	17
3.2 Volume adjustment.....	17
3.3 Direct call connection.....	18
3.4 Group call connection	19
3.4.1 Define group membership	19
3.4.2 Set up a group call	20
3.5 Sound Function.....	20
3.5.1 File format of the sound files	21
3.5.2 Importing sound files.....	21
3.5.3 Playback of sound files in direct and group calls.....	22
3.6 SIP connection	24
3.6.1 SIP server Registration.....	25
3.6.2 Set up an outgoing SIP connection.....	26
3.6.3 Set up an incoming SIP connection	27
3.1 Party line connection.....	28
3.2 Time synchronization (NTP)	29
3.3 Amplifier lines.....	29
3.4 Store and restore of configuration files	30

1. Introducing the VIPCOS Web Interface

1.1 Overview

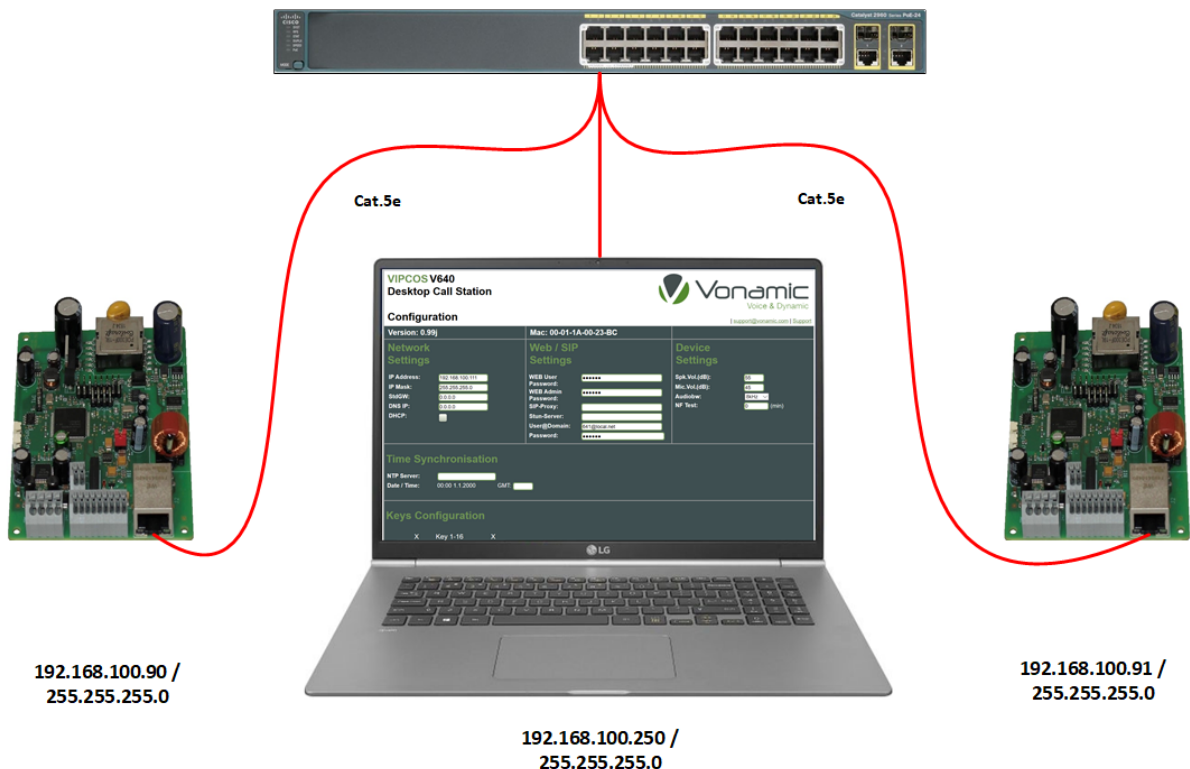
This document describes the detailed configuration of the VIPCOS 590 Smart Audio Controller using the internal web interface. The web interface is divided into six segments **Network Settings**, **Web / SIP settings**, **Device Settings**, **Time Synchronization**, **Key Configuration** and **Group selection**.

Chapter 2 explains the functions of the individual areas in detail. Chapter 3 gives specific configuration examples of the individual functions. After reading this document carefully, you will be able to fully configure the V590 universal audio controller.



The figure above shows the web interface of the V590 Smart Audio Controller.

1.2 How to get access to the web interface



To view and edit the web interface you need a PC with RJ45 network connection, a PoE switch (IEEE 802.3af) and a browser (Internet Explorer, Firefox, Chrome etc.) To begin with the initial configuration stage, you need to reconfigure your PC's IP address and subnet mask so as to make sure the PC can communicate with the V590. After changing PC's IP address (for example, 192.168.100.250) you can access the Web interface of the device using the V590 default IP address.

The factory default configurations of the V590 are as follows:

<u>IP address:</u>	192.168.100.10
<u>Subnet mask:</u>	255.255.255.0
<u>Login:</u>	User (limited write) / admin / superadmin
<u>Password:</u>	Vonamic / Vonamic / Vonamic

Note: If you are using a system that has already been configured, please use the IP address range of your system. The examples in this manual use the IP address range of the factory default.

1. Power up the PC that you will use for the initial configuration. Please make sure the PC has the Ethernet RJ45 connector to be connected to the switch via standard Ethernet LAN cable.
2. Reconfigure the PC's IP address and subnet mask as below, so that it can communicate with the switch. The method to change the PC's IP address, for example, for a PC running Windows® 7/8.x/10, is as follows:

Step 1: Type “network and sharing” into the **Search box** in the **Start Menu**

Step 2: Select **Network and Sharing Center**

Step 3: Click on **Change adapter settings** on the left of PC screen

Note: Users can also skip step 1 to 3, by pressing **WinKey+R** and type “ncpa.cpl” command to get to step 4 directly.

Step 4: Right-click on your local adapter and select **Properties**

Step 5: In the **Local Area Connection Properties** window highlight **Internet Protocol Version 4 (TCP/IPv4)** then click the Properties button.

Note: Be sure to record all your PC’s current IP settings to be able to restore them later.

Step 6: Select the radio button **Use the following IP address** and enter in the IP for the PC (e.g. any IP address not in use, and in between 192.168.100.1 and 192.168.100.254), Subnet mask (e.g. 255.255.255.0), and Default gateway that corresponds with your network setup. Then enter your preferred and Alternate DNS server addresses.

Step 7: Click **OK** to change the PC’s IP address.

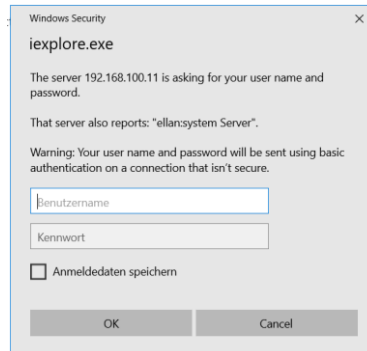
3. Turn on the switch that will be used for configuration and as the voltage source of the V590. Wait until the start-up process is completed.
4. Make sure that PoE is activated on the switch. Connect the V590 to an PoE Port using a standard network cable, and check the port LED on the switch to make sure the link status of the V590 is OK.
5. Connect the PC to any port on the switch using a standard Ethernet cable, and check the port LED on the switch to make sure the link status of the PC is OK.
6. Run your Web browser on the PC; enter the factory default IP address, to access the V590 Web interface.

If your PC is configured correctly, you will see the login page of V590 as shown below.

If you do not see the above login page, please perform the following steps:

- Refresh the web page.
- Check to see if there is an IP conflict issue.
- Clean browser cookies and temporary internet files.
- Check your PC settings again and repeat step 2.

7. Enter the factory default username and password in login page.
Click "OK" to log into the V590.



Username: User, Admin or Superadmin

Password: Use the set password for each user level.
(Default: **Vonamic**)

The VIPCOS system has a three-level password protection.

User	Read / limited Write
Admin	Read / Write
Superadmin	Read / Write / Password Control

To get the full access, login as administrator by entering Username: **Admin** and Password: **Vonamic**.

Note: If you are using a pre-configured system, please use the current passwords. If you are not sure, ask your system administrator.

2. Distribution of the web interface

2.1 Network Settings



VIPCOS V590
Smart Audio Controller

Configuration

Version: 0.90e Mac: 00-01-1A-00-2C-02

Network Settings	Web / SIP Settings	Device Settings
IP Address: 192.168.100.10 IP Mask: 255.255.255.0 StdGW: 0.0.0.0 DNS IP: 0.0.0.0	WEB User Password: WEB Admin Password: SIP-Proxy: Stun-Server: User@Domain: 590@local.net Password:	Spk.Vol.(dB): 45 Mic.Vol.(dB): 45 Wideband: ☒ AmpPW: 10W NF Test: 0 (min) RelaisMode: answer Delay: 0

Time Synchronisation

NTP Server:
 Date / Time: GMT:

IP address: Changes the IP address of the end device. Enter a valid IP address and click on "Save" to initiate a restart. The new IP address was adopted after the restart and the device website must be called again using the new address.

IP mask: Changes the subnet mask of the end device. Enter a valid subnet mask and click on "Save" to initiate a restart. The new subnet mask was adopted after the restart.

StdGW: Setting a standard gateway for routing connections e.g. to other subnets. Changes are applied after saving.

DNS IP: Setting a DNS server.

Note: After saving, please wait with further settings until the browser has loaded the page completely. Some settings require a restart of the device so that the charging process can be delayed.

2.2 Web / SIP Settings



VIPCOS V590
Smart Audio Controller

Configuration

Version: 0.90e Mac: 00-01-1A-00-2C-02

Network Settings

IP Address: 192.168.100.10
 IP Mask: 255.255.255.0
 StdGW: 0.0.0.0
 DNS IP: 0.0.0.0

Web / SIP Settings

WEB User:
 Password:
 WEB Admin:
 Password:
 SIP-Proxy:
 Stun-Server:
 User@Domain: 590@local.net
 Password:

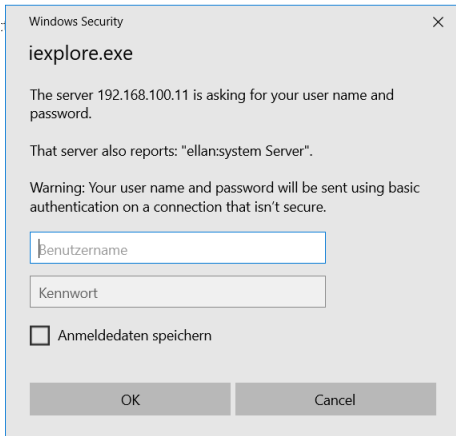
Device Settings

Spk.Vol.(dB): 45
 Mic.Vol.(dB): 45
 Wideband: ☒
 AmpPW: 10W
 NF Test: 0 (min)
 RelaisMode: answer
 Delay: 0

Time Synchronisation

NTP Server:
 Date / Time: 00:36 1.1.2000 GMT:

WEB password: Password for website access. Insert the desired password in the field provided and confirm your entry with the "save" button in the lower part of the screen. You get the following picture:



Username: User, Admin or Superadmin
Password: Use the set password for each user level.
 (Default: **Vonamic**)

SIP Proxy: IP address of the SIP server.

Stun Server: IP address of the stun server.

User@Domain: own phone number of the terminal. Input from 1000 - 9999. In local networks we recommend the extension @ local.net after the phone number. When registering with a SIP server, the ending is different. (e.g. for Call number 1001: 1001@local.net)

Password: Password for registration on the SIP server. (The login status is shown behind the input field. No automatic refresh.)

2.3 Device Settings

VIPCOS V590
Smart Audio Controller


Vonamic
 Voice & Dynamic
| support@vonamic.com | Support

Configuration
 Version: 0.90e Mac: 00-01-1A-00-2C-02

Network Settings	Web / SIP Settings	Device Settings
IP Address: 192.168.100.10 IP Mask: 255.255.255.0 StdGW: 0.0.0.0 DNS IP: 0.0.0.0	WEB User Password: WEB Admin Password: SIP-Proxy: Stun-Server: User@Domain: 590@local.net Password:	Spk.Vol.(dB): 45 Mic.Vol.(dB): 45 Wideband: ☒ AmpPW: 10W NF Test: 0 (min) RelaisMode: answer Delay: 0

Time Synchronisation
 NTP Server:
 Date / Time: GMT:

- Spk.Vol.(dB):** Volume setting of the internal loudspeaker in dB. (Max. 63)
- Mic.Vol.(dB):** Volume setting of the internal microphone in dB. (Max. 74)
- Wideband:** If activated, the codec is changed from G.711 to 8 kHz.
- Amp. PW:** Setting the gain factor from 10W to 40W.
Please note: 40W operation Mode assumes external 24VDC power supply.
- NF Test:** Setting the time for the recurring self-test of the audio peripherals.
 Possible settings between 1 and 1440 minutes (24 hours)
- RelaisMode:** Setting the operating mode of the internal relay. (On, Off, Answer, Online)
- Delay:** Sets the delay time of the relay. Values between 0 = no follow-up time up to 255 minutes can be set.

2.4 Time Synchronization

VIPCOS V590
Smart Audio Controller


Vonamic
 Voice & Dynamic

| support@vonamic.com | [Support](#)

Configuration

Version: 0.90e	Mac: 00-01-1A-00-2C-02	
Network Settings IP Address: 192.168.100.10 IP Mask: 255.255.255.0 StdGW: 0.0.0.0 DNS IP: 0.0.0.0	Web / SIP Settings WEB User Password: WEB Admin Password: SIP-Proxy: Stun-Server: User@Domain: 590@local.net Password:	Device Settings Spk.Vol.(dB): 45 Mic.Vol.(dB): 45 Wideband: ☒ AmpPW: 10W NF Test: 0 (min) RelaisMode: answer Delay: 0

Time Synchronisation
 NTP Server:
 Date / Time: GMT:

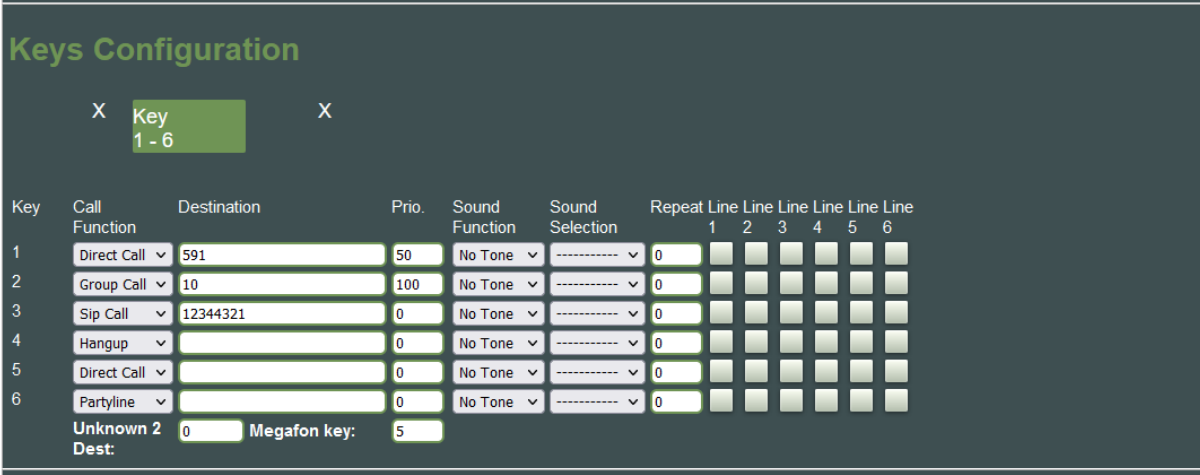
NTP Server: IP address of the NTP server.

Date / Time: current date and time display. (no automatic refresh)

GMT: Time Zone.

2.5 Key Configuration

The 6 destination / function keys are located under the "Keys Configuration" segment. Pressing the "Key 1 - 6" button opens the setting options for the buttons. Press one of the two "X" symbols next to the "Key 1 - 6" button to close.



Key	Call Function	Destination	Prio.	Sound Function	Sound Selection	Repeat	Line Selection					
							1	2	3	4	5	6
1	Direct Call	591	50	No Tone	-----	0						
2	Group Call	10	100	No Tone	-----	0						
3	Sip Call	12344321	0	No Tone	-----	0						
4	Hangup		0	No Tone	-----	0						
5	Direct Call		0	No Tone	-----	0						
6	Partyline		0	No Tone	-----	0						

Unknown 2 Dest: 0 Megafon key: 5

Key: Number of Key / Input.

Call function: Setting the connection type or the call function. (Individual call, group call, telephone call, dynamic group call, party line, volume +/-, alarm etc.)

Destination: Enter the call destination. (1000 - 9999 neuronal)

Prio.: Enter the call priority. (1-255)

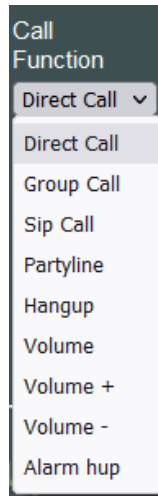
sound function: Setting the playback function. (No tone, pre-tone, tone)

sound selection: Setting the sound file for playback.

repeats: Enter repetition number. 0 = no repetition (max. 98, 99 = endless)

Line selection: Setting the playback lines of a V1000 IP 400W amplifier.

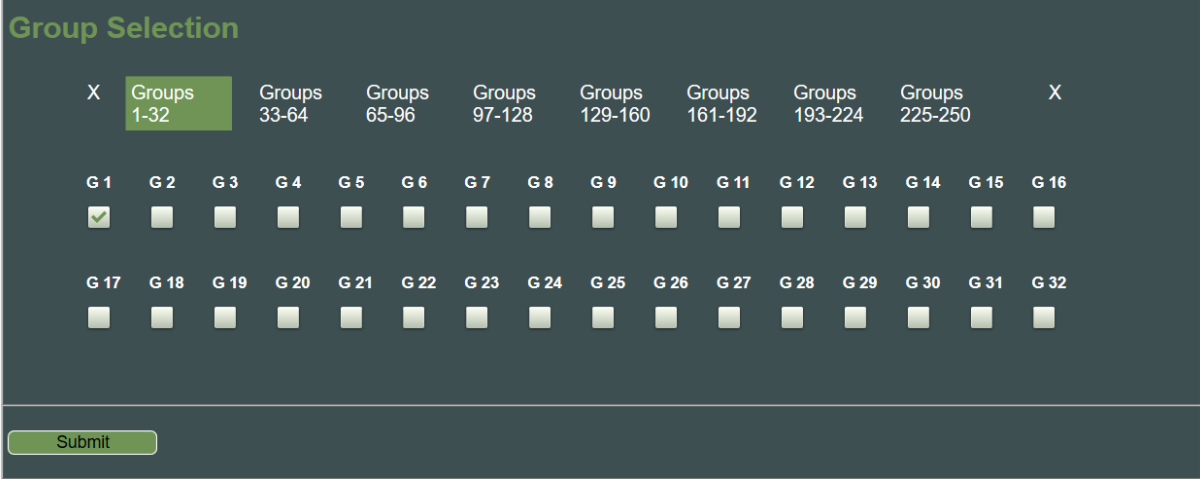
Call function Description:



Direct call:	Individual connection to a terminal. Enter the destination number here. For a VIPCOS device, enter the number you have assigned to the destination under " User @ Domain ".
Group call:	Connection to all participants in the corresponding group. Enter the group number you want to announce here. 1 - 255
Sip call:	telephone connection. Enter the phone number of the phone you want to reach here.
Partyline:	Answer button (slave) in a party. Party line connections are controlled by a master.
Hang up:	Terminate a telephone connection. Press to end a phone call.
Volume:	restore volume from website. When pressed, the volume of the internal loudspeaker is set to the value set under "Spk.Vol.".
Volume +/-:	Increase / decrease the volume of the internal speaker. Each actuation increases / decreases by 1 dB.
Alarm hup:	Stops alarm playback. Pressing it will interrupt a previously started alarm.

2.6 Group Selection

The group selection is divided into segments of 32 groups per segment. Clicking on a segment opens it up and the respective group checkboxes are accessible. Clicking on another segment will switch. To close, press the X.



The interface shows a 'Group Selection' window with a dark background. At the top, there are tabs for different group ranges: 'Groups 1-32' (selected), 'Groups 33-64', 'Groups 65-96', 'Groups 97-128', 'Groups 129-160', 'Groups 161-192', 'Groups 193-224', and 'Groups 225-250'. Each tab has an 'X' icon to close it. Below the tabs, there is a grid of 32 checkboxes labeled G 1 through G 32. The checkbox for G 1 is checked. At the bottom of the window is a green 'Submit' button.

A total of 250 groups are available in the VIPCOS system. Each VIPCOS device can be a participant in all groups, including several at the same time. To determine the group membership, it is sufficient to activate the corresponding checkbox of the group with a click of the mouse. As soon as you have finished selecting the affiliation, confirm your entry with the Submit button.

2.7 Store / Restore of Config Files

After you have completed the configuration and saved it with **Submit**, you can load the configuration as an encrypted file from the device. You can save this file externally and use it for your archiving. This means that different configurations can be restored quickly and easily, different configuration statuses can be archived and failed devices can be easily replaced.



The interface shows a section titled 'Please select a config file Configuration'. It includes a text input field with a 'Durchsuchen...' button next to it. Below the input field are two green buttons: 'Store' and 'Restore'.

the corresponding setting area is located in the lower part of the web interface. Chapter 3 contains a description of this function.

3. Configuration Description

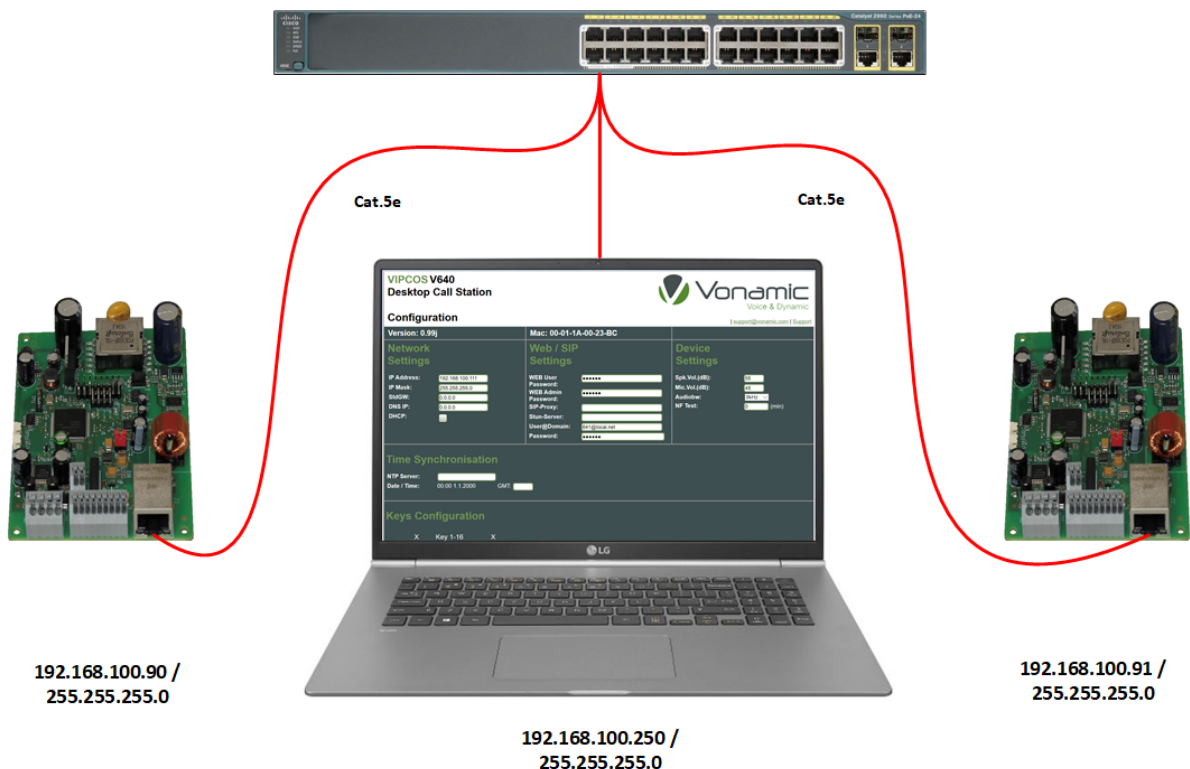
3.1 IP address and device ID

3.1.1 Preparation

In order to establish communication in the VIPCOS system, it is necessary to assign an individual IP address in the same IP address range and a device ID between **1000** and **9999** to each device. First, you should adjust the V590's IP address. By default, the IP address is **192.168.100.10 / 255.255.255.0**. Next, the call station needs an individual ID in order to be able to make an assignment for direct and SIP calls.

In our example, we will adjust the IP and ID of two V590 universal audio controllers and thus create the first requirement for communication in VIPCOS System.

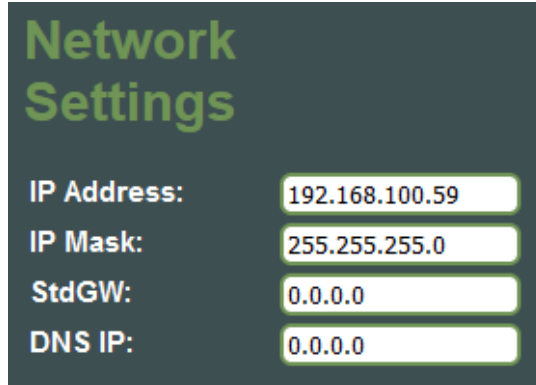
First create an environment as described in **chapter 1.2** and get access to the web interface of first V590:



Subject to technical modifications

3.1.2 Set and adjust IP

Adjust the IP address of the device by double-clicking in the **"IP Address:"** field. This marks the entire content. Now enter a valid IP address in the usual format. In our example, we set the first V590 to IP address **192.168.100.59**. You can adjust the subnet mask by double-clicking in the **"IP Mask:"** field and entering a valid subnet mask. In our example **255.255.255.0**.



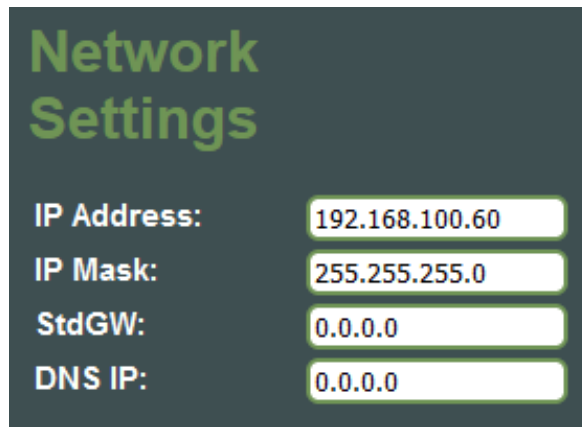
Network Settings

IP Address:	192.168.100.59
IP Mask:	255.255.255.0
StdGW:	0.0.0.0
DNS IP:	0.0.0.0

After you have made the entries, confirm and accept them by clicking the "Submit" button at the bottom of the website. The device will now restart and apply the changes. The restart takes <10s and the device can then be reached via its new IP address.

 <http://192.168.100.64/>

A second device is required for later examples. Please repeat the previous steps and set the IP address / subnet mask of a second V590 to **192.168.100.60 / 255.255.255.0**.



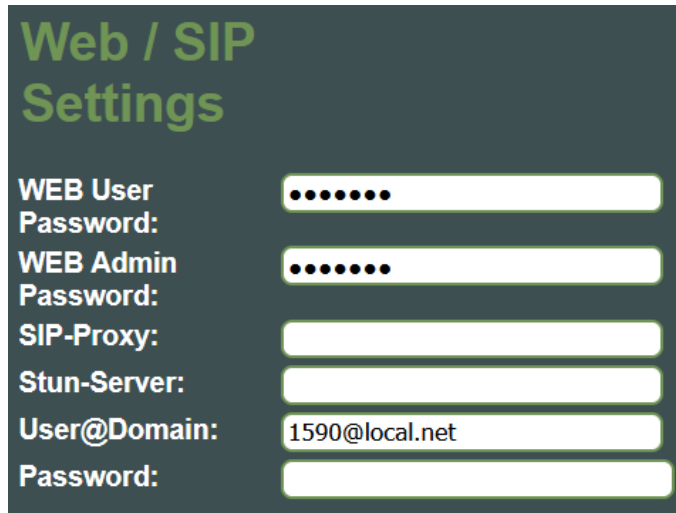
Network Settings

IP Address:	192.168.100.60
IP Mask:	255.255.255.0
StdGW:	0.0.0.0
DNS IP:	0.0.0.0

3.1.3 Setup and adjust ID

The device ID is an alphanumeric string. It is used to assign calls in the VIPCOS system. The IDs must be between **1000** and **9999** and may only exist once within a system.

Adjust the ID of the device by double-clicking in the **"User@Domain:"** field. This marks the entire content. Now enter a valid device ID, between **1000** and **9999**. In our example we set the first V590 the ID **1590@local.net**.

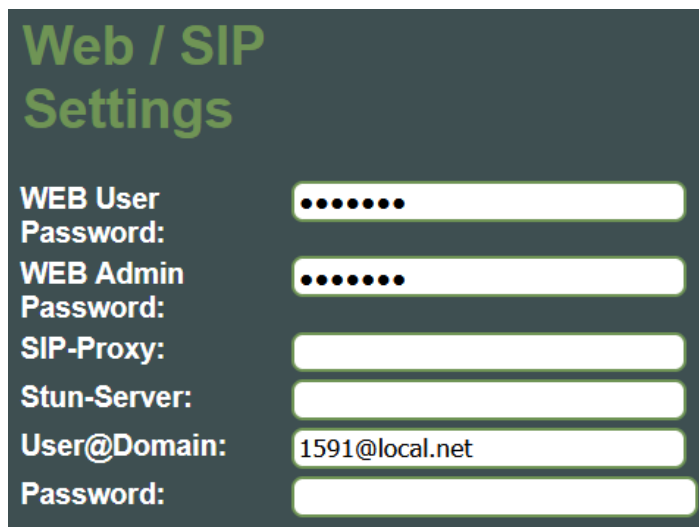


Web / SIP Settings

WEB User Password:	
WEB Admin Password:	
SIP-Proxy:	
Stun-Server:	
User@Domain:	1590@local.net
Password:	

After you have made the entries, confirm and accept them by clicking the **"Submit"** button at the bottom of the website. The device will restart and apply the changes. The restart takes <10s.

A second device is required for later examples. Please repeat the previous step and set the device ID of the second V590 to **1591@local.net**.



Web / SIP Settings

WEB User Password:	
WEB Admin Password:	
SIP-Proxy:	
Stun-Server:	
User@Domain:	1591@local.net
Password:	

3.1.4 Determine device IP-Address (Troubleshooting)

If you do not know the IP address of your device, we will show you three ways to determine the address in this section.

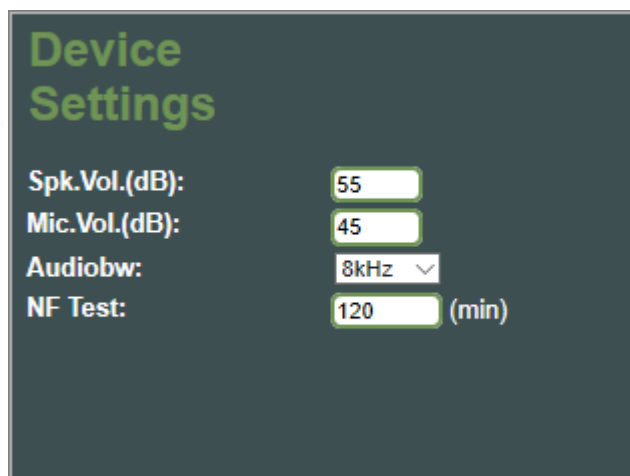
1. **Gratuitous ARP:** denotes a special use of **ARP**. A host sends an **ARP** request broadcast, in which it enters its own IP address as the source and destination IP address. This procedure is used by all VIPCOS devices and is output when the devices boot. With a network protocol analyzer such as Wireshark can be used to determine the IP address.
2. **Keep Alive:** the VIPCOS devices will output this package every 10 seconds. These show the operational readiness and, if necessary, output error messages. The package includes the IP address of the device as the source. You can use a network protocol analyzer such as Wireshark to determine the IP address.
3. **Debug:** The VIPCOS devices have a debug interface which also outputs the device's IP address. A TTL-USB cable is required to use this interface. Training is required to complete this step. Please contact us under support@vonamic.com to get your individual offer.

3.2 Volume adjustment

By setting the IP address and device ID, the basic requirements for communication exist. We would already be able to establish communication channels between the devices. However, to prevent an error, we start by adjusting the volume of the device. The settings for loudspeaker and microphone can be set separately on the device website. If the volume values for loudspeaker and microphone are set to 0 or a very low value, it can give the impression that the connection has not been established.

We therefore recommend setting a volume of:

Spk. Vol(dB): 55 (max. 63)
Mic. Vol(dB): 45 (max. 72)
Audiobw: 8 kHz

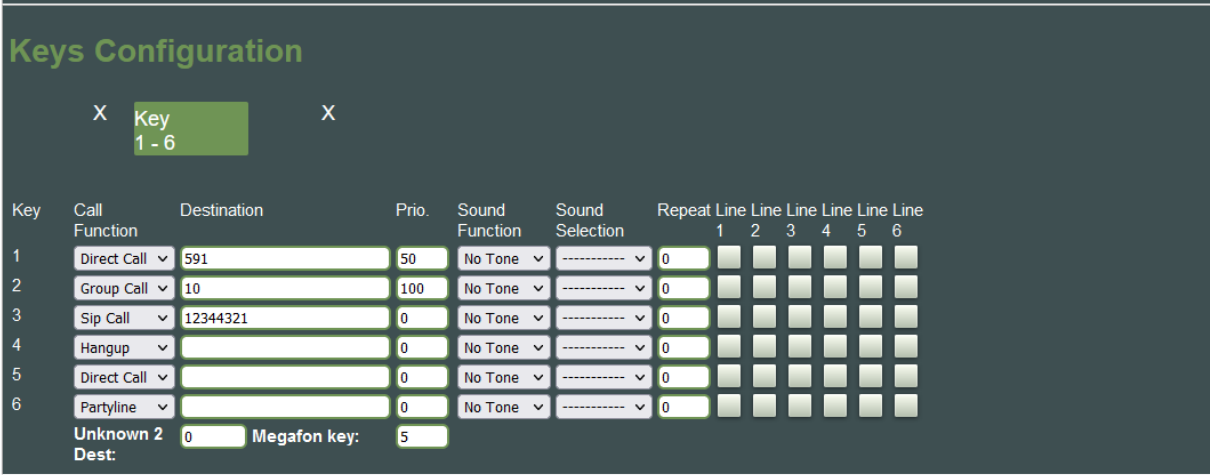


The screenshot shows a web interface titled "Device Settings" with a dark background. It contains four settings:

- Spk.Vol.(dB):** A text input field containing the value "55".
- Mic.Vol.(dB):** A text input field containing the value "45".
- Audiobw:** A dropdown menu showing "8kHz" with a downward arrow.
- NF Test:** A text input field containing the value "120", followed by "(min)" in parentheses.

3.3 Direct call connection

To set up a direct call, use the **"Key Configuration"** area. In our example, we will set up a direct call to the other V590 on key 1 of the respective V590 universal audio controller. In the left area of the web interface you will find the key number and from left to right the respective configuration options for the key.



Key	Call Function	Destination	Prio.	Sound Function	Sound Selection	Repeat	Line					
							1	2	3	4	5	6
1	Direct Call	591	50	No Tone	-----	0						
2	Group Call	10	100	No Tone	-----	0						
3	Sip Call	12344321	0	No Tone	-----	0						
4	Hangup		0	No Tone	-----	0						
5	Direct Call		0	No Tone	-----	0						
6	Partyline		0	No Tone	-----	0						

Unknown 2 Dest: 0 Megafon key: 5

1. Select the **"Direct Call"** function from the **"Call Function"** drop-down list for button 1.
2. Enter the device ID of the extension you want to reach in the **"Destination"** field. In our example we use the **ID 1590** (192.168.100.59) and **ID 1591** (192.168.100.60).

So, we enter **"1591"** in the field destination of the device with the ID 1590. In the device with ID 1591, we enter **"1590"** inside the destination field.

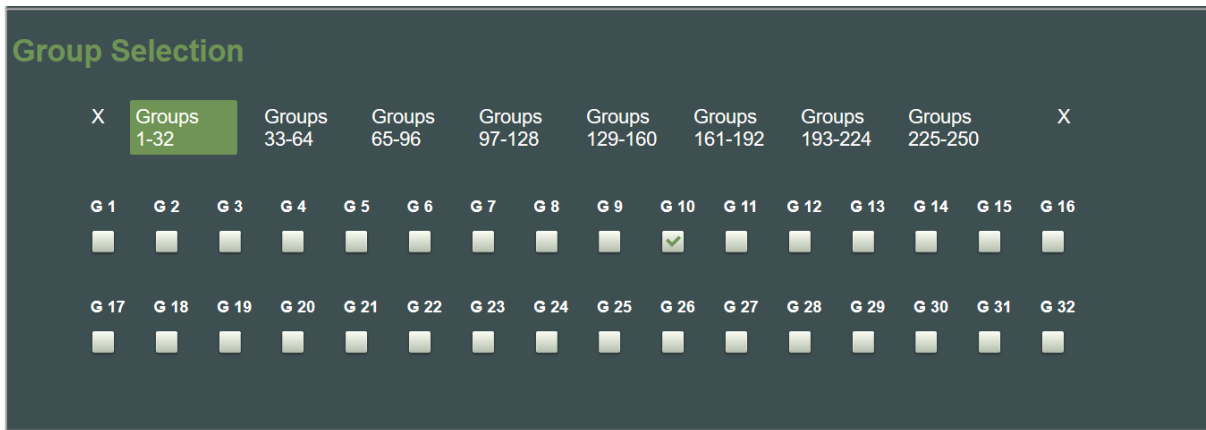
If you now hold down the button 1 on ID 1590, the device establishes a unicast connection to the device with ID 1591 and maintains the connection for the duration of the button press.

3.4 Group call connection

A group call denotes a connection to all participants in the corresponding group. First, the group membership should be determined and then the group call should be set up.

3.4.1 Define group membership

A total of 250 groups are available in the VIPCOS system. Each VIPCOS device can be a participant in all groups, including several at the same time. The group selection is divided into segments of 32 groups per segment. Clicking on a segment opens it up and the respective group checkboxes are accessible. Clicking on another segment will switch. To close, press the X.



X	Groups 1-32	Groups 33-64	Groups 65-96	Groups 97-128	Groups 129-160	Groups 161-192	Groups 193-224	Groups 225-250	X						
G 1	G 2	G 3	G 4	G 5	G 6	G 7	G 8	G 9	G 10	G 11	G 12	G 13	G 14	G 15	G 16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐
G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24	G 25	G 26	G 27	G 28	G 29	G 30	G 31	G 32
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

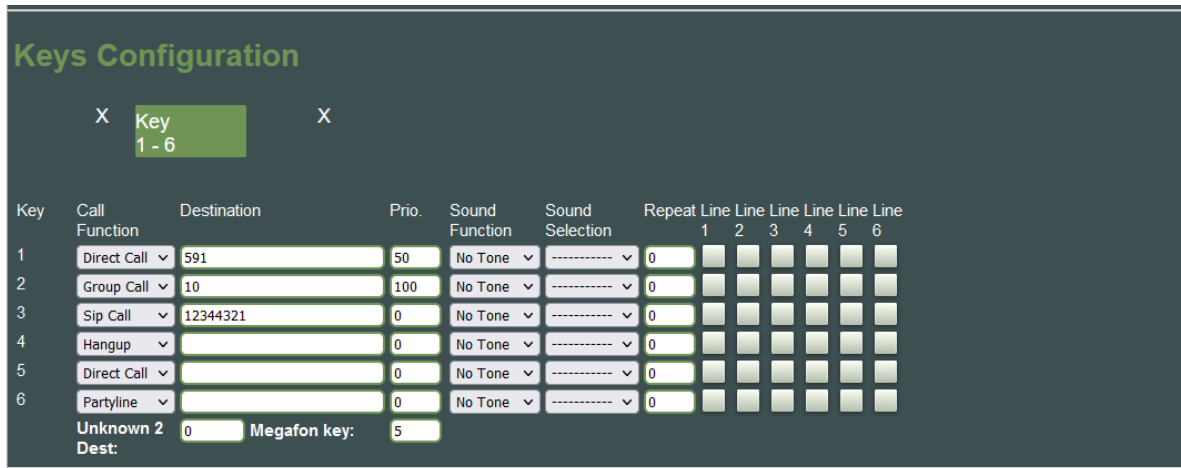
In our example, we will configure both V590 universal audio controllers for participants in group 10.

1. Select the **"Groups 1-32"** segment with a mouse click. A total of 32 check boxes are now displayed under the segments, the respective groups of the corresponding segment.
2. By clicking on a check box, the affiliation of the corresponding group is determined and confirmed with a check mark. Check "G 10" and accept your entry by clicking the "Submit" button.

A total of 250 groups are available in the VIPCOS system. Each VIPCOS device can be a participant in all groups, including several at the same time.

3.4.2 Set up a group call

To set up a group call, use the **"Key Configuration"** area. In our example, we will configure a group call in group 10 on key 2 of both V590 universal audio controllers. In the left area of the web interface you will find the key number and from left to right the respective configuration options for the key.



Key	Call Function	Destination	Prio.	Sound Function	Sound Selection	Repeat	Line 1	Line 2	Line 3	Line 4	Line 5	Line 6
1	Direct Call	591	50	No Tone	-----	0						
2	Group Call	10	100	No Tone	-----	0						
3	Sip Call	12344321	0	No Tone	-----	0						
4	Hangup		0	No Tone	-----	0						
5	Direct Call		0	No Tone	-----	0						
6	Partyline		0	No Tone	-----	0						

Unknown 2 Dest: 0 Megafon key: 5

1. Select the **"Group Call"** function from the **"Call Function"** drop-down list for key 2.
2. Enter group number **10** in the **"Destination"** field.
Optional: Enter the desired display name for this connection in the **"Labeling"** field (<14 characters). If you do not make an entry here, the group number is shown in the display when this connection is established.
3. Confirm your entry by pressing the **"Submit"** button.
4. Perform steps 1-3 for both **ID 1590** and **ID 1591**.

If you now hold down button 2 of the respective V590, the device will establish a multicast connection to group 10 and hold the connection for the duration of the button press. All devices that are participants in group 10 are now addressed.

3.5 Sound Function

The V590 Smart Audio Controller can stream sound files into the VIPCOS system, either as an individual or group call. These can be repeated up to 98 times or played in an endless loop until they are ended manually. It is also possible to use the sounds as pre-tones. In this case, the sound is played before the live announcement. For control purposes, the device also reproduces the sound in the internal loudspeaker.

3.5.1 File format of the sound files

The file format for playback via the VIPCOS system by the V590 Smart Audio Controller is:

- Wave A-Law, 16 kHz, mono
- Volume reduced by 75%

The internal memory of the device is 32 MB. The files must be converted and combined by Vonamic so that the V590 can use them.

We are happy to convert your sound files into the right format for you. Talk to your Vonamic contact person or write us an email to support@vonamic.com. We would be happy to make you an individual offer.

3.5.2 Importing sound files

The sound files are transferred to the V590 as a TFTP upload of a preconfigured and combined file called **Filesystem.tsk** to the device's IP address.

In our example we use the free TFTP server / client program PumpKIN. You can use any TFTP upload program, e.g. MSDOS.

1. Open the PumpKIN program.
2. Drag and drop the Sound file **"filesystem.tsk"** to Pumpkin. A Window will automatically appear.
3. Place the device IP address in the Window (in our Example: **192.168.100.59**) at remote Host field and click **OK** (if the device got a different IP address at this point then you need to place its actual IP address.)
4. The process will begin, and you can see how many bits already uploaded. Wait for the successful upload.
5. After upload all configuration will be the same as before the upload.
6. Now the Sound files are stored at the internal RAM of V590 and available in the dropdown menu in segment **"Key configuration"** at section **"Sound Selection"**.

Sound Function	Sound Selection	Repeat
No Tone ▾	-----	0
Pre Tone ▾	36_zwa_1go	0
No Tone ▾	37_zwa_2go	0
No Tone ▾	38_zwa_3go	0
No Tone ▾	40_Hauptal	0
No Tone ▾	41_Probete	0
No Tone ▾	53_Probete	0

3.5.3 Playback of sound files in direct and group calls

To set up a sound file playback after successfully transferring a valid sound file, use the "**Sound Function**" section in the "**Key Configuration**" area. In the dropdown menu you have the following options:

Sound Function	description	Repeat option
No Tone	No playback	not applicable
Tone	Play the selected sound file in the selected repeat number	from 0 to 98 repetitions possible. 99 = Endless till manually reset
Pre-Tone	Play the selected sound file as a pre-gong. After playback, the microphone is activated and the live announcement to the specified destination is started.	not applicable
Alarm	Play the selected sound file as an alarm. To stop an alarm, the "Alarm Stop" function must be configured to a free button. Playbacks that are marked as alarms require a separate reset button.	from 0 to 98 repetitions possible. 99 = Endless till manually reset

In the drop-down menu "**Sound selection**" you can select the currently loaded sound files with file names. The selected sound is used for playback in the current mode.

Sound Function	Sound Selection	Repeat
No Tone ▾	-----	0
Pre Tone ▾	36_zwa_1go	0
No Tone ▾	37_zwa_2go	0
No Tone ▾	38_zwa_3go	0
No Tone ▾	40_Hauptal	0
No Tone ▾	41_Probete	0
No Tone ▾	53_Probete	0

Under the menu item "**Repeat**" you can set the repetitions for the sound function "**Tone**". A single repetition means that the sound file is played twice in total.

In our example, we will set up a single call on key 3 of the V590 Smart Audio Controller **ID 1590**, with the sound file "**41_Probete**" being played three times (Repeat twice) to the device **ID 1591**. And we will assign the pre-tone "**37_zwa_2go**" to the group call on key two.

1. Set the "**call function**" from key 3 to "**direct call**".
2. Enter "**1591**" in "**destination**" field.
3. Select "**Tone**" from the "**Sound Function**" drop-down list.
4. Select the "**41_Probete**" file under "**Sound Selection**".
5. Enter "**2**" for "**Repeat**". (This plays the sound once and repeats twice. The Sound Plays three Times in total).
6. Save your entry with "**Submit**".

Pressing button 3 once on device ID 1590 plays the sound of the test announcement in device ID 1591 three times.

Pre-Tone

1. Select "**Pre-Tone**" in the drop-down list "**Sound Function**" of key 2.
2. Select the "**37_zwa_2go**" gong in "Sound Selection".
3. Save your entry with "**Submit**".

By holding key 2 on device **ID 1590** the Pre-Tone playback in group 10 is started. The Pre-Tone can also be heard in the internal speaker. As soon as playback is complete and the button is still pressed, the live announcement is started.

3.6 SIP connection

The V590 Smart Audio Controller can be integrated as a subscriber / terminal in a SIP (Session Internet Protocol) environment. The following RFCs are supported:

- RFC3261 compliant (SIP 2.0) without redirection and ringing mode, for which there is currently no application in the VIPCOS system.
- RFC4566 compliant SDP (Session Description Protocol)
- „Loose routing” and „strict routing”
- „Early Media support”
- „Offer/Answer” (RFC3264)
- STUN Client (NAT traversal)

3.6.1 SIP server Registration

You need the following information to log on to a SIP server:

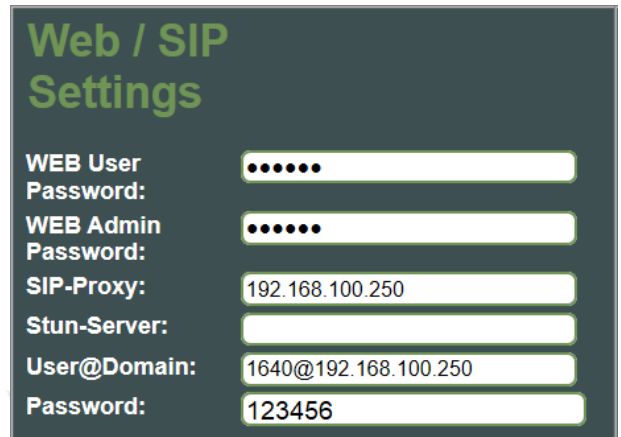
- IP address of the SIP server *
- SIP registration number *
- SIP registration password *

* This information can be obtained from your system administrator.

In our example, we use the following SIP server information:

- | | |
|--------------------------------|------------------------------------|
| - IP address of the SIP server | 192.168.100.250 |
| - SIP registration number | <u>1590@192.168.100.250</u> |
| - SIP registration password | 123456 |

1. Enter the IP address of the SIP server in the "**Web / SIP Settings**" segment in the "**SIP Proxy**" field.
2. Enter the SIP registration number in the "**User@Domain**" field. In some SIP environments it is necessary to enter an @ and the IP address of the SIP server after the registration number. (**1590@192.168.100.250**).
3. Enter the SIP registration password in the "**Password**" field.
4. Save your entry with "**Submit**".



The device will reboot and try to register on the SIP server. The current status of the registration is displayed under the Password field. The status "**Login**" is displayed first. This means that the registration attempt was started.

Note: After entering and saving SIP configuration, the website should be opened once by entering the address manually. You can then use the Refresh button or the F5 key to refresh the website to see the current SIP status.

Next you get either the status "**Active**" or "**Error**".

Active means that the registration on the SIP server was successfully completed.

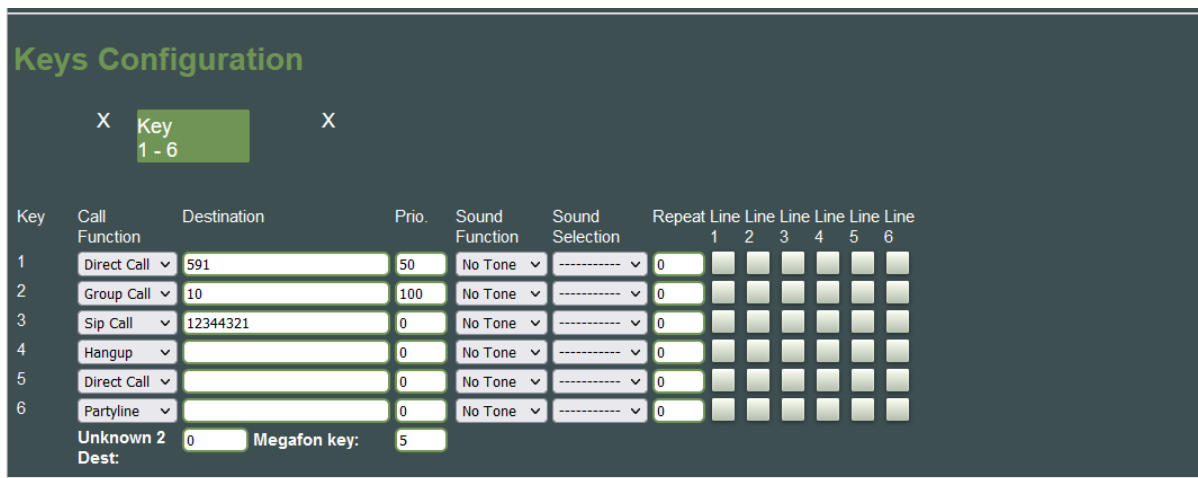
Error means that the registration at the SIP server could not be completed successfully. In this case, check your entries, compatibility of the RFCs and repeat steps 1 - 4 or contact us at support@vonamic.com.

When registration is successfully completed, you can configure SIP calls.

3.6.2 Set up an outgoing SIP connection

To configure an outgoing telephone connection (SIP), use the "**Key Configuration**" area of the web interface. Set the "**Sip Call**" function in the "**Call Function**" drop-down menu. Enter the telephone number of the SIP extension you want to reach in the "**Destination**" field. Optionally, you can enter a display text for this connection in the "**Label**" field, which is shown in your own display instead of the telephone number. In order to be able to actively end the connection, you need another button on which you configure the call function "**Hangup**".

In our example, we configure an outgoing SIP call to an already registered SIP extension with the telephone number **12344321**.



Key	Call Function	Destination	Prio.	Sound Function	Sound Selection	Repeat	Line 1	Line 2	Line 3	Line 4	Line 5	Line 6
1	Direct Call	591	50	No Tone	-----	0						
2	Group Call	10	100	No Tone	-----	0						
3	Sip Call	12344321	0	No Tone	-----	0						
4	Hangup		0	No Tone	-----	0						
5	Direct Call		0	No Tone	-----	0						
6	Partyline		0	No Tone	-----	0						

Unknown 2: 0 Megafon key: 5

1. In the "**Key Configuration**" segment of the web interface, select the "**Call Function**" function "**Sip Call**" in the drop-down menu for key 3.
2. Enter the number **12344321** in the "**Destination**" field. (25 Characters maximum.)
3. **Optional:** Enter e.g. "**SIP Front Desk**" in the "**Label**" field. (Maximum 16 characters)
4. Select the "**Call Function**" "**Hangup**" in the dropdown menu for key 4.
5. Save your entry with "**Submit**".

By pressing key 3 on device **ID 1590**, a SIP call to the extension **12344321** is requested via the server **192.168.100.250**. If a corresponding SIP device is registered on the server, a connection to this extension will be established. If no corresponding extension is registered, you will receive an acoustic busy signal in the internal loudspeaker.

If the connection has been successfully established and the extension has answered the call, activate the microphone of the V590 by pressing and holding button 3. If the connection is terminated by the destination, you will receive an acoustic message in the V590 loudspeaker and the connection will be terminated. You can actively end the call by executing the "**Hangup**" function on key 4.

3.6.3 Set up an incoming SIP connection

There are two ways to answer an incoming telephone connection (SIP):

1. Whitelist for recurring known phone numbers:

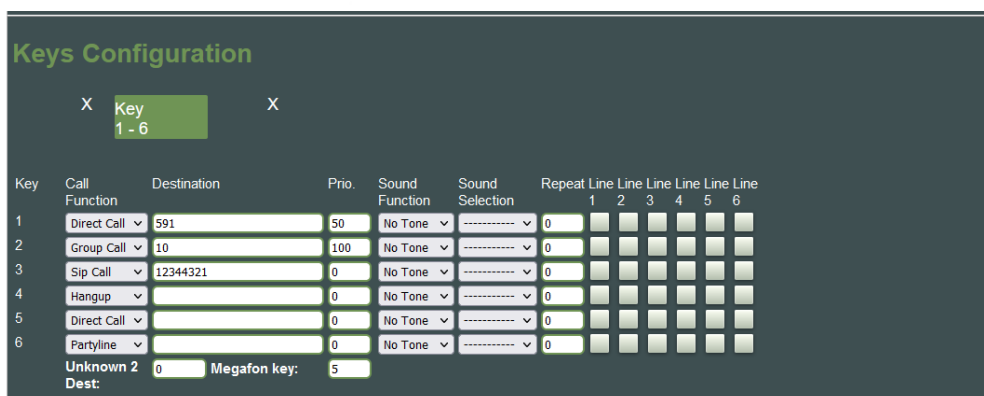
For recurring incoming SIP calls from known telephone numbers, it is recommended to assign these numbers to certain keys. The V590 Smart Audio Controller generally accepts all calls from the registered SIP server and plays the caller in the internal loudspeaker. If the call is not accepted by pressing the corresponding key on the V590, the "Missed call" is displayed by the corresponding key flashing. This status is reset after 60 seconds.

For recurring incoming SIP calls from known telephone numbers, it is recommended to assign these numbers to certain keys. This automatically assigns these numbers to the whitelist. All unassigned phone numbers receive a busy signal if the **"Unknown Destination"** function is not activated. Answer an incoming call by pressing and holding the corresponding key (signaling by flashing).

If the call is not accepted, the "Missed call" is indicated by the corresponding key flashing quickly. This Status is reset after 60 seconds.

2. Unknown Destination Function

If it is desired that phone numbers are accepted that are not on the whitelist, you can use the **"Unknown Destination"** function. As soon as you have assigned this function to an unassigned key, the V590 Desktop Callstation accepts all incoming calls. You can then use the predefined key to answer the last incoming unknown call. If you miss the call, the station saves the last number on the Unknown destination key so that you can call it back.



Key	Call Function	Destination	Prio.	Sound Function	Sound Selection	Repeat	Line 1	Line 2	Line 3	Line 4	Line 5	Line 6
1	Direct Call	591	50	No Tone	-----	0						
2	Group Call	10	100	No Tone	-----	0						
3	Sip Call	12344321	0	No Tone	-----	0						
4	Hangup		0	No Tone	-----	0						
5	Direct Call		0	No Tone	-----	0						
6	Partyline		0	No Tone	-----	0						

Unknown 2 Dest: 0 Megafon key: 5

The **"Unknown Destination"** field is located under the last key of the **"Key Configuration"** segment. The key number you enter in this field must be unconfigured and is then used to store the last unknown number. The call function of the corresponding key is automatically switched to "SIP Call".

3.1 Party line connection

Party Line describes a function in which a master call station creates a **"Party"** connection. The advantage of the Party Line is that slave end devices can use just one button to be participants in all parties that the master call station creates. In the destination devices serves the **"Partyline"** button as speech button as soon as it is party participant.

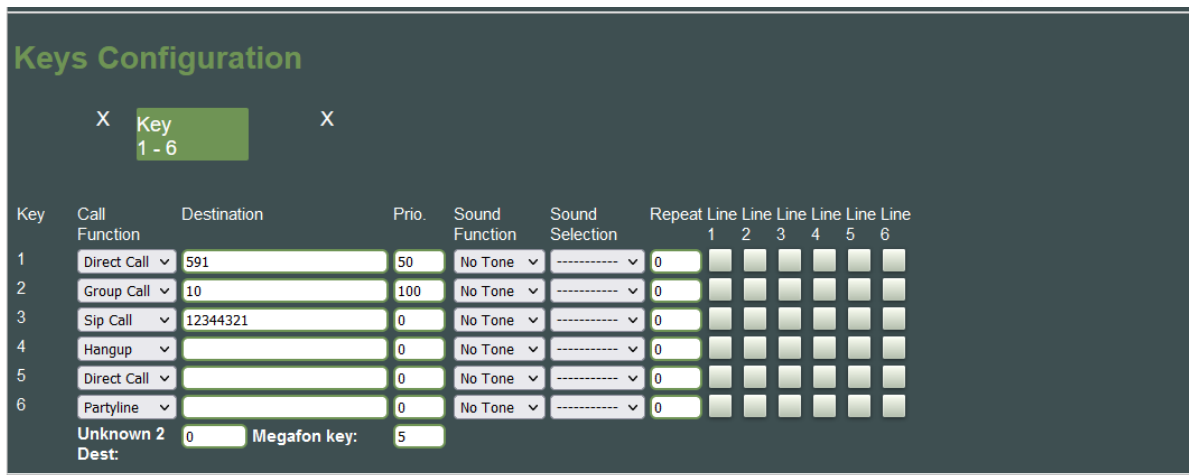
Note: The V590 Smart Audio Controller can only be used as a slave in a party line connection.

Master

Use the **"Key Configuration"** segment to set up the Partyline function of the master call station and select the **"Call Function"** **"PL Mode"** from the drop-down menu of an unassigned key. Set up the **"Call Function"** **"DG PL"** on another unconfigured key. This serves as a speech button in the currently formed party. **"PL Mode"** starts the party building function by pressing the button once. The start of the function is indicated by flashing of **"PL Mode"** button. You can now add preconfigured direct call participants to your party by pressing the corresponding buttons once. The party recording is indicated by the respective direct call key flashing. As soon as you have added all the desired participants to your party, you can address the group with the **"DG PL"** button. Pressing the **"PL Mode"** button again ends the function and the buttons return to their idle state.

Slave

The **"Call Function"** **"Partyline"** must be configured on an unassigned button in the respective target device. The button becomes active as soon as the corresponding device has been added to the party by the master. Holding the button starts a group call to the current party.



Keys Configuration

X Key 1 - 6 X

Key	Call Function	Destination	Prio.	Sound Function	Sound Selection	Repeat	Line 1	Line 2	Line 3	Line 4	Line 5	Line 6
1	Direct Call	591	50	No Tone	-----	0						
2	Group Call	10	100	No Tone	-----	0						
3	Sip Call	12344321	0	No Tone	-----	0						
4	Hangup		0	No Tone	-----	0						
5	Direct Call		0	No Tone	-----	0						
6	Partyline		0	No Tone	-----	0						
Unknown 2 Dest:		0	Megafon key:	5								

3.2 Time synchronization (NTP)

The V590 Smart Audio Controller supports synchronization of the system time using an NTP (Network Time Protocol) server. To do this, enter the IP address of the NTP server in the "**Time Synchronization**" segment in the "**NTP Server**" field (e.g. 192.168.100.251). Then enter the time deviation, your time zone, from the GMT (Greenwich Mean Time) in the "**GMT**" field (e.g. for Germany +1). Confirm your entry with "**Submit**".

Time Synchronisation

NTP Server:
Date / Time: **GMT:**

Now the current date and time is displayed next to "**Date / Time**":

3.3 Amplifier lines

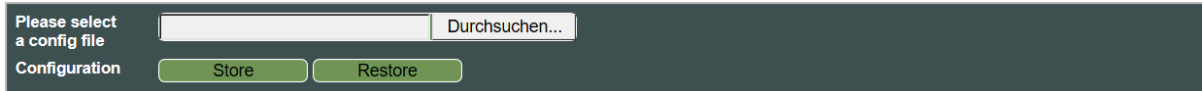
Another device in the VIPCOS series is the V1000 400W IP Amplifier. This device has 6, separately controllable, speaker circuits or 3 loops. You can specify a selection of the speaker circuits for both direct- and group -call connection to a V1000. All possible constellations can be made from one to all lines. To do this, activate the respective checkboxes of the lines of the specific call connection to your V1000.

Key	Call Function	Destination	Prio.	Sound Function	Sound Selection	Repeat	Line 1	Line 2	Line 3	Line 4	Line 5	Line 6
1	Direct Call	1000	100	No Tone		0	☒	☐	☐	☐	☐	☐
2	Direct Call	1000	50	No Tone		0	☐	☒	☐	☐	☐	☐
3	Direct Call	1000	20	No Tone		0	☐	☐	☒	☐	☐	☐
4	Direct Call	1000	0	No Tone		0	☐	☐	☐	☒	☐	☐
5	Direct Call	1000	0	No Tone		0	☐	☐	☐	☐	☒	☐
6	Direct Call	1000	0	No Tone		0	☐	☐	☐	☐	☐	☒

If you do not configure any line information for the connection, the internal line selection of the V1000 is used. This can be set separately on the V1000 web interface. Confirm your entry with "**Submit**".

3.4 Store and restore of configuration files

The V590 Desktop Callstation offers the possibility to save your configuration as a file externally. When your configuration is complete, save your entries with "Submit". At the bottom of the web interface you will find the "Store" and "Restore" buttons. With these buttons you can upload and download encrypted configuration files (Config.bin).



The screenshot shows a web interface for configuration management. It features a dark grey header bar. On the left, the text 'Please select a config file' is displayed above the word 'Configuration'. To the right of this text is a file selection input field with a 'Durchsuchen...' (Search) button. Below the input field are two green buttons: 'Store' and 'Restore'.

Store

If you click the "**Store**" button, a request is sent to download the configuration file. Your browser will ask you to choose a storage location. Once the storage location has been determined, the download starts automatically. The internal operating system assumes to keep the file name "**Config.bin**". We recommend archiving in subfolders.

Restore

The "**Restore**" button starts the upload of a previously defined configuration file to your device. The file selection field is located above the buttons for store and restore. First you have to choose a correct configuration file. To do this, click the "**search**" button next to the "**Please select a config file**" field. This opens the file explorer of your PC. Select a suitable **config.bin** and confirm your entry with "**Open**". You have now prepared a file for the upload. By using the "**Restore**" button, the upload to the device is started. After a successful upload, the device restarts and loads the settings from the uploaded configuration file.

Please note: this could also mean a change in the IP address. In this case you have to enter the new address in your browser line in order to be able to call up the device website.