IP-INTEGRA SIP SERVER v1.11.19
USER MANUAL

Content

SIP Server - Product Setup

Extract the SIP Server from the box, plug in the license USB thumb stick (Picture 1) into the license port as shown in the Picture 2. Default address for the SIP server is 192.168.1.250.

If you want to change the IP address of the server, plug in the license USB thumb stick in your PC, run the Freund Network Configurator application located on the stick where you can generate a desired IP address. Instructions how to use the application can be found in Network Configurator Application note located here.

Plug in the PoE cable in the PoE splitter, then plug in the ethernet and power supply cables in the SIP server.
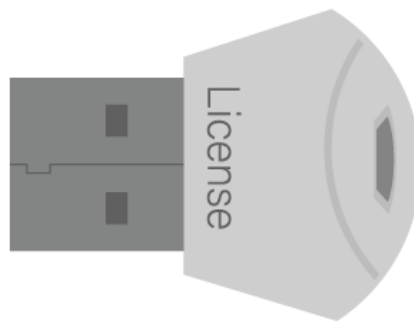
USB LICENSE STICK
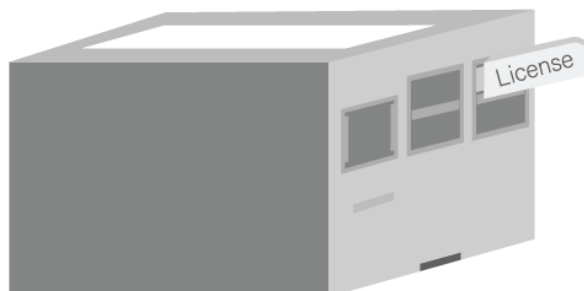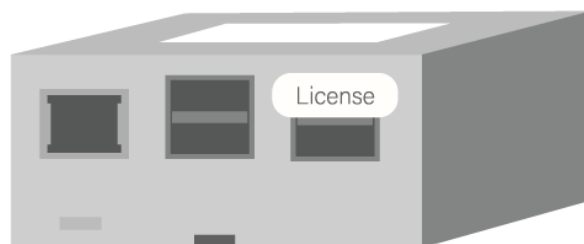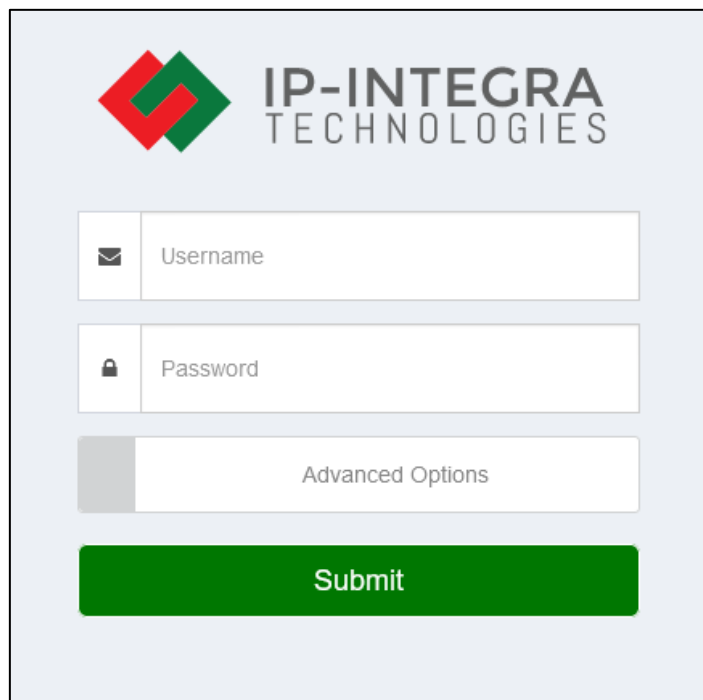
SIP SERVER LICENSE SETUP

1. Log in & Connection requirements

In order to perform any work on the IP-INTEGRA SIP server, we need to access it and log in. Simply, enter SIP server's IP address in your web browser and press enter.

Default IP address is **192.168.1.250**.

User will be prompted to enter username and password. Default is "admin" for both fields.

LOGIN FORM

NOTE: For IP address configuration, please visit Network settings section of this document.

Connection requirements by our IP-INTEGRA Cloud SIP-server

Apply these settings if you have outgoing traffic blocked from your high security firewall.

Outbound traffic must be open at the following ports:

Protocol	Port (Default)	Short Description	Post Forwarding Required
UDP	15060	IP-INTEGRA VoIP system	YES, if you intend to remote setup and update Remote Extensions and Mobile APPs. Note: Recommend change to port 15060 because of ALG conflict with some private routers.
TCP	8090	HTTPS communication and Remote provision	YES, if you intend to remote setup and update Remote Extensions and Mobile APPs.
UDP	19000-19500	IP-INTEGRA Media Server (RTP)	YES, if you intend to use VoIP providers, Remote Extensions and Mobile APPs. Note: Number of ports are double of number of parallel calls. Default setup is 500 ports and 250 parallel calls.

Note1: If SIP-ALG on router is active please turn it OFF

Enterprise Systems
Firewall guide

Some high security systems require additional configuration to function properly with the IP-INTEGRA Cloud SIP-Server. If your system employs controlled outgoing traffic, there are some configurations you must adapt, explained below.

All of the priviledges are required and are used for no other purpose than to ensure your system is compliant with our Cloud Server

⊕ Enable normal Web access to the Internet

☑ Whitelist the following domain and IP Address
fs116.cloud.freund.ba
89.239.196.190

Outbound traffic must be allowed on the ports :
UDP **15060**   TCP **8090**
UDP **19000 - 19500**

SIP-ALG must be switched off

Allow Google and Apple APNs for push services

IP - INTEGRA
CLOUD
SIP-Server
89.239.196.190
fs116.cloud.freund.ba

UDP **15060**
TCP **8090**
UDP **19000**
19500

Local System
with high security
firewall

Ports Used by IP-INTEGRA SIP-server

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Complete list of ports that IP-INTEGRA Intercom SIP-Server uses in a default installation scenario

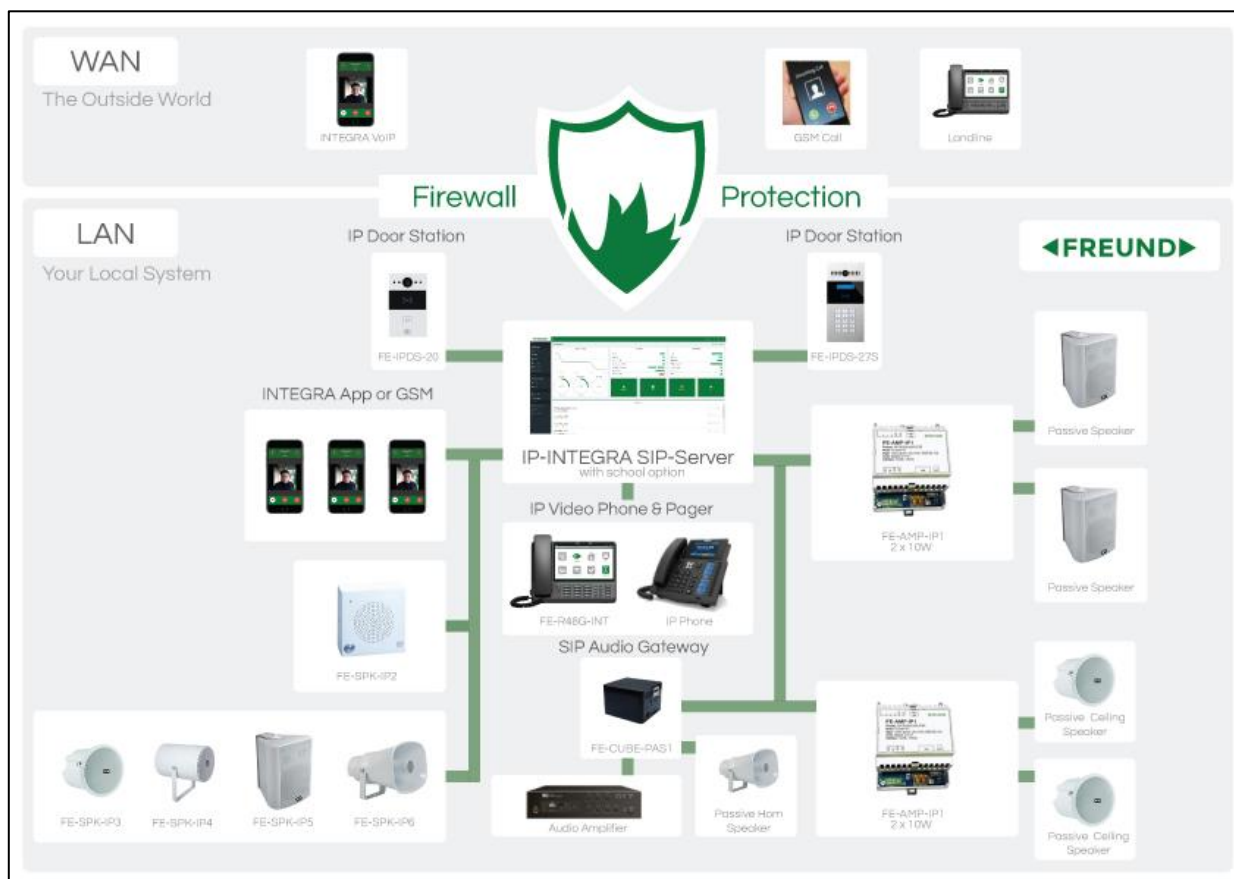### Ports Used by IP-INTEGRA SIP-server

Protocol	Port (Default)	Short Description	Port Forwarding Required
TCP	80	WEB Access *Note: Back-End access required*	YES, if remote server setup needed. Remote access example fsXXX.cloud.freund.ba (where fsXXX is SIP-server unique FS number e.g. fs127) Note: Change default password and activate SIP-server intern firewall before this port is opened.
TCP	8080	Back-End Access	YES, if WEB-access needed
UDP	5060	IP-INTEGRA VoIP system	YES, if you intend to use VoIP providers, Remote Extensions and Mobile APPs. *Note: Recommend change to port 15060 because of ALG conflict with some private routers.*
TCP	8090	HTTPS communication and Remote provision	YES, if you intend to remote setup and update Remote Extensions and Mobile APPs.
UDP	9000-9500	IP-INTEGRA Media Server (RTP)	YES, if you intend to use VoIP providers, Remote Extensions and Mobile APPs. *Note: Number of ports are double of number of parallel calls. Default setup is 500 ports and 250 parallel calls.*

Note 1: Please make sure that there is access to internet by controlling IP-Address / External IP status on IP-INTEGRA SIP-server dashboard

Note2: If SIP-ALG on router is active please turn it OFF

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2. Dashboard & Navigation panel

First screen users see when they log in to the SIP server is the Dashboard. It contains very useful information such as:

- System Status
- Number of extensions
- Number of trunks
- Whether the Remote Support is enabled
- Current firmware version
- License information
- Maximum number of extensions
- Maximum number of trunks
- Basic log information
- Etc.
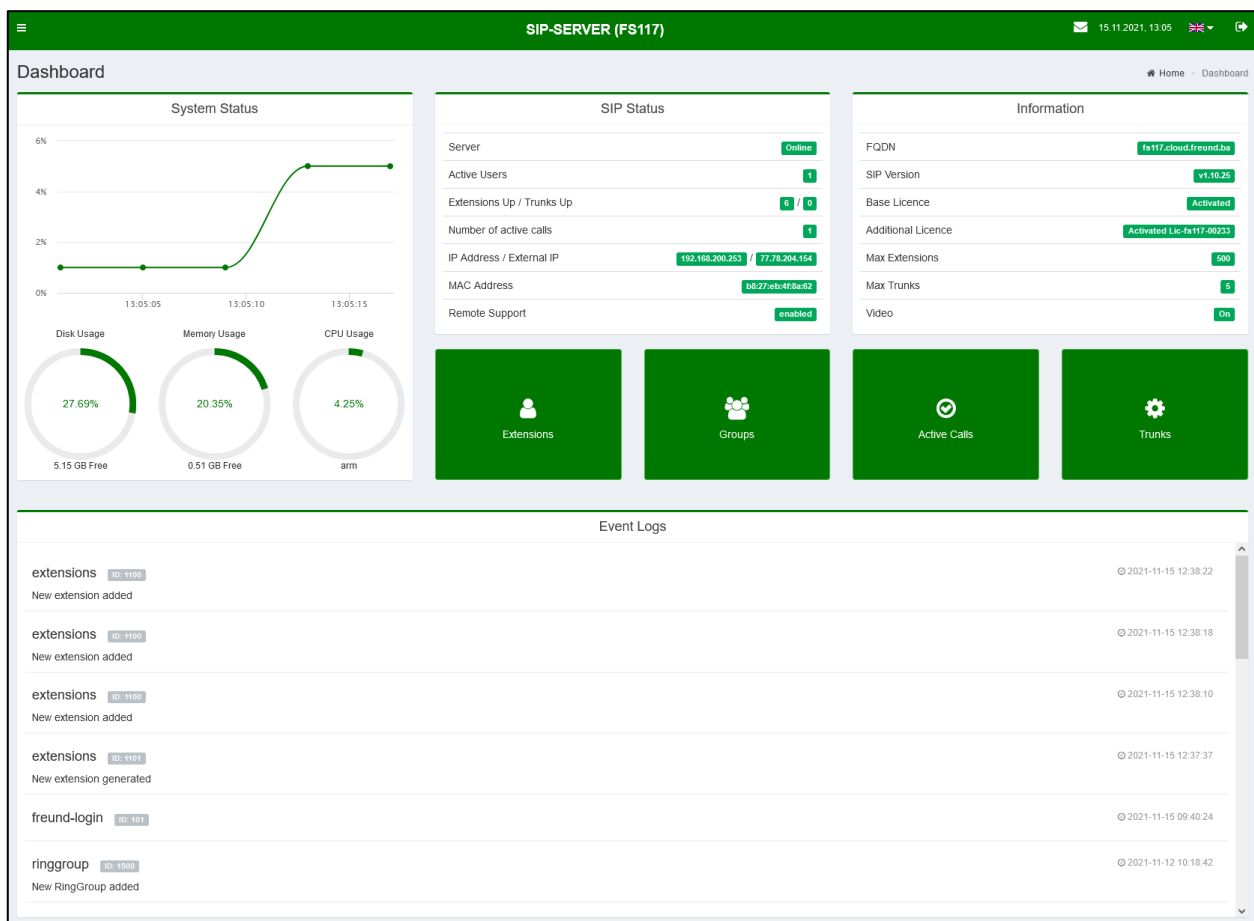
DASHBOARD

Language can be selected in the upper right corner **English** or **Danish**.

Navigation panel is located on the left side of the screen. It contains:

- **Tools** - Dashboard, Extensions, Trunks, Groups, Scheduler, Ring Groups, Users, Messages, and Active calls
- **Settings** - Network Settings, SIP Settings, Config
- **Logs** - Call Logs, Event Logs
- **Actions** - System Upgrade, Reboot, Shut Down

3. Tools
3.1 Extensions

In the navigation panel on the left side, click on the **Extensions** tab.

EXTENSIONS

In the top right corner, click on **Add New.**

A drop-down menu will appear offering following types of extensions: Default, Door station, Mobile, Web Relay and Audio notification.
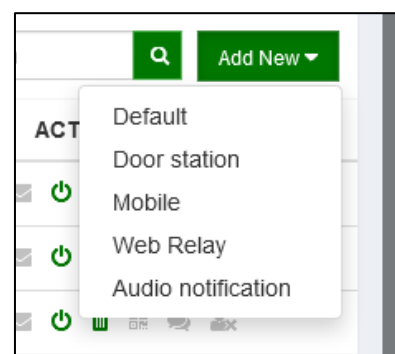
EXTENSION TYPES

Extension types

All the available functions make SIP server somewhat complex, and it requires categorizing all devices in following types:

- Default
- Door Station
- Mobile
- Audio notification
- Web Relay

Here, we will describe what device falls under what extension type:

- **Default** – Indoor monitors, Desk phones, Guard Unit Phones, Paging Units, IP Speakers
- **Door Station** – IP-INTEGRA Door stations
- **Mobile** – IP-INTEGRA VoIP app (Android/iOS)
- **Web Relay** – Type of extension that, upon receiving a call, will open trigger a relay and open a door
- **Audio Notification** – Type of extension that, upon receiving a call, will play a preselected audio file through a preselected Ring Group (more about this in Ring Groups section of this document)

Each extension type will have dedicated settings for it grouped in dedicated tabs.

Setting / Extension Type	Basic	Forwarding	Advanced	Access Control	DND Scheduler	Door Station	Web Relay	Audio Notification
Default	✓	✓	✓	✓	✗	✗	✗	✗
Mobile	✓	✓	✓	✓	✓	✗	✗	✗
Door Station	✓	✓	✓	✓	✗	✓	✗	✗
Web Relay	✓	✗	✗	✗	✗	✗	✓	✗
Audio Notification	✓	✗	✗	✗	✗	✗	✗	✓

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Under the **Actions** column there are eight icons, from left to right, whose descriptions are provided in the table below:

Name	Icon	Function
Edit	✎	Allows changing the configuration of the selected extension
Quick clone	⧉	Creates a new extension with same configuration as the original one, only the extension number is changed
Second Welcome email	✉	Sends a welcome email to the entered email in the configuration
Disable extension	⏻	Disables the extension, making or receiving calls as well as being connected to is not possible
Delete extension	🗑	Deletes the selected extension
QR Code	▦	Opens a QR code that can be scanned by Integra VoIP app to automatically configure the account
Send Mobile Provisioning	💬	Provisioning can be sent to Integra VoIP mobile app to create configuration
Reset extension	👤✖	Unbind the selected extension from device by resetting the password

When finished configuring the extension, click **Save** in bottom left corner.

Another way to create extensions is, when looking at **Extensions tab** in navigation menu, click on **Show tools** button and then click on **Bulk Add** or **Import**.

Import option is used to import already existing extensions from a file (i.e., exported on different SIP server).

Export ▾	Import	Update All	Welcome All	Update Mobile App	Bulk Welcome	Bulk Add	Bulk Delete
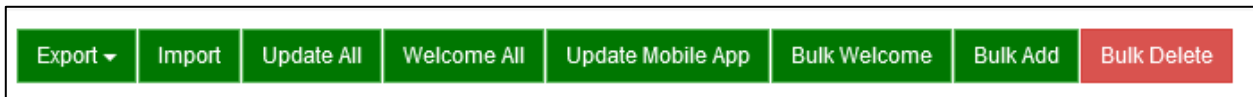
EXTENSION TOOLS

Bulk Add and **Bulk Delete** are used when there is large number of extensions that need to be created or deleted.

Bulk Add option works in a way that administrator will enter extension number for the first extension and number of extensions to add. By clicking **Save**, the interface will become temporarily locked while extensions are being created. In this way, each extension will be named by its extension number. Quick way to rename multiple extensions is to click **Edit** on first created extension, and upon changing the name click **Save and Next** on the bottom of the screen. User is also able to navigate through extensions by clicking on **Previous** or **Next** buttons at the bottom.

Clone	Get Integra Config	Previous	Next	Save and Next

EXTENSION TOOLS AND NAVIGATION BUTTONS

3.1.1 Basics tab

Here, we must enter a **name** and **extension number** for **Default** and **Door station** extension.

If we're creating a **mobile** extension, it is required that we enter user's **e-mail address** to which the login credentials will be delivered as well as download links and instructions on how to register an application on a mobile device.

Address and **Phone** number fields are optional.

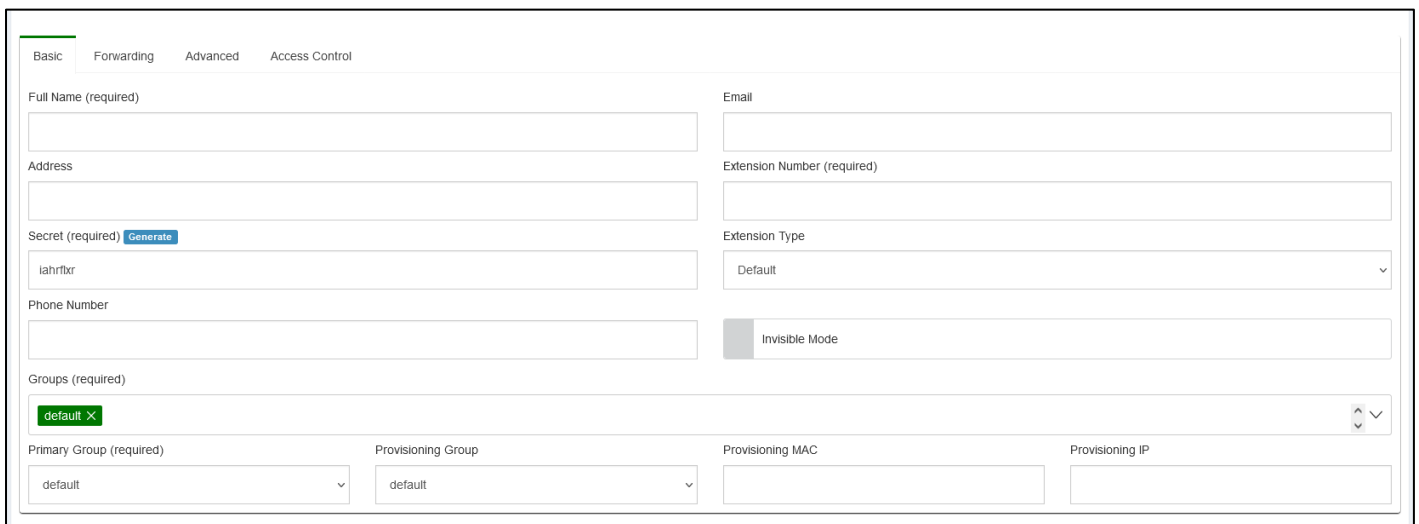**Groups** – if multiple groups exist, user can select groups to which the device will belong.

Primary Group - group in which the extension will appear in contacts on the intercom-

Provisioning Group – Select provision group for extensions, which is used when **Update All** option is used described above-

Provisioning MAC – Device MAC address is entered here; used for delivering the provisioning to a device.

Provisioning IP – Current IP address of a device is entered here; used for delivering the provisioning to a device (for more information about IP address and how to change them, please visit Network Settings of this document).

Invisible mode - upon activation, extension will not appear in the phonebooks. Calls can still be made to it by manually entering an extension number and dialing it.

ADD NEW EXTENSION – BASIC

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3.1.2 Forwarding tab

Settings available here are:

No answer timeout – Determines for how long the device will keep dialing other extensions

Enable Forward – Enables forwarding a call to other extensions if dialed extension does not answer after a defined **No answer timeout**; if enabled, following options become available:

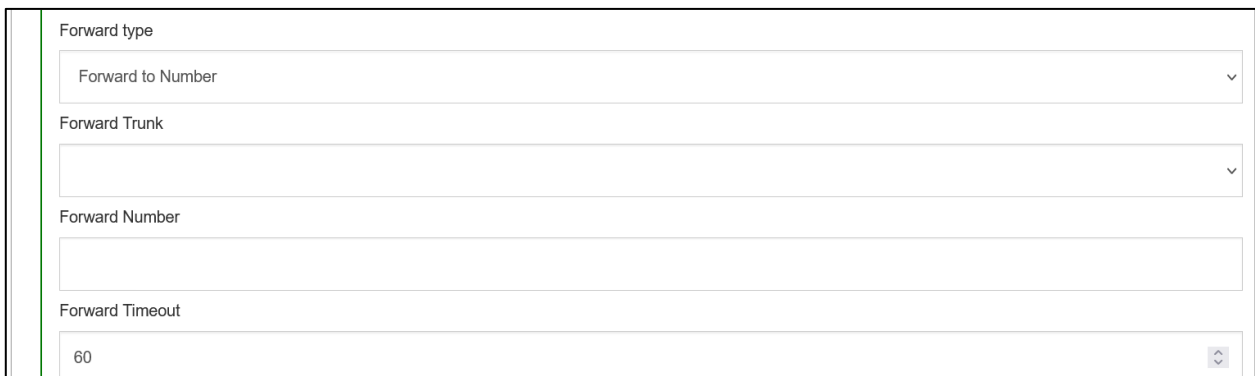**Enable Forward** – by enabling this, following forward types become available:

Forward to Extension, Forward to Number, Forward on Time, Forward by Days

Forward to Extension allows to forward an unanswered call to another extension; A field Forward Number will display. In this field, an extension number to what the call will be forwarded needs to be entered.

Forward type

| Forward to Extension | ⌄ |

Forward Number ❗

Forward Timeout

| 60 | ⌄ |

FORWARD TO EXTENSION

Forward to Number allows to forward an unanswered call to a GSM number; For this feature, a trunk needs to be added to the SIP server (more about this in **Trunks** section of this document); Forward Number field needs to contain a phone number to what the call will be forwarded.

Forward type

| Forward to Number | ⌄ |

Forward Trunk

| | ⌄ |

Forward Number

Forward Timeout

| 60 | ⌄ |

FORWARD TO NUMBER

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Forward on Time allows to forward an unanswered call to designated extension on time and date user designates.

FORWARD ON TIME

Forward by Days allows to forward an unanswered call to designated extension on time and date user designates, but allows specifying to which extension the call will be forwarded on which day

FORWARD BY DAYS

Forward Timeout – Determines for how long the device will keep dialing after the call is forwarded.

Enable Direct Forward – allows a direct forward of a call from a dialed extension without a timeout; For this feature, a **trunk** needs to be added to the SIP server (more about this in **Trunks** section of this document); **Direct Forward Number** field needs to contain a phone number to what the call will be forwarded.

DIRECT FORWARD

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![FREUND logo]

3.1.3 Advanced tab

Settings available here are:

- **Codecs** – GSM, ALAW, ULAW, G722, G729
- **Enable Video** – Enables video calls for extension.
- **Video Codecs** – H261, H263p, H263, H264
- **DTMF Mode –** Determines how DTMF will be sent over SIP protocol
- **NAT** (Network Address Translation) – Used for external access – SIP server behind NAT
- **Directmedia – Used only if all extensions are within single network, helps reduce the traffic (NOTE: Must be turned off in case any extension is connected from external network; i.e: Integra VoIP Application)**
- **Enable Incoming DID (direct dial-in) –** If client is using a trunk, this function will determine what extension will be dialed within the trunk. This is a telecommunication service offered by telephone companies to subscribers who operate a private branch exchange (PBX) system. The feature provides service for multiple telephone numbers over one or more analog or digital physical circuits to the PBX, transmits the dialed telephone number to the PBX so that a PBX extension is directly accessible for an outside caller, possibly by-passing an auto-attendant.
- **Mark as Windows application** – if enabled, Windows application extension will be marked with a Windows icon.
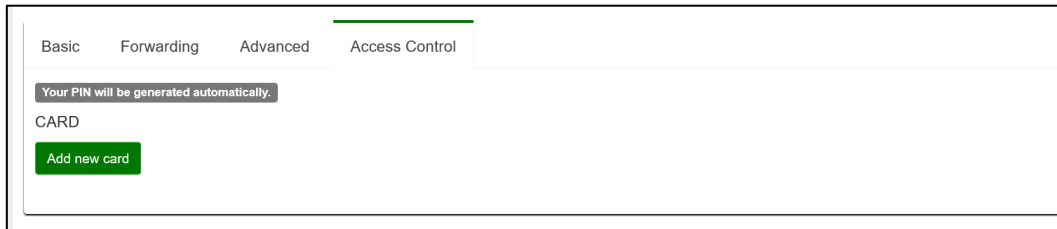

ADD NEW EXTENSION – ADVANCED

3.1.4 Access Control tab

RFID cards and tags can be added under this tab, as well as PIN created for user, and it will be delivered to device with provisioning.

ADD NEW EXTENSION – ACCESS CONTROL

By clicking on **Add new card button**, following form will show:
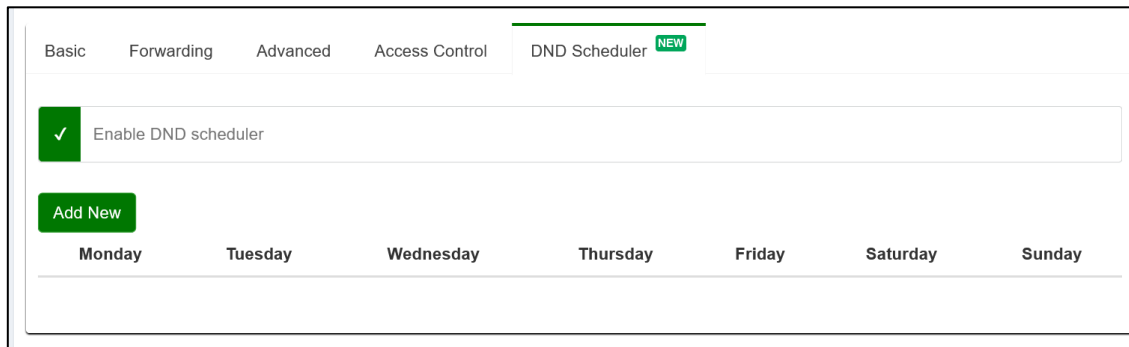

ADDING NEW CARD

It is possible to designate card color by clicking on a respective color circle.

3.1.5 Do Not Disturb (DND) Scheduler tab

DND feature is available for mobile type of extension and is enabled under DND Scheduler.

By clicking Add New, a form will open where it can be designated on what time and days will the DND feature be enabled for specific extension.

Basic	Forwarding	Advanced	Access Control	DND Scheduler NEW			
✓ Enable DND scheduler							
Add New							
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	

DND SCHEDULER

This has been described in detail in our DND guide available on our IP Integra website.

3.1.6 Door Station tab

When creating a door station extension, following configurations can be made:

Use SIP to unlock – This option needs to be enabled if the SIP server is on cloud.

Disable contacts update – Door station, when receiving provisioning, will not receive contacts information.

Relay DTMF Option – Selection of up to four digits.

Following fields will determine what Integra VoIP Application will display.

- **Unlock DTMF Code** – Number that, upon pressing, will unlock the door. Number entered here will be assigned to the IP-INTEGRA VoIP app unlock button.
- **Function DTMF Code** – Number entered here will be assigned to the IP-INTEGRA VoIP app function button.

Here it is also possible to configure each individual intercom relay (up to 3 relays). To configure it, click on relay and following options will appear:

- **DTMF Code** – Number that will be used to trigger a relay.
- **DTMF Name** – Name that will be displayed inside Integra VoIP app.
- **DTMF Type** – Icon designation inside Integra VoIP app. Available options are: Door, Elevator, Light, and other.
- **Web Relay Type** – In case Web Relay extension is used.

Missed Call Snapshot – This option is valid for Door station extensions. It sends snapshots to Integra VoIP app if mobile app for each missed call.

RTSP Link – This option is used to enable RTSP server using link.

Speed Dial – This Feature is used to call out 4 numbers at the same time. After setting up the number, press center key to call.

ADD NEW EXTENSION – DOORSTATION

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3.1.7 Web Relay tab

Settings available here are:

Type – at the moment, SIP server only supports default Web Relay.

URL – enter the following link here:

http://[Device-IP]/fcgi/do?action=OpenDoor&UserName=(Username)&Password=(Password)&DoorNum=1

Substitute the **[Device-IP]** with an IP address of a door station, and **(username)** and **(password)** from **Integra Intercom** option under **Config – Provisioning** groups (more about this under **Provisioning Groups** section of this document).

Disable Call – Relay can only be activated from IP-INTEGRA VoIP application if this feature is enabled

NOTE: After all information has been entered, these new settings must be sent to an intercom by clicking on **Update Device** ☁ icon under **Provisioning Devices** setting (more about this under **Provisioning Devices** section of this document).

ADD NEW EXTENSION – WEB RELAY

3.1.8 Audio Notification tab

Ring Groups – Add an extension to a ring group.

Ring Sound – Select a sound to be reproduced upon receiving a call.

ADD NEW EXTENSION – AUDIO NOTIFICATION

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3.2 Trunks

SIP trunking is a Voice over Internet Protocol (VoIP) and streaming media service based on the Session Initiation Protocol (SIP) by which Internet telephony service providers (ITSPs) deliver telephone services and unified communications to customers equipped with SIP-based private branch exchange (IP-PBX) and Unified Communications facilities. Provided below are steps to be taken to create a trunk.

Section	Function
Name	Provisional name of trunk
Username	Enter username provided by your telecom company
Secret	Enter password provided by your telecom company
Host	Enter host address provided by your telecom company
Port	Enter port
From Domain	Enter domain
Main Trunk Number	If there is more than one number on trunk
DTMF Mode	Choose between 4 options
Outgoing Prefix	Set outgoing prefix
Outgoing Dial Pattern	Set outgoing dial pattern

When user enables **Outgoing Enable, Outgoing Dial Pattern** field is filled on the way:

- X matches any digit from 0-9

- Z matches any digit from 1-9

- N matches any digit from 2-9

- [1237-9] matches any digit or letter in the brackets (in this example, 1,2,3,7,8,9)

- [a-z] matches any lower-case letter

- [A-Z] matches any upper-case letter

- . wildcard, matches one or more characters

- ! wildcard, matches zero or more characters (only Asterisk 1.2, see note)

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Add new Trunk

Type

| Register | ∨ |

Name

Enter Full name

Description

Enter Description

Username

Enter username

Secret

Enter Secret

Host

Enter Host

Port

| 5060 | ⬍ |

From Domain

Enter Doman name

Main Trunk Number

Enter main trunk number

Dtmf Mode

| rfc2833 | ∨ |

ADDING NEW TRUNK (1)

Can Reinvent

| No | ∨ |

NAT

| Yes | ∨ |

| ✓ | Qualify |

Number of SIM Calls

| 1 | ⬍ |

| ✓ | Allow Gsm |

| ✓ | Allow G723do1 AllowG723do1 |

| ✓ | Allow Ulaw |

| ✓ | Allow G729 AllowG729 |

| ✓ | Allow Alaw |

| | Outgoing Enable |

| Cancel | | Add |

ADDING NEW TRUNK (2)

3.3   Groups

Clicking on **Groups** lists all extension groups. Extensions can be put in groups, where one extension can belong to **multiple** groups. Choosing **Add New** opens window for creating a new group. **Make Primary Group** option makes selected group as phonebook for intercoms FE-IPDS-29S. Only one primary group can be active.

Full Name	Description	Action
default	Default extension group	✎ 🗑
Group One	Desc One	✎ 🗑
Group Two	Desc Two	✎ 🗑
Group Three	Desc Three	✎ 🗑
Group Four	Desc Four	✎ 🗑
Group Five	Group Five Desc	✎ 🗑
Group Six	Desc Six	✎ 🗑
Group Seven	Group Seven Desc	✎ 🗑

GROUPS

Add new group

Group Name

Enter group name

Group Description

Enter group description

Group Members

Select

Make Primary Group

Cancel   Add

ADD NEW GROUP

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3.4   Ring Groups

Ring groups item within **Tools** lists all ring groups and gives options for creating new call groups. Clicking on **New Paging** or **New Ring Group** opens a form for creating a new ring group. There are four types of **Ring Strategy,** defined in the following table:

Name	Function
Ring All	Calls all extensions in ring group. Once the call is answered on one extension, calls to other extensions are canceled.
Prioritized Hunt	Calls extensions one by one, in order they've been put in **Group Members** list.
Paging	Calls all extensions; clients who support paging answer immediately while others must answer manually. Call is broadcasted on all extensions.
Paging Multicast	When no PBX is involved, multicast paging allows you to send pages to groups of phones directly. The advantage of this method is that the multicast page is a single SIP call instead of a multiple-party conference call, and all phones are programmed to listen to broadcast address. This benefits the workload placed on the PBX, especially if many devices are involved.

ADD NEW RING GROUP

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Clicking on **Ring group,** opens options that are described in table below:

Section	Function
Name	Enter ring group name
Extension number	Enter virtual extension number
Ring strategy	Choose between four options described above
No answer timeout	How long ring group will have time to answer incoming call
Group members	Select extension for ring group
Enable forward	Enabling this option allows forwarding calls (available in Ring All and Prioritized Hunt strategies)
Enable incoming	Enable incoming allows receiving calls
Invisible Mode	When this option is enabled, extension does not appear in phonebooks and logs
Allowed Groups	Select allowed groups for extensions to make a ring group

3.5   Scheduler

Scheduler allows creation of multiple schedule times for extension or ring groups. First option is to choose starting and ending date. Clicking on **Add Ring Time** creates alarm time where user chooses time. **Bulk add** gives option to create multiple alarm times by entering time, number of rings, and period between rings. User can also upload and choose sound which will be played on alarm time. **Action Extension** allows to choose which extension or ring group will play given sound.

Name	Function
Sip Audio Scheduler	Scheduled events are controlled through SIP audio devices, and they don't depend on SIP server
Call scheduler	Scheduled events are controlled through SIP server
Multicast scheduler	Scheduled events are controlled through SIP server

Schedule Event New Event

← Back

New Event

Name

Enter bell name

Type

SipAudio Scheduler

Start Date

📅

Expire Date (optional)

📅

Days [Workdays] [Weekend] [All]

	Monday		Tuesday		Wednesday
	Thursday		Friday		Saturday
	Sunday				

Ring Times: [Add Ring Time] [Bulk Add] [Clear Ring Times]

Ring Time 1 ✖

⌃ ⌃
10 : 07
⌄ ⌄

Ring Tone [Upload Ring Tone]

Repeat ring tone number

1

Action Extension

| | Enable |

Cancel

Save Changes

ADD NEW SCHEDULER

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Clicking on **Schedule Event,** opens options that are described in table below:

Section	Function
Name	Enter bell name
Type	Select between 3 options described above
Start date	Select start date
Expire date	Select expire date
Days	Select days of the week in which scheduler will work
Ring times	Allows managing of ring times. Clicking on **Add Ring Time** creates alarm time where user chooses time
Ring tone	Allows selecting and uploading ring tones
Repeat ring tone number	How many times selected ring tone will repeat
Action Extension	Preferably which ring group scheduler will work on
Enable	Enables scheduler

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3.6   Users

"Users" tab allows creation of two types of users:

- **Admin** – has access to all settings
- **Manager** – can modify (edit, delete, and create new) **Extensions, Trunks, Groups, Scheduler, Ring Groups** from tools section. In **Config** can modify to **Change Password, Sound Files, Provisioning Groups, Provisioning Devices, and IP Audio Configuration.** Event logs, Call logs and Active calls are also available.

USER MANAGEMENT

ADD NEW USER

3.7 Messages

Messages section allows sending notification messages to Integra VoIP app extensions, ring groups or groups. Messages are available only to administrator user type.

Title	Text	Date	Author	Send To	Recipients	Action
Example Title	Example Test	14/10/2022, 09:32:15	Administrator	EXTENSIONS	3	🗑 👁 ↻

Messages management — Overview of all messages · Home > Messages management · Messages (1) · New Message

MESSAGES MANAGEMENT

SEND NEW MESSAGE

3.8 Active Calls

Clicking on **Active Calls** lists all active calls.

Active Calls Overview of active calls   ⌂ Home > Active Calls

Active Calls

ℹ **No Active Calls**
There are currently no active calls

ACTIVE CALLS

◀FREUND▶
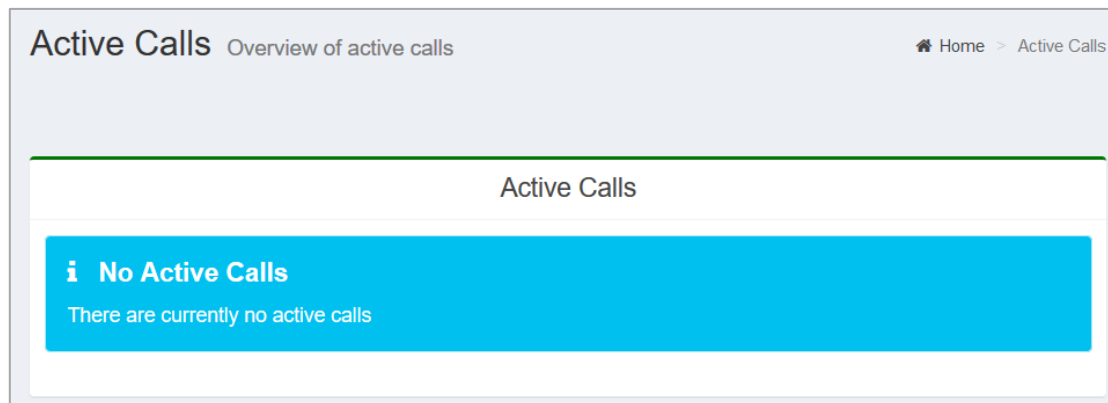
4. Settings

In **Settings** you can adjust **Network Settings, SIP Settings, and SIP Config**.

4.1   Network Settings

In N**etwork Settings** user can adjust IP address, Netmask, Gateway, and DNS of a SIP server. Default settings are provided in picture.

NETWORK SETTINGS

4.2   SIP Settings

Under **SIP Settings,** system settings for SIP protocol can be adjusted. If user wants to enable external access, first ports on router should be **forward** according to **UDP Port**, **RTP Start**, **RTP End**. After that check **Enable External Access**. If user has static IP address, enter it in **External Host** field, otherwise we can provide that with **FQDN** license.

To enable external access to desired **Extensions**, in **Edit Extension NAT** must be enabled, and **Direct media** must be disabled. Your firewall should not forbid communication on ports 15060 UDP, 19000 – 19500 UDP, and 8090 TCP.

Some client routers have SIP-ALG enabled and work on port 5060 by default. This prevents proper function of 3rd party SIP-service, without possibility to disable this function. We recommend moving UDP Port on our SIP-server to another port e.g. Port 15060. SIP-ALG on router needs to be turned OFF.

SIP Settings

Transport Protocol

| udp | ⌄ |

✓ Enable SrvLookup

UDP Bind Address

0.0.0.0

UDP Port

5060

Some client routers have SIP-ALG enabled and work on port 5060 by default. This prevents proper function of 3rd party SIP-service, without possibility to disable this function. We recommend moving UDP Port on our SIP-server to another port e.g. Port 15060.

Provisioning Port

8090

RTP Start

9000

RTP End

9500

Enable Strict

Watchdog

Disable External Access

Add trunks to local nets

SIP SETTINGS (1)

External Access Local Nets   Add Local Net

Local Net 1

192.168.200.0/255.255.255.0

STUN Server Address

Enter STUN Server Address

Enable TCP

Enable SIP Timers

Enable RTP Timers

Enable Session Timers

Enable Manual Settings

Save Changes

SIP SETTINGS (2)

4.3 Configurations

Clicking the **Config** provides the following options:

Name	Function
Download Configuration	Downloads the current configuration
Upload Configuration	Uploads the configuration file of a previously saved configuration
Factory Reset	Resets the configuration to the factory settings [1]
List of Backups	Lists all backups [2]
Change Password	Changes password
Upload License	Uploads license either by license file or entering the string.
Provisioning groups (Integra Intercom)	Creates a configuration for Integra Intercom units
Provisioning groups (Integra Terminal)	Creates a configuration for Integra terminals[3]
Provisioning groups (IP Audio)	Creates a configuration for IP Audio devices
Provisioning groups (Integra Intercom)	Configures settings for FE-IPDS-27S and FE-IPDS-29S intercoms
Provisioning Groups (Integra VoIP app)	Configures settings for Integra VoIP app[4]
Provisioning Groups (Fanvil)	Allows configuring a Fanvil device
Provisioning Groups (FE-TERM-7W3)	Allows customizing settings for IP-INTEGRA FE-TERM-7W3 terminal
Sound Files	Allows uploading and managing files
Time Configuration	Sets time for the server
Provisioning Devices	Allows choosing a device to which the selected provisioning group settings will be uploaded to.
IP Audio configuration - Ring 1-5	User chooses an extension and sound to be played once that extension is called [5]
Monitoring configuration	Allows to monitor the chosen extension, notifications are sent to the entered email address
Firewall configuration	Enables to configure firewall and determine the maximum login tries before being blocked. [6]
Access Control Configuration	Allows defining an ACC Provisioning Secret
Self-Diagnostics	Option to enable a self-diagnosing and allows it to be scheduled at specific hour

[1] Factory settings:

IP Address: 192.168.1.250
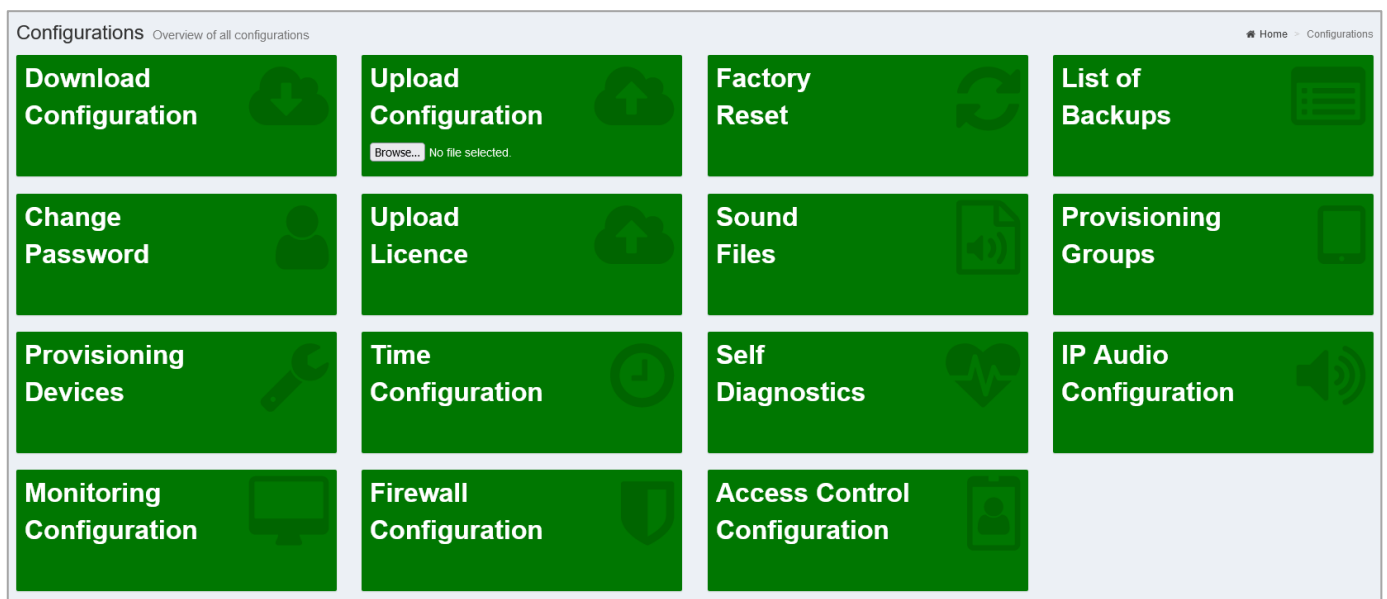Subnet Mask: 255.255.255.0
Gateway:192.168.1.1

[2] Backup configurations are made after every change. It is very simple to restore any of the previous backups. Clicking on **Backup Now** starts the backup of the current configuration.

[3] When creating **New Group**, **Integra app password** represents password for Integra app that is installed on devices. **Camera URL** is web address for IP cameras connected to the network, which can be cameras from intercoms.

[4] **Keyboard disabled** disables main keypad screen. **Add doors** allows to select extensions which will be shown on **Intercom** tab in app.

[5] When calling extension number put '*' before number. **Ring Stop Extension Number** stops sound played on called extension.

[6] **Whitelist IP Addresses** are IP addresses which are always allowed through and cannot be blocked by firewall, and they can be configured by user. **Block IP Address** is a second option, and it blocks the entered IP address.

Configurations Overview of all configurations			# Home > Configurations
Download Configuration	Upload Configuration Browse... No file selected.	Factory Reset	List of Backups
Change Password	Upload Licence	Sound Files	Provisioning Groups
Provisioning Devices	Time Configuration	Self Diagnostics	IP Audio Configuration
Monitoring Configuration	Firewall Configuration	Access Control Configuration	

CONFIGURATIONS

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4.3.1 Download Configuration

By clicking on this button, you will be offered to download the current configuration of the SIP server.

4.3.2 Upload Configuration

If you click on **"Browse"**, a window will open where you are able to select a configuration file to upload.

4.3.3 Factory Reset

Button which upon clicking will revert the device to factory setting.

4.3.4 List of Backups

Displays a list of backups if you need to revert the device to a previously saved point.

NOTE: It is advised that you restore the backup made in the same SIP server version.

LIST OF BACKUPS

4.3.5 Change Password

Allows you to change to login password for the device.

CHANGE PASSWORD

4.3.6 Upload License

By clicking this button, a form will open where you can either paste a license string or upload a provided license file.

UPLOAD LICENSE

4.3.7 Sound Files

Sound Files setting allows you to upload needed sound files for use and have them at your disposal in future.
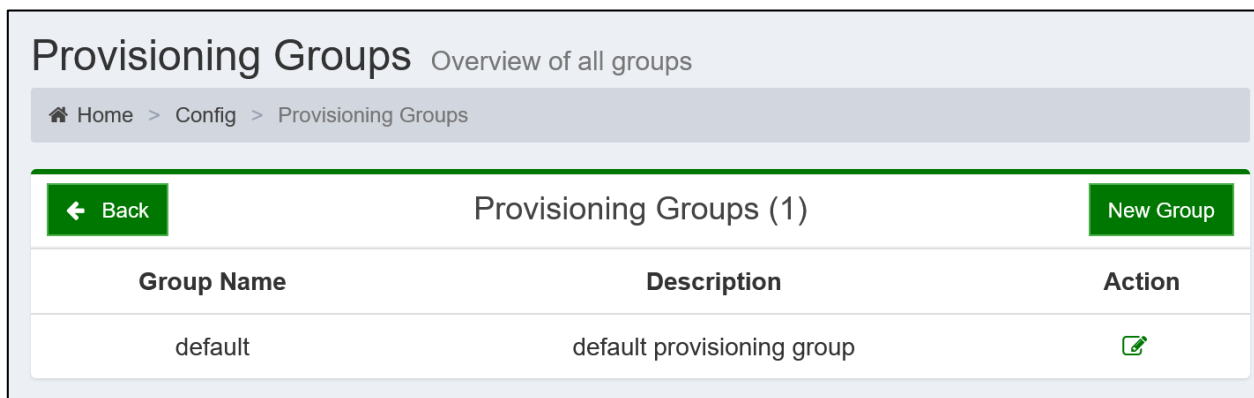

SOUND FILES

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4.3.8 Provisioning Groups

With Freund IP-INTEGRA systems, it is possible to customize all your device's settings directly from our SIP server without ever needing to access the device interface. This includes door stations, terminals (indoor monitors), IP Audio systems, VoIP applications. Some Akuvox and Fanvil devices are also supported. This is very useful especially if customer has large number of devices in use.

To begin, click on **Config** in the navigation menu on the left. When the **Configurations screen** appears, click on **Provisioning Groups**.

Following screen will show.

Provisioning Groups Overview of all groups

Home > Config > Provisioning Groups

← Back	Provisioning Groups (1)	New Group

Group Name	Description	Action
default	default provisioning group	✎

PROVISIONING GROUPS

By default, only the default group exists.

To begin configuring settings for devices, you can either create a new group by clicking on **New Group** button or edit the default group by clicking on   ✎   (**edit**) button. Screen shown in the picture bellow will appear.

General

Group Name

default

Group Description

default provisioning group

CREATING A NEW PROVISIONING GROUP

From here, it is possible to give the group a **description** or **change the name**.

Below this form are the customization settings. As can be seen, available options are **Integra Intercom**, **Integra Terminal**, **IP Audio**, **Integra VoIP APP**, **AK Terminal** (Akuvox), **Fanvil** and **FE-TERM-7W3**.

Integra Intercom	Integra Terminal	IP Audio	Integra VoIP APP	AK Terminal	Fanvil	FE-TERM-7W3

PROVISIONING GROUP CATEGORIES

4.3.8.1   IP-INTEGRA Intercoms

For the **IP-INTEGRA Intercoms** a following options are available at your disposal:

- **RTSP** – Real Time Streaming Protocol: Allows you to configure the video quality of an intercom
- **Relay** – Configure Relay type, trigger and hold delay, and Web Relay
- **Inputs** – Allows you to enable Inputs
- **Access Control** – Configure a relay or schedule a time during which users will be able to access the property
- **Disable 8HR10D** – Prevents SIP from preconfiguring an intercom to connect it to the IP-INTEGRA Access controller through Wiegand pins on the back of the device
- **User Interface Settings** – Accessibility Options

PROVISIONING GROUPS – INTERCOM

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Settings available to configure:

SIP Registration period – Time during which SIP will attempt to register the device

Web Interface Password – IP-INTEGRA door stations have **admin** and **user** accounts that are able to configure the device by logging in to the device web interface. Password for **user** account is entered here (username: **user**)

Firmware Upgrade URL

RTSP – Real Time Streaming Protocol, upon enabling, additional features become available:

- RTSP H264 Resolution
- RTSP H264 Framerate
- H264 Bit Rate

Relay – Configure the type of a relay, relay trigger delay and hold delay, and Web Relay

Relay Type (available only for FE-IPDS-27S) – Default or Inverted

- Default – Type 'Low' means door is closed, type 'High' means door is open
- Inverted – Type 'Low' means door is open, type 'High' means door is closed

Relay Trigger Delay – determines the amount of time that passes before the unlock action is executed

Relay Hold Delay – determines how long the door will stay unlocked (default 6 seconds from v1.11)

Web Relay Enabled – if enabled, the Relays can be triggered by typing in the following link in the URL of users web browser:

http://[Device-IP]/fcgi/do?action=OpenDoor&UserName=(Username)&Password=(Password)&DoorNum=1

Input trigger – select the trigger options according to the actual operation on the exit button.

Input Relay ID – set up relays to be triggered by the actions

Input Delay – set up the time during which the action is carried out

Relays – select the relay switch available for the RIFD card door access

Days – select the day(s) on which RFID card can be valid for the door access

User Interface Settings

Accessibility Options – Displays additional accessibility options shown below:

Dial out Text – text displayed upon making a call

During Call Text – text displayed during an ongoing call

Hang Up Text – text displayed when call is terminated

Open Door Success Text – text displayed upon successful door opening

Open Door Failed Text – text displayed when door opening failed

Register Failed Text – text displayed when device failed to register on SIP server

4.3.8.2   Integra Terminal

When creating **New Group**, **Integra app password** represents a password for Integra app that is installed on a device. **Camera URL** is a web address for IP cameras connected to the network, which can be a camera from intercom.

You can also define the **door close time, standby interval, voice call volume and ring volume.**

4.3.8.3   IP Audio

Offers options to configure **Volume, Echo Cancellation, Time Zones, DTMF Buttons.**

Auto answer is also available and enabled by default. **Microphone boost** and **paging options** are also at your disposal. If **Play on Button** is enabled, a sound will be reproduced when button connected to SIP Audio device is pressed. **Randomly play on button** will reproduce a random sound, while user is able to select files for reproduction under **Files to play on**.

General

Group Name

default

Group Description

default provisioning group

| Integra Intercom | Integra Terminal | IP Audio | Integra VoIP APP | AK Terminal | Fanvil | FE-TERM-7W3 |

General Settings

Sounds Volume: 50 %

Voice Volume: 25 %

Microphone Level: 90 %

Microphone Boost

24dB

✓ Echo Cancel

Echo Cancel Fallrate

1.0

Echo Cancel Threshold

1000

Alarm Sound File

emergency_alarm.mp3

Time Zone

Europe/Copenhagen(+01:00)

Sync Interval

600

Button 1 DTMF

9

Button 3 DTMF

8

✓ Auto answer

Silence suppression

Silence Threshold

1000

Dial Extension

100

Input Device

hw:2,0

Output Device

default

Mute

No audio capture

Paging Start Sound Enable

Paging Stop Sound Enable

Play on button

✓ Enable play on button

Randomly play on button

Select button to play on

Button 2

Files to play on

Select files (0 Files selected)

PROVISIONING GROUPS – IP AUDIO

4.3.8.4   Integra VoIP APP

Allows selecting **Connection type** (**LAN** or **WAN**). You can also specify the **DTMF Codes** and select whether the **contacts** are displayed. **Keyboard disabled** disables main keypad screen. **Add doors** allows to select extensions which will be shown on **Intercom** tab in app

PROVISIONING GROUPS – INTEGRA VOIP APP

4.3.8.5   AK Terminal

Allows you to enable sending **NTP** to the device.

PROVISIONING GROUPS – AK TERMINAL

4.3.8.6   Fanvil

This tab section is dedicated to **Fanvil IP phones**.

PROVISIONING GROUPS – FANVIL

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4.3.8.7 FE-TERM-7W3 & i53W

Allows extensive customization of the FE-TERM-7W3. **Auto answering** feature is available and disabled by default. **DTMF Codes** and **Function keys** can be modified according to your needs.

DSS keys can be configured as **Fast Call, Web Relay, or Camera View**. You can name the function accordingly. Under "**Value**" field you are required to enter the number of **extensions** which you want to assign. **Disable Video Preview** will not show the feed from door station before answering a call.

PROVISIONING GROUPS – FE-TERM-7W3

4.3.8.7   i51W & i52W

Allows extensive customization of the i51w & i52w. **Auto answering** feature is available and disabled by default. **DTMF Codes** and **Function keys** can be modified according to your needs.

DSS keys can be configured as **Fast Call, Web Relay, or Camera View**. You can name the function accordingly. Under "**Value**" field you are required to enter the number of **extensions** which you want to assign. **Disable Video Preview** will not show the feed from door station before answering a call.

PROVISIONING GROUPS – I51W AND I52W

4.3.9 Provisioning Devices

Under provisioning devices, you can perform a scan to list all the devices available for provisioning that are on the network. From this section, you can update mobile apps or all devices as well as perform a firmware upgrade if it is available.

To send provisioning to the device, find the device you wish in the list. Select the wanted **provisioning group** and assign it to an **extension** under "**Bind to Extension**". Finally click the ☁ (**Update Device**) button to **send provisioning** to the device.

Buttons shown in the picture below are **Update Device**, **Factory Reset**, **Firmware Upgrade**, **Password Reset** and **Device Reboot**, respectively.

AVAILABLE ACTIONS

Provisioning Devices Overview of all devices

⌂ Config > Provisioning Devices > Provisioning Devices

← Back Devices (8) Update Mobile App Upgrade All Update All Scan now ▾

Show 10 ⌄ entries Search:

#	Host	Device	Version	MAC Address	IP Address	Provisioning Group	Bind To Extension	Action
4	facc348 SA	ACC	v1.12.0	02:42:96:62:a6:7b	192.168.200.163			
5	facc332 S	ACC	v1.12.0	02:42:12:f0:f0:92	192.168.200.152			
8	facc321 SA	ACC	v1.12.1	02:42:a0:b8:0b:a5	192.168.200.131			
7		FE-IPDS-20	20.208.3.207	0C:11:05:09:71:91	192.168.200.122	default	FE-IPDS-20A	300	
3		FE-IPDS-27S	27.208.3.11	0C:11:05:05:59:02	192.168.200.125	default	FE-IPDS-27S	307	
1		FE-IPDS-28A	28.208.1.208	0C:11:05:09:E7:D7	192.168.200.121	default	FE-IPDS-28A	302	
2		FE-IPDS-29S	29.208.1.232	0C:11:05:05:A7:B0	192.168.200.124	default	FE-IPDS-29S	303	
6		FE-TERM-7W3	2.8.8.6	00:d8:4a:03:ee:47	192.168.200.129	default	FE-TERM-7W3-1	304	

Showing 1 to 8 of 8 entries Previous 1 Next

PROVISIONING DEVICES

4.3.10 Time Configuration

Allows you to set the **time zone**, **time,** and **date** manually or automatically by enabling the **NTP**.

Set Time and Date

Time

16:25:29

Date

05.08.2021

✓ NTP Enabled

NTP Server 1

0.europe.pool.ntp.org

NTP Server 2

1.europe.pool.ntp.org

NTP Server 3

1.europe.pool.ntp.org

Timezone

Europe/Copenhagen(+01:00)

Cancel   Set

TIME CONFIGURATION

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4.3.11 Self-Diagnostics

When **Self Diagnostics** are enabled, system will check itself for any malfunctions at specified time.

Self Diagnostics
enabled
Self Diagnostic Time
02:00
Cancel   Save

PROVISIONING DEVICES

4.3.12 IP Audio Configuration

Allows you to assign an audio file to a specific extension, which upon calling will reproduce the sound file.

IP AUDIO CONFIGURATION

4.3.13 Monitoring

If enabled, this function will **notify** you through your mail address of following events: **Extension went down/up, Trunk down/up, New Firmware available, Login to Server** and **Server Start.**

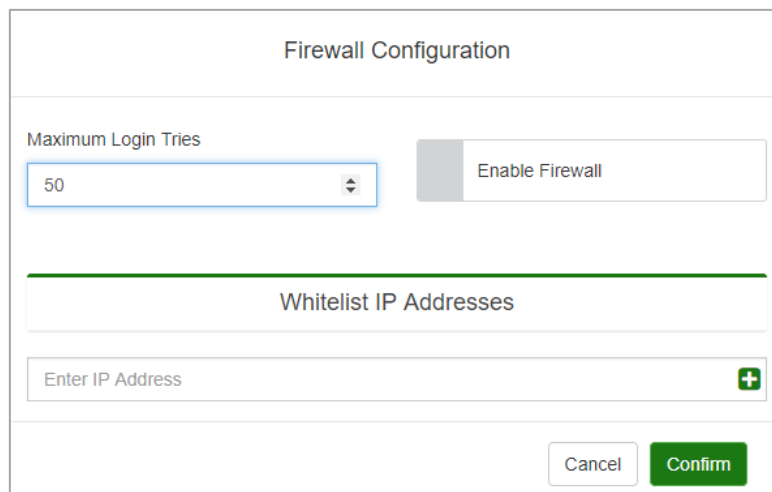**MONITORING CONFIGURATION (1)**

MONITORING CONFIGURATION (2)

4.3.14 Firewall Configuration

Allows you to configure the **firewall**. You have option to **ban/whitelist** certain IP addresses, as well as define the number of **maximum login attempts**. To enable the firewall, click on **Config** and tick the **Enable Firewall** box.
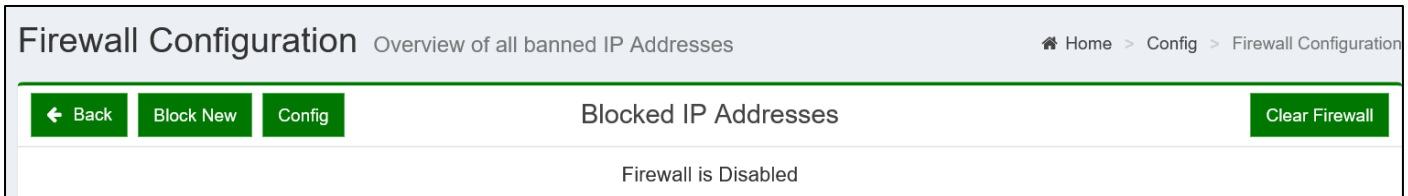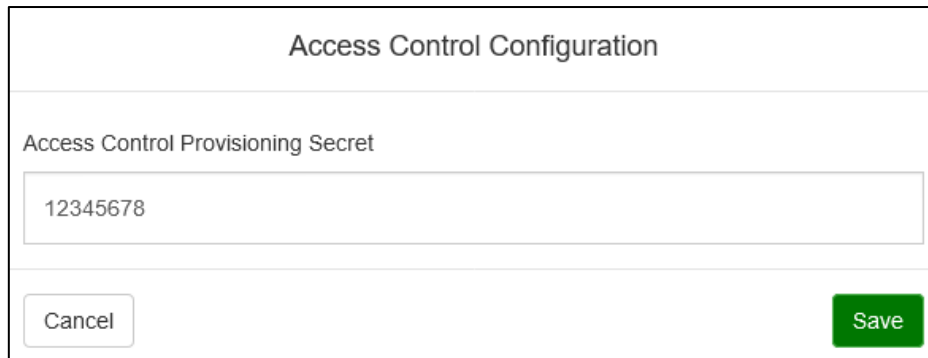

FIREWALL CONFIGURATION

FIREWALL CONFIGURATION – CONFIG

FIREWALL CONFIGURATION – BLOCK NEW

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4.3.15 Access Control Configuration

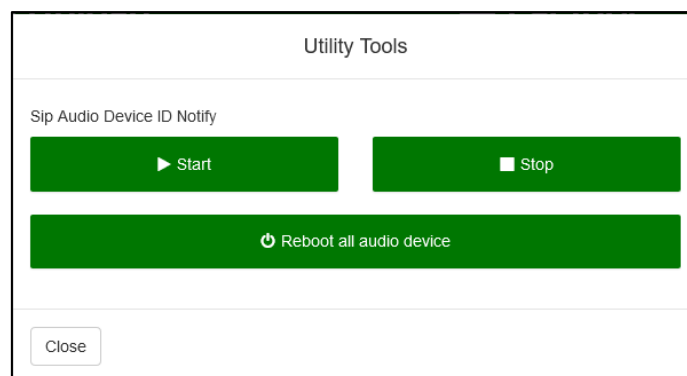Allows you to define the Access Control Provisioning Secret.

ACCESS CONTROL CONFIGURATION

4.3.16 Utility Tools

Utility Tools is related to IP-INTEGRA Audio devices.

SIP Audio Device ID Notify – When start is pressed, all audio devices will start broadcasting their FSA number.

Reboot all audio devices – All IP-INTEGRA Audio devices will be rebooted

UTILITY TOOLS

4.3.17 Documentation

Documentation section contains links to all IP-INTEGRA manuals and application notes.

4.3.18 Information and Worklog

Installers and system administrators can enter their contact and company information under the Info tab.

Worklog tab allows administrators to log their changes here.

SIP INFORMATION & WORKLOG

5. Logs

Logs item from the **Menu** contains the option to list all **Event logs** and **Call logs**.

5.1   Call Logs

Date/Time	From	To	Disposition	Duration
2022-10-14 09:37:30	"FE-VPU-106DC" <309>		ANSWERED	2
2022-10-14 09:37:28	"FE-VPU-106DC" <309>		ANSWERED	1
2022-10-14 09:37:28	"FE-VPU-106DC" <309>		ANSWERED	0
2022-10-14 09:37:22	"FE-VPU-106DC" <309>		ANSWERED	2
2022-10-14 09:31:45	"" <>		ANSWERED	0
2022-10-14 09:31:45	"" <>		ANSWERED	0
2022-10-14 09:31:43	"" <>		ANSWERED	0
2022-10-14 09:31:43	"" <>		ANSWERED	0
2022-10-14 09:31:41	"" <>		ANSWERED	0
2022-10-14 09:31:41	"" <>		ANSWERED	0

Call Logs

From date: 2022-03-16   To date: 2022-10-14

Show 10 entries   Search:

Showing 1 to 10 of 1,260 entries   Previous 1 2 3 4 5 … 126 Next

CALL LOGS

5.2   Event Logs

Event Logs

freund-login   ID: 101   User: admin   2021-08-06 09:13:05
User logged in

freund-login   ID: 101   User: admin   2021-08-05 12:21:15
User logged in

extensions   ID: 1108   User: admin   2021-08-04 15:02:21
Extension enabled!

extensions   ID: 1107   User: admin   2021-08-04 15:02:19
Extension disabled!

extensions   ID: 1100   User: admin   2021-08-04 13:23:58
New extension added

extensions   ID: 1102   User: admin   2021-08-04 13:23:22
Extension deleted from system

extensions   ID: 1100   User: admin   2021-08-04 13:20:56
New extension added

extensions   ID: 1100   User: admin   2021-08-04 13:17:12
New extension added

EVENT LOGS

◀**FREUND**▶

6. Actions

Last three options in the **Menu** are **System Upgrade**, **Reboot** and **Shut Down**. Before unplugging the central from the power supply, it is required to first shut it down.

System Upgrade prompts you to select and upload a new SIP firmware file in order to perform an upgrade.

7. Additional Notes

Base license includes: 4 extensions, Groups, Ring Groups, and all options in SIP conf.

Additional license includes: more extension slots, trunks, scheduler, and enabling video.

GSM codec should be disabled for mobile phone extensions i.e., extensions for Android or iOS operating systems!