NISTA DEVICES

User Manual

Installation and Programming Manual

IP39-4x
IP Secured Access Control
Edition 3.01

IP Door Phones

IP 39-4X

Installation and Programming Manual

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1 Introduction

The IP39-4x Series IP Door Phones offer a wide range of options for both indoor / outdoor access control and door entry options, based on industry standard SIP protocol.

The IP39-4x IP Door Phones are standalone SIP phones, which enhance the functionality of a VoIP network by providing entrance door connectivity, access control, video monitoring and more.

The IP39-4x Series are designed using cutting edge technology, incorporating a high quality full duplex speakerphone with microphone and speaker volume settings for optimum environmental performance as well as a built in electromagnetic lock controller.

All models are simple to set up, have modern aesthetics and are made of durable construction and provide “plug and play” installation.

1.1 Model Nomenclature:

IP39-4X-P/PC IP39-4X– This is the IP39-4x Series Model

X – Model Number – “0” Keypad / “1” Single Call Button

P – Piezo Faceplate

A - Acrylic Faceplate

C - Camera

IP39-40PC

IP39-40P

IP39-41PC

IP39-41P

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1.1.1 List of Available Models

Model	Description
IP39-40PC	IP Door Phone, Piezo Keypad, Integrated Internal Video Camera
IP39-40P	IP Door Phone, Piezo Keypad
IP39-41PC	IP Door Phone, Piezo Single Button, Integrated Internal Video Camera
IP39-41P	IP Door Phone, Piezo Single Button

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2 Product Overview

Nista Devices GmbH IP39-4x Door Phones are smart, surface mounted access control devices connected to an IP network allowing door entry control and monitoring. They are designed for both indoor and outdoor use and are constructed in an aluminum case with piezo or touch keypads.

The Nista Devices GmbH IP Keypad and Single Button versions support the following features:

Feature	Keypad	Single Button
Multiple door access codes	V	X
Remote Door opening from extension	V	V
Master/Slave – secured HTTPS Door opening	V	X
Programmable day and night destinations	V	V
Integration with local LAN and VoIP networks	V	V
Network Configuration: DHCP or Static	V	V
Authorized registration with existing VoIP switching system (SIP Proxy)	V	V
Automatic busy & disconnect detection	V	V
99 Speed Dialing Memories	V	X
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Keypad volume control	V	X
High quality Video over IP (for models with internal video camera)	V	V
Video Streaming (HTTP; RTSP) (for models with internal video camera)	V	V
Configurable and adaptive video resolutions: QCIF; CIF; QVGA; VGA; 720p	V	V
Web Management interface	V	V
Web GUI password protection	V	V
Weather resistant and anti-vandal PIEZO keypad	V	V
Case Opening Alarm	V	V
Automatic configuration and software updates – Auto Provisioning	V	V
Media Encryption	V	V

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3 IP Door Phone Package Content

3.1 “What’s in the Box”

- IP Door phone unit
- Set of connectors
- Hex key wrench for security screw

Note:

1. If POE equipment is not available, it is possible to use External Power Supply (not supplied). External Power Supply shall be:
   - Input: 100 – 240 V AC
   - Output: 5VDC; 2A
2. 5VDC Power Supply shall be connected to IP Door Phone in accordance with the required polarity.
3. The External Power Supply does not include in standard Ip39-4x package.
4. The 5 VDC source is connected to the unit via a terminal block. Observe polarity on the PCB where the terminal block is located.

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4 IP Door Phone Front Panel

Figure 4-1 The IP Door Phone Unit Front Panel

- ▲▼ – scroll a speed dial directory.
- – enter the programming mode or use as a "Backspace"
- – dial predefined day/night extensions and hang up a call.

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5 IP Door Phone Main Functionality

- The IP Door Phone unit can be integrated with IP PBX (Server / SIP-Proxy) as a SIP extension.
- IP Door Phone can be connected to IP PBX directly or via IP router, HUB or Switch.
- The unit dials to predefined ‘Day’ and ‘Night’ extensions via IP PBX.
- The unit dials to local extensions or external destinations.
- The unit dials pre-programmed destinations using Speed Dial directory.
- The unit opens doors from local extension or remote conversation party.
- The unit opens doors using External Switch buttons.
- The unit management is handled by Web Management interface.

Figure 5-1 the unit schematic setup.

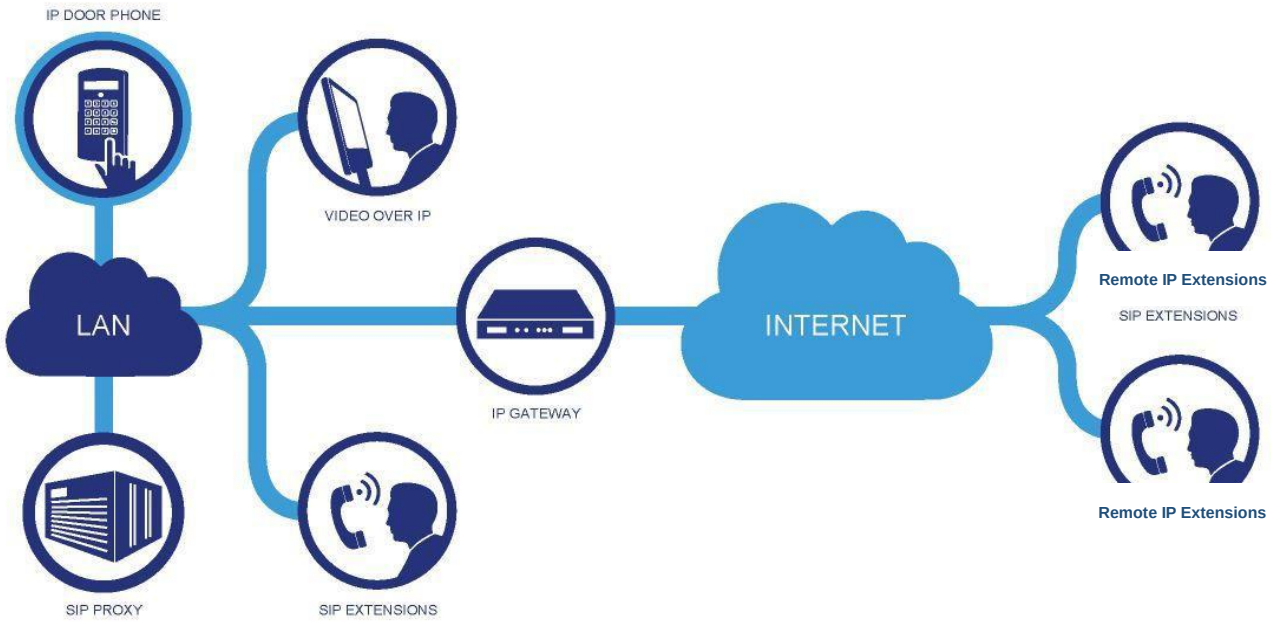

Figure 5-1 The IP Door Unit Schematic Setup

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6 Installation

6.1 Mounting

The Entry Control unit shall be mounted on the wall using the rear mounting cover and the rubber mat provided with the unit.

- Unscrew the secret screw on the bottom part of the unit.
- Measure and mark location of the holes on the wall, where they are to be drilled.
- Drill the holes and insert the wall dowels into the holes.
- *Place the rubber mat on the wall and then the rear metal cover using provided wall screws. (See* Figure 6-1*)*
- Figure 6-1Make all required connections.
- Put Entry Control unit on the base latch mechanism, close the case and lock with provided screw.

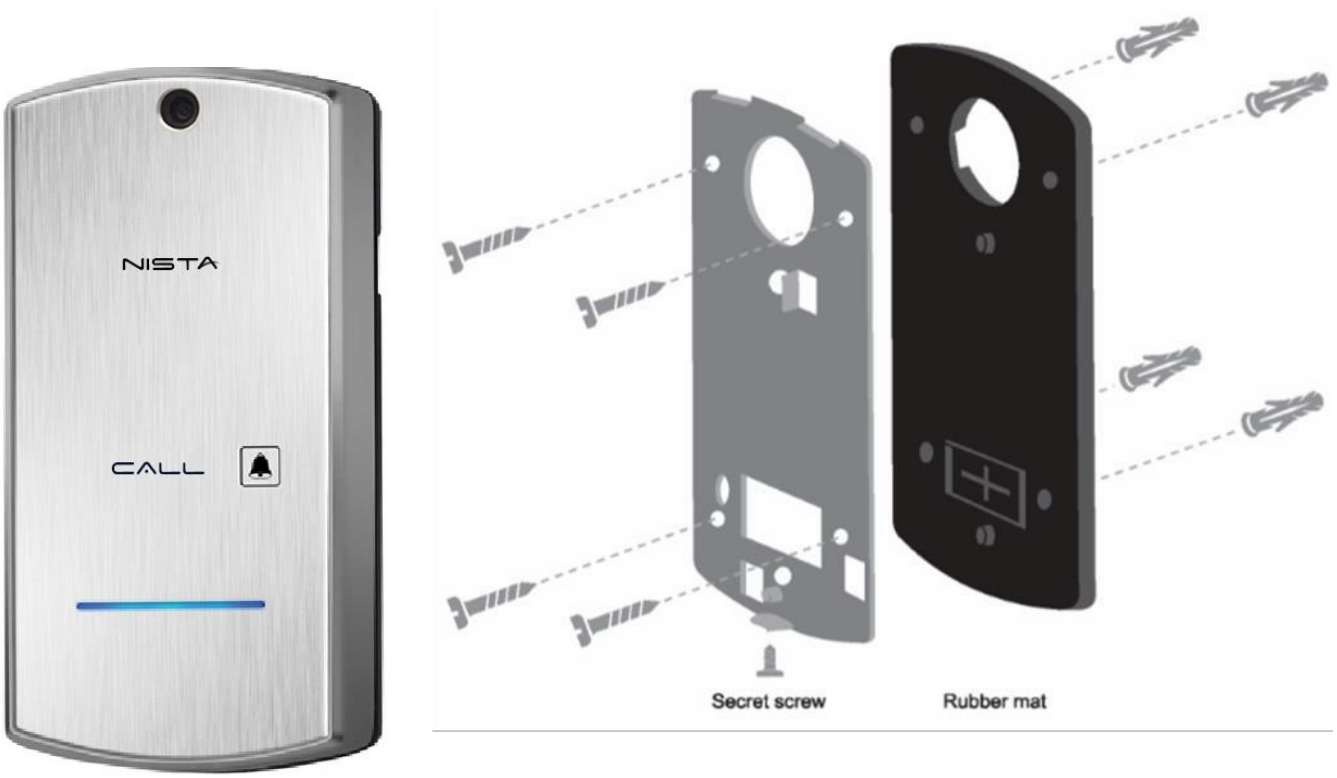

Figure 6-1 Entry Control unit Wall Installation

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6.2 Connections

For the safety reason and to avoid electrical damage to the unit. All Power source like an external power supply or POE **must** be disconnected during installation process.

Note: The External Power Supply is not included in standard IP39-4x package

The External Power Adapter shall correspond to following technical parameters:

Input: 100 – 240 V AC

Output: 5VDC; 2A

5VDC Power Adapter shall be connected to IP Door Phone/Entry Control unit in accordance with the required polarity: 5VDC and GND, see Figure 6-4)

Usage the incorrect External Power Adapter can damage the door phone

1. Connect and screw door lock(s), push button(s) or sensor(s) wires to the provided two-wire terminal connectors.
2. Insert wired terminal connectors into the matting sockets on PCB (Figure 6-2).
3. Connect POE/LAN cable to RJ-45 socket.
4. Connect door lock to **'REL 1'** (**Relay 1)** and/or **'REL 2'** (**Relay 2)**.
5. If an external switch button is used (See also Chapter 7.5: Web GUI Door Functions -> Sensor), connect the external switch button wires to **'SEN 1'** (**Sensor 1)** and/or **'SEN2'** (**Sensor 2**)

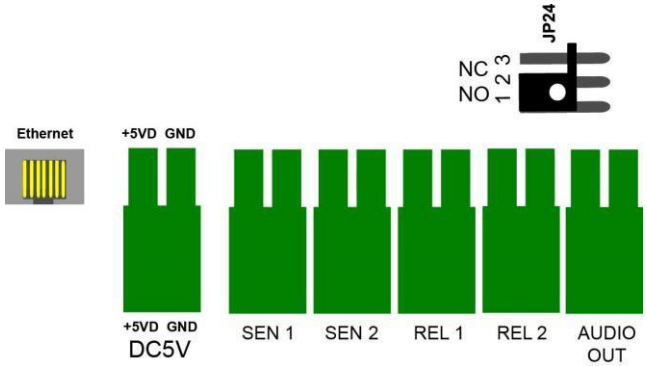
The internal Relay's functional modes: 'Normally Open' or 'Normally closed' can be configured by Hardware PCB Jumper or by software configuration via web-browser

Relays ½ NO/NC Jumper configuration.

1. Relay 1: can be configured to work in Normally Open mode only.
2. Relay 2 :

Closed/Jumper center Pin (2) + 'NO'- (1) means the 'Normally Open' relays status in powered mode.

Closed/Jumperd center Pin (2) + 'NC' - (3) means the 'Normally Closed' relays status in powered mode.



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Relays ½ NO/NC software web setup.

Relay 1 – is setting for NC (NO/NC is programmable) and Electrical door lock connected via relay number 1. If Entry control unit's power is lost the door will unlocked for exit the room.

Navigate to Door Functions >Parameters screen and Select required Relay 1 functional mode

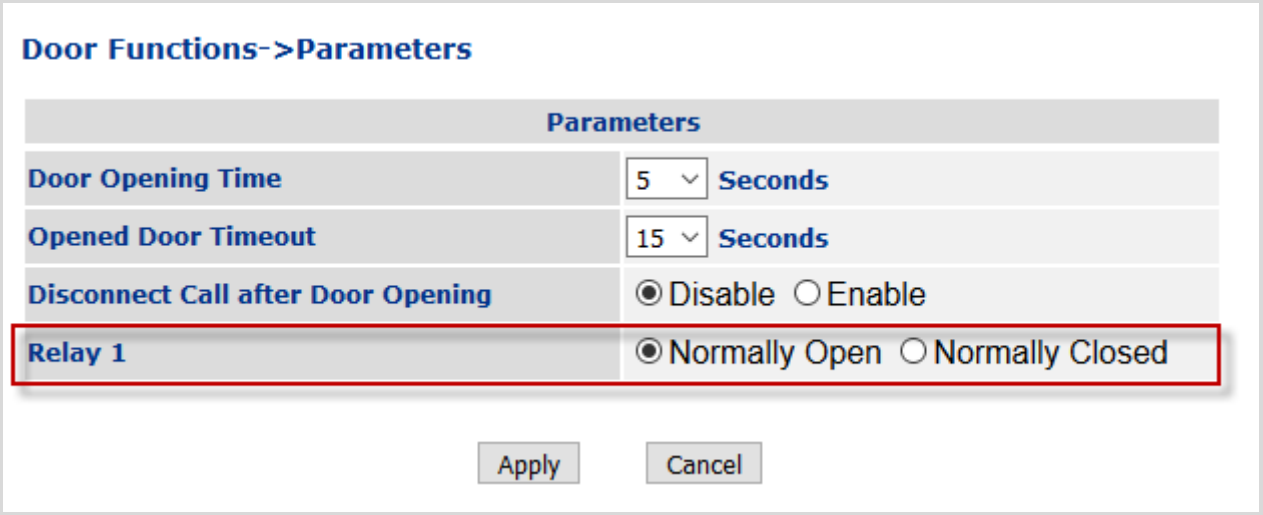

Figure 6-2 Relay 1 NO/NC mode web-gui setup

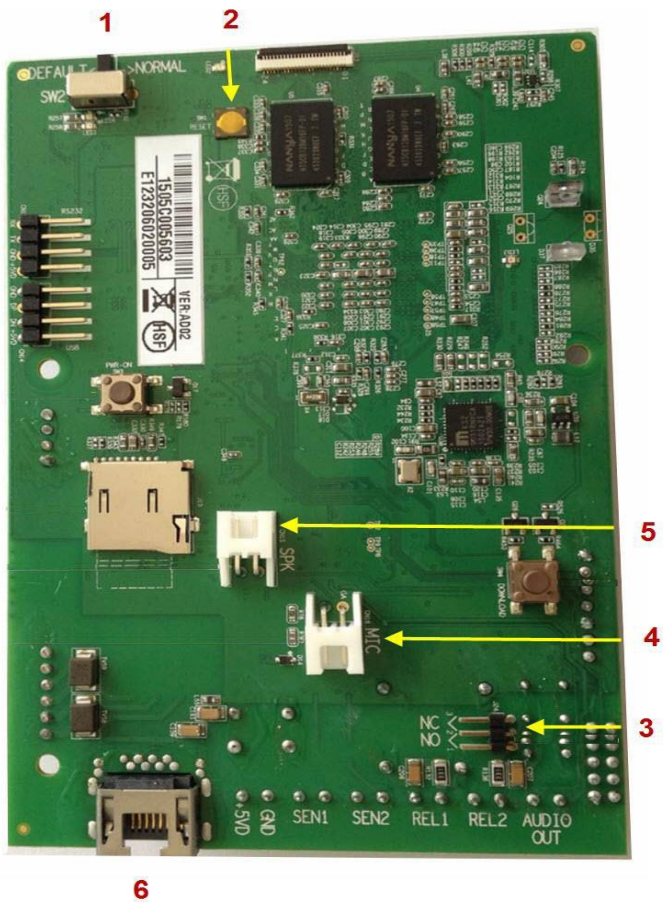

Figure 6-3 The IP Door Phone PCB Module

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Attention:

Note: The internal relay's maximum supported current is 2A.

Important: To set device in operational mode, switch 1 on PCB shall be switched to "Normal" position.

PCB elements	Description
1: (SW2)	Factory Default Settings switch: 'Normal' – Door Phone normal working position 'Default' – Set to default procedure mode
2:	Hardware Reset (Cold Reset Switch)
3: (NO/NC Jumper)	Relay 1 and Relay 2 Normally Open and Normally Close status jumper. Closed Central Pin (2) + 'NO'- (1) pin means the 'Normally open' mode. Closed Central Pin (2) + 'NC' - (3) pin means the 'Normally Close' mode Note: Relay 1 can be configured to work in Normally Open (NO) mode only by PCB jumper and to work in Normally Closed mode via web administration interface
4:	Microphone Connector
5:	Speaker Connector
6: Ethernet	POE/LAN connection
5VD (5V DC)	External power supply 5VDC 2A input (if no POE applied). Draw attention on connection polarity: +5V and GND marked on PCB (Figure 6-2) The External Power Supply does not include in standard ZP-10X package
SEN 1/2 (Sensor 1/2*)	Door status detector. Also can be used as external Switch button connection (Chapter 8.3). Note: The short circuit closer type External Switch button can be used for manual door opening
REL 1/2 (Relay 1/2)	Support 30VDC 2A Internal relays Normally Open and Normally Close status depends on JP1 jumper position.
Audio Out*	Reserved for future release

*feature support depends on firmware version release

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Note:

It is recommended to use an Ethernet cable that comes without the strain relief boot.
your cable comes with one.

Figure 6-4 shows the IP Door Phone connections with External Switch button, which is connected to SEN 1 (‘Sensor 1’) socket.

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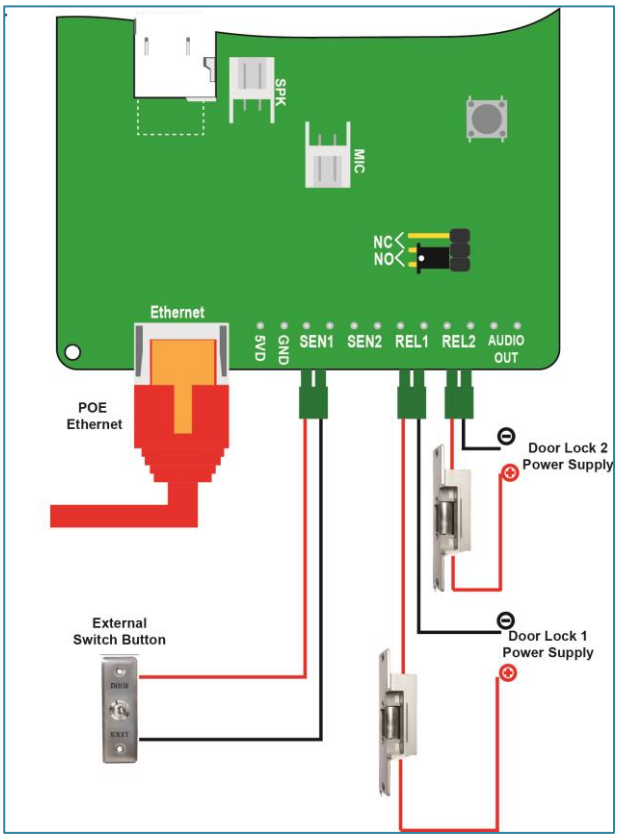

Figure 6-4 IP39-4x Connections Diagram with External Switch Button

Note:

The door electrical Lock requires separate powering follow by door lock manufacture's requirements

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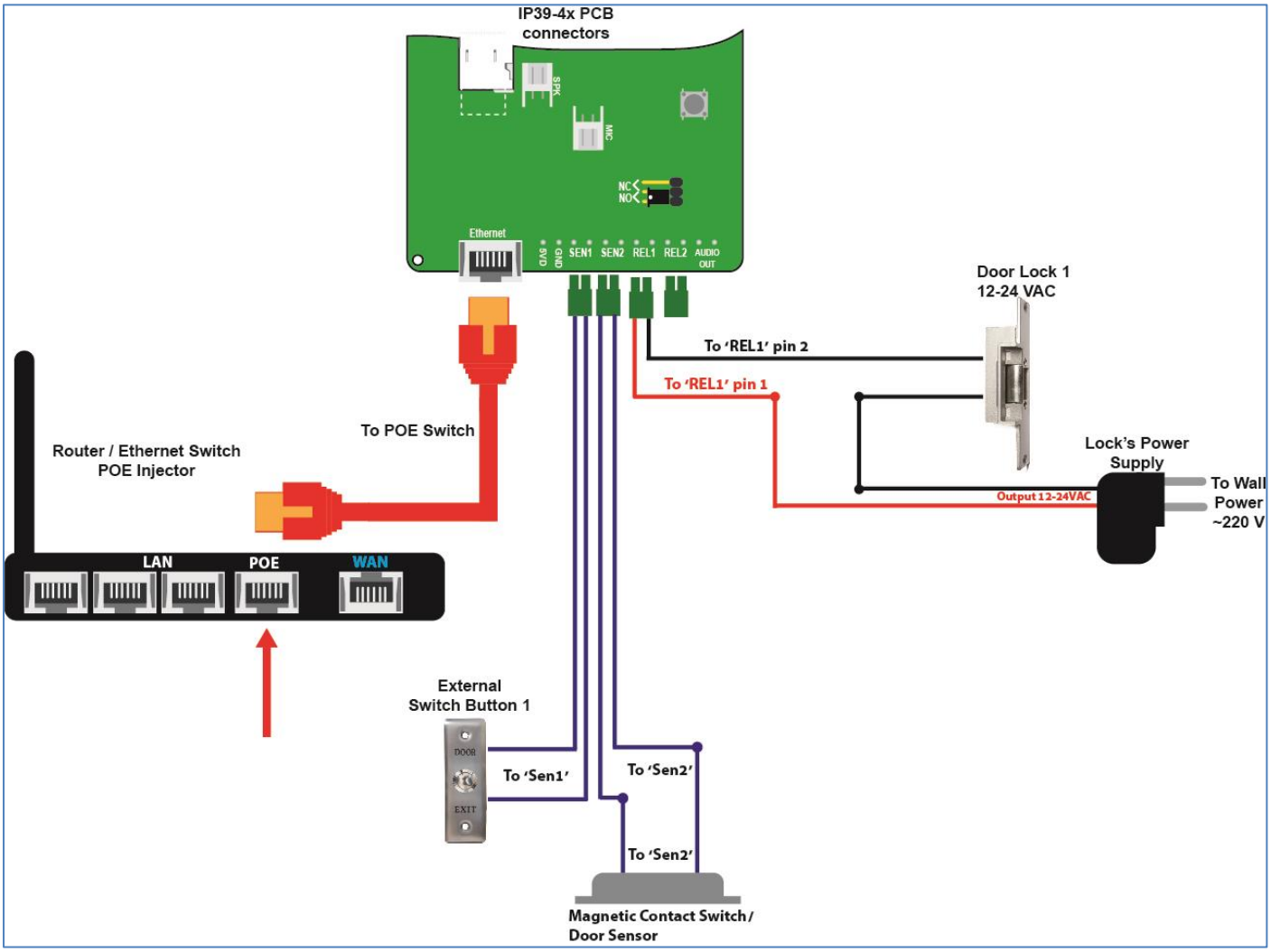

Figure 6-5 Connections diagram with POE, Door Lock, Switch button and Door Status Sensor

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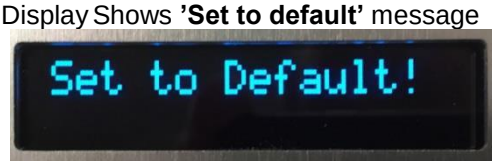
6.3 Reset Device to Factory Default Configuration

IP39-4x Door phone can be reset to its Factory default configuration by using following actions:

1. Via WEB-Management interface (See 7.8.5)
2. By using hardware 'Factory Default Settings' switch (See Figure 6-6)

To set IP Door Phone to Factory Default Setting by using hardware 'Factory Default Settings' switch:

- Power off the device.
- Put the switch to "DEFAULT" position.
- Power on this device will restore the factory default.
  - Note: The front panel LED Display can show the message "Destination not set "if Day or Night destinations not specified and case is open – CLOSE the Case
  - Mandatory wait until LED Display Shows **'Set to default'** message



  - In case if the unit's housing doesn't include LCD monitor, so wait approximately 2 minutes until Reset to default procedure will be done, and updated software number will be shown in the web-management Home page.
- Power off the device.
- Put the switch back to "NORMAL" position
- Power on the device

Figure 6-6 Factory Default Settings switch SW2

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6.4 LED Panel Indication

The IP Door phone's front panel includes the LED Line (panel), which indicates the Door Phone's functional status with specific light activity.

Figure 6-7 LED Panel

IP Door Phone Action	LED Line lighting Activity
The Door phone is ready in idle status and SIP .	Permanently ON
Network is down.	Permanently OFF
Registration in SIP Server failed.	Permanently OFF
Outgoing Dialing; Conversation	Slow Flashing
Relay Working	Slow Flashing
Power is On but door phone is not ready and not enter to IDLE mode.	Fast Flashing
Software Update procedure runs	Fast Flashing
APS Updating software runs	Fast Flashing
Save & Reboot	Fast Flashing
Set to Factory Default procedure runs	Fast Flashing
Unit restarted	Fast Flashing
Remote Restart operation from Remote server	Fast Flashing

Note:

This feature requires the IP Door Phone KPU software V.17 or higher and Main unit software 2abw-01 and later. Please contact your local dealer in order to update the IP Door Phone's firmware.

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7 Programming

7.1 Access to Web Management Interface

The programming application can be launched from a web browser.

To run the application type in address bar, the IP Door phone IP address.

The Web Management Application Login screen appears:

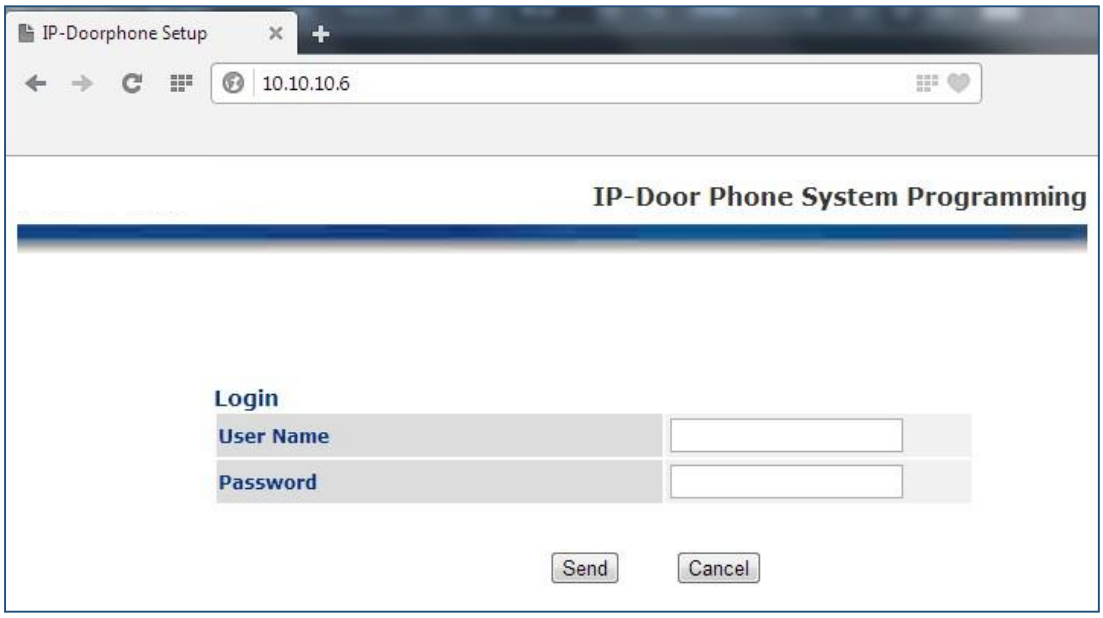

Figure 7-1The WEB Programming Interface Login Screen

IP39-4x provides different management levels for WEB-Management: Administrator and User

- 'Administrator' level has access to all IP39-4x configuration parameters
- 'User' level has limited access to IP39-4x configuration parameters.

Type Administrator or User's login name and Password fields. (See Also 7.8.7)

Note:

1. The default IP Door Phone IP address is **10.10.10.6** and it is configured as 'Static' IP Address.
2. The default web-programming Administrator credentials are:
   - User name: '**admin'** – For Administrator management level and **'user'** – for User management level
   - Default Password: **1234** for both management levels
3. It is strongly recommended to change the default administrator password to a stronger one.
   Allowed Password characters: Up to 19 Digits: 0-9, Aa-Zz, no space allowed
4. Also IP Door phone IP address could be seen on the unit's LED display (keypad models only). Dial: **P/<- + 1 + Web Access Administrator password + #**

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7.2 Home Screen

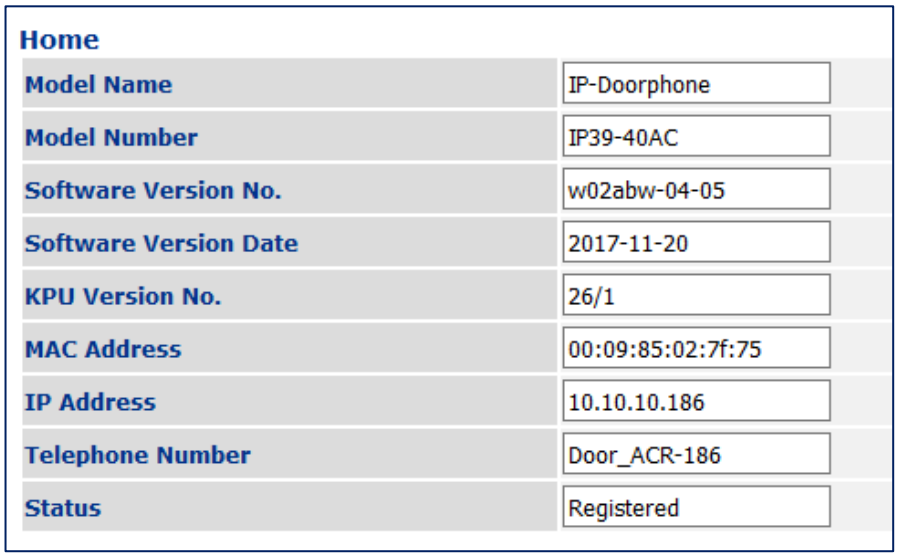

Figure 7-2 The IP Door phone web-management application main screen

The Home page parameters table includes following information:

Parameter	Description
Model Name	IP Door Phone Product name
Model Number	IP Door Phone Product ID – the manufacturer identification code
Software Version No.	Installed firmware release identification code
Software Version Date	Firmware's release date
KPU Version No.	The Boot and Keypad module software number
MAC Address	IP Door Phone MAC Address
IP Address	IP Door Phone IP address
Telephone Number	Associated SIP extension number or Specified SIP extension display name
Status	Shows the associated SIP extension registration status in IP PBX

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The left side navigation menu contains the following items:

Parameter	Description
Network	LAN Configuration parameters
	HTTPS Configuration
SIP	SIP Account settings
	SIP Advanced settings
	Audio – SIP audio codecs configuration
	Video – Video codecs configuration
Telephony	Global telephony calling parameters
	Day/Night extensions number settings
	Speed Dial destination numbers settings and System accounts configuration
Door Functions	Door(s) handling parameters configuration Door Access Codes and Extension door opening code(s) settings LED Display messaging configuration
Access Control* *(visible only in IP39-4x ACR models)*	User's RFID tokens database management screens. See Document: 'RFID-Guide' for details
System Parameters	Speaker and Microphone volume separate adjustment
	Video setup Front Panel LCD configuration screen
	NTP and Time: Clock settings
Admin (Administration)	Save system configuration file Restore system configuration file System Firmware update
	Set device to factory default configuration
	Restart: restart the unit
	Change the Administrator Web-Login credentials
	Syslog Server Settings
	Ping test to the unit
Save & Reboot	Save updated configuration and restart the unit

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7.3 Network Parameters

7.3.1 Network Configuration Parameters

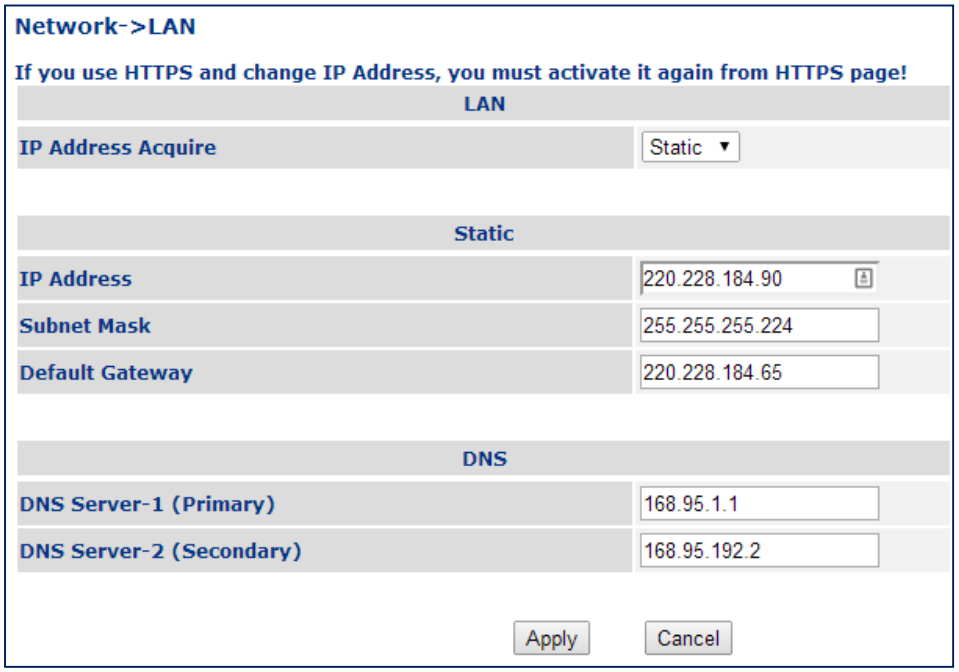

Figure 7-3 Network -> LAN Screen

Note:

At least the 'DNS Server-1' parameter shall be specified in 'Static' IP address configuration mode.

Parameter	Description
IP Address Acquire	Available options: • Static • DHCP Static mode allows to specify Network parameters manually. DHCP - Network parameters will be received automatically from DHCP server.
Static	**IP Address**: Identifies the IP Door Phone on the TCP/IP network. IPv4 format shall be used: XXX.XXX.XXX.XXX Example: 192.168. 1.10
	Subnet Mask: Determines network subnet. IPv4 format shall be used: XXX.XXX.XXX.XXX Example: 255.255.255.0
	Default Gateway: An identifier for the default network gateway on a TCP/IP network. IPv4 format shall be used: XXX.XXX.XXX.XXX
DNS	**DNS Server (Primary, Secondary):** The local DNS servers IP address. IPv4 format shall be used: XXX.XXX.XXX.XXX **Note:** Strongly recommended to specify at least one DNS Server in Static Network configuration mode.

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7.3.2 Network -> HTTPS Activation

The HTTPS Activation parameter will require to use the HTTPS secure protocol for the web management communication.

HTTPS provides authentication of the web-management server that one is communicating with, which protects against man-in-the-middle attacks. Additionally, it provides bidirectional encryption of communications between administrator's PC and IP Door Phone.

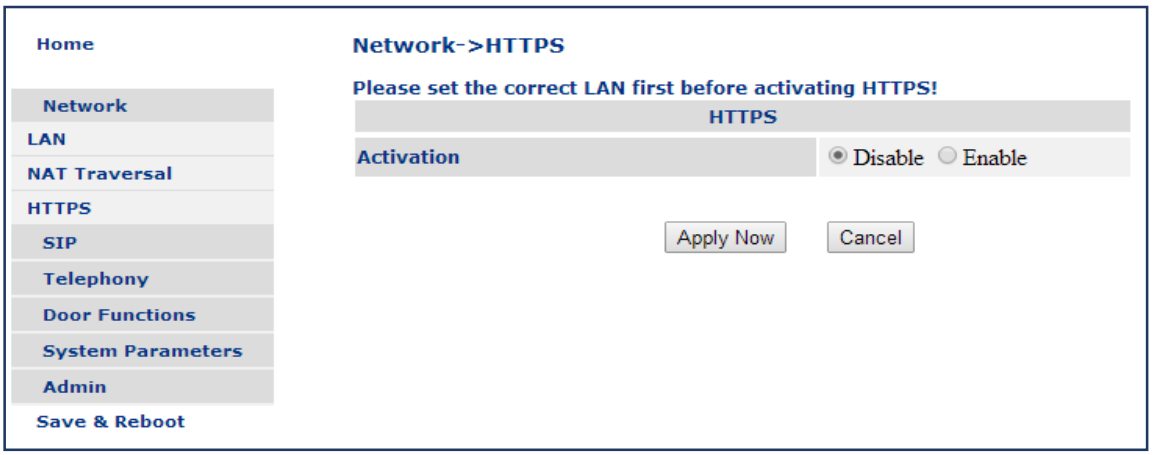

Figure 7-4 The HTTPS Activation Screen

Parameter	Description
Activation	Available options: • Disable (default) • Enable .
'Apply Now' button	Applies updated configuration.

Note:

1. The unit LAN configuration shall be completed and saved before the HTTPS activation isset.
2. WEB access URL to Door phone management page can require 'https://' prefix when HTTPS function activated

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7.3.3 Network / NAT Traversal

These settings are relevant only if IP Door phone is a part of LAN and has internal (not public) IP address.

NAT Traversal function allows traffic to get to the specified destination when a device does not have a public IP address.

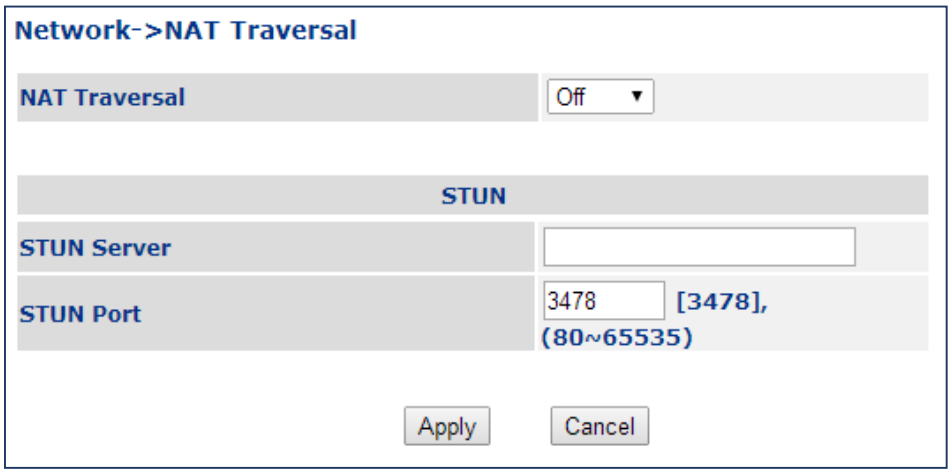

Figure 7-5 NAT Traversal Screen

Parameter	Description
NAT Traversal Activation	Available options: • Off (default selection) • On
STUN Server	The STUN server allows IP clients to find out their public address required for IP connection. TEXT Field allows to type the used STUN Server URL or IP address
STUN Port	Specifies the STUN server connection listening port number

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7.3.4 Auto Provision

Auto provision service allows to configure the IP Door Phone automatically by downloading the unit's configuration file from the APS (Auto Provisioning Server).

Auto provision service support to implement following actions:

- Download the Full IP Door Phone unit configuration
- Update specific unit's parameters
- Update the unit's firmware

Auto provision screen allows to configure APS (Auto Provisioning Server) server IP address / DNS name and IP Door Phone configuration file name and file's storage path on APS server.

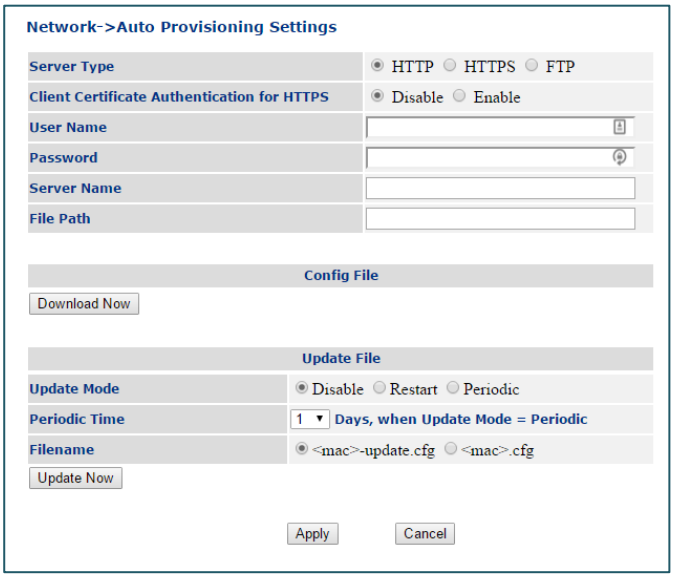

Figure 7-6 Auto-Provisioning Screen

Parameter	Description
Server Type	Available options: • HTTP • HTTPS • FTP Specified the connection type with APS server
Client Certificate Authentication for HTTPS	Specifies if IP Door Phone's Client Certificate shall be used on APS server side
User Name / Password	APS server authorization credentials
Server Name	APS Server DNS name or IP address
File Path	Directory path in APS server where configuration file stored.
Config File	**'Download now'** button initiates the **Default / First Configuration** file downloading procedure from the APS server
Update File Table	This section specifies the unit **UPDATING** configuration parameters. Can be specified the time period for automatic connection with APS server. Available options: - Disable – The Auto-Provisioning functionality disabled - Restart – Initiates Auto-Provisioning each time when unit restarted - Periodic - Initiates Auto-Provisioning in specific days interval. Available for configuration by using the '**Periodic Time**' parameter. The default '**Periodic Time**' parameter settings is 1 day. Filename – specifies the name of **updated** configuration file, which includes only specific parameters which will be uploaded to the IP Door Phone unit from the APS. Note: The update configuration file shall be mandatory named follow by available options listed below and in Chapter 7.3.5 . Available options: - **<mac>-update.cfg** – where <mac> IP Door Phone's MAC address - **<mac>.cfg** – where <mac> IP Door Phone's MAC address

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	'Update Now' button – initiates the Auto-provisioning procedure to update existing configuration immediately

Note:

1. Allowed to use only the original file provided by IP Door Phone's manufacturer
2. Auto-provisioning procedure supports only files with specific **File Name**. Contact with Support Center to specify the IP39-4x File Names Convention.

7.3.5 IP39-4x APS Configuration File's Naming rules:

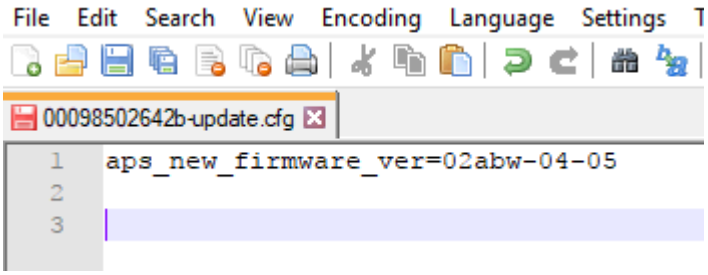
The IP Door Phone's default configuration file and updated file shall be stored in APS and named with specific file names. The configuration files naming rules described in the table below:

Configuration Files

Nista-IP39-4x Configuration Files	Description
xxxxxxxxxxx.cfg (BWMACADDRESS.cfg)	MAC.cfg is the first time / initial configuration for Nista-IP39-4x, where xxxxxxxxxxx- the Nista-IP39-4x MAC address. Example: 000985026454.cfg is the initial configuration for Nista-IP39-4Xwith MAC = 00:09:85:02:64:54
xxxxxxxxxxx-update.cfg (BWMACADDRESS-update.cfg)	*MAC-update.cfg* is updated configuration file for Nista-IP39-4x, where xxxxxxxxxxx - the Nista-IP39-4x MAC address. Example: 000985026454-update.cfg is updated configuration for Nista-IP39-4x with MAC = 00:09:85:02:64:54

7.3.6 IP39-4x APS Firmware update

To update the IP39-4x unit firmware by using the Auto-Provisioning procedure need to create the ***mac-update.cfg*** file which shall include the string: '*aps_new_firmware_ver=<IP-394x version-no>*' and upload the IP39-4x new software files to APS server or FTP server.



Navigate to Auto-provisioning screen

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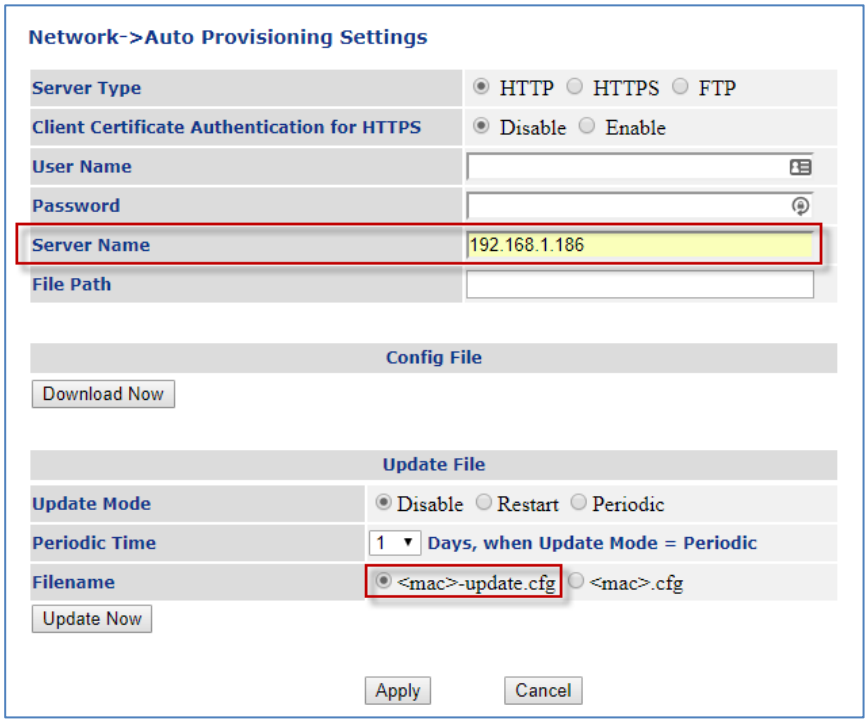

Select ‘Filename’ as **<mac>-update.cfg** option

Type APS ‘Server Name’ – DNS name or IP address

Select the required Server type connection: HTTP, HTTPS, FTP and click **‘Update Now’** button

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7.4 SIP Parameters

7.4.1 SIP Account Screen

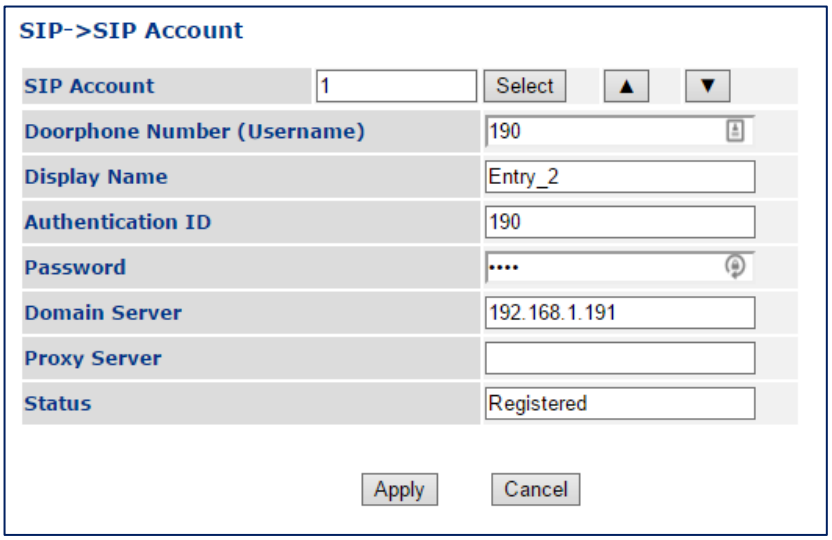

Figure 7-7 SIP Account Configuration Screen

Parameter	Description
Username	The SIP account user name which shall be to be used for SIP extension identification
Auth User ID	The SIP account user name which shall be to be used for SIP extension registration in SIP proxy
Password	The SIP extension authorization password for registration in SIP proxy.
Domain Server	In most cases the parameter it is the same as the Proxy server IP address. In special cases, it is required to enter the local Domain IP address or DNS address.
Proxy Server	An identifier for the SIP Proxy server on a TCP/IP network. Legal entry: 0-9 digits only in Ipv4 format XXX.XXX.XXX.XXX. Alternatively allowed to specify Proxy Server by its DNS name.
Status	Shows the associated SIP extension registration status in IP PBX

7.4.2 SIP / Port Settings

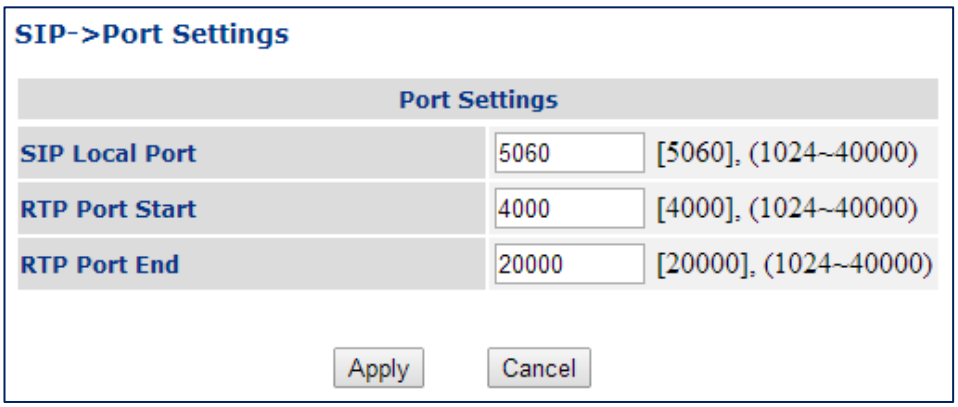

Figure 7-8 SIP Port Settings Screen

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Parameter	Description
SIP Local port	Port to be used by IP Door phone for SIP signaling.
RTP Port Start / RTP Port End	Set the initial port for the range of ports to be used for audio and video transfers. The default value is 4000 for RTP Port Start and 20000 for RTP Port End.

7.4.3 SIP Audio Codecs

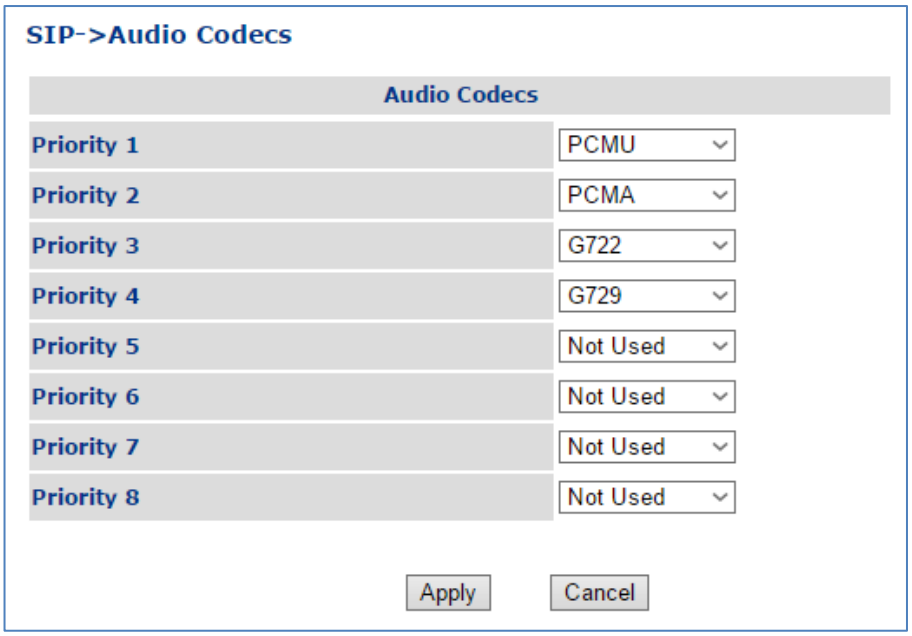

Figure 7-9 SIP Audio Codecs Screen

This screen specifies Audio codecs which used in SIP protocol codec's priority.

Available following codecs:

- PCMU – G.711µ-low
- PCMA – G.711 a-low
- Speex 32 / 16 / 8 KHz
- GSM
- G.722
- G.729

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7.4.4 SIP Video Codecs

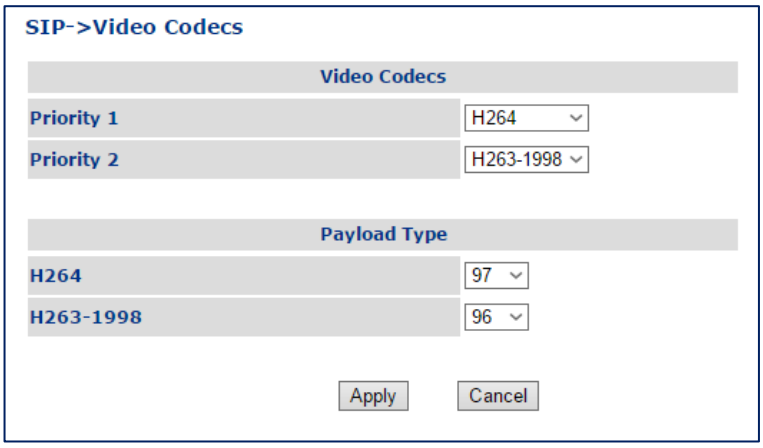

Figure 7-10 SIP Video Codecs Screen

This screen specifies Video codecs used in SIP protocol for video stream transfer. Allowed to specify priority for each selected video codec

Available are following codecs:

- H263-1998 (H.263+)
- H264

The 'Payload Type' parameters allows to specify the 'Payload' profile for each video codec separately.

Note:

The default H.264 codec Payload profile is **97**

7.4.5 SIP Advanced Settings

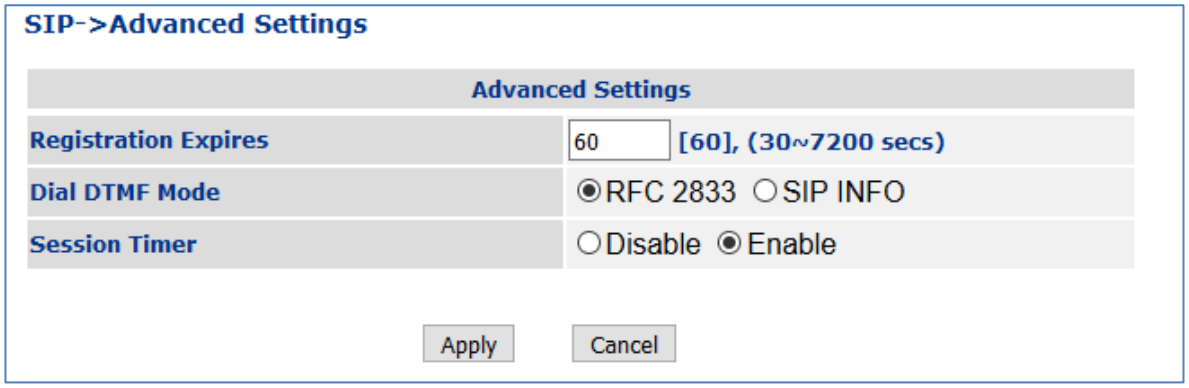

Figure 7-11 SIP Advanced Settings

Parameter	Description
SIP Reg Expires	Set the minimum time for IP Door Phone SIP extension registration attempts.
DTMF Mode	This option defines how DTMF signaling can be presented or recognized in SIP traffic. Note: Requires the opponent side configuration as well Available Options: • RFC 2833 • SIP INFO (Default) • Inband DTMF

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Session Timer	Session Timer used follow by RFC 4028 in which either INVITE (outgoing call) or 200 OK (incoming call) header will have Session-Expires notification Available Options: • Disable • Enable (Default)

7.4.6 SIP -> Transport

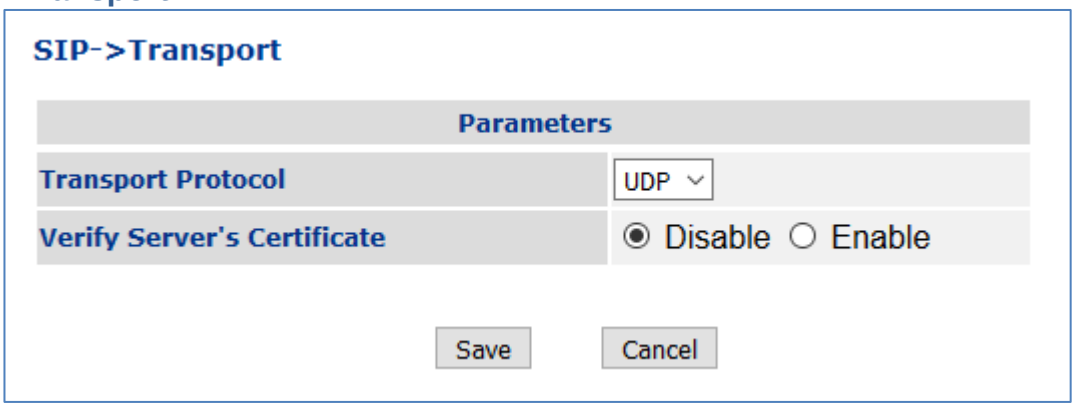
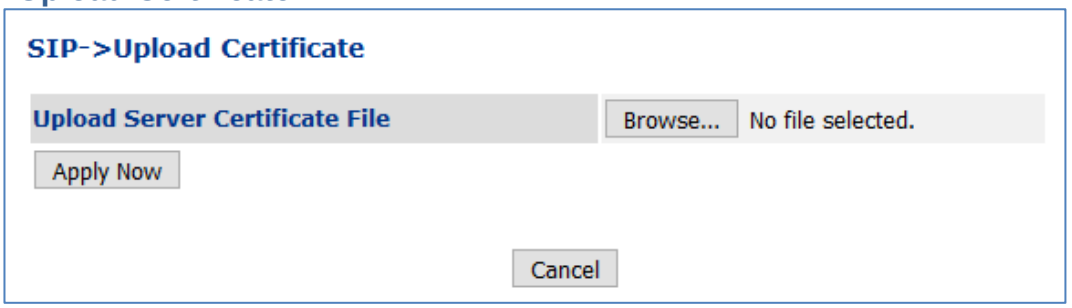


Figure 7-12 SIP Transport configuration screen

Transport screen allows to specify the SIP traffic transport.
Available options:

- UDP
- TCP
- TLS

7.4.7 SIP -> Upload Certificate



Upload Certificate screen allows to upload to the IP Door Phone unit the Certificate for HTTPS connection

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7.5 Telephony

7.5.1 Telephony Parameters

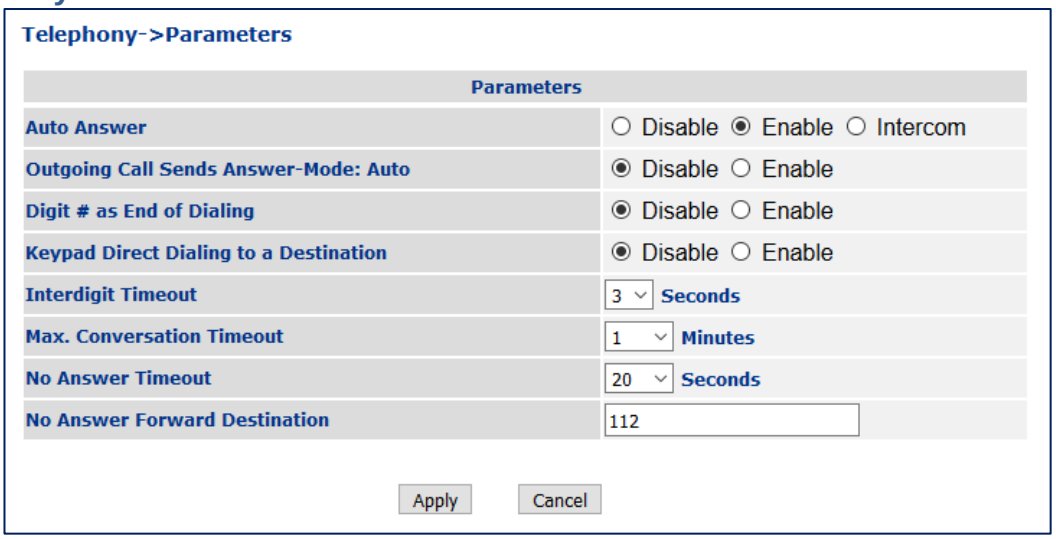

Figure 7-13 Telephony Parameters Screen

Parameter	Description
Auto Answer	Available options: • Disable • Enable • Intercom – for IP PBX which support this feature This parameter Enables / Disables the IP door phone auto pick up incoming calls
Outgoing Call Sends Answer-Mode: Auto	For IP PBX which support the Auto-Answer mode for the called extension
Digit # as End of dialing	Specifies '#' sign typed on the IP Door phone keypad as end of dialing direct destination number
Inter-digit Timeout	Specifies the maximum delay time in seconds between two digits when entering a code or destination telephone number using IP Door keypad
Keypad Direct Dialing to a Destination	Enables or Disables an option to dial the destination number directly from the IP Door Phone Keypad. (Note: This option is actual for the IP Door Phones, Keypad edition). The default status: Enabled
Max. Conversation time out	Specifies the maximum allowed conversation time**.**
No Answer Timeout	Specifies the time interval for **incoming call** when IP Door phone not answered. The call will be forward to another destination when parameter expires.
No Answer Forward Destination	Specifies the 'No Answer' case outgoing call forward destination for Day/Night calls
'Apply' button	Screen requires using 'Apply' button for to update parameters in the unit

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7.5.2 Day and Night Settings

Note:

The Single Button Door Phone allows Day and Night destination dialing. Speed Dial Destination dialing is relevant for Keypad Housing edition only.

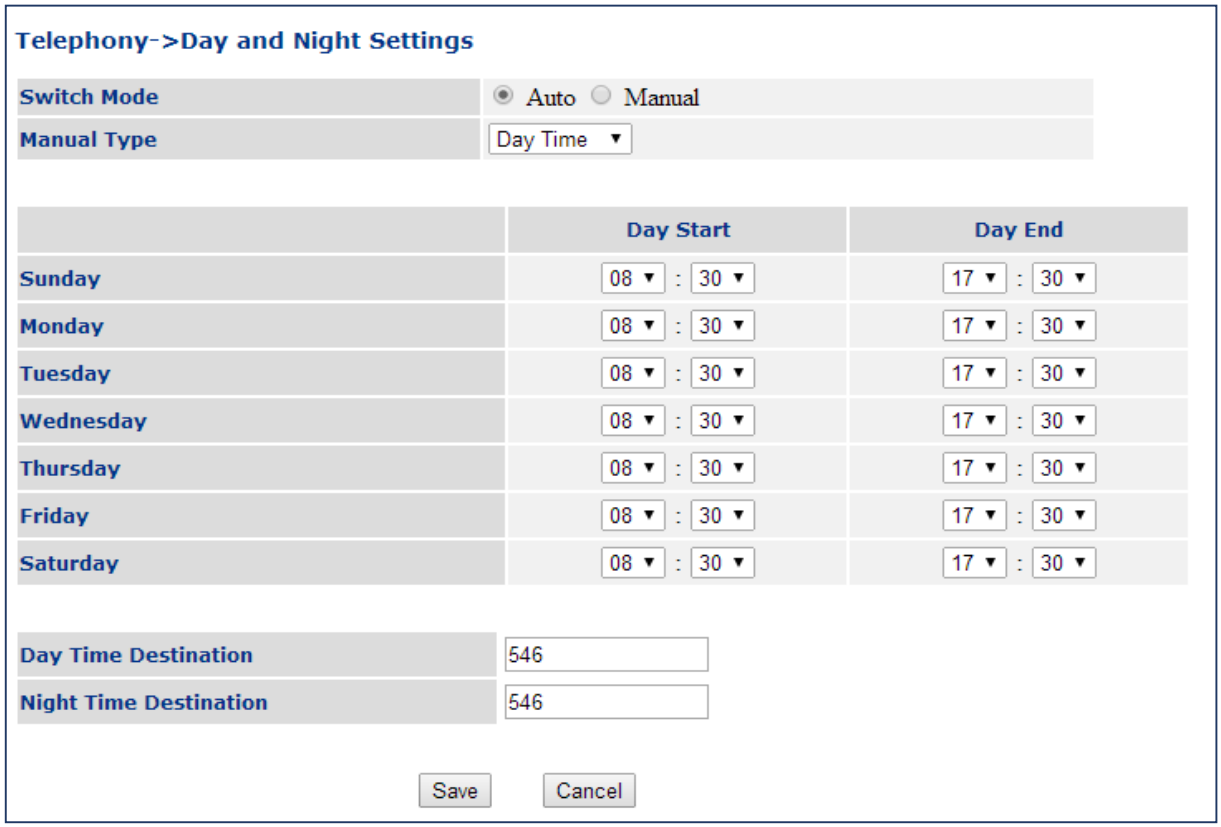

Figure 7-14 Telephony Day & Night Settings Screen

Parameter	Description
Switch Mode	Available options: • Auto • Manual This parameter will switch the unit to Day or Night operational modes automatically or manually.
Manual Type	Specifies the operational mode Day or Night for the 'Manual' Switch Mode selection
Weekly Time profile table	Table specifies the daily time interval for each day of the week. Specified time interval specifies the 'Day' time interval
Day Time destination	Specifies the 'Ring' button destination number for the 'Day' operational mode. For Peer-to-Peer calls enter the destination in format: sip:XXX.XXX.XXX.XXX:5060 (where '5060' the actual SIP signaling port number)
Night Time destination	Specifies the 'Ring' button destination number for the 'Night' operational mode For Peer-to-Peer calls enter the destination in format: sip:XXX.XXX.XXX.XXX:5060

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7.5.3 Speed Dial and System Subscribers Table

Note:

Speed Dial Destination dialing is relevant for Keypad Housing edition only. Single button Door Phone allows Day and Night destination dialing

The IP Door phone provides an option to create up to 99 System subscribers. Each system subscriber can be identified by its SPD number (**Speed Dialing Code**) and includes a set of destination telephony numbers where subscriber can be reached when appropriate SPD code dialed from the IP Door phone keypad.

Alternatively the System subscribers can be reached by using ▲▼arrows buttons from the IP Door Phone keypad. Speed dial table purposed to configure the IP Door Phone Speed dialing destinations / System Subscribers.

Figure 7-15 Speed Dial and System Subscribers Table

Parameter	Description
Speed Dial No.	Parameter shows with 2 digits the Speed dial table number. Each table includes 10 records. Switching to required table is available by typing the table number in the text field and followed 'Select' button or by using the ▲▼ arrows buttons
SPD	The Speed dial destination code. This code can be dial from the IP Door Phone front panel keypad or selected by using the LED Display and arrows keys. Dialed SPD code and follows 'Ring' button initiates dialing to SPD destination number
Day Time Destination	The destination telephony number which associated with the SPD code and will be dialed in 'Day' operational mode For Peer-to-Peer calls enter the destination in format: sip:XXX.XXX.XXX.XXX: NNNN, where, XXX.XXX.XXX.XXX – destination peer IP address in IPv4 format NNNN – SIP Signaling port number, '5060' in default settings

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Night Time Destination	The destination telephony number which associated with the SPD code and will be dialed in ‘Night’ operational mode
No Answer Forward Destination	Specifies telephony number where IP Door phone outgoing call will be forwarded in case if ‘Day’ or ‘Night’ destinations no answered on incoming call
Door 1 Opening Code	Specifies the Door opening code, which opens a door remotely when dialed from destination number during conversation with the IP Door Phone. Up to 4 digits code allowed for assignment. Legal entry: 0-9 digits only, no space allowed. The code for relay of Door 1.
Door 2 Opening Code	Specifies the Door opening code, which opens a door remotely when dialed from destination number during conversation with the IP Door Phone. Up to 4 digits code allowed for assignment. Legal entry: 0-9 digits only, no space allowed. The code for relay of Door 2.
Description	Short up to 30 characters SPD destination’s description which will be indicated on the front panel LED Display by usage ▲▼ arrows buttons

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7.6 Door Functions

7.6.1 Door Functions / Parameters

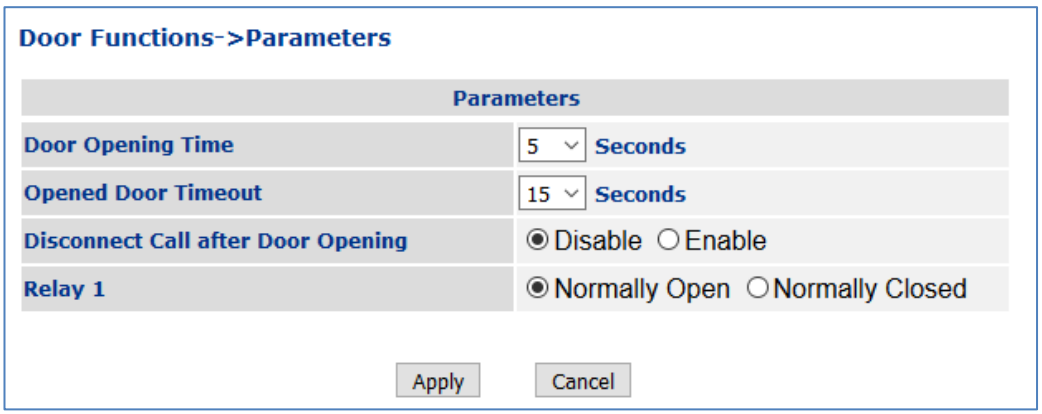

Figure 7-16 Door Functions / Parameters Screen

Parameter	Description
Door Opening time	Specifies the time interval in seconds during which the door lock remains open. Available selection options from 1 to 9 seconds.
Door Opened Timeout	Specifies allowed door open status time interval in seconds. This parameter is actual if the door status detectors in use in order to alarm the door open status. IP Door phone calls to Day / Night destination in case if specified time expired and door did not return to its IDLE/Standby mode.
Disconnect Call after Door Opening	Specifies call disconnection after door opening. Available options: • Disable – default option when call will be continued after door opening • Enable – the call will be disconnected after door opening
Relay 1 (Normally Open / Normally closed functional mode selection)	Relay 1 – is setting for NC (NO/NC is programmable) and Electrical door lock connected via relay number 1. If IP39-4x unit power is lost the door will unlocked for exit the room.

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7.6.2 Door Access Codes

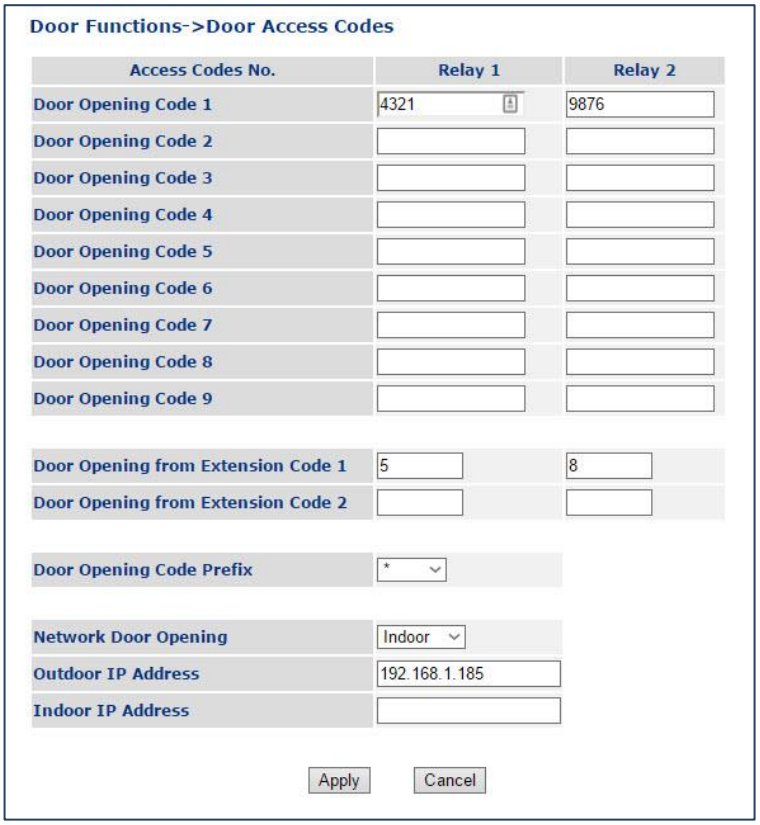

Figure 7-17 Door Access Codes Screen

IP39-4x IP Door phone support up to 9 Door access codes. The different Door access code can be specified separately for Door 1(Relay 1) and Door 2 (Relay 2)

Parameter	Description
Access Code 1~9	Specifies the Door opening code, which opens a door when typed on the IP Door phone keypad in 'Stand by' mode. Up to 9 digits. Legal entry: 0-9 digits only, no space allowed. Code can be specified separately for Door 1 and Door 2.
Access Code from Extension	Specifies the Door opening code, which opens a door remotely when dialed from destination number during conversation with the IP Door Phone. Up to 4 digits code allowed for assignment. Legal entry: 0-9 digits only, no space allowed. The code can be specified separately for each relay: Door 1 and Door 2.

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Door Opening Code Prefix (Masking Door Opening code on LED monitor)	Used in order to mask actual dialed Door opening code and show '****' 'stars' characters instead of. LED display will show 'STAR' characters follow after dialed assigned Door Opening Code Prefix To activate Code Masking: • Select 'Door Opening Code Prefix': * or # or '**None'** – to disable' • Click 'Apply' button • • Save & Reboot unit • • Dial Door opening prefix and follow the door opening code: for example: If a Code prefix selected as '*' and door opening code is '4321', so need to dial *4321 in order to open a door.  LED Display with masked Door Opening code
'Network Door opening' parameters	Note: See Chapter 8.11 for detailed 'Network Door Opening' description
'Network Door Opening'	Specifies IP Door Phone unit as Indoor or Outdoor.
Outdoor IP Address	Requires the Outdoor unit IP address in case if actual unit specified as Indoor
Indoor IP Address	Requires the Indoor unit IP address in case if actual unit specified as Outdoor

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7.6.3 Sensor

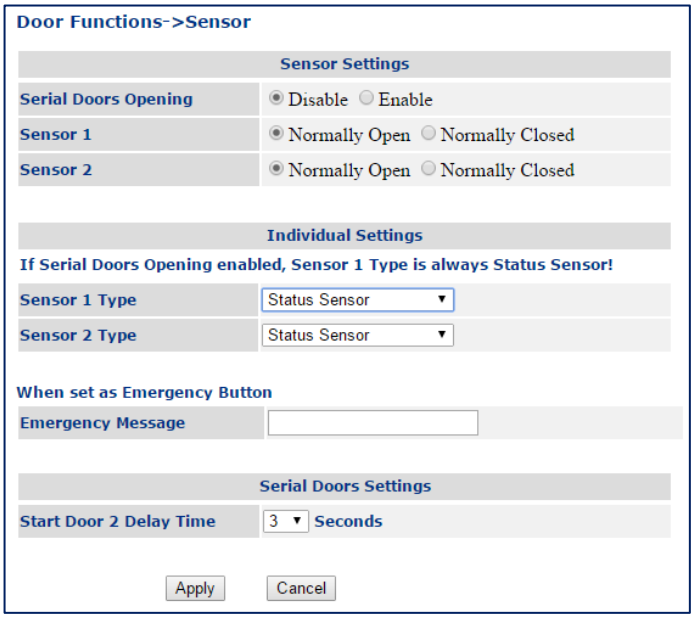

Figure 7-18 Door Sensors and External Switch Button Configuration Screen

Parameter	Description
Serial Doors Opening (See Chapter 8.3.1)	Configures the 'Serial Door opening'* application support. Default configuration – 'Disabled' **Note: - Future Software Release.*
Sensor 1 & 2 type	Specifies type of equipment connected to PINs 'Sensor1' and 'Sensor2' see Figure 6-4 Available options: • Status Sensor • External Switch Buttons • Emergency Button
Emergency Message	Relevant only for 'Emergency Button' Sensor type. Uses the Emergency Message as the Display Name for the call and also turn the relay on.

The Door 'Status Sensor' provides an option to control the doors open/close status and activates alarm calls when door does not return to its IDLE mode during specific time interval

The 'External Switch Button' provides an option to open a door manually. See Figure 6-4

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7.6.3.1 Sensor Door Status Control

Door Sensors control the door opening status and send alarm call to preconfigured Day / Night destination if the door opening time (‘Door Opened Timeout’ see Figure 7-16) expires and door does not return to its IDLE mode.

Note:

IP Door phone supports following Sensor types: Loop Control - Dry Contacts: Open / Close type

The used sensor shall provide the ‘Normally Open’ status in IP39-4x IDLE mode and ‘Normally Close’ status in Door Opened mode.

The ‘Normally Open’ sensor type means that sensor provides the loop disconnection status via its pins in default mode.

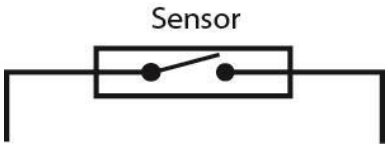

Figure 7-19 Normally Open Sensor

The ‘Normally Close’ sensor type means that sensor provides the short-connection status via its pins in default mode.

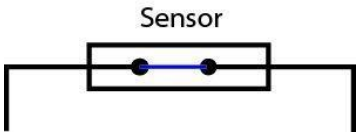

Figure 7-20 Normally Close Sensor

When the sensor is set as Emergency Button then either the external switch button or Call Button will act as Emergency Button.
When pressed, it will call Day/Night Time Destination and use the Emergency Message as the Display Name for the all and also turn the relay on.
The relay will be turned off only after the call is answered and terminated.

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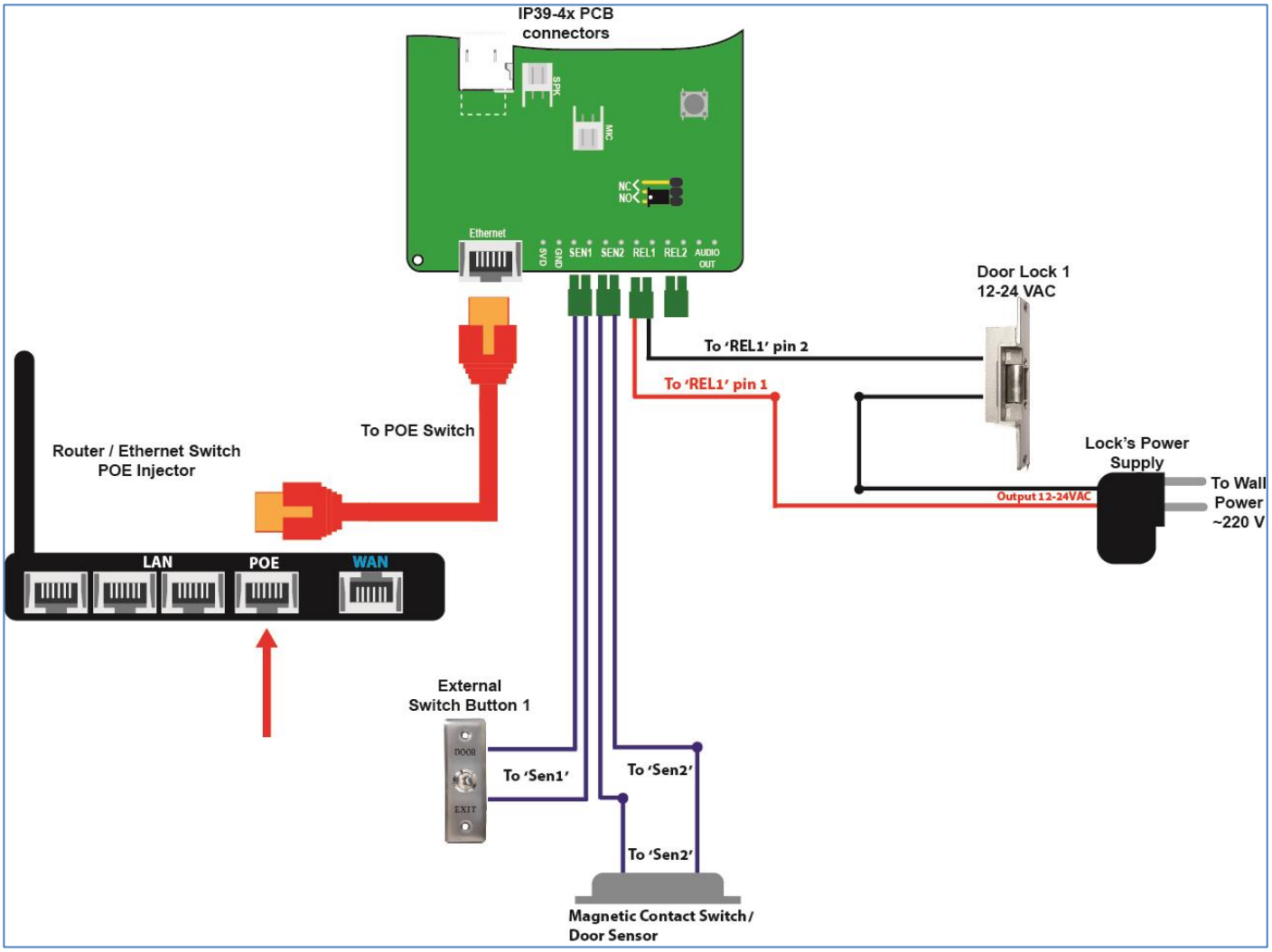

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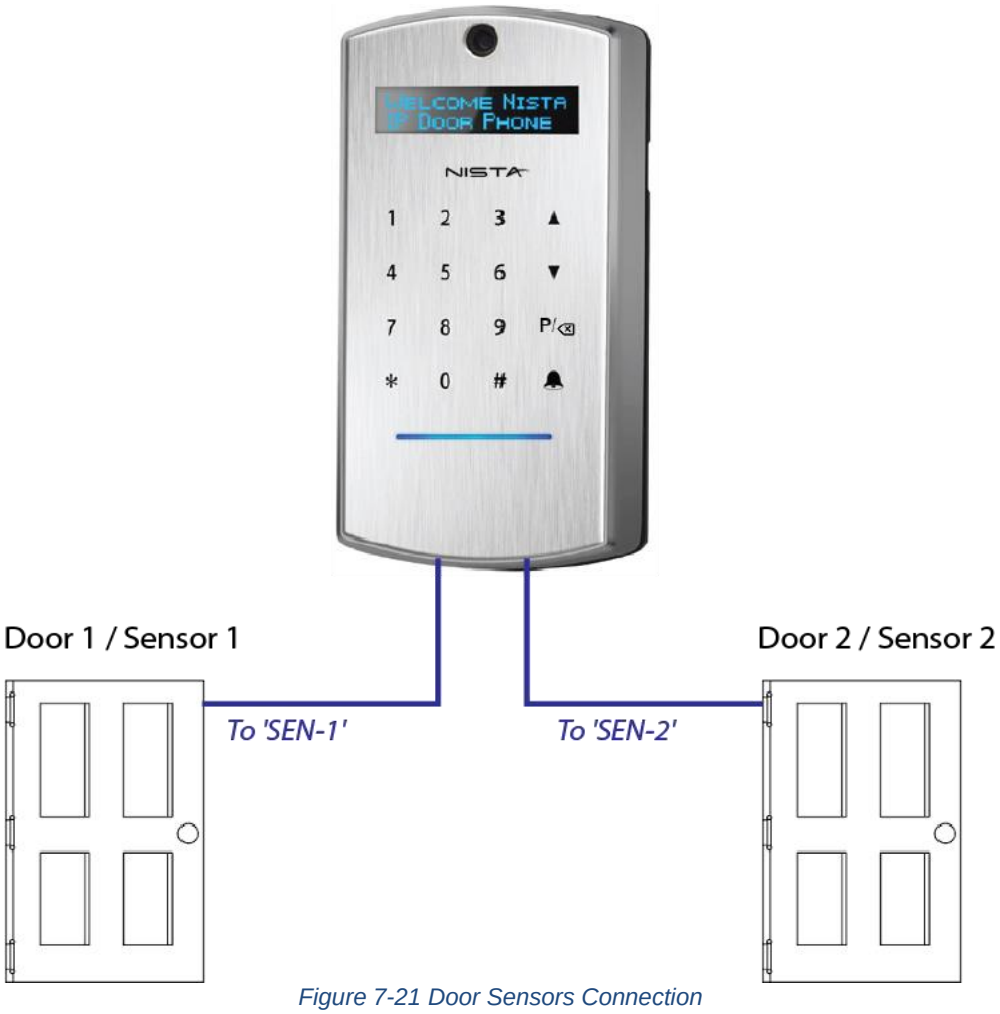

Figure 7-21 Door Sensors Connection

The ‘Door Opened Timeout’ parameter controls the maximum allowed time when door can be opens. Parameter can be configured by using the WEB interface: Door Functions / Parameters screen (See Figure 7-16). Door Phone initiates alarm call to pre-configured Day or Night destination number if a ‘Door Opened Timeout’ parameter time interval expired but door did no returns to its IDLE mode.

To activate Door Status Sensors:

- Connect Door Status sensors to appropriate IP Door Phone connector pins ‘Sensor 1’ / ‘ Sensor 2’
  - Note: Be sure that Sensors are ‘Normally Open’ type in IDLE mode when door is closed.
- In IP Door phone WEB GUI interface:
  - Go to Door Functions / Sensor screen
  - In ‘Individual Settings’ region select ‘Status Sensor’ option for required Door 1 or Door 2
  - Go to Door Functions / Parameters and configure ‘Door Opened Timeout’
- Call to Destination from the IP Door Phone
- Open a door and leave door opened during time interval, which is longer than ‘Door Opened Timeout’ configured parameter value.
  - Note: Check the Sensor provides ‘Connection’ status via its pins when door is open.
- IP Door Phone calls to Day/Night destination

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7.6.4 Master-Slave HTTPS Door opening via Ethernet network

The IP Door Phone security level can be increased by using separate units for the door opening procedure: Outdoor and Indoor units (See Figure 7-22)

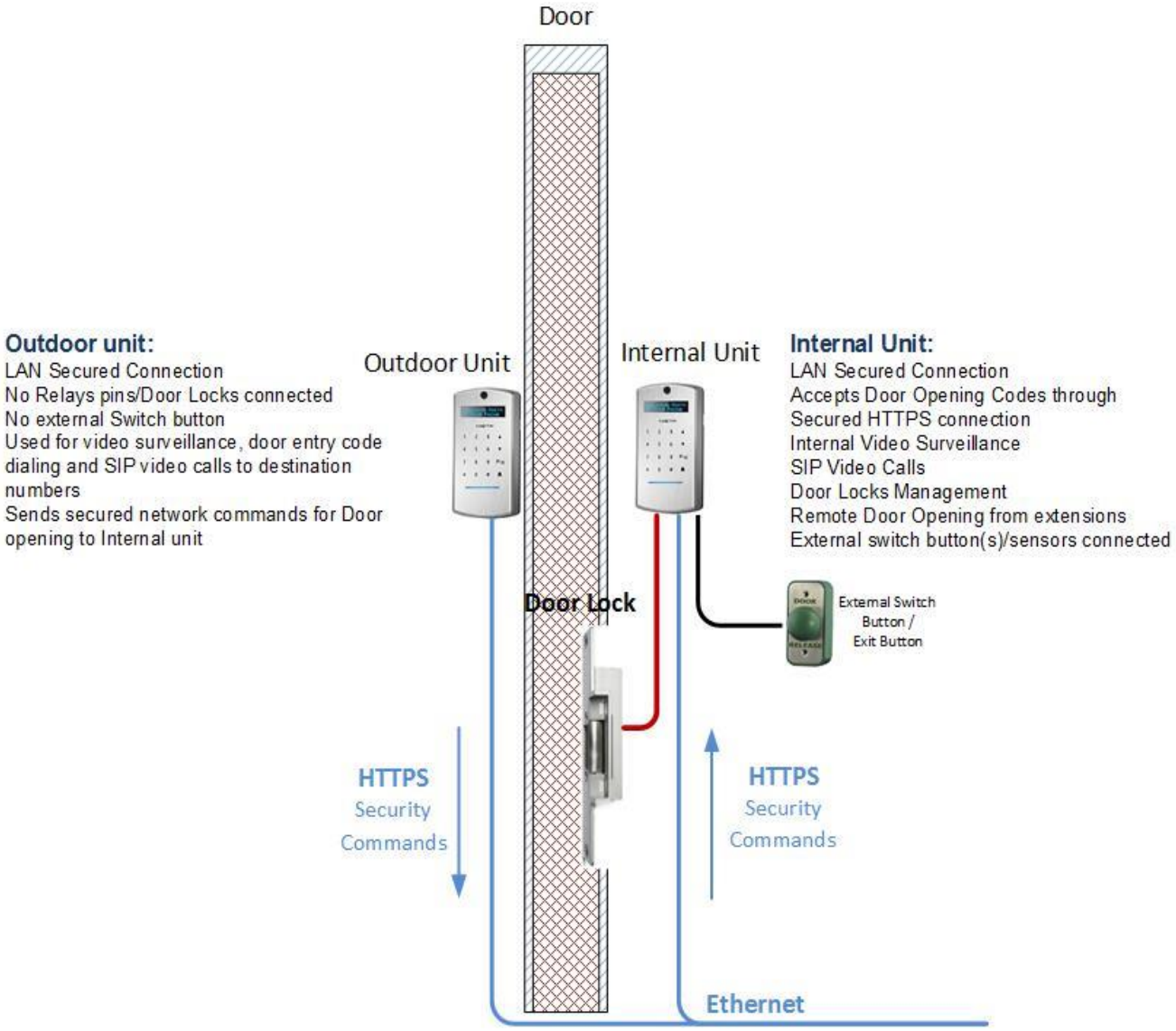

Figure 7-22 Door opening via Ethernet Network diagram

Outdoor unit sends secured HTTPS command to Internal unit when guest dials a door opening code. Internal unit analyzes received code and opens a door if a code is valid.

Guest can initiate the outgoing call from Outdoor unit to pre-configured destinations: Day/Night or SPD and door may be open remotely by remote side by using an Extension door opening code.

The Feature is configurable on Web-Management interface

To open a door by the internal unit, guest shall dial the keypad door opening code or by using the External Switch Button (See figure below)

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Note:

1. The ‘Door Opening Code Prefix’ enabled is Mandatory
2. Feature requires the HTTPS secure connectivity mode activation for Indoor unit
3. To open a door by using the Keypad Door Opening code from the IP Door Phone Keypad:

|‘Code Prefix ‘*’or ’#’| + % Door opening code% + ‘#’ (See also 7.6.2)

4. To open a door by using the Extension Door Opening code during conversation, the destination side have to dial:

% Extension Door opening code% + ‘#’

7.6.4.1 Configuration Door Opening via Ethernet network

To configure ‘Outdoor’ unit:

- Go to ‘Door Functions’→ Door Access Codes
- Select ‘Door Opening Code Prefix: ‘*’ or ‘#’

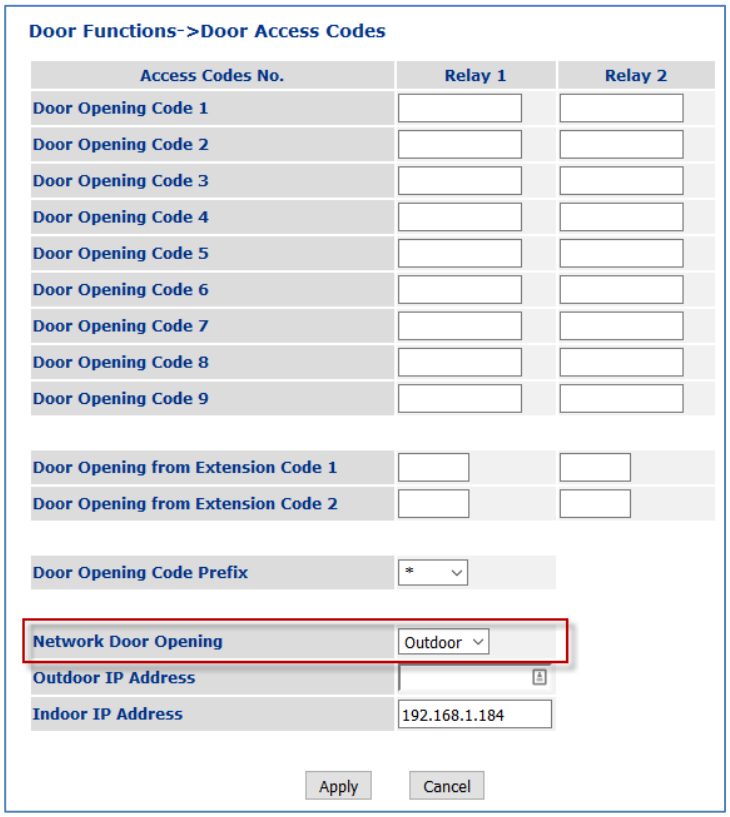

Figure 7-23 Door Opening Code prefix activation

- Select ‘Outdoor’ option in the ‘Network Door Opening’ field

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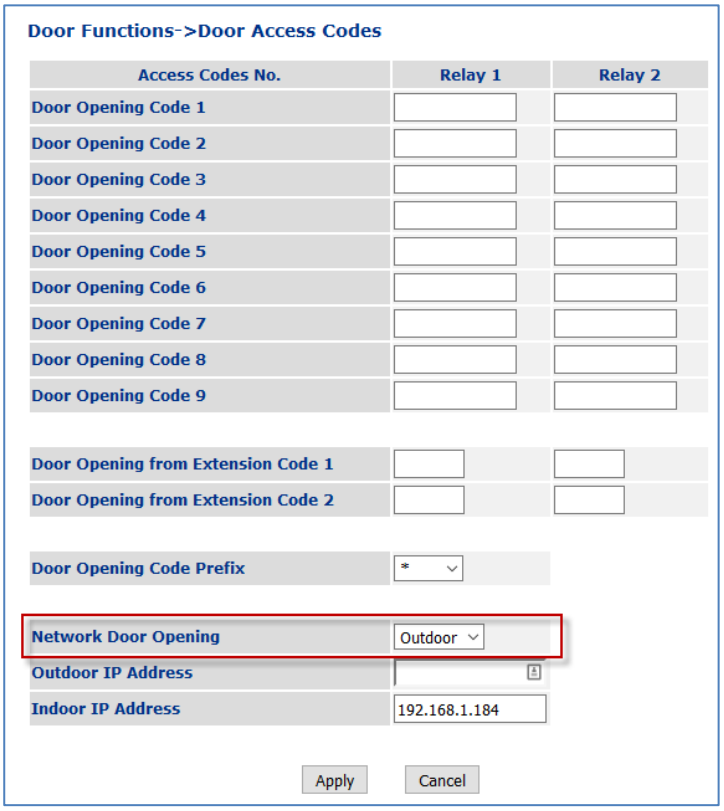

Figure 7-24 Network Door Opening mode selection

- Specify the ‘Indoor’ unit, which will receive HTTPS commands and will handle a door, the IP address in the ‘Indoor IP Address’ field

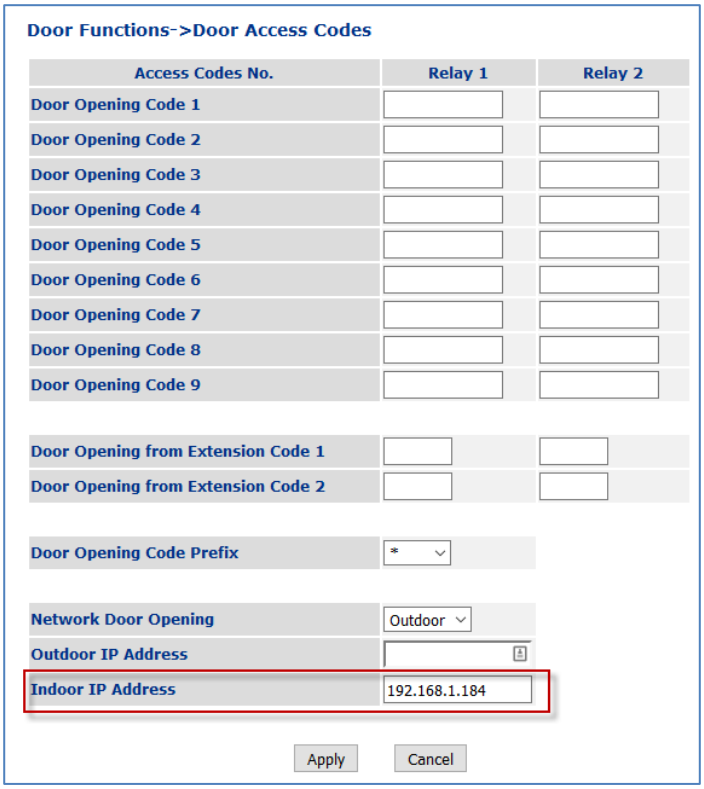

Figure 7-25 Indoor unit IP address specification

- Leave ‘Relay 1’ and ‘Relay 2’ ‘Access Codes’ fields empty

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- Specify the Day & Night destinations in ‘Telephony/Day and Night Settings’ screen
- Specify ‘Speed Dial’ destinations and leave ‘Door1/2 Opening code’ fields empty

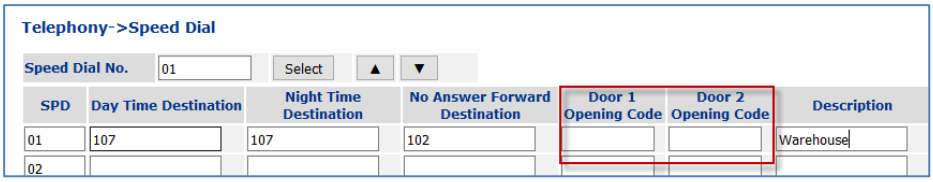

Figure 7-26 Telephony / Speed Dial screen

- Save & Reboot

To configure ‘Indoor’ unit:

- Go to Network → HTTPS screen and activate HTTPS secure connectivity mode

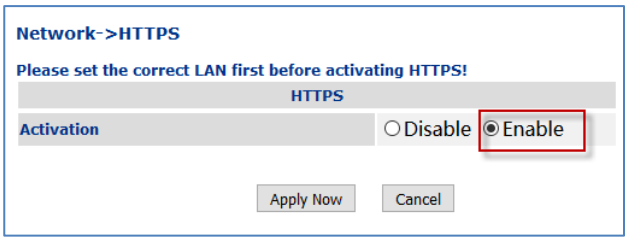

Figure 7-27 HTTPS Activation screen

- Go to ‘Door Functions’→ Door Access Codes
- Select ‘Indoor’ option in the ‘Network Door Opening’ field

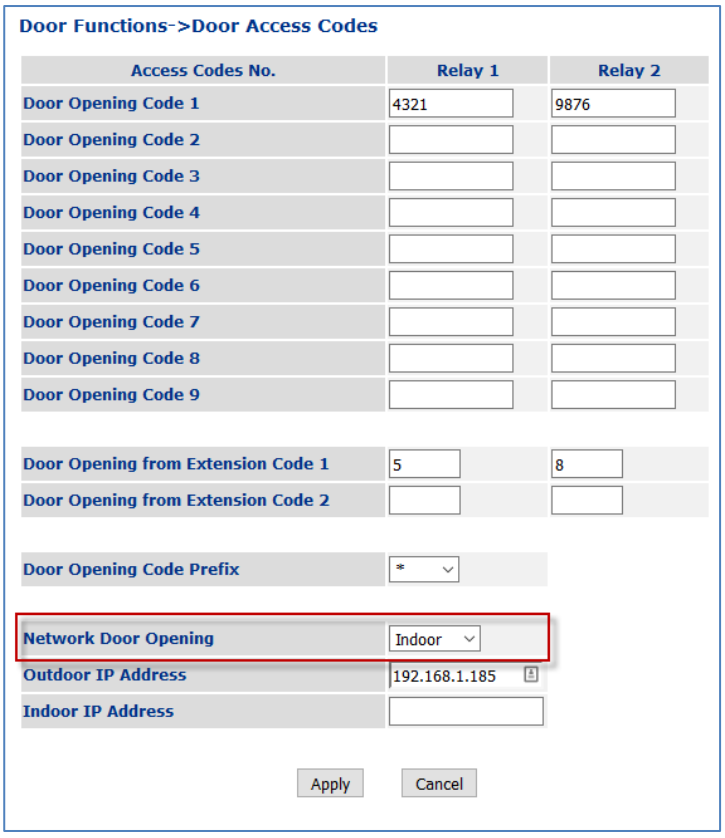

Figure 7-28 Network Door Opening mode selection

- Specify the ‘Outdoor’ unit, which will send HTTPS commands, the IP address in the ‘Indoor IP Address’ field

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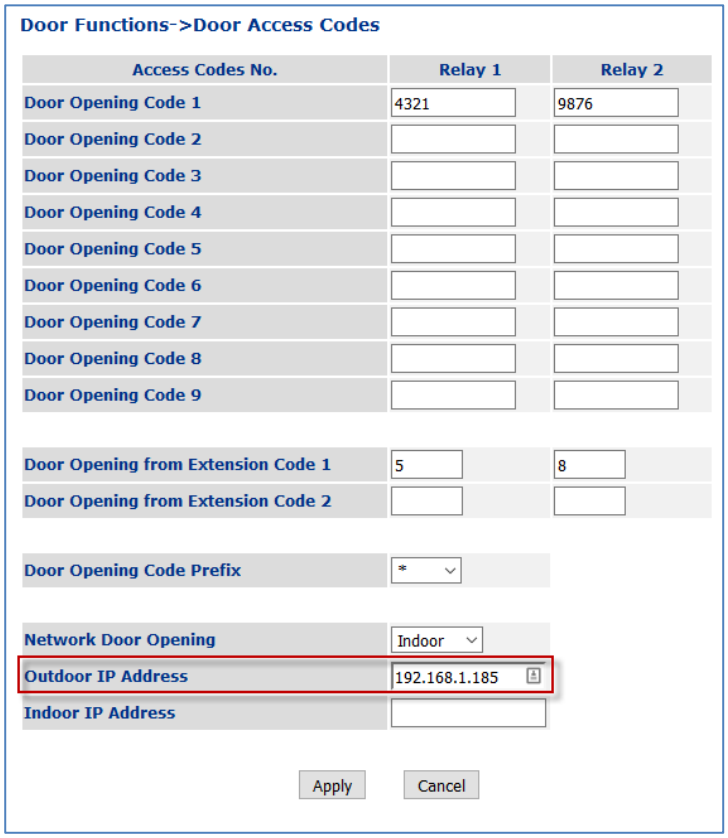

Figure 7-29 Outdoor unit IP address specification

- Specify 'Relay 1' and 'Relay 2' 'Access Codes'
- Specify 'Door Opening from Extension Codes'
- Specify 'Speed Dial' destinations the same as in 'Indoor unit' with specified 'Door1/2 Opening codes'

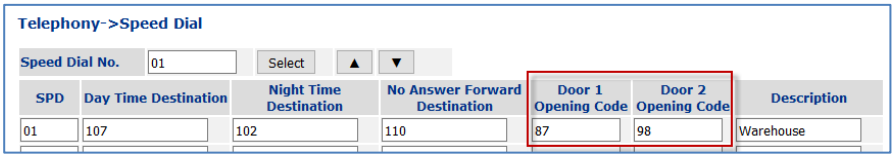

Figure 7-30 Telephony / Speed Dial screen

- Save & Reboot

7.6.4.2 To open a door by using HTTPS commands via Ethernet network:

- To open a door by using the Keypad Door Opening code, on the 'Outdoor' unit dial by using the Keypad: |'Code Prefix '*'or '#'| + % Door opening code% + '#', **for example:** *+1234+#
- To open a door by using the Extension Door Opening code during conversation, destination side have to dial: % Extension Door opening code% + '#'

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7.6.5 LED Display Settings

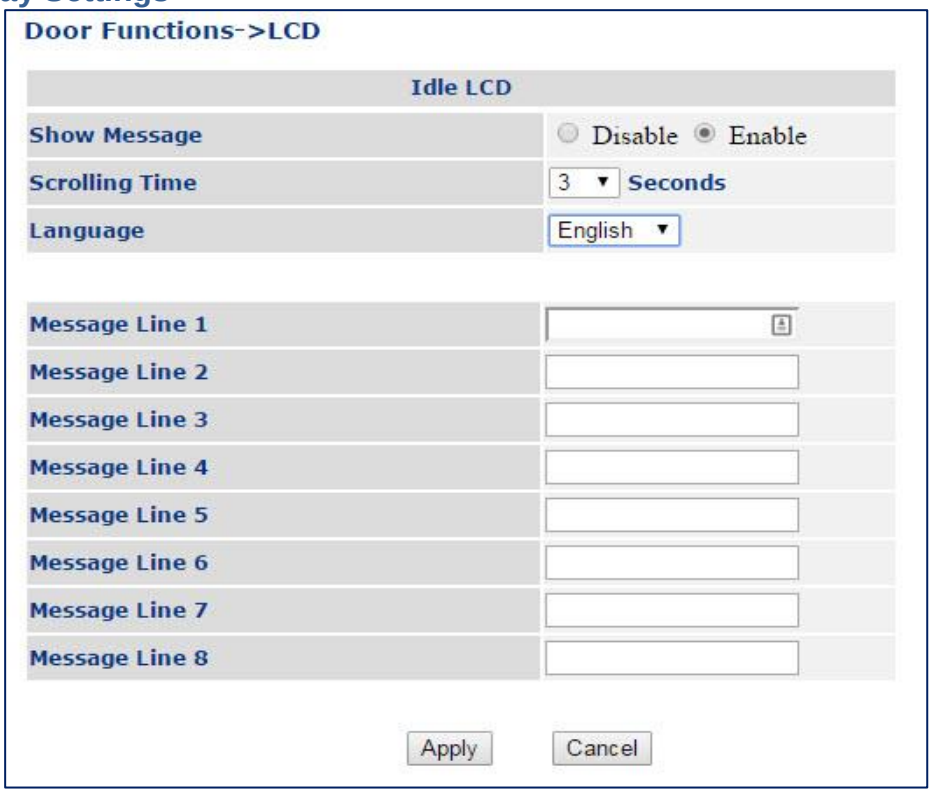

Figure 7-31 The LED Display Configuration Screen

The IP Door Phone front panel LED Display can be configured to indicate text messages for guests and users.

Parameter	Description
Show Message	Available options: • Enable • Disable Activate or de-activate the LED Display text messaging mode
Scrolling Time	Specifies a time interval in seconds with in the LED Display message will be indicated and then scrolled to a next one.
Language	Specifies the specific Language support
Message Line X (from 1 to 8)	The LED Display message text. LED Display divides messages by pairs and shows & scrolls simultaneously 2 lines.

Note:

Feature required Save & Reboot action for activation.

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7.7 System Parameters

7.7.1 Sound Volume

Volumes screen allows to adjust the IP Door Phone's internal microphone and speaker volumes.

Figure 7-32 System Volume's Settings Screen

Parameter	Description
Microphone Volume	This parameter purposed to adjust the microphone volume
Speaker Volume	This parameter purposed to adjust the speaker volume
'Apply' button	Screen settings require to be applied in order to take effect.

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7.7.2 NTP and Time (System Time Configuration)

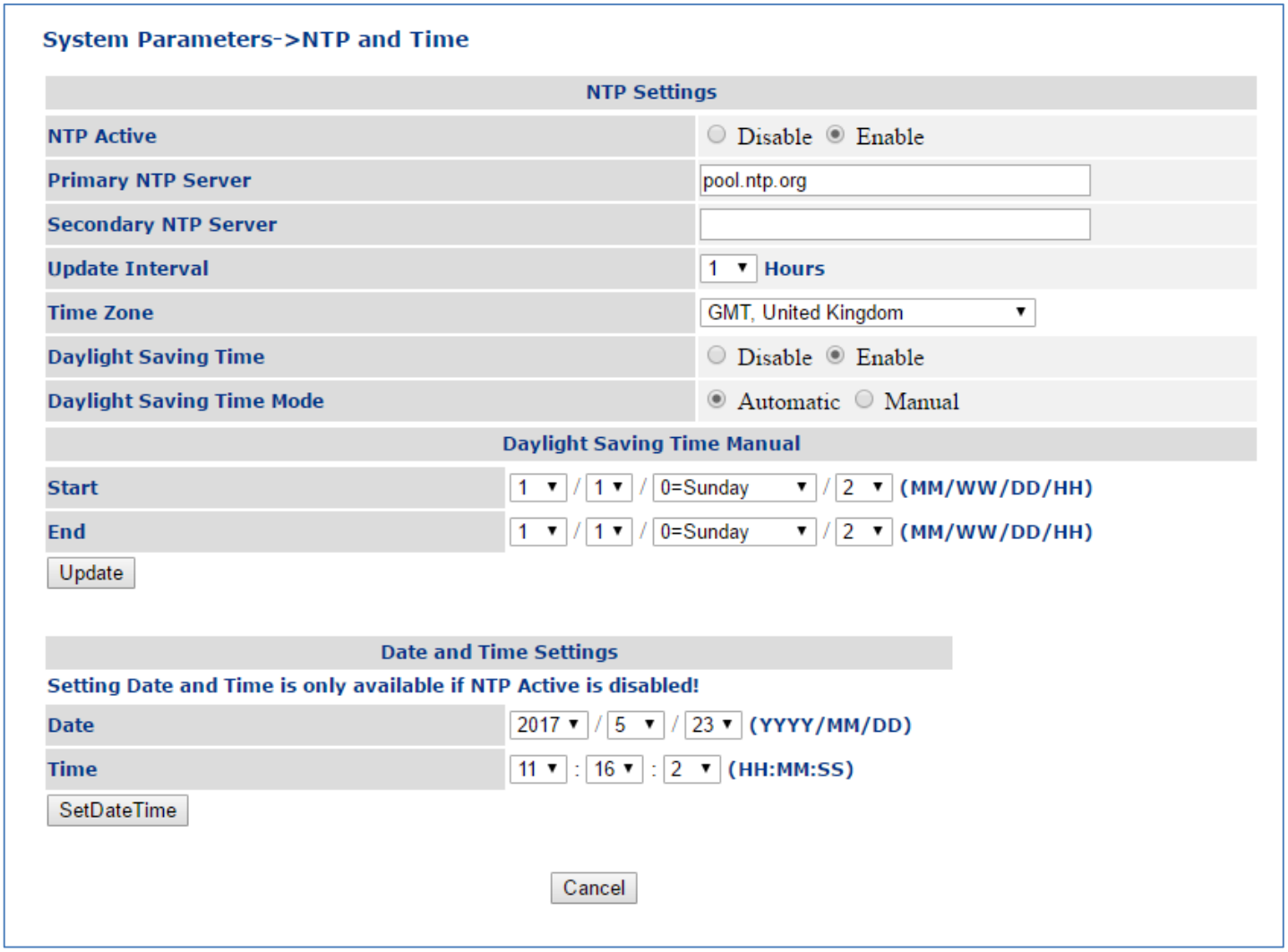

Figure 7-33 System Real Time Configuration Screen

Parameter	Description
NTP Active	Available options • Disable • Enable This parameter enables / disables the internal real-time clock auto updating by using the NTP protocol

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Primary / Secondary NTP server	The NTP server DNS name or IP address
Time Zone	The local time zone
Daylight Saving Time	Activates the 'Daylight Saving Time' (DST) support. Automatically corrects the system clock when enabled and configured
Daylight Saving Time Start / End	Specifies days to correct the Door Phone system clock in accordance with the local DST rules, where: MM – Month number, 1-January, 2-February etc WW – Week number in month: from 1 to 5 DD – Day of the week
Update interval	The connectivity session with NTP server time interval. Actual only for 'NTP Active' – 'Enable' selected status
Date and Time Settings	Set of parameters which are actual only for 'NTP Active' – 'Disable' selected status. Allows to set the Door Phone system clock manually.
Date	Actual Date settings fields: Year / Month / Day
Time	Actual Time settings fields: Hours / Minutes / Seconds
'Set Date and Time' button	This button applies 'Date and Time Settings' tableupdates to the unit
'Apply' button	Screen settings require to be applied in order to take effect.

Note:

Feature requires Save & Reboot action to be accepted

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7.7.3 Video

IP39-4x provides video in following functional modes:

- SIP video
- Video stream

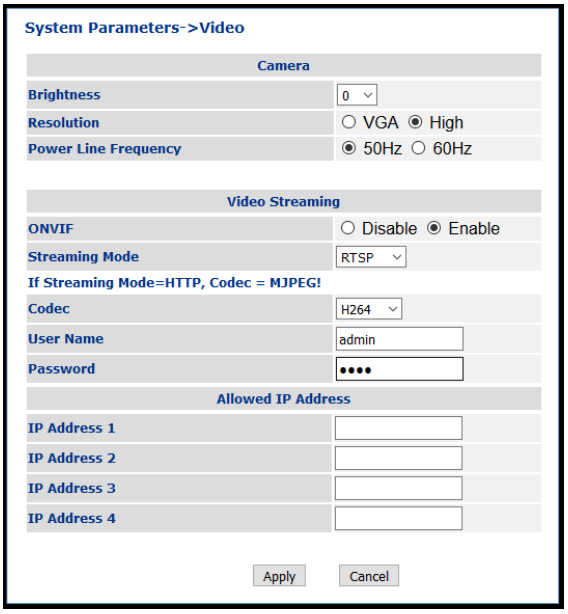

Figure 7-34 System Parameters Video Screen

The 'Video' screen allows adjusting the internal video camera parameters:

Brightness	Allows to adjust the internal video camera 'Brightness'. Allows to set selected parameter in interval: -2 / +2 *.
Resolution	Allows to select the internal video camera resolution mode: VGA / Normal: 640 x 480 High: 1280 x 720p Note: IP39-4x devices supports lower video resolutions like QCIF, CIF, QVGA automatically.
Power Line Frequency	Adapts video to environment indoor light conditions
Video Streaming	This section allows to configure the Video Streaming mode parameters
ONVIF	Enables the ONVIF support. Disabled in default configuration. Note: The RTSP video streaming mode port is **554** when ONVIF mode is enabled Sample of RTSP video streaming URL: *rtsp://admin:1234@192.168.1.184:**8554**/ip-394x (ONVIF mode disabled)* *rtsp://admin:1234@192.168.1.184:**554**/ip-394x (ONVIF mode enabled)* *rtsp://admin:1234@192.168.1.184:8554/ip-394x (With credentials to video streaming : where '**admin**' – user-name; '**1234**'-password)* *rtsp:// 192.168.1.184:8554/ip-394x (With No credentials for video streaming access)*
Streaming Mode	Available options: • Enable or Disable the video streaming mode • RTSP – activates the RTSP video streaming mode • HTTP – activates the HTTP streaming which can be viewed by using the regular Web-browsing clients. Notes: **The HTTP video stream used the MJPEG codec only** The RTSP video streaming can be captured as network video stream by using the VLC software (as example) or by using another third side RTSP supported software.

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	Samples of HTTP video streaming URL: *http://192.168.1.184:8080/ip-394x (With No credentials for video streaming access)* *http://admin:1234@192.168.1.184:8080/ip-394x (With credentials to video streaming : where 'admin' – user-name; '1234'-password)*
Codec	Specifies codecs, which used in video streaming mode. Available options: • MJPEG • H.264
User Name / Password	Credentials which allows to capture the video stream
Allowed IP Address	Specifies IP address which permitted to capture the video stream. Note: Any IP address is permitted to capture the video stream if table is empty

Note:

1. The destination SIP client shall support the selected video resolution mode
2. Feature configuration requires 'Save & Reboot' action in order be accepted.

7.7.3.1 Video Stream capturing by using the VLC software

- Download and install the VLC software from the official VLC web-site: http://www.videolan.org/vlc/index.html
- Launch VLC software

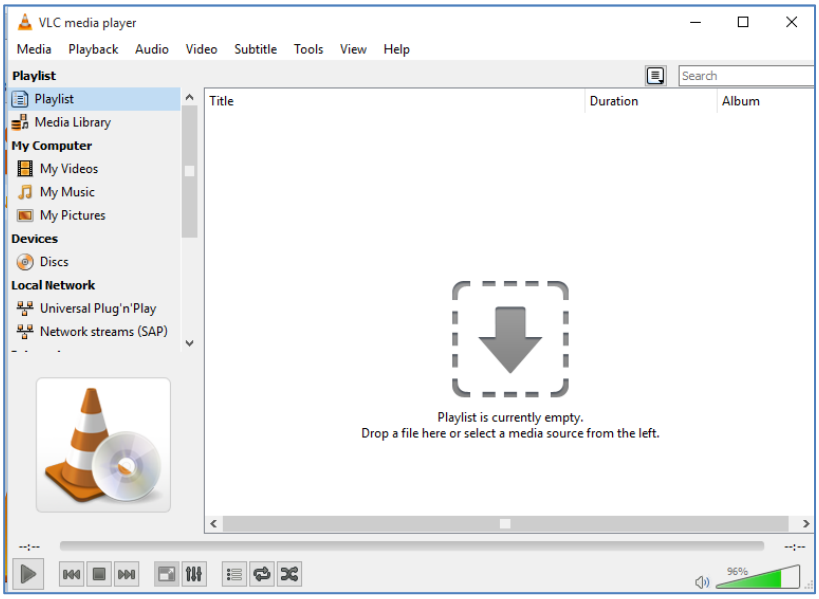

Figure 7-35 RTSP VLC Configuration 1

- Go to Media option in the Top navigation menu and select 'Open Network stream option'

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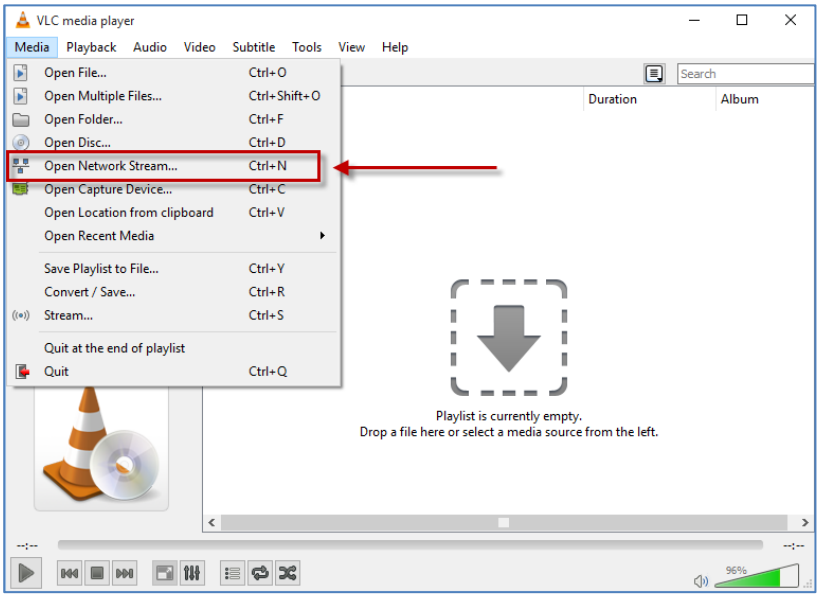

Figure 7-36 RTSP VLC Configuration 2

- In opened 'Open Media' window type IP39-4x video capturing stream in following format: **rtsp://admin:1234@192.168.1.184:8554/ip-394x,** where:
  - **rtsp://** – supported video streaming protocol
  - **admin:1234** – the video stream capturing credentials
  - **192.168.1.184:8554 –** IP39-4x IP address; **8554** – the IP39-4x video streaming port number if ONVIF support disabled (**554** - the IP39-4x video streaming port number if ONVIF support enabled)
  - **/ip-394x** – the product's identifier

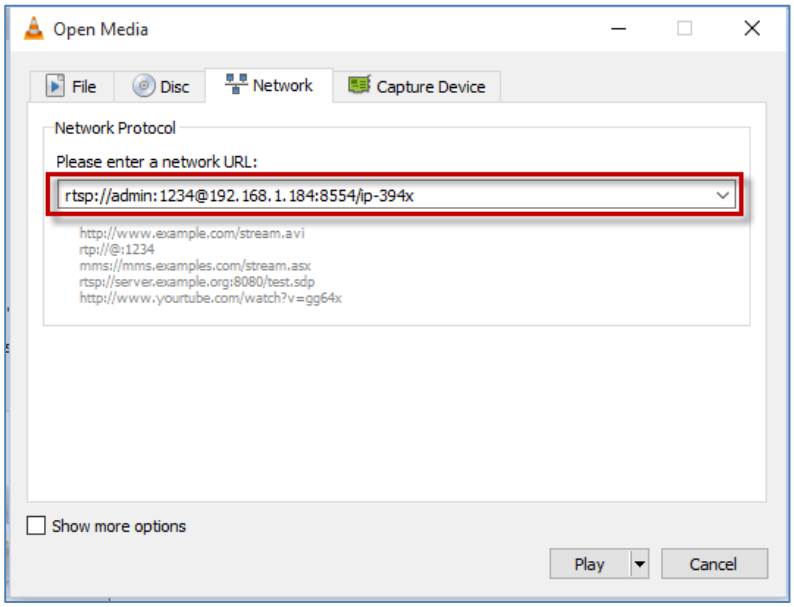

Figure 7-37 RTSP VLC Configuration 3

- Click Play button; The Video image will be shown on VLC screen

7.7.3.2 HTTP Video Stream

- Launch your Web-Browser or open new tab
- Type string in URL field: http://XXX.XXX.XXX.XXX:8080/ip-394x **,** where XXX.XXX.XXX.XXX is IP Door phone IP address in order to get the MJPEG pictures stream
- Type string http://admin:1234@XXX.XXX.XXX.XXX:8080/ip-394x in case if the video stream protected with the access credentials, where 'admin:1234' are video stream 'User Name:Password'
- The Video picture will be shown into the browser

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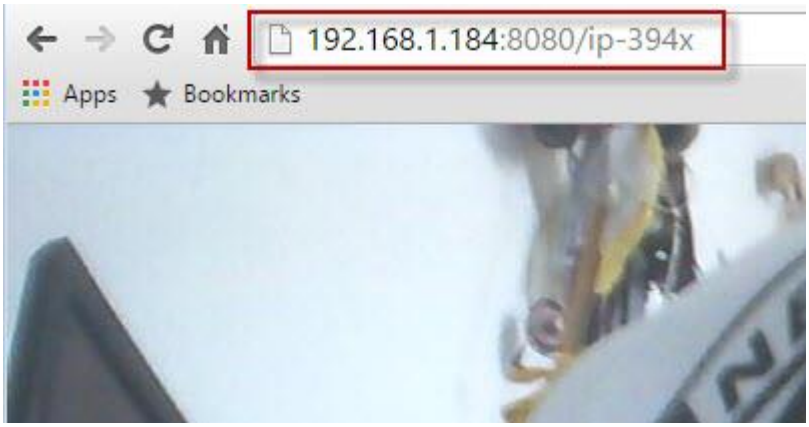

Figure 7-38 HTTP stream web access.

7.7.3.3 HTTP Still JPEG Video Stream

- Launch your Web-Browser or open new tab
- Type string in URL field: http://XXX.XXX.XXX.XXX:8080/file.jpg , where XXX.XXX.XXX.XXX is IP Door phone IP address
- The Video picture will be shown into the browser

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7.8 Administration Parameters

7.8.1 Save Configuration File / IP Door Phone Backup

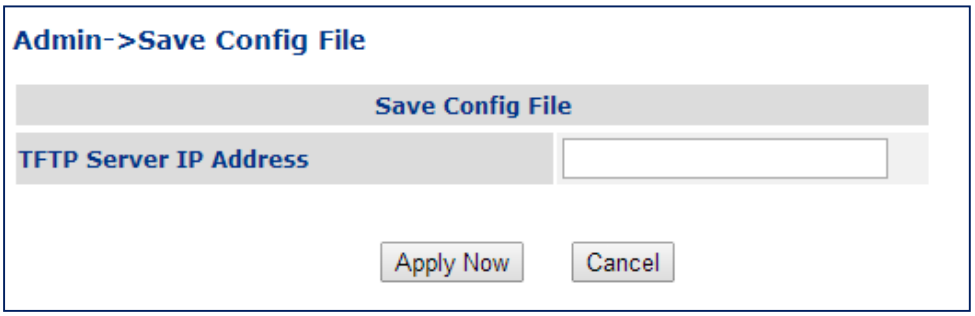


Figure 7-39 Save IP Door Phone Configuration File Screen

This screen allows back up the IP Door configuration by using the TFTP protocol.

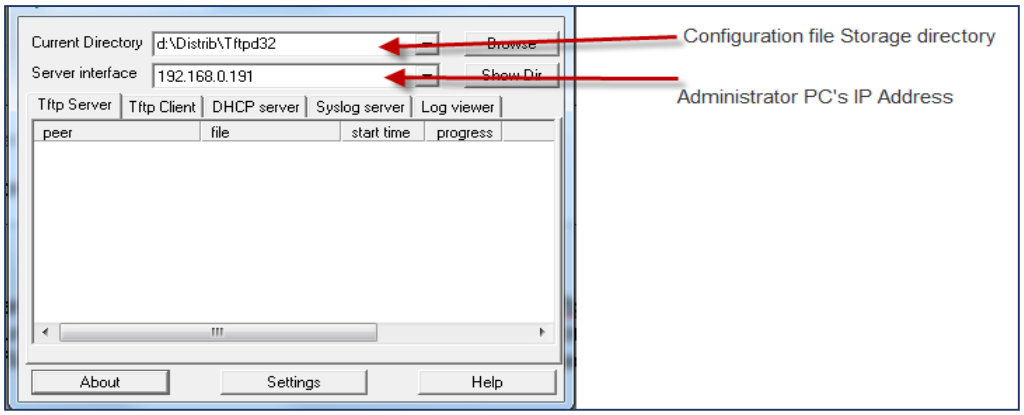
Note:

1. The TFTP server can be installed and activated by using the Third Part Company tftp software. For example: Tftpd32 application, which can be found on the following URL: http://www.snapfiles.com/download/dlTftpd32.html)
2. The IP Door Phone configuration file name is fixed to '***Config.cfg'*** and must be used for backup and restore operations

Parameter	Description
TFTP Server IP address	Specifies the TFTP server on a TCP/IP network, where configuration files will be stored.
'Apply Now' button	This button shall be used in order to initialize the functional operation.

To save the IP Door Phone configuration by using '***tftpd32'*** or ''***tftpd64***' software (as example):

- Run tftpd32 software.



- Screen Opens where shown the Configuration file storage directory and your (Administrator's) PC's IP Address
- Go to IP Door Phone Web Management screen / Admin / Save Config File screen
- Type Administrator's PC's IP Address where tftpd32 software runs to 'TFTP Server IP' field

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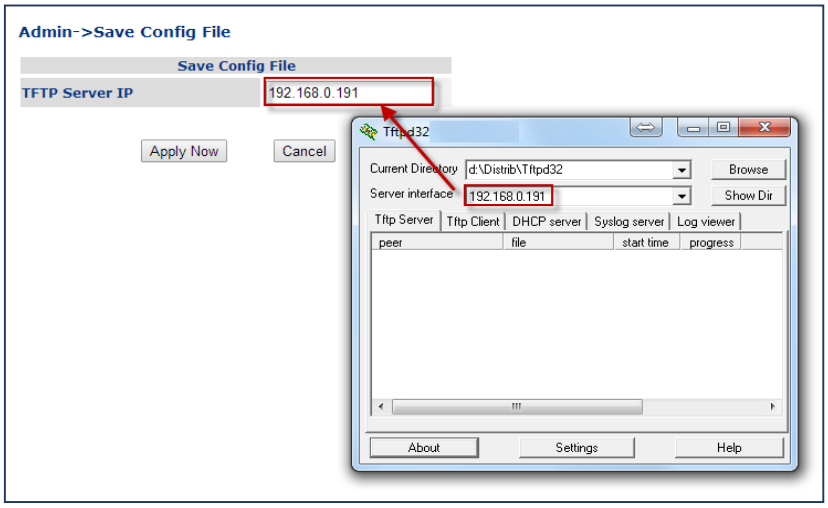
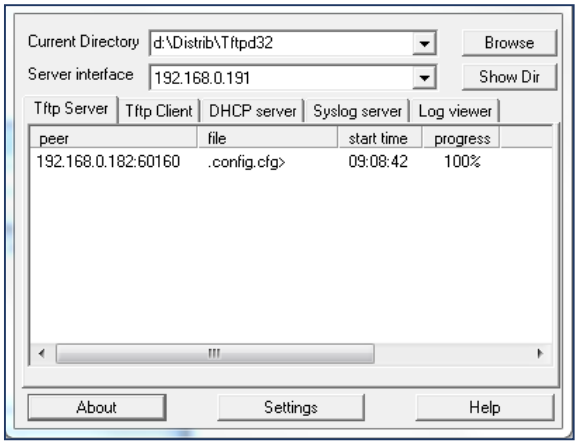
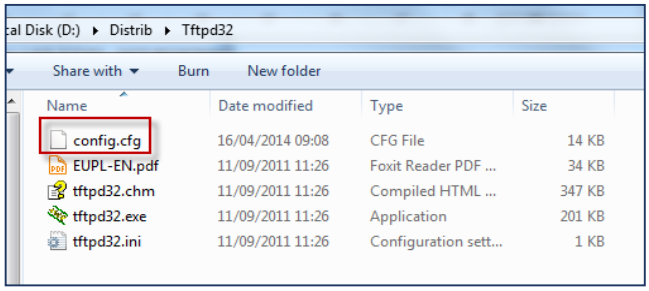


- Press ‘Apply Now’ button
- tftpd32 software screen indicates the Configuration file transfer status



- When operation is done the ***‘config.cfg’*** file can be found in storage directory



7.8.2 Restore Configuration

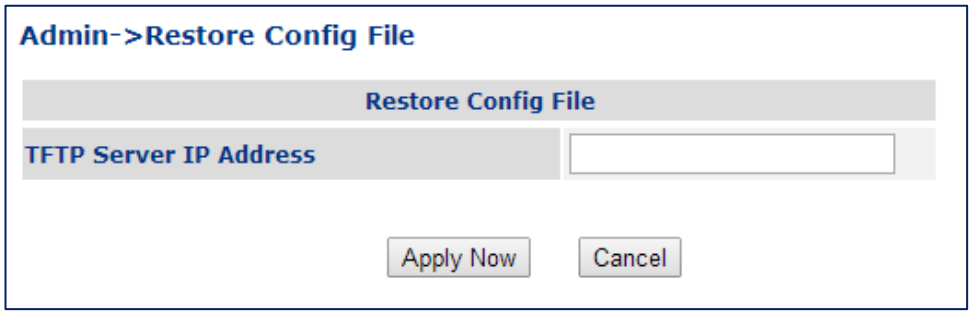


Figure 7-40 IP Door Phone Restore Configuration Screen

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Parameter	Description
TFTP Server IP address	Specifies the TFTP server on a TCP/IP network, where configuration files were previously stored.
'Apply Now' button	This button shall be used in order to initialize the functional operation.

To restore configuration file requires exactly the same procedures as in previous chapter.

7.8.3 Firmware Update by using TFTP; FTP and HTTP servers

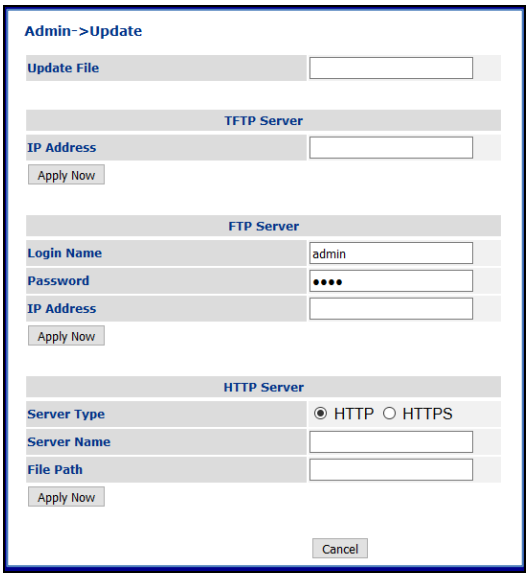

Figure 7-41 Update Firmware Screen

Note:

The firmware updating procedure is available by using TFTP; FTP protocols and directly from HTTP server. Only original IP Door phone's firmware can be used for the Firmware update procedure. Please contact Nista Devices support to get the original firmware file.

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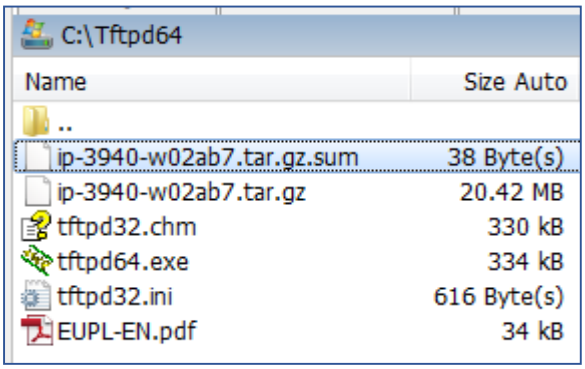
Parameter	Description
Update File	The IP39-4x Software file name including the file's extension suffix. For example: ip-394X-w**NNN**.tar.gz
TFTP Server	
IP Address	The IP Address of PC where runs TFTP server software
FTP Server	
Login Name	Specifies the FTP server account login name.
Password	Specifies the FTP server account password name.
IP Address	Specifies the FTP server IP address
Update file	The firmware file name.
'Apply Now' button	This button shall be used in order to initialize the functional operation.
HTTP Server	
Server Type	HTTP or HTTPS
Server Name	Server IP Address or DNS name
File Path	Path to configuration file on the Server

Note:

'TFTPD32' and 'TFTPD64' are three-side TFTP server software which mentioned in this document only as example and must be obtained separately by user.

To update firmware by using the TFTP protocol (As example ***'tftpd64' TFTP*** server software utility can be used)

- Place IP39-4x firmware files: ***ip-394X-wXXabN.tar.gz*** and ***ip-394X-wXXabN.tar.gz.sum***into TFTPD64 executive directory (where: XX – the firmware version ; N – the firmware edition number)



- Launch tftpd64 server utility and draw attention on 'Server Interface' field where must be shown IP address of PC where tftpd64 server runs

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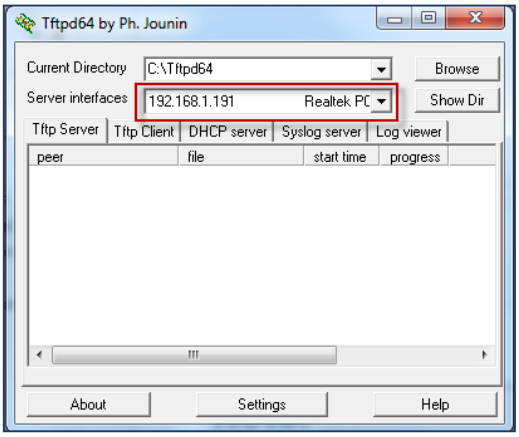

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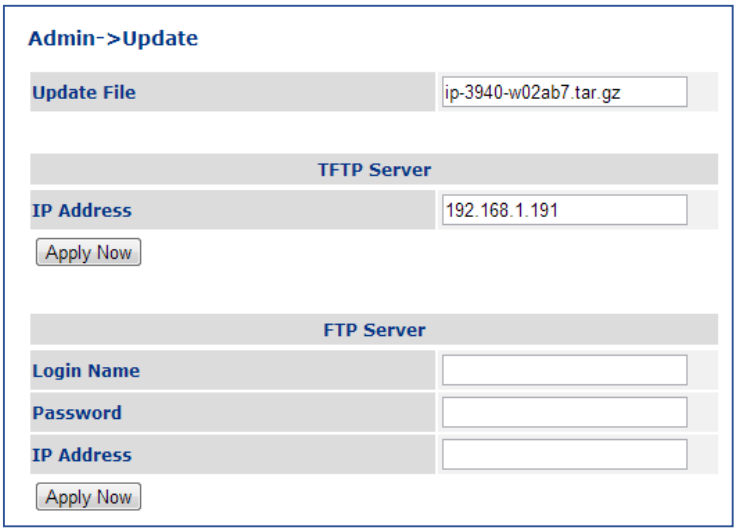
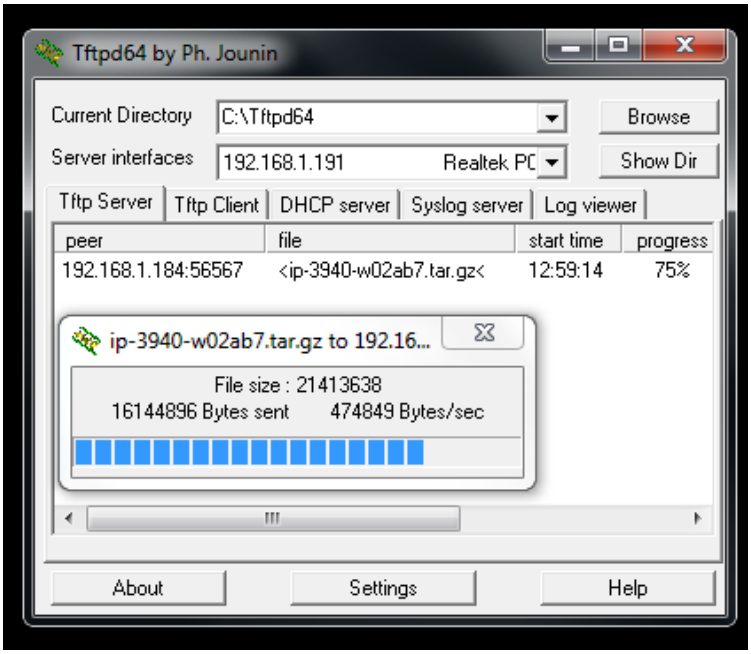
- Go to IP39-4x Web Management Admin/ Update screen and fill 'Update File' and TFTP Server / IP Address fields following by actual configuration where:
    - Update File – The IP39-4x Firmware file name; ' ***ip-394X-wXXXNN.tar.gz*** ' where XXXNN – firmware release number + edition number.
    - TFTP Server / IP Address – The IP address of PC where runs ***tftpd64*** server software



- Click 'Apply Now' button in Web-GUI / TFTP Server region
- **Wait ~ 20 seconds** until ***tftpd64*** application screen will start to show the firmware files updating status



- Note: The IP39-4x front panel LED Display shows 'Rebooting' message during firmware updating procedure
- Wait until IP39-4x will finish the firmware updating; restart the unit and returns to its IDLE mode

Note:

- Do not disconnect the IP39-4x power during firmware updating procedure. Power failing on this stage destroys the unit.

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7.8.4 Firmware Local Update

The IP Door Phone Internal Firmware can be updated during WEB-Management session directly from the IP Door Phone management GUI.

To update Firmware directly from the Web-Management screen:

- Select ‘Update Local’ option from the ‘Admin’- left navigation menu

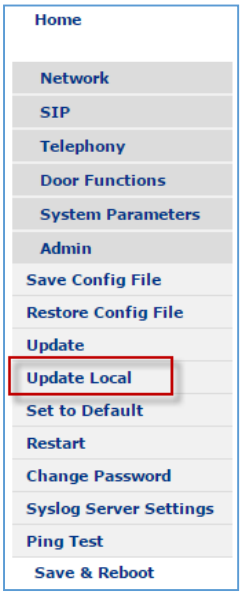

*Figure 7-42’*Admin’ Navigation Menu*

- The Local Firmware Update screen appears
- Use ‘Choose File’ button in ‘Update File’ line in order to find and select the IP Door Phone firmware file. The IP39-4x Firmware file name; ‘ ***ip-394X-wXXXNN.tar.gz*** ‘ where XXXNN – firmware release number + edition number.
- Use ‘Choose File’ button in ‘ Checksum File’ line in order to find and select the IP Door Phone firmware checksum file. The IP39-4x Firmware file name; ‘ ***ip-394X-wXXXNN.tar.gz.sum*** ‘ where XXXNN – firmware release number + edition number.
- Click ‘Apply Now’ button in order to initiate the Firmware update procedure

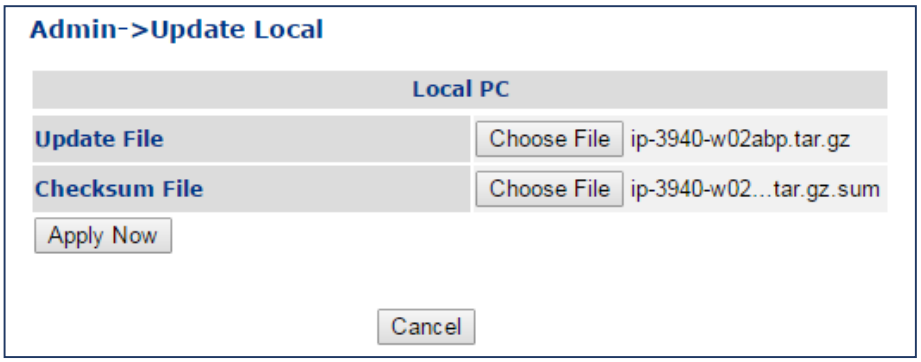

Figure 7-43 Firmware ‘Update Local’ Screen

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Note:

1. The Firmware updating procedure takes at least 2 minutes. Do not disconnect a power from the unit when Firmware updating procedure runs
2. WEB-Management screen shows message ‘Please wait, Door-phone is still processing Prepare Update!’. Use your web-browser refreshing in order to refresh a screen and re-connect with the unit
3. LED Display shows ‘Updating’ message during Firmware updating procedure. Wait the normal functional LED messages in order to be sure that Firmware updating procedure finished

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7.8.5 Set to Default

This menu option allows converting IP Door phone to its factory configuration.

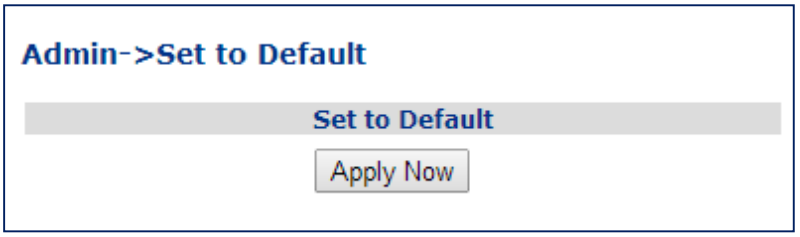

Figure 7-44 Set IP Door Phone to Its Factory Default

Parameter	Description
'Apply Now' button	This button initializes the Reset to Factory default operation.

Note:

After click on 'Apply Now' button all previously configured parameters will be reset to factory values

7.8.6 Restart / Cold Reset

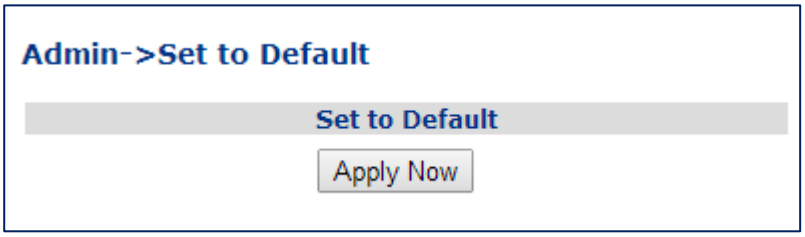

Figure 7-45 Cold Reset Screen

This screen allows remote cold restart the IP Door Phone

Parameter	Description
'Restart' button	This button initializes the IP Door Phone Cold Reset.

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7.8.7 Change Password - Web-Management Credentials

IP39-4x provides different management levels for WEB-Management: Administrator and User

- 'Administrator' level has access to all IP39-4x configuration parameters
- 'User' level has limited access to IP39-4x configuration parameters.

Note:

1. The 'Administrator' management level web-login name is **'admin'**
2. The 'User' management level web-login name is '**user'** The default web-login password for both levels is **'1234'.**

7.8.7.1 Change WEB Administrator Login Credentials

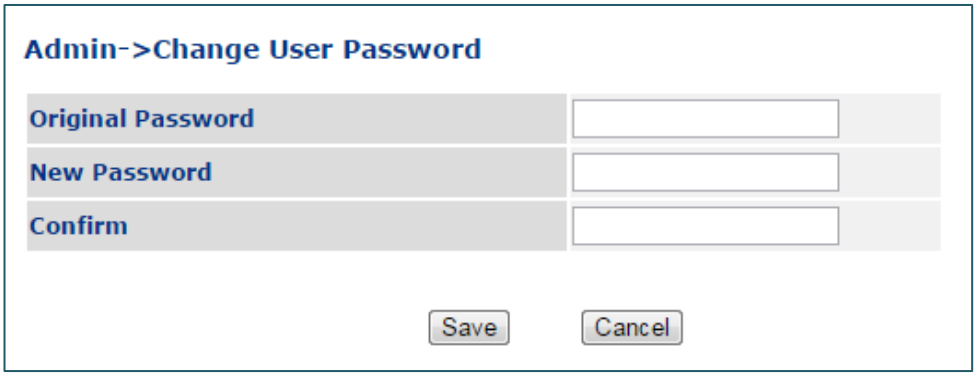

Figure 7-46 Change Web Administrator Password Screen

This screen allows changing the Web-Management Administrator login password.

To change a password:

- Type existing password in **'Original Password'** field
- Type new password in **'New Password'** field
- Confirm New Password by typing the New Password in **'Confirm'** field
- Click **'Save'** button to complete

Note:

The Web login password can be assigned with up to 15 characters: 0-9, Aa-Zz, no space allowed

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7.8.7.2 Change WEB User Login Credentials

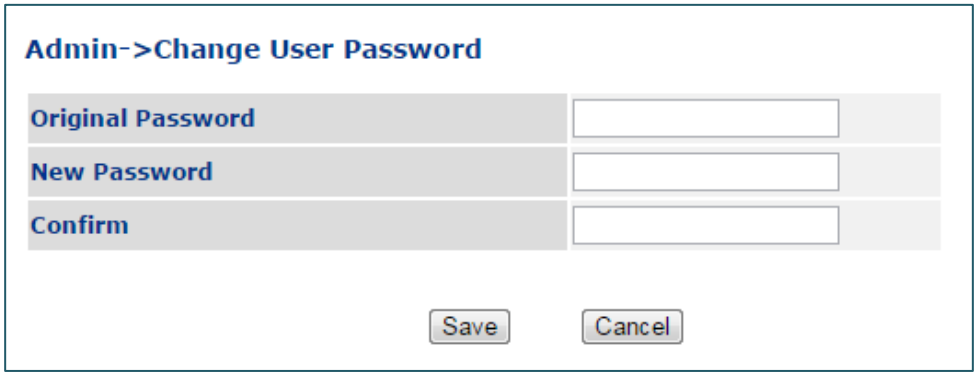

Figure 7-47 Change Web User Password Screen

This screen allows changing the Web-Management User login password.

To change a password:

- Type existing password in **'Original Password'** field
- Type new password in **'New Password'** field
- Confirm New Password by typing the New Password in **'Confirm'** field
- Click **'Save'** button to complete

7.8.8 Syslog Server Settings

This screen allows specifying the external 'Syslog' server IP address in order to stream the 'syslog' directly to server, where it can be stored.

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Figure 7-48 Syslog Server Settings Screen

Note:

Save & Reboot action required in order to save screen configuration

Parameter	Description
Syslog Server IP Address	The external Syslog server IP address in IPv4 format. For example: 85.10.212.220 Note: Empty field means disabling Syslog data streaming
Log Level	Filter the Syslog level of the messages to be sent to server ERROR: shows all error messages, it may cause if Door Phone doesn't work properly or specific feature doesn't work properly. WARNING: shows all warning messages, it needs attention. INFO: shows all info messages, like pressed digits on the unit, Opening Door etc. DEBUG: shows all messages for debugging purpose. TRACE: shows all messages for debugging purpose and more detail than in 'DEBUG' mode DETAIL TRACE: shows all messages for debugging purpose and more detail than in 'TRACE' mode

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Log Details	Specifies and enables the data which printed in Syslog event messages
	Day Name – Print the Day of the Week Name
	Year – Print the event Year
	Month – Print the event Month
	Day – Print the event Date
	Time – Print the event time
	Micro Second – Detailed the event microsecond
	Sender – print the sender details
	New Line – Print message in the new line
	Carriage return - Returns to beginning of the line. Usually enabling the 'New Line' option is enough, but if syslog server does not change to a new line, it must enable this setting as well.
	Space when no Mark (Debug) - For debugging purposes, add a space when 'Mark' when 'Thread Switched' option disabled.
	Reserved (Debug) – Not in use
	Level Text - It shows ERROR, WARN, INFO, DEBUG, TRACE, DETRC in the message, according to selected level of the message.
	Thread ID (Debug) - For debugging purposes, it shows thread id that generates the message.
	Mark when Thread Switched (Debug) - For debugging purpose, add a mark (!) when thread switched.
	Indentation (Debug) - For debugging purposes, add indentation (.) to show the deep of the sender.
	Console (Debug) - For debugging purpose, it also displays the message to a terminal (must be connected to IP39-4x RS-232).
	RTSP/HTTP debug - For debugging purpose, displays the RTSP / HTTP video streaming debug messages
	ONVIF debug - For debugging purpose, displays the ONVIF functional debug messages

See User's Operation Chapter 8.10 in order to get the **Door Opening report** to external Syslog server.

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7.8.8.1 Export Syslog as Database file

The Syslog messages can be exported as Data-base (db) file from the IP Door Phone to external FTP storage place or directly to administrator PC during web-administration session.

Note:

The Syslog shall be configured to '**Level=3**' in the IP Door Phone to provide the optimal number of messages for Syslog db file

To download Syslog db file to FTP storage resource:

- Go to 'Admin" / Save Log File navigation menu option, the Save Log file configuration screen appears

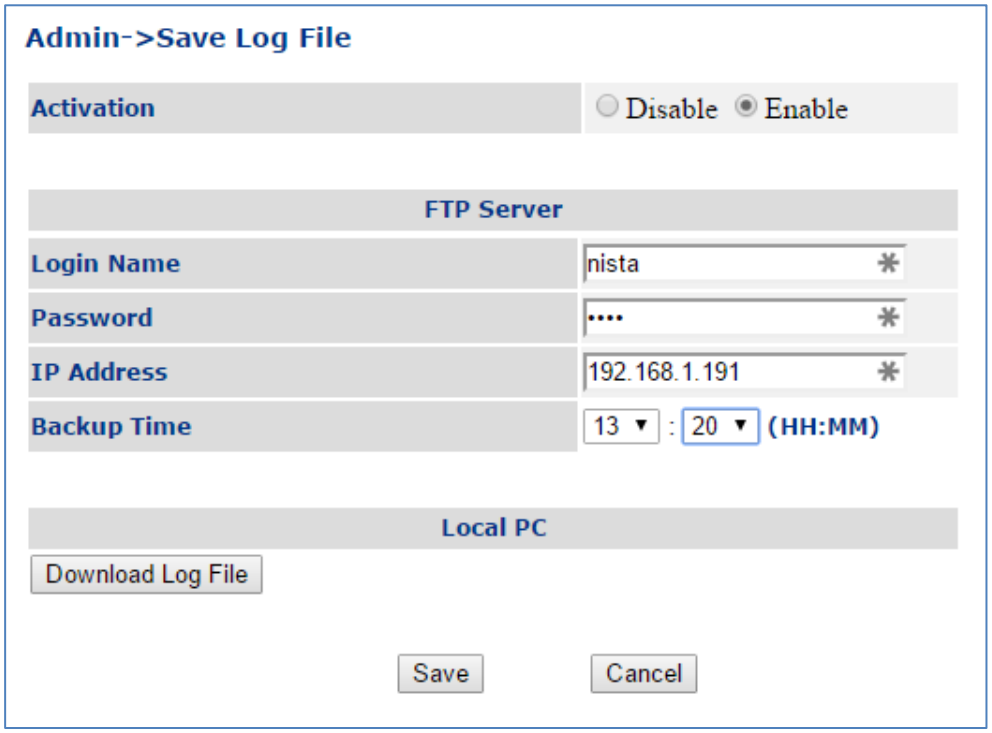

Figure 7-49 Export Log file configuration screen

- Configure parameters listed in the table below:

Parameter	Description
Activation	Activates Syslog file messages storage in db file and export feature, 'Disabled' in default unit configuration Note: Syslog db file can store no more than 1000 records (messages), after that records will be saved in FIFO mode
FTP Server	
Login Name/Password	FTP Server user's account authentication credentials
IP Address	FTP server IP address
Backup time	Set the daily time when the Syslog db file will be exported to FTP server automatically

To download Syslog db file to administrator's PC click on 'Download Log File' button and file '**ip39-4x-log.db**' will be downloaded immediately to web-browser downloading directory.

To review the Syslog db file:

- '**ip39-4x-log.db**' is SQlite Windows version file type. As example file can be opened by using the ' 'SqliteBrowser' Sqlite db file browser application, which is available for free download from the link: http://sqlitebrowser.org/

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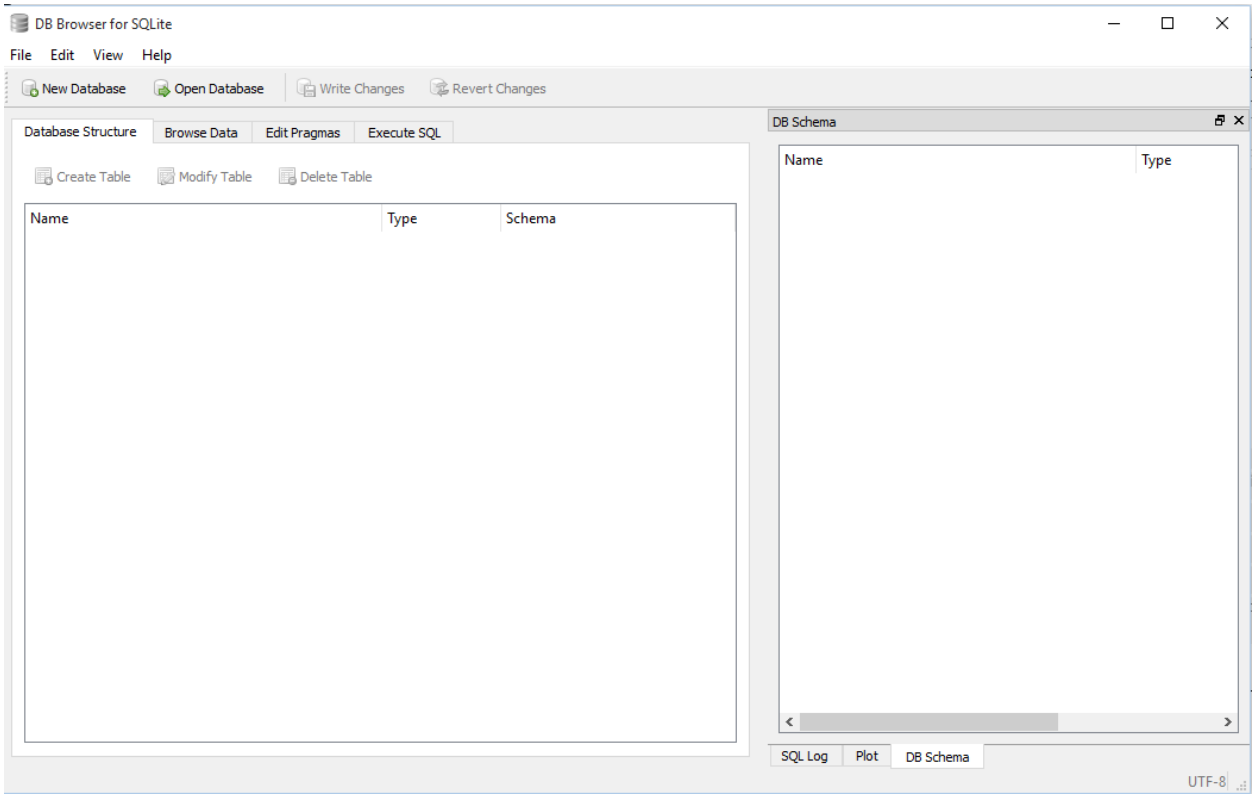
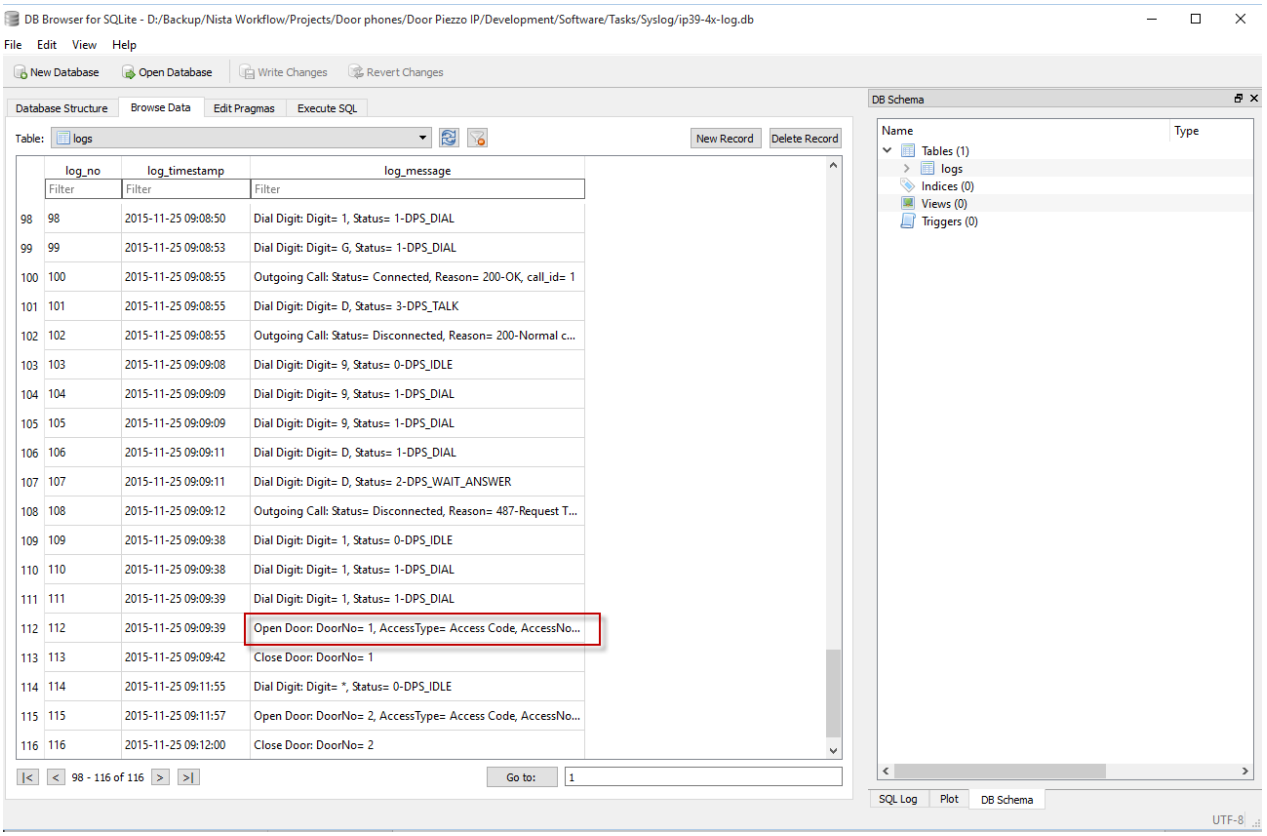
- Download and install SqliteBrowser on your PC
- Launch ‘SqliteBrowser’
- The Main application screen appears



- Click ‘Open Database’ and navigate to directory , where Syslog db file ‘**ip39-4x-log.db**’ stored
- Select ‘logs’ option in ‘Table’ field and navigate to ‘Browse Data’ tab. The log messages will be listed



Use Case: Door opening detection

- Syslog db file allows to review the dialed digits and door opening / closing

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Database Structure | Browse Data | Edit Pragmas | Execute SQL

Table: logs

	log_no	log_timestamp	log_message
	Filter	Filter	Filter
1	1	2015-12-01 13:5...	Dial Digit: Digit= 4, Status= 0-DPS_IDLE
2	2	2015-12-01 13:5...	Dial Digit: Digit= 3, Status= 1-DPS_DIAL
3	3	2015-12-01 13:5...	Dial Digit: Digit= 2, Status= 1-DPS_DIAL
4	4	2015-12-01 13:5...	Dial Digit: Digit= 1, Status= 1-DPS_DIAL
5	5	2015-12-01 13:5...	Open Door: DoorNo= 1, AccessType= Access Code, AccessNo= 1
6	6	2015-12-01 13:5...	Close Door: DoorNo= 1
7	7	2015-12-01 13:5...	Dial Digit: Digit= 9, Status= 0-DPS_IDLE
8	8	2015-12-01 13:5...	Dial Digit: Digit= 8, Status= 1-DPS_DIAL
9	9	2015-12-01 13:5...	Dial Digit: Digit= 7, Status= 1-DPS_DIAL
10	10	2015-12-01 13:5...	Dial Digit: Digit= 6, Status= 1-DPS_DIAL
11	11	2015-12-01 13:5...	Open Door: DoorNo= 2, AccessType= Access Code, AccessNo= 1
12	12	2015-12-01 13:5...	Close Door: DoorNo= 2

- The Door opening initialization specified as string ‘AccessType’ in Syslog messages string. IP Door Phone provides following door opening statuses information:
    - "Undefined", → Door opened by using Switch button
    - "Access Code→ Door opened by using the Doorphone keypad
    - "Extension"→ Door opened from extension
    - "Speed Dial"→ Door opened from SPD extension
    - "RFID Card""→ Door opened by using the RFID card

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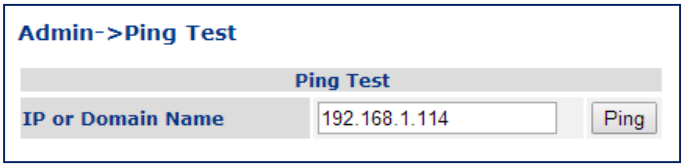
7.8.9 Ping Test

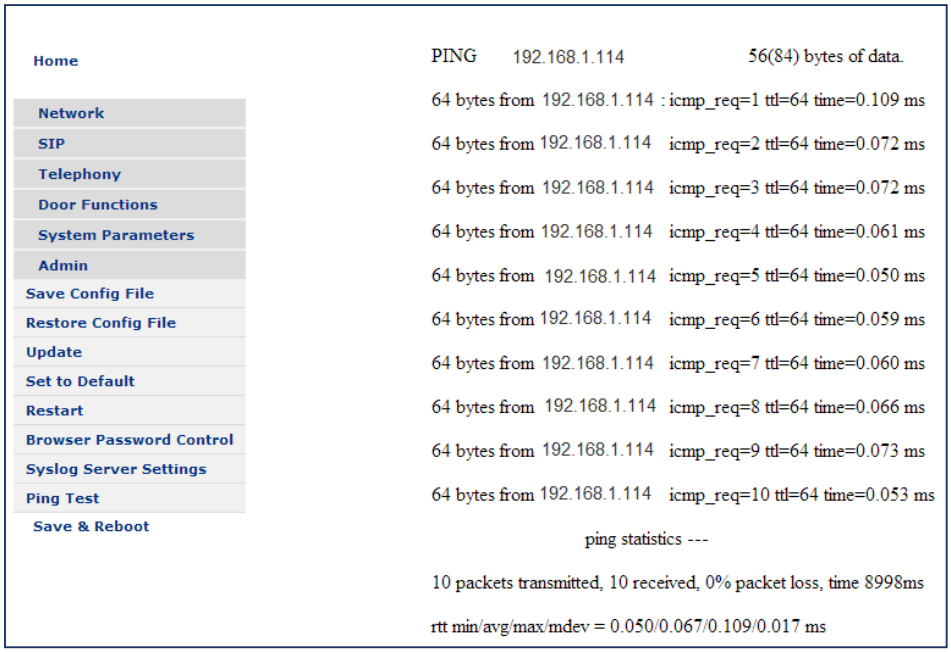
Ping test allows checking IP connection from the IP Door phone with other IP destinations in the network.

To initiate the Ping test:

- Type the remote IP Door phone IP address or its DNS name in 'IP or Domain Name' and press 'Ping' button



- After some seconds, Ping results will be shown on the screen.



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8 User Operations

Note:

1. The IP Visitor door phone provides limited functionality. The limitations depend on the unit programming.
2. Pressing the ‘Ring’ button a second time performs the “Call Cancellation” function.

8.1 Access by using the ‘Door Access Code’

8.1.1 To open the door:

- Dial the known ‘Door Access Code’ on the keypad (See 7.6.2)
- Door shall be open and accompanied by‘Confirmation’ tone

Note:

1. The default door access code is ‘**4321**’. Read Chapter 7.5.2 in order to configure the ‘Door Access Code’
2. Door phone supports up to **9** digit Door Access Code
3. This specific operation is available in Keypad units only

- Door will be opened during the ‘Door Opening Time’ interval. (See Chapter 7.6.1)

Note:

1. The ‘Door Opening Time’ interval can be configured via appropriate WEB-GUI Screen (See also Chapter 7.6.1)
2. The default Door opening time is **3** seconds

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8.2 Door Opening by Using the External Switch Button

The Door phone supports an external switch button installation. The separate external button can be used for each door lock. This allows the door opening with a hardwired switch button. An external button should be connected to the Sensor-1 and Sensor-2 terminals. (See Figure 6-2)
External Button functionality shall be enabled in the Web-GUI 'Sensors' screen (See Chapter 7.5.3) The door will be open, regardless of the Door Phone telephony connection status.

8.3 The Door Status Sensor / Serial Doors Opening

The IP Door phone supports integration with the Normally Open (NO) or Normally Closed (NC) types external sensors, which can indicate the Door status: Closed or Open. Sensors shall be connected to 'Sensor1' or 'Sensor2' pins of the wires connector (See Figure 6-2and Chapter 7.5.3 Sensor). Changing the default sensor status will indicate to the IP Door phone that the Door status is changing.

8.3.1 Serial Door Opening* *(*- feature required special firmware)*

The Serial door opening application allows the unit to open Door 2 after Door 1 with specific condition that Door 1 is already closed.

The following diagram shows the serial door opening functional:

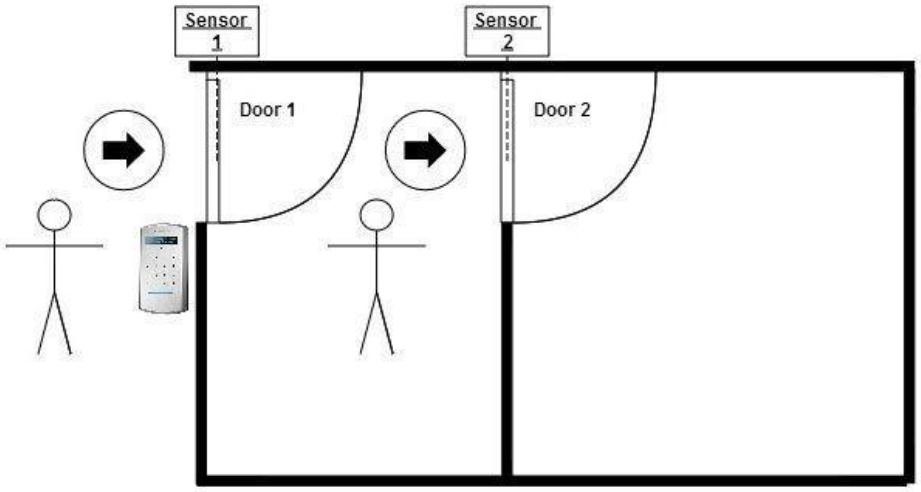

Figure 8-1 Serial Door Opening Feature

- Visitors press the 'Bell' button on the IP Door Phone in order to dial to operator.
- Operator opens the door by using the Door Opening code from their extension.
- Visitor enters into the building and waits till Door 1 will be closed. Sensor 1 follows and indicates to IP Door Phone the door 1 status.
- Door 2 will open automatically when Door 1 is closed.
- Sensor 2 shall indicate to IP Door Phone when Door 2 is closed and the IP Door phone returns to its Standby mode.

The IP Door phone can operate in 'Day' and 'Night' scheduling modes. The Operator destination number can be specified for each mode separately via WEB Management interface (See Chapter 7.4.2). The number will be dialed when pressing  button.

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8.4 Call to the Day / Night Operator

8.4.1 To dial the Operator:

- Press on the button
- Door phone dials to a preconfigured destination number, depending on the Operational mode: Day or Night

Note:

1. Day and Night operational modes can be switched manually via Web-Management interface or automatically (See Chapter 7.5.2)
2. The default Operator destination numbers are empty and must be configured by using the Web-Management interface

8.4.2 Peer-to-Peer Calls

Peer-to-Peer mode calls means calling directly to destination IP address. IP39-4x IP Door Phone allows Peer-to-Peer calls when it's associated SIP extension Registered or Not Registered in SIP Proxy server (IP PBX)

To make a Peer-to-Peer call:

- Go to Telephony / Day and Night Settings or Telephony / Speed dial table
- Enter destination IP address in format sip:XXX.XXX.XXX.XXX:NNNN in Day/Night Time Destination fields as shown in following image, where:

Parameter	Description
XXX.XXX.XXX.XXX	The destination IP address
NNNN	SIP protocol signaling port, 5060 in default

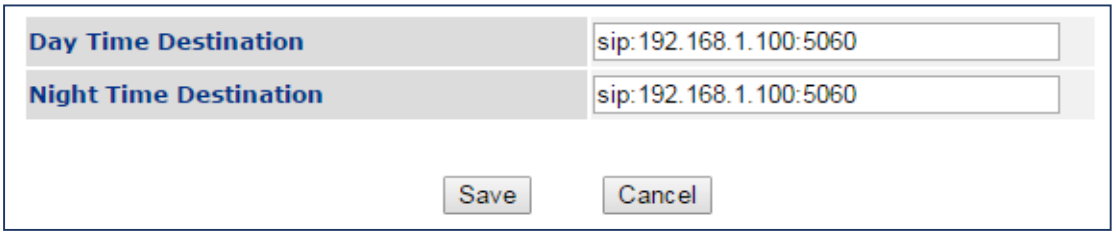

Figure 8-2 Peer-to-Peer Call Configuration

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8.5 Direct Call to Destination Number

8.5.1 To dial directly to a destination number:

- Dial required destination number by using the keypad buttons. Use ‘Backspace’ button to delete incorrect typed digit.
- Press  button when finished or wait until the ‘Inter Digits Timeout’ interval
- Door phone dials destination number

Note:

1. The maximum destination number length is **20** digits
2. Operation available for Keypad units only

8.6 Dialing by Using Speed Dial Destinations

The IP Door Phone supports up to 99 Speed Dialing System subscribers destinations (See Chapter 7.4.3), where each system subscriber includes following telephony destinations:

- ‘Day Time destination’ – the number which will be dialed in the Day operational mode
- ‘Night Time destination’ – the number which will be dialed in the Night operational mode
- ‘No Answer Forward Destination’ - the number which will be dialed in case if a Day or Night mode did not answer during specific time interval
- ‘Description’ – short up to 30 characters System subscriber destination’s description, which will be indicated on the front panel LED Display.

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8.6.1 Speed Dialing by Using the SPD Code

For speed dial System subscriber's destination number by using the Speed dialing SPD code:

- Type known **SPD** code on the IP Door phone keypad
- Press '**Ring**' button
- Door phone dials to pre-configured destination number

Figure 8-3 IP Door Phone Keypad

8.6.2 Speed Dialing by Using the LED Display Search

For speed dial System subscriber's destination number by using the destination LED Display search:

- Find required System subscriber by using ▲▼ arrows buttons
- Press '**Ring**' button to initiate a call
- Door phone dials to pre-configured destination number

8.7 Door Opening from IP Extension by Using the Extension's Door Opening Code

Called Destination can open the door for guests remotely by dialing the 'Extension's Door Opening Code' in conversation mode. (See Chapter 7.5.2 and Figure 7-16)

8.7.1 To open a door from an Extension:

- Call to destination as described in Chapters: 8.2, 0, 8.5, 8.6
- Wait till destination answers.
- Destination extension can dial the 'Extension Door Opening code' during conversation in order to open a door.
- The call will be disconnected after door opening procedure is complete.

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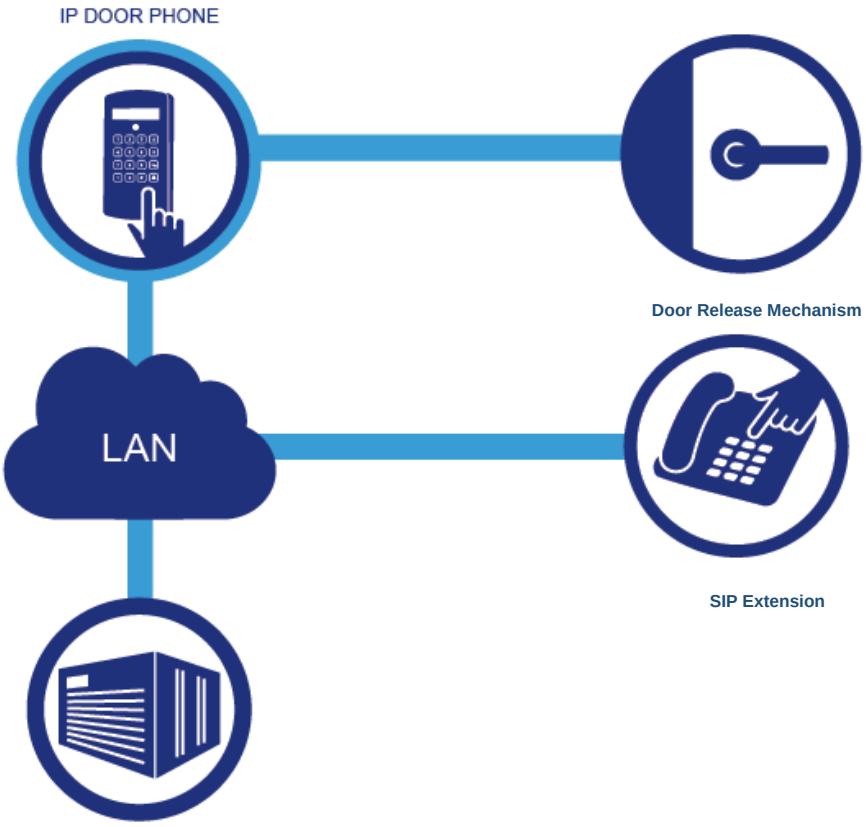

Figure 8-4 Door Opening from Remote Extension during Conversation

Note:

The default Extension's Door opening code 1 for Relay number 1 is **'5'**, the rest of codes shall be configured via Web-GUI / Door Access Codes screen (See Chapter 7.5.2)

8.8 Setting the Maximum Conversation Time

The IP Door phone controls the conversation time duration. When preconfigured conversation time has expired, the Door phone will disconnect the call. (See Chapter 7.4.1)

Note:

1. The default Maximum conversation duration time is 1 minute
2. The Maximum conversation time interval can be configured via the Web-management interface 'Telephony Parameters 'screen (See Chapter 7.4.1)

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8.9 Case Opening/Tempering Alarm

Note:

1. This feature works automatically and doesn't requires specific configuration
2. LED Display shows message '*Destination is not set*' when unit housing is open during start up and Day/Night destination does not will configure.

The IP Door phone initializes a call to Day / Night destination in case of housing opening.

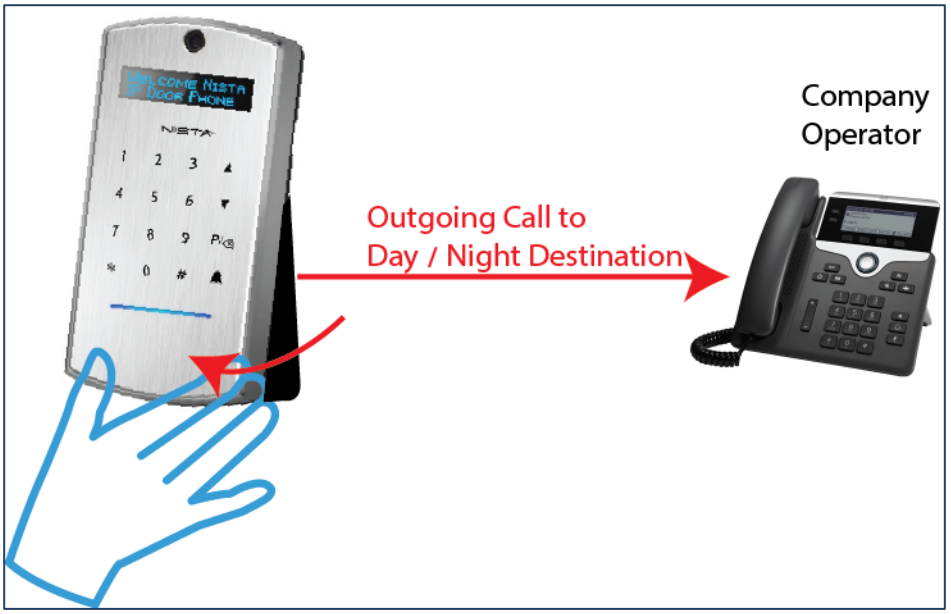

Figure 8-5 Case Opening Alarm Call

The IP39-4x Door Phone initializes an outgoing call to Day / Night destination in case of housing opening/tempering.

8.10 Door Opening/Tempering Report in the Syslog Server

The "SysLog" messages filtering functionality requires the IP39-4x IP Door phone and external "SysLog" server configuration.

Note:

The 'SysLog Watcher' SysLog server application shown as an example below.

To configure IP39-4x IP Door Phone to generate Door Opening/Tempering "sysLog" messages:

- Go to Admin / SysLog Server Settings and select Log Level ***'3=Info'***

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Figure 8-6 Syslog Server Settings Screen

- Type PC where runs “Syslog” server application in **‘Syslog Server IP Address’** field
- The rest of selections are default and shown on Figure 8-5.
- Click ‘Save’ button and follow Save& Reboot option from Navigation menu
- Go to ‘Syslog watcher’ syslog server and Click ‘Filter’ button in top Menu

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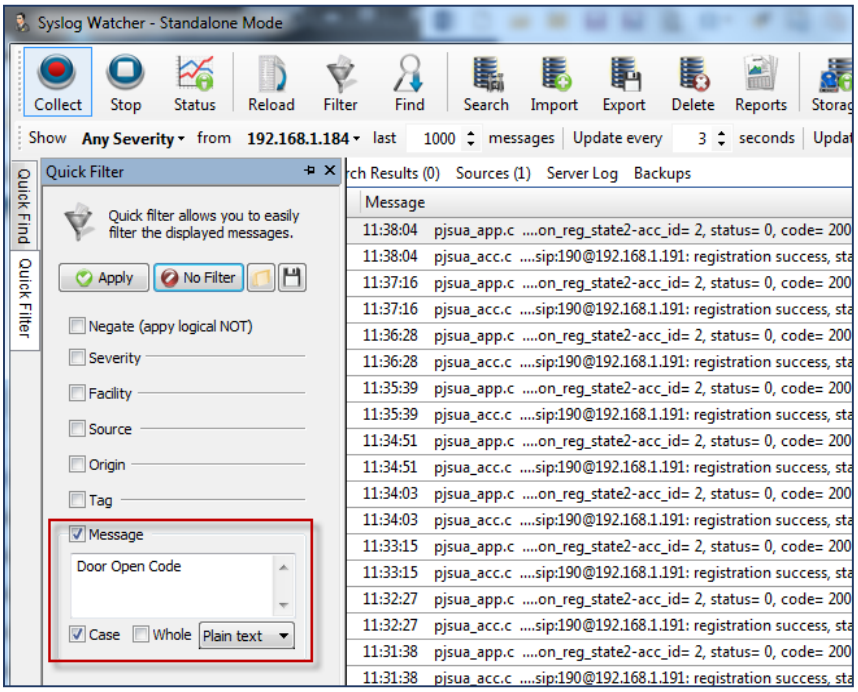

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Figure 8-7 Syslog Server Filter Window

- Check ‘Message’ option and type in Message filtering box: “Door Open Code”
- Click ‘Apply button

From this moment only filtered messages which includes door opening codes will be printed in Syslog server

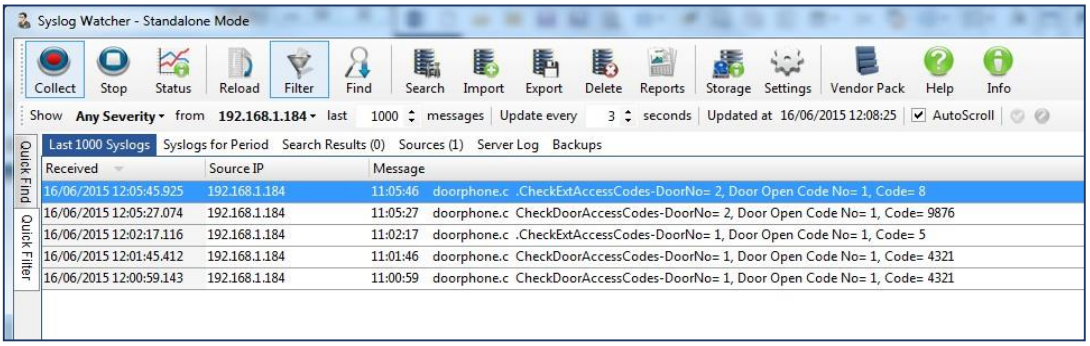

Figure 8-8 Syslog Server Screen with Filtered Messages

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8.11 Door opening via Ethernet network by HTTPS commands

The IP Door Phone security level can be increased by using separate units for door locks management: Outdoor and Indoor units (See Figure 7-22).

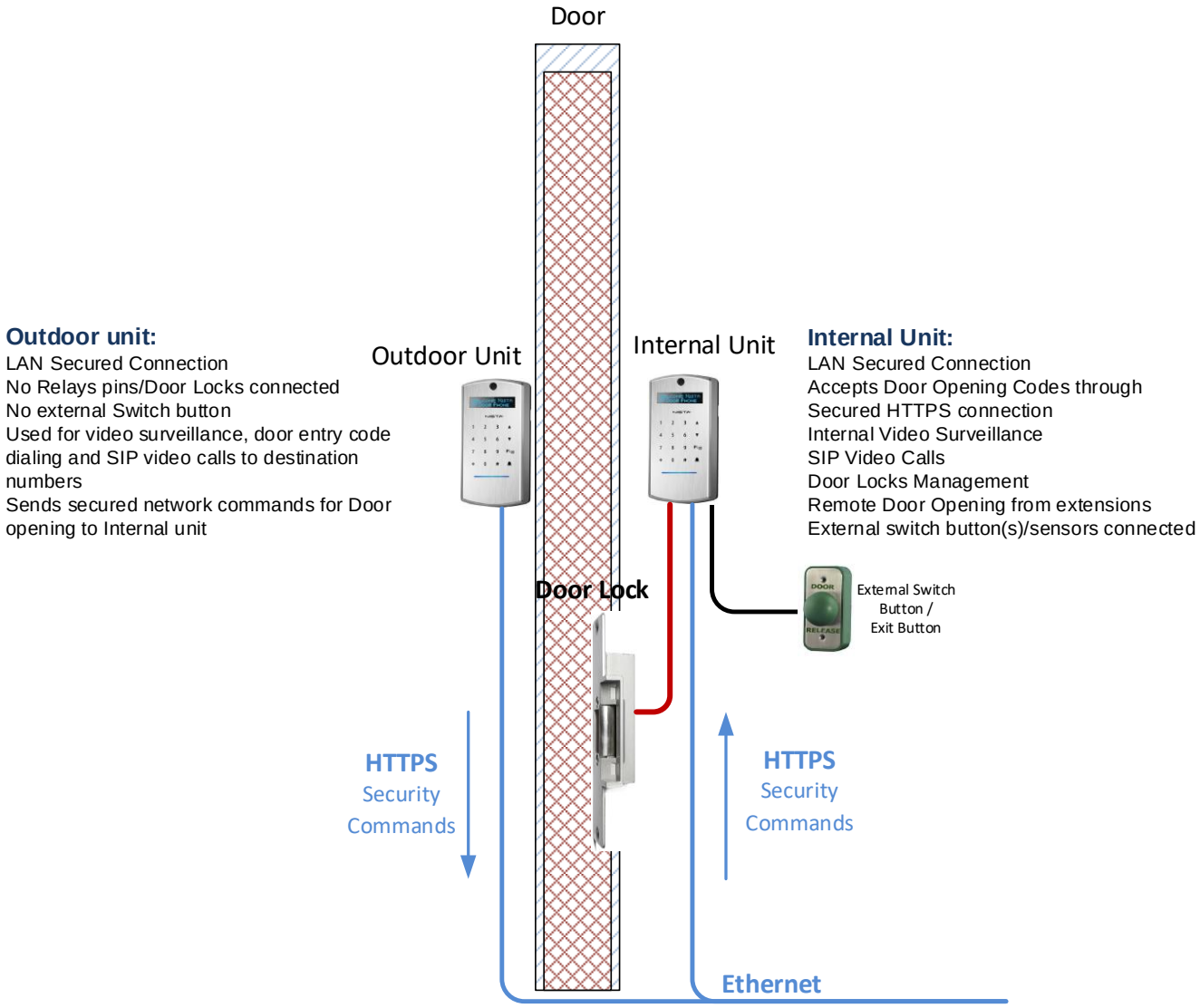

Figure 8-9 Door opening via Ethernet Network diagram

The Outdoor unit sends secured HTTPS command to Internal unit when guest dials a door opening code. Internal unit analyzes received code and opens a door if a code is valid.

Guest can initiate the outgoing call from Outdoor unit to pre-configured destinations: Day/Night or SPD and door may be open remotely by remote side by using an Extension door opening code.

The Feature is configurable on Web-Management interface

To open a door from the internal unit, guest shall dial the door opening code, if unit includes the keypad, or by using the External Switch Button (See figure below)

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Note:

The ‘Door Opening Code Prefix’ enabled is Mandatory (See Chapter **Error! Reference source not found.**)
Feature requires the HTTPS secure connectivity mode activation for Indoor unit
To open a door by using the Keypad Door Opening code from the IP Door Phone Keypad:
|‘Code Prefix ‘*’or ’#’| + % Door opening code% + ‘#’ (See also Chapter 7.6.4.2)
To open a door by using the Extension Door Opening code during conversation, the destination side have to dial:
% Extension Door opening code% + ‘#’

8.11.1 Configuration Door Opening via Ethernet network

To configure ‘Outdoor’ unit:

- Go to ‘Door Functions’→ Door Access Codes
- Select ‘Door Opening Code Prefix: ‘*’ or ‘#’

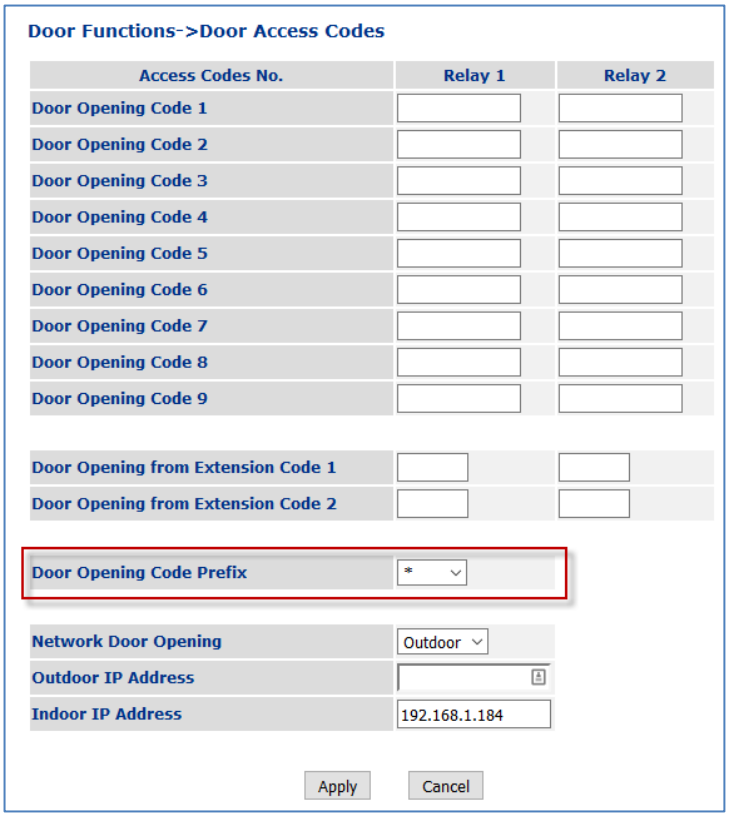

Figure 8-10 Door Opening Code prefix activation

- Select ‘Outdoor’ option in the ‘Network Door Opening’ field

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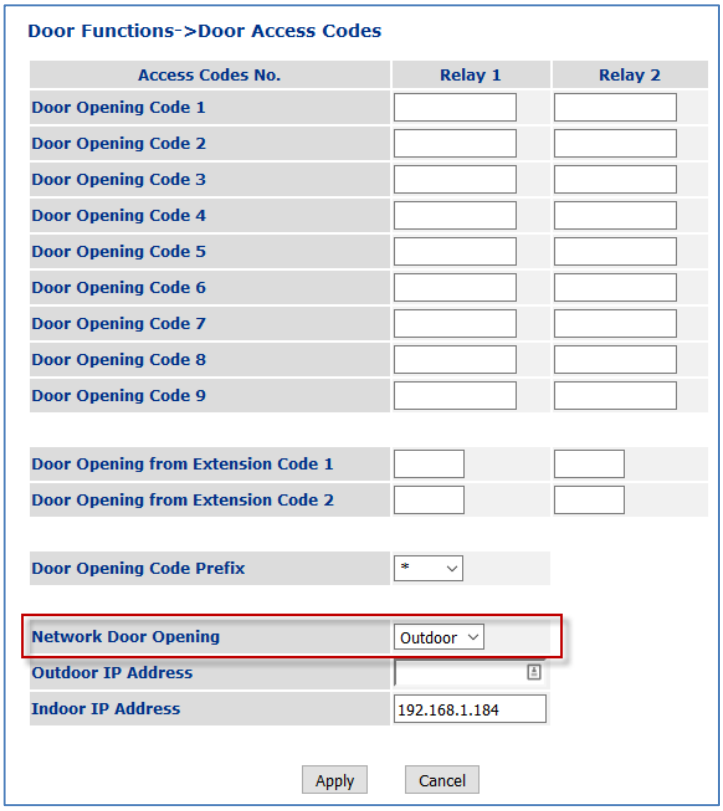

Figure 8-11 Network Door Opening mode selection

- Specify the 'Indoor' unit, which will receive HTTPS commands and will handle a door, the IP address in the 'Indoor IP Address' field

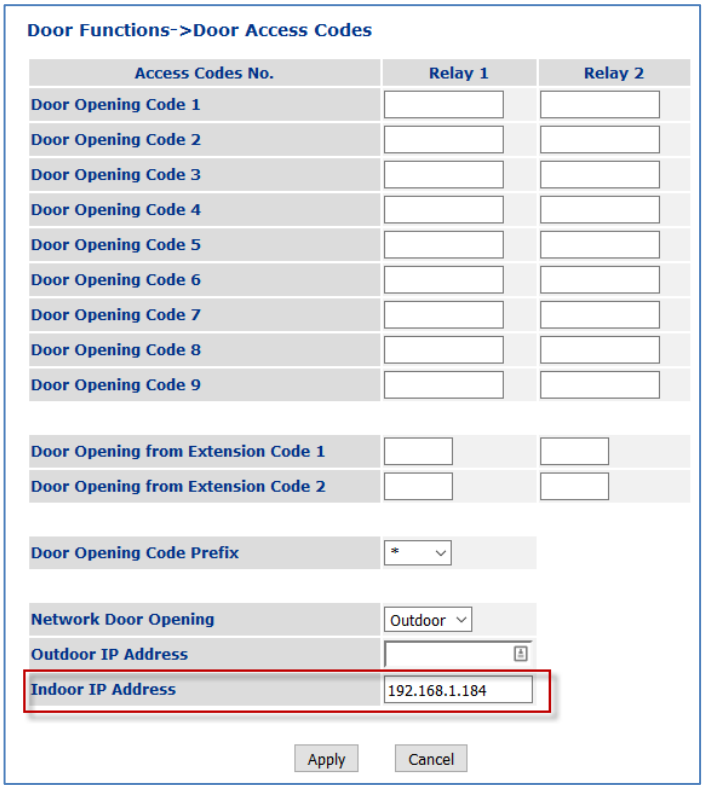

Figure 8-12 Indoor unit IP address specification

- Leave 'Relay 1' and 'Relay 2' 'Access Codes' fields empty

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- Specify the Day & Night destinations in ‘Telephony/Day and Night Settings’ screen
- Specify ‘Speed Dial’ destinations and leave ‘Door1/2 Opening code’ fields empty

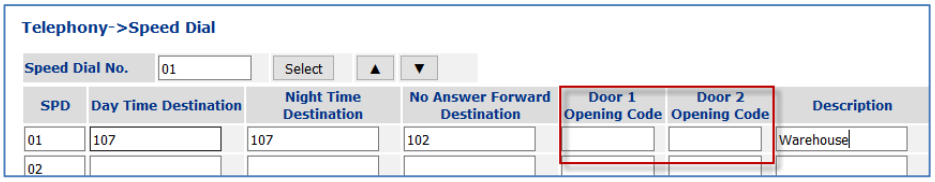

Figure 8-13 Telephony / Speed Dial screen

- Save & Reboot

To configure ‘Indoor’ unit:

- Go to Network → HTTPS screen and activate HTTPS secure connectivity mode

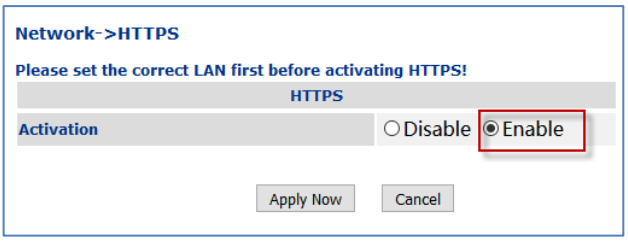

Figure 8-14 HTTPS Activation screen

- Go to ‘Door Functions’→ Door Access Codes
- Select ‘Indoor’ option in the ‘Network Door Opening’ field

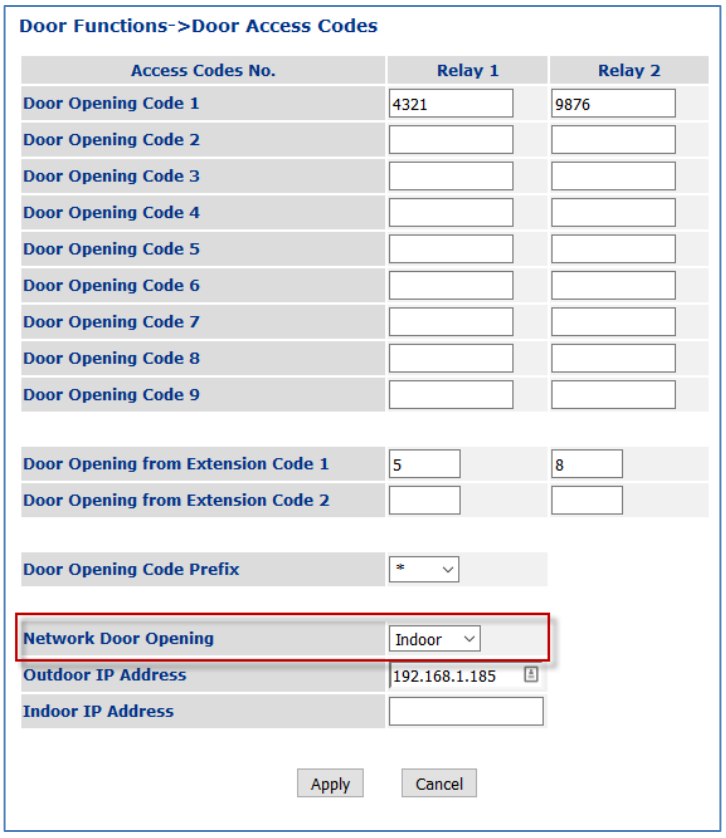

Figure 8-15 Network Door Opening mode selection

- Specify the ‘Outdoor’ unit, which will send HTTPS commands, the IP address in the ‘Indoor IP Address’ field

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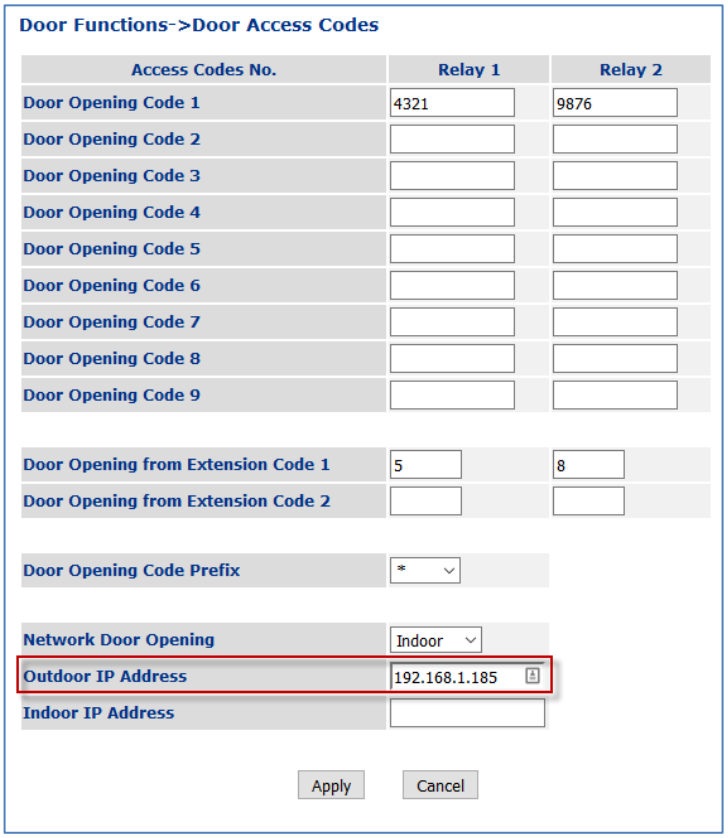

Figure 8-16 Outdoor unit IP address specification

- Specify 'Relay 1' and 'Relay 2' 'Access Codes'
- Specify 'Door Opening from Extension Codes'
- Specify 'Speed Dial' destinations the same as in 'Indoor unit' with specified 'Door1/2 Opening codes'

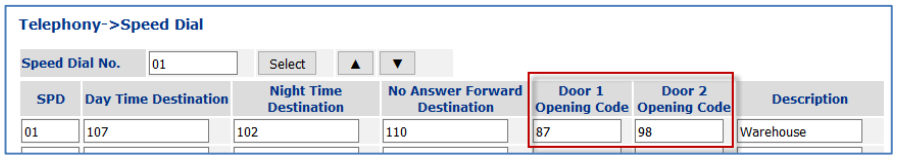

Figure 8-17 Telephony / Speed Dial screen

- Save & Reboot

8.11.2 To open a door by using HTTPS commands via Ethernet network:

- To open a door by using the Keypad Door Opening code, on the 'Outdoor' unit dial by using the Keypad: |'Code Prefix '*'or '#'| + % Door opening code% + '#', for example: *+1234+#
- To open a door by using the Extension Door Opening code during conversation, destination side have to dial: % Extension Door opening code% + '#'

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9 Technical Specification

Power supply	5V DC; 1.5A or Power Over Ethernet IEEE 802.3af compliant
Communication interface	Ethernet RJ-45
DC Leakage	<10 µA
Imbalance ratio	300-3400Hz > 46dB
Return loss	300-3400Hz > 18dB
Relay's switching current	30VDC - 2A Max
VoIP protocol supported	SIP; RTP; RTCP
Supported Audio codecs	G.711 PCM (µ/A-Law); G.722; G.729,Speex 8/16/32 kHz; GSM
Supported Video codecs	H.264; H.263-1998
Video Stream	RTSP; MPEG; HTTP
Video Resolution	640x480;720p;CIF;QCIF
Video Camera (* with specific models)	Wide angle IP video camera
Media Encryption	SRTP * (* Allowed for setup in specific software)
Echo canceller	G.168-2002 Compliant with programmable echo tail of up to 128 msec. Full duplex, acoustic EC
Quality Enhancement	Comfort Noise generation (CHG) Packet Loss Concealment (PLC) Adaptive Jitter Buffer(up to 300 msec)
Echo canceller length	Up to 64 msec
DTMF Presentation modes	RFC2833; SIP Info
Power Consumption	Maximum Consumption: 1.1A, 5.5W Idle Consumption: 540mA, 2.7W
Dimensions	Indoor Unit: ……182 L x 94 W x 36 H (mm) (with rubber pad) Outdoor Unit: ……182 L x 94 W x 36 H (mm)
Weight	Indoor Unit : ..... ……650g (net) Outdoor Unit:……..800g (net)
Operating Temperature	Outdoor: -20ºC to +50ºC/4ºF to 122ºF Indoor: 0ºC to +35ºC/32ºF to 95ºF

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