

MITEL – SIP CoE

# Technical Configuration Notes



Configure Algo 8028 SIP  
Doorphone for use with 5000  
ICP

SIP CoE 12-4940-00208

## Overview


This document provides a reference to Mitel Authorized Solutions providers for configuring the Mitel 5000ICP to host the Algo 8028 SIP Doorphone. The different devices can be configured in various configurations depending on your VoIP solution. This document covers a basic setup with required option setup.

## Interop History

Version	Date	Reason
1	June 2012	Initial Interop with Mitel 5000 CP 5.1 and the Algo 8028 SIP Doorphone

## Interop Status

The Interop of the Algo 8028 SIP Doorphone has been given a Certification status. This device will be included in the SIP CoE Reference Guide. The status the Algo 8028 SIP Doorphone achieved is:

 <b>COMPATIBLE</b>	<p>The most common certification which means the device/service has been tested and/or validated by the Mitel SIP CoE team. Product support will provide all necessary support related to the interop, but issues unique or specific to the 3rd party will be referred to the 3rd party as appropriate</p>
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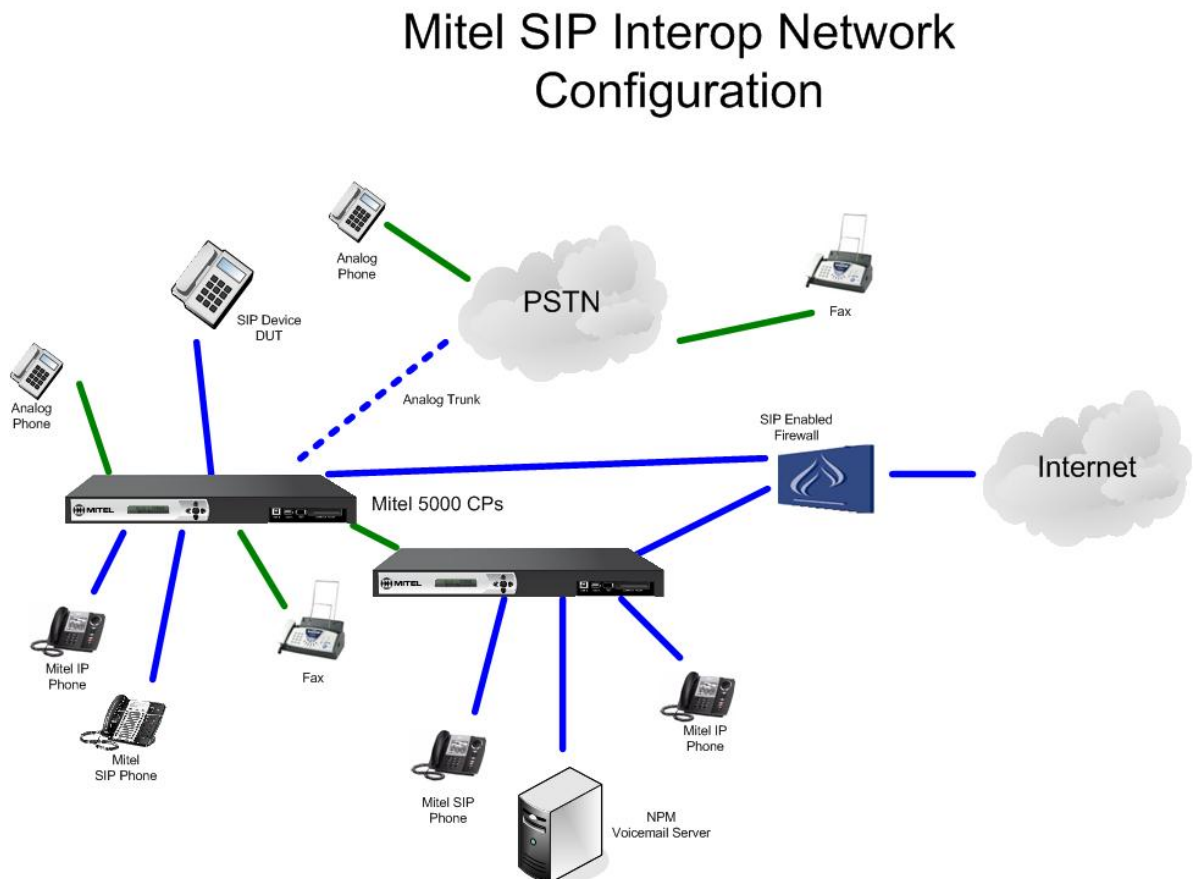
## Software & Hardware Setup

This was the test setup to generate a basic SIP call between the Algo 8028 SIP Doorphone SIP device and the 5000 CP.

Manufacturer	Variant	Software Version
Mitel	5000 CP	5.1
Mitel	5330 SIP Sets	4.01.01.05
Mitel	5320 Minet IP Sets	4.01.01.05
GE	Wireline Analog Set	n/a
ALGO	8028 SIP Doorphone	Firmware: 1.7 Kernel: r3

## Network Topology

This diagram shows how the testing network is configured for reference.



## Configuration Notes

This section is a description of how the SIP Interop was configured. These notes should give a guideline how a device can be configured in a customer environment and how the ALGO 8028 SIP Doorphone was configured in our test environment.

For more detailed information on the programming of the Mitel 5000 CP please refer to the [Mitel 5000 CP Features and Programming Guide](#).

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**Disclaimer: Although Mitel has attempted to setup the interop testing facility as closely as possible to a customer premise environment, implementation setup could be different onsite. YOU MUST EXERCISE YOUR OWN DUE DILIGENCE IN REVIEWING, planning, implementing, and testing a customer configuration.**

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## 5000 CP Configuration Notes

The following steps show how to program a 5000 CP to connect with the ALGO 8028 SIP Doorphone Phone.

### Network Requirements

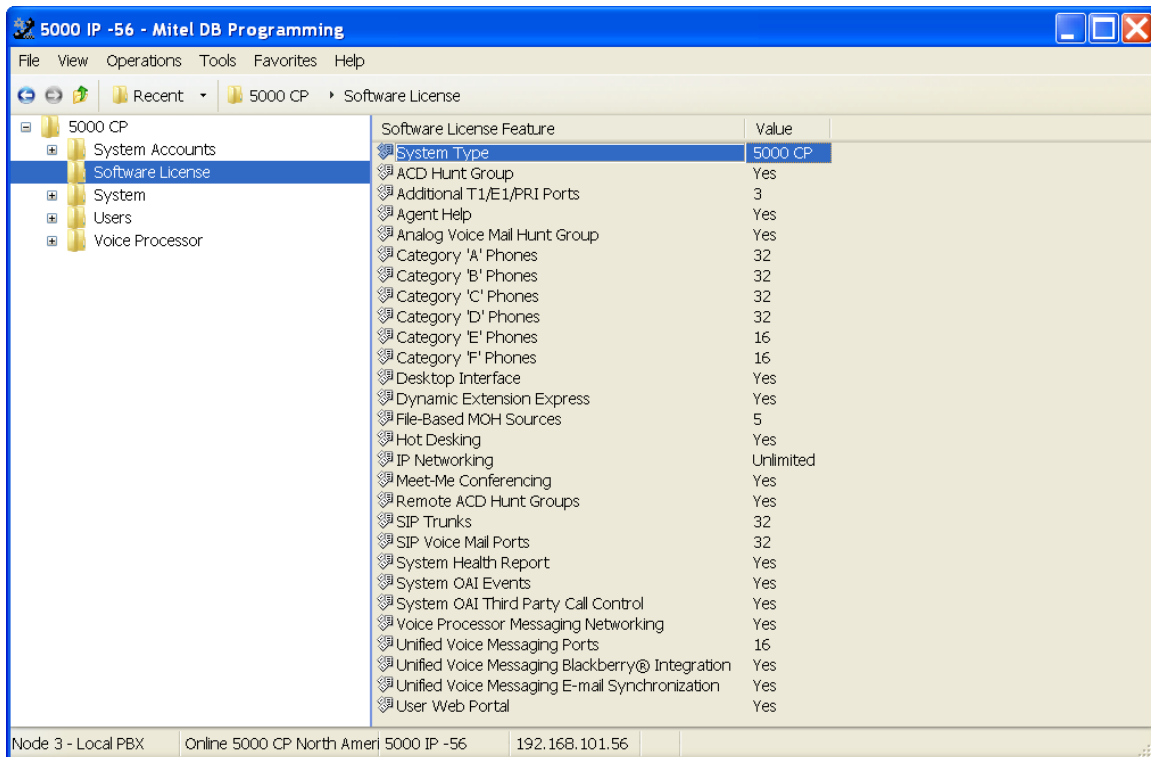
- There must be adequate bandwidth to support the voice over IP. As a guide, the Ethernet bandwidth is approx 85 Kb/s per G.711 voice session and 29 Kb/s per G.729 voice session (assumes 20ms packetization). As an example, for 20 simultaneous SIP sessions, the Ethernet bandwidth consumption will be approx 1.7 Mb/s for G.711 and 0.6Mb/s. Almost all Enterprise LAN networks can support this level of traffic without any special engineering. Please refer to the 5000 Engineering guidelines for further information.
- For high quality voice, the network connectivity must support a voice-quality grade of service (packet loss <1%, jitter < 30ms, one-way delay < 80ms).

### Assumptions for the 5000 CP Programming

- The SIP signaling connection uses UDP on Port 5060.

## Software License – SIP Licensing

Ensure that the 5000 CP is equipped with enough Category 'F' Phones licenses for the connection of SIP end points. This can be verified within the Software License Feature section form.



**Figure 1 – Software License**

## ALGO 8028 SIP Doorphone Configuration

### To create an extension for the ALGO 8028 SIP Doorphone:

1. Select System – Devices and Feature Codes – **Phones**.
2. Right-click anywhere in the right pane, and then select **Create SIP Phone**. The Create SIP Phone Extension dialog box appears.
3. Select a starting extension for the phones and the number of extensions.
4. Click **OK**. The system creates a new SIP Phone Group for each of the ALGO 8028 SIP Doorphones. The

SIP Phone groups are created in a stand-alone configuration by default. The associated SIP

Phone Group is displayed in System\Devices and Feature Codes\SIP Peers\SIP Phone Groups

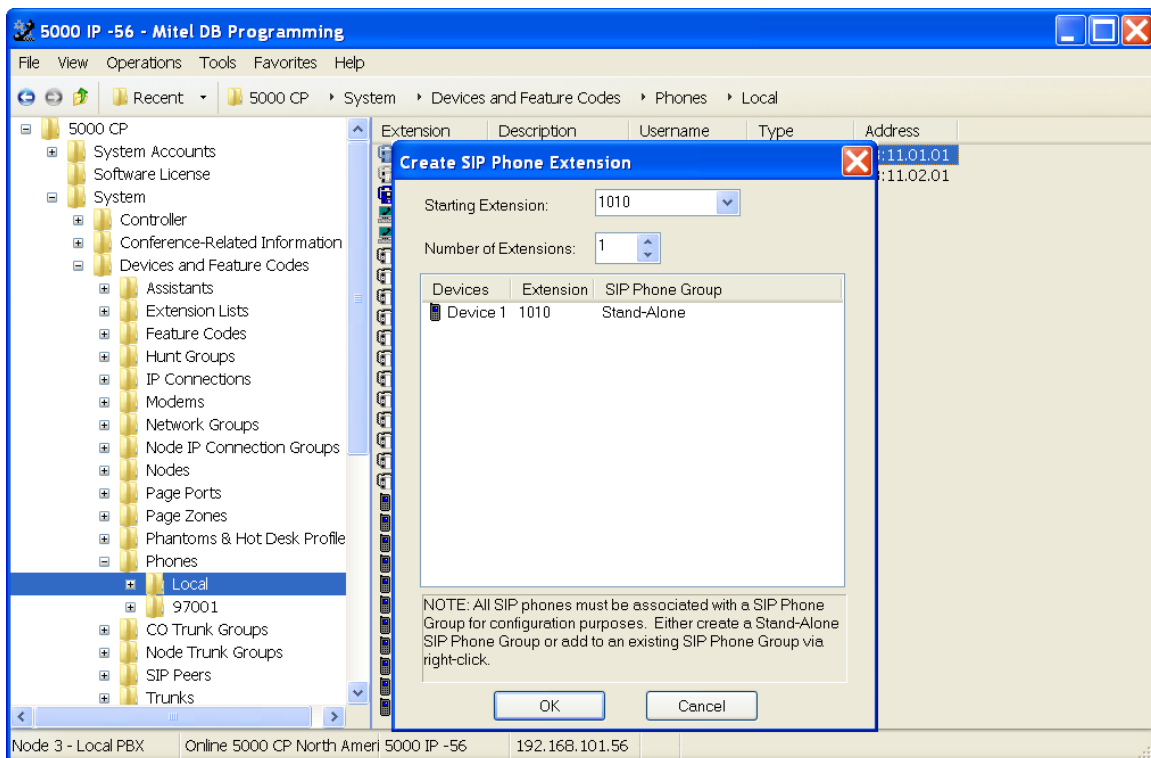
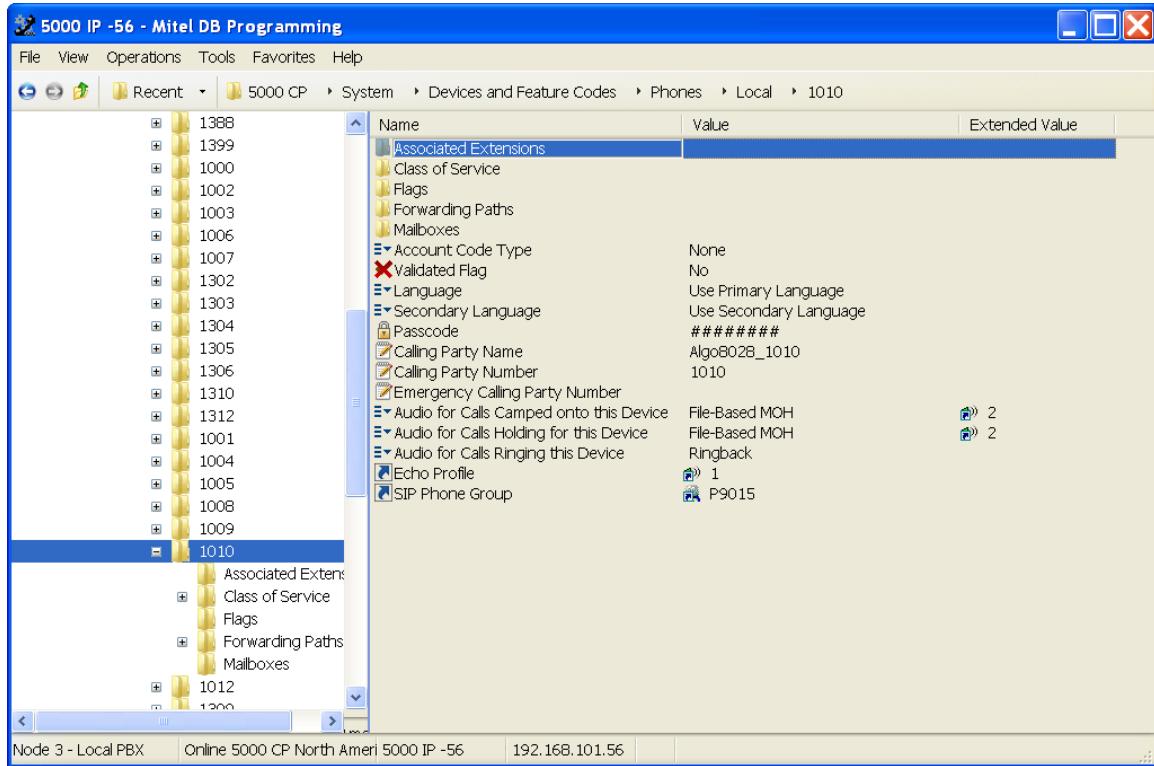


Figure 2 – Create SIP Extension

The ALGO 8028 SIP Doorphone was configured as displayed below.



**Figure 3 – ALGO 8028 SIP Doorphone Configuration**

The Password field is for the SIP authentication password and the username is the DN. All other field names should be programmed according to the site requirements or left at default

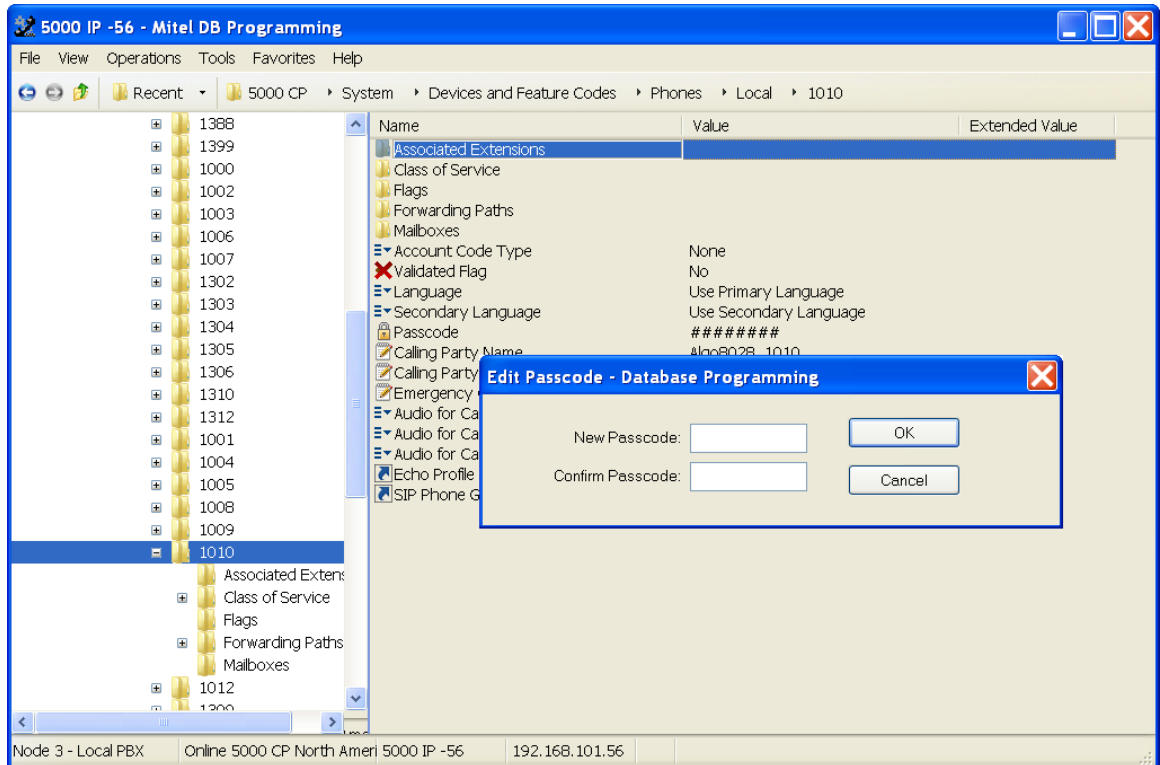


Figure 4 – Password Configuration



## SIP Phone Groups

ALGO 8028 SIP Doorphones can register with the 5000 CP and act as local extensions in the system. To support this feature, DB Programming uses “SIP Phone Groups.” A SIP Phone Group contains a common set of properties for registration that can be shared with either a “stand-alone” SIP Phone Group or multiple SIP Phone Group.

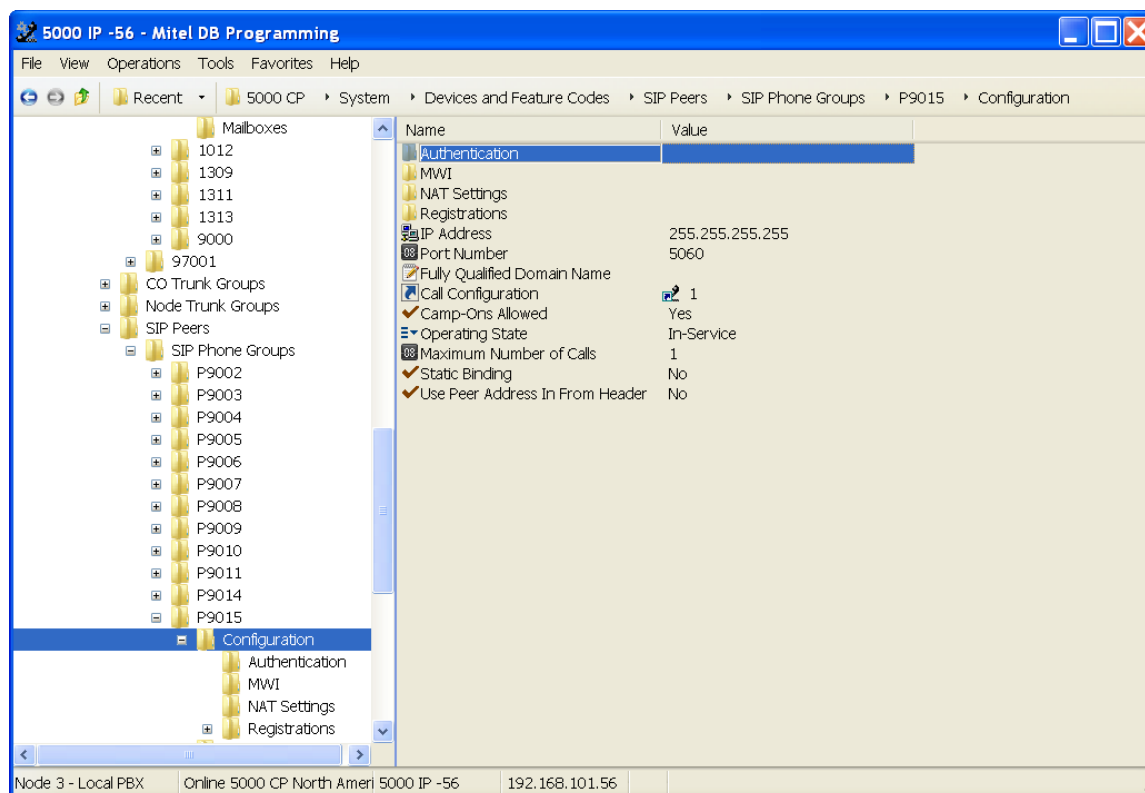


Figure 5 – SIP Phone Groups

### Authentication

The Algo 8028 SIP Doorphone group was configured to use In Bound Authentication:

- **Enable In-Bound Authentication:** If the Enable In-Bound Authentication flag is enabled

For a SIP peer, incoming calls and SIP requests from the SIP peer are authenticated by the

5000 CP.

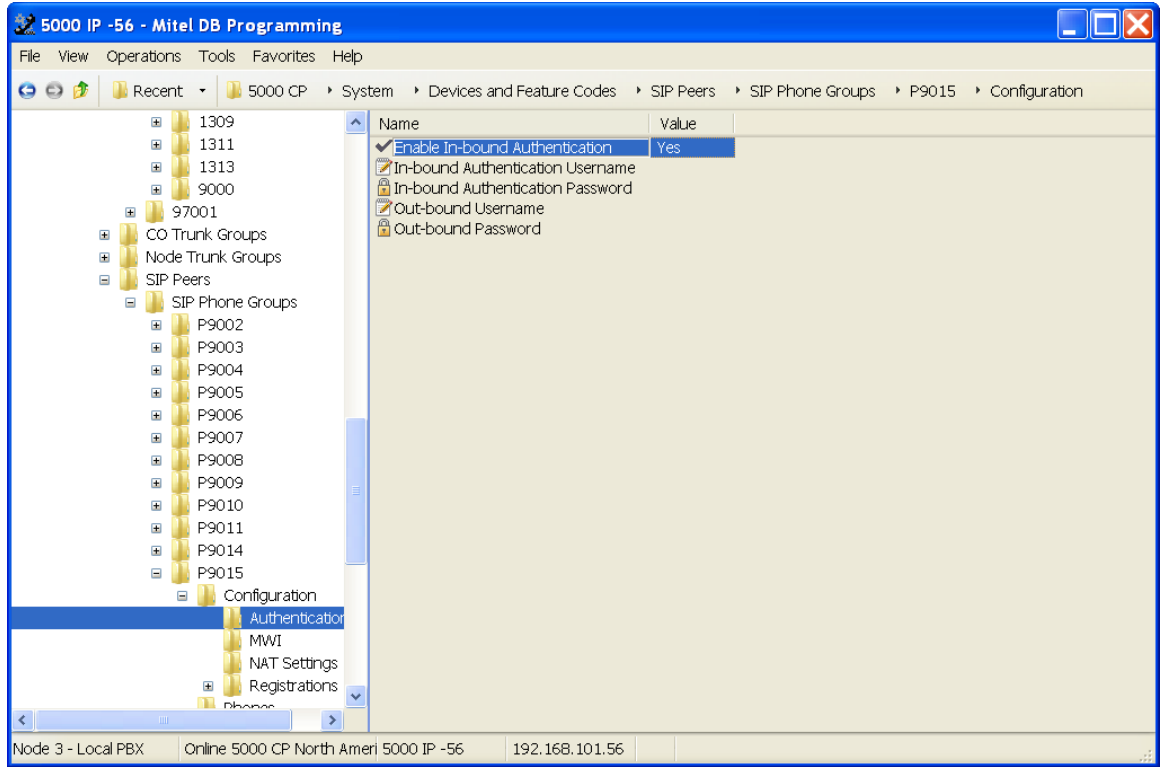


Figure 6 – SIP Phone Groups Authentication Parameters

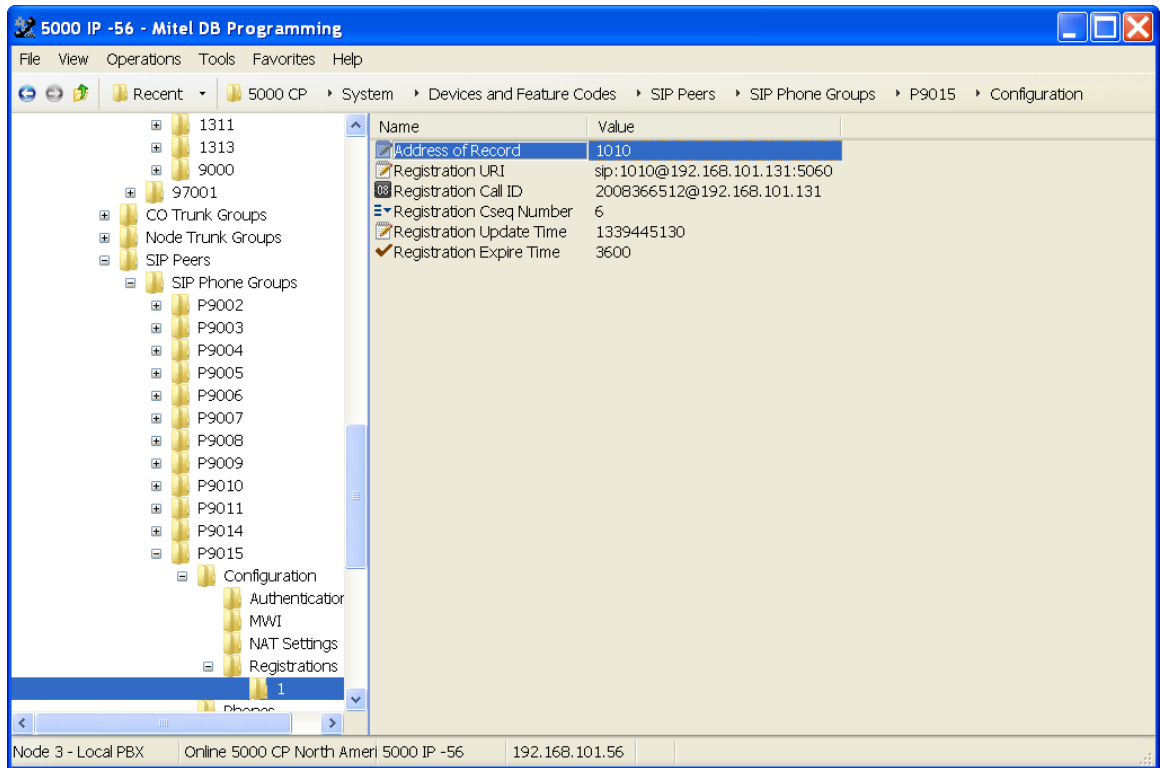
## Registrations

You can register ALGO 8028 SIP Doorphones with the 5000 CP dynamically

- For dynamic registration, the status of a ALGO 8028 SIP Doorphone is determined by the existence of an active registration in the system for that ALGO 8028 SIP Doorphone. When a ALGO 8028 SIP Doorphone registers with the system, its status becomes “Idle” (online) as long as there is a valid ALGO 8028 SIP Doorphone (Category F Phones) license available and becomes “Offline” when the registration expires or SIP phone un-registers.

ALGO 8028 SIP Doorphone Group Registrations shows the following information:

- **Address of Record:** Indicates the Address of Record that the SIP peer uses to register with the 5000 CP. This field is for read-only.
- **Registration URI:** Indicates the SIP URI representing the Contact address in the SIP REGISTER request from the SIP peer that created this dynamic binding. This field is for read-only.
- **Registration Call ID:** Indicates the SIP Call ID of the SIP REGISTER request received from the SIP peer that created this dynamic binding. This field is for read-only.
- **Registration Cseq Number:** Indicates the SIP Cseq number of the SIP REGISTER request received from the SIP peer that created this dynamic binding. This field is for readonly.
- **Registration Update Time:** Indicates the timestamp when the SIP REGISTER request was received from the SIP peer and updated the dynamic binding. This field is for readonly.
- **Registration Expire Time:** Indicates the time in seconds to expire this registration since it was last updated. This field is for read-only.

**Figure 9 – Registrations**

## Call Configuration

Clicking **Call Configuration** takes you to the Call Configuration folder (System\IP-Related

Information\Call Configurations\*<call configuration number>*). When you create a SIP peer

without using a template, by default the new SIP peer is added to Call Configuration 1 *<Local>*.

The following diagram shows call configuration was used with the ALGO 8028 SIP Doorphone.

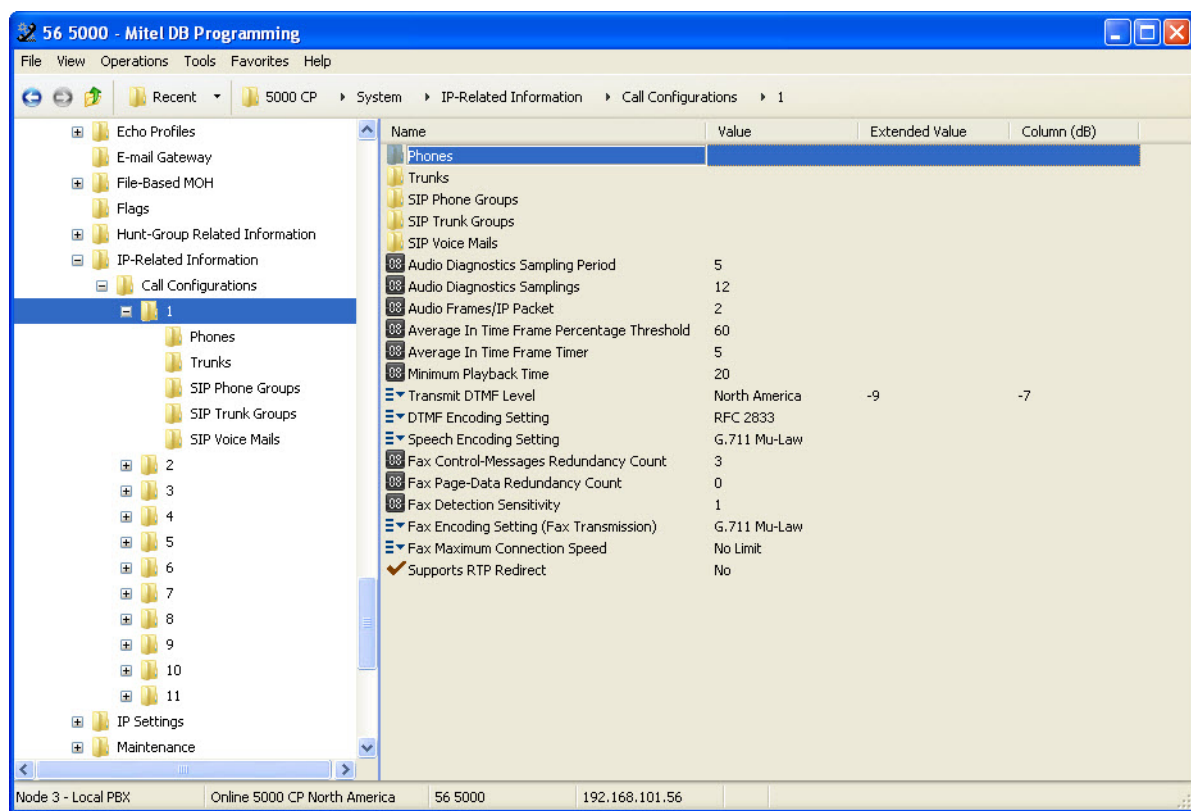


Figure 10 – Call Configuration

## Algo 8028 SIP Doorphone Configuration Notes

The following steps show the basic steps to program the Algo 8028 SIP Doorphone to work with the Mitel 5000 CP.

The configuration settings below are the main reference points and by any means could not be considered as the comprehensive configuration instructions.

We strongly recommend contacting the phones' manufacturer ALGO Communication Solutions website: [www.algosolutions.com/8028](http://www.algosolutions.com/8028) for more detailed instructions and manuals.

## Access Algo 8028 Doorphone

In our test environment, we configured Algo 8028 doorphone through the web interface.

To access the phone via web browser, you first need to know its IP address. By default, Algo 8028 doorphone has DHCP client enabled. You can check the IP address on the doorphone by pressing the call button on the door station; a recorded voice will speak the IP address of the device. Enter this IP address into your PC web browser in order to open the web interface.

- **Note:** The spoken IP address feature is automatically disabled after a SIP server is configured.
- Take a note of IP address assigned to the phone, e.g. 192.168.101.131.

Access the phone using this IP address. The default password is algo.

ALGO
8028 SIP Doorphone Control Panel
Firmware: 1.7  
Kernel: r3

Status

Welcome

### Welcome to the 8028 SIP Doorphone Control Panel

Please take a minute to set up your 8028 SIP Doorphone:

**Step 1: Configure your 8028 SIP Doorphone**

Log in with the default password **algo** and use the config page to set up the SIP connection information.

**Step 2: Check network settings (Optional)**

Use the Network section on Config page to change network settings. The default setting for the 8028 SIP Doorphone is to obtain its IP address from a DHCP server. Contact your Network System administrator if you plan to assign a static IP address, Mask, and Gateway to the 8028 SIP Doorphone device.

**Step 3: Secure your 8028 SIP Doorphone (Optional)**

Use the Admin section on Config page to change the administrator password.  
⚠ Changing the password is extremely important if the 8028 is directly connected to a public network.

**Step 4: Register your SIP Audio Alerter (Optional)**

Please register your product using the link below:

<http://www.algosolutions.com/8028reg>

Registration ensures your access to the latest upgrades to this product and important service notices.

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Login

Password: ⓘ

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Info

Device Name: doorphone	MAC: 00:22:EE:03:00:A9
Extension: 1010	IP: 192.168.101.131
SIP Registration: Successful	Netmask: 255.255.255.0
Call Status: Idle	Door Station: Model 3201 Firmware 2

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**Figure 15 – Algo 8028 SIP Doorphone**

**ALGO**
**8028 SIP Doorphone Control Panel**
Firmware: 1.7  
Kernel: r3

Status
Config
Services
About

Save Settings

**SIP**

SIP Domain/Proxy:

Extension:

Auth ID:

Password:

Dialing Extension:

**Features**

**Audio Settings**

Speaker Volume:  Apply

Microphone Volume:  Apply

DSP Noise Reduction:  On  Off

Ringback Tone:  Enabled  Disabled

**Inbound Call Settings**

Answer Inbound Call:  Enabled  Disabled

- Answer Tone:  Enabled  Disabled

**Door Relay Settings**

Momentary Open Code:

- Duration:  seconds

- Cancel if Door Opened:  Yes  No

Latch Open Code:

Latch Closed Code:

DTMF Detection Type:

Allow Network Control:  Yes  No

**Outbound Call Settings**

Outbound Ring Limit:  rings

- Cancel if Door Opened:  Yes  No

Allow Call Button to End Call:  Enabled  Disabled

**Auxiliary I/O Settings**

Controller Output:

Door Station Output:

Door Relay:

Controller Input:

Door Station Input:

**Security Settings**

Max Door Open:

Door Open Alarm:

Door Station Disconnected:

**Network**

DHCP:  On  Off

VLAN support:  Enabled  Disabled

Advanced Settings

**Admin**

Device Name:

Password:

Re-type Password:

Provisioning:  Enabled  Disabled

Prov. Server Method:  DHCP Option 66  Static

Prov. Static Server:

Prov. Download Method:  TFTP  FTP  HTTP

Prov. Download Path:

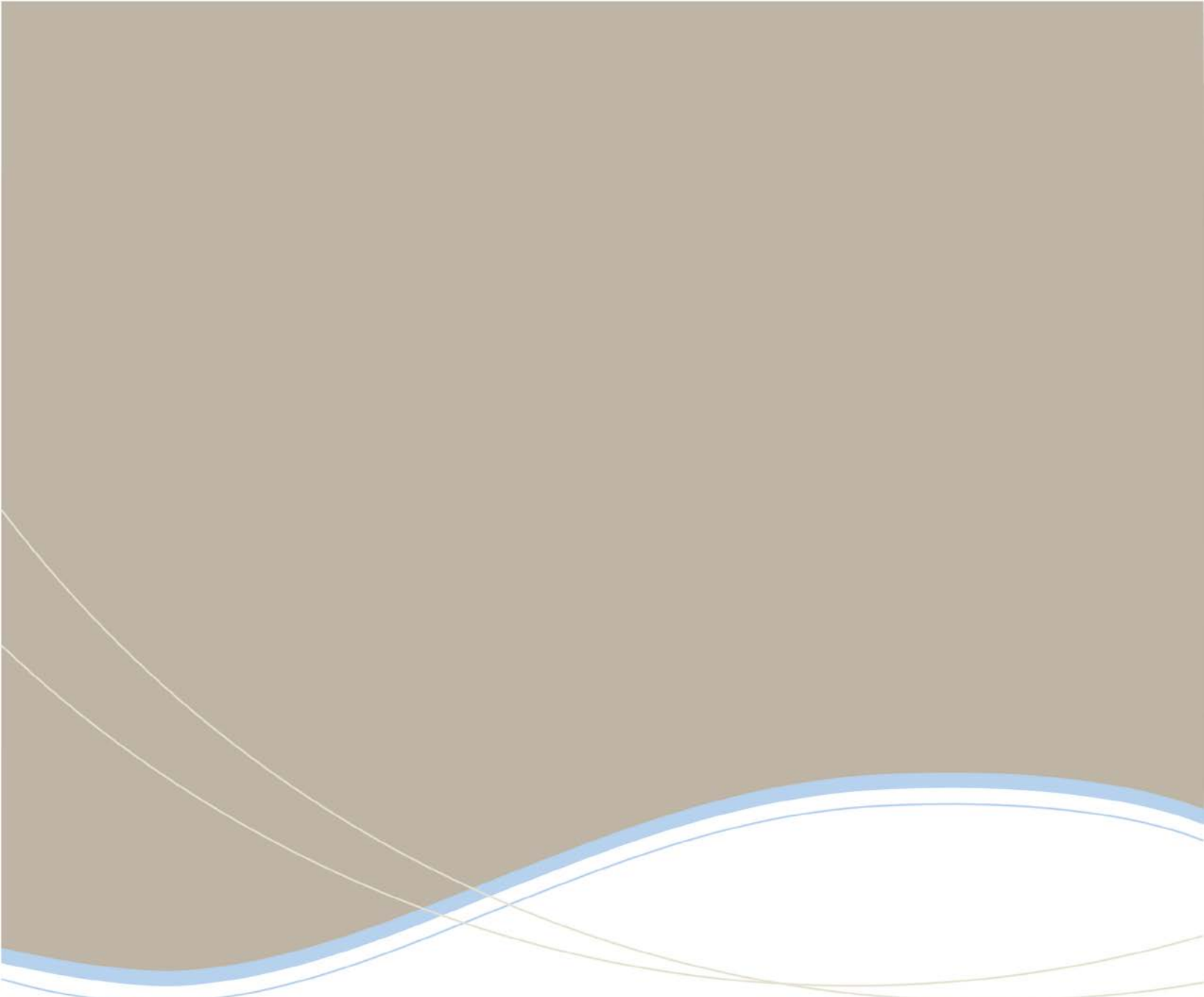
Advanced Settings

Save Settings

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Figure 16 – Configuration





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