

Configuring Viking VoIP Phones and SIP Servers

Allworx:

Make “user ID” and “Login ID” the same in the user account.

Callcentric as the SIP provider for Viking IP Products:

An account must be set up with Callcentric. Go to www.callcentric.com to set up an account and upon completion, a SIP username and password will be assigned. With Callcentric service, the SIP server will always be “callcentric.com”.

The “In-band audio call progress” feature under phone settings must be enabled (if not already).

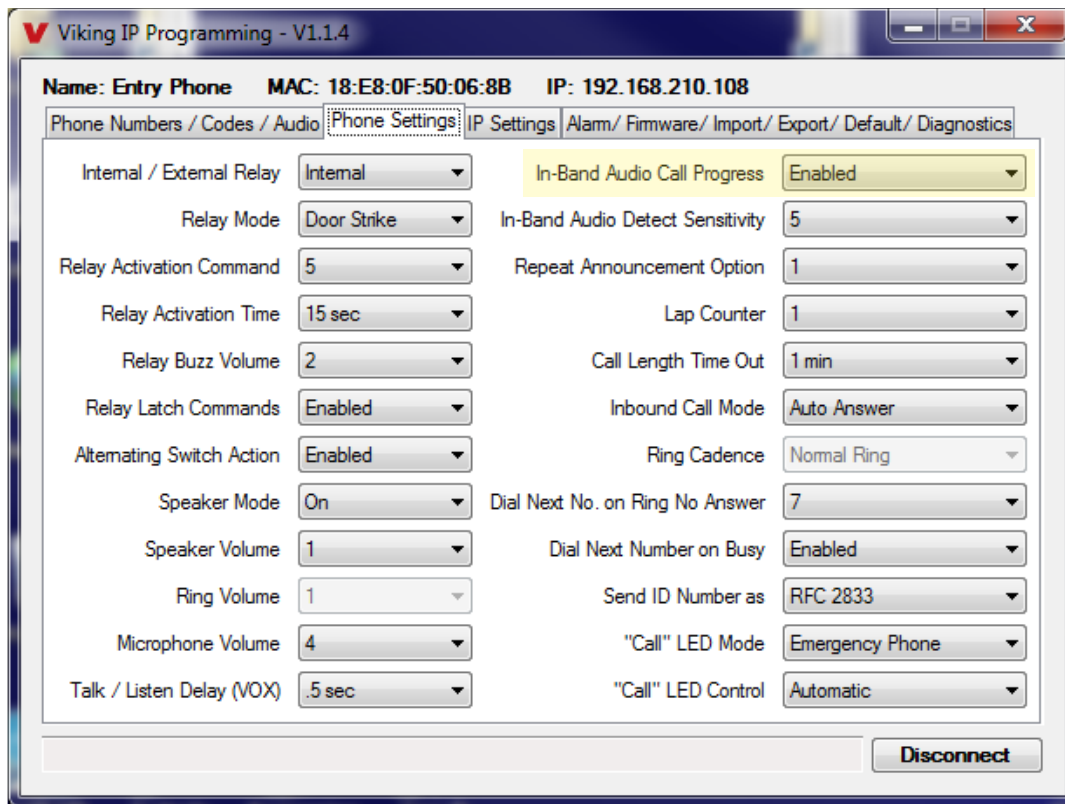
When the Viking IP has placed a call and the remote party hangs up, it takes approximately 22 seconds for the SIP server to pass the disconnect signal to the Viking IP phone.

The screenshot shows the 'Viking IP Programming - V1.1.4' window. At the top, it displays 'Name: Entry Phone', 'MAC: 18:E8:0F:50:06:8B', and 'IP: 192.168.210.108'. Below this is a navigation bar with tabs: 'Phone Numbers / Codes / Audio', 'Phone Settings', 'IP Settings', 'Alarm/ Firmware/ Import/ Export/ Default/ Diagnostics'. The main content area is divided into four sections:

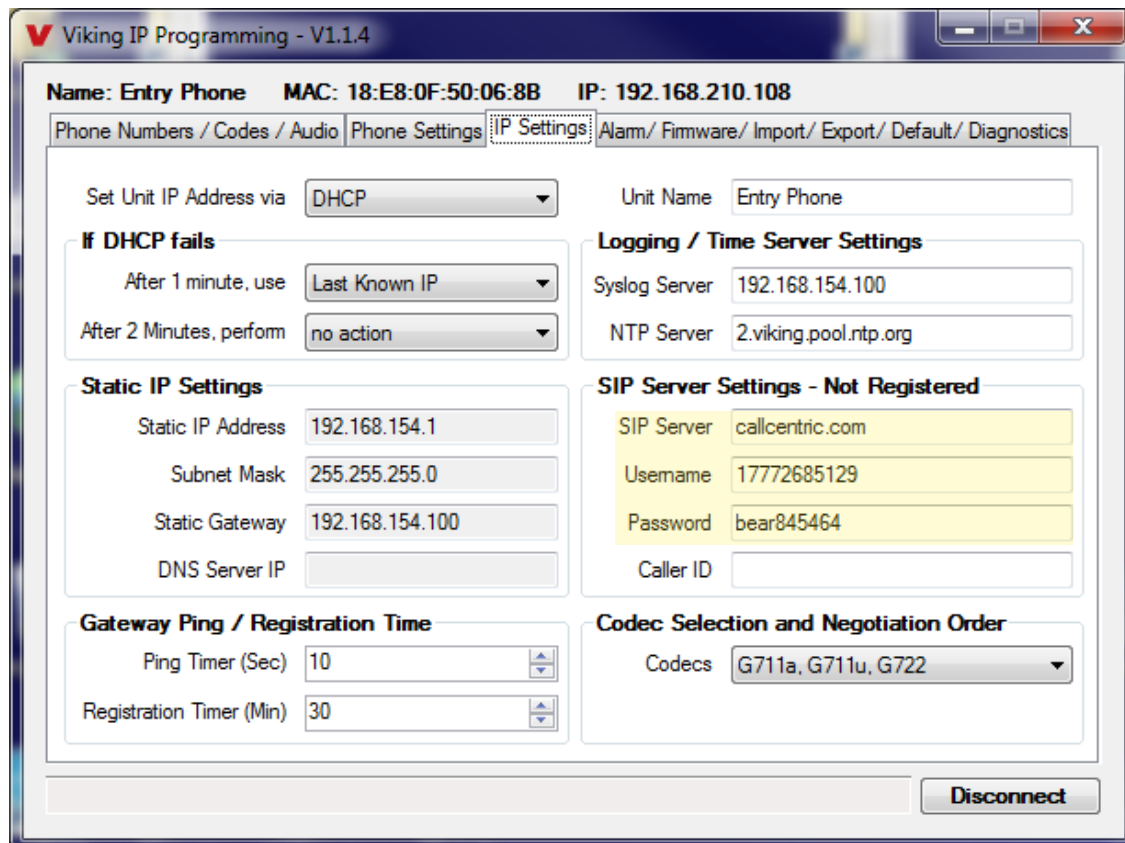
- Emergency Phone Numbers:** A text box explains that these numbers are dialed in sequence after pressing the "Call" button. The 'First' field contains '17153864355'. There are empty fields for 'Second', 'Third', 'Fourth', and 'Fifth'.
- Information Phone Numbers:** A text box explains that these numbers are dialed in sequence after pressing the "Info" button. There are empty fields for 'First', 'Second', 'Third', 'Fourth', and 'Fifth'.
- Phone Codes:** Fields for 'Security Code (6 digits)' (845464), 'ID Number (0-6 digits)' (0), and 'Access Code (0-6 digits)' (empty).
- Audio File:** A 'Loaded Audio File Name' field contains 'Manual Recording'. Below it are buttons for 'Upload Wav File (8KHz, Mono, 8 or 16-bit PCM)' and 'Erase Existing Audio File'.

At the bottom left, a status bar shows 'Checking Alarm Status - Completed'. At the bottom right, there is a 'Disconnect' button.

In our case, it was programmed to dial 715-386-4355, which is a test phone number here. Note that Callcentric requires a “1” before the telephone number.



Note that "In-Band Audio Call Progress" is enabled.



Note the SIP server settings. When we set up our account with Callcentric, our SIP username was "17772685129" and our SIP password was "bear845464".

Cisco Unified Communication Manager:

To connect a Viking VoIP Phone to Cisco's Unified Communication Manager, it is important to know that the phone is set up as a third party SIP device without Authentication ID. Cisco has created a write up for connecting most third party phones, which we have reformatted here specifically for Viking equipment.

Step 1.	Gather the following information about the phone: <ul style="list-style-type: none">• MAC address• Physical location of the phone• Cisco Unified Communications Manager user to associate with the phone• Partition, calling search space, and location information, if used• Line number (DN) to assign to the phone
Step 2.	Determine whether sufficient Device License Units are available. If not, purchase and install additional Device License Units. Third-Party SIP Devices (Basic) consume three Device License Units each.
Step 3.	Configure the end user. Viking VoIP Phones do not support an authorization ID (digest user), so create a user with a user ID that matches the DN of the phone. For example, create an end user named 1000 and create a DN of 1000 for the phone. Assign this user to the phone (see step 9).
Step 4.	Configure the SIP Profile or use the default profile. The SIP Profile gets added to the phone that is running SIP by using the Phone Configuration window.
Step 5.	Configure the Phone Security Profile. To use digest authentication, you must configure a new phone security profile. If you use one of the standard (non-secure) SIP profiles that are provided for auto-registration, you cannot enable digest authentication.
Step 6.	Add and configure the Viking VoIP Phone by choosing Third-party SIP Device (Basic) from the Add a New Phone Configuration window.
Step 7.	Add and configure lines (DNs) on the phone.
Step 8.	In the End User Configuration window, associate the Viking VoIP Phone with the user by using Device Association and choosing the Viking VoIP Phone.
Step 9.	In the Digest User field of the Phone Configuration window, choose the end user that you created in step 3.
Step 10.	Provide power, install, verify network connectivity, and configure network settings for the Viking VoIP Phone. Username should match the user that was created in step 3. Password should match the password created for the digest user.
Step 11.	Make calls with the Viking VoIP Phone.

epygi:

The Viking VoIP Phone can be configured easily with Epygi QX IP PBXs (herein QX) like other IP phones, to make and receive calls and to support different application scenarios. This guide provides instructions how to configure Viking as an IP extension on QX. Based on this configuration simple emergency call scenario and interconnection with the door strikes are described. Features, settings, applications and connections specific to the operation of Viking are beyond the scope of this document.

The configuration described below is generic for all QX IP PBX models, such as the QX20, QX50, QX200, QX500, QX2000 and QXISDN4+.

Requirements:

- QX connected to the network with all network settings properly configured.
- QX is running firmware version 6.1.2 or higher. Always use the latest available firmware to achieve maximum compatibility with the QX's features and settings.
- At least five IP extensions (phones) connected to QX as destinations for emergency call.
- Viking running VoIP FW version: IP R3.45.1541, Phone V3.3, connected to the LAN interface of QX.
- PC with MS Window and Viking IP programming V.1.1.2 SW installed for Viking configuration, connected to the QX LAN interface.

Note: If Viking VoIP Phone is going to be connected to QX via WAN interface, ensure a filtering rule is enabled on the QX firewall for it (the unit's IP is added into Allowed IP List). Creating a rule is not required if the firewall on the QX is disabled or set to Low.

A. Configuring an IP Extension on QX for Viking VoIP Phone

The following main settings will be used in the example below for configuring Viking VoIP Phone as an IP extension on QX.

Username / User ID	Password	SIP Server, SIP Port	Attached IP Line, Extension	SIP Username
locext115	*****	172.30.0.1:5060	IP Line 15, Ext.115	20230@sip.epygi.com

To configure the QX, login into QX WEB GUI, select and configure an IP Line with extension attached, that will be used for Viking VoIP Phone:

Step 1.	Go to the Interfaces - IP Lines page.
Step 2.	Select a free (inactive) IP line (line # 13 in this example)and configure it as follows: <ul style="list-style-type: none">• Enable the IP Phone option.• Select Other from the Phone Model drop down list.• Specify the Username and Password fields (Figure 1). Note: Make a note of the specified Username and Password as they will be needed when configuring the Viking. It is suggested to use a good strong password, or use the system generated one.
Step 3.	Go to the Extensions-Extensions page.
Step 4.	Click the Admin Settings icon for the Extension 115.
Step 5.	Go to the SIP Settings section (Figure 2) and register the extension on a SIP Server (sip.epygi.com in this example) to be able to make remote SIP calls to the unit (if needed).

OX200 Overview **IP Lines** FXS FXO E1/T1 Trunk SDN Trunk PSTN Gateways

Dashboard **IP Lines** IP Line Settings IP Phone Templates IP Phones Logs FXS Gateways

IP Line Settings - IP Line 13

[Go Back](#)

IP Line 13

Inactive

IP Phone Phone Model:

MAC Address:

Line Appearance:

Username:

Password: [Generate Password](#)

Transport:

Use Template:

Use Session Timer

Synthetic RTP

[Save](#)

Figure 1: IP Line Settings page

OX200 Overview **Extensions** Dialing Directories Conference Recordings Receptionist ACD Authorized Phones

Extensions Add Extension Add Multiple Extension Bulk Import

Extensions Management - Edit Entry

[Go Back](#)

General Settings

SIP Settings

SIP Advanced Settings

Remote Settings

Call Queue Settings

Voice Mailbox Settings

Class of Service Settings

[Go To User Settings](#)

[Go To Line Settings](#)

[Go To Codec Settings](#)

SIP Registration Settings 115

Username / DID Number:

Password:

Confirm Password:

SIP Server:

SIP Port:

SIP Registration Transport:

Registration on SIP Server

[Save](#)

Figure 2: SIP Settings section

B. Configuring the Viking VoIP Phone

Power on the unit and connect it to the LAN interface for QX. The settings of the unit will be configured through Viking IP programming SW application installed on PC with MS windows. The following configuration steps for Viking should be done:

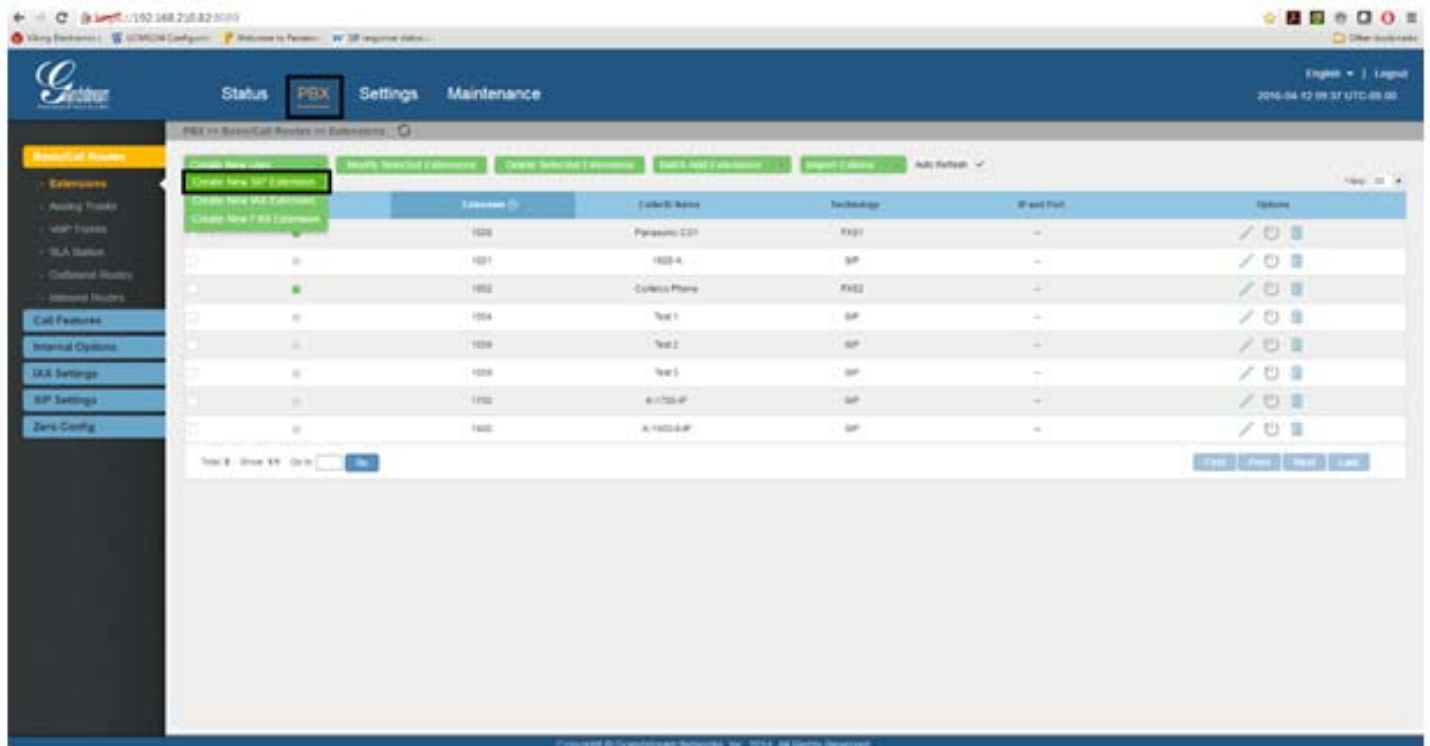
Step 1.	Open the Viking VoIP Phone Programming software on the MS Windows PC that is connected to the same LAN as the Viking phone to be programmed.
Step 2.	The window in the upper left corner of the menu will show you the Viking phone(s) that is connected to that LAN. Select the unit with the same MAC address, shown on the label located on the top of the Ethernet connector on the Viking phone.
Step 3.	Click the Connect button. If a pop up window appears, enter the unit's security code (845464 by default) then click OK.).
Step 4.	The program will then read and display the settings for Viking phone(s).
Step 5.	After adjusting the IP and other phone's settings, click the "Write" button under each column of settings to send the programming commands to the connected unit.
Step 6.	Press IP Settings menu bar item and set the following parameters: <ul style="list-style-type: none">•SIP Server: 172.30.0.1 (the default LAN IP address of QX)•Username: locext115 (the same as configured on QX IP line settings)•Password: ***** (the same as configured on QX IP line settings)
Step 7.	Press Phone Number / Phone Codes menu bar item and define the QX extensions that should be called.
Step 8.	Press Phone Settings menu bar item and set the relay related parameters (Relay mode, Relay activation command, Relay Activation time, etc.).

Configuring Viking IP phones with Grandstream PBX devices:

1. Log into the Grandstream configuration tool in your browser:



2. Click on “PBX” at the top, and then “Create New User” and “New SIP Extension”



3. Put in your preference for “Extension” (which will be your username), “SIP/IAX Password” and “Voicemail Password”, along with “First Name” and “Last Name”. Click on “Save”.

Create New SIP Extension

General

Extension	1500	CallerID Number	
Permission	Internal	SIP/IAX Password	1500
Enable Voicemail	<input checked="" type="checkbox"/>	Voicemail Password	1500
Call Forward Unconditional		CFU Time Condition	All Time
Call Forward No Answer		CFN Time Condition	All Time
Call Forward Busy		CFB Time Condition	All Time
Ring Timeout		Auto Record	<input type="checkbox"/>
Skip Voicemail Password Verification	<input type="checkbox"/>	Support Hot-Desking Mode	<input type="checkbox"/>
Disable This Extension	<input type="checkbox"/>	Music On Hold	default

User Settings

First Name	John	Last Name	Smith
Email Address		Language	Default

SIP Settings

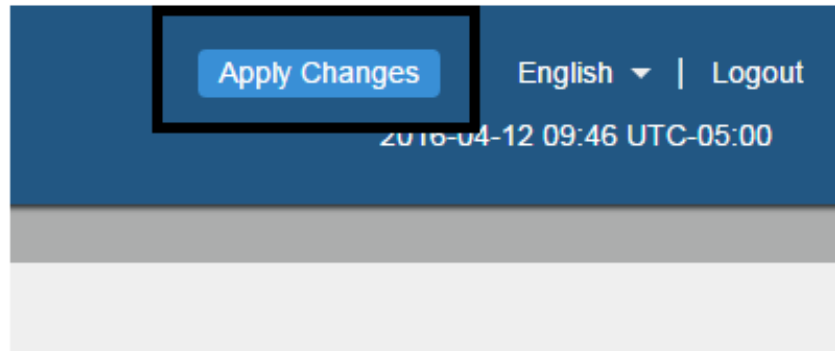
NAT	<input checked="" type="checkbox"/>	Can Reinvite	No
DTMF Mode	RFC2833	Insecure	Port
Enable Keep-alive	<input type="checkbox"/>	Keep-alive Frequency	60
AuthID		TEL URI	Disabled

Other Settings

SRTP	<input type="checkbox"/>	Fax Detection	<input type="checkbox"/>
Skip Trunk Auth	No	Dial Trunk Password	
Strategy	Allow All		

Cancel Save

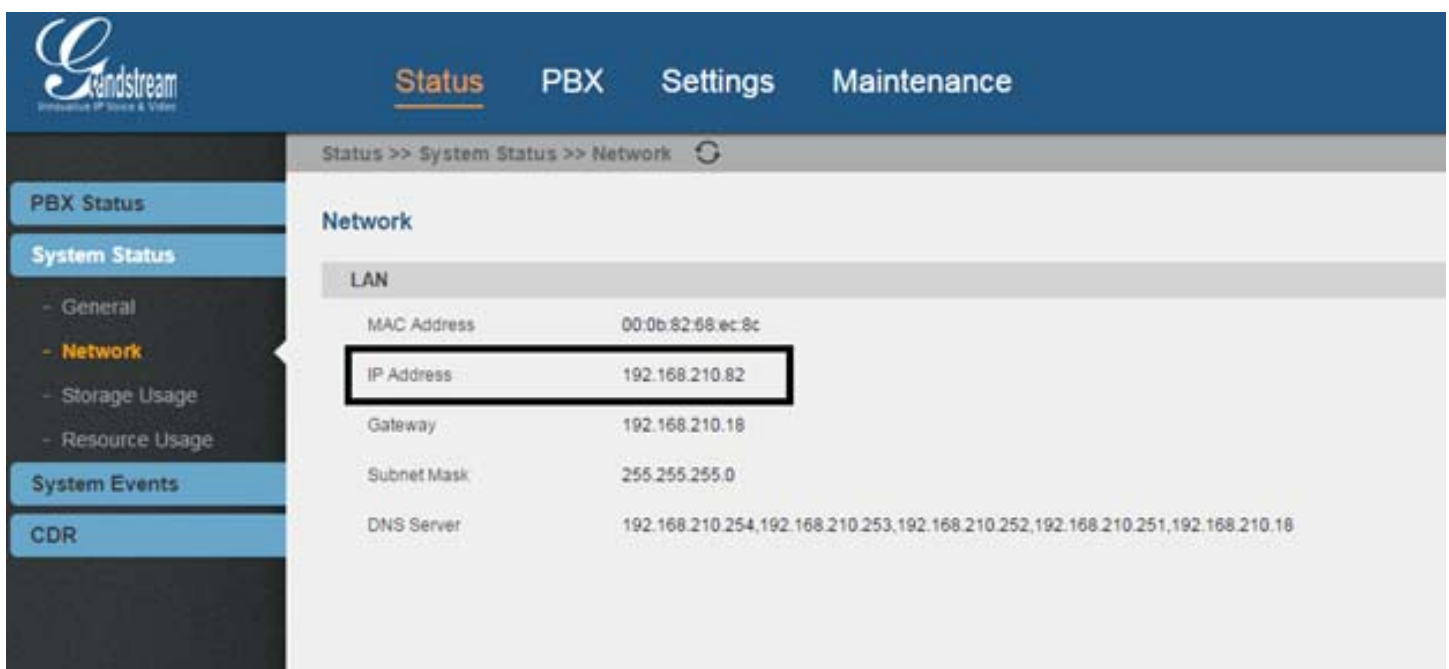
4. After saving, click on the “Apply Changes” button in the top right corner.



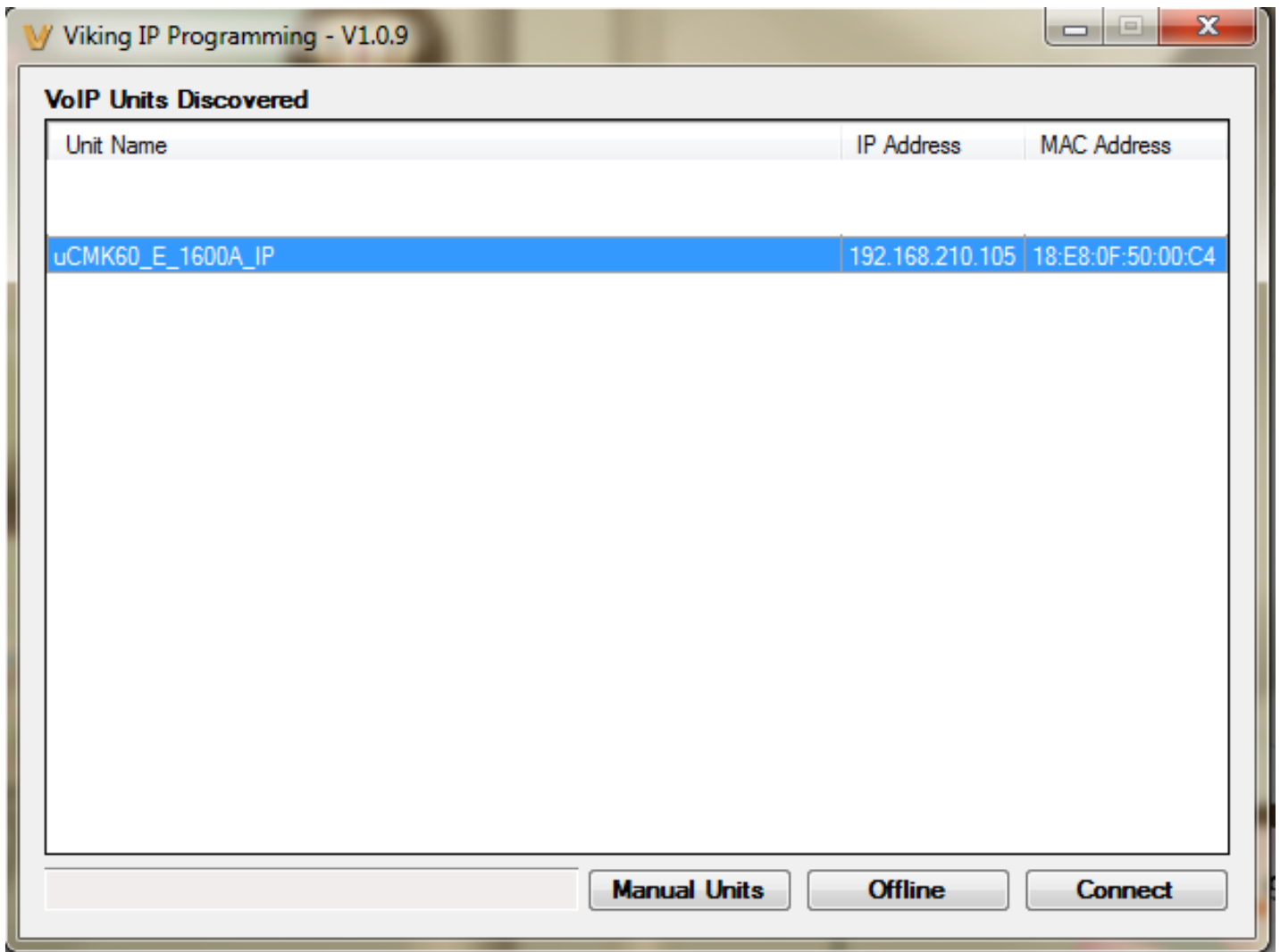
5. You will then see the extension you set up under the list of extensions.



6. Next, click on “Status” on the top, and on the left side, click on “System Status” and “Network”. Look for where it says “IP Address”. This is your SIP Server IP address that you will put in the Viking VoIP programming app.



7. Open the Viking programming app, and find the unit you want to work with, then click “Connect”.



iPECS (Ericsson-LG):

Make sure 407 Register is “OFF” otherwise it wants a proxy.

Iwatsu ECS:

To connect a Viking VoIP Phone to the Iwatsu ECS you can register the phone as a SIP extension. As of version 2.6 of the Viking VoIP Phone Firmware inbound calls to the door box are not supported. To connect the phone, please follow the following steps:

Step 1.	Gather the following information about the phone: <ul style="list-style-type: none">• MAC address• Physical location of the Viking Voip Phone• CCSU or LAN2 IP Address of the Iwatsu ECS System• Extension Number for the phone or hunt group that will be called when the button is pressed• Extension Number to assign to the Viking VoIP Phone
Step 2.	Determine if the system is provisioned for SIP extensions; licenses are required to support SIP Phones on the Iwatsu ECS and they must be installed prior to deployment.
Step 3.	Configure the SIP Extension in the Iwatsu ECS. The username will be the extension number and the password default is 1234.
Step 4.	Provide power, install, verify network connectivity, and configure network settings for the Viking VoIP Phone. Username should match the user that was created in step 3. Password should match the password created for the extension.
Step 5.	Audio Call Progress must be set to 'Enabled.'
Step 6.	Make calls with the Viking VoIP Phone.

ShoreTel Ring Group Limitation:

Viking IP products are not capable of dialing the access code for a ShoreTel ring group but the ShoreTel system can be programmed so that multiple phones ring at the same time when the IP product calls. This is how it is accomplished:

Step 1.	Create a "virtual" extension in the Shoretel system for our IP phone to call. The Viking IP product should be programmed to call the virtual extension.
Step 2.	Program all phones that need to ring when the IP product calls to "monitor" the virtual extension, so their phone rings any time the virtual extension rings.

Viking IP products can then ring a number of phones at the same time. The call can be answered by any phone and the relay command can be dialed to release a door/gate. The extension of the Viking IP product can be called if a user wants to control the door/gate without receiving a call from the Viking IP product.

Vertical Wave:

Go to "IP Telephony" and under "SIP", "Advanced Authorization" and then "Global Adv. Parameters" uncheck "Authenticate Register".

Our username = extension number of the wave phone.

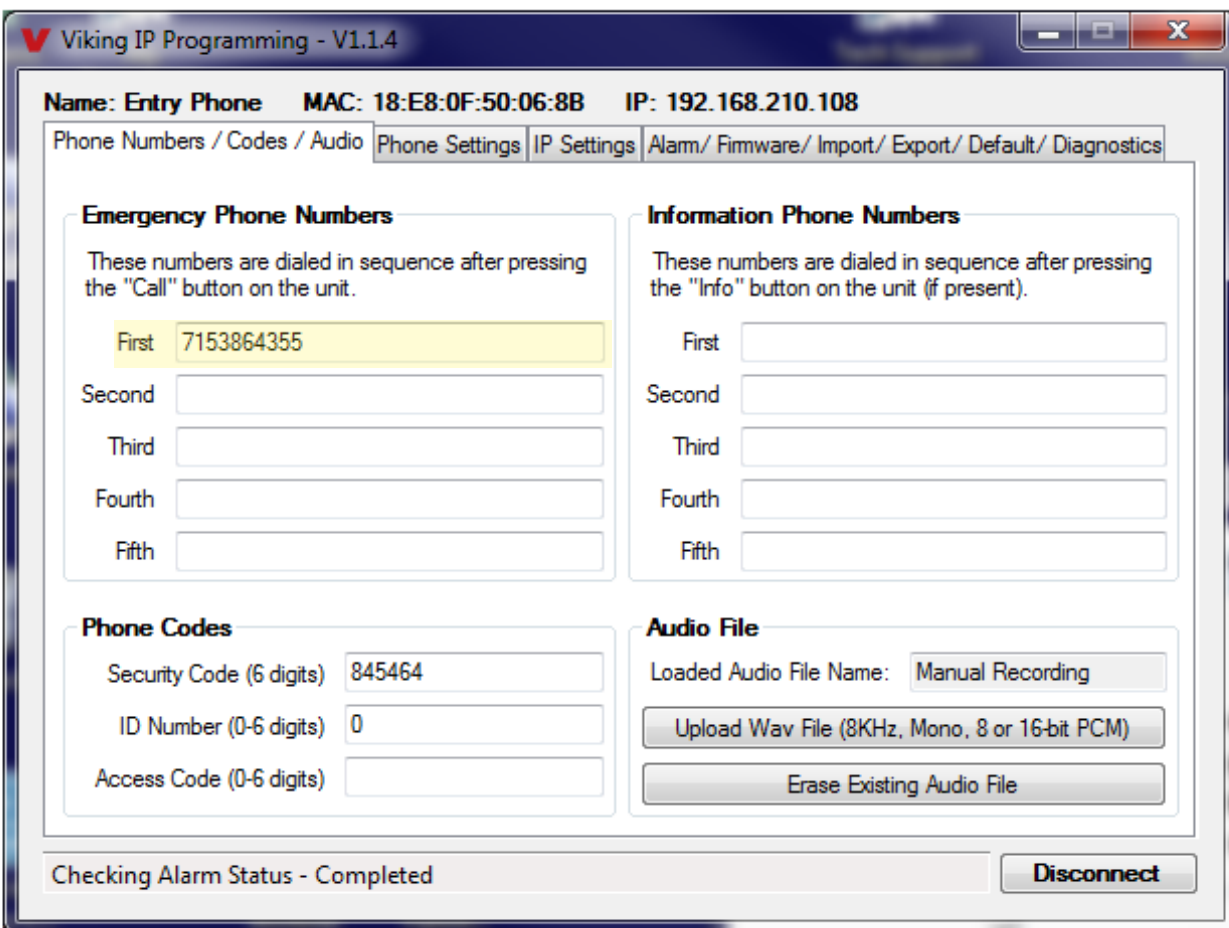
Our password = SIP authentication password.

VOIP.MS as the SIP provider for Viking IP Products

An account must be set up with VOIP.MS. Go to www.voip.ms to set up an account and upon completion, a SIP username and password will be assigned. Their account information page shows a long list of available VOIP servers. You can pick any of these servers to be used as the SIP server for the Viking IP phone. We chose to use the "chicago4.voip.ms" server from that list, so our screenshot shows that particular server as the SIP server.

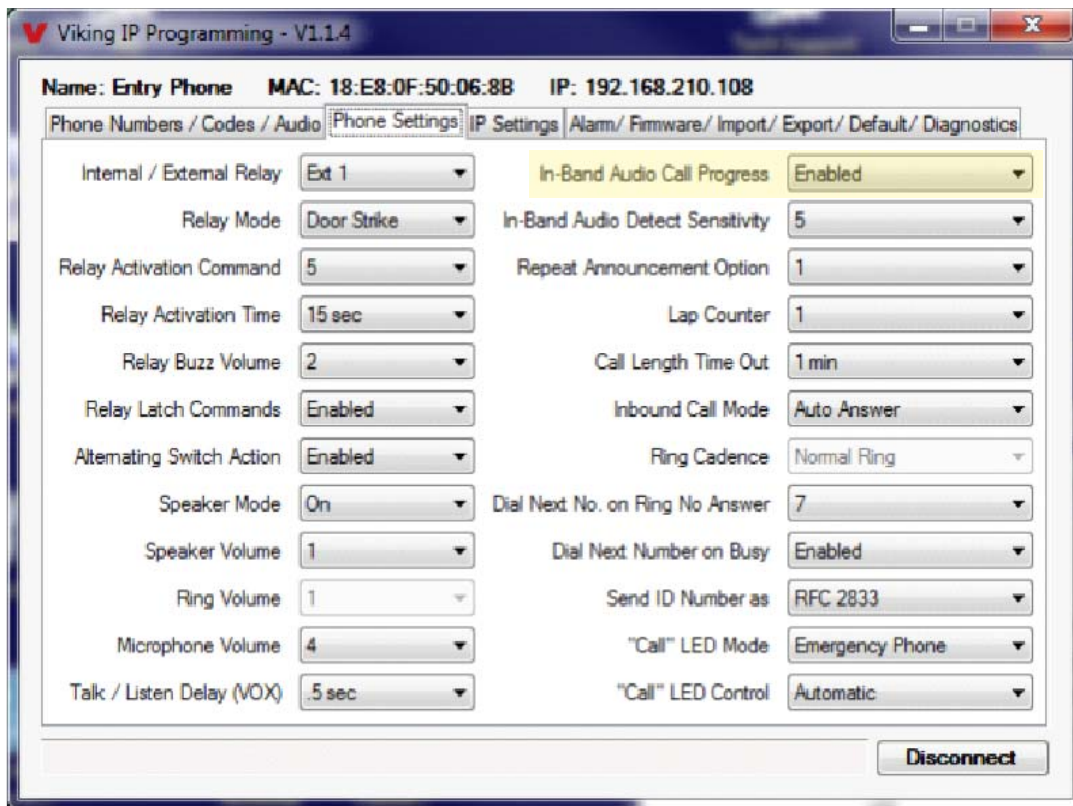
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When the Viking IP has placed a call and the remote party hangs up, it takes approximately 22 seconds for the SIP server to pass the disconnect signal to the Viking IP phone.

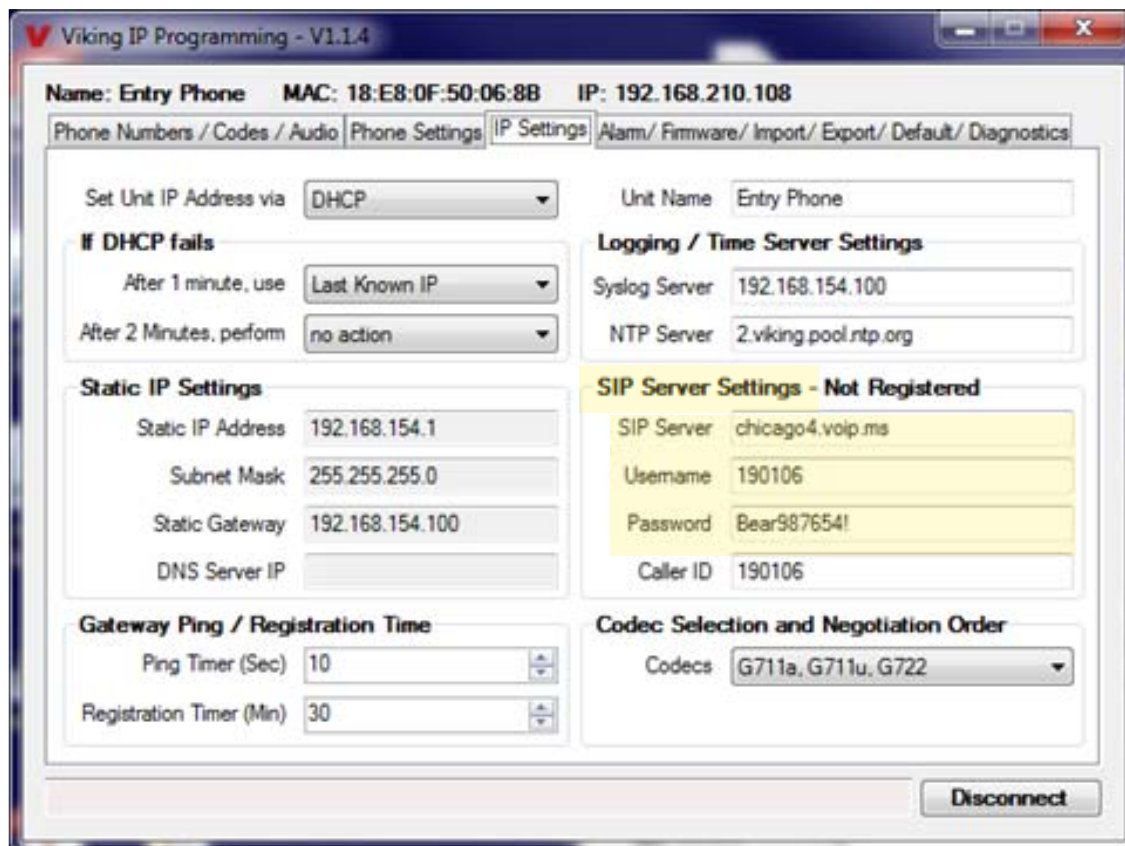


The screenshot shows the "Viking IP Programming - V1.1.4" window. At the top, it displays the device's Name: Entry Phone, MAC: 18:E8:0F:50:06:8B, and IP: 192.168.210.108. Below this is a navigation bar with tabs for Phone Numbers / Codes / Audio, Phone Settings, IP Settings, Alarm/ Firmware/ Import/ Export/ Default/ Diagnostics. The main content area is divided into four sections: Emergency Phone Numbers, Information Phone Numbers, Phone Codes, and Audio File. The Emergency Phone Numbers section has five input fields, with the first field containing "7153864355". The Information Phone Numbers section has five empty input fields. The Phone Codes section has three input fields: Security Code (6 digits) with "845464", ID Number (0-6 digits) with "0", and Access Code (0-6 digits) which is empty. The Audio File section has a Loaded Audio File Name field with "Manual Recording", an Upload Wav File (8KHz, Mono, 8 or 16-bit PCM) button, and an Erase Existing Audio File button. At the bottom, there is a status bar showing "Checking Alarm Status - Completed" and a Disconnect button.

In our case, it was programmed to dial 715-386-4355, which is a test phone number here.



Note that "In-Band Audio Call Progress" is enabled.



Note the SIP server settings. When we set up our account with VOIP.MS, our SIP username was "190106" and our SIP password was "Bear987654!".