

Sentinel Series V2 AOR System



Site Programming Guide



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Sentinel V2 AOR System Programming Overview

The Sentinel V2 AOR System can be factory programmed using the site information provided by the customer on their Site Programming Guide. Programming can also be done by the installer or end-user following installation. This manual shall serve as a guide to allow an onsite technician / end-user to make changes to their Sentinel V2 AOR System settings.

General Information

Mac Addresses

Most of the devices in the Sentinel V2 AOR System are pre-programmed and labeled with a unique MAC Address (Media Access Control), for network system identification. MAC addresses are needed to add/remove Call Stations (4800VS), Base Phones (A-4800BS), and other devices from the Sentinel V2 AOR System programming. Essentially you will be assigning a MAC Address (device) to a specific location (extension name) that you create. The device must then be installed in its programmed location.

IP Addresses

The Sentinel V2 AOR System is network-based and uses a router to create a network for all devices to utilize to function together. The default network for the system is 10.0.6.1 thru 10.0.6.254. Each device on the system network will therefore be issued an IP Address in the range of 10.0.6.2 thru 10.0.6.254. Many devices require their IP Address to be set as static, so the device will always be issued the same IP Address on the network. No device on the Sentinel V2 AOR System requires a specific IP Address to be set, only that the issued IP Address the device be made static / permanent. Never duplicate the same IP Address for different devices.

1.0 - What you will need:

1.1 - Laptop Computer

1.2 - Ethernet patch cable (long enough to connect the laptop to the PC port on the Sentinel V2 unit)

1.3 - Make sure all network, device and other connections are completed and correct.***

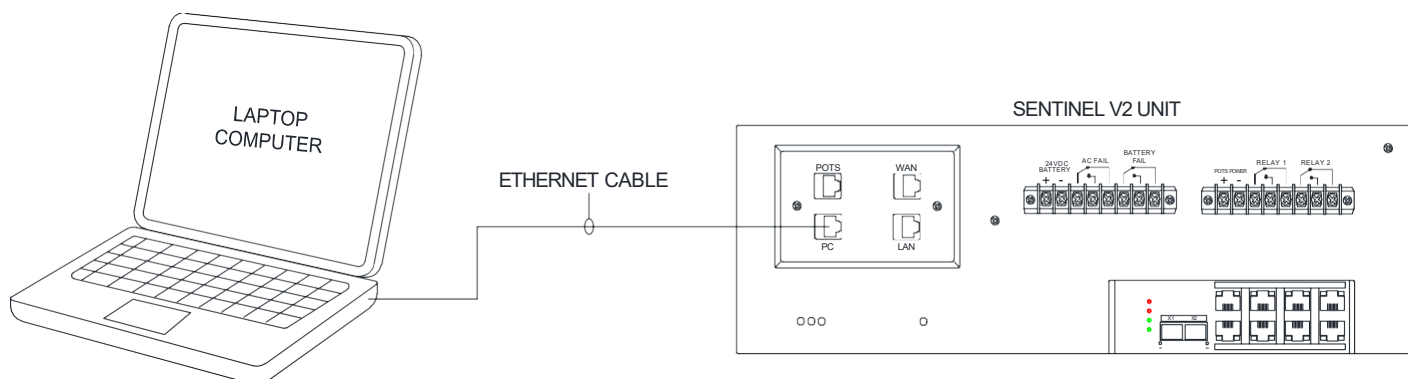
1.4 - Have all programming information readily available such as location names, device MAC Addresses, dial-out phone number and wait time, etc. to make all setting changes.***

1.5 - Provide power to / energize entire system and wait 5-10 minutes for it to finish booting / loading.

***Note:** Cornell recommends providing an internet connection to the “WAN” port on the Sentinel V2 unit prior to making programming changes. It is required to update the audio messages if the location names change.

2.0 - Get Connected to the Sentinel V2:

- Connect the laptop to the Sentinel V2 Unit (P/N# SCM-4825) via the **PC** port using a patch cable.

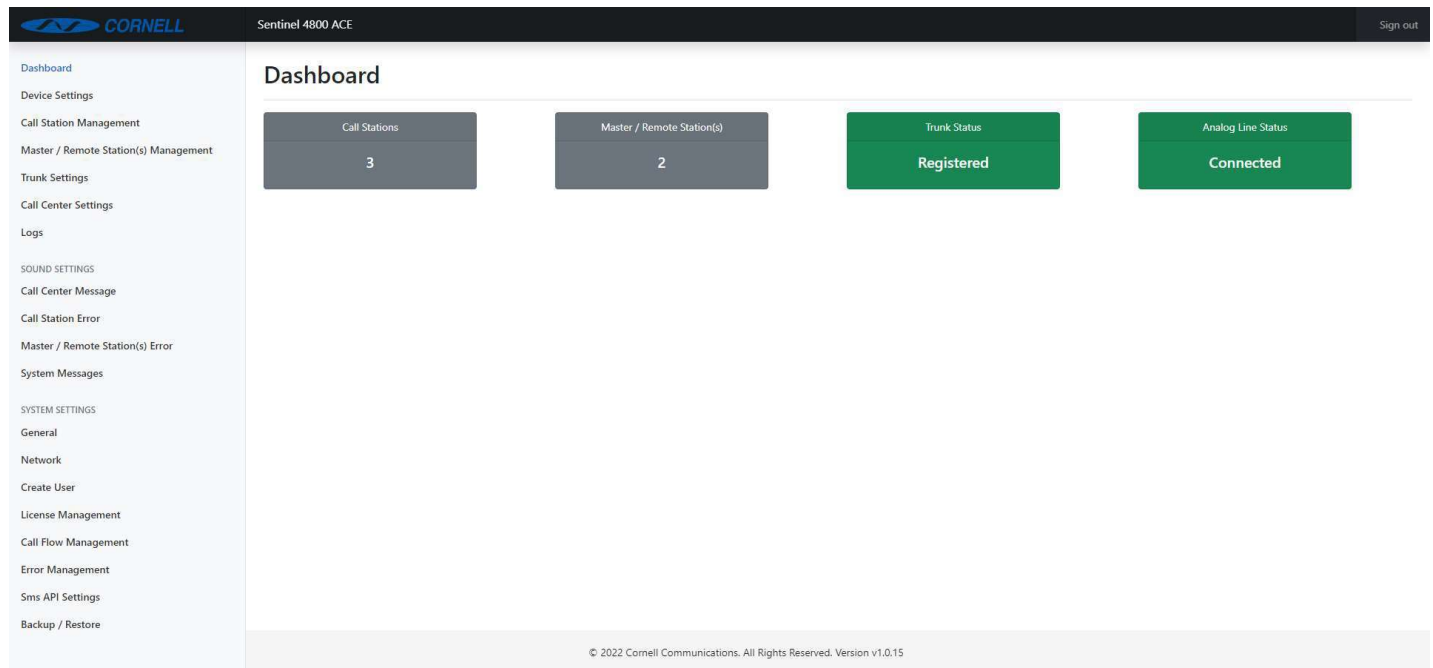


- Make sure the laptop is set to **DHCP** (to automatically connect to our system network).
- Open a web browser on the laptop and type **10.0.6.1:8000** in the address bar then hit **Enter**.
- A login page should appear:

Username: **cornell**
Password: **4800pwd**

- Once logged into the Sentinel Dashboard you must first disable DHCP in the **Network** tab to use the Sentinel system.

Sentinel V2 Dashboard:



The **Dashboard** provides a snapshot of some general system information.

Dashboard Status Descriptions:

Call Stations = the # of connected Call Station devices and their connection status.

Master / Remote Station(s) = the # of connected base phone devices and their connection status.

Trunk Status = SIP trunk phone line connection (may appear **RED** if SIP is not being used).

Analog Line Status = the status of the Analog/POTS phone line connection (only if using POTS).

4.0 – Programming Options and Descriptions:

Below is a brief description of each of the option tabs you can choose from on the tabs on the left side of the Dashboard screen.

4.1 – GENERAL SETTINGS:

- **Dashboard** = shows general device / phone line status
- **Device Settings** = add/remove devices, assign IP Addresses, rename and choose type of device
- **Call Station Management** = assign Call Station devices to extensions
- **Master / Remote Stations Management** = assigns Base Phone devices to extensions
- **Trunk Settings** = choose / setup trunk phone line used to dial out (SIP or POTS/analog line)
- **Call Center Settings** = dial-out phone number to call for the emergency monitoring location
- **Logs** = view system status logs which track changes, phone calls, errors, etc.

4.2 – SOUND SETTINGS:

- **Call Center Messages** = create message delivered to offsite monitoring location (only if dialing out)
- **Call Station Error** = create message delivered when a Call Station error occurs
- **Master / Remote Station(s) Error** = create messages delivered when any Base Phone error occurs
- **System Messages** = create general default messages delivered during different system statuses

4.3 – SYSTEM SETTINGS:

- **General** = set system name and Call Station / Base Phone registration passwords
- **Network** = disable DHCP, configure network, and set IP range
- **Create User** = creates a sub-user account with limited system access (no system settings)
- **License Management** = set the maximum # of Call Stations and Base Phones on the system
- **Call Flow Management** = set wait time in seconds before a call retries / is forwarded offsite
- **Error Management** = set how each monitored device fault condition will notify on the system
- **SMS/API Settings** = setup text messaging options (available only if texting is activated on the provided phone line used to dial out – test messaging fees may apply depending on your provider / contract)
- **Backup/Restore** = backup and save copy of current settings / restore saved copy of previous settings

*****IMPORTANT*****

All “SOUND SETTINGS” above **REQUIRE** an internet connection to change, modify or update. All of the messages created here use a website to generate which (which requires the internet connection). If any of the messages are updated without the internet connection provided, it will most likely result in the loss of the existing messages.

5.0 – Getting Started:

5.1 - To start using **Sentinel**, you need to go to the **Network** page after logging in and **disable** the **DHCP** option under **Main Network IP Address**. Then click the **Update** button. This will cause the router device to reboot which may take several minutes. When it finishes, it should reload the webpage again with the updated network settings. **This step must be done for every system to enable / use the Sentinel V2 AOR System.**

Sentinel 4800 ACE

To use Sentinel, you need to **turn off** the **Main Network DHCP mode** on the Network page.

Network

Router Network Settings

Main Network IP Address*

* If you have made all the settings and the device is ready to be sent, activate DHCP before going to the building where the installation is made, deactivate it again when you go.

☒ DHCP

Router Subnet*

Router IP 10.0.12.1

Call Station IP Range (Current: 10.0.12.1 - 10.0.12.150)*

Ip Range Start 10.0.12.1 - 10.0.12.150

Update

Main Network Information	Router Network Information	Cornell Network Information
IP Address: 192.168.1.54	IP Address: 10.0.12.1	IP Address:
Subnet Mask: 255.255.255.0	Subnet Mask: 255.255.255.0	Subnet Mask:

You are now ready to change the programming of your Sentinel V2 AOR System!

If you are modifying an existing system settings, you can skip to that specific section. If you are programming a new system without any prior settings made, follow the step-by-step instructions below for best results.

5.2 – Next, go to the **License Management** tab to set the total # of devices. Only set the amount of **active** Call Station and Base Station Phone devices on your system and then click **Update**. You will not be able to add more devices than the number of licenses for each.

Sentinel 4800 ACE

Licence Management

Active Call Station(s)*

18

Active Remote Station(s) *

1

Update

6.0 – Device Settings:

6.1 – Go to the **Device Settings** tab to add/remove devices. Use the **Define Static IP** action to setup each device in the **Unknown Devices** column, which will then transfer it to the **Known Devices** column.

Device Settings

Unknown Devices					Known Devices						
IP Addr.	MAC Addr.	Hostname	DHCP Start	Action	Device Identifier	Added Date	IP Addr.	MAC Addr.	Hostname	Status	Action
10.0.6.12	6c4b9023ca66	DESKTOP-8SOIGNK	2022-04-27 17:42:47	Define Static IP	Digital-Acoustics-Test-Station	April 27, 2022, 10:03 a.m.	10.0.6.13	00:1b:61:05:1e:8a	DIGAC051E8A	Unknown	Update Delete
					Fanvil-Base-IP-Phone	April 27, 2022, 10:48 a.m.	10.0.6.14	00:d8:4a:04:c3:5a	Master_Phone	Unknown	Update Delete

2. Define Static IP for ALL Call Stations and Base Phones. Then appears under Known Devices.

3. Use Update to set the Name / IP Address for each Call Station and Base Phone.

6.2 – The **Create Device** page should be completed as shown below and click **Save**. Make sure to choose the correct Device Type from the list of options. The 3 main devices used are:

- 1. 4800VS (Call Stations)** = “Digital Acoustic” device type
- 2. A-4800BS (Master/Remote Phones)** = “Fanvil Phone” device type
- 3. POTS-4800S** = “Grandstream POTS Device” device type

Create Device

Device Identifier *

Spaces are not allowed use "-" instead if necessary

IP *

MAC *

Hostname

Device Type *

* These fields are required

[Save](#) [Cancel](#)

Enter device location / name (e.g. – 3rd Floor Lobby)

Enter valid IP if not done automatically

Automatically obtained from the device

N/A - No need to modify

Fanvil Phone = A-4800BS Base Phone device(s)
Digital Acoustic = 4800VS Call Station device(s)
Grandstream POTS Device = POTS-4800S device
(Other devices listed are not used currently)

7.0 – Call Station Management:

7.1 – Go to the **Call Station Management** page and use the **Create** button to add a Call Station device and register it with an extension. Use the **Register All Call Stations** button if a device does not automatically register after creating it.

The screenshot shows the 'Call Station Management' page. On the left is a sidebar with various settings categories. The main area displays a table of registered call stations. Red arrows and numbers indicate key features: 1 points to 'Call Station Management' in the sidebar, 2 points to the 'Create' button, and 3 points to the 'Register All Call Stations' button.

Status	Location	IP	Device	Web Interface	Username	Secret	Extension	Action
Registered	Engineering - Call Station2	10.0.7.5	Manage	Edit	1002	pw123123	1002	Update Delete
Registered	Engineering - Call Station1	10.0.7.4	Manage	Edit	1001	pw123123	1001	Update Delete

7.2 – In the **Call Station Management** page you will be creating an extension, assigning a Call Station device to that extension, and issuing the extension # to it. Click the **Create** button when finished.

The screenshot shows the 'Call Station Management' page with the form to create a new call station. Red arrows and text provide instructions for each field: 'Location *' is labeled 'Extension name', 'Device *' is labeled 'Choose device (from previously created Known Devices)', and 'Exten *' is labeled 'Extension (start at 1001 – do not duplicate the same extension #)'. The form includes 'CREATE' and 'CANCEL' buttons at the bottom.

Location * ← Extension name

Device * ← Choose device (from previously created Known Devices)

Exten * ← Extension (start at 1001 – do not duplicate the same extension #)

* These fields are required

CREATE CANCEL

8.0 – Master / Remote Phone Management:

8.1 – Go to the **Master / Remote Station(s) Management** page and use the **Create** button to add phone device and register it with an extension. Use the **Register All Master / Remote Station(s)** button if a device does not automatically register after creating it.

The screenshot shows the 'Master / Remote Station(s) Management' page. On the left is a sidebar with navigation links. The main area contains a table of registered devices and two buttons at the top: 'Create' and 'Register All Master / Remote Station(s)'. Red arrows and numbers 1, 2, and 3 point to these elements.

Navigation Links (Left Sidebar):

- Dashboard
- Device Settings
- Call Station Management
- Master / Remote Station(s) Management
- Trunk Settings
- Call Center Settings
- Logs
- SOUND SETTINGS
- Call Center Message
- Call Station Error
- Master / Remote Station(s) Error
- System Messages
- SYSTEM SETTINGS
- General
- Network
- Create User
- License Management
- Call Flow Management
- Error Management
- Sms API Settings
- Backup / Restore

Master / Remote Station(s) Management Table:

Status	Type	Name	IP	Device	Web Interface	Username	Secret	Extension	Action
Registered	Master Station	Master IP Phone	10.0.7.7	Manage	Edit	master1669746430	pw123123	2001	Update Delete
Registered	Remote Station	Remote IP Phone	10.0.7.6	Manage	Edit	master1669746445	pw123123	2002	Update Delete

Buttons:

- Create** (Yellow button, labeled 2)
- Register All Master / Remote Station(s)** (Green button, labeled 3)

Annotations:

- 1** points to 'Master / Remote Station(s) Management' in the sidebar.
- 2** points to the 'Create' button.
- 3** points to the 'Register All Master / Remote Station(s)' button.

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8.2 – In the **Master / Remote Station(s) Management** page you will be creating an extension name, then assigning a phone device to that extension, and issuing the extension # to it. The **Master Station** button must be selected for the main Master Phone and does not need to be for subsequent Remote Phone stations.

The screenshot shows the 'Master / Remote Station(s) Management' page with the 'Create' form. Red arrows and numbers 1, 2, 3, and 4 point to the form fields. A green button 'Register All Master / Remote Station(s)' is also visible.

Form Fields:

- Name *** (labeled 1): Extension name
- Device *** (labeled 2): Choose device (from previously created Known Devices)
- Exten *** (labeled 3): Extension (start at 2001 – do not duplicate the same extension #)
- Master Station ☐** (labeled 4): Must select for the main "Master" phone. Not selected for Remote Phone stations.

Buttons:

- CREATE** (Green button)
- CANCEL** (Red button)

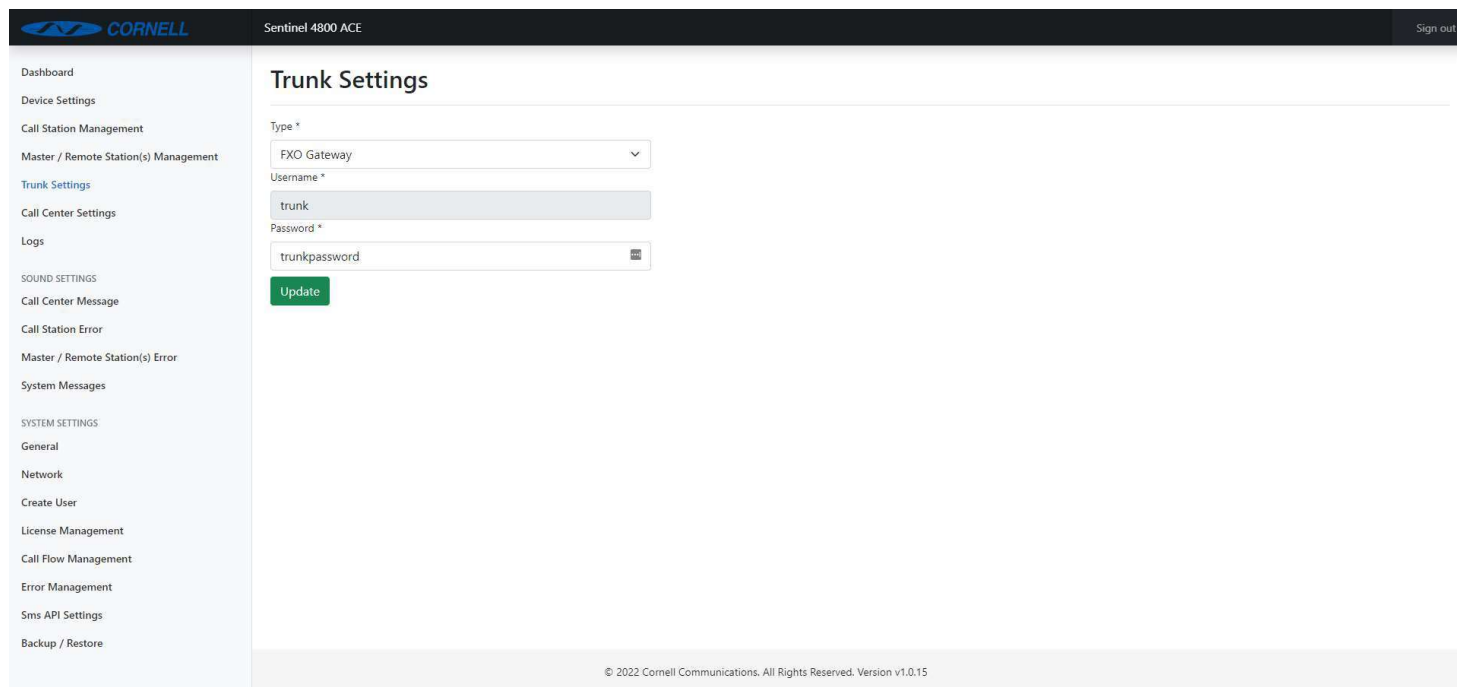
* These fields are required

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9.0 – Trunk Settings:

9.1 – Go to the **Trunk Settings** page to setup or edit the type of trunk phone line used for the system to dial out to the monitoring location. You can only choose from the 2 options below:

1. **SIP Provider** = Choose if using a **VOIP / SIP** trunk phone line to dial out (requires the Username/Password for the end-user's **VOIP / SIP** account to be entered for our system to utilize their phone system)
2. **FXO Gateway** = Choose if using a **POTS/Analog** phone line (setup as shown below):



The screenshot displays the 'Trunk Settings' page for the Sentinel 4800 ACE system. The interface includes a sidebar with various navigation links such as 'Dashboard', 'Device Settings', 'Call Station Management', and 'Trunk Settings'. The main content area is titled 'Trunk Settings' and contains a form with the following fields:

- Type ***: A dropdown menu currently set to 'FXO Gateway'.
- Username ***: A text input field containing the value 'trunk'.
- Password ***: A text input field containing the value 'trunkpassword'.

An 'Update' button is located below the password field. At the bottom of the page, a copyright notice reads: '© 2022 Cornell Communications. All Rights Reserved. Version v1.0.15'.

SIP NOTES:

The **VOIP / SIP** trunk phone line requires an internet connection to be provided to the **WAN** port on the main Sentinel V2 unit to use the end-user's account.

The **VOIP / SIP** trunk phone line requires the account information (username and password) to be entered in this section to access the end-user's account. Have this information readily available.

POTS NOTES:

The **POTS/Analog** trunk phone line requires the **POTS-4800S** device to be added to the system to activate this functionality. The **POTS-4800S** does not automatically come with the Sentinel V2 AOR system.

The **POTS/Analog** trunk phone line requires a traditional RJ11 line to be provided to the **FXO** port on the **POTS-4800S** device.

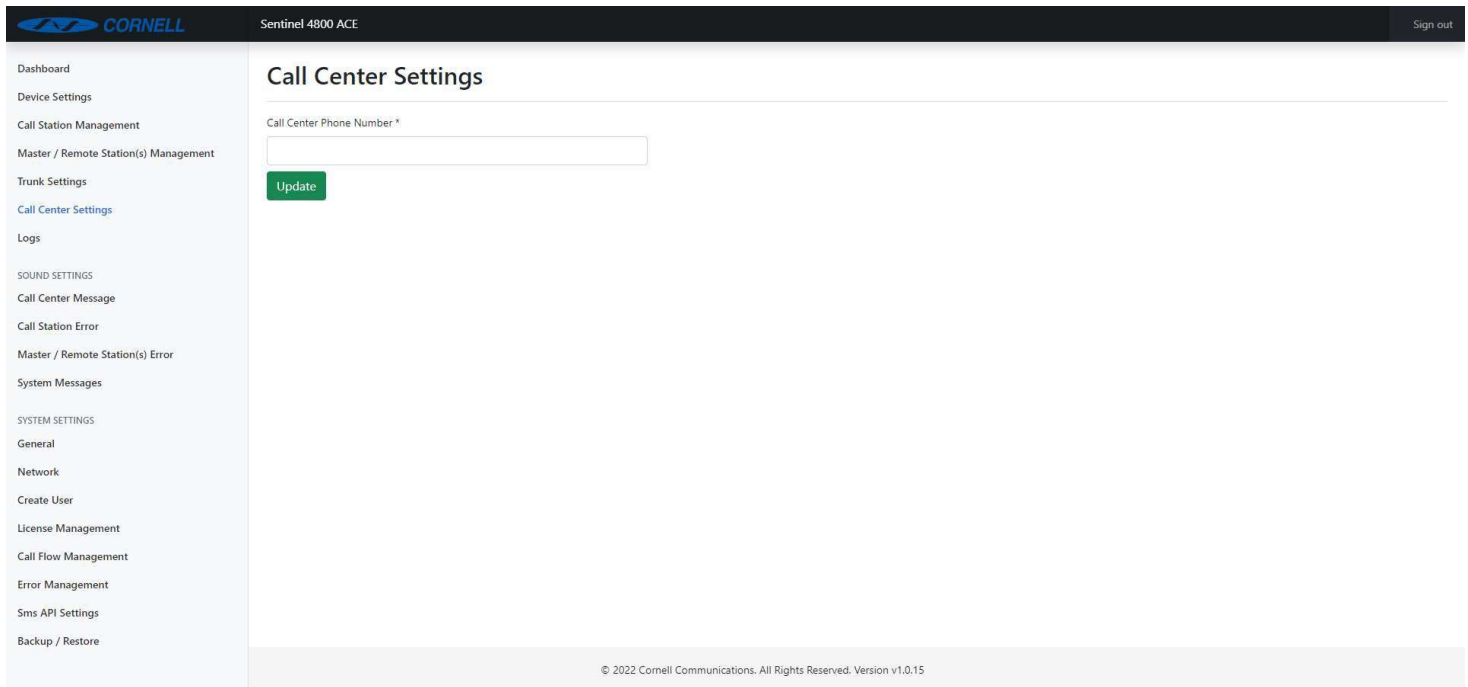
The **POTS-4800S** device requires configuration. The **POTS-4800S** device is usually pre-configured by Cornell and the settings should not need modification.

10.0 – Call Center Settings:

10.1 – Go to the **Call Center Settings** page to add or edit the phone number to dial for the ECC / monitoring location. No spaces, dashes or other special characters, only numbers. Select the **Update** button when done.

The format should be an 11-digit phone number as shown below:

Example: 18005588957



The screenshot displays the web interface for the Sentinel 4800 ACE system. The top navigation bar includes the Cornell logo, the text "Sentinel 4800 ACE", and a "Sign out" button. A left-hand sidebar lists various configuration options, with "Call Center Settings" highlighted in blue. The main content area is titled "Call Center Settings" and features a text input field labeled "Call Center Phone Number *". Below the input field is a green "Update" button. The footer of the interface contains the copyright notice: "© 2022 Cornell Communications. All Rights Reserved. Version v1.0.15".

Contact Cornell Communications at 1-800-558-8957 if you are using a non-standard phone number (such as requiring a “9” to dial out or other special requirements) to confirm if it will be compatible.

11.0 – Logs:

11.1 – Go to the **Logs** page to view system status messages. It will provide updates for different statuses / changes that occur on the system.

You can use the **Filters** drop-down menu to choose a specific type of log to view.

Filter which logs are displayed from the below options:

1. **SENTINEL** = Sentinel V2 AOR System general messages.
2. **DEBUG** = Relay module (OM-4802) device state change messages.
3. **ERROR** = Device error messages.
4. **CRITICAL** = System error messages.

The screenshot displays the web interface for the Sentinel 4800 ACE system. The top header bar includes the Cornell Communications logo, the text "Sentinel 4800 ACE", and a "Sign out" button. A left-hand navigation menu lists various system settings and management options, with "Logs" currently selected and highlighted in blue. The main content area is titled "Logs" and features a search bar with a "Filters" dropdown menu and a "Search" button. Below the search bar is a table with three columns: "Level", "Date", and "Message". The table is currently empty. At the bottom of the page, a footer indicates the copyright: "© 2022 Cornell Communications. All Rights Reserved. Version v1.0.15".

12.0 – SOUND SETTINGS:

*****INTERNET CONNECTION IS REQUIRED TO MODIFY SOUND SETTINGS*****
*****DO NOT MODIFY WITHOUT INTERNET CONNECTED TO “WAN” PORT*****

12.1 – Go to the **Call Center Message** page to create/edit the messages delivered only to the offsite monitoring location. If the system is not dialing out, then this step can be skipped.

Cornell uses a default **Call Center Message** message:

“An emergency request for help has been activated. This call originated from the [location]. Located at [BuildingName] at [StreetAddress] in [CityStateZip].”

Note: the [location] button will insert the information in the **Location** field (usually the name of the device).

The screenshot displays the 'Call Center Message' configuration page in the Sentinel 4800 ACE web interface. The left sidebar contains navigation links for various system settings. The main content area features a 'Message Label' text box with a sample emergency message: 'An emergency request for help has been activated. This call originated from the [location]. Located at [BuildingName] at [StreetAddress] in [CityStateZip].'. Below this is a '[location]' button. A table lists two messages for extensions 1002 and 1001, both using the same emergency message template. A 'Generate' button is located at the bottom left of the table area.

Extension	Location	Message
1002	Engineering - Call Station2	An emergency request for help has been activated. This call originated from the Engineering - Call Station2. Located at [BuildingName] at [StreetAddress] in [CityStateZip].
1001	Engineering - Call Station1	An emergency request for help has been activated. This call originated from the Engineering - Call Station1. Located at [BuildingName] at [StreetAddress] in [CityStateZip].

- Click the **Generate** button to create the audio message(s) and allow you to **Play**, **Save**, or **Cancel**.
- Click the **Play** button next to a specific message to listen to it.
- Click the **Save** button to save the messages.
- Click the **Cancel** button to exit without saving the messages.

(Clicking the **Generate** button will make the Sentinel V2 system use the internet connection to generate the audio version of the messages you typed. If you **Generate** the messages without the internet connection provided to the Sentinel V2 system it can erase the existing ones and generate blank messages.)

*****INTERNET CONNECTION IS REQUIRED TO MODIFY SOUND SETTINGS*****
*****DO NOT MODIFY WITHOUT INTERNET CONNECTED TO “WAN” PORT*****

12.2 – Go to the **Call Station Error** page to create/edit the messages delivered when the system detects a connection error with the device. These are unique to each Call Station device to identify the specific location of the device with the error.

Cornell uses a default **Call Station Error** message:

“A connection error has been detected for the [location] call station device. Please check the device status and network connections.”

Note: the [location] button will insert the information in the **Location** field (usually the name of the device).

The screenshot shows the 'Call Station Error' configuration page in the Sentinel 4800 ACE web interface. The sidebar on the left contains various navigation links. The main content area has a 'Message Label' text box containing the text: 'A connection error has been detected for the [location] call station device. Please check the device status and connections.' Below this is a '[location]' button. A table with three columns is shown: 'Extension', 'Location', and 'Message'. The table contains two rows of data. At the bottom of the table is a 'Generate' button.

Extension	Location	Message
1002	Engineering - Call Station2	A connection error has been detected for the Engineering - Call Station2 call station device. Please check the device status and connections.
1001	Engineering - Call Station1	A connection error has been detected for the Engineering - Call Station1 call station device. Please check the device status and connections.

- Click the **Generate** button to create the audio message(s) and allow you to **Play**, **Save**, or **Cancel**.
- Click the **Play** button next to a specific message to listen to it.
- Click the **Save** button to save the messages.
- Click the **Cancel** button to exit without saving the messages.

(Clicking the **Generate** button will make the Sentinel V2 system use the internet connection to generate the audio version of the messages you typed. If you **Generate** the messages without the internet connection provided to the Sentinel V2 system it can erase the existing ones and generate blank messages.)

*****INTERNET CONNECTION IS REQUIRED TO MODIFY SOUND SETTINGS*****
*****DO NOT MODIFY WITHOUT INTERNET CONNECTED TO “WAN” PORT*****

12.3 – Go to the **Master / Remote Station(s) Error** page to create/edit the messages delivered when the system detects a connection error with any Master or Remote Base Phone device where calls are answered. These are unique to each device to identify the specific location of the device with the error.

Cornell uses a default **Master / Remote Station(s) Error** message:

“A connection error has been detected for the [location] Base Station Phone device. Please check the device status and network connections.”

Note: the [location] button will insert the information in the **Location** field (usually the name of the device).

The screenshot shows the web interface for the Sentinel 4800 ACE system. The top navigation bar includes the Cornell logo, the text 'Sentinel 4800 ACE', and a 'Sign out' button. A left sidebar contains a menu with various settings categories: Dashboard, Device Settings, Call Station Management, Master / Remote Station(s) Management, Trunk Settings, Call Center Settings, Logs, SOUND SETTINGS, Call Center Message, Call Station Error, Master / Remote Station(s) Error (highlighted), System Messages, SYSTEM SETTINGS, General, Network, Create User, License Management, Call Flow Management, Error Management, Sms API Settings, and Backup / Restore. The main content area is titled 'Master / Remote Station(s) Error'. It features a 'Message Label' field with a text area containing the default message: 'A connection error has been detected for the [location] Base Station Phone device. Please check the device status and network connections'. Below this is a '[location]' button. A table with two columns, 'Location' and 'Message', lists two entries: 'Master IP Phone' and 'Remote IP Phone', each with a corresponding message text area. At the bottom of the table is a 'Generate' button. The footer of the interface displays the copyright notice: '© 2022 Cornell Communications. All Rights Reserved. Version v1.0.15'.

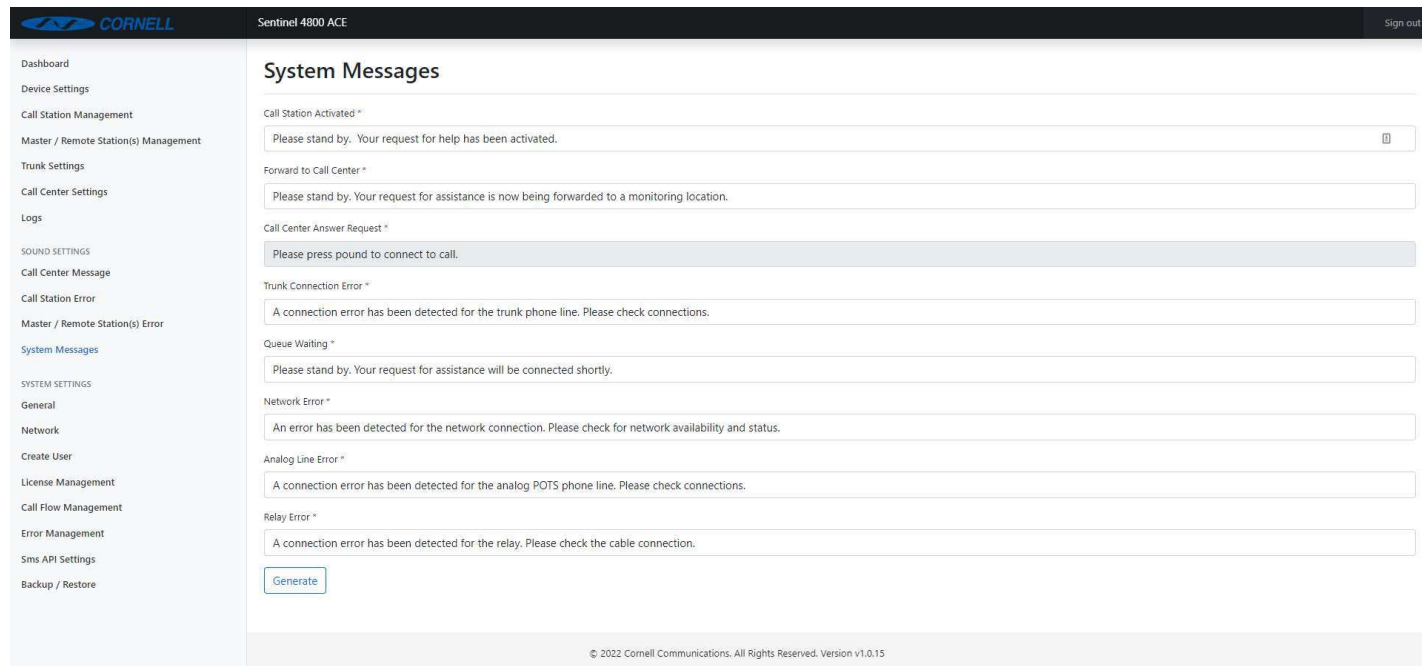
- Click the **Generate** button to create the audio message(s) and allow you to **Play**, **Save**, or **Cancel**.
- Click the **Play** button next to a specific message to listen to it.
- Click the **Save** button to save the messages.
- Click the **Cancel** button to exit without saving the messages.

(Clicking the **Generate** button will make the Sentinel V2 system use the internet connection to generate the audio version of the messages you typed. If you **Generate** the messages without the internet connection provided to the Sentinel V2 system it can erase the existing ones and generate blank messages.)

*****INTERNET CONNECTION IS REQUIRED TO MODIFY SOUND SETTINGS*****
*****DO NOT MODIFY WITHOUT INTERNET CONNECTED TO “WAN” PORT*****

12.4 – Go to the **System Messages page to create/edit the messages sent during different system statuses.**

Cornell uses default **System Messages** shown below:



The screenshot shows the 'System Messages' page in the Sentinel 4800 ACE interface. The left sidebar contains a navigation menu with options like Dashboard, Device Settings, Call Station Management, Master / Remote Station(s) Management, Trunk Settings, Call Center Settings, Logs, SOUND SETTINGS, Call Center Message, Call Station Error, Master / Remote Station(s) Error, System Messages (highlighted), SYSTEM SETTINGS, General, Network, Create User, License Management, Call Flow Management, Error Management, Sms API Settings, and Backup / Restore. The main content area displays a list of system messages with their status and a 'Generate' button at the bottom.

Message	Status
Call Station Activated *	Call Station Activated *
Please stand by. Your request for help has been activated.	
Forward to Call Center *	Forward to Call Center *
Please stand by. Your request for assistance is now being forwarded to a monitoring location.	
Call Center Answer Request *	Call Center Answer Request *
Please press pound to connect to call.	
Trunk Connection Error *	Trunk Connection Error *
A connection error has been detected for the trunk phone line. Please check connections.	
Queue Waiting *	Queue Waiting *
Please stand by. Your request for assistance will be connected shortly.	
Network Error *	Network Error *
An error has been detected for the network connection. Please check for network availability and status.	
Analog Line Error *	Analog Line Error *
A connection error has been detected for the analog POTS phone line. Please check connections.	
Relay Error *	Relay Error *
A connection error has been detected for the relay. Please check the cable connection.	

[Generate](#)

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- Click the **Generate** button to create the audio message(s) and allow you to **Play**, **Save**, or **Cancel**.
- Click the **Play** button next to a specific message to listen to it.
- Click the **Save** button to save the messages.
- Click the **Cancel** button to exit without saving the messages.

Message Descriptions:

- **Call Station Activated** = message plays at call stations when the button is pressed (and every 10s)
- **Forward to Call Center** = message plays at call stations when calls forward to a monitoring location
- **Call Center Answer Request** = message played at monitoring location instructing them to press #
- **Trunk Connection Error** = message delivered when detecting a SIP trunk phone line faults/errors
- **Queue Waiting** = message plays at call stations while waiting for monitoring location to answer
- **Network Error** = message delivered when detecting an issue with the internet / network connection
- **Analog Line Error** = message delivered when detecting an issue with the POTS/Analog phone line
- **Relay Error** = message delivered when the system does not detect the internal relay device

(Clicking the **Generate** button will make the Sentinel V2 system use the internet connection to generate the audio version of the messages you typed. If you **Generate** the messages without the internet connection provided to the Sentinel V2 system it can erase the existing ones and generate blank messages.)

13.0 – SYSTEM SETTINGS:

13.1 - Go to the **General** page to change admin level settings. These should not be modified except by Cornell or a trained network technician.

*****ONLY CORNELL SHOULD MAKE CHANGES TO THESE SETTINGS*****

System Settings

Name *

Sentinel

Call Stations SIP Passwords *

pw123123

Master / Remote Station(s) SIP Passwords *

pw123123

Update

Device Tools

Reboot Device Generate Fanvil Configuration File Generate Grandstream POTS Device Configuration File

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- **Name** = you can set the name of the Sentinel V2 AOR System with this field.
- **Call Stations SIP Passwords** = sets registration password for all call station devices
- **Master / Remote Station(s) SIP Passwords** = sets registration password for all Base Phone devices

Click the **Update** button to save any changes.

Reboot Device

= Reboot the main CPU inside the Sentinel V2 unit.

Generate Fanvil Configuration File

= Generates a file used to configure base phones

Generate Grandstream POTS Device Configuration File

= Generates a file used to configure the **POTS-4800S**

13.2 – Go to the **Network** page to change the network settings of the system router. These settings are usually done first when disabling the DHCP (should have been done with step 5.0).

The screenshot shows the 'Network' configuration page for a Sentinel 4800 ACE. The left sidebar contains navigation links such as Dashboard, Device Settings, Call Station Management, and various system settings. The main content area is titled 'Network' and includes a 'Router Network Settings' section. This section contains the following fields and values:

- Main Network IP Address***: IP: 10.0.100.51, Netmask: 255.255.255.0, Gateway: 10.0.100.1. A note indicates that DHCP should be activated before installation and deactivated afterward.
- Router Subnet***: Router IP 10.0.7.1
- Call Station IP Range (Current: 10.0.7.1 - 10.0.7.150)***: IP Range Start 10.0.7.1 - 10.0.7.150. An 'Update' button is located below this section.

Below the settings section are three summary tables:

Main Network Information	Router Network Information	Cornell Network Information
IP Address: 10.0.100.51	IP Address: 10.0.7.1	IP Address:
Subnet Mask: 255.255.255.0	Subnet Mask: 255.255.255.0	Subnet Mask:
Broadcast: 10.0.100.255	Broadcast: 10.0.7.255	Broadcast:
MAC Address:	MAC Address:	MAC Address:

At the bottom, there is a 'Public IP Address:' field and a 'Cornell Network Client ID: 4022683f93'.

Main Network IP Address = automatically displays the network info of the connected LAN / local internet provided to the system. If an internet connection is not provided to the system, the fields will be blank as shown below:

IP: Netmask: Gateway:

Router Subnet = sets the router subnet used for the whole Sentinel V2 AOR System network. The default network should be set to **10.0.6.1** for all systems.

Router IP 10.0. .1

Call Station IP Range = sets the network IP Address range used for all connected devices and the Sentinel V2 AOR System as a whole. The default range should be set from 10.0.6.2 thru 10.0.6.254 as shown below:

IP Range Start 10.0.6. - 10.0.6.

Click the **Update** button to save any changes you have made. Updating these settings causes the internal main CPU to reboot. Wait for the webpage to reload to continue with programming.

13.3 – Go to the **Create User** page to add/remove a user account. User accounts have limited options to make programming changes and do not have the full admin authority. Setup the user account with the required information shown in the image below:

Click the **Create** button at the bottom to finish making the User account.

Created Users appear in the columns to the right. You can delete them as needed.

CREATE USER

Username *

First Name *

Last Name *

Password *

Password Confirmation*

* These fields are required

Create

#	First Name	Last Name	Username	Action
---	------------	-----------	----------	--------

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Password Rules:

- Password must be at least 8 characters
- Password must not be too similar to the username entered for the account

The password is too similar to the username. password2

This password is too short. It must contain at least 8 characters. password2

Create User

13.4 – Go to the **Call Flow Management** page settings allow you to enable the system to dial-out to a monitoring location. You can also adjust other dial-out settings described below:

- **Duration** = amount of time in seconds before the system dials out to the monitoring location
- **Retry for Unanswered** = amount of time in seconds that unanswered calls will redial all Master / Remote Station phones (only when dial-out feature is disabled / turned-off).
- **Outbound Call to Call Center** = enable and disable the Sentinel V2 AOR System dial-out feature. To enable this feature, a valid trunk phone line must be setup (refer to Step **9.0** to setup trunk line)
- **Redial Master / Remote Stations** = enable and disable subsequent incoming calls to redial the Master / Remote Station phones when the system is already on a call with the monitoring location.
- **Hangup with “9” dtmf key** = enable and disable outbound calls to the monitoring location to allow them to disconnect using the “9” key. Normally the monitoring location can simply hang-up to disconnect the call.

The screenshot shows the web interface for the Sentinel 4800 ACE system. The top navigation bar includes the Cornell logo, the text "Sentinel 4800 ACE", and a "Sign out" button. A left sidebar contains a menu with categories: Dashboard, Device Settings, Call Station Management, Master / Remote Station(s) Management, Trunk Settings, Call Center Settings, Logs, SOUND SETTINGS, Call Center Message, Call Station Error, Master / Remote Station(s) Error, System Messages, SYSTEM SETTINGS, General, Network, Create User, License Management, Call Flow Management (highlighted), Error Management, Sms API Settings, and Backup / Restore. The main content area is titled "Call Flow Management" and contains the following settings:

- Duration ***: A text input field with the value "10". Below it, a note reads: "Duration to ring on master and remote station(s) (in seconds)".
- Retry for unanswered***: A text input field with the value "10". Below it, a note reads: "Time to redial the master and remote stations when outcall is turned off and the master or remote stations do not answer (in seconds)".
- Outbound call to Call Center***: A dropdown menu with "Enabled" selected.
- Redial Master / Remote Stations***: A dropdown menu with "Enabled" selected. Below it, a note reads: "This option specifies whether to redial the master / remote stations when dial-out is on and someone is on a call with the call center."
- Hangup with "9" dtmf key***: A dropdown menu with "Disabled" selected.

At the bottom of the settings area, there is a note: "* These fields are required" and a green "SAVE" button. The footer of the page contains the copyright notice: "© 2022 Cornell Communications. All Rights Reserved. Version v1.0.15".

Click the **SAVE** button at the bottom when finished making your changes.

***Important:** the **Outbound call to Call Center** option enables the system to dial out or not. It cannot be changed to dial-out / enabled if a valid trunk phone line has not been setup and configured. When using the **POTS-4800S** modem and an Analog/POTS phone line, make sure the modem is configured correctly.

13.5 – Go to the **Error Management** page to set how errors/faults are reported. There are a total of (5) different device or connection errors the system can supervise. An error typically generates a call to ALL Master / Remote Station phones with a message indicating the source of the error / fault. The messages were previously setup in an earlier step.

- **Error** = type of device or connection error
- **Call To** = where the error type reports to
 - **None**: does not report these type of faults / errors
 - **Master / Remote Station(s)**: the error will report to ALL Master / Remote Station phones.
 - **Call Center**: error will use the trunk phone line provided to dial-out with the error message.
 - **All**: error will dial the Master / Remote Station phones AND dial-out with the error message.
 - **SMS**: error message will be sent via text.
 - Requires SMS/texting enabled on end-user's phone line used by the Sentinel V2 system.
- **SMS Number** = enter the phone number to send SMS/Texts messages for errors.
 - Field will not be fillable unless a valid SMS/Texting account has been added.
 - Requires SMS/texting enabled on end-user's phone line used by the Sentinel V2 system.
- **Relay Port** = choose a relay output to activate when that error type occurs.

Error	Call To	SMS Number	Relay Port
Call Station Register Error	Master / Remote Station(s)		Port 1
Master / Remote Station(s) Register Error	Master / Remote Station(s)		Port 1
Trunk Register Error	Master / Remote Station(s)		Port 2
Network Error	Master / Remote Station(s)		Port 2
Analog Line Error	Master / Remote Station(s)		Port 2
Relay Error	Master / Remote Station(s)		None

SAVE

Type of error

Choose where each error is reported

Choose Relay #1, #2 or None

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Click the **SAVE** button at the bottom when finished making your changes.

Typical “**Call To**” location is to have all errors reported internally to all Master / Remote Station(s). A call will then ring at ALL phone stations internally and will deliver the error message when answered.

Typical “**Relay Port**” configuration will have the Call Station and Master / Remote Station errors triggering Relay Port #1, and the Trunk, Network, Analog Line error triggering Relay Port #2.

13.6 – Go to the **SMS/API Settings** page to setup the SMS/Texting feature on the system. Until this page is configured and completed, SMS/Texting cannot be used as an option to deliver messages.

*This setting requires SMS/texting to be enabled and activated on the end-user's phone line connected to the Sentinel V2 system to dial out. The system will use the same trunk phone line used to dial out to send text messages.

The screenshot displays the 'Sms API Settings' page within the Sentinel 4800 ACE web interface. The interface has a dark header with the 'CORNELL' logo and 'Sentinel 4800 ACE' text, and a 'Sign out' button. A left sidebar contains a navigation menu with items like Dashboard, Device Settings, Call Station Management, Trunk Settings, Call Center Settings, Logs, SOUND SETTINGS, Call Center Message, Call Station Error, Master / Remote Station(s) Error, System Messages, SYSTEM SETTINGS, General, Network, Create User, License Management, Call Flow Management, Error Management, Sms API Settings (highlighted), and Backup / Restore. The main content area is titled 'Sms API Settings' and contains several input fields: 'Sms Provider *' (with a masked value '*****'), 'Account Sid *' (with a masked value and a help icon), 'Account Token *' (with a masked value), and 'SMS Provider Phone Number *' (with a masked value). Below these fields is an 'Active *' checkbox which is unchecked. A green 'Update' button is at the bottom of the form. A small text block provides additional instructions: '- If you do not want to use it, this should be deactivated.', '- From the Error Management Page, you can determine which number to send SMS to in case of error.', and '- The texts of the SMS to be sent in case of error are the same as the texts of the error messages produced on the Error Pages.' A footnote states '* These fields are required'.

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Contact Cornell Communications at 800-558-8957 with any questions regarding the SMS/Texting feature.

13.7 – Go to the **Backup / Restore** page to setup the SMS/Texting feature on the system. Until this page is configured and completed, SMS/Texting cannot be used as an option to deliver messages.

Backup / Restore

Download Backup

Create and Download New Backup ← Downloads a backup file of the current configuration to a connected computer

* The writing format of the backup file to be created is <SYSTEM_NAME>_YYYYMMDD_HH-MM-SS.zip (Where <SYSTEM_NAME> is name in System Settings > General Page)

Restore From Backup

Please select backup .zip file

Choose File No file chosen ← Choose a backup configuration file to Restore

Restore ← Restore the chosen backup configuration file

* Restore process steps:

1. Upload the zip file.
2. After Sentinel restarts, restart all call stations and master remote stations (this is necessary for the devices to update their IP addresses, if the IP address of the devices is the same as backup, you can skip this step).
3. Go to the Call Station Management page and click the "Register All Call Stations" button on the right to register all Call stations.
4. Go to the Master / Remote Station(s) Management page and click the "Register All Master / Remote Station(s)" button on the right to register all Master / Remote Station(s) stations.

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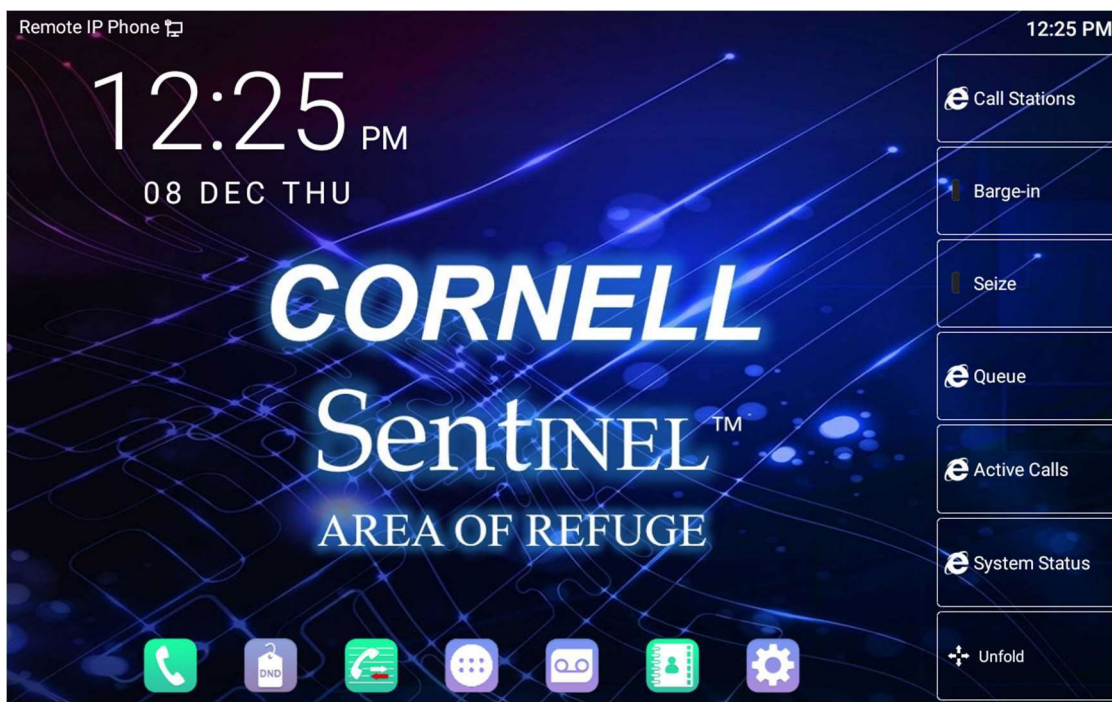
The downloaded backup file will appear in the **Downloads** directory on the connected computer.

Important Notes:

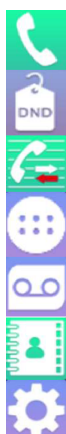
- Cornell typically keeps a copy of the system configuration backup file if programmed by us. The site name or SO# will be needed to lookup or request your backup file.
- Cornell may have incomplete information in the backup file we save if the programming form provided to us to pre-program the system was incomplete or missing information.
- Cornell will not have a copy of the backup file for the system was not pre-programmed here to generate the backup file.

14.0 – Master / Remote Phone Screen:

Each Master / Remote Station phone (A-4800BS) will have a touch-screen display with various information displayed and options. It will have a device name (below shows “Remote IP Phone” name), the time/date (which can be set manually) and buttons to use make changes, access queues, or view information.



<u>Button</u>	<u>Purpose</u>
Call Stations	View all call stations / extensions.
Barge-in	Barge-in to a current call (3-way call)
Seize	Take a current call from the call center, disconnects them, and connects you.
Queue	View all queued calls to view or choose which to connect with.
Active Calls	View all currently active calls (can Barge-in or Seize a call from here)
System Status	Quick view of general system status or errors with the system.
Unfold	DO NOT USE (unfolds all buttons on the screen)



- = **Phone** button (**DO NOT USE**)
- = **Do not Disturb** button (**DO NOT USE**). Always make sure the phone is not in DnD mode!
- = **Transfer Call** button (**DO NOT USE**).
- = **Apps** button to bring up the device apps (**DO NOT USE**).
- = **Voicemail** button (**DO NOT USE**).
- = **Contacts** button to view all extensions / call station devices .
- = **Settings** button (only used to manually set date/time or view device network information).