



L3HARRIS

FAST. FORWARD.

SYMPHONY CONSOLE OPERATOR'S TRAINING

UCA

Lewis Padgett

Sept - 2023



Wall Of Honor



Housekeeping/Schedule



- Safety, Emergency protocol/procedures
- Breaks & Lunch
- Phone Calls
- Bathroom Location
- Introductions
- Timing of the Days
 - a.) Morning of day 1, Console Operations
 - b.) Afternoon of Day 1, Console Operations
- Operation Manuals & ECPs are for reference only
- Password for Administrator Privileges

Learning Objectives



- Upon Completion of this training session you will be able to:
- Describe the function of the Symphony console
- State the main components of the Symphony console
- Describe how the console interfaces with a P25 network
- Trace the call flow through the Symphony console
- Describe the configuration parameters for specific console functions
- Describe the basic operational features of a Symphony console including:
 - Transmit (encrypted voice and clear)
 - Receive (encrypted voice and clear)
 - Patch (encrypted voice and clear)
 - SimulSelect (encrypted voice and clear)
 - Emergency Management

Symphony Console Equipment



Select Speaker



Unselect Speaker
(Up to 7)



Desk Mic



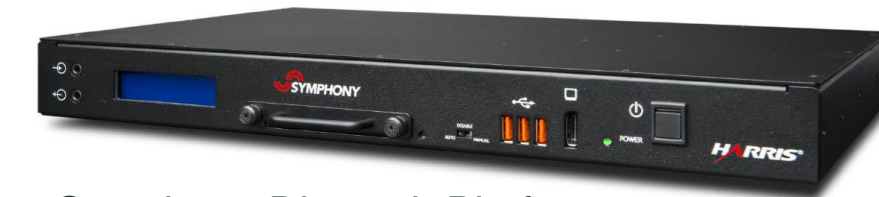
Headset Jack



Headset
(optional)



Symphony Dispatch Platform



Mouse



Footswitch



Keyboard

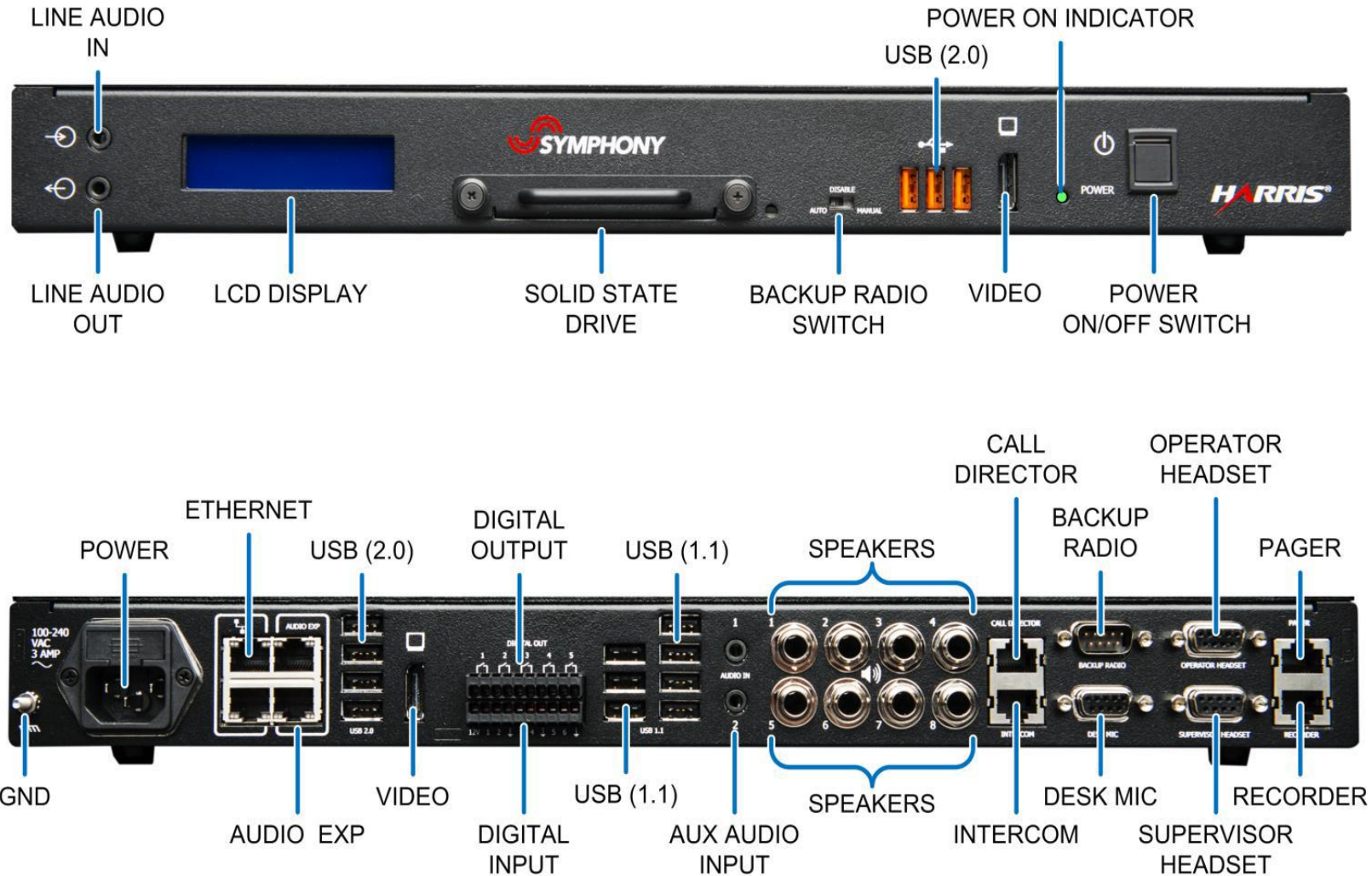
Symphony Dispatch Platform (SDP)



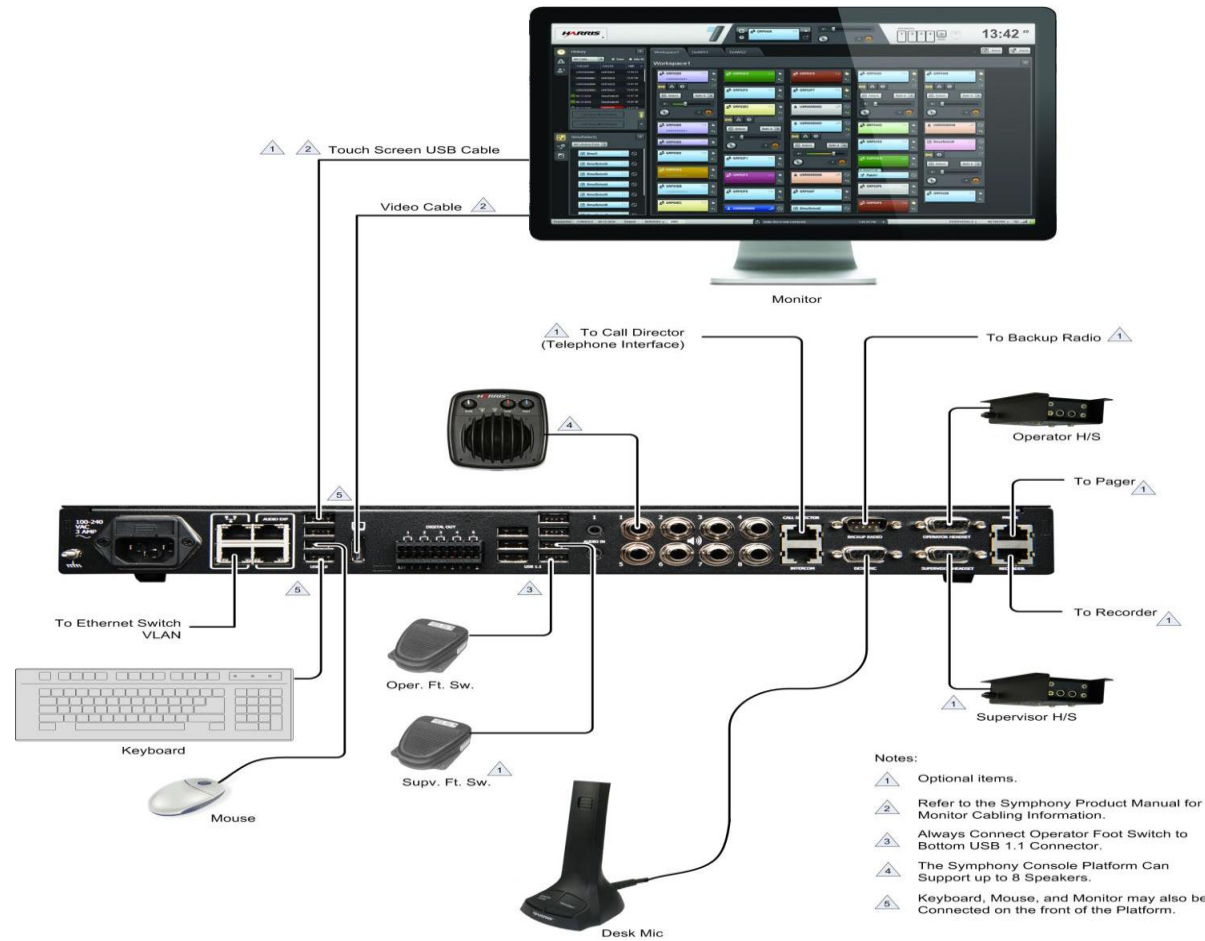
- Provides computing functions for console visual and audio functions
- COM Express® computer running Windows 7, 8, 8.1, or 10
- Solid state processor internally connected to the Symphony Audio Processor (Audio Box)
- Provides USB and audio connections to connect all peripheral devices including:
- Speakers, microphones, headsets, foot pedals etc.



Symphony Dispatch Platform Connections



SDP- Connections



Note: Although the microphone gain is adjustable, the microphone is intended to be used relatively close to the talker, about 12 inches.

Setting the gain for operation at longer distances makes the microphone more susceptible to picking up background room noise.

Graphical User Interface



Full Screen Display

History

CALLER	CALLEE	TIME
Cruiser 10	North Patrol	14.04.35
Lt. Smith	West Patrol	14.04.32
Cruiser 17	East Patrol	14.04.25
Chief Jones	South Patrol	14.04.22
Chief Jones	West Patrol	14.04.15
Lt. Smith	West Patrol	14.03.32
Sgt. Cooper	East Patrol	14.03.25

System Status

TYPE	ALIAS	ST	TIME
Station	Red Mtn	✗	14.03.19

Police Dispatchable Units:

- North Patrol TX (Cruiser 10)
- South Patrol TX (Chief Jones)
- East Patrol TX (Cruiser 17)
- West Patrol TX (Lt. Smith)
- Blue Mtn mdc TX (Blue Mtn mdc 1)
- SWAT TX
- PD Chatter TX
- Bedford PD TX (Motorcycle 7)
- Campbell PD TX
- Roanoke PD TX

Other Units:

- Cruiser 10
- Cruiser 17
- Cruiser 73
- Cruiser 105
- Motorcycle 1
- Motorcycle 7
- Chief Jones
- Capt. Brown
- Lt. Smith
- Lt. Williams
- Sgt. Cooper

Display Overview



Select Bar



Side Bar Panel

Work Space

Status Bar

Backup Radio Settings



- The Backup Radio (BUR) feature enables the dispatcher to connect the console to a mobile radio in the event the network connection goes down. The three-position Backup Radio switch (Auto, Disable, or Manual) located on the front of the Symphony Dispatch platform enables or disables the backup radio mode.
- The BUR Switch selects from the following choices:
 - Auto-the BUR will engage when the console is shut down and automatically disengages when the console starts
 - Manual-the BUR is in a “Bypass Only” state and will stay enabled and activated until the mode is changed.
 - Disable-the BUR will always be disabled
- NOTE: When the BUR is active, PTT and audio signals from the desk mic, headset, speakers, and footswitch are sent to the BUR. The switch must be set to “Disable” if no BUR is connected to the console.

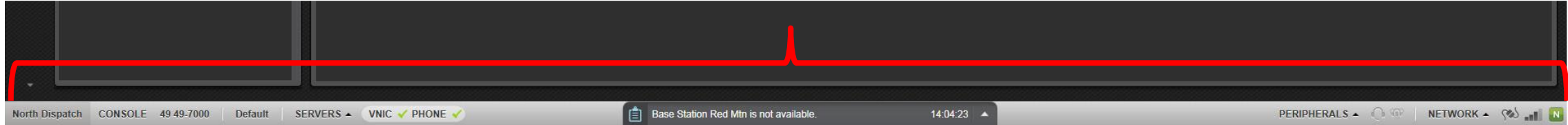


STATUS BAR

Status Bar



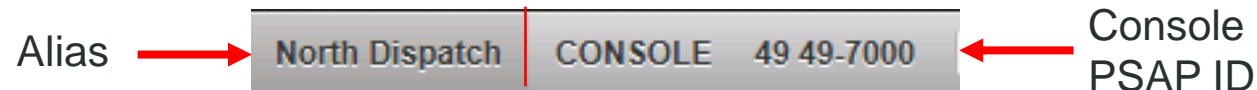
- Status bar displays information about the mode, user, setup, servers, logging, accessories, and network connection. Some of the controls open an information dialog to display more detailed information.



Status Bar (cont'd)



- The Console Identification control: Is divided into two areas. The first area (to the left) displays the dispatcher's Alias. Hover over this area using the mouse to see your numeric User ID. The second area displays the text "CONSOLE" with the console's PSAP ID displayed to the right. The console's ID is comprised of the Wide Area Communications Network (WACN), P25 System (also known as the VIDA region) region, and console ID respectively.




Status Bar (cont'd)



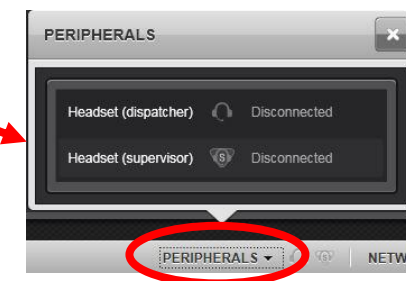
- Setup: Shows the name of the current setup, configured by your administrator. This area on the status bar will change to the name of the new setup each time you switch setups.



- Server Status: Displays the server button  which opens a dialog showing a list of servers and the current status.





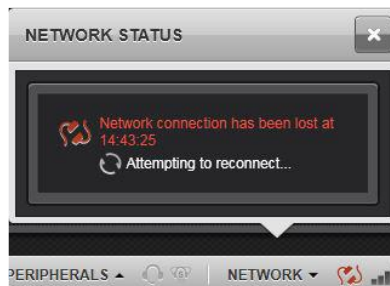
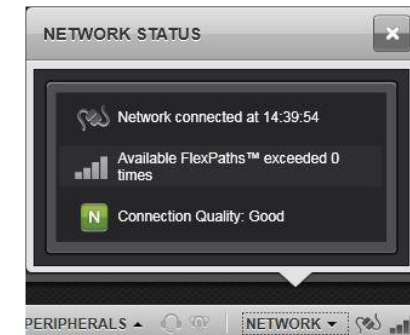
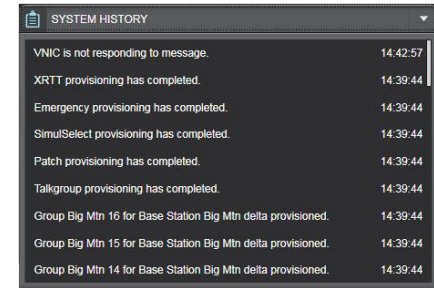
- Peripherals: Displays the connection status of all peripherals, such as supervisor and dispatcher headsets









Status Bar (cont'd)






- **System History:** Displays the information about the system and console tasks. It lists informational messages, errors, and failures that come up during the console's normal operation. Click  to expand.
- **Network:** Shows information about the current network connection status, FlexPath usage, and connection quality in detail. Click  to expand.



Shows connection lost

ICON	DESCRIPTION
	100% of FlexPaths are available.
	75% of FlexPaths are available.
	50% of FlexPaths are available.
	25% of FlexPaths are available.
	0% of FlexPaths are available.
	FlexPaths exceeded; calls will be missed due to lack of FlexPaths.

Shows Available FlexPaths

ICON	DESCRIPTION
	Green: Good Connection
	Orange: Warning
	Red: Serious network problem – contact your administrator

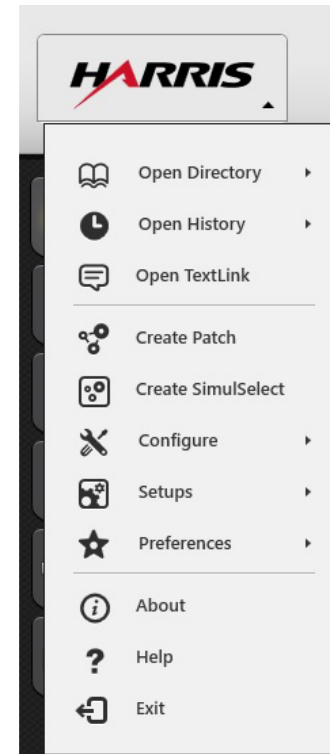
Shows Connection Quality

SELECT BAR

Select Bar



- Main Menu
- Harris logo in the top left corner of the screen opens the application menu. Available options include:
- Open Directory
- Open History
- Open TextLink (Full Screen Application Only)
- Create Patch
- Create SimulSelect
- Configure
- Setups
- Preferences
- About
- Help
- Exit



Select Bar (cont'd)



- Main menu (Directory Dialog)
- The Directory dialog provides access to all provisioned and configured entities including Groups, Users, Base Stations, Aux I/O Points, and Paging Sequences.
- If a provisioned entity is added or removed while the console is in operation, the Directory updates to reflect the changes and a message is added to the System History to note the change.
- The Search field allows you to search for entities by alias, ID number, or any text based field.

The screenshot shows the DIRECTORY application window. At the top, there are tabs for Groups, Users, Contacts, Pages, Aux I/Os, and Base Stations. Below the tabs is a search bar and a 'Reload' button. The main area contains a table with columns: ALIAS, ID, USE, EMERGENCY, ACTIVE P/SS, MONITORED, SPEAKER, MUTED, SELECT MENU, VOCODER, and ENCRYPTED. The table lists various entities, with 'South Patrol' (ID 1000) selected. To the right of the table is a detailed view for the selected entity, 'South Patrol (1000)', showing it is a 'Generic Voice Group' with a 'Vocoder: P25 FULL RATE'.

ALIAS	ID	USE	EMERGENCY	ACTIVE P/SS	MONITORED	SPEAKER	MUTED	SELECT MENU	VOCODER	ENCRYPTED
South Patrol	1000	Generic Voice Gr...		*	•	3			P25 FULL RATE	
West Patrol	1010	Generic Voice Gr...		*	•	4			P25 FULL RATE	
East Patrol	1020	Generic Voice Gr...		*	•	3			P25 FULL RATE	
PD Chatter	1030	Generic Voice Gr...		*	•	2			P25 FULL RATE	
North Patrol	1040	Generic Voice Gr...		*	•	1			P25 FULL RATE	
SWAT	1050	Generic Voice Gr...		*	•	3			P25 FULL RATE	
Green	1060	Generic Voice Gr...		*	•	2			P25 FULL RATE	
Green Ch1	1061	Generic Voice Gr...		*	•	2			P25 FULL RATE	
Green Ch2	1062	Generic Voice Gr...		*	•	2			P25 FULL RATE	
Green Ch3	1063	Generic Voice Gr...		*	•	2			P25 FULL RATE	
Green Ch4	1064	Generic Voice Gr...		*	•	2			P25 FULL RATE	
Blue	1070	Generic Voice Gr...		*	•	2			P25 FULL RATE	
Blue Ch1	1071	Generic Voice Gr...		*	•	2			P25 FULL RATE	
Blue Ch2	1072	Generic Voice Gr...		*	•	2			P25 FULL RATE	
Blue Ch3	1073	Generic Voice Gr...		*	•	2			P25 FULL RATE	

Select Bar (cont'd)



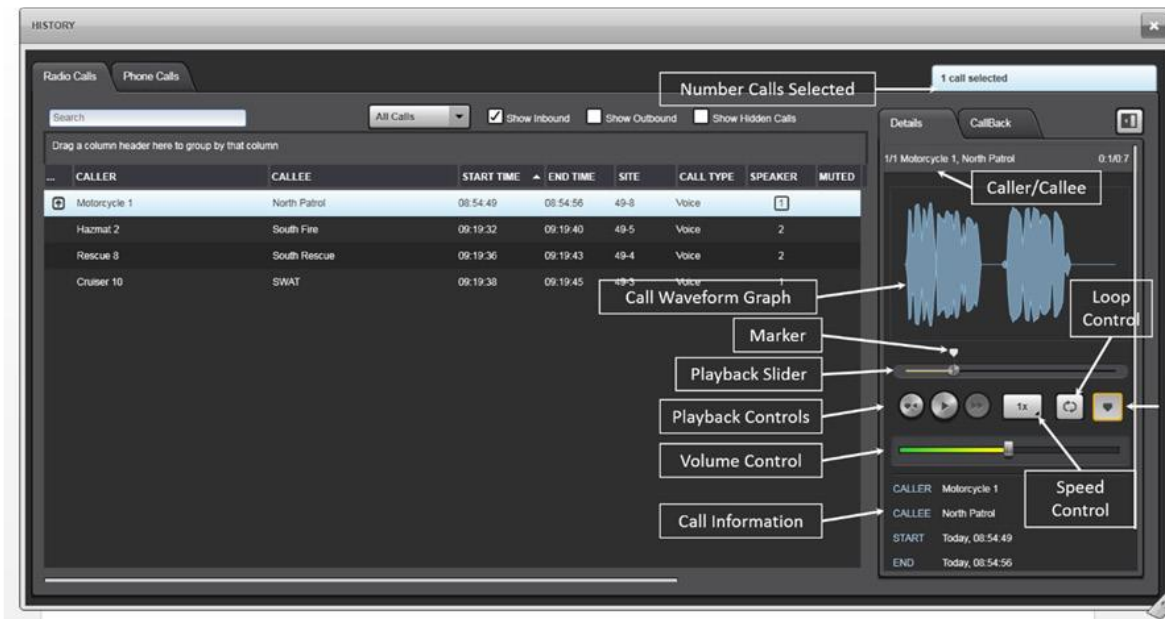
- Main menu (Directory Dialog)
- The Info tab provides a text based summary of key parameters from the Directory Columns for the selected entity.
- The Directory dialog supports choosing multiple entities for changes on the Settings tab. After making changes on the Settings tab, click APPLY.
- The Module tab displays a normal-sized Communication Module for the selected entity.



Select Bar (cont'd)



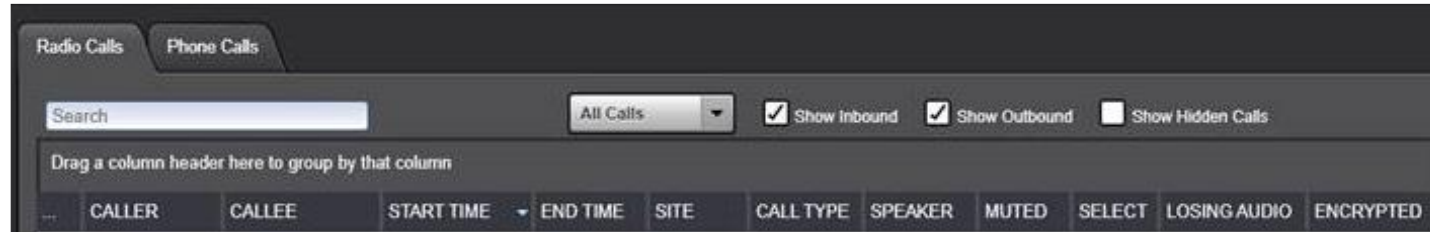
- Main menu (History Dialog)
- The Extended History dialog provides a detailed history of calls with audio. Calls are filtered depending on how the history is accessed.
- If the History dialog is accessed from the main menu or one of the Sidebar Panels, the full call history is displayed.
- Call history is further divided by call type: Radio Call or Phone Call. Each type of call appears on its own tab in the Extended History dialog.



Select Bar (cont'd)



- Main menu (History Dialog – Radio Calls)



- The Extended History Dialog offers several ways to quickly find items of interest:
- Search Box
- Show Inbound
- Show Outbound
- Show Hidden Calls (Hidden calls are alert or paging tones that the dispatcher typically has no interest in replaying. Though they are usually hidden, they can be accessed by checking this box.)

Select Bar (cont'd)



- Main menu (History Dialog – Radio Calls)
- Detail Tab:
- Playback Controls
- Waveform Graph
- Call information
- Call Time
- Playback Slider
- Speed Control
- Mark Button
- Marker Icon
- Loop Control
- Callback Tab:
- Displays a normal-sized Module for the highlighted entity.



Select Bar (cont'd)



- Main menu (History Dialog – Phone Calls)
- Displays either Call Director calls or SIP Telephony Calls depending on the current telephony configuration.
- Phone history is similar to the radio history.
- Note: Phone calls are recorded in blocks of 60 seconds. Thus, multiple recordings may be used to make up lengthy phone calls.

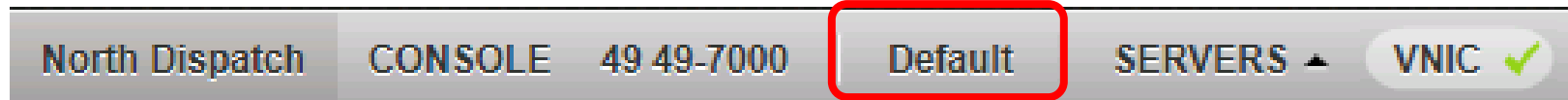
The screenshot shows a software interface titled "HISTORY" with two tabs: "Radio Calls" and "Phone Calls". The "Phone Calls" tab is active. At the top right, a "NUMBER OF CALLS SELECTED" indicator shows "1 call selected". Below this is a search bar and a table with columns "START TIME" and "END TIME". The table contains two rows of call data. The first row is highlighted in blue. To the right of the table is a "DETAILS TAB" which is expanded to show a "CALL WAVEFORM GRAPH" with a blue waveform. Below the graph are "PLAYBACK CONTROLS" (play, stop, previous, next, 1x, refresh, heart) and a "PLAYBACK VOLUME" slider. At the bottom of the details panel, "CALL INFORMATION" is displayed, showing "START Today, 11:45:00" and "END Today, 11:45:17". A "LOOP CONTROL" button is located at the bottom right of the details panel.

START TIME	END TIME
11:45:00	11:45:17
11:44:39	11:44:57

Select Bar (cont'd)



- Main menu (Setups)
- The Symphony Dispatch Console is capable of storing up to 16 setups. (controlled by license) Each setup can be unique in terms of Communication Module programming, as well as various other settings and parameters. Setups allow customization of the console for different situations and different dispatch operators.
- The Setup control on the Status Bar shows the name of the current setup. If your administrator has configured multiple setups, switch between them using the Main Menu. This area on the Status bar will change to the name of the new setup each time you switch setups.



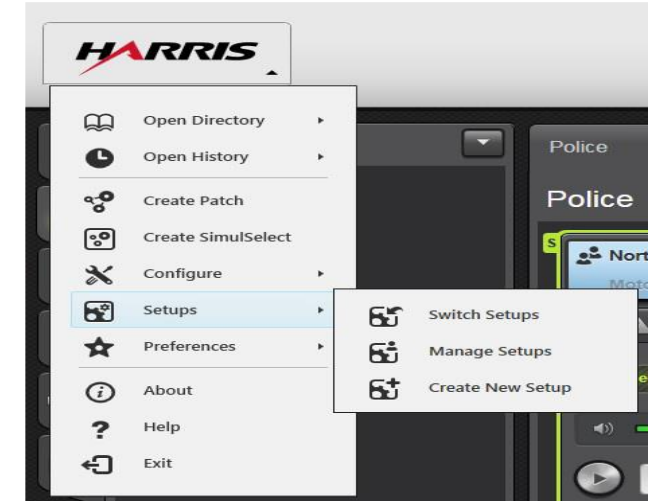
NOTE

If the setup is password protected, an **Enter Password** field is displayed on the **SWITCH SETUPS** dialog. The correct password must be entered before switching to this setup.

Select Bar (cont'd)



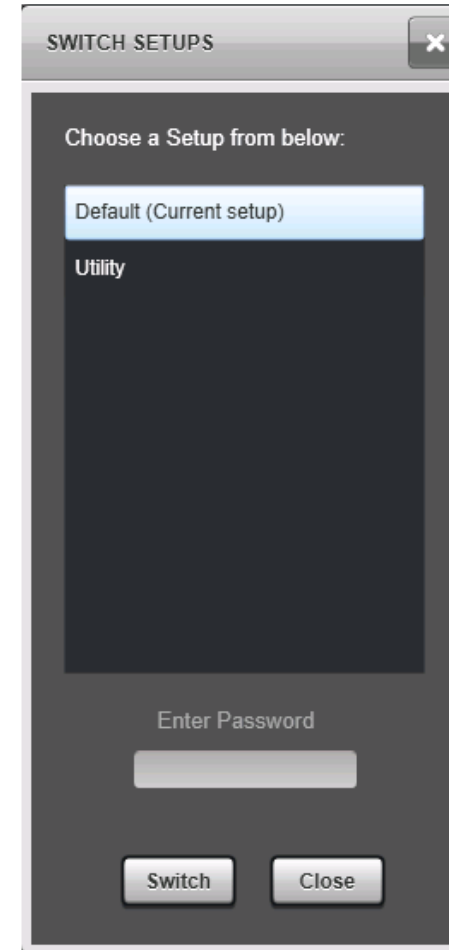
- Main menu (Setups)
- Create New Setup:
- Click the Harris logo in the top left of the display.
- Select **➡** Setups Create New Setup. The Create New Setup dialog opens.
- Enter a setup name (up to 14 alpha-numeric characters).
 - If you want to require a password to access the setup, check Password Protect and enter the password.
 - If you want the new setup to open after creation, check Switch to new setup after creating.
- Click Create.



Select Bar (cont'd)



- Main menu (Setups)
- To switch to a new setup:
- Click the Harris logo in the top left of the display.
- Click Setups Switch Setups. The SWITCH SETUPS dialog opens. Choose the desired setup from the list.
- Click Switch.



Select Bar (cont'd)



- Main menu (Setups)
- Delete Setups:
- Click the Harris logo in the top left of the display.
- Select Setups ➡ Manage Setups.
 - The Manage Setups dialog opens
- Select the setup to delete from the list on the left of the MANAGE SETUPs dialog.
- Click Delete.

Select Bar (cont'd)

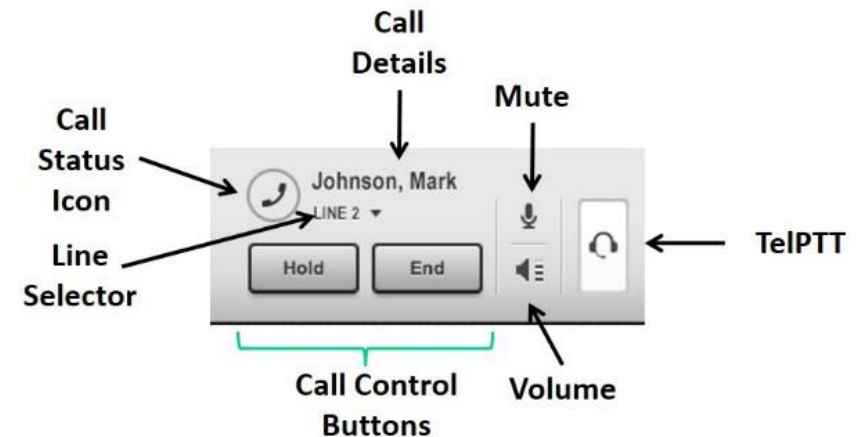


- Main menu (Setups)
- To Rename Setups:
- Click the Harris logo in the top left of the display.
- Select Setups ➡ Manage Setups.
- The Manage Setups dialog opens.
- Select the setup to rename from the list on the left of the Manage Setups dialog.
- Check the Rename this setup box.
- Enter the new name in the text box provided.
- Click Rename.

Select Bar (cont'd)














- Compact Telephony Control
- Provides an always-available control that manages ringing and active telephony calls.
- Call Status: Shows the current state of the call.
- Call Details: Information about the caller/callee.
- Line Selector: Shows the current selected line.
- Mute: Mute the mic audio to the phone.
- Volume: Volume control.
- Call Control Buttons: Controls the call situation.
 - Ringing call: the buttons are Answer and Decline.
 - Active call: the buttons are Hold and End.
- TelPTT: Indicates when the call is active and/or in a TelePatch.





Call Status Icon Table

ICON	DESCRIPTION
	No call is currently active
	Call is ringing. Applies to inbound and outbound calls.
	Call on the primary line is ringing. Applies to inbound and outbound calls.
	Call is active. Audio flows to and from the remote party.
	Call failed. See the System History for details on the call failure.
	Call is on hold.
	Call has been placed on hold remotely (i.e., by the far side, not Symphony).
	Calls are forwarded.
	Call is being transferred.
	Call is in a TelePatch.
	Call in TelePatch is on hold.

Select Bar (cont'd)



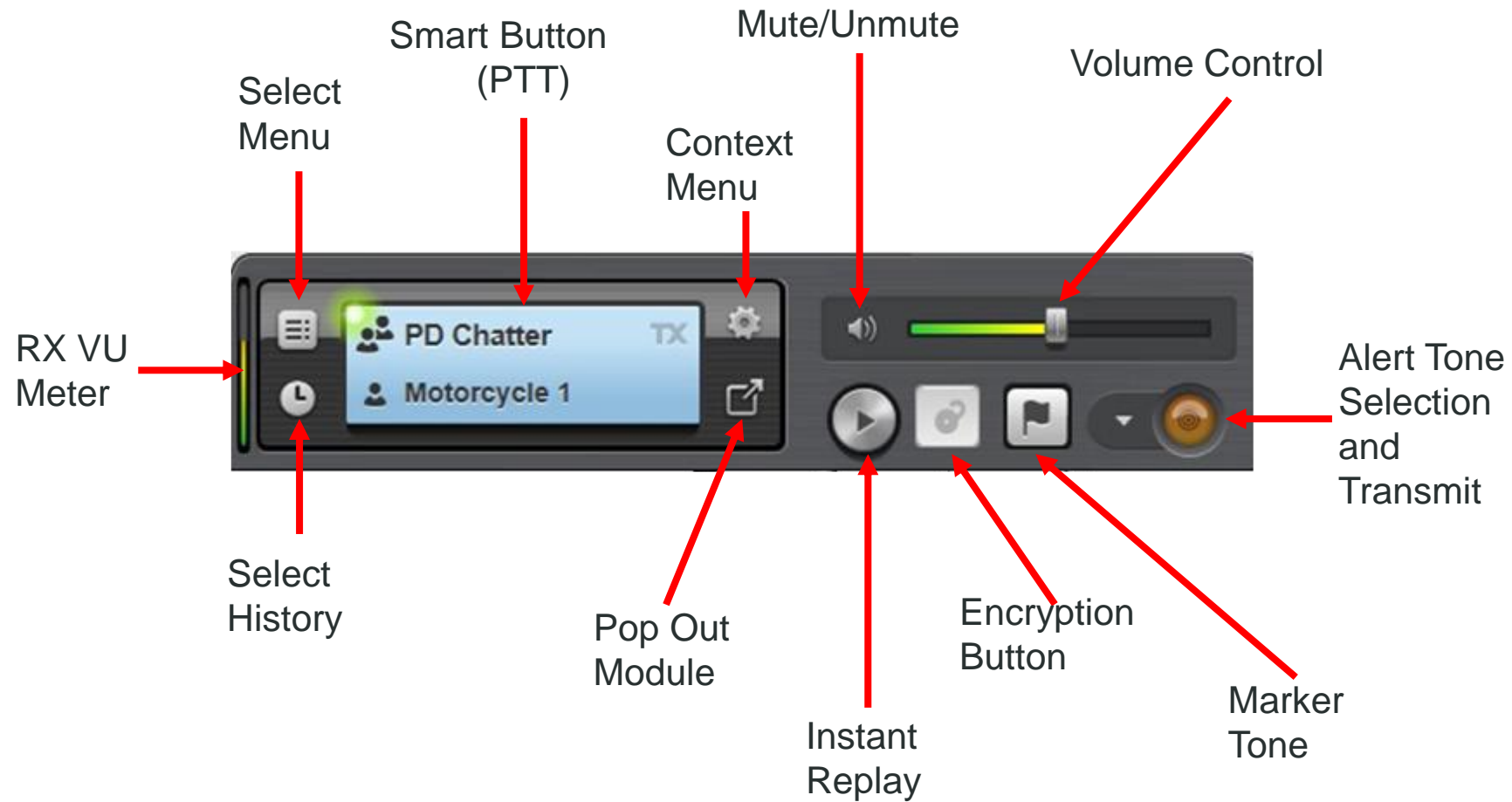
- Transmit Indications
- Transmit indications provide valuable information about the types of transmissions that are in progress.
- The following describes the LEDs when active:
 - PTT: Foreground PTT. Typically, the dispatcher mic, but can be foreground Pages.
 - Tel: Mic Audio is being sent to the phone.
 - Other: Background TX. The VU meter is inactive for background transmissions.



Select Bar (cont'd)





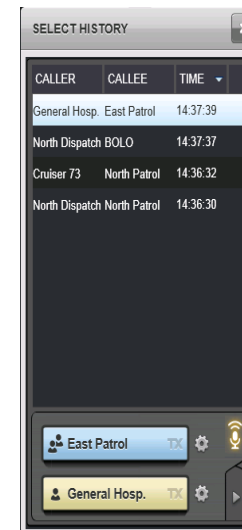
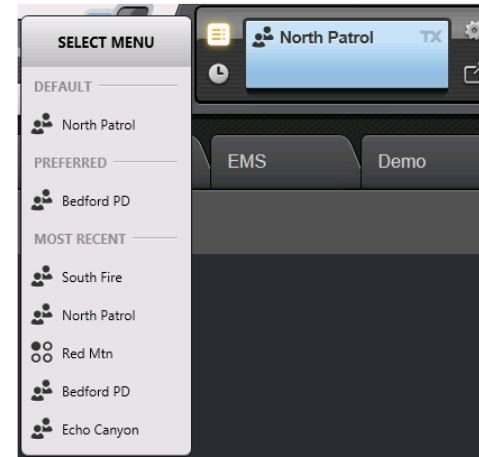
- Select Module



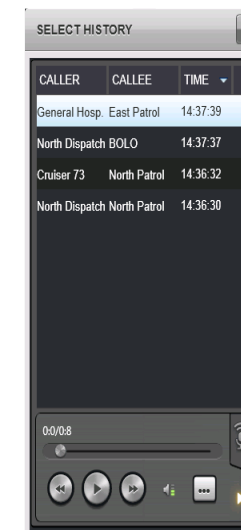
Select Bar (cont'd)



- Select Module
- RX VU Meter: Receive VU Meter provides a visual indication of the select receive audio level.
- Select Menu:  Provides a convenient way to change the select group to the Default Select entity, Preferred Select entity, or a recent entity that has occupied the Select Module.
- Select History:  Provides the user with a list of the most recent calls that have occurred on the entity that currently occupies the Select Module.







Callback Controls



Playback Controls



Select Bar (cont'd)

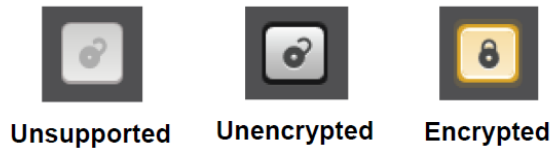


- Select Module
- Context Menu:  Provides quick access to menu options common to most modules.
 - Pop Out Module
 - Open History
 - Open Directory
 - Activate/Deactivate Marker Tone
- Pop Out Module:  Allows the user to pop out a module.
- Instant Playback:  Allows the user to replay the last incoming call on the entity.
- Marker Tone:  Enables and disables Marker Tones.

Select Bar (cont'd)






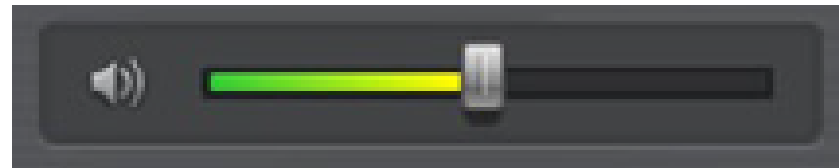
- Select Module
- Encryption Button:  Controls the transmit encryption state of the module.
 - Unsupported: The button is grayed out if the encryption is not licensed or if the module does not have encryption key.
 - Unencrypted: The button shows an unlocked padlock to indicate the module is enabled for unencrypted transmission.
 - Encrypted: The button glows orange and shows a locked padlock to indicate the module is enabled for encrypted transmission.
 - Forced Encryption: This feature disables the encryption key toggle button on the talk group modules forcing all communications to be 100% encrypted.
- Alert Tone Button:  Allow the user to choose the type of alert tone from a drop-down and transmit the tone to the module entity.



Select Bar (cont'd)








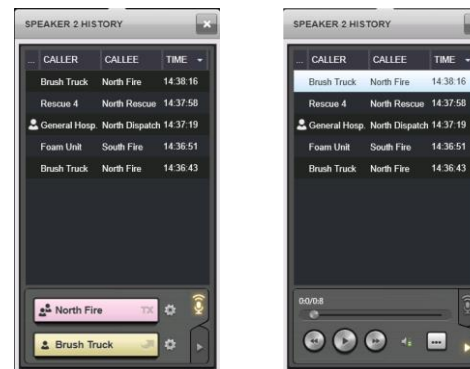
- Select Module
- Volume Control and Mute: Allow the user to drag the bar to increase or decrease Volume for the module.
- Click the speaker icon  on the slider volume control to mute the module.
- A diagonal striped pattern on the Smart Button  indicates the module is muted. Click the  icon to unmute.
- Muted calls are still recorded and can be located and replayed in the Radio Call History logs.



Select Bar (cont'd)



- Speaker Buttons:  The number of speaker buttons displayed is determined by how many speakers are physically connected to the console (maximum of four (4) can be displayed on GUI).
- UnSelect Mute All:  Mutes everyone except the select audio.
- Clicking the button starts a countdown timer  .
- Mute audible tones:  Only applies to tones sounding at the time the button is clicked (e.g. emergency).
- Level:  Sets the volume level for audible tones including telephony ringing.
- Clock Panel: Displays the current time. Time is displayed in hours: minutes: seconds.

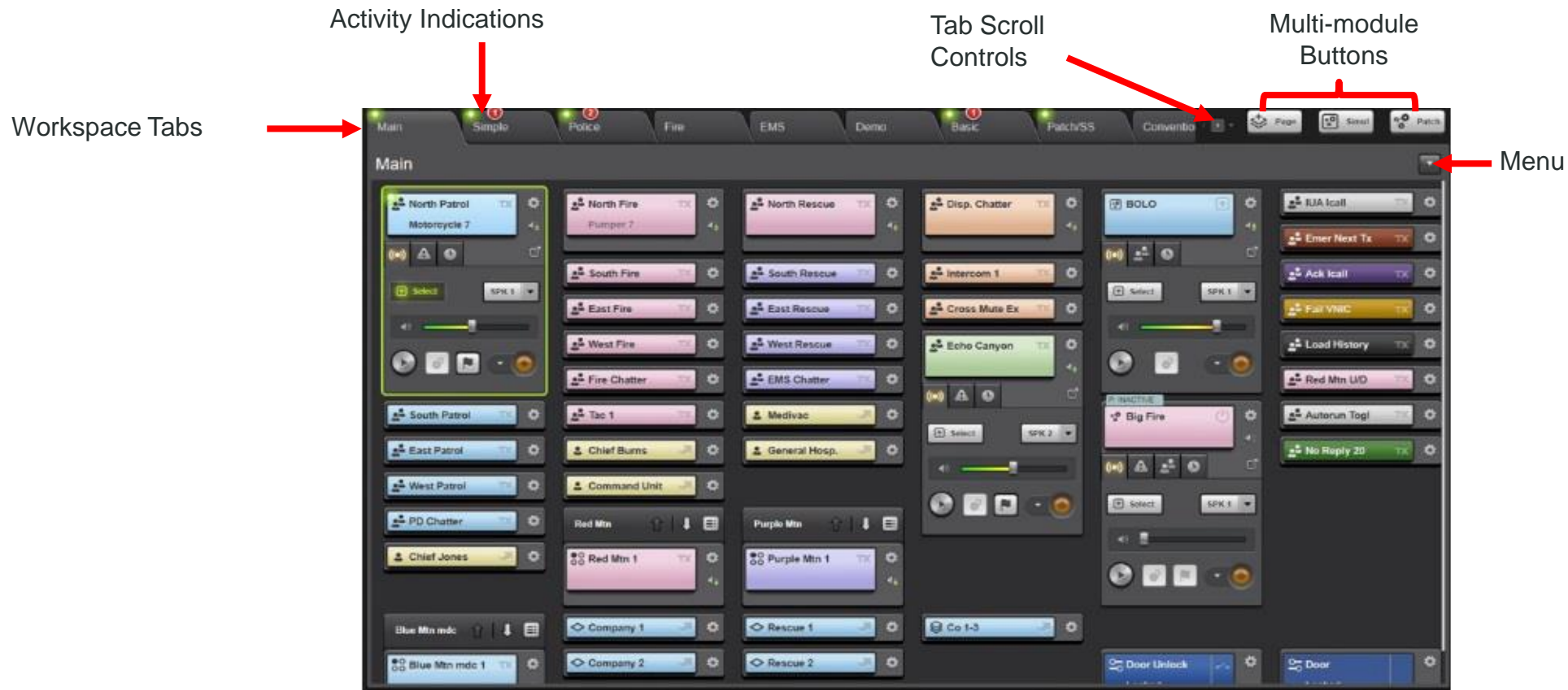


Workspace

Workspace



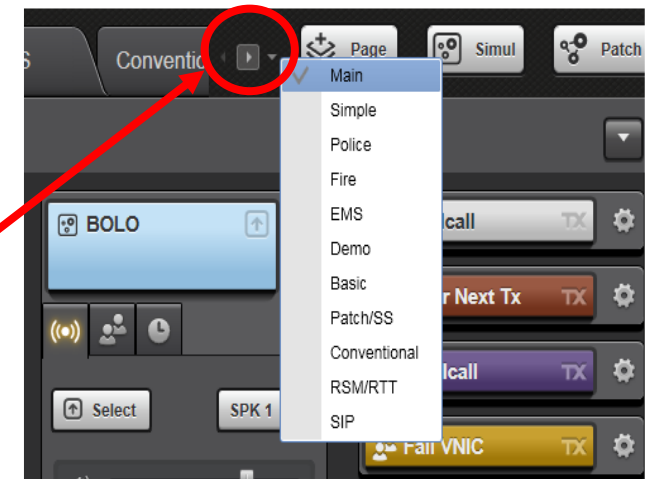
- The majority of the screen is dedicated to the Workspace which contains communications modules. The Workspace is divided into tabs to organize collections of modules.



Workspace (cont'd)



- Workspace elements include:
- Workspace Tabs: Each tab contains a unique collection of communication modules.
- Activity Indications: Each tab has activity indications that show when calls are in progress or that the tab contains an entity in the emergency state.
- Tab Scroll Controls: When there are more tabs than can be shown at once, a set of navigation arrows appear to scroll through the available tabs.
- Multi-Module Button: These buttons initiate features that require picking multiple modules such as Patch or SimulSelect.
- Menu: Provides quick access to the Extended History and Directory



Workspace (cont'd)

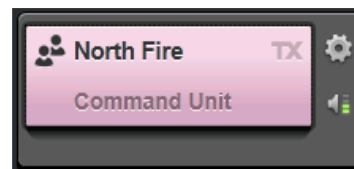


- A Communication Module is the fundamental component for communicating through the console. Each Communication Module represents a single entity, whether a talkgroup, a radio unit, a conventional channel, another console, a Patch, a SimulSelect, a page, a base station, or an aux I/O.
- The Full Screen display supports three module sizes: Normal, Small, and Mini.

Normal Module



Small Module

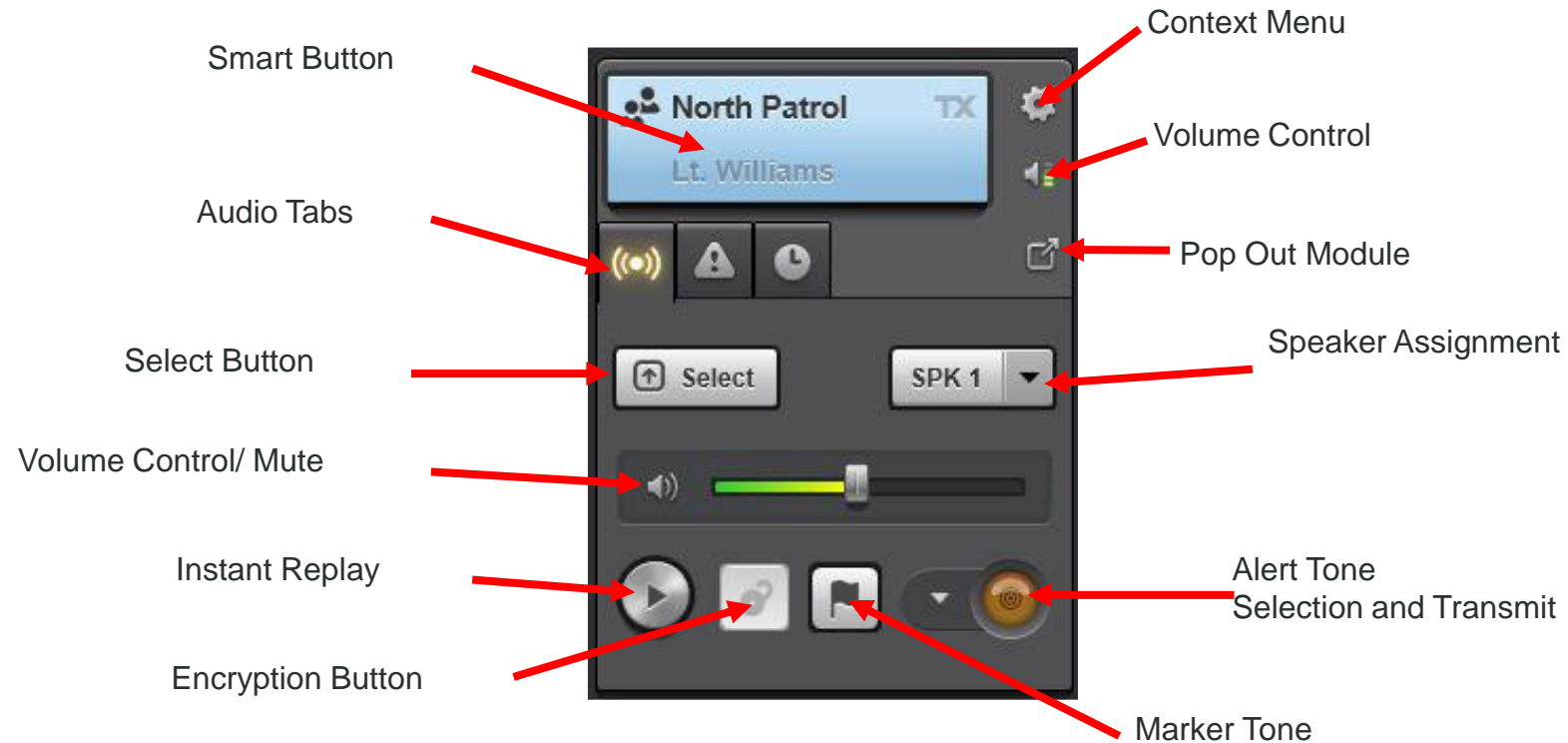


Mini Module



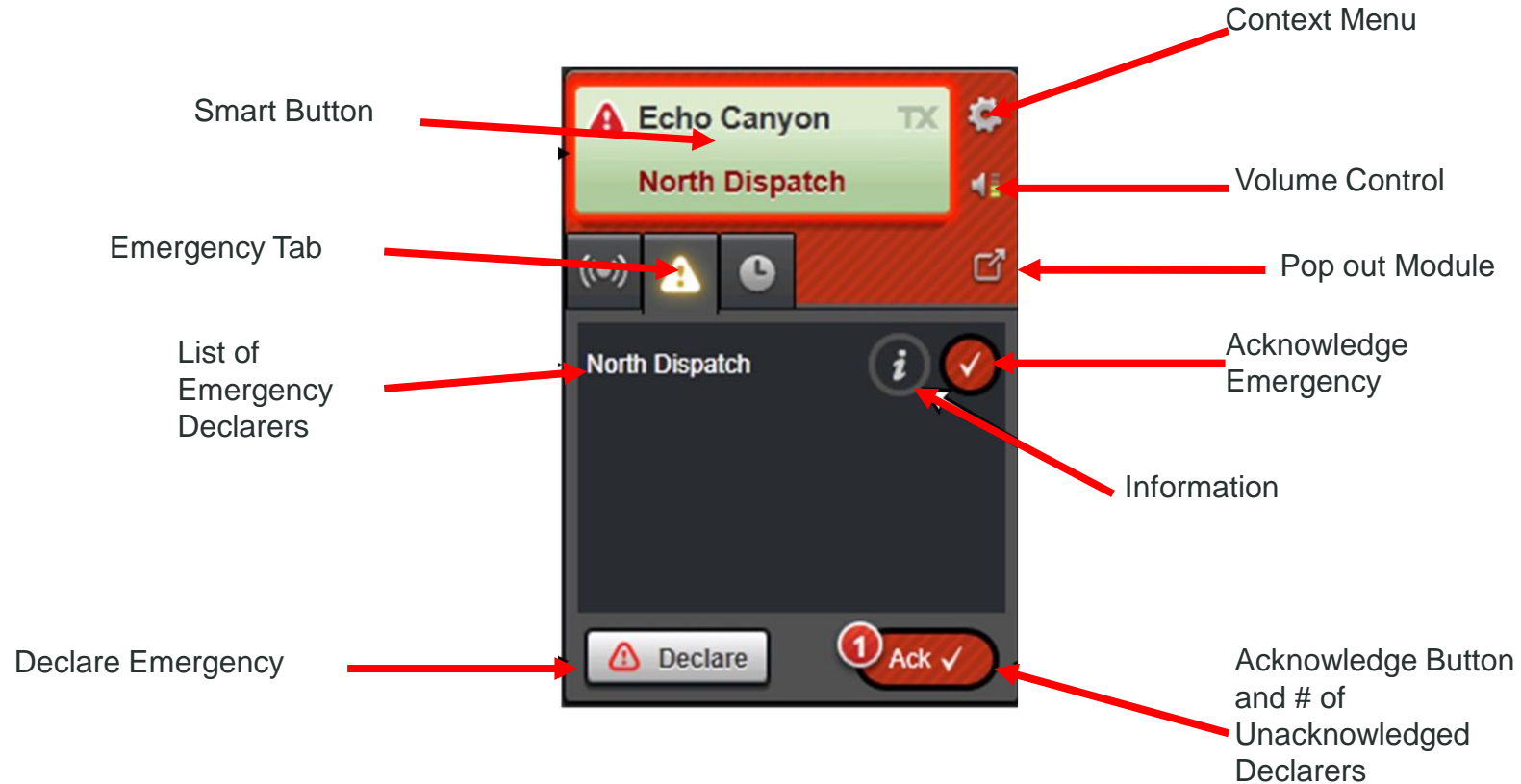


Audio Tab (Normal Module)





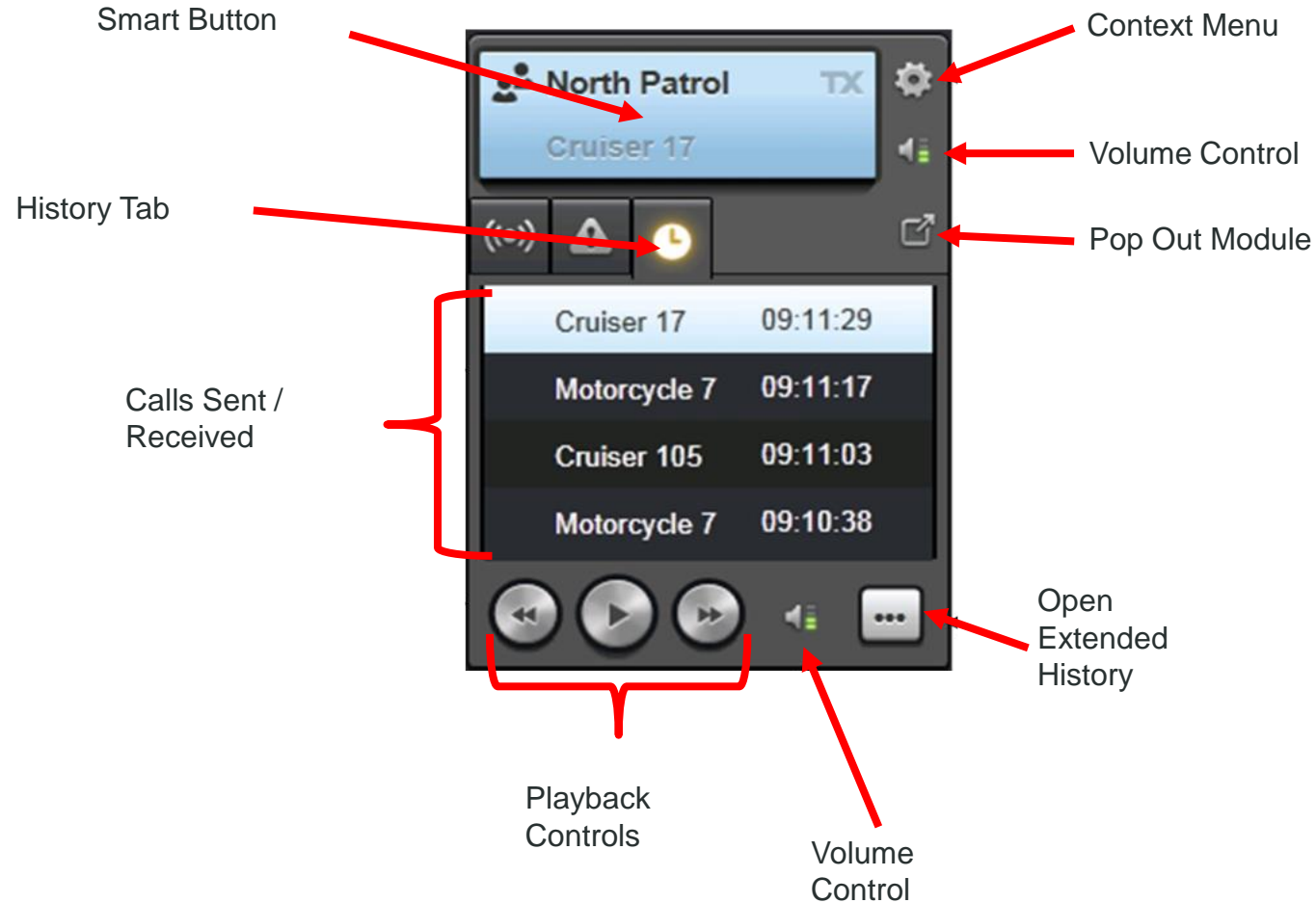
Emergency Tab (Normal Module)



Workspace (cont'd)



History Tab (Normal Module)



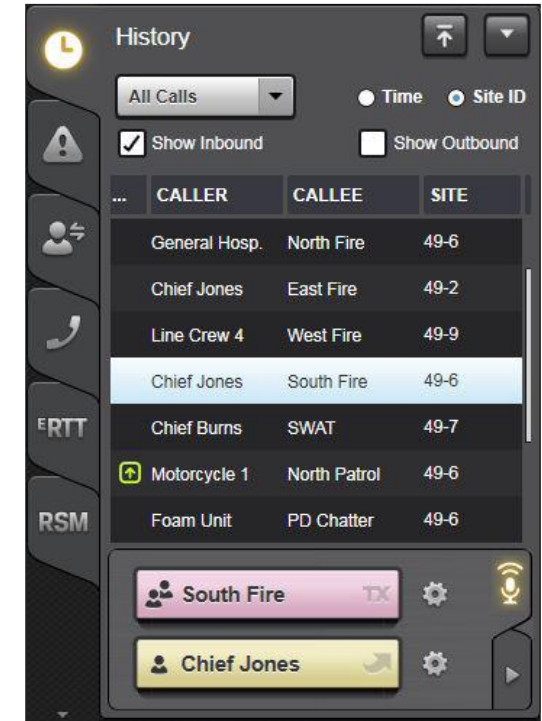
SIDEBAR PANEL

Sidebar Panel



History (Sidebar Panel)

- Shows calls sent or received, with the most recent calls displayed at the top of the list.
- Specify how to filter calls displayed from the filter options.
- Call entries list of all incoming calls received by the console (default = 100).
- Callback tab provides the console user with a mini communication module to call back the selected entity from the call history list.
- Playback tab allows the console user to playback an incoming call by selecting and highlighting a call from the list.



Sidebar Panel (cont'd)



Emergency (Sidebar Panel)

- Displays all active emergencies and user alerts from all monitored entities.
- If the “Route Unprogrammed Emergencies” option is enabled, all emergencies in the system are displayed in this panel, even if the module in emergency is not programmed on the console.
- From this tab you can acknowledge and clear the emergency, or you can transmit on the emergency group.
- The name/alias of the entity declaring the emergency or unit alert is displayed here.



Sidebar Panel (cont'd) Unit Alert with In-band GPS



- In a P25 system, the Symphony application displays GPS location information in Unit alerts when in-band GPS is enabled. This allows the dispatchers to view the location of the user when the emergency is declared. The alerts are displayed irrespective of whether the unit's affiliated group is monitored on the Symphony console. With Unit Alert Management, the application provides flexibility for managing incoming Unit alerts based on Group monitoring information on the console. The following configuration options are available for the users to manage the Unit alerts:
 - Do not show Unit Alerts from Group Zero
 - Do not show Unit Alerts from Unmonitored Groups
 - Do not show Unit Alerts from Monitored Groups
- When the alert is present, changing the underlying group monitoring status does not clear the Unit alert automatically. The user cannot decide on clearing it. This is because the user might still be interested in the location information present in the alert; in this case, clearing the alert automatically is undesirable.
- In the case of Patch, the Patch entities monitoring status is used for alert filtering.

Sidebar Panel (cont'd) Unit Alert with In-band GPS




- When the alert is present, changing the monitoring status to monitored shows the alert but will not have the GPS information. The GPS information is not available because, without Group monitoring, there is no way to receive the GPS information.

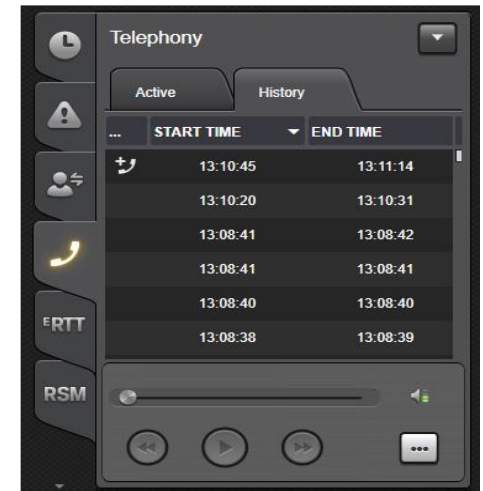


Sidebar Panel (cont'd)



Call Director (Sidebar Panel)

- Allows the dispatcher to view and control active telephony (Call Director) calls.
- The History tab displays all Call Director calls that have been made or answered from the Symphony dispatch console and allows the user to play back any of these calls.
- Active tab will show an entry identifying the call information.
- When it is required that an active call be TelePatched to another entity (a Talkgroup, radio Patch or BaseStation) the More button  can be used to open the Call Director TelePatch panel.



Sidebar Panel (cont'd)



Speaker (Sidebar Panel)

- Consist of a list of tabs, each representing a specific speaker on the console.
- The number of tabs is determined by how many speakers are connected to the console.
- In each speaker tab, mini Communication Modules are provided representing each group assigned to that speaker.




Sidebar Panel (cont'd)



System Status (Sidebar Panel)

- Shows the link status of VIDA elements.
- If a link is down, the element may still be operational, but Symphony cannot communicate with it.
- An element in VIDA can represent a single site, such as a P25 site, a single simulcast system, or an aggregation of devices such as conventional base stations.
- The All Elements tab shows all monitored VIDA elements and their current status.
- The Degraded tab only shows VIDA elements that are in a degraded state. If all monitored elements are operational, the Degraded tab shows “No Degraded Elements.”
- The System Status feature must be licensed and configuration in the Symphony Configuration Utility is required for this Sidebar Panel to be visible.



The screenshot shows the 'System Status' sidebar panel. It has two tabs: 'Degraded' and 'All Elements'. The 'All Elements' tab is active, displaying a table with columns: TYPE, ALIAS, ST, and TIME. The table lists eight sites, with Site 8 showing a degraded status (red X) and a time of 14:59:28, while all other sites show a green checkmark and various dates in 2018.

TYPE	ALIAS	ST	TIME
Site	Site 8	✘	14:59:28
Site	Site 1	✔	03/26/18
Site	Site 2	✔	03/25/18
Site	Site 3	✔	03/24/18
Site	Site 4	✔	03/23/18
Site	Site 5	✔	03/22/18
Site	Site 6	✔	03/21/18
Site	Site 7	✔	03/20/18

OPERATIONS

Patch





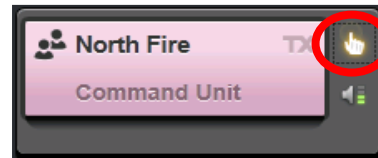
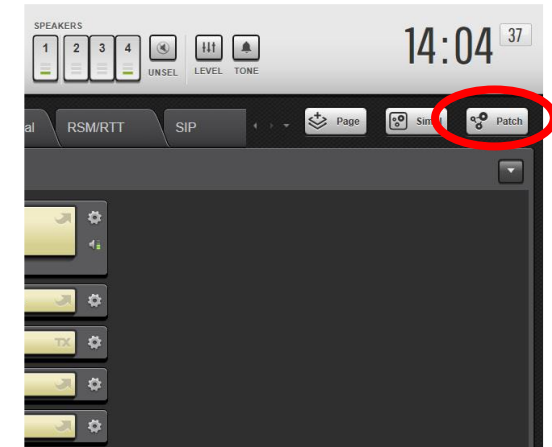
- The console's Patch feature allows trunked talkgroups and/or conventional channels to be connected as one common communication entity.
- Any group can be patched. However, if an Announcement Group is patched, talkgroups associated with that Announcement Group cannot be included in another Patch. Conventional channels can be patched.
- Symphony can be licensed for up to 16 patches active at one time.
- Each Patch can be created, activated when needed, and deactivated.
- Each Patch can consist of up to fifteen patchable entities.
- An entity can only be in one active Patch at a time.
- Patches can only be deactivated by the console that activated the Patch or by the RNM.
- There are two methods for creating a Patch.
 - Ad-hoc Patch from the Workspace
 - Patch using the NEW/EDIT PATCH dialog.

Patch (cont'd)



Ad-hoc Patches

- Click the **Patch** button in the top right corner of the console display.
- Click the  icon to pick each module that you want to include in the Patch. Click the  icon again to unpick a module.



- Click **Patch now** to activate the Patch.




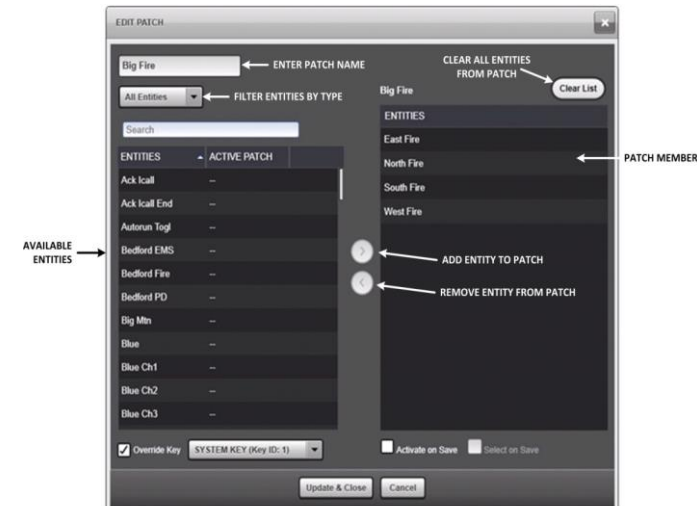
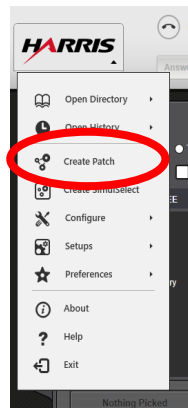
- Modules included in the Patch are identified with a tag that includes the name of the Patch.



Patch (cont'd)





- New/Edit Patches
- Click the Harris logo and choose Create Patch, or click  in the top right corner of the Patch Sidebar Panel and choose Create Patch.
- The NEW/EDIT PATCH dialog opens.
- Enter a name for the Patch.
- Choose the entities from the list on the left and click > to add the Patch member list on the right.
- Specify whether or not to activate the Patch (Activate on Save & Close) and to select the Patch (Select on Save & Close).
- Click Save & Close.



Patch (cont'd)



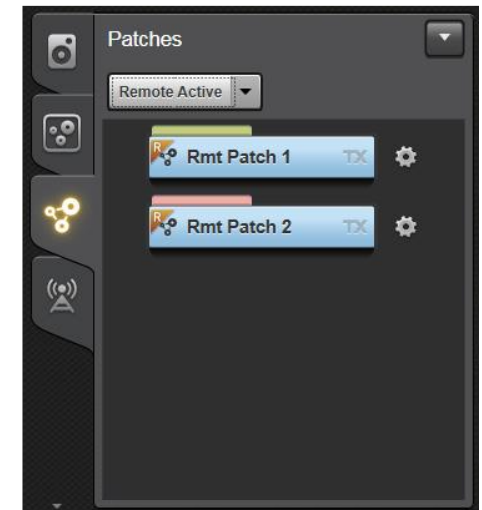
- View Patches
- View and interact with Patches via the Patch Sidebar Panel. Choose the desired filtering option from the drop-down. Available options include: All, Local Active, Local Inactive, and Remote Active.
- Delete a Patch
- From the Patch Sidebar Panel, click the context menu button  on the Patch you want to delete.
- Choose Delete Patch.
- Edit a Patch
- From the Patch Sidebar Panel, click the context menu button  on the Patch you want to edit.
- Choose Edit Patch. This selection is not available if the Patch is active.
- The NEW/EDIT PATCH dialog opens. Make the desired changes to the Patch and click Save & Close.



Patch (cont'd)



- Remote Patch
- The following list identifies several restrictions applicable to remote Patch operations:
 - A remote Patch cannot be deactivated or cleared at the local console. It must be deactivated or cleared by the remote console that created it, or by the system or dispatch administration personnel.
 - The local console cannot activate a pre-defined Patch or SimulSelect that contains a group or conventional channel currently in a remote Patch.
 - The local console cannot create an Ad-hoc Patch or SimulSelect that contains a group or conventional channel currently in a remote Patch.
 - The local console MAY add a group or channel to a Patch or SimulSelect definition even if it is included in a local or remote Patch.





SimulSelect

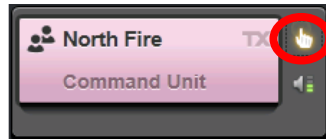


- From the dispatcher's point-of-view, SimulSelected groups/units/channels are connected together for common dispatch communications.
- From a radio user's point-of-view, the SimulSelect does not exist because the groups/units/channels in the SimulSelect remain separate communication pathways.
- Allows simultaneous selection of up to fifteen trunked talkgroups, individual trunked radio units, and/or conventional channels.
- This feature is used when common broadcasts must be made from the console on two or more groups/units/channels, such as an "all-points bulletin."
- Incoming calls on the respective groups/units/channels are heard in the select speaker or headset.
- A selected transmission from the console is simultaneously broadcast on all groups/units/channels in the active SimulSelect.
- The console can activate only one SimulSelect at one time.

SimulSelect (cont'd)



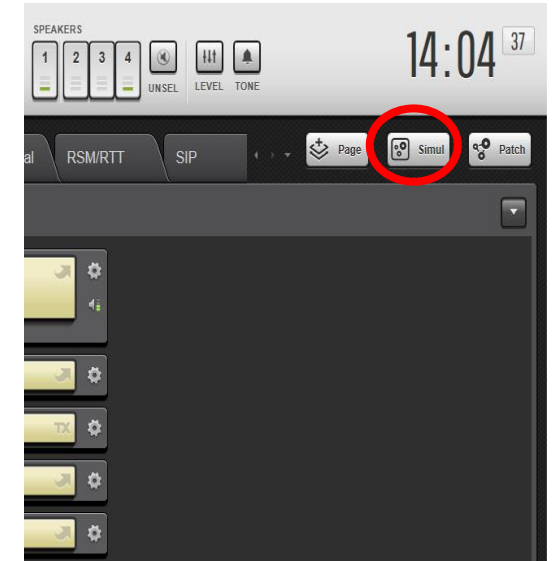
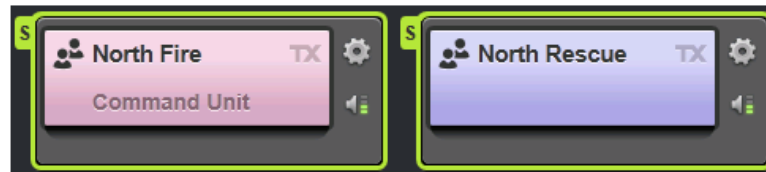
- Ad-hoc SimulSelects
- Click the Simul button in the top right corner of the console display.
- Click the  icon to pick each module that you want to include in the SimulSelect. Click the  icon again to unpick a module.



- Click SimulSelect now to activate the SimulSelect.




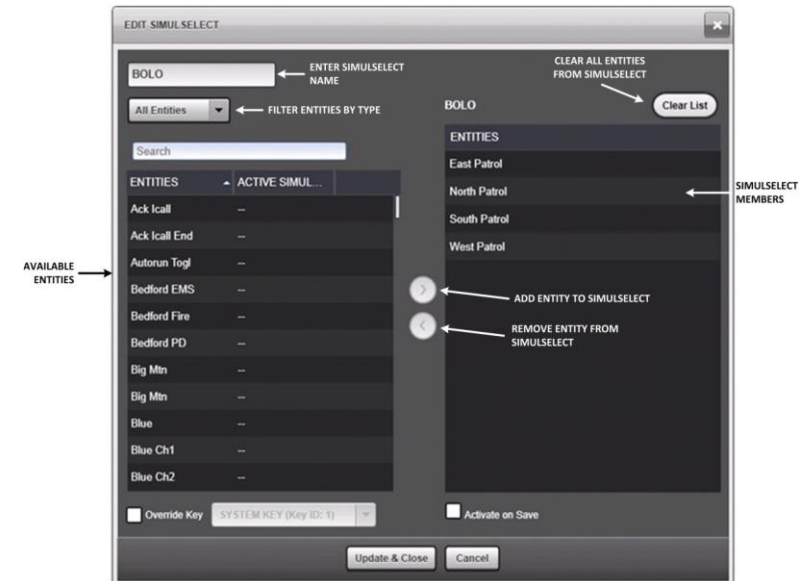
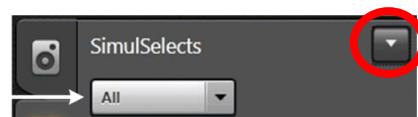
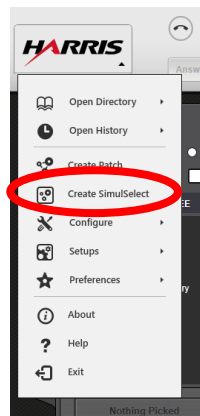
- Modules included in the SimulSelect are identified with an “S” tag.



SimulSelect (cont'd)




- New/Edit SimulSelect
- Click the Harris logo or click  in the top right corner of the SimulSelect Sidebar Panel.
- Choose Create SimulSelect. The NEW/EDIT SIMULSELECT dialog opens.
- Enter a name for the SimulSelect.
- Choose the entities from the list on the left and click > to add the SimulSelect member list on the right.
- Specify whether or not to activate the SimulSelect (Activate on Save & Close).
- Click Save & Close.



SimulSelect (cont'd)



- View SimulSelects
- View and interact with SimulSelects via the SimulSelect Sidebar Panel.
- Delete a Saved SimulSelect
- From the SimulSelect Sidebar Panel, click the context menu button  on the SimulSelect you want to delete.
- Choose Delete SimulSelect.
- Edit a SimulSelect
- From the SimulSelect Sidebar Panel, click the context menu on the SimulSelect you want to edit.
- Choose Edit SimulSelect. The Edit SimulSelect option is only available when the SimulSelect is inactive.
- The NEW/EDIT SIMULSELECT dialog opens. Make the desired changes to the SimulSelect and click Save & Close.



SimulSelect (cont'd)



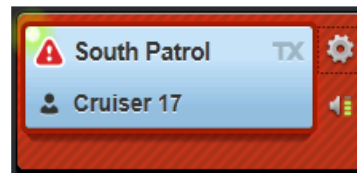
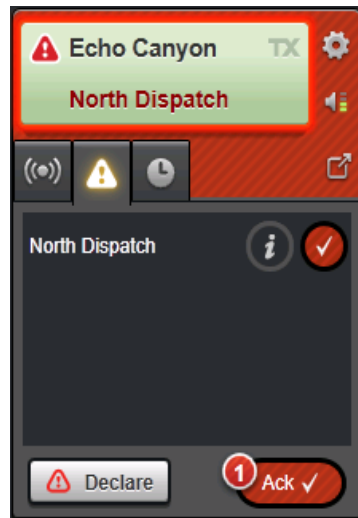
- Remote SimulSelect
- The following identifies several operational restrictions applicable to remote SimulSelect operations:
 - A remote SimulSelect cannot be deactivated or cleared at the local console. It must be deactivated or cleared by the remote console that created it, or by the system or dispatch administration personnel.
 - The definition of a local Patch or SimulSelect may be modified while a group, unit or conventional channel is currently in a remote SimulSelect.
 - A local Patch or SimulSelect definition that contains a group, unit, or conventional channel currently in a remote SimulSelect cannot be activated at the local console. This includes creating Ad-hoc patches and SimulSelects.



Emergency Operation




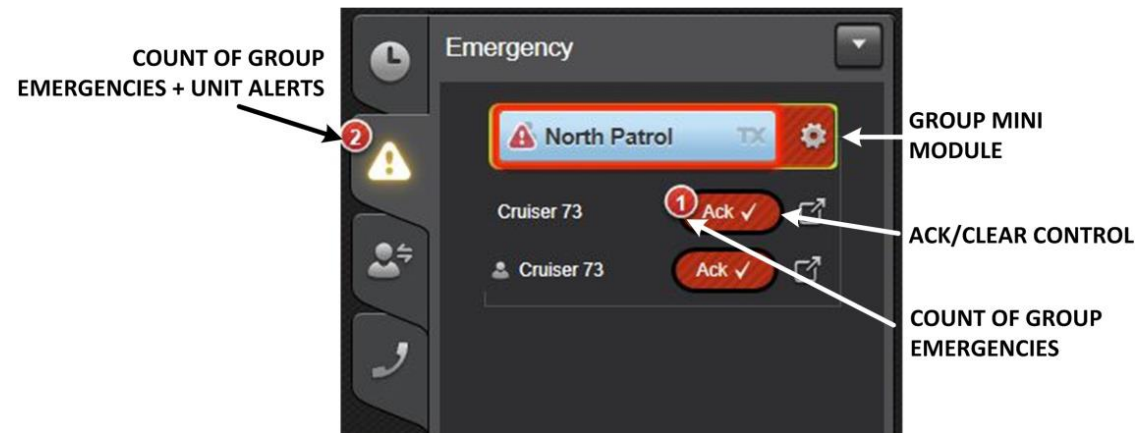
- A group emergency can be declared on any trunked talkgroup.
- Group emergencies are not available from base stations.
- This feature provides a quick and easy means of identifying special circumstances, such as a life-threatening situation, that must be acted upon immediately by system personnel logged into or monitoring the group.



Emergency Operation (cont'd)



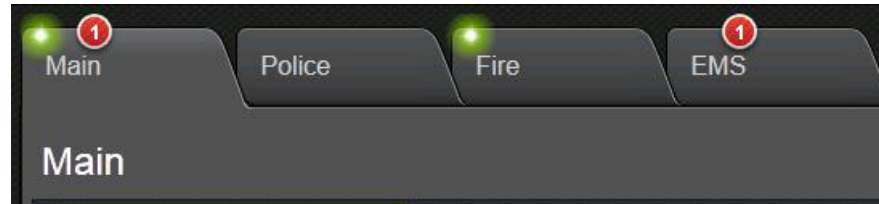
- Receive Emergency Group Calls
- When an emergency call is received, there are both visual and audible indications at the console. The visual indications displayed for an incoming emergency group call include:
 - The Communication Module is highlighted red and  flashes on the module's Smart Button.
 - Normal size modules include an emergency tab to manage the emergency on this group.
 - The Ack/Clear control includes a badge with the count of uncleared group emergencies.
 - The Emergency Sidebar Panel is populated with a mini module for each group in emergency and an Ack/Clear control with a badge as shown



Emergency Operation (cont'd)



- Receive Emergency Group Calls (cont'd)
- An emergency badge indicating the number of emergencies plus the number of unit alerts is displayed on the Workspace tab of the Full Screen display or the emergency button of the Baton.



- The audible emergency indications at the console are heard as an alarm that begins sounding upon declaration of the emergency. During the emergency, this alarm can be silenced locally at the console without clearing the emergency by clicking the TONE button in the Select bar.

Emergency Operation (cont'd)



- Transmit on an Emergency Group
- During an emergency condition, the console's transmit functions operate the same as during non-emergency conditions.
- This includes operations on the groups within the emergency and on other entities programmed into other Communication Modules.
- Both selected transmits and unselected transmits can be performed per standard PTT actions.






Emergency Operation (cont'd)



- Declare an Emergency
- The procedure listed below describes how to declare an emergency on a trunked talkgroup:
- If the module on which the emergency is to be declared is not on the currently displayed Workspace tab, switch to the appropriate Workspace tab or use the Directory dialog to access the module.
- Display the emergency tab on the Communication Module (pop-out mini and small modules to access the emergency tab).
- Click and hold the Declare button for one second. The delay prevents accidental emergency declaration. After the emergency is declared, release the button.
- Once the emergency is declared, continuing to hold down the button transmits on the talkgroup allowing the dispatcher to make an announcement.
- Once the announcement is completed, unkey the Declare button to end the call.




Emergency Operation (cont'd)



- Acknowledge/Clear an Emergency
- From a group module:
- If the emergency group module is not on the currently displayed on the Workspace, switch to the appropriate Workspace.
- On the emergency tab, click  at the bottom of the tab to acknowledge all emergencies on the group, or click  to acknowledge a specific declarer.
- Click  at the bottom of the tab to clear the emergency in the system.
- From the Emergency Sidebar Panel:
- Click  under the group mini module to acknowledge all emergencies on the group. To individually acknowledge each declarer, use the emergency tab procedure described above.
- Click  under the group mini module to clear the emergency in the system.

Alert Tones

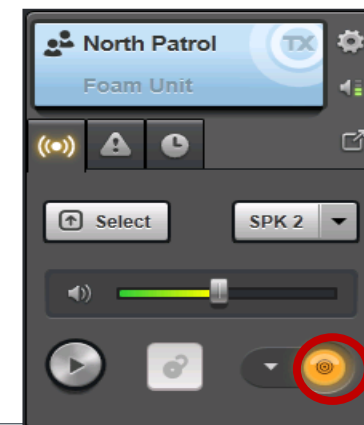
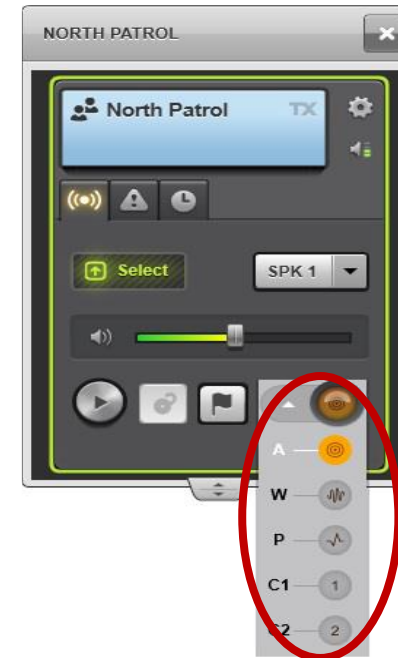


- Typically, tone transmissions are utilized during emergency operations to signal radio units of various predefined emergency conditions, with voice transmissions following. When a tone is transmitted from the console, it is simultaneously heard in a speaker at the console.
- Five separate distinctive tones can be transmitted from the console to signal emergency conditions:
-  Alert Tone (A) - A continuous medium-frequency tone that sounds while the respective button is depressed.
-  Warble Tone (W) - A repeating sequence of a medium-frequency tone followed by a higher frequency tone that sounds while the respective button is depressed.
-  Pulse Tone (P) - A medium-frequency tone that turns on and off repeatedly while the respective button is depressed.
- Custom1 Tone (C1) - A custom1 tone that sounds while the respective button is depressed.
- Custom2 Tone (C2) - A custom2 tone that sounds while the respective button is depressed.

Alert Tones (cont'd)



- To transmit an alert tone:
- Choose the desired tone type from the drop-down on the audio tab of the Communication Module if you want to change the setting.
- Click and hold the orange button to transmit the tone. The button will light during tone transmission. Release the button to stop tone transmission.



Unit Alert



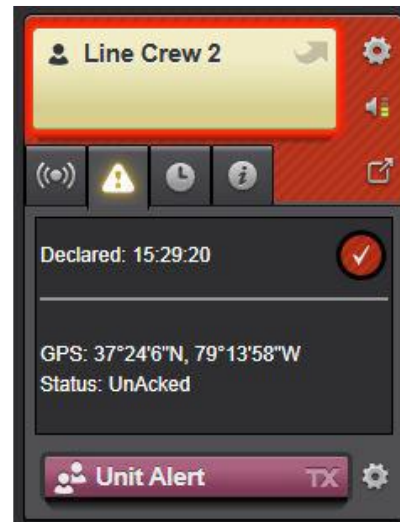
- Unit alerts are initiated by radios and are managed at the console.
- The console cannot declare a unit alert.
- When the console acknowledges or clears a unit alert, these actions only apply to the system and do not change the state in the radio.
- The radio user must clear the unit alert in the radio. However, changes in the system unit alert state are seen by all consoles.
- Unit alerts appear in the Emergency Sidebar Panel and an alarm tone sounds.
- A badge appears on the Emergency Sidebar Panel tab indicating the number of group emergencies plus the active unit alerts.



Unit Alert (cont'd)



- Click the Ack button to acknowledge the unit alert and silence the alarm tone. This also takes ownership of the unit alert so only this console can clear it. The Ack button changes to a Clear button. Click the Clear button to clear the unit alert if you acknowledged the unit alert. Each unit alert must be individually acknowledged and cleared. If the unit alert is acknowledged by another console, the Ack button changes to Owned so the unit alert cannot be cleared from this console.
- Unit alerts are also indicated in the emergency tab of individual modules.
- This tab provides information about the unit alert including the declaration time and GPS location if available.



Telephony Operation



- Symphony supports two kinds of telephony:
- Call Director: This feature connects a physical phone to the console as if the console were a headset for the phone. All telephony functions are controlled with the physical phone.



Since Call Director is a feature-licensed option, this feature is only available if the console is equipped with this software license.

Telephony Operation – Call Director (cont'd)



- Call Director Operations
- The Symphony Console can be connected to a telephone for telephone-interconnect operations.
- This enables the dispatcher to access standard telephone lines for standard telephone call operations while maintaining normal dispatch communications.
- The Call Director (CD) feature manages the communications with the telephone and coordinates interactions with radio dispatch features.
- Symphony provides a Call Director Control which indicates the current on/off-hook status and serves as a telephone PTT when the headset is not used.



On-Hook



Off-Hook

Telephony Operation – Call Director (cont'd)



- Local Call Director Operations
- Connecting a phone to the Symphony Call Director feature is referred to as “local” since no radio units are involved.
- During local CD operations, normal dispatch operations can continue as normal.
- Using the CD Volume Slider
- The volume of the audio from the Call Director telephone to the select speaker/headset can be controlled using the CD Volume Slider control.
- To adjust the volume:
 - Click on the Volume Slider icon to display the Volume Slider popup.
 - Adjust the volume by moving the slider as required. The changes in the volume level can be heard on the connected headset or speaker while the slider is being moved.



Telephony Operation – Call Director (cont'd)



- Using the Desk Microphone and Speaker
- Take the phone off-hook by lifting the handset or pressing the headset button. Incoming select audio will also be heard in the select speaker.
- At the phone, dial the desired telephone number.
- When the telephone user answers, their voice is heard in the select speaker along with incoming select audio, if any.
- To speak to the telephone user, PTT via the CD Control button.
- Release CD Control to listen to the reply.
- Re-PTT the console and monitor replies as necessary.
- To end the telephone call, hang up the phone. The CD Control indicates the on-hook condition.


Telephony Operation – Call Director (cont'd)

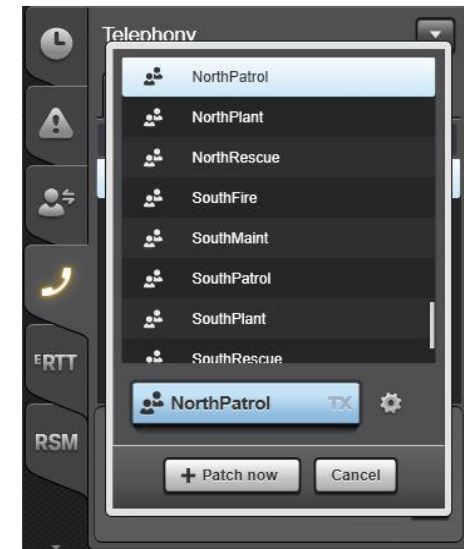
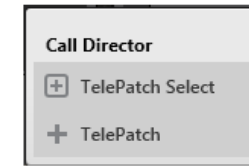


- Using the Headset
- The following procedure details operations required to place a telephone call with the Call Director while using a headset at the console. No console PTT action is necessary when speaking to the CD telephone callee since CD operation is full-duplex.
- Take the phone off-hook.
- At the phone, dial the desired telephone number.
- When the telephone user answers, their voice is heard in the headset.
- No PTT action is required to speak to the telephone user; speak into the headset's microphone. Incoming audio is heard in the headset. Incoming select audio is heard in the select speaker.
- To end the telephone call, hang up the phone.
- If, during the above procedure, a select or unselect (“instant”) transmission is performed, console headset microphone audio temporally switches from the CD telephone to the selected/unselected entity.

Telephony Operation – Call Director (cont'd)



- TelePatch a CD Telephone Call
- When the Call Director telephone call is established, the operator can patch the phone call to a Talkgroup, radio Patch, or a Base Station by using the  button on the Telephony Sidebar Panel Active Tab.
- When selecting “TelePatch Select,” the outside phone will be patched to the current Select entity. The Smart button in the Select bar will now show the TelePatch cross icon as well as the active call radiating waves.
- From the TelePatch Dialog, the desired entity to patch the phone call to can be selected. Once selected, the Patch now button will be enabled if the entity is available to patch.



Paging

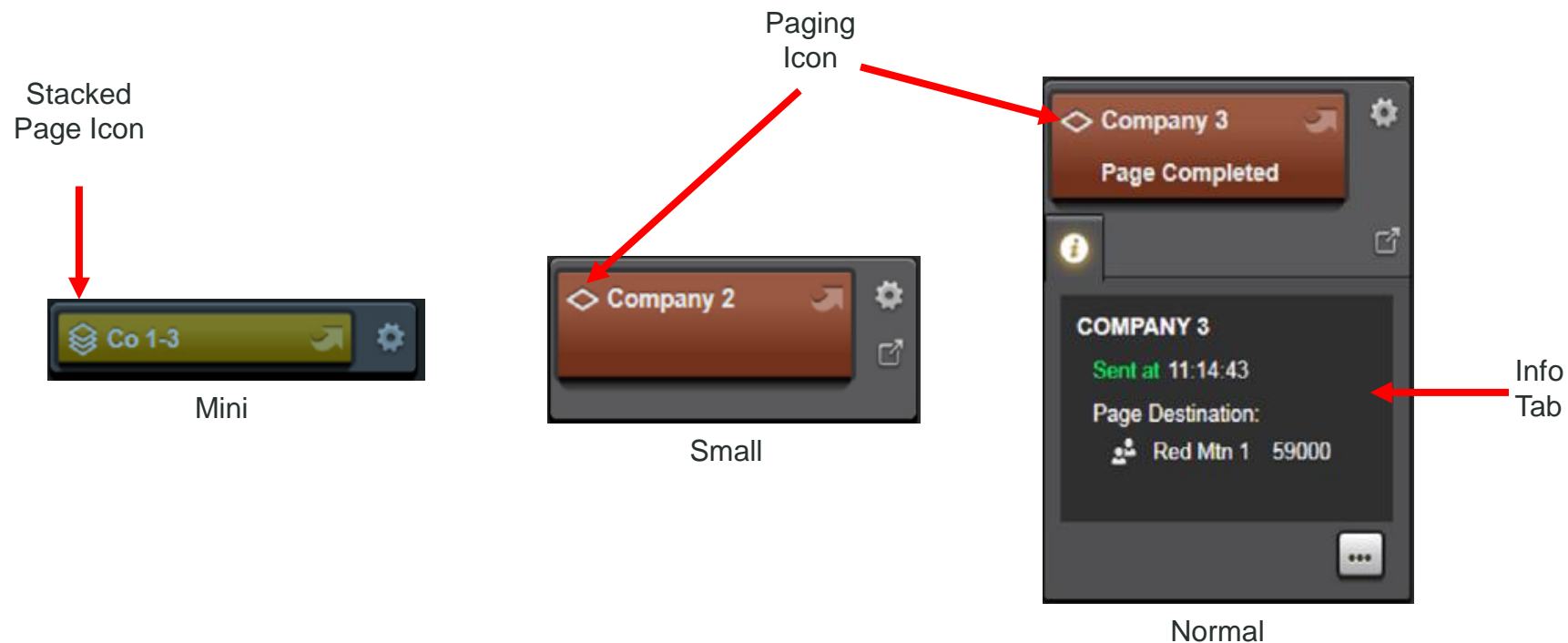


- The Symphony Dispatch Console supports single sequence paging, stacked paging, “One Touch” paging, and Composite paging.
- A paging sequence is a sequence of tones sent to a single group, conventional channel, or unit.
- The sequence is designed to only set off a select set of pagers such as a fire station or a collection of volunteer firemen.
- A paging stack is a collection of related paging sequences that are issued together from a single paging module.
- The “One Touch” paging feature allows the operator to send a page or stacked page, open a SimulSelect, and send the optional alert with one touch of the paging module.
- The composite page can also include an alert and automatic SimulSelect at the end.

Paging (cont'd)



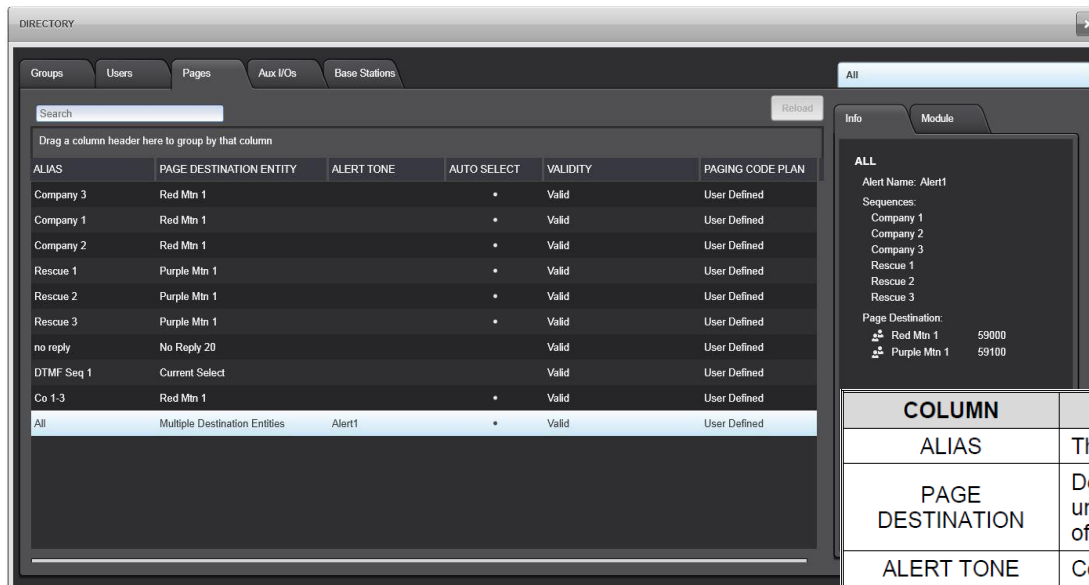
- Paging Modules
- Symphony supports three sizes of paging modules.
- The mini module contains a single line Smart Button, the small module contains a two-line Smart Button and the Normal module extends the small module with a single information tab.



Paging (cont'd)



- Paging Directory Tab
- The Paging Directory Tab provides a summary of all paging parameters.



COLUMN	DESCRIPTION
ALIAS	The alias for the page.
PAGE DESTINATION	Destination of the page. The destination can be a group, conventional channel, unit or multiple destinations. In the latter case, see the Info tab for a complete list of the destinations.
ALERT TONE	Contains the name of the alert if an alert tone is included with the page.
AUTO SELECT	Contains a dot if Symphony will auto select all the destinations when the page completes.
VALIDITY	“Valid” if the page is properly defined, “Invalid” with explanation otherwise. The validity of a page can change over time if for example a destination base station is down or group definitions are changed in the system.
PAGING CODE PLAN	Symphony currently supports “User Defined” pages.

Paging (cont'd)



- Paging Operation
- Symphony supports two types of pages. Analog pages are sent as normal calls to their destination Talk group(s), unit(s) or channel(s) the paging tones are transmitted as part of the call. Digital pages may only be sent to a single destination unit and may only contain Standard DTMF or KNOX™ DTMF tones.
- Sending Analog Pages
- Analog paging sequences, stacks, and “One Touch” pages are defined by the administrator and assigned to modules on the Workspace.
- To send a page, press the Smart Button on the appropriate Page Module.
- If the module contains a paging sequence, the second line of the Smart Button, if available, displays “Page in Progress” while the tones are being transmitted and “Page Completed” when the sequence is complete.

Paging (cont'd)

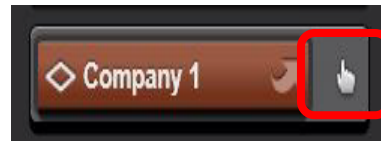


- Sending Digital DTMF Pages
- The Symphony administrator may configure page modules to send digital pages. These pages do not create a call and instead send a digital message to the radio instructing it to produce the desired DTMF tones.
- Digital DTMF pages may be sent as a single sequence, as part of a stack or composite page and they may be “One Touch” pages.
- There are some important differences to be aware of when working with Digital DTMF pages:
 - Digital pages do not produce a tone at the console when they are sent.
 - If the system is unable to deliver the page command to the radio, the module will display “Page Denied” or a similar error message.
 - Except when using an Alert or AutoSelect, digital pages are considered complete as soon as the digital command is delivered by the system.
 - When a digital DTMF page has an AutoSelect or Alert (or is part of a composite or stack which has one), the console will pause to allow the radio to completely play out the DTMF tone before proceeding.

Paging (cont'd)



- Send a Composite Page
- A composite page provides the ability to define a page on the fly from existing paging modules. To build a composite page, press the Page button in the upper right corner of the Workspace.
- The composite page dialog box appears and the context menu icon (gear) on each paging module is replaced by a hand icon.
- Click on the hand icon of the modules you want to include in the composite page.
- Check the “Simul” check box to AutoSelect all the destinations of the picked pages that have AutoSelect enabled.



Paging (cont'd)



- Abort a Page
- To abort a pre-defined page in a paging module, do one of the following:
- Open the context menu on the page module.
- Click the “Abort Page” menu item.
- Or
- Press the Abort button just below the Select Bar in the upper right corner of the screen.
- To abort a composite page, do the following:
- Press the Page button to open the Composite Page Dialog if it is not already open.
- Press the Abort button on the dialog.
- Press the Cancel button on the dialog to close out the dialog.



Base Station Control



- The Symphony Dispatch Console supports conventional base station control with special modules. This allows dispatch communications with the conventional radio units operating on the respective conventional base station equipment interconnected to the VIDA system via the Interoperability Gateway. Communications include receiving calls from and transmitting calls to the conventional radio units as well as emergencies declared by conventional radios using MDC-1200 signaling.
- Symphony currently supports the most common base station type known as TnRn. This type of base station supports one transmit/receive channel pair at a time, but can switch between n channel pairs where n is up to 16. Channel pairs may be based on different frequencies and/or different base station configuration settings such as Continuous Tone-Coded Squelch System (CTCSS) value.

Base Station Control (cont'd)



- In addition to the basic ability to transmit on conventional channels, conventional base station control functions provided by the Symphony Dispatch Console includes standard remote control functions normally performed by a conventional base station remote controller. These functions are listed below and described in detail in the sections that follow:
- Enable/Disable Monitor
- Toggle Repeat Mode
- Enable/Disable Second Receiver
- Enable/Disable Protected Mode
- Wildcard 1 and 2
- Digital/Analog
- Toggle Scan Mode
- Toggle Main Standby Site

Base Station Control (cont'd)



Base Station Modules

- The Symphony conventional station modules look and act similarly to normal trunked talkgroup modules. This is because the Interoperability Gateway (conventional gateway) and the Symphony console map normal trunked talkgroups to conventional channels.
- A conventional base station can be equipped with a CTCSS or Digital Code Squelch (DCS) decoder; these tones may also be mapped to trunked talkgroups.
- The TnRn module is available in the normal and small sizes.



Normal Module



Small Module

Base Station Control (cont'd)



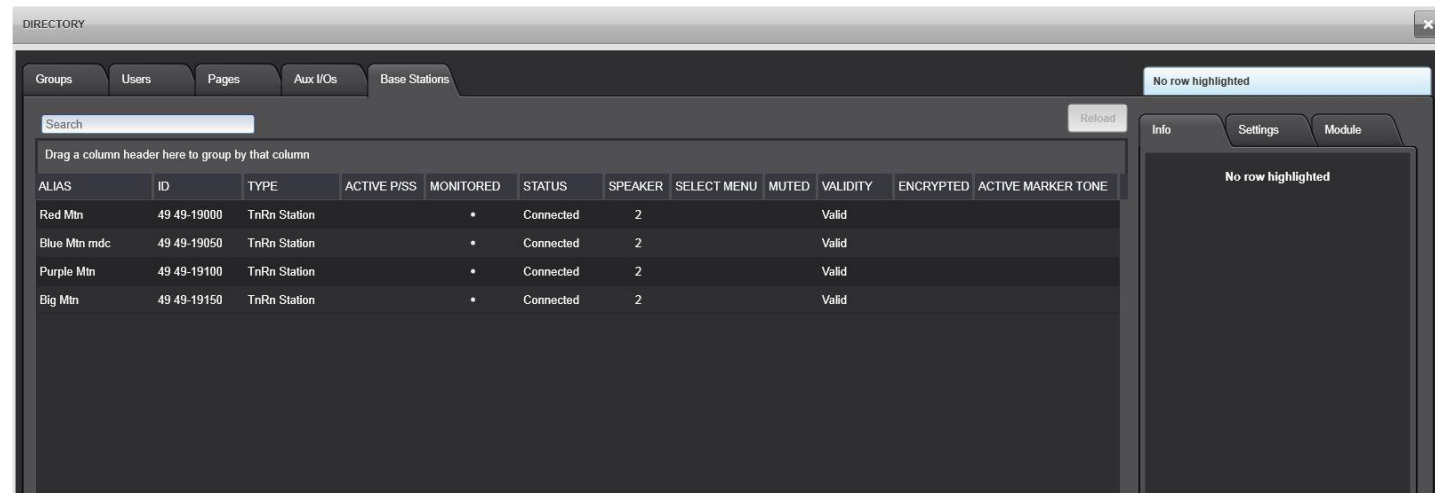
- The Base Station Control tab contains the base station controls that are available for the associated base station. The tab only includes the controls supported by the specific base station, so the controls shown may vary between base stations.
- The history tab is similar to that of trunked communications modules except that each entry indicates the caller and called channel



Base Station Control (cont'd)



- Base Station Directory Tab
- The Base Station Directory Tab provides a summary of all base station parameters.



COLUMN	DESCRIPTION	COLUMN	DESCRIPTION
ALIAS	The alias for the base station.	SELECT MENU	Indicates that the base station is included in the Select Menu. <input type="checkbox"/> indicates the base station is the Default Select Entity. <input checked="" type="checkbox"/> indicates the base station is a Preferred Select Entity.
ID	Site ID assigned to the base station.	VALIDITY	"Valid" if the UAC for the base station has a valid user ID, "Invalid User" otherwise. The ID may be invalid because an ID was not programmed in the UAC or because the Filter by Agency feature is enabled and the ID is not in a configured Agency.
TYPE	Base station type (i.e., TnRn).	ENCRYPTED	"Encrypted" indicates the connection to the UAC is encrypted. Note: this does not mean that transmissions over-the-air are encrypted. That is only possible if the base station provides some form of analog encryption.
ACTIVE P/SS	Indicates if the base station is part of an active Patch or SimulSelect.	ACTIVE MARKER TONE	Indicates if the group has an Active Marker Tone.
MONITORED	Console receives calls on this base station.		
STATUS	Connection status of base station: Connected or Disconnected.		
SPEAKER	Shows the currently assigned speaker. <input checked="" type="checkbox"/> indicates selected.		
MUTED	Indicates the current mute state for the base station.		

Base Station Control (cont'd)



Conventional Operation

- Conventional modules operate very much like trunked communications modules in most cases. Base station channels are mapped to VIDA groups; so when working with channels, you are in essence working with VIDA groups.

Changing Channels

- Unlike trunked modules, conventional station modules can communicate on multiple channels. Ensure that the base station is set to the proper channel so that the desired calls are heard and transmissions go to the proper channel.
 - To change the base station channel:
 - Click the “Up” or “Down” arrows in the module banner.
 - Or
 - Click the Channel Change Menu in the module banner and select the desired channel.
 - Or
 - Click the Context Menu (gear icon), select Channels, and then select the desired channel.

Base Station Control (cont'd)



- Selecting Conventional Stations
- Conventional stations can be selected, i.e., placed, in the selected module. Any calls received from or transmitted to the base station are treated as selected. Changing channels on the base station does not affect the select state of the station.



- As with trunked modules, selecting a station places it in the Select Module, highlights associated modules in the Workspace with green, routes received audio from the station to the select speaker, and allows you to transmit on the current station channel with the footswitch, desk mic, Quick Action keys, or Smart button on the GUI.
- Selecting a conventional station module allows you to use the Monitor button on the desk mic to activate or deactivate the monitor function.

Base Station Control (cont'd)



- Conventional Controls
- Symphony supports multiple base station control functions on the Base Station Control Tab.
- Click the feature slider to toggle the position from left to right or right to left. Mode features are enabled when the slider is on the right side with a green background



Base Station Control (cont'd)



Monitor Enable/Disable

- A conventional base station can be equipped with a CTCSS or DCSS decoder.
- Typically, a monitor action is performed by a dispatcher just prior to transmission from the console to ensure that a conventional radio unit that is transmitting an improper tone/digital code on the base station's inbound radio frequency is not preempted ("stepped-on") by the dispatcher.
- When the monitor function is enabled, the conventional channel's base station receiver passes all received signals to the Symphony console, regardless of the originating conventional radio unit's transmitted tone/digital code.
- If the base station is a repeater, this action normally does not affect repeat operation, as the valid tone/digital code is still necessary to key the repeater.

Base Station Control (cont'd)



- To enable monitor:
- Click on the Monitor slider.
- Or
- If the module is selected, press the “Monitor” button on a compatible desk mic.
- When monitor is active, the Gateway places a call on the current group with any activity on the current receive frequency irrespective of any coded squelch such as CTCSS. If the conventional station is configured with a monitor timeout, a countdown timer is shown on the monitor line. When the timer reaches 0, Symphony automatically drops out of monitor. If monitor timeout is not configured, the monitor must be disabled manually.
- The procedure to toggle monitor mode off is identical to that above. The Monitor slider toggles to “Off” state.



Base Station Control (cont'd)



Toggle Repeat Mode

- A conventional base station may be capable of operating as a repeater. When a base station's repeat function is enabled, it re-transmits radio-originated audio that it has received on its inbound (receive) conventional radio frequency. This re-transmission occurs on the base station's outbound (transmit) conventional radio frequency. Together, both frequencies form the conventional channel. The re-transmission extends the coverage range of the originating conventional radio unit. The "Repeat Mode" slider enables the repeater when moved to the right and disables the repeater when moved to the left.

Enable/Disable Second Receiver

- Enable/disable a station's auxiliary receiver which is usually configured to receive direct mode traffic. This slider enables the second receiver when moved to the right and disables the second receiver when moved to the left.

Base Station Control (cont'd)



Protected Mode

- Protected mode may also refer to encryption functionality provided by the base station. The Protected Mode slider enables the protected mode when moved to the right and disables the protected mode when moved to the left.

Wildcard 1 and 2

- A conventional base station's receiver may be equipped with any number of non-standard tone controlled features. The two Wildcard buttons may be used to toggle these features. The slider enables the associated wildcard when moved to the right and disables the associated wildcard mode when moved to the left.

Digital/Analog

- A conventional station may be capable of transmitting Analog or Digital signals. This slider toggles the base station between "Digital" and "Analog" modes.

Base Station Control (cont'd)



Toggle Scan Mode

- A multi-channel remotely controlled conventional base station may be equipped with channel scan capability. The Scan Mode slider enables the scan mode when moved to the right and disables scan mode when moved to the left.

Main and Standby Site Toggling

- For remote control operations, conventional systems may be equipped with hardware that allows toggling between a main set of conventional base stations, typically located at one radio site, and a standby set of conventional base stations typically located at a different radio site. The Main/Standby slider enables the standby when moved to the right and enables the main station when moved to the left. Base station modules in Standby mode provide a yellow band in the banner



Base Station Control (cont'd)



- Refresh Controls
- The Refresh control provides a way to fix mismatches in the indicated remote control state and the actual state of the conventional station.
- To resynchronize the base station:
 - Open the Context Menu and select Refresh.
 - Observe the behavior of the base station to see if it matches the indicated state. For example, observe that the Monitor state indicator matches the actual behavior of the conventional station.
 - If the behavior does not match, refresh again. Repeat 2-4 times until the station is synchronized. Wait 10 seconds between each retry.

Base Station Control (cont'd)



Base Station Down

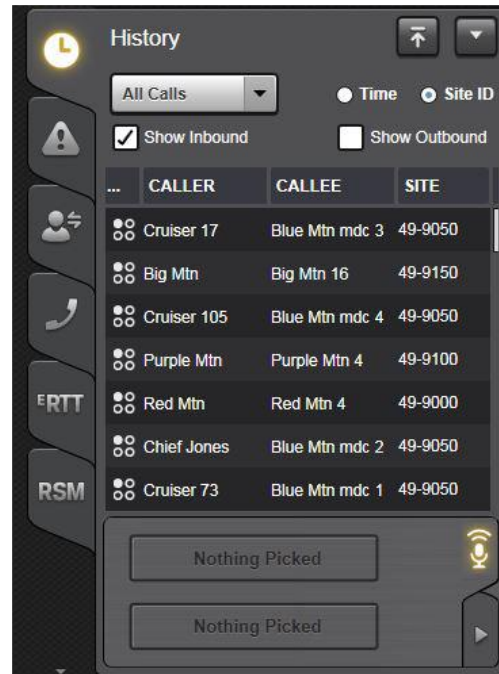
- If Symphony loses connectivity with a base station due to network or hardware issues, the module will be shaded. Symphony will periodically attempt to reestablish communications with the base station, but you can manually check the base station status by pressing the Refresh button.
- The base station module is treated slightly differently if Symphony cannot establish communications with a base station during the boot sequence. In this case, Symphony does not know what channel the base station is on, so the Smart Button is left blank, until the base station comes back up.



Base Station Control (cont'd)



- Base Station Call History
- Base station call history is available from the same sources as trunking communications modules. However, the call back feature works slightly differently for base stations. The call back module shows the current channel of the base station, not necessarily the channel on which the highlighted call was received. Before using the call back feature, make sure the base station is on the desired channel.



Aux I/O



- AUX I/O
- Using special modules referred to as “Auxiliary I/O Modules,” two-state auxiliary inputs and outputs can be monitored and controlled at the console.
- Auxiliary input module might be utilized to monitor the state of a door (either open or closed) via a sensor switch at the door. An auxiliary output module might be utilized to turn a relay-controlled siren on and off via a button press or keystroke action at the console.
- Symphony monitors remote I/O points in the VIDA system as well as local I/O points on the Symphony Dispatch Platform. The Aux I/O controls defined in this section support local and remote I/O points. No distinction is made between the two I/O types on the user interface.

Aux I/O (cont'd)

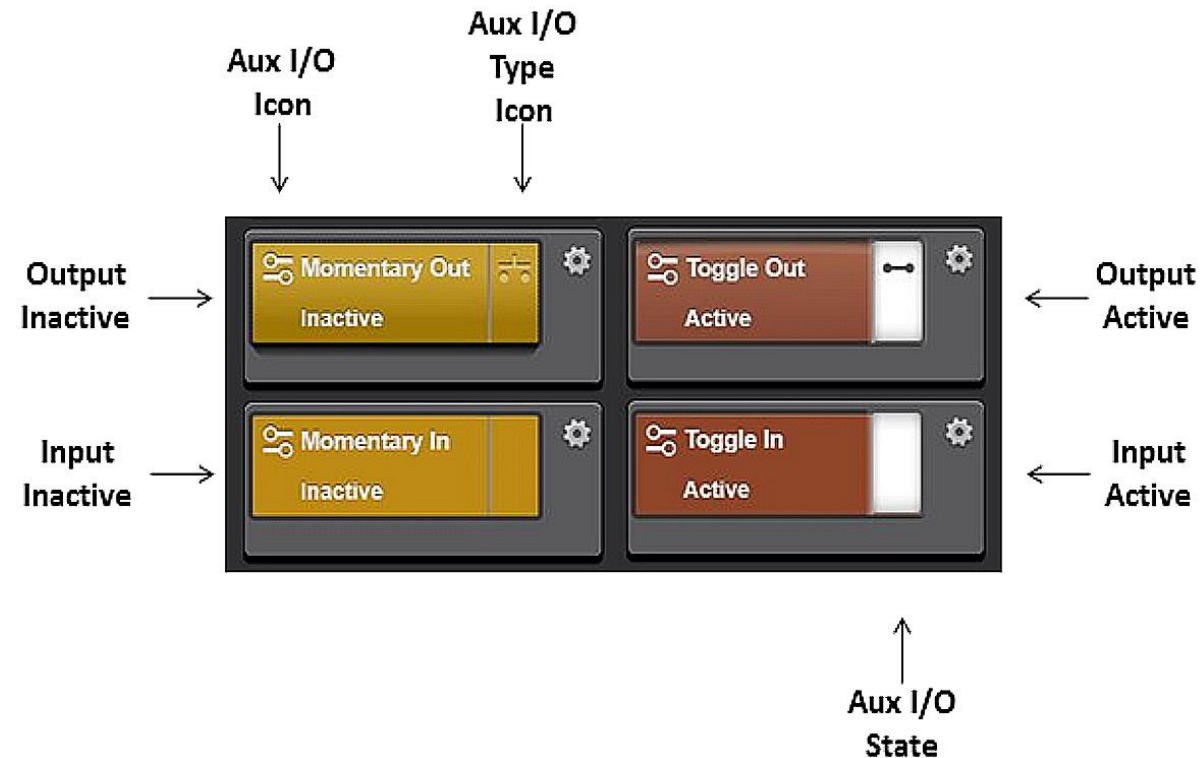


- Aux I/O Modules
- Each module provides a summary of the Aux I/O point in a Smart Display for inputs or Smart Button for outputs. Smart Displays and Smart Buttons contain the following information:
 - Aux I/O Icon in the top left corner.
 - Aux I/O Name on the top line for small modules.
 - Aux I/O Type Icon in the top right corner.
 - Aux I/O State Text on the bottom line for small modules. The text states the current state, e.g., “Siren On” or “Door Closed.”
 - Aux I/O State Indication on the right portion of the Smart Button or Display. This indication turns white when the I/O point is active.

Aux I/O (cont'd)



- Aux I/O Context Menu: This menu provides Aux I/O specific functions including:
- Open Directory: The function opens the Directory Aux I/O tab with the module I/O point highlighted.



Aux I/O (cont'd)



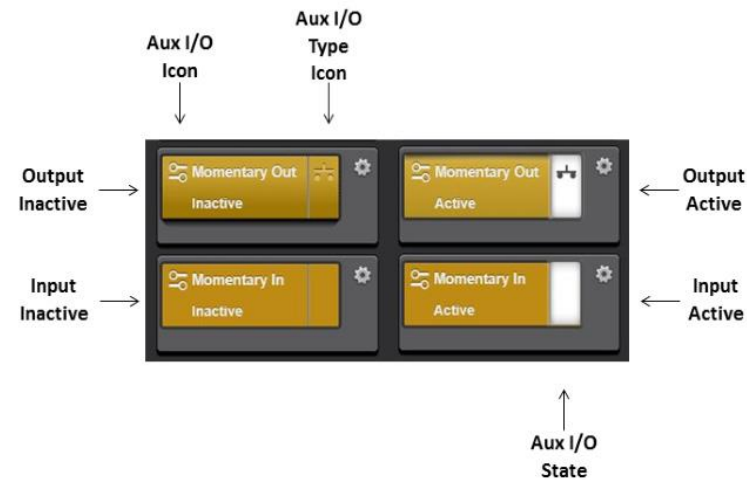
- Standard Operation
- Auxiliary input modules that are set up for standard input operation and provide monitoring functions for the respective auxiliary inputs. No dispatcher response is required at each auxiliary input state change. When an input changes state, the Aux I/O State Text and Indication change to reflect the state of the input.
- Acknowledge Operation
- Auxiliary input modules that are set up for acknowledge operation require a dispatcher to acknowledge an inactive-to-active state change. The warning icon continues to be displayed on the module and the alarm tone continues to play until the Auxiliary input is acknowledged or it becomes inactive. When the input is acknowledged, the warning icon disappears and a checked icon appears to indicate the module is acknowledged.



Aux I/O (cont'd)



- Auxiliary Output Modules
- Momentary Operation
- Auxiliary output modules that are set up for momentary operation allow momentary activation of auxiliary outputs. In other words, the output changes to the active state while the Smart Button is depressed. The Aux I/O State Text and Indication (on the Smart Button) change to reflect the state of the output.

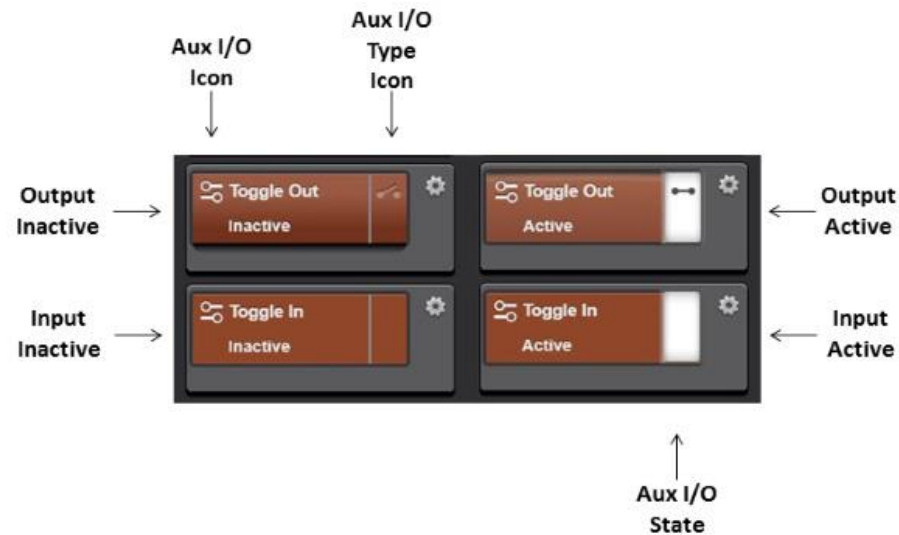


- When the Momentary Out button is not depressed, the output state is inactive so the Momentary In is inactive as well. This is shown in the left side of the figure.

Aux I/O (cont'd)



- Toggle Operation
- Auxiliary output modules that are set up for toggle operation provide steady-state toggling between two possible output states. In other words, via a Smart Button press and release action, the output can be changed to one state and it will remain in that state until another similar or identical button action is performed. The Aux I/O State Text and Indication (on the Smart Button) change to reflect the state of the output.



- When the Toggle Out button is not depressed, the output state is inactive so the Toggle In is inactive as well. This is shown in the left side of the figure.

Aux I/O (cont'd)



- Aux I/O Directory Tab
- The Directory dialog Aux I/O Tab provides a summary of all Aux I/O points.

ALIAS	EVENT TYPE	DEVICE NAME	POINT TYPE	MONITORED	DEVICE IP	Alarm
AlarmIn	Input	NWS	Input		127.0.0.1	
AlarmOut	Momentary	NWS	Output		127.0.0.1	
Door	Input	NWS	Input	•	127.0.0.1	
DoorUnlock	Toggle	NWS	Output	•	127.0.0.1	
Momentary	Momentary	NWS	Output	•	127.0.0.1	
MomentaryIn	Input	NWS	Input	•	127.0.0.1	
ToggleIn	Input	NWS	Input	•	127.0.0.1	
ToggleOut	Toggle	NWS	Output	•	127.0.0.1	
AcknowledgedIn	Acknowledged	NWS	Input	•	127.0.0.1	
InputAck2	Acknowledged	NWS	Input	•	127.0.0.1	!
InputAck3	Acknowledged	NWS	Input	•	127.0.0.1	✓
InputAck4	Acknowledged	NWS	Input	•	127.0.0.1	✓

COLUMN	DESCRIPTION
ALIAS	The alias for the I/O point.
POINT TYPE	Input or Output.
DEVICE NAME	Name of the Network Sentry or Local Aux I/O that supports the physical I/O point.
EVENT TYPE	For outputs, this can be "Toggle," "Momentary," or "Special Event." For inputs, this is "Input." Toggled outputs remain in the active state until the user initiates a change to the inactive state. Momentary outputs only stay in the active state while the user is initiating the activation control (i.e., pressing the output activation button). Special Event outputs are internal Symphony events that drive a light pole such as "Console on Air."
MONITORED	Console actively monitors the I/O Point and reports changes in state.
DEVICE IP	IP Address of the Network Sentry that supports the physical I/O point.
ALARM	Shows a warning icon when the I/O Point has an active alarm or has changed from inactive to active state; a checked icon when the I/O point is acknowledged; or a checked icon with an orange badge when acknowledged from a different console.

Course Evaluation

- Your feedback is important to us. Could you please take a couple minutes to complete the online class evaluation.
- Class Dates: **Sept 28,29, 2023**
- Course Number: **5P**
- Instructor: **Lewis Padgett**



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