

MDVNS SCC5Net SWITCH

Release Notes MDVNS-SCC5Net-4.9.0



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1 Configuration Items

Item #	Configuration Item	Required Change
MDVNS-SCC5Net-4.4.1		
140	SCC5Net Switch - Serial Function	If the SCC5Net Switch "Serial Function" is set to "In-Room Control", the Cisco CODEC must be running a version of CE firmware. MDVNS systems with a Cisco In-Room Control license do not currently support Cisco Room OS firmware. Support for this will be included in the next minor release.

2 Release Notes

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MDVNS-SCC5Net-4.9.0	
Improved	Compatibility with Cisco RoomOS 11.27 security related changes.
	Any previous SCC5Net configuration settings relating to the use of this Cisco firmware have been removed.
Added	The ability to disable network selection from the front panel menu of the SCC5Net Switch.
	Any or all of the entries on the LCD menu may now be hidden.
Improved	Range validation to number fields in the Web UI: • Sign Control - Custom - Sign Code Byte Delay will only accept numbers, up/down arrows restricted to range 0 - 250. If saving a value outside this range, the value will be set back to zero. (There is no error message.) • Miscellaneous - CODEC Power Switch - PDU Outlet up/down arrows restricted to range 0 - 8 • Miscellaneous - Post Restore Power Cycle Delay will only accept numbers, up/down arrows restricted to range 0 - 120 • Miscellaneous - Network API Session Timeout will show an error message and can't be saved if not greater than zero. Up/down arrows restricted • Miscellaneous - SCC Power On Timeout will show an error message and can't be saved if not between 20 and 60 • Miscellaneous - SCC Join/Leave Timeout will show an error message and can't be saved if not between 300 and 1800 • Security - Maximum Lifetime will show an error message and can't be saved if less than zero • Security - Maximum Failed Logins will show an error message and can't be saved if less than 3 • Security - Session Expiration will show an error message and can't be saved if less than 10 • Custom Relays - Delay will be set back to zero if trying to save a value that is not between 0 and 999. (There is no error message.)

MDVNS-SCC5Net-4.8.0	
Added	Support for Cisco RoomOS v11.27 security related changes.
	If this option is enabled, the SCC5Net will power on the default clean SCC in link mode whenever the CODEC is restarted. This includes after switching the system off mode, after leaving maintenance mode, and after sanitization and reboot.
	Notes:

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	- When upgrading your endpoint to RoomOS v11.27 (or later) you must enable this option via the SCC5Net Web UI - If your system is utilizing Cisco In-Room Control (via the CSI), the corresponding option should be enabled via the CSI Web UI (CSI v1.4.1 or later)
Resolved	An issue where there was no audit log entry for the following front panel actions: - Factory reset - Configuration reset - Revert firmware

MDVNS-SCC5Net-4.7.1

New Feature	Added the ability to utilize an iBoot PDU (via IP control) instead of the SCC5Net Switch for CODEC switched AC power. Configuration requirements: - HTTPS must be enabled on the iBoot-PDU on port 443 - A non-admin user is required for authentication - Username is required - Password is required - Outlet: the outlet to turn on/off
Improved	User management. When editing or adding a user, hide "User Must Change Password at Next Login" if "Password Never Expires" is checked.

MDVNS-SCC5Net-4.7.0

Added	The ability to create and login to the SCC5Net Web UI as an "Active" user. Everything will be read-only except system time. Reboot is allowed, as well as viewing and downloading logs
Added	The ability to define a delay in seconds for custom relays, maximum 999 seconds. Fractional seconds are accepted. The switch time to join a network or go to system off may be extended by the maximum delay of relays enabled for the new mode. No reboot is required to apply changes to delay configuration.
Resolved	An issue where SNMP notifications would fail if the system clock is set back to a time before the SCC5Net is booted.
Added	The getRelay command to the SCC5Net API. getRelay,<Relay ID>

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	where relay ID is in the same format as the setRelay command response: 0,<State Value> State Value is 0 for open/off, 1 for closed/energized. The relay ID must specify a custom relay which is API controllable.
Added	The ability to view the SCC5Net serial number via the Web UI and log file at boot. This only applies to systems being shipped with this version or later. Upgrades to this firmware revision will not show a serial number.
MDVNS-SCC5Net-4.6.0	
Improved	Syslog functionality. Added options to the syslog configuration for TCP, TLS, Certificate Verification, and Hostname verification. Syslog messages will be sent in a format compliant with RFC 5424. Newlines will be escaped within messages and a single newline will be added at the end of all messages.
Added	Added a diagnostic alert when the TCP connection to the syslog server is lost. A dialog in the Web UI when the user logs out via the logout button, or due to inactivity.
Improved	The security of the SCC5Net Switch configuration import/export feature. - Encrypt configuration export data. The user will be prompted for a password when exporting configuration. The password will be required to import the data. Import of unencrypted data (produced with earlier versions of SCC5Net firmware) is still supported. Encrypted exports may be previewed as raw JSON data. Password fields will be obscured in the preview. - Added syslog configuration, Notifications (SNMP), Centralized User Management, password settings to security export. Added options for which portions of a configuration export to import. Options include: - Network: Network Settings card on System Info page - License Keys: License Keys card on Licenses and Firmware page - SCC5Net Configuration: Management Settings on System Info page, Networks and Modes page, Fiber Switch page, Custom Relays page, Sign Control page, In-Room Control page, Miscellaneous Page. - Security: Password Settings and Centralized User Management on Security page, Notifications and Syslog Settings on Issues and

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	Diagnostics page. This option is not available if the export was created previous to SCC5Net v4.6. • Add SCC Power on Timeout and SCC Join/Leave Timeout settings to the Miscellaneous tab. SccTimeout and SccStatus3 setting can no longer be modified by editing the configuration export file.
Improved	Security. Enforce a single API session per user account.
Added	Added the ability to send real-time notifications as SNMP traps or inform messages. Traps will currently be sent for four events: 1. Audit failure, e.g. disk is full and can't write to the audit log. 2. If heartbeat traps are enabled, send periodic traps. This is useful for configuring SNMP manager systems to communicate with SCC5Net. 3. System Error, after a join, leave, or system initialization fails. The trap will include the network ID for the SCC used. 4. System Error failure, if the CODEC can't be cleaned by the System Error process. The alert will include the network ID for the SCC used. Currently traps can only be sent to one SNMP manager. A reboot is required to apply SNMP configuration. Several trap configuration options are available: • Support SNMPv2c or SNMPv3 traps and informs. • For inform messages, retries and timeouts can be configured. SCC5Net will resend the inform message until a response is received or retries are exhausted. • A heartbeat interval can be configured resulting in periodic messages. • For SNMPv2c, a community string can be configured. • For SNMPv3, several authentication and encryption schemes are supported. If authentication type is not None, an authentication key (password) is required. If encryption type is not None, a private key is required. The SNMP engine ID is displayed on the user interface.
Added	Details about what has changed to audit log messages generated from user actions in the Web UI.
	Added "UTC" indicator to audit logs.
Improved	Active Directory functionality.
	• Added simple authentication option. Both simple authentication and NTLM are now supported. For simple authentication, usernames should be entered as User Principal Name (e.g. user@domain). For NTLM, usernames are entered as Domain\User. • Added the ability to optionally specify a domain name for Active Directory integration. If a domain name is configured, users should

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	enter only their username at the login prompt and the configured domain name will be added. This will use simple authentication. • Add the ability to assign Admin and API roles via Active Directory user groups. • Added a setting to optionally override the context used when searching for Active Directory user groups. SCCNet Switch will try to determine the context from the server response. The LDAP context can be overridden if the context cannot be determined automatically. The format is CN=MYLDAP,DC=COMPANY,DC=COM.
Resolved	An issue where a user could enter an invalid date via the Web UI and cause the system to not initialize. When entering the date and time, the user will be restricted to the years 2000 - 2037.
Resolved	An issue where rebooting a Secondary SCC5Net Switch would break serial communication to the CODEC. This bug affects MDVNS systems with more than 5 Networks, running builds 4.4.3 and later and 4.5.0 and later.
MDVNS-SCC5Net-4.5.1	
Added	API modifications: • Add command "getVersion". No arguments. returns the firmware version, e.g. "0,4.5.1.3076". Error responses: "9,Invalid argument." • Add command "getOperation". No arguments. Returns the current system operation and the associated network. Possible responses: "0,none,<current network ID>" "0,init,<clean network ID>" "0,error,<clean network ID>" "0,join,<next network ID>" "0,leave,<previous network ID>" "0,link,<link network ID>" Error responses: "9,Invalid argument." • Add event "event,reboot". Sent when a reboot command has been received from the Web UI.
Improved	Error messaging in Web UI.
Added	Software Bill of Materials (SBOM) to the build artifact.
Updated	Nginx webserver to version 1.17.8
Resolved	An issue where random UDP listener ports were opened (e.g. 19141).
MDVNS-SCC5Net-4.5.0	
Added	Visual feedback of the current SCC5Net status. The current status will be displayed at the top of the Web UI next to the SCC5Net name.

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	Possible SCC5Net status includes: • Switching... • Upgrading... • Maintenance Mode • Off Mode • <current network name> - <current network classification> (e.g. JWICS - Top Secret) When "on network", the background color of the status text will be the color assigned to that network.
Added	System alerts to the "Issues & Diagnostics" tab of the Web UI. The following SCC5Net alerts may be shown: • Default credentials (sysop, freeporttech) have not been changed • Any user has exceeded the maximum number of failed logins • A VTC network has no fiber switch relays assigned to it • The "Clean" process failed (the last known network not zeroed)
Added	A "Issues & Diagnostics" tab to the Web UI. - The system logs have been moved to this new tab - The ability to utilize a syslog server have been moved to this new tab - A new section has been added to provides system diagnostics
Added	A failed logins (yes/no) column to users table on the security tab of the Web UI.
Added	A timeout option (in minutes) for a network API session. If the option is set to a non-zero value, API sessions will be disconnected after sufficient inactivity. For new installations and factory resets, the default value is 15 minutes. For upgrades, the default value is 0 (disabled) to preserve the previous behavior.
Added	The ability to enable authentication and encryption on the serial port when configured for external control (API). - These new values will default to off for upgrades and on for new systems - TLS 1.2 is the only encryption option currently supported - The serial API client must initiate a handshake whenever API commands do not work
Improved	Configuration changes via the Web UI. The "Save" button on the networks page of the SCC5Net Web UI will be disabled if the system is not in the Off (Network 0) state. The button will be disabled if any of these conditions are met:

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	• System is switching • System is on network • System is in maintenance mode • Last known network is not zero
	This prevents the user from deleting a network while the system is on that network.
Added	The ability to clear the "last known network" via the Web UI when the associated diagnostic is present.
Added	A Refresh button to the log file view.
Added	The ability to configure the Web UI session timeout between 10 and 999999999 minutes. Existing web sessions will be updated with the new expiration interval.
MDVNS-SCC5Net-4.4.3	
Updated	Nginx webserver to version 1.17.8
MDVNS-SCC5Net-4.4.2	
Resolved	An issue that prevents USB Mode from functioning properly with Cisco Webex Room Kit and Room Kit Plus CODECs.
Resolved	A Cisco touch panel response issue with systems that are utilizing Cisco In-Room Control and a CODEC running Cisco RoomOS.
	Added an In-Room Control option to the SCC5Net web interface to indicate if the Cisco CODEC is running RoomOS firmware. When checked, this option will increase the responsiveness of the Cisco touch panel and eliminate a constant refresh of the touch panel every minute or so.
MDVNS-SCC5Net-4.4.1	
Resolved	An issue in which the SCC5Net Switch times out when trying to join a network due to a lengthy SCC Unit startup time.
	A hidden SCC5Net Switch configuration setting was added which allows you to extend the time out period. The "SccStatus3" setting has a default setting of 35 seconds with a minimum value of 20 seconds. The value can be edited by exporting the SCC5Net Switch configuration, editing, and re-importing. A SCC5Net Switch reboot is not required to use the new value.
	* Please note that the SCC Unit boot time has been reduced in SCC firmware version 4.1.2. Updating SCC firmware will resolve any related issues without having to change the new "SccStatus3" setting.
MDVNS-SCC5Net-4.4.0	
New Feature	Implemented audit logging for SCC5Net Switch. The audit log will be saved as a separate rotating log file on the SCC5Net, which can be viewed in the web interface, and will be exported with the log bundle. An entry will be added to the audit log when a user makes a change to the system (e.g. save

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	configuration, switch networks). The log entry will contain the username and the IP address where the request originated where applicable.
	Sensitive information in the audit log will be delimited by two single quotation marks. This will make it easier to add a feature to remove sensitive information when exporting log files.
Updated	The SCC5Net web interface session expiration time due to inactivity to 15 minutes. Approximately two minutes before the session ends, a warning will be displayed showing the time remaining. When the session ends, the browser will redirect to the login page.
Added	An option to MDVNS systems with Cisco In-Room Control that provides the ability to display a pop up a warning on the Touch 10 before switching networks/modes.
New Feature	Added the ability to control a Power Distribution Unit with MDVNS systems that are utilizing Cisco In-Room Control.
	When joining a network, individual outlets of the PDU may be configured to turn on. When leaving a network or when the system is initialized, all outlets will be turned off.
	If required, outlets can also be manually controlled via custom buttons on the Touch 10.
Improved	In-Room Control integration with the Freeport Mercury digital dashboard. Added the ability to customize MDVNS status messages (Joining Network, Active Network, Leaving Network, System Off, System Error, Maintenance Mode, System Init).
	Animation, speed, color, and text can now be set for each event.
Improved	The option that allows you to keep the CODEC powered on in Off Mode (Network 0). The serial path to the CODEC (via a third-party control system) is now enabled if this option is configured.
	Please note that if a system is configured with this option, the CODEC will be sanitized (factory default state) and physically disconnected from all VTC networks in Off Mode (Network 0).
Improved	Cisco In-Room Control performance. The system will now respond quicker to Touch 10 button pushes.
Updated	The latest version of the jQuery JavaScript library in order to resolve vulnerabilities in previous versions.
New Feature	Added syslog integration to a configurable IP and UDP port number.
Improved	System user account access to a single web session. When a new session is started, any existing sessions will be invalidated.
Added	A system user setting for maximum failed logins. If too many failed logins, the user account will be locked out for 15 minutes.
Updated	The web server to support TLS 1.2 and above.

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Added	In addition, the API (if encrypted) will only support TLS 1.2 and above. System user password complexity settings: • Minimum length • Minimum uppercase characters • Minimum lowercase characters • Minimum numerical digits • Minimum special characters • Minimum number of previous passwords that can't be reused • Number of days before a password expires
New Feature	Once a password expires, it must be changed at the next login. Added the ability to create, update, and delete system users. Users can currently be assigned Admin and API roles.
New Feature	The Admin role grants the ability to log into the web interface. The API role grants the ability to login to the API (if API authentication is enabled). Added the ability to use a video matrix in place of a video switch when using Cisco In-Room Control. This enables local viewing of multiple sources at the same time.
New Feature	Each source connected to the video switch can now be assigned its own CODEC input. Sources on different CODEC inputs can be viewed locally at the same time. Added the ability to authenticate with an Active Directory server using NTLM authentication.
Added	TLS and DNS are required for the connection to the AD server. The certificate will be verified against the Certificate Authorities uploaded to the SCC5Net and the hostname of the AD server will be verified against the certificate. A dedicated "Security" tab to the SCC5Net Switch web interface which contains new password and user management settings.
Added	The "System Info" tab was updated to reflect the change as well. The ability to support up to 25 networks. Up to four secondary SCC5Net Switches can be added to a primary system.
New Feature	Added an API command to initiate a one-time SCC capture before leaving the current active network. This feature takes advantage of the SCC key "Aux" position..
Resolved	A system initialization issue for MDVNS systems with more than five networks. The system initialization would fail and the system would not recover if the network is not available when the Primary SCC5Net is started. This could be the result of a power failure.

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	Added logic at startup to wait for connection to each secondary SCC5Net before running the system initialization routine.
New Feature	Added an API command to control the SCC5Net customizable relays (Relays 21-26). API access for each specific relay must be enabled via the Custom Relays tab of the SCC5Net web interface.
Resolved	An issue with the setSignText API command not working.
	*This command stopped working in MDVNS-SCC5Net firmware version 4.3.7.

MDVNS-Sequencer-4.3.7

Added	Tooltips to the In-Room Control tab of the SCC5Net web interface. The new Tooltips explain the command format that needs to be used when controlling external devices.
Resolved	An issue where adding a network/mode via the SCC5Net web interface would fail after setting sign control sign type to "Custom".
Improved	The responsiveness of the Cisco Touch10 when selecting a network.
Resolved	An issue with the detection of firmware version availability. This issue was removing the Revert option from the SCC5Net Switch LCD.

MDVNS-Sequencer-4.3.6

New Feature	Added a new SCC5Net Switch option key that provides the ability to add a Teams (USB Mode) button to the Cisco Touch 10 when utilizing Cisco In-Room Control. The In-Room Control tab of the SCCNet web interface can be used to choose which network(s)/mode(s) that this feature will be available on the Cisco Touch 10. Notes: - Teams Mode supports Cisco Webex Room Kit, Room Kit Plus, Room 70 G2, Room Kit Pro and SX80 CODECs. - Teams Mode requires a USB capture device to integrate the CODEC audio/video with a computer/workstation running the Teams client. - Please refer to the Cisco documentation in regards to which audio/video outputs to use (CODEC model dependent).
Added	A new Cisco In-Room Control feature which provides the ability to choose when a custom button is shown on the Cisco Touch 10. Custom buttons can now be network/mode specific. Notes: - This will not alter existing configurations. - Only after a custom button is edited and saved will it be hidden for networks not selected.
New Feature	Implemented a new SCC5Net Switch option key which enables demo mode. The new option key will enable all MDVNS options for 30 days. After that

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	time, the system will revert to the previously purchased option key on the next reboot.
MDVNS-Sequencer-4.3.5	
New Feature	Added optional API encryption (TLS 1.2).
	Encryption is off by default for any systems with legacy firmware. If a new system is pre-configured by Freeport with the API enabled, encryption will be enabled by default.
New Feature	Added optional API authentication.
	1. Authentication is off by default for any systems with legacy firmware. If a new system is pre-configured by Freeport with the API enabled, authentication is enabled by default. 2. The username for the API is "roomcontrol". The default password is "freeporitech". The password may be changed via the SCC5Net Switch web interface. - Once a connection is established between the 3rd party control system and the SCC5Net Switch a "login:" message will be received. - After receiving the username (plus a carriage return and/or linefeed), the SCC5Net Switch will send "Password:". - Authentication is completed when the 3rd party control system sends the correct password (including carriage return and/or linefeed).
New Feature	Added a post-connect message to the MDVNS API.
	After a 3rd party control system connects or authenticates with the SCC5Net Switch, a post-connect message will be received ("Welcome to MDVNS!" terminated with a carriage return + line feed).
MDVNS-Sequencer-4.3.4	
New Feature	Added the ability to upload certificate authorities to the SCC5Net Switch web interface. The certificate authorities can be used to verify external network connections.
MDVNS-Sequencer-4.3.3	
Resolved	An issue that would allow you to reset the SCC5Net Switch (configuration or factory reset) via the web interface while the system was on network.
Resolved	An issue with controlling an Info Sign with Cisco In-Room. The Info Sign may show random characters and effects after it has been cleared, which happens before switching networks.
Resolved	The following front panel menu issues: 1. If an API command to set the network to the current network is received, the secondary menu would get stuck at "Net: Switching" instead of going back to Net: Off

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Added	2. While in maintenace mode, if API command "setNetwork,0" is received, the primary menu goes to "Net: Off" instead of back to maintenance mode
	3. If going to maintenance mode while on network, there is no way out of the menu.
	Freeport Mercury integration to MDVNS systems that are utilizing Cisco In-Room Control.
Added	1. The system will manage Mercury endpoints in regards to displaying standard system messages (Joining, Leaving, Active, Off, Init, Maintenance) and provide updates to icon states (video call, content share, microphone, speaker).
	2. System messages can be displayed in any one of the three Mercury message fields
	3. Classification messages (specific text/color) will be based on the SCC5Net configuration for each network
Added	New MDVNS API events which allow a third party control system to put the system into maintenance mode and more accurately monitor switching status between two networks.
	1) event,maint,<n> where n is the network ID if maintenance mode is being switched on; n is 0 if maintenance mode is being switched off
	2) event,switchJoin,<n> where n is a network ID. This is sent after switchBegin and before switchEnd when switching between two networks. It signals that the MDVNS has successfully left the old network and is starting to join the new network.
MDVNS-Sequencer-4.3.2	
Resolved	An issue where the SCC5Net LCD menu would allow the following operations while on network: 1. Revert Firmware 2. Configuration Reset 3. Factory Reset If one of these operations is selected while the MDVNS is on network, an error will now be shown on the SCC5Net LCD and the operation will not occur.
Resolved	An issue where invoking maintenance mode from the SCC5Net API would not update the SCC5Net LCD menu.
Resolved	An issue where the Control LED 1 and Control LED 2 (system initializing) were left in the on state after a failed system initialization of a system with more than five networks.
Improved	The SCC5Net web interface:

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	1. Display the SCC5Net name in the top left corner 2. Changed "Source Isolation" to "Relays" on navigation menu and tab title 3. Renamed the In-Room Control "Microphone Groups" card to "Microphones". Changed table column header from "Name" to "Group Name". 4. Moved the In-Room Control check-box options related to displays onto the Displays card. 5. Moved the In-Room Control Image Processor settings to a separate card, no longer part of Displays. 6. For In-Room Control tables, move the Add, Edit, Delete buttons to the end of the row, after the up/down buttons.
New Feature	Added the ability to configure up to 10 custom buttons on the Touch10. Each button will send a specified command to one of the controlled devices. Each button can be shown or hidden when the system is in off mode. The buttons can be grouped in a panel or shown individually on the Touch10. If grouped in a panel, the panel button can be customized, as well as the panel title. If shown individually, each button can be customized. Customization include button text, button color, button icon, and button availability (Always, Out of Call, In Call). A custom button can send a command(s) to the CODEC, an already configured device (media player, HDTV tuner, information sign, display, image processor, video switch), or a new device (up to three additional devices can be defined).
New Feature	Added the ability to set a different PIN for each network or mode. The previous all-networks PIN is retained; if it is set it applies to all networks without a PIN.
New Feature	Added an option whether to show the Display Control button in System Off mode. This option is off by default, resulting in a change from the previous version.
MDVNS-Sequencer-4.3.1	
New Feature	Added a new In-Room Control featured that provides control (layout selection) of an image processor. Commands can either be sent to an external device (via TCP/IP) or to the CODEC. Up to four buttons can be presented at the bottom of the Display Control page on the Touch10. Each button has a custom label and command associated with it. Configuring a specific button as the default will result in that command being sent after joining a network. At least two buttons must be configured before any buttons will be shown. Buttons without a command and label will not be shown.
New Feature	Added the ability to revert to a previously installed version of SCC5Net firmware.

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	Some notes regarding this new feature: - The feature is accessible from the SCC5Net front panel LCD: Functions -> Revert Firmware -> Confirm - The "Revert Firmware" menu item is only available in the Functions menu if there is valid firmware on the inactive partition to switch to. If the inactive partition is empty, or had a previous failed upgrade, the menu item will not be there. - The LCD menu will lock as soon as Confirm is selected, and won't change until after the reboot. - The system will reboot after the reversion
Resolved	An issue where a new network/mode would not show up on the Source Isolation tab after being added and saved. Previously a refresh was required to see the new network/mode.
Updated	SCC5Net logging to use log rotation based on file size. Logs will now be a maximum of 10M, and a total of 10 files will be kept.
Updated	SCC5net logging so that all processes log to the same file, called scc5net.log. Separate files for processes such as hwbridge and inroom will no longer be used.
MDVNS-Sequencer-4.3.0	
Added	Functionality to disconnect all calls on the CODEC before leaving a network.
Improved	The In-Room Control page. Moved the Save and Apply buttons for In-Room Control to the top of the page.
Improved	Error messages. An error message (red balloon) will remain on the screen until the user dismisses it.
MDVNS-Sequencer-4.2.8	
Added	An option to leave the CODEC powered on when the system is in off mode. The system will transition to off mode per DoD requirements, however, CODEC power will be applied after the final step has been completed. The CODEC will remain powered on and physically disconnected from all VTC networks. Enabling this feature can reduce the transition time from off to on network due to the fact that the CODEC is already powered on and ready to be configured for the selected network.
Improved	Log file messages for systems with more than five networks. The sequencer log file will now list SCC5Net Switches as "Primary SCC5Net" or "Secondary SCC5Net" instead of "switch 0" or "switch 1".
Resolved	An issue where SCC firmware could be uploaded to an SCC5Net Switch.

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Added	A option which allows a "Swap Layout" button to be added to the Cisco Touch 10. This button will swap the video outputs being shown locally on displays 1 and 2.
MDVNS-Sequencer-4.2.7	
Added	Support for media player and HDTV tuner control via the Cisco Touch 10. The system will support any media player or tuner that is controllable via TCP/IP. Please note that not all Cisco CODECs support HDCP. If a command is not assigned to a particular function the button for that function will not be displayed on the Touch 10. Note: The current Freeport RCI has a maximum of 60 events. Configuring the system for both a media player and TV tuner with all of the available features will exceed that limit. A configuration can be saved that exceeds that limit, but a warning will be displayed in the SCC5Net Switch web interface and some functions will not work.
Improved	Media converter management. If the "Connect CODEC to Network" option is not enabled for a specific Mode, you now have the option of assigning a media converter relay to that Mode to use for another function.
Added	HDCP support for systems utilizing the video switch feature of In-Room Control. If configured, HDCP will be enabled/disabled on the CODEC input that the video switch is connected to before the video source is displayed.
Added	PIN protection as an In-Room control option. This feature allows a 4-8 digit numeric PIN to be enforced when selecting a network/mode via the Cisco Touch 10. Turning off the system does not require PIN access.
Improved	In-Room device control (video switch, displays, etc). If there is no IP address or IP port number for a device no commands will be sent to that device, even if there are commands assigned to particular functions of that device.
MDVNS-Sequencer-4.2.6	
Added	The ability to individually name the fiber switch relays via the SCC5Net Switch web interface.
Added	The "link" command to the SCC5Net Switch API. The command can be used if a 3rd party control system can no longer communicate with the CODEC via RS-232 (CODEC reboots, serial session logs out, etc). The link command will utilize the SCC unit for the currently selected network to re-establish a serial connection with the CODEC.
Resolved	An issue in which a DNS entry configured via the SCC5Net Switch web interface persists across a factory reset.
Resolved	An issue that could arise in systems with more than five networks. The potential issue would allow the secondary SCC5Net Switch to be rebooted via the web interface while the system is on network causing the system to transition to off mode. The primary SCC5Net Switch will now notify the secondary when switching

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	operations start and end. In addition, the primary will notify the secondary of the current network and the secondary will not allow a reboot while the system is switching or on network. Notes: If the secondary is rebooted while the system is off network, the primary will restore the secondary's configuration/state. If the secondary is power-cycled while the system is on network (e.g. power cord pulled and reinserted), the primary will also restore the secondary's configuration/state. If the secondary is power-cycled during a switching operation, no action will be taken and the switch will fail.
Updated	The SCC5Net web interface text for the air gap isolated 8 pin pass-through from "RJ45 Switch" to "8P8C Connector".
Added	The option to not assign a media converter relay to a specific network. With the media converter relay set to "Not Required", the SCC5Net Switch will not activate a media converter relay when joining the selected network. This feature would typically be used when the VTC network connection is fiber. Enabling this option will free up the media converter relay so that it can be used by other Networks or Modes.
Improved	The terminology being used in the SCC5Net Switch web interface when the "Connect CODEC to Network" option is not selected for a particular network. Networks in which the CODEC is not physically connected to a VTC network will now be referred to as Modes.
Removed	Support for custom wallpaper when using Cisco firmware CE9.2. Capturing and enabling custom wallpaper will only work on CODECs running Cisco firmware CE9.6 or later.
	If you have captured a custom wallpaper image to an SCC Unit and your Cisco firmware doesn't support the ability to enable it, the SCC Unit should be cleaned of all CODEC settings and the CODEC configuration should be re-captured without the wallpaper image. Failing to do so could cause excessively long network transitions when joining a network.
Updated	The text in the SCC5Net Switch web interface from "Enable Custom Wallpaper" to "Show On-Screen Instructions (System Off)". This option is only available with an In-Room Control license key.
Updated	The default settings for the SCC5Net Switch serial port (used for control) to 9600 baud, 8 data bits.
Added	The ability to upload a certificate for the SCC5Net Switch web server. If a certificate is not uploaded a self-signed certificate will be used.
Added	The ability to configure source isolation relays for Network 0 (Off Mode) via the SCC5Net Switch web interface.

Release Type	Release Note
Added	A factory reset option to the SCC5Net web interface that will delete all data acquired by the SCC5Net Switch since its original factory image (this does not include license keys).
	The existing factory reset option was renamed to "Configuration Reset". A configuration reset will revert the system back to the original configuration image loaded before the system was shipped.
Updated	The buttons that are shown on the Cisco Touch 10 in Off mode. The Mics button is no longer shown on the Touch 10 in Off mode.
Added	The option to skip the CODEC sanitization and configuration process when switching between Modes that share the same SCC unit. The new configuration variable is called "Factory Reset CODEC Before Switching Mode" and can be enabled/disabled via the SCC5Net web interface. If this option is disabled, when the system switches to another Mode that shares the same SCC unit all SCC operations will be skipped during the switch process. Note that all other configuration variables (Sign Text, Source Isolation Relays, etc) will be applied. This setting is only available when the "Connect CODEC to Network" option is not selected for a specific Mode.
Added	An option to enable TCP/IP access to the MDVNS API on port 2303. This was enabled by default in previous firmware releases, and upgraded systems will have the option enabled by default. Note that new systems will have this access off by default, since the API is not secured by a username and password, and the network traffic is not encrypted. A reboot is required to modify this option.
Added	The ability to use the Cisco Touch 10 to select and manage sources connected to a video switch. Sources added to the In-Room Control configuration via the SCC5Net web interface will displayed in the native Source Tray on the Touch 10. The system currently supports a video switch with a single output to the CODEC (future Cisco firmware may support a full matrix). The system will support any JITC approved video switch that is controllable via TCP/IP. Configuration items for each source include name, icon, and which network(s)/mode(s) the source will be available on the Touch 10. A maximum of 10 sources may be configured.
MDVNS-Sequencer-4.2.5	
Added	Individual display control via the Cisco Touch 10. The new feature provides the ability to individually control the power for up to five displays. If the "Power On/Off Displays when Joining/Leaving Network" option is enabled, all displays will be turned on/off.

Release Type	Release Note
MDVNS-Sequencer-4.2.3	
Added	Dedicated "Save" buttons for each tab of the SCC5Net web interface, or more granular where appropriate. Changes on one tab will not be reflected on other tabs until the changes are saved.
MDVNS-Sequencer-4.2.2	
Added	In-Room Control "Post Clean Commands". This feature provides the ability to send a list of commands and/or configuration settings to the CODEC after it has been sanitized and transitioned to Off mode. This feature can be utilized via the In-Room Control settings in the SCC5Net web interface. Commands should be entered one per line. Only lines starting with xConfiguration or xCommand (case insensitive) will be sent to the CODEC. Any changes to In-Room Control settings require an MDVNS reboot to take effect. Please note that when the In-Room Control option is being utilized the CODEC must be powered ON in Off mode. When transitioning from an active network to Off mode the CODEC will be sanitized, however, this feature allows some customization to ensure that the CODEC is in an optimal state (mics muted, camera parked, etc).
Added	In-Room Control support for an additional LED sign that is capable of displaying the current microphone status (Un-Muted, Muted). This new feature currently supports any LED sign that is controllable via IP using two-digit hex codes representing ASCII characters. The SCC5Net web interface can be used to configure the sign as required. Please note that this LED sign is dedicated to microphone status and will not display system/classification status.
Improved	The In-Room display control option. When the "Use Power Toggle for Display Control" is selected, the "Power On/Off Displays when Joining/Leaving Network" options are disabled and removed from the SCC5Net web interface.
MDVNS-Sequencer-4.2.0	
Added	The ability to create a "network" in which the CODEC is configured by an assigned SCC Unit but not connected to a physical video network. When the MDVNS switches to this type of network, the fiber switch is moved to the null network position (if available) and all media converters are powered off. When this feature is enabled, any configuration items (Media Converter Relay, Enable Cisco ISDN link, Fiber Switch relays) that are not used by this type of network will be hidden from the SCC5Net web interface. However, other features of the system (source isolation, In-Room Control of other devices) will still be available. This configuration can be used to create local presentation modes in deployments where the CODEC is being used to route all of the rooms audio and video signals but still must be sanitized and properly configured when switching classifications.

Release Type	Release Note
Added	The ability to deploy a system that requires Cisco In-Room Control features in a single domain environment.
Added	The value "0" was added to the available choices for the Fiber Switch Port Count in the SCC5Net web interface. The fiber relays on the SCC5Net will remain open before, during, and after network switches. The ability to share a media conveter relay between video enabled networks that have been configured to use the same SCC Unit.

MDVNS-Sequencer-4.1.0

Added	A dedicated In-Room Control tab to SCC5Net web interface with new features. Please note this feature is only available with a valid option key. Items that can be configured and are accesible via the Cisco Touch 10 now include: • Displays - Control displays via the Touch 10 • Mic Groups - Assign microphones that are directly connected to the CODEC to specific groups. Mic groups can be controlled (mute/unmute) via the Touch 10
Added	A custom background image to be displayed in Off/Standby mode when using Cisco In-Room Control of the MDVNS. The custom background image has a message that displays "The system has been sanitized. Please use the Touch Panel to select the desired network/classification". Please note that enabling custom background images via the API is not supported by all versions of Cisco CE firmware.
Added	An option in the SCC5Net web interface to show a "Mute All Mics" button on the In-Room Control Mic pop up page. Note that the state of the individual mic groups is independent of the state of the "Mute All Mics" button.
Added	The ability to designate a SCC5Net Switch as a "Secondary System". A secondary system has a restricted set of options available via the SCC5Net front panel LCD and web interface. In addition, a secondary system will not perform a system init, and will not open an API port.
Validated	

In-Room Control Compatibility Matrix	
Feature	CE version
MDVNS Control	9.1 and later
Custom Wallpaper*	9.2.0 - 9.2.5 9.3.0 - 9.3.1
Device Control	9.3.0 and later

Release Type	Release Note
	* Cisco removed support for enabling custom wallpaper via the API in CE versions 9.2.6, 9.3.2, and 9.4.0. Customer wallpaper should be disabled when In-Room Control is being used with these firmware versions. Cisco has indicated the feature will be added back in a later version of CE.
Added	The ability to delete old log files via the SCC5Net web interface. Note: If the date is set so that current log files are to be deleted, logging will stop until the SCC5Net Switch is rebooted.
Added	Enhancements to In-Room Control of local displays: - Added the option to turn displays on when joining a network and/or turn them off when leaving a network - Added the option to use either a single power toggle command or discrete power on/off commands for display control
Updated	The default SCC5Net configuration file to use a 60 second power cycle delay when leaving a network, as is required by the DISA VTC STIG. While this setting is configurable with any value greater than 3, it has been noted that values of less than 60 may not be in compliance with security guidelines.
Added	The ability to factory default the SCC5Net via the front panel LCD and the web interface. The factory default operation copies over the default config file and network interfaces file. Note that the factory default operation does not modify the current firmware. Also, the "last known network" variable is not modified for security reasons.
Updated	The time to wait for an SCC unit to come online from 15 to 25 seconds, as it might take additional time if the SCC unit is using DHCP.
MDVNS-Sequencer-4.0.2	
Added	The ability to export and import the SCC5Net configuration via the web interface. Items included are network settings, license keys, and all configuration settings.
Added	The ability to configure the SCC5Net for DHCP via the web interface. In addition, added the ability to configure a DNS server when the SCC5Net is using a static IP.
MDVNS-Sequencer-4.0.1	
Added	The option to factory reset the CODEC before joining a network from Off/Standby mode when using Cisco In-Room Control of the MDVNS.
Added	Support for Cisco In-Room Control of the MDVNS via the Cisco Touch 10.

Release Type	Release Note
Improved	The management of media converter relays. Media converter relays cannot be assigned to more than one network, the exception is that they can be shared among networks with ISDN Link enabled.
Added	The support for generic fiber switch matrix configuration, regardless of which model Market Central Secure Switch is being used.
MDVNS-Sequencer-4.0.0	
Added	The ability to set the system date and time via the SCC5Net web interface.
Updated	The SCC5Net web interface to now use TLS (HTTPS) instead of HTTP.
Added	A username and password login requirement to the SCC5Net web interface (sysop:freeporttech by default). The login password can be changed/modified if required.
Updated	The SCC5Net web interface to match the current generation of other Freeport products.
Added	The ability to create and customize a sign-in banner when logging into the SCC5Net web interface.
Added	The ability to view SCC5Net log files via the web interface.
Added	The ability to manage SCC5Net firmware via the web interface.
Added	The ability to apply custom labels to each relay that is available in the source isolation matrix.