Multi-Technology Conferencing

Powerful, secure voice solution for critical real-time collaboration

REDCOM's Multi-Technology Conferencing delivers advanced voice collaboration tools for secure, critical communications involving a few to thousands of parties in a real-time environment. REDCOM's conferencing solution is endpoint-agnostic, dynamically scalable, can be controlled on-the-fly, and features extensive encryption capabilities (including Type 1). Government agencies, militaries, and Fortune 500 companies rely on REDCOM's proven communications technology for crisis management, secure conferencing, and interoperability.

Unparalleled security

REDCOM's secure conferencing solution supports multiple levels of access security, flexible conferee screening, and voice encryption to protect confidential discussions and avoid corporate espionage. REDCOM's solution also features full DISN MLPP support to ensure that the most important calls get through during crisis situations.

Endpoint agnostic

REDCOM's Multi-Technology Conferencing solution does not limit you to proprietary end instruments. True interoperability means REDCOM conferencing works with any device, including radios, smartphones, softphones, IP devices, PBX desksets, and analog phones.

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Powerful operator console

REDCOM's Link Command System is a feature-rich operator console that enables an attendant to initiate, monitor, and control conferences in real time from the convenience of a Windows® PC. The attendant has the power to monitor multiple conferences, split/join conferences, add/drop members, mute conferees, and more. See page 5 for a list of operator capabilities.

Find Me, anywhere

No matter where you are or what device you are using, REDCOM's Multi-Technology Conferencing solution can keep you connected. When a Blast Dial conference is initiated, the system can ring any number of devices, including your desk phone and smartphone, to make sure you are not left out of a critical conference.

Intelligent Radio Gateway

REDCOM's Radio Gateway provides a simple and reliable means of bridging radios into both legacy and VoIP networks. REDCOM's intelligent Radio Gateway solutions are far more powerful than simple converter boxes. They include full switching and routing capabilities and even enable Push-to-Talk (PTT) signals to be transmitted through a conference.

Create custom apps

The REDCOM Application Programming Interface (API) provides developers with the tools to design and deploy custom scalable software applications to further extend REDCOM's powerful conferencing tools. REDCOM's API connects with server-based databases and user terminals (such as smartphones) to control a REDCOM switch, providing a means to create new voice conferencing applications.

Conference types

REDCOM's Multi-Technology Conferencing supports several conferencing styles. Any or all of these styles can be combined into a single conference.

- **Preset (Blast Dial):** Rapidly establishes a conference with pre-defined members.
- **Meet-Me Type 1 – Station Number:** This Meet-Me conference is a conference that is associated with a station number. Any station user, attendant, or console user can access the Meet-Me conference capability.
- **Meet-Me Type 2 – Dial Code:** This Meet-Me conference is accessed by dial codes and can have many attributes, including caller screening.
- **Progressive:** A conference controller initiates a progressive conference call by dialing the conference dial code. The conference controller also can enter the conference size.

Conference modes

The following modes are available on any conference type:

- **Loudest Party Talks:** The dominant audio source is dynamically selected and all other voices and sounds are excluded. The loudest talker will hear silence and all other conferees will hear just the voice of the loudest talker.
- **Additive:** This is a traditional phone conference where a conferee hears all voices (except their own) speaking within the conference.
- **Additive/Loudest Talks Conference:** This technology selects the loudest voices, a pre-selected group of voices, or a combination of both, as determined by the system administrator. Conferences can be programmed to allow n members of the total members in the conference to speak at one time.
- **Priority Talker:** When invoked, the conferences include the talker's priority into the selection process.
- **Listen Only:** Members can join as non-speaking participants.
- **Audio Isolation:** The audio of one member can be isolated from other members.

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Secure Conferencing

REDCOM's secure conferencing solutions are designed for high-level corporate networks, law firms, medical offices, and government entities. Protect confidential discussions and avoid corporate espionage with a solution that has been deployed and proven by several critical agencies and major enterprises worldwide.

Secure conferencing on REDCOM hardware

The REDCOM Sectéra® Wireline Terminal - Remote (SWT-R) Interface is available on the REDCOM HDX, SLICE, and SLICE 2100. Each REDCOM SWT-R Interface connects a REDCOM system to 4 SWT voice encryptors (made by General Dynamics Mission Systems). SWT-R encryptors allow any HDX/SLICE line or trunk port (and using REDCOM TRANSip®, any VoIP port) to conduct secure voice communications with any SCIP compatible terminal in the world. SWT encryptors are compatible with STE, STE-R, Omni, SWT, and GSM/SCIP.

Encrypted SWT-compatible voice paths through a SWT-R equipped REDCOM system can employ REDCOM's Scalable Conferencing capabilities. External SCIP-compatible phones can be switched into a REDCOM system equipped with a Secure Device Interface Module, and then connect to VoIP and Secure Radio technologies. For all-IP networks, additional medium-security conference options are available.

REDCOM's SWT-R Interface and the SWT encryptors provide voice prompting and call progress announcements. Phone users with dedicated SWT encryptors view a display with this information. Stations using shared SWT encryptors have no SWT display, so they receive this information via announcements.

Secure conferencing on Sigma® Core

REDCOM Sigma Core software is a complete software-based Unified Communications (UC) solution designed specifically for government agencies, enterprises, and carriers. Sigma Core is based on open standards with a focus on interoperability, reliability, and security.

Sigma Core also supports secure conferencing via the industry-standard Secure Real-time Transport Protocol (SRTP). The main security goals of SRTP are to ensure confidentiality and replay protection of the media payload, the integrity of the entire media packet, and implicit authentication of the SIP header.

SRTP, in conjunction with TLS, creates full end-to-end call security. Sigma Core offers full SRTP support that is easy to configure on both end instruments and SIP trunks. The software even allows the user to completely block non-secure calls.

REDCOM Link Command System Console
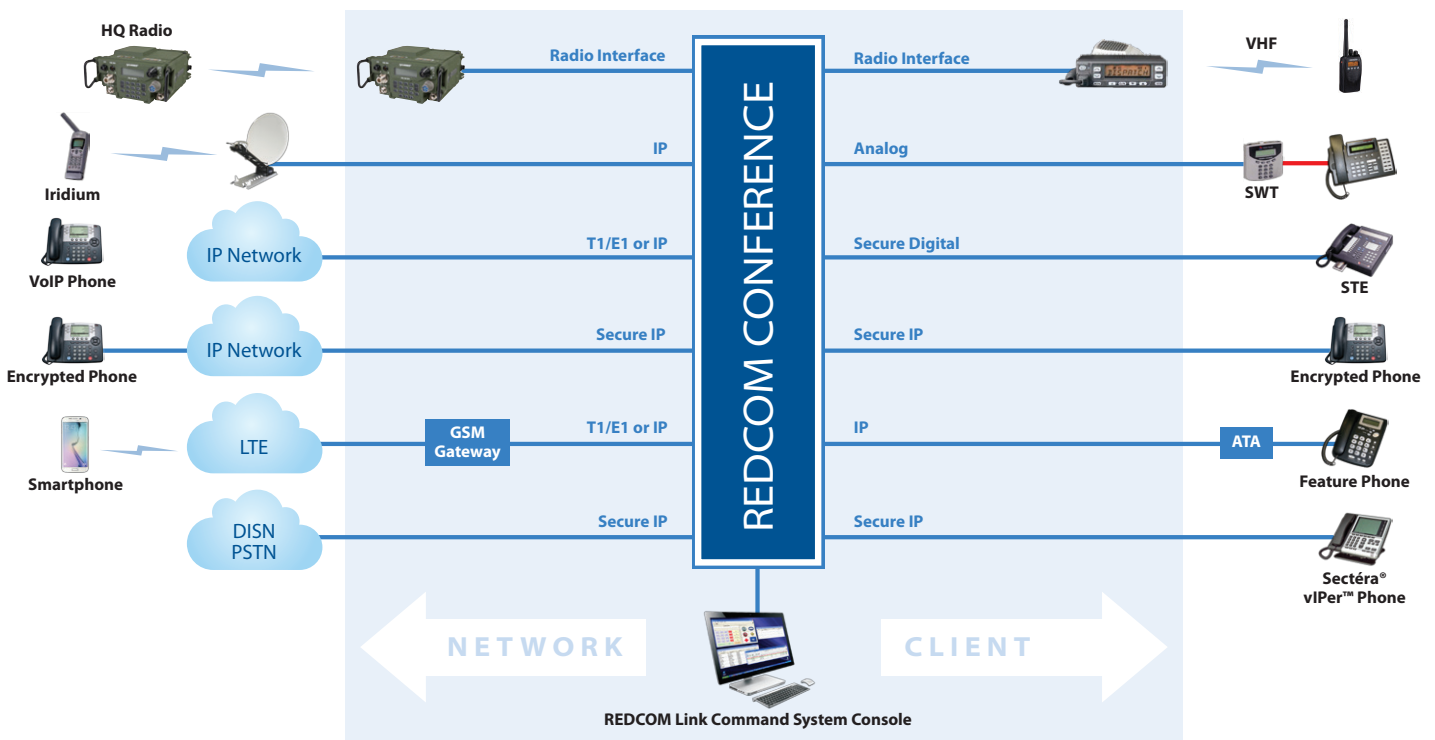
Standard REDCOM Conferencing Features

Security

- ANI and/or password screening of incoming participants
- Establish secure enclaves
- Multiple levels of access security
- "Number hiding" for secure enclave access trunks
- Operator Intercept for live challenge of caller
- Secure access from softphones and smartphones
- Personal Identification Number (PIN)/Password

Access

- Conference access points can be distributed geographically to reduce backhaul and provide redundancy
- Conference resources can be shared or reserved
- Detailed call records
- Global satellite access from any place on earth via Inmarsat and Iridium® services
- One touch invocation
- Technology independent (GSM, Radio, IP & TDM)

Conferee capabilities

- Initiate a conference
- Join an existing conference
- Be announced into a conference with a tone
- Leave a conference and re-enter a conference
- Monitor a conference*
- Place a conference on hold*
- Add another member to a conference
- Drop another member from the conference*
- Mute one or more conferees*
- Remove mute from one or more conferees*
- Supervision control of conference*
- Private consultation*
- Set up a sub-conference*

Capabilities marked with an asterisk (*) are operator-controlled.

Conference Capacity by REDCOM Platform

REDCOM systems can be custom-configured to support different conference sizes. Standard sizes support up to 9,999 members per conference, and up to 500 conferences, depending on platform and configuration. Multiple units may be combined to provide scalable solutions. Conferee terminals may be wirelines, mobile, radio, satellite, IP, TDM, and/or encrypted.

Platform	TDM	Radio Gateway	RoIP	Console	IP Encryption	Conference Participants	Type 1 Gateways
REDCOM HDX	✔	✔	✔	✔	✔	2,048	500
REDCOM SLICE®	✔			✔		128	8
REDCOM SLICE® 2100™	✔	✔	✔	✔	✔	768	24
REDCOM SLICE® 2100 Micro	✔		✔	✔	✔	128	
REDCOM SLICE® IP			✔	✔	✔	128	
REDCOM SLICE® IP Micro			✔	✔	✔	128	
REDCOM Sigma® Core			✔		✔	9,999	

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Link Command System Conference Control Package

REDCOM's Link Command System (LCS) is a call management app for Windows® that delivers extensive call control, call handling, directory assistance requests, and call queue management. The LCS provides the operator with an interface for starting, monitoring and controlling conferences. The chart below lists REDCOM Conference Control features enabled by the LCS. Standard features are marked with a green check mark ✔. Optional features are marked with an orange circle ●.

	Feature	Description
✔	Appearance Customization	The layout of the Link Command System console can be fully customized by the end user, allowing each operator to have their own screen layout, system of tabs, buttons and audio alerts.
✔	Conference Display Information	Provides special identification of chained and joined conference entries to ease identification of joined or chained conferences. Displays available empty conference entries.
✔	Directory Assistance	This feature allows the LCS operator to program contacts into a list. The operator can double click on a name to instantly call the contact.
✔	Multi-Conference Control	A single Link Command System operator can control multiple conferences at once from a single PC.
✔	Operator Recall	Signals the LCS operator with a visual indication that a conferee is requesting attention. Even a muted party can dial a DTMF digit to signal the operator for a private consultation.
✔	Push-to-Talk	Allows the operator to key up a radio. There is an option to create a PTT button on the LCS screen.
●	Add Attendee Control	Allows the LCS attendant to select a particular conference and add the caller to the selected conference.
●	Audio Indication	An audio-on indication is generated with any audio input from a conference party. An audio-off indication is generated when there is no audio input from a conference party.
●	Conference Join	Allows the LCS attendant to join conferences together.
●	Conferee Retrieval	Allows the LCS attendant to select a disconnected party from a conference, have the LCS console dial that party, and add the party back into the conference.
●	Drop Attendee Control	Allows the LCS attendant to select a particular conference attendee and drop it from the conference.
●	Monitor Conferee	Allows the LCS attendant to listen to the audio path from the conferee to the conference. A tone can be injected directly into the conference to alert conferees that the audio is being monitored.
●	Mute Attendee Control	Allows the LCS attendant to select a party of the conference, and to change the status of the party from ACTIVE 2-WAY to MUTE (and vice-versa). The attendee will continue to hear the conference audio.
●	Private 2-Way Consultation with Conferee	Allows the LCS attendant to remove an individual from a conference and establish a two-way conversation between the attendant and individual. The operator can later restore the party to the conference.
●	Segmentation	A single REDCOM switch can service multiple conferences. Each operator will only have access to the conferences which are allocated to them. Permissions are controlled by a system administrator.
●	Sub-Conferencing (Conference Sidebar)	Allows the LCS attendant to select and move individual conferees from one conference to a separate sub-conference. The sub-conference members can be returned to the original conference.
●	Visibility of Conferees	Allows the LCS attendant to see when each member is speaking, who the loudest talker is, and when a conferee is muted.

Custom application development

Put our software developers to work for you. If you have a unique communications requirement, REDCOM can work with you to develop custom conferencing features to meet your specific needs.

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