

Increase REDCOM SLICE® interoperability with a cost-effective Version 4 upgrade

REDCOM SLICE Version 4 upgrade delivers:

- ▶ VoIP Migration
- ▶ SIP Trunking Capability
- ▶ Secure Communications
- ▶ Radio Interoperability
- ▶ Additional E1/T1 Trunks



OVERVIEW

If you own a REDCOM SLICE, the Version 4.0 upgrade is a convenient and cost-effective way to migrate your SLICE to new network capabilities. Coupled with REDCOM's Media Services Circuit Module, Version 4.0 transforms a TDM-only SLICE into an all-in-one VoIP and TDM platform. This converged communications platform supports up to 300 SIP VoIP subscribers and includes an integrated call manager and full-featured media gateway. Version 4.0 also adds support for secure communication devices, radio interoperability, and additional E1/T1 trunks.

NEW INTERCHANGEABLE MODULES

The SLICE features two rear-accessible positions for your choice of interface modules, allowing communicators to upgrade and configure each SLICE to meet their specific needs. The new modules include the following:

- **Media Services Circuit (MSC) Module:** Adds REDCOM's innovative TRANSip IP Technology Suite to the SLICE, including a full-featured Media Gateway and SIP Call Controller. Supports Fax over IP (T.38), Modem over IP (V.150.1) and IP to TDM conversions.
- **Secure Device Module:** Enables the SLICE to act as a SCIP gateway supporting REDCOM's Advanced Gateway Application for secure communications between any network, tactical or strategic.
- **Radio Interface Module:** Provides an interface to two-way radios allowing the radio user to access most of the SLICE features normally accessible to a standard station user. The Radio Interface supports two circuits capable of interfacing to Push-To-Talk (PTT), VOX, secure and non-secure military radios.
- **Multi-E1/T1 Module:** Adds 4 E1/T1 spans to the SLICE, for a total of 6 E1/T1 trunks per unit.

ENHANCE YOUR COMMAND & CONTROL CAPABILITY WITH CLUSTERNET™ TECHNOLOGY

REDCOM's ClusterNet technology allows multiple SLICE units to be seamlessly interconnected and function as one integrated system. The SLICE may also be clustered with a REDCOM HDX or SLICE 2100 for additional features.

HIGHLIGHTED FEATURES

- **MLPP & 619a Support:** Provides end-to-end warfighter communications. Ensures priority calls "tandem" and are delivered to the end location.
- **Secure Communications:** Equipped with the MSC Module (and REDCOM's TRANSip IP Technology Suite), the SLICE supports secure VoIP communications allowing IP and TDM users to communicate securely via SCIP and V.150.1. Using the Secure Device Module, the SLICE can connect with up to 4 SWT voice encryptors (made by General Dynamics C4 Systems). SWT-R encryptors allow any SLICE line or trunk port (and, using REDCOM TRANSip, any VoIP port) to conduct secure voice communications with any SCIP-capable terminal.
- **Secure Conferencing:** The SLICE supports several conferencing styles, including "progressive" (participants added one at a time), "meet-me" (participants meet at a valid number at a specified time), and "preset" (conference controller initiates the event, adding participants as they answer).
- **Field Deployable:** Housed in REDCOM's rugged and transportable Tactical Communications Package (TCP), the SLICE can be quickly deployed to tent cities, communications shelters, trucks and Humvees. The SLICE TCP meets stringent DoD specifications for impact and vibration, and can withstand the harsh conditions of airlift, seaborne and off-road transportation. The SLICE TCP integrates multiple communications elements and encryption devices, and can be fully customized to meet the specific needs of warfighters and DoD agencies.

Talk to the tactical & strategic communications experts at REDCOM

For more information about how REDCOM can create a reliable solution for you, call us today at +1.585.924.6500, or e-mail sales@redcom.com

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REDCOM SLICE® Command & Control V4.0 Features & Specifications

PHYSICAL SPECIFICATIONS

- Width: 19 in rack mount; 17.5 in / 44.5 cm
- Height: 1U 1.75 in / 4.4 cm
- Depth: 17 in / 43 cm
- Weight: 15 lbs. / 6.5 kg
- Mounting: front & center mount brackets included (optional wall mount kit available)
- Power: -48 VDC; 2.1 amps
- Environment
 - ◆ 32°-122° F (0°-50° C) ambient
 - ◆ 5%-90% relative humidity (non-condensing)

HARDWARE FEATURES

- 10/100 Ethernet Port
- Serial Interface (Dual RS-232/9-Pin)
- 2 Bays for Field-Replaceable Modules
- 48-Hour Protected RAM
- Dual SRAM PCMCIA Card Slots
 - ◆ Save and Restore Capabilities
 - ◆ Field Updates and Upgrades of Software Load and Database
- 2 E1/T1 Spans:
 - ◆ Can be provisioned as a fractional E1/T1
 - ◆ Software-selectable per span as E1/T1
 - ◆ 100 Ω T1 interface or 120 Ω E1 interface via an RJ-45 connector
 - ◆ Independent alarm and loopback indicators for each span
 - ◆ Software controlled clock synchronization
 - ◆ 3 general-purpose Digital Signal Processors (DSPs): DTMF, MF/R1, MFC R2
 - ◆ Support for Primary Rate ISDN
 - 4ESS & 5ESS Protocol
 - National ISDN-1
 - DMS100
 - Euro ISDN
- Hot-swappable Cooling Module
- Traffic: 36 ccs (1 Erlang) per port (non-blocking)

TRANSIP® IP TECHNOLOGY SUITE*

- Up to 300 registered IP subscribers per unit
- AS-SIP
- Domain Name System (DNS)
- Dual Stack IP (IPv4, IPv6)
- Dynamic Host Configuration Protocol (DHCP) client
- IP Bandwidth Management
- IP Trunking
- Legacy Interface Support
- Media Gateway
- Network Time Protocol (NTP)
- QoS: IP Differentiated Services (DiffServ) marking
- Secure Telnet (SSL/TLS)
- Session Description Protocol (SDP) Manipulation
- Silence Suppression
- SIP Call Controller/Call Manager
- SIP-Based Line Features:
 - ◆ 3 Way Calling - Added
 - ◆ 3 Way Calling - Joins
 - ◆ Attended Transfer
 - ◆ Automatic Redial
 - ◆ Call Forward All
 - ◆ Call Forward Busy
 - ◆ Call Forward No Answer
 - ◆ Call Hold
 - ◆ Call Management In
 - ◆ Call Management Out
 - ◆ Call Park

- ◆ Call Pickup
- ◆ Click to Dial
- ◆ Consultation Hold
- ◆ Find Me
- ◆ Music on Hold
- ◆ Unattended Transfer
- SRTP
- Telephony Tones: RFC 4733
- Voice Compression: Codecs G.711A&μ, G.723.1H&L, G.726 (16, 24, 32, 40 kb/s), G.729A&B
- VoIP
- VoIP Phones Support Legacy Features

CLASS™ FEATURES

- Anonymous Call Rejection
- Automatic Callback
- Call Coverage
- Call Forward Override Dial Code
- Call Hold
- Call Park
- Call Pickup
- Call Return
- Call Waiting and Camp-On
- Caller ID (Name and Number Delivery)
- Calling Number Delivery Blocking
- Change Number Announcements
- Customer-Originated Call Trace
- Distinctive Ringing/Call Waiting Tone
- Incoming Caller ID
- Last Number Called/Saved Redial
- Message Waiting Services
- Remote Call Forwarding (Call Following)
- Selective Call Forwarding/Acceptance/Rejection
- Setup menus for CLASS Announcements
- Transfer with Consultation Hold

SIGNALING & PROTOCOLS

- A-Law/μ-255 Law PCM Conversion
- Busy Trunk Auto-Callback
- Direct Inward Dialing (DID)
- Direct Outward Dialing (DOD)
- DTMF Tones & Dial Pulse Operation
- Euro-ISDN
- Fast Dial on Trunks
- Flexible R2 Backward Digit Mapping Tables
- FXO/FXS Support
- Individual Trunk Selection
- MF Register Signaling
- Off-Hook Service on Trunk Groups
- Primary Rate Interface (PRI)
- R2 Interregister Signaling
- R2 Line Signaling
- Tandem Trunk Calls
- Tandem R2 Interregister Signaling
- Trunk-to-Trunk Answer Return Class Mark
- Trunk-to-Trunk Connection Control

OPERATIONS, ADMINISTRATION & MAINTENANCE

- Account Codes
 - ◆ Allows Identifying Digit Strings to be appended to Call Records
- Administrative Package
 - ◆ User-Friendly Administration Using PC or VT-100 Terminal
 - ◆ Open Database Access
 - ◆ Editing, Storage of Unactivated Changes
- Automatic Call Distributor (ACD)
- Automatic Callback
- Automated Call Processing (ACP)

- Basic Rate Interface (BRI S)
- Broadcast Ringing
- Call Progress Announcements
- Centrex
- Certificates*
 - ◆ SSL 3.0, TLS 1.0 through 1.2
 - ◆ X.509 Certificates
 - ◆ PKI (Public Key Infrastructure)
 - ◆ PKCS #7, #8, #12 (Certificate & Key file formats)
 - ◆ OCSP (Online Certificate Status Protocol)
 - ◆ Trust Points
 - ◆ Algorithms: RSA, AES, 3DES
- Class of Service Groups
- Computer Telephony Integration (CTI)
- Conferences
 - ◆ Preset, Meet-Me, Progressive
 - ◆ Conference Chaining
 - ◆ Optional Password Protection
 - ◆ Loudest Party Talker
- Digital Pad Control
- Direct Inward System Access
- Digital Announcements
- E-Mail Support
 - ◆ Database Files Can Be E-mailed To or From the Switch
 - ◆ Send Maintenance Notes and Traffic Dumps to Any E-mail Address
 - ◆ Users on the Switch Can Send/Receive E-mail Separated by User Name
- Emergency Call Routing
- Emergency Services (911)
- External Database: MySQL
- Flexible System Timers
- Flexible Tone Generation for international call progress tones
- Flexible Tone Tables
- Flexible Dialing Translator
- Group Maintenance
- Hidden Dial Codes
- Host Control Interface
- Hotlines
- Issue Test Commands to Ports
- MLPP & 619a
- Multi-Level Users
 - ◆ Allows Levels of Access and Control for Assigned Users to Perform System Administration
- Multiple Home Exchanges
- Multiple Stations (Directory Numbers and Classes of Service) on a Single Line
- Nailed Up Connections
- Note Filtering
- Note Logging Facility
- Off-Hook Service
- Pad Switching
- Percentage Trunking
- PIN Number Authorization
- Pre-recorded Announcements
- Priority Call Indications
- Priority Override (Conferenced/Non-Conferenced)
- REDCOM BASIC Programming Language
- REDCOM ClusterNet™
 - ◆ Voice and Control Paths Between Independent Sites/Switches
 - ◆ Host/Remote for Integrated Network Operation
- REDCOM Shell (RSH) Operating System
 - ◆ File Manipulation Commands
 - ◆ Directory Structure Commands
 - ◆ Text File Import and Export
 - ◆ Audit Files
 - ◆ Script Files, Macros
 - ◆ On-Line Help
- Remote Administration and Diagnostics
- Remote Station Logon
- Route Tables with Access Codes
 - ◆ Alternate Routes
 - ◆ Digit Manipulation
- Selective Station Disable
- SNMP Monitoring
- Station Message Detail Recording (SMDR)
- Speed Dialing (System & User-Definable)
- System CRON Timers
- Three PIC Equal Access
- Time-of-Day Database Changes (Least Cost Routing)
- Toll Restriction
- User Defined Announcements
- User Jobs
 - ◆ Administration (ADM)
 - ◆ Database Generation (GEN)
 - ◆ Database Upload/Download (XLD)
 - ◆ Maintenance (MANT)
 - ◆ Notes (NOTE)
 - ◆ Operation, Maintenance and Administration Part (OMAP)
 - ◆ Traffic Usage Report (TDMR)
- User Level Security
- User Recorded Announcements
- Universal Numbering Plan
- View
 - ◆ Live/Historical Notes
 - ◆ Circuit/Hardware Data
- Voice Mail System Interface
- Wake Up Services
- Warm Line Service

SECURE INTEROPERABILITY

- SCIP
- GSM Type 1
- Iridium Type 1
- LTU/TIA
- NBS (Narrowband STE)
- Secure Dial
- Secure Tactical Radios
- STE
- SWT
- SWT-R
- TIA-TED (Red T1)
- Fourth Column DTMF Digits (Accommodates Autovon & MLPP Override)
- Autovon

ANCILLARY PRODUCTS

- Link Command System (LCS)
- Maintenance and Administration User Interface (MAUI)
- Tactical Traffic Metering Package (TTMP)

OPTIONAL FEATURES

- 800 dips via SS7
- Fax over IP (T.38) and Modem over IP (V.150.1)*
- GR-303
- Call Monitoring (CALEA): US J-STD-025A & US J-STD-025B
- Local Number Portability
- SS7 Signaling
- TCAP CNAME
- V5.2

OPTIONAL MODULES

- Subscriber Module
- Analog Trunk Module
- Multi-E1/T1 Module
- Media Services Circuit Module
- Radio Interface Module
- Secure Device Module

* Requires the optional Media Services Circuit Module to enable TRANSIP and IP features

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