# Broadmore 500 and 1700 Cell Multiplexer

# **Government Certifications**

- JITC TCCI Listed
- DISA IA Approved (expired)
- FIPS-140-2, Level 1 overall, Certificate #478
- Common Criteria EAL-3 listed
- Management certified "IPv6 Ready"

## DUNS

• 150794758

# CAGE CODES

- 1U737 (Plano)
- 3RDH4 (St. Petersburg)

## NAICS

- 334210 Telecom Apparatus Mfg.
- 334290 Other Comm. Equip. Mfg.
- 517919 All other
  Telecommunications

# **Broadmore Cell Multiplexer**

•	Mission-critical legacy voice and VoIP intriduction
•	TDM circuit aggregation and backhaul

- Tactical communications
- Encrypted Circuits
- Custom communications





The Broadmores architecture supports up to 622 Mbps and supports four cell buss as well as bit rates from 75B ps up to 274 Mbps. The multiplexers provide for Redundant Network Interface Modules (NIMs) and CPUs.

# Secure Network Conversion

Designed specifically for government environments, Broadmore is designed to convert TDM-to-ATM and TDM-to-IP/MPLS for transporting traditional services across high-security networks, The result is high reliability and service availability while helping simplify operational management. Select features include:

- Crypto-resync capabilities to minimize lost data
- Support for multiple timing recovery algorithms to help ensure that mission-critical data reaches the end users in order and on time
- High-speed Serial Interface (HSSI) and interfaces offering variable serial speeds up to 247Mbps
- Common Criteria EAL-3 and FIPS 140-2 Level 1 validation, meeting DoD directives 8500.1 and 8500.2

# **Full-Featured Service**

Replace the cost and complexities of equipping and managing SONET and Digital Cross-Connect (DCS) circuits by provisioning grooming and routing DS3, DS1, E3, E! and high-speed serial data circuits using logical ATM and MPLS pseudowire connections.

The Broadmore Platform offers:

- Serial transport of voice and data over SATCOM links, microwave and other fixed wireless deployments where DS1, DS3, OC-3c or OC-12c network interfaces are not an option
- IPv6 mandatory core protocols and interoperability with other IPv6 equipment
- Cell mux service with serial data (RS-530/RS-422) transport over ATM and IP/MPLS networks
- Support for SNMPv3 and SSH-2



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# **Broadmore 500 and 1700 Cell Multiplexers**

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# Broadmore 500 and 1700

#### 17-Slot Chassis

- (2) Network Interface Modules (NIM)
- (2) CPUs Modules
- (1) Alarm Module
- (12) Service Access Modules (SAM)

#### Redundancy

- (1) Redundant CPU
- (1) Redundant NIM
- (1) Redundant Power Supply
- (1) Redundant BITS clock

#### Certifications

- JITC tested, DISA IA, FCC
- UL approval

#### Security

- SecureID, SecureShell v2 and SFTP
- Two audit logs
- Global "Zeroize" erase
- SNMPv3 with FIPS 3DES and AES
  Encryption
- Four User levels

#### 5-Slot Chassis

- (2) Network Interface Modules (NIM)
  - (2) CPUs Modules
- (1) Alarm Module
- (12) Service Access Modules (SAM)

# NIM and SAM

- Service Access Modules (SAMs) and NIM modules are separate from I/O modules
- Flexible design enables NIM and SAM modifications independant of I/O
- BITS CLOCK Input is located on NIM I/O

## **NIM Redundancy**

- NIMS operate as a pair for redundancy (1700 only)
- The redundant NIM is in Hot stand-by mode
- Provides maximum "up time" availability
- SONET APS fail over and SPVX Redundancy

#### **ATM NIM Connectivity**

- OC-3 and DS-3 NIM modules only connect to cell buss "A"
- The OC-12 NIM connects to all four cell buss
- Average application bandwidth requirement is just over 2.0 Mbps
- Lots of room for growth

# **Broadmore CPUs**

- Basic CPU-2 card is the same for all releases (7660-007):
- 7660-007-BA is CPU-2 with Rel. 3.71 software
- 7660-206 is CPU-2 with Rel. 4.1.1 EAL-3 software
- 7660-208 is CPU-2 with latest release software (4.61 or 5.01)
- 7660-210 is planned CPU-2
- CPU-3 designed and ready when CPU-2 parts EOL:
  - 1. New process and memory
  - 2. Capacitor instead of battery

# Release 5.1 - UDP/IP Capabilities Update

# Standards Based solution

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- Standard IETF RFC mechanisms for traffic encapsulation
- Standard BFD (Bi-Directional Forwarding Detection)
- Supports interoperability with other Standards based Equipment

# Resiliency

#### Supports the ability to create paths:

- Working
- Protect-1
- Protect-2

#### Paths monitored by BFD protocol

# Switching between paths based on detected BFD failure

- Switch on paths on active NIM
- Switch on paths on standby NIM

Provides multiple paths for traffic protection

# **Encrypted Circuits**

#### KG re-sync supported

- CBI and HSSI-CBI modules
- Re-sync "ON" time 0 6 Second Duration in 0.1 second increments
- Re-sync "off" time 0 60 seconds in 0.1 increments
- Certified with several flavors of KG

	MPLS	OC-12c	OC-3c	sDS-3	uDS-3	DS-1	E-1	E-3	MBR	HBR	HSAM	ATM DS-3	HSSI	CBI
BM 1700	V	V	V	1	V	V	V	$\checkmark$	1	1	√	$\checkmark$	1	1
BM 500	V		1	1	V	V	1	V	V	1		$\checkmark$	V	1
	Network	Interface	TDM (SAMs)					Serial (SAMs)			Cell (NIM or SAM)			

Broadmore NIMs and SAMs are interchangeable between the 500 and 1700 chassis, including the CPU. The same software is used to maintain a common User Interface between both chassis.



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