

MCU II High Availability

Applications Extender for NACT Telecom Solutions

Product Features

The NACT MCU II seamlessly links up to 16 NACT IPAX switching gateways, leveraging investments in number authentication, authorization, and accounting databases; and delivering cost-effective plug-and-play scalability for NACT Telecom Solutions.



- > Supports up to 16 NACT IPAX switching gateways/shelves
- > Provides centralized fraud protection
- > Single provisioning point for IPAX gateways
- > Creates virtual VoIP gateway of multiple IPAX shelves
- > Supports SS7 signaling protocols
- > Includes built-in data recovery
- > Enables remote IP connectivity
- > UNIX-based

Implements Cost-Effective Scalable Applications

The NACT MCU II empowers service providers to easily, cost-effectively and rapidly scale their NACT Telecom Solution to meet growing market opportunities. The MCU II provides a single interface point for provisioning, signaling and data collection of up to 16 IPAX gateways by the NACT NTS 2000. This extends the benefits of number authentication, authorization and accounting to as many as 30,720 TDM and VoIP ports in support of up to 15,360 simultaneous calls.

Delivers Real-Time Operational Support

With the MCU II, multiple IPAX gateways become a single functional unit; slashing the overhead and dramatically simplifying provisioning and management tasks. In addition, the MCU II minimizes the number of SS7 point codes required, eliminating the costs and administration of separate point codes for individual gateway switches.

Protects Business-Critical Resources

The MCU II is a common control point for prepaid functions. Card provisioning, balances, usage dates, recharge information, rate configuration and service fee administration along with daily maintenance procedures are all part of the MCU II's prepaid functionality. Especially in the prepaid market, tight control of call placement, precise call rating and fee assessment along with data management are critical for a successful business. The MCU II provides these functions while managing all of the switching gateways under its control, giving providers the peace of mind to operate the rest of the business.

The MCU II also consolidates fraud detection, uniformly and universally applying fraud control parameters such as usage limitations, blocked destinations or credit card recharge restrictions across all gateways. The MCU II checks potentially fraudulent activity in all gateways against all constraints. This comprehensive fraud control protects service providers by minimizing costs incurred by fraudulent activity.

High Availability

The MCU II also provides many levels of redundancy to ensure your critical business data and operational needs are met. Master/slave redundant SUN servers are used to ensure operational up time, individual gateways automatically communicate with the master server, IP connections are redundant, upgrades can be done without any service disruption, and data is stored on redundant RAID arrays, on individual gateways and are also backed up to tape each day. These systems enable the MCU II to provide you with maximum up-time and reliability.

Facilitates Implementation of Distributed Networks

Because the MCU II connects to individual IPAX gateways via Ethernet, it can be located anywhere; in the same room with the gateways, or on the other side of the world. The benefit of this flexible connectivity is the ability it gives service providers to create distributed networks that place gateways where it makes the most business sense. By placing gateways in areas with high customer concentrations, for example, costs can be minimized and profitability maximized.

Key Features

- Prepaid card balances
- Real-time rating
- IPAX provisioning
- SS7 signaling distribution
- NTS communications point
- Fraud protection
- Software update point
- Real-time switch monitoring



Hardware Platform

- Standard 19-inch mid-rack mounts *
- Sun Netra 240 or Netra 440 servers
- 5U (240) or 8U (440) overall form factor
- 700 (240) or 1,000 (440) watts typical power consumption
- Optional cabinet
- * Two for high availability

240 Server Subsystem

- Sun Netra™ 240 server running Solaris 8 operating system
- Supports 1-8 IPAX gateways
- Up to 16,320 TDM and 16,320 VoIP ports
- Up to 672 T1s or 544 E1s
- Up to 8,160 TDM or 16,320 VoIP calls
- NEBS Level 3 certified
- Dual 1.28 GHz UltraSparc IIIi processors
- 2 GB RAM (expandable to 8 GB)
- Dual hot-swappable, 15K RPM, 73 GB, Ultra 160 SCSI LVD disk drives
- Four 10/100/1000 Mbps Ethernet ports
- CD-ROM drive
- 2U form factor
- Dual hot-swappable, -48VDC power supplies (N+1)
- 364 watts typical power consumption

440 Server Subsystem

- Sun Netra™ 440 server running Solaris 8 operating system
- Supports 1-16 IPAX gateways
- Up to 32,640 TDM and 32,640 VoIP ports
- Up to 1,344 T1s or 1,088 E1s
- Up to 16,320 TDM or 32,640 VoIP calls
- NEBS Level 3 certified
- Quad 1.28 GHz UltraSparc IIIi processors
- 8 GB RAM (expandable to 16 GB)
- SCSI LVD disk drives
- Quad hot-swappable, 15K RPM, 73 GB, Ultra160
- Four 10/100/1000 Mbps Ethernet ports
- CD-ROM drive
- 5U form factor
- Quad hot-swappable, -48VDC power supplies (2+2)
- 660 watts typical power consumption

Tape Backup Subsystem

- DAT 72 technology
- 72 GB capacity (compressed)
- -48VDC power supply
- 1U form factor
- 10 watts typical power consumption

RAID Subsystem

- NEBS Level 3 certified
- Dual Ultra 160 SCSI Controllers
- Dual hot-swappable, -48VDC power supplies (2+2)
- Six hot-swappable, 15K RPM, 73 GB (240) or 146 (440)
- RAID Level 1 (mirroring)
- Configured as two logical 73GB (240) or 146GB (440) drives and two hot standby drives
- 2U form factor
- 300 watts typical power consumption

Performance

- 30 million prepaid calling cards
- 100 (240) or 200 (440) peak prepaid calls/second
- 18 minute Prepaid Lot Card ISAM file rebuild (25 million records-2 keys each-Netra™ 240)
- 14 minute Authorization Code ISAM file rebuild (25 million records-1 key each-Netra™ 240)

The MCU II is a component of NACT Telecom Solutions

