

AERONAUTICAL TELECOMMUNICATION NETWORK (ATN) GROUND ROUTER



System Features

- Runs on commodity servers using an Intel Platform
- Supports mainstream Linux distributions
- Dual Ethernet ports
- Up to 16 X.25 Synchronous Serial ports
- Superior Performance for Routing and Message throughput
- SNMP monitoring & control capabilities
- Turn-key solutions for easy drop-in operation in customer environments

Functionality

BCI's ATN Ground Router is an ICAO Class 4 router as specified in ICAO Document 9705 and ICAO Document 9880. BCI's ATN Ground Router is used extensively in production environments throughout the Asia Pacific region and by the Federal Aviation Administration for the ATN Message Handling Service (AHMS).

The BCI ATN Ground Router is easily configurable to support many ground interfaces for connectivity to other Ground-Ground ATN Routers. The BCI ATN Ground Router supports Ethernet and IP subnetworks with no special hardware. For connectivity to X.25 subnetworks, the use of an X.25 Synchronous Serial I/O card from Sonus (formally Performance Technologies) is used.

Redundancy

The BCI ATN Ground Router supports redundancy using two co-located systems operating in a Primary/Standby configuration. A heartbeat function is used to recognize system level failures allowing for automatic switchover of ATN Router operations from the Primary Processor to the Standby Processor. The switchover process for X.25 connectivity uses a remotely controlled A/B switch manufactured by Electro Standards Laboratories.

Performance

The BCI ATN Ground Router offers performance without the attendant requirement for special hardware. The BCI ATN router's high performance switching capability make it an ideal choice as a Backbone Router able to route ground-ground traffic.

System Management

The BCI ATN Ground Router provides support for remote network management so that the router may be monitored and controlled by any SNMP compliant network management station. All functions that can be managed locally can be managed remotely, thus allowing the BCI ATN Ground Router to be housed in hardened data processing centers without the need for collocated management personnel.

PRODUCT LINE INFORMATION: AERONAUTICAL TELECOMMUNICATION NETWORK ROUTER

Technical Specifications

Ground Interface Protocols

- ISO 10747 Inter-Domain Routing Protocol (IDRP)
- ISO 8473 Connectionless Network Protocol (CLNP)
- ISO 9542 End System to Intermediate System (ES-IS) Protocol
- ISO/IEC 10589 IS to IS Intra-Domain Routing Information Exchange Protocol (IS-IS)
- ISO 8473-2 Subnetwork Dependent Convergence Function for use with 8802 Subnetworks (Local Area Networks)
- ISO 8473-3 Subnetwork Dependent Convergence Function for use with [X.25] Subnetworks
- ISO 8208 Packet Level Protocol
- SNDCF for IPv4 and IPv6 Subnetworks

Physical Interfaces

- Ethernet
- Synchronous Serial via optional interface card

Supported Operating Systems

- Red Hat Enterprise Linux 5 and 6
- CentOS 5
- Scientific Linux 6

Supported Hardware

- Dell PowerEdge Servers
- HP Proliant Servers

Options

- Up to 4 Sonus X.25 Synchronous Serial I/O Cards
- Up to 4 DB25 A/B Switches from Electro Standards to support ATN Router Redundancy for X.25 connectivity.

Turn-key Solutions

BCI provides the ATN Ground Router as a turn key solution. We take the customer's interface requirements and performance needs into consideration to provide a drop-in solution.

Contact Information

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About BCI

BCI is a small business based in Moorestown, NJ. BCI's engineering team has developed systems and products for defense, civil aviation, and local and state governments. Our primary lines of business include radar processing systems, communications systems, network information technology, and custom software solutions.

