NC2000 Network Controller

Management and control of services for DCX set-tops

FEATURES

- Centralized management of network controllers
- Capable of supporting over 1 million set-tops
- Capacity portability
- DC and AC power options
- High availability with redundant power supplies, modules and network redundancy options
- Consolidated network routing, which frees up valuable switch ports

PRODUCT OVERVIEW

The ARRIS Network Controller is a headend component for use in digital cable networks. The NC2000 supports large-scale interactive networks and communication between set-tops and the Application Server, as well as enabling such services as video-on-demand (VOD), catalog shopping, Web browsing, and email.

One of the main advantages of this architecture is that NCs supporting set-tops managed by different DACs can be configured to run on the same shelf.

Based on the original NC1500 design, each of the NC2000AM processors runs a single instance of the NC software and performs functions equivalent to an entire NC1500; as a result, a single NC2000 can provide the equivalent functionality of one to 12 NC1500s, depending on the number of slots available on the chassis for NC2000AMs.

Physical Chassis

The NC2000 is a 4 RU chassis that supports 12 application modules, two control modules, two cooling modules, and two power supply modules available in both AC and DC models. All modules are hot-swappable and are field replaceable units.

Power Supplies

The NC2000 supports two hot-swappable redundant power supply modules. The NC2000 is capable of operating with either one or two power supplies installed. Both AC and DC power supplies can be supported simultaneously within the same chassis.

Application Modules

The NC2000 supports up to twelve hot-swappable application modules, each of which runs an instance of the Network Controller application software. Each instance supports 85,000 set-top boxes, with a total of over one million set-top boxes served. The application modules are available with optional redundancy to support a 1:N redundancy schema with up to 11 primary application modules in a single chassis.

Control Modules

The NC2000 supports two hot-swappable redundant control modules. The control modules provide shelf management functions for the chassis, including fan speed, temperature control, and power management. The control modules also function as a Layer 2 or Layer 3 switch and provide internal routing to the NC2000 modules. The NC2000 is capable of operating with either one or two control modules installed.

Redundancy

The NC2000 is a fully-redundant network controller capable of supporting the following redundancy features:

- 11:1 Application Module redundancy
- 1:1 Control Module redundancy
- 1:1 Power Module redundancy
- 1:1 Cooling Module redundancy

Applications

The NC2000 is suited for all Aloha network-based interactive applications such as:

- Switched Digital Video (SDV)
- VOD
- Network DVR
- EBIF applications

Additionally, the NC2000's architecture is especially suited for both large and small operators that will employ multiple network controllers.

ARRIS

GENERAL SPECIFICATIONS

Modular Chassis

Chassis Height	4 RU
Dimensions	19.0 in x 12 in x 4 RU (48.3 cm x 30.5 cm x 4 RU)
Weight	25 lbs (11.34 kg)

Power

Power Supplies	Two per chassis
Hot Swappable	Yes
AC Power Supply	110/220V
DC Power Supply	−40 VDC to −57.6 VDC
Power Consumption	600W

Input Data Interfaces

Control Module Uplink	Two GigE RJ-45 per module

Other Ports

Control Module Management Port	One GigE RJ-45 per module
Control Module Console Port	One RS232 Serial per module
Application Module Console Port	One RS232 Serial per module
Application Module USB Port	One USB 2.0 per module

Redundancy

Power Supply	1:1
Control Module	1:1
Cooling Module	1:1
Application Module	11:1

GENERAL SPECIFICATIONS (CONTINUED)

Environmental

Operating Temperature	32 °F to 122 °F (0 °C to 50 °C)
Storage Temperature	−40 °F to 158 °F (−40 °C to 70 °C)
Cooling	Front to rear airflow
Operating Altitude	−200 feet to 10,000 feet AMSL
Operating Humidity	5% to 90% non-condensing
Restriction of Hazardous Substances (RoHS) Compliant	

All features, functionality, and other product specifications are subject to change without notice or obligation.

RELATED SERVICES

Part Number	Description
476666-123-00	NC2000 Design, Installation, Configuration Service
476666-050-00	VOD Integration

CUSTOMER CARE

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
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