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NRC Series 2000 AppleTalk Routers: Description

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TOPIC -----------------------------------------------

This article describes Network Resources Corporation's (NRC) Series 2000
family of AppleTalk routers.

DISCUSSION ------------------------------------------

The NRC Series 2000 family of AppleTalk routers are designed for Ethernet,
broadband, and fiber-optic backbone media. These products can directly
connect Macintoshes, AppleShare servers, and LaserWriters to a backbone.
They can also connect a LocalTalk or PhoneNet subnet of Macintoshes,
AppleShare servers, and LaserWriters to the same backbone.

The Series 2000 products have an architecture that reduces network overhead
and extends network capacity.  The following is a list of the features
common to all Series 2000 products:

- Full EtherTalk compatibility, ensuring inter-operability with other
non-NRC EtherTalk devices (like Kinetics, Apple Ethernet adapters, and so
on).  This is typically an issue in existing Ethernet user locations.

- Works well with large networks, because it can handle over 10,000 routing
table entries.

- Self-configuring by default. Network administrators are not required to
assign network ID and the like prior to placing the units into service.
Self-configuration greatly reduces complexity and the possibility for error
when putting the Series 2000 units into service.  The units remain manually
configurable, for networks with special needs.

- Minimizes activity on the backbone network improving overall network
performance.  The Series 2000 routers issue far fewer routing table
broadcast and use a smaller size broadcast packet than existing non-NRC
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solutions.

- Standard AppleTalk protocol support. This ensures compatibility with products like Inter-Poll.

- AppleTalk Phase II compatible.

The following is a list of the Series 2000 products currently offered:

AT2000 supports a single AppleTalk connection via a standard Apple Peripheral-8 cable, connected to the AppleTalk port of an AppleTalk device.

AT2002 supports two AppleTalk connections via standard Apple Peripheral-8 cables, connected to the AppleTalk ports of any two AppleTalk compatible devices.

LT2000 supports a Localtalk or PhoneNet subnet, including one or more StarControllers in the PhoneNet configuration.

Mac2000 is an Apple Coprocessor Platform (MCP) NuBus adapter card. The Mac2000 is an intelligent device that processes the protocols on the board for higher throughput. The Mac2000 is best applied to server applications which require direct connection to the high-speed backbone.

Specific Media Applications

The Series 2000 supports three media applications:

- Ethernet cable

- Broadband CATV cable

- Fiber optic cable

Ethernet cable: The Series 2000 Ethernet options support both AUI (thick yellow cable) or Cheapernet (thin coax) connections. All standard Ethernet media support is standard.

Broadband CATV cable: The broadband offering of the Series 2000 makes use of standard broadband CATV cable for the high-speed backbone. Broadband's popularity has grown over the years due to it's ability to cover vast distances with both video and data transmission. Broadband data networks have been particularly popular in universities, manufacturing environments, corporate campus systems, and municipalities. In the latter case, some cities use the community CATV cable system to transport data traffic along with entertainment TV. Series 2000 devices use a 2 Mbps broadband modem to connect to the cable system and one of many 6Mhz TV channels to route AppleTalk packets up to 10 miles across the broadband system.

Fiber optic cable: The Series 2000 supports Fiber Optic high-speed backbones using a hub and star topology. The Series 2000 employs an active 16 port hub which supports either 62.5 micro fiber up to 3000-foot from the

hub or 1000 micro plastic fiber for distances up to 250-foot from the hub.
The hubs can be tiered so you can daisy chain up to 16 hubs.

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