



## IBM 3174 Establishment Controller

- **Provides support to a wide range of systems and protocols: SNA, APPN®, TCP/IP, Token Ring, ESCON®, ASCII, AS/400®, X.25 and Frame Relay**
- **Consolidates multiple networks serving diverse processor platforms into a single, high-performance, cost-effective peer topology network**
- **Routes session data based on the type of line, speed of the line, security and congestion**

The IBM 3174 Establishment Controller, with its full range of communications adapters, can provide the seamless and nondisruptive link between your hosts, PCs, LANs and WANs and departmental processors—all across the most commonly used protocols. The 3174 is designed to meet your current and future requirements, providing support to a wide range of systems and protocols: SNA, APPN, TCP/IP, Token Ring, ESCON, ASCII, AS/400, X.25 and Frame Relay.

# Product Overview

The IBM 3174 Establishment Controller provides a broad range of connectivity options, workstation and host attachment possibilities, network asset management capabilities and expandability features. In addition to options that allow host connections via both local channel and remote communication link connections, the 3174 can connect to the IBM Token-Ring Network. The 3174 can connect to an ASCII host, an AS/400 system or an APPN network as well as provide the 3270 Display Controller function. The IBM 3174 ISDN Interface Adapter is available to enable attachment to ISDNs.

With the 3174 you can:

- Establish a logical pathway from SNA networks to Token-Ring LANs
- Make LAN functions available over existing coaxial wiring
- Allow dependent terminals and intelligent workstations to interoperate using TCP/IP
- Integrate AS/400 systems, PCs and ASCII terminals
- Link to APPN networks

With the 3174 you'll be able to leverage the investments you've already made while moving toward the network environments you'll need tomorrow.

## Benefits

- **Connectivity.** The 3174 provides connectivity for Token-Ring LANs, parallel or ESCON optical fiber channels, TP links and CCITT X.25.
- **End-user productivity.** From a single terminal you can have up to five simultaneous sessions to access multiple hosts through 3174 functions like multiple logical terminal and multiple host connections. You can have host, ASCII, AS/400 or TCP/IP sessions simultaneously.

- **TCP/IP.** You can route remote TCP/IP traffic using your existing 3174. The 3174 supports TCP/IP with Telnet and TN3270. SNMP management is also provided. It's an efficient and cost-effective way to migrate into open system environments, protecting your investments in equipment and improving your users' productivity.

With IP routing, your 3174 can act as an IP router between LAN-attached devices and a Frame Relay network. IP routing is provided through RPQ 8Q1289, a no-charge feature that runs on Configuration Support C Release 5.

Using a predefined route table, the 3174 can send traffic to other routers and 3174s to reach IP hosts on remote subnets and networks. A default router can be customized in the 3174 so that traffic for subnets not in the table can be routed to a dynamic router like the IBM 6611 Network Processor.

You can save money by using 3174s for routing and consolidating SNA and IP connections. The 3174 routing capabilities make it similar to some of the low-end static routers currently in the marketplace. But with a 3174 you can provide routing on a product that you probably already have installed. One that provides the function concurrently with SNA, APPN, LAN gateway and traditional 3270 subarea applications.

- **Token-Ring LAN.** The 3174 can be attached to a Token Ring to provide access to TCP/IP, APPN or SNA protocols. The 3174 even enables LAN connections made over existing coaxial wiring, allowing migration to a LAN environment without the costs of rewiring or adding Token-Ring adapters to your personal computers.
- **APPN.** The 3174 provides APPN network node functions. APPN lets you consolidate multiple networks serving diverse processor platforms into a single, high-performance, cost-effective peer topology network.

You can easily distribute applications across hosts, PS/2 computers, AS/400 systems and RS/6000® processors within an APPN network. And you'll also be able to take advantage of dynamic, nonhierarchical route optimization and dynamic network configuration definition.

Together the 3174 and the VTAM program support traditional 3270 LU2 traffic natively, just as they always have. But with dependent LU server/requester (DLUS/DLUR) support, the 3174 and VTAM® extend the dynamic routing benefits of APPN to dependent displays.

DLUS and DLUR calculate the best route for 3270 session data. This route is determined by factors like the type of line, speed of the line, security and congestion. Once the route is selected, the 3270 data stream is natively routed, not encapsulated, over the APPN network.

Traditional 3270 traffic and dynamically routed 3270 traffic can coexist in the same network. And in parts of the network where the migration to APPN has not occurred, 3270 sessions work the same way they always have.

With DLUS and DLUR, you can take advantage of the benefits of APPN without having to change your existing 3270 applications or replace your large inventories of dependent displays.

- **Frame Relay.** The 3174 can transport multiple protocols, such as IPX, NetBIOS, TCP/IP, SNA and APPN, over a Frame Relay network. This gives you the converged network capability you'll need.
- **Intelligent hub.** You can integrate the 3174 functionality with your IBM 8250 and 8260 intelligent hubs with the Workstation Networking Module (WNM). WNM offers functions similar to the 3174-23R with Configuration Support C.

# 3174 Establishment Controller Specifications

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Controllers

Establishment Controller

## Models

Model	Installation	Local/ Remote	Primary communications attachment	Maximum 3270 ports	Maximum ASCII ports
11L	Floor	Local channel	S/370 channel	64	24
11R	Floor	Remote	Remote link (EIA 232D/V/35)	64	24
12L	Floor	Local channel	ESCON channel	64	24
13R	Floor	Remote	Token-Ring	64	24
21L	Rack	Local channel	S/370™ channel	64	24
21R	Rack	Remote	Remote link (EIA 232D/V/35)	64	24
22L*	Rack	Local channel	ESCON channel	64	24
23R**	Rack	Remote	Token-Ring	64	24
61R	Shelf	Remote	Remote link (EIA 232D/V/35)	16	8
63R	Shelf	Remote	Token-Ring	16	8
91R	Shelf	Remote	Remote link (EIA 232D/V/35)	8	N/A
95R	Shelf	Remote	Remote link (EIA 232D/V/35)	32	N/A

\*A Type 1 Teleprocessing Communication Adapter with a customer-provided communications cable for alternate IML backup capability is provided.

\*\*A Type 1 Teleprocessing Communication Adapter with a customer-selected communications cable for alternate IML backup capability or remote Token-Ring gateway support is provided.

Additional memory (6-MB maximum, includes 2-MB base)	FC
2 MB	1014
4 MB	1016
Additional disk drives	FC
Second disk drive	1048
20-MB fixed disk drive	1056
3270 coax port attachments	FC
Port expansion beyond 32 ports	3100
8-port coax internal multiplexer	3103
32-port internal multiplexer (via telephone wire)	3105
Fiber optic terminal attachment	3110
32-port external TTP multiplexer	3299-32T
8-port coax external multiplexer	3299-2/3
32-port external multiplexer	3299-032
Licensed internal code upgrades	FC
Configuration Support-B	5010
Configuration Support-C	6010
Upgrade from B to C	6015

## Key Customer Benefits

- Expandability
- Full range of communications adapters
- Connectivity options
- Supports most commonly used protocols

## Supplementary Information

The following sales tools are available for the 3174:

- Specification sheet:  
*IBM 3174 Network Processor, G325-3438-00*
- *IBM 3174 Sales Assistant, Z326-0341-00*
- Information on the IBM 3174 is available at:  
[www.networking.ibm.com/314/314prod.html](http://www.networking.ibm.com/314/314prod.html)