New light on site interconnectivity

IBM 9729 Optical Wavelength Division Multiplexer

Highlights

Lower connectivity costs plus protocol transparency

Flexibility of two models

Full support for Parallel Sysplex® processing

Disaster backup and recovery

High availability

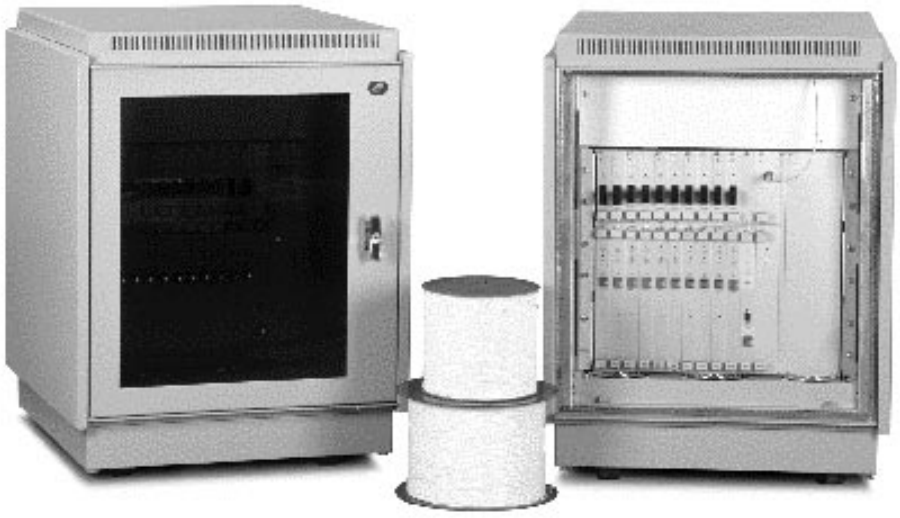
New forms of inter-site traffic

The IBM 9729 Optical Wavelength Division Multiplexer continues to enhance flexibility and options. Our 9729 Model 041, allowing up to four full-duplex (FDX) channels, gives you the multiplexing capacity you need today with the flexibility to upgrade to a 10-channel Model 001 in the future.

Lower connectivity costs plus protocol transparency

The 9729 can cost-effectively expand your network to include remote locations up to 50 km (31 mi.) apart. Instead of having to rent a pair of fibers for every 2-way connection between sites, you can get up to 10 of these connections simultaneously, all on a single fiber. You can use the connections for ESCON®, Sysplex Timer®, Coupling Links, OC3, Fast Ethernet and FDDI traffic independently on up to 10 different 2-way connections. You don't have to buy special equipment to convert your format to suit the 9729; the 9729 adapters accept these formats and transport the data without translations.

The 9729 enables up to 10 FDX channels to be transmitted over a single fiber by using a technique called *wavelength division multiplexing*. This technique allows the 9729 to separate the bandwidths of the optical cable into a unique spectrum for each channel without any interference between channels. That means data from multiple channels can be sent simultaneously through a single fiber, regardless of differences in format—a feat not possible using technology prior to wavelength division multiplexing.



IBM 9729 Optical Wavelength Division Multiplexer Models 001 and 041

Flexibility of two models

The 9729 is available in two models. Model 001 can divide a single optical fiber line into as many as 20 wavelengths and supports dual, fully redundant power and cooling. The Model 041 can divide a line into as many as eight wavelengths; redundant power is optional.

Full support for Parallel Sysplex processing

The 9729 models fully support all aspects of the Parallel Sysplex environment, including ESCON channels, the 9037 Sysplex Timer Model 2 and the 9674 Coupling Facility.

Parallel Sysplex processing enables you to implement high-performance data sharing and workload balancing across multiple processors, while simultaneously optimizing disaster recovery.

You can include processors separated by as much as 40 km (24.8 mi.) via RPQ (special request) in the same geographically dispersed Parallel Sysplex environment.

The modularity of the 9729 allows you to implement features of the Parallel Sysplex independently, so you can have the solution you need today and can add features to implement the solutions you need for tomorrow.

Disaster backup and recovery

The 9729 also helps you to provide data backup and disaster recovery, regardless of your environment, and is an excellent enhancement for remote copy solutions. The 9729 allows you to economically separate your storage center from your computing center. Your remote copy traffic—synchronous or asynchronous—can be channeled through the 9729. Additionally, if required, remote tape vaulting and/or remote printing can be implemented.

High availability

Protection switching for the 9729 is provided by the dual-fiber I/O adapter. If communication on the primary link is broken, the 9729 detects the loss of light and can automatically switch over to the secondary path, helping to ensure that your link remains available.

The 9729 also features redundant power and cooling units, helping to ensure that your 9729 remains available.

New forms of inter-site traffic

The 9729 supports connections for ESCON, Coupling Links, Sysplex Timer, FDDI, OC3 and Fast Ethernet. And connection to these interfaces is easy. For ESCON, FDDI and Coupling Links, a different front-panel connector is provided on the plug-in adapter. For OC3, the connection is made through an existing ESCON adapter to a customer-provided cable, and for Fast Ethernet the connection is made through an existing FDDI adapter with a customer-provided cable. There are up to 10 slots available for these adapters, and you can have any combination of them that's right for your communication needs. You don't have a requirement for 10 channels? That's OK—the 9729 offers modular solutions: whether you invest in Model 041 (supporting a maximum of 4 FDX channels) or in a Model 001 (supporting a maximum of 10), you can install the number of adapters you require now and add more later as your need grows.

The 9729 enhances existing network operations and enables establishment of remote sites—at distances of up to 50 km (31 mi.)—at competitive prices. You can now provide cost-effective disaster recovery across multiple sites, maintain a dim or lights-out mode of operating a remote data center and gain flexibility that may be required for contemplated mergers, splits or other reorganizations affecting your network structure.

For more information

To find out more about the IBM 9729 Optical Wavelength Division Multiplexer and other high-performance IBM communications and networking products, contact your IBM representative or call IBM Direct at 1 800 IBM-CALL (1 800 426-2255). You can also access the IBM Networking Home Page at *http://www.networking.ibm.com*

IBM 9729 Optical Wavelength Division Multiplexer at a glance

Maximum number of FDX channels per model	Model 001: 10 channels Model 041: 4 channels
Options for type of FDX channel	ESCON (200 Mbps) Coupling Links (1 Gbps) Sysplex Timer (16 Mbps) FDDI (100 Mbps) OC3 (155 Mbps) Fast Ethernet (100 Mbps)
Hardware supported	All systems supporting ESCON, Coupling Links, Sysplex Timer, FDDI, Fast Ethernet and OC3 protocols
Network management	SNMP subagent (OS/2, Windows 95, Windows NT) via attached PC
Availability	Dual-fiber I/O adapter provides protection switching access to secondary fiber path. Redundant power and cooling is standard on Model 001. Redundant power is optional and redundant cooling is standard on Model 041.
Maximum link distance	50 km (31 mi.) at 200 Mbps, single-mode fiber at 15 dB loss 40 km (24.8 mi) at 1 Gbps, single-mode fiber at 12 dB loss
Physical specifications	Width: 600 mm (23.6 in.) Depth: 645 mm (25.4 in.) Height: 775 mm (30.5 in.) Weight: 109 kg (240 lb) for a fully configured Model 001 91 kg (200 lb) for a fully configured Model 041 with a single power system 102 kg (225 lb) for a fully configured Model 041 with a redundant power system
Operating environment	*Temperature* Shipment: 10° to 52°C (50° to 125°F) Storage: 10° to 52°C (50° to 125°F) Operating: 10° to 40°C (50° to 104°F)
Operating wavelengths	1540 to 1559 nm in 1-nm increments
Electrical service	110 V ac, 50 to 60 Hz at 6 A, or 200 to 240 V ac at 4 A



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