



Dramatically improve the throughput from your servers to your Ethernet and Token Ring clients with the ZNYX NetBlaster™ ZX361-ISL adapter. It's the first adapter designed to completely support switched virtual LANs (VLANs) with Cisco® Inter-Switch Link (ISL) and Fast EtherChannel (FEC) technologies.

### Token Ring at 100 Mbps or more

Cisco's Token Ring Inter-Switch Link (TRISL) technology is ideal for enterprises with legacy deployments of 4/16 Mbps Token Ring networks. Instead of investing in new, complex hardware with High Speed Token Ring (HSTR), Cisco and ZNYX provide a seamless solution to ensure interoperability with both legacy LANs and future technologies.

ZNYX is a member of Cisco Enterprise Associate Program with the NetBlaster ZX361-ISL Ethernet and Token Ring adapter,

which provides the ISL connectivity with the switches. ZNYX has designed the ZX361-ISL to be fully compliant with Cisco VLAN (ISL, TRISL) and trunking (FEC) standards.

### High Availability, High Performance Network Backbone

Use the ZNYX ZX361-ISL adapter to connect your Microsoft® Windows® NT servers or workstations to multiple VLANs on your backbone. Like other ISL products, the ZX361-ISL adapter requires only standard Fast Ethernet cabling. A single ZX361-ISL adapter will deliver 100 Mbps of network bandwidth (200 Mbps in full duplex mode).

ZNYX's innovative Redundant Array of Independent Netport (RAIN) technology extends Cisco's Fast EtherChannel protocol to network servers and clients. When used with

multiple ZX361-ISL adapters, RAIN adds active redundancy, dynamic load balancing over aggregated links, and fast failover (less than 500 ms transition time) to your network server. With up to four ZX361-ISL adapters, RAIN offers 800 Mbps of bandwidth and an exceptionally high level of redundancy and availability.

### Concurrent Ethernet and Token Ring

With Cisco ISL technology, Token Ring and Ethernet users can share the same frame-based backbone. Full-size Ethernet frames and even larger Token Ring frames can be carried on the same network link using VLAN tagging. This allows a single NetBlaster ZX361-ISL adapter to simultaneously address both Token Ring and Fast Ethernet VLANs, enabling a server to concurrently support multiple VLANs.



- ▶ Simultaneously serve and access Ethernet and Token Ring clients over high speed ISL links
- ▶ Complete support for Cisco VLAN tagging protocols (ISL, TRISL)
- ▶ Innovative ZNYX RAIN technology delivers advanced trunking with full interoperability with Cisco Fast EtherChannel.



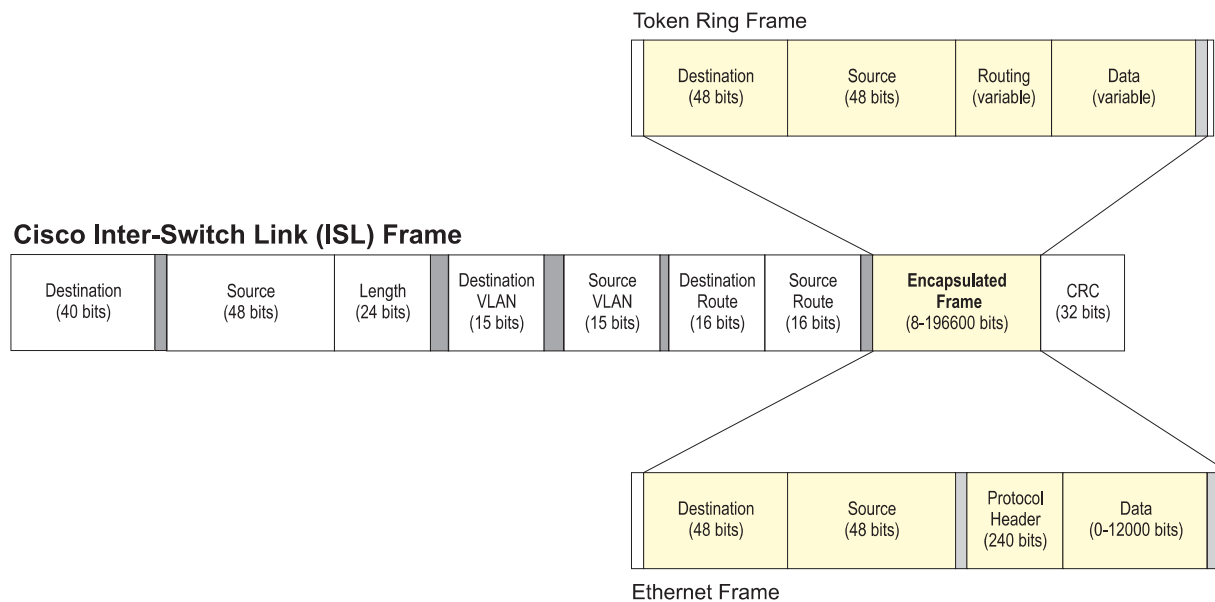


Figure 2. A high-speed Cisco ISL link carries both Token Ring and Ethernet frames. By encapsulating native frames, a single switched network supports heterogeneous networks with both Token Ring and Ethernet traffic. The ZNYX NetBlaster ZX361-ISL adapter supports multiple VLANs with both ISL and TRISL.

### Direct Server Access to the VLAN

By extending the VLANs from the switch fabric to the ZX361-ISL adapter, your server can process requests from multiple VLANs while carrying the VLAN identifiers. This enables communication to multiple workgroups (VLANs) from a single server. Additionally, the ZX361-ISL takes a load off the switches by minimizing forwarding latencies.

### Servers and Workstations

The ZX361-ISL adapter can also be installed in workstations running Microsoft® Windows® NT or Windows 95/98. This empowers the client with full access to other clients on other Token Ring and Ethernet LANs.

### Complete ISL and FEC Features

ZNYX's NetBlaster ZX361-ISL complements every Cisco VLAN. This is the first network adapter to deliver complete ISL functionality including Token Ring encapsulation (TRISL). In addition, the ZNYX adapter also simultaneously supports ISL and TRISL over Fast EtherChannel for superior network reliability and performance.

### Cisco ISL Switch Solutions

Catalyst 5000 Series Switches with one of the following modules:

- WS-X5509 Catalyst 5500/5000 Series Supervisor Engine II TX and MII
- WS-U5531-FETX Dual port 100BaseTX Up-link module for Supervisor III
- WS-X5213A Catalyst 5000 Fast Ethernet switching module (10/100BaseTX, 12 interfaces)
- WS-X5225R Catalyst 5000 24-port 10/100BaseTX Backbone Fast EtherChannel Switching Module (802.1Q/ISL, RJ-45)
- WS-X5203 Catalyst 5000 Fast EtherChannel switching module (10/100BaseTX, 12 interfaces)

### Cisco Token Ring (TRISL) Switch Solutions

Catalyst 3900 Token Ring Switch with the following module:

- WS-C3900-2ISL expansion module

Feature	ZNYX NetBlaster ZX361-ISL
Channels	1
Maximum Channels	4 (with four adapters)
Inter-Switch Link (ISL)	YES
Token Ring ISL (TRISL)	YES
Fast EtherChannel (FEC)	YES
Simultaneous ISL/TRISL and FEC	YES
Maximum Bandwidth	800 Mbps (full duplex with four adapters)

Optional media independent interface (MII) supports external fiber optic transceiver\*

ENTERPRISE SOLUTION

# Interoperability



Model Number	NetBlaster ZX361-ISL
Connectors	RJ-45 (Optional: RJ-45 & MII connector*)
Media	100BaseTX: Category 5 (Optional: fiber optic*)
Bus Interface	PCI Revision 2.0 and 2.1
Data Transfer	PCI bus master with burst mode DMA capability
Channel Speeds	Fast Ethernet: 10/100 or 20/200 Mbps with full duplex and IEEE Auto Negotiation Token Ring: Encapsulated at 10/100 or 20/200 Mbps
Maximum Channels	4 (with four adapters)
Configuration	Plug-and-Play
Hardware Interrupts	PCI Interrupt A (supports shared interrupts)
Communications	IEEE 802.3u Type 100BaseTX; IEEE 802.3I Type 10Base T
Reliability	Calculated MTBF > 300,000 hours
Controllers	DECchip 21143
Power	1.3A @ 5V typical
Temperature	0 to 50° C (32-122° F)
Humidity	Maximum of 90%, non-condensing
Certifications	FCC part 15, Class B, CE, CISPR22 Class B, IEC 801-2, 801-3, 801-4
Dimensions	13.4 x 10.7 cm (5.25 x 4.2 inches)
LEDs	Separate Ethernet activity, Token Ring activity, link integrity, and network activity indicators
Driver Support	Microsoft Windows NT Server and Workstation 4.0; Microsoft Windows 95/98; Novell Netware; UNIX; and others*
Inter-Switch Link	Ethernet and Token Ring encapsulation over Cisco ISL
Trunking	Cisco Fast EtherChannel
VLANs	Up to 1000*
High Availability	Link aggregation, active redundancy, fast failover (<500 ms)
Warranty	Limited lifetime, 30-day money-back guarantee*
Technical Support	Telephone, facsimile, email, BBS, FTP, worldwide web

### Your Partner in Networking

ZNYX is a leading worldwide supplier of scalable, reliable network solutions for servers, workstations and desktop systems. First in the industry to ship single and multi-channel PCI Ethernet and Fast Ethernet adapters, ZNYX offers a full line of products for PC, UNIX and Macintosh computers, including:

- ▶ Network Link Services Software
- ▶ High Availability and High Performance Network Cluster Adapters
- ▶ Open Integrated Network Switches
- ▶ Single and Multi-Channel Fast Ethernet Adapters for PCI and Compact PCI

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\*Contact ZNYX for details.

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