

# MultiFlow 5000

# **Multilayer Switch Family**

Unique WAN and OC-48 connectivity empowers a single solution that handles tomorrow's LAN, MAN, WAN, and SAN requirements.

- Three traffic priority levels assure proper delivery of IP voice traffic
- Unique OC-48 capability for 2.5 Gbps LAN/MAN Ethernet backbone extension
- Unique OC-3 ATM and V.35/X.21 WAN interfaces
- Full redundancy of all components for maximum reliability
- Full wire-speed IP, IPX, and AppleTalk routing based on Anritsu ASIC technology
- Full wire-speed Layer 2/3/4 switching
- Full wire-speed Layer 2 and Layer 3 load balancing
- Complete IP Multicast routing support
- Full wire-speed Layer 2/3/4 filtering



# **MultiFlow 5128**

- 12-slot chassis with redundant AC or DC power supplies and fans
  8 slots for network interface modules
  - 4 slots for primary and redundant management and switching modules
- 24 Mpps forwarding capability
- Supports up to 128 Fast Ethernet or 48 Gigabit Ethernet ports
- LAN/MAN interface modules support 1 OC-48, 6 1000BASE-SX/LX/LH/T, 16 10/100BASE-TX, or 8 100BASE-FX ports per slot
- WAN interface modules support 1 ATM OC-3 or 4 V.35/X.21 ports per slot



# **MultiFlow 5064**

- 8-slot chassis with redundant AC power supplies and fans
  - 4 slots for network interface modules
  - 4 slots for primary and redundant management and switching modules
- 12 Mpps forwarding capability
- Supports up to 64 Fast Ethernet or 24 Gigabit Ethernet ports
- LAN/MAN interface modules support 1 OC-48, 6 1000BASE-SX/LX/LH/T, 16 10/100BASE-TX, or 8 100BASE-FX ports per slot
- WAN interface modules support 1 ATM OC-3 or 4 V.35/X.21 ports per slot

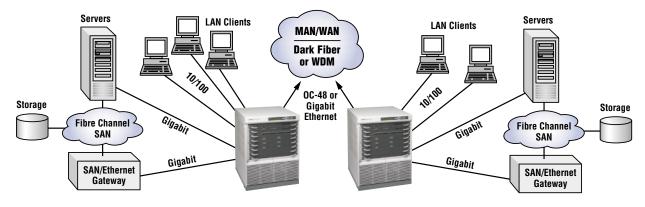


# MultiFlow 5048 and MultiFlow 5024

- Standalone units with built-in power supply, fans, CPU, and multilayer switching
- 11 Mpps (5048) and 6.6 Mpps (5024) forwarding capability
- Fixed configuration of 32 Fast Ethernet (10/100BASE-TX) ports on MultiFlow 5048 and 24 ports on MultiFlow 5024
- Fixed configuration of 2 Gigabit Ethernet (1000BASE-SX or -LX) ports
- 2 expansion slots (MultiFlow 5048 only) support 1 1000BASE-SX/LX,
- 2 1000BASE-T, 8 10/100BASE-TX, 4 100BASE-FX, 1 ATM OC-3, or 2 V.35/X.21 additional ports per slot

# **Application Example: Storage Area Networking**

MultiFlow 5000 Layer 2/3/4 switches provide high-speed network connectivity within the campus or local area (LAN), the metropolitan area (MAN), and wide-area (WAN) including IP WAN links over T1 or ATM OC-3. Their unique OC-48 links are ideal for extending both enterprise LAN backbones and storage area networks (SANs) over metro or wide areas, with separate LAN and SAN data sharing the same 2.5 Gbps full duplex link. These OC-48 interfaces handle all Ethernet-compatible traffic including 802.1q VLANs as well as routed IP, IPX, or AppleTalk traffic. Fibre Channel SAN data can thus be carried as switched Ethernet or as routed IP traffic. OC-48 links support WDM as well as dark fiber up to 80 km.



# **Brief Specifications**

#### MultiFlow 5128/5064 Interface Modules

- 10/100BASE-TX (16 ports)
- 100BASE-FX (8 ports)
- 1000BASE-SX or -LX (2 ports)
- 1000BASE-T (6 ports)
- GBIC-based 1000BASE-SX/LX/LH 80 km (6 ports)
- OC-48 (2 slots): 2 km or 80 km (1 port)
- ATM OC-3 (155 Mbps): IPoA, VC/VP shaping (1 port)
- V.35/X.21: up to DS2, IP Over PPP (4 ports)

#### **MultiFlow 5048 Interface Modules**

- 10/100BASE-TX (8 ports)
- 100BASE-FX (4 ports)
- 1000BASE-SX or -LX (1 port)
- 1000BASE-T (2 ports)
- ATM OC-3 (155 Mbps): IPoA, VC/VP shaping (1 port)
- V.35/X.21: up to DS2, IP Over PPP (2 ports)

#### **Full Wire-Speed Performance**

- Layer 3 IP, IPX, and AppleTalk wire-speed forwarding
- Layer 2 wire-speed forwarding

#### Full Standard Routing and IP Multicast

- IPv4, IPX, and AppleTalk
- RIPv1/v2, OSPFv2, PIM-DM, DVMRP, IGMPv2, IPX RIP/SAP, RTMP/ZIP/NBP
- PIM-SM planned

#### Link Aggregation (Trunking)

- Complies with 802.3ad standard
- Each trunk group supports up to 8 Fast Ethernet, Gigabit Ethernet, and OC-48 ports in any combination

#### **Priorities and QoS for Voice and Data Traffic**

- 3-level traffic priority
- 802.1p support; DiffServ support planned

#### **Reliability and Redundancy**

- Hot-swappable interface modules, management and switching modules, fans, and power supplies
- Optional redundant management and switching modules and power supplies
- VRRP Virtual Router Redundancy Protocol
- Advanced Quick Reconfiguration (AQR) Layer 2 link failure recovery mechanism
- Fast Router Recovery feature immediately removes route table address when Layer 2 link fails

#### **Full Wire-Speed Classification and Filtering**

 Traffic classification and filtering at full speed based on Layer 2, Layer 3, and Layer 4 parameters

#### **Load Balancing**

- Layer 2 load balancing over multi-port trunks
- Layer 3 load balancing via Equal-Cost Multipath Routing (RFC2328) over LAN/WAN links

#### **Other High-Performance Capabilities**

- Supports up to 1024 VLANs with 802.1Q tagging and GARP Group VLAN Registration Protocol (GVRP)
- 802.1d Spanning TreeMultiple VLAN-based spanning trees

#### .....

- ManagementSNMPv1/v2 and 4-group RMON on all ports
- RS-232C and telnet console connections
- Web-based configuration and management
- HP OpenView for Windows NT/2000

# <u>/Inritsu</u>

#### ANRITSU COMPANY

1155 East Collins Boulevard Richardson, TX 75081 Tel: 1-800-ANRITSU (800-267-4878) or 1-972-644-1777 Fax: 1-972-671-1877 Email: moreinfo@anritsu.com URL: www.us.anritsu.com/networking



Copyright © 2001 Anritsu Company. Specifications subject to change without notice. Other brand and product names may be trademarks or registered trademarks of their respective owners.

April 2001 P/N : 80301-00124 Printed in USA