



Simplifies Multimedia Integration

Supports Growing Multimedia Workgroups

Eases Network Management

Implements Bay Networks Multimedia Workgroup Solution

The Multimedia Switch from Bay Networks delivers a powerful, scalable, plug-and-play solution for adding multimedia capabilities to existing enterprise networks. Combining the performance of Asynchronous Transfer Mode (ATM) switching technology with the affordability of switched Ethernet, the switch makes multimedia applications such as videoconferencing at the desktop a viable option for today's business organizations.

Utilizing industry-standard 25 megabit-per-second (Mbps) ATM cell switching, the Multimedia Switch delivers reliable, high-quality video images, television broadcasts and satellite feeds directly to the desktop. Operating over readily available unshielded twisted pair cabling and using existing Windows-based applications, the switch can be seamlessly integrated with virtually any established enterprise without requiring any changes to the network infrastructure.

The modular switch can support anywhere from eight to 20 ATM host ports operating at 25 Mbps, offering a scalable solution for growing workgroups. In addition to the host ports, the switch also offers two 155 Mbps ATM front panel interfaces for supporting high-speed backbone connections or links to other switches located elsewhere in the network.

The switch is part of a larger Bay Networks multimedia workgroup solution, which also includes 25 Mbps ATM multimedia adapter cards and a Media Operating Software (MOS) system that takes advantage of the inherent ATM quality of service (QoS) capabilities. The multimedia solution works with the rest of the Bay Networks ATM product family and is fully integrated with the Optivity® network management system, contributing a key feature to the industry's most complete family of switched internetworking products.

Benefits

Simplifies Multimedia Integration

The Bay Networks Multimedia Switch is easily and seamlessly integrated into an existing enterprise, delivering full multimedia capabilities without changing the network infrastructure. Moving workgroups to multimedia ATM simply requires patching them into the switch from other hubs or switches. The Multimedia Switch is compatible with the entire Bay Networks product family and supports existing Windows-based applications, providing a simple, risk-free method for adding cell switching features to shared media networks.

Supports Growing

Multimedia Workgroups

The modular Multimedia Switch easily scales from eight to 20 ATM host ports, offering a perfect workgroup solution for first-time multimedia networks. Networks can begin with a simple eight-port base unit and, as the workgroup grows, new host ports can be added through simple four-port snap-in modules. Users only buy what they need, when they need it.

Eases Network Management

The Multimedia Switch supports the Simple Network Management Protocol (SNMP) and is manageable by Bay Networks' Optivity network management system, consolidating network monitoring and control. With Optivity, the entire enterprise — including all switched, shared media and routing devices — can be managed from a single, central console.

Implements Bay Networks Multimedia Workgroup Solution

The Multimedia Switch is the physical implementation of the Bay Networks multimedia workgroup solution. The switch combines with the ATM multimedia adapters and the MOS to deliver the industry's most complete and affordable multimedia workgroup solution that easily integrates with the existing enterprise environment.

Features

The Multimedia Switch offers a simple, scalable solution for introducing multimedia capabilities into today's corporate enterprise networks. Working with the ATM multimedia adapters and MOS, the switch represents a cost-effective method for delivering applications such as high-quality videoconferencing, on-line training, satellite feeds and direct television broadcasts directly to the desktops of elite knowledge workers and high-performance workgroups.

The switch can be seamlessly integrated with the larger enterprise with virtually no changes to the system, preserving existing investments in the network infrastructure. Fully compatible with the rest of the Bay Networks product family, the switch assures maximum uptime and reliability while simplifying installation and reducing training time.

Multimedia Switch Description

The Multimedia Switch base unit features eight RJ-45 modular receptacles for supporting plug-and-play 25 Mbps ATM host connections over standard Category 3 unshielded twisted pair cabling. Two front-panel OC-3 155 Mbps ATM ports are also available for supporting high-speed links to network backbones or redundant connections to centralized ATM switches.

As the workgroup grows, the modular switch can grow along with it to keep pace with escalating demands. Host port density can be increased in four-port increments through the addition of snap-in media dependent adapter (MDA) expansion modules. The switch can support up to three expansion modules, scaling to a total of 20 ports delivering 25 Mbps plug-and-play ATM connectivity.

The compact switch can be installed anywhere, such as a tabletop or desk-mount enclosure, or in an EIA-standard equipment rack, where it occupies two rack-mount units.

ATM at the Desktop

The Bay Networks Multimedia Switch utilizes industry-standard 25 Mbps ATM to provide powerful cell switching capabilities at the desktop. The switch complies with the ATM Forum's UNI 3.0 and 3.1 switched virtual circuit (SVC) signaling, ensuring full interoperability with other ATM products.

The switch also supports Bay Networks ATM Forum-compliant enterprise LAN Emulation (LANE) services, providing seamless connectivity to existing shared media networks and protocols. LANE services enable switch clients to communicate with standard network resources connected to other Bay Networks devices such as the EtherCell™ Ethernet-to-ATM edge device and the Centillion™ 100 LAN-to-ATM switch, consolidating the network and preserving existing investments.

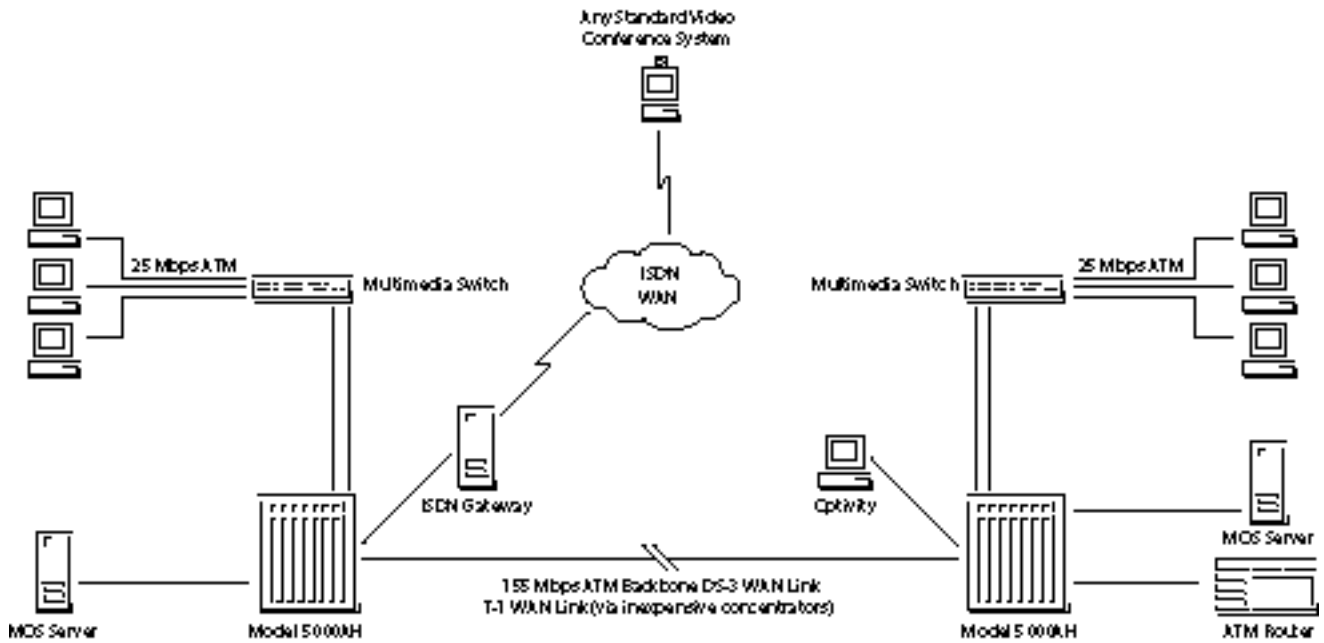
Multimedia Switch Management

The Multimedia Switch supports SNMP and is fully integrated with Bay Networks' Optivity network management system, enabling the entire enterprise to be managed from a single, central management station.

The switch supports Optivity's Autotopology™ dynamic mapping feature, which automatically discovers all networked devices and displays them within Optivity's Command Center main screen. The switch appears along with all discovered hubs, servers, routers and end stations, providing a comprehensive and accurate view of the network's physical and logical composition.

The switch is also supported by Optivity's Expanded View™ and LANArchitect™ tools, which provide powerful monitoring and configuration capabilities. The Expanded View interface provides a real-time image of the selected device on the management station screen, enabling managers to observe, control and troubleshoot network connections with port-level precision. LANArchitect allows managers to assign individual users to various logical workgroups, regardless of their

Figure 1 | Desktop Multimedia Network Components



physical location, to establish a network configuration that meets the organization's needs. All assignments are maintained in software, allowing the creation of "virtual LANs" that are unrestricted by the network's physical composition.

Multimedia Switch Applications

The Multimedia Switch can serve as a stand-alone device or it can be seamlessly integrated into the larger Bay Networks

enterprise to support high-utilization, high-demand workgroups over an ATM backbone.

In a stand-alone configuration, the switch's 25 Mbps host ports support desktops equipped with the ATM multimedia adapter cards, while front-panel OC-3 155 Mbps ATM ports provide direct, high-speed access to local multimedia servers.

In the enterprise, the host ports support local clients while the OC-3 ATM ports provide redundant links to a Bay Networks Model 5000AH ATM switching hub located in the network center. The Model 5000AH provides distributed multimedia workgroups with access to centralized servers, as well as to the rest of the distributed enterprise and embedded enterprise LANE services.

Technical Specifications

Technical specifications for the Multimedia Switch appear in Table 1.

Table 1 | **Multimedia Switch Technical Specifications**

Switching Architecture	1 gigabit switching bus
Switching Performance	Outputs 1.6 million cells per second (peak), nonblocking
Central Buffer	Up to 25,000 cells
Port Buffers	Custom port ASICs with two priority levels, one for guaranteed service, one for bursty traffic
Switching Processor	Central RISC processor with hardware accelerator, programmable Flash memory
25 Mbps ATM Ports	ATM Forum standard RJ-45 UTP ports; maximum cable length: 100 meters over Category 3 copper
155 Mbps ATM Ports	OC-3 multimode fiber ports, SC-duplex style; maximum cable length: two kilometers (fiber)

Table 1 | **Multimedia Switch Technical Specifications (continued)**

Ethernet Port	IEEE 802.3 10BASE-T Ethernet standard RJ-45 port; maximum cable length: 100 meters
Management	Optivity Expanded View, LANArchitect, Autotopology
Physical Dimensions	(H) 3.75 in. x (W) 16.75 in. x (D) 15 in.
Weight	17.8 lbs.
Power Requirements	90-132 VAC, 180-284 VAC, auto selecting
Power Consumption	80 watts max.

Ordering Information

Ordering information for the Bay Networks multimedia workgroup solution appears in Table 2.

Table 2 | **Multimedia Workgroup Solution Ordering Information**

Order Number	Description
AK3401001	Model 10625 Multimedia Switch
AK3419001	25 Mbps ATM Multimedia Adapter - PCI Bus
AK3419002	25 Mbps ATM Multimedia Adapter - ISA Bus
AK3401002	4 port 25 Mbps MDA for Multimedia Switch
AK3416001	Media Operating Software (single user license)
AK3416002	Media Operating Software (10 user license)
AK3416003	Media Operating Software (30 user license)
AK3416004	Media Operating Software (100 user license)



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