AlterPath™ Manager 2500

Out-of-Band Infrastructure Administration

The AlterPath™ Manager 2500 serves as the command and control center for the AlterPath System of products designed to provide secure, remote and consolidated out-of-band infrastructure (OOBI) administration. Its ability to scale up to 512 data logging/console sessions and 8,192 console ports in a 1U form factor provides the expandability and flexibility necessary to support future enhancements and applications. The AlterPath Manager 2500 enhances out-of-band access by providing a higher level of logging, automation, security and software functionality compatible with next-generation data centers, enabling true lights-out operation.

A data center's heterogeneous environment requires OOBI access to the IT assets within the enterprise through many different physical interfaces, including RS-232 serial console ports, KVM ports, power control ports, server blades, and service processor managers such as IPMI. The AlterPath Manager 2500's view consolidation functionality enables a centralized view of all management ports on secure, redundant interfaces, and provides a layer of abstraction to hide the underlying connectivity methods from the user.

In large deployments, the task of deploying and maintaining the OOBI is a huge undertaking that can overburden the network operations center or networking teams. Without a central command and control center like the AlterPath Manager 2500, operational costs and complexity increase. The AlterPath Manager 2500's change and configuration management functionality eases deployment. It tracks and maintains configuration files and firmware versions for all IT assets, while minimizing extra overhead. In addition, the health-monitoring module ensures that the OOBI is always available when problems occur.

Traditional systems management tools such as HP OpenView, CA Unicenter® and IBM® Tivoli® can monitor the health of the production network, log events and notify system administrators of the need for human intervention. However, when network problems occur, these tools are only useful to inform the operator of problems and cannot provide information to help to diagnose and fix the problem. The AlterPath Manager 2500's event management feature complements the system management tools by providing access to console data logs and change history, ensuring the operator has a clear understanding of the status of the equipment before the problem occurred. The event notification feature can inform the operator of the exact problem as soon as it occurs.

Information security depends not only on the availability of strong security mechanisms but also on a consistent security policy implemented across the data center. The AlterPath Manager 2500 serves as a secure, central point of access for the entire OOBI, including serial, KVM and power, service processors like IPMI, iLO and other interfaces such as Microsoft® Windows® 2003 Emergency Management Services (EMS) consoles. By using the AlterPath Manager 2500, all access to equipment console ports is independently logged and monitored to allow full auditing for security and quality purposes. It creates a uniform layer of access control and authentication across different media and target systems. This simplifies the security architecture.

Applications:

- Secure, remote OOBI administration
- IPMI management
- Consolidated OOBI administration and provisioning
- 24/7 mission-critical network operations
- Lights-out, automated data center administration
- Data logging/archiving for regulatory and audit compliance (Sarbanes-Oxley, HIPAA, etc.)
- Audited change management

Benefits:

- Reduced MTTR
- Reduced operational costs for OOBI administration
- Easier and faster provisioning of OOBI
- Reduced management overhead
- Centralized security policy
- Audited change history

Application Example
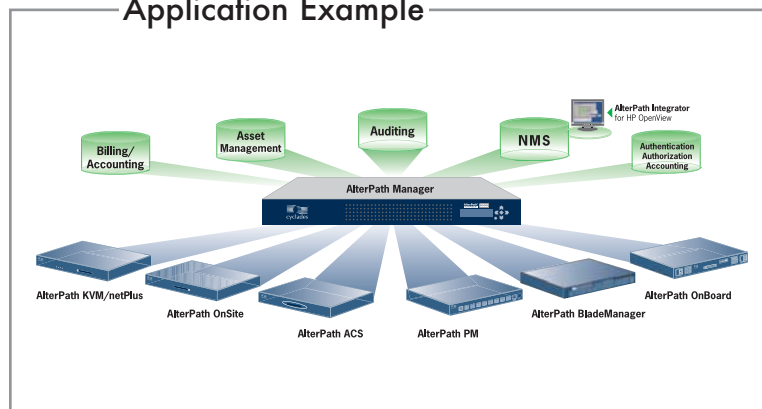
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AlterPath 2500 Specifications

View Consolidation - provides a centralized view of the OOBI console and KVM ports and presents a list of available connections to servers and network equipment, which is filtered for each user based on access control list policies. A single mouse click or command line interface command launches the appropriate user interface to connect to IT assets using serial console, KVM and KVM over IP, or IPMI.

Secure, Centralized Access Point - provides a secure access point to the OOBI and centralizes all authentication, authorization and accounting functions.

Centralized Console Log - provides integrated console logging features for up to 512 data logging/console sessions to ensure that valuable pre-boot and diagnostic data received from the management ports of servers and network equipment is not lost. This console data can then be used for fault diagnosis and also provides a complete log of changes made through the console to help meet corporate and government standards in change management.

Remote Access - supports an option for integrated remote access modules to allow secure modem connections to remote IT assets during network outages. Configured to operate either as a backup to the network or as the primary connection method, the AlterPath Manager 2500 allows access to IT assets when the production network is down.

Change and Configuration Management - reduces the resources required to deploy and maintain OOBI components by automating routine tasks, such as change and configuration management. This allows the OOBI to be managed from a centralized point in the network.

Event Monitoring - provides an integrated event recognition and trouble ticket system. This allows the administrator to pre-program important console-related events such as system reboot, system crashes, and intrusion detection messages that cannot be detected using conventional monitoring tools. This ensures a fast response to critical events even when the network or IT asset is unavailable through the production network.

Cyclades offers a wide range of products and services to help you cut costs, reduce business risks and improve IT asset and personnel productivity. Cyclades Professional Services team provides product installation and configuration, technical support and training services to ensure that our products are seamlessly integrated into your enterprise environment. Please contact your Cyclades sales representative for more information.

System Information

- 1U rack mount integrated management appliance
- Intel 3.06 GHz
- 1 GB RAM/120 GB (7200 RPM) SATA HDD
- 2 X Gigabit Ethernet (10/100/1000 auto-sensing)
- Optional modem, Ethernet port cards, serial port cards
- Serial console
- Auxiliary serial (modem)
- Supports up to 512 data logging/console sessions, manages 2,048 devices and 8,192 console ports
- 260 W, 115/230 VAC (auto range)
- Certifications: FCC Part 15, CE, UL, TUV

Part Number	Model
APM2500	AlterPath Manager 2500
MOD0007	AlterPath Quad RAS/Integrated Modem
MOD0010	AlterPath Manager 4 port Ethernet card
MOD0011	AlterPath RAS/Async serial
ATP5064	IPMI 64 Server Activation
ATP5128	IPMI 128 Server Activation
ATP5256	IPMI 256 Server Activation
ATP5008	IPMI 8 Server Upgrade
ATP5164	Manager/IPMI Package
ATP5264	IPMI 64 Server Upgrade
ATP5200	IPMI Enterprise Package
APM0001–APM0003	Indicates the number of data logging sessions applied to the base system as a bundle (Please consult your sales representative for how to configure your system.)
APM0007–APM0018	Indicates the number of data logging sessions applied to the base system as an upgrade (Please consult your sales representative for how to configure your system.)

Features

View Consolidation
- Web-based interface with SSL encryption provides access to 8,192 console ports
- SSH command line interface for console access
- Simultaneous access to serial console, KVM and KVM over IP, server blades, and IPMI system interfaces with embedded power-cycling capability
- Console and user grouping allows simple management of access control list and user views
- Single sign on provides centralized authentication, authorization and accounting

Remote Access
- Integrated modem pool option provides dial-up access to remote sites when the network is down
- Health monitor periodically polls remote sites to ensure that out-of-band access will be available when needed
- Remote dial-out configuration is centralized to allow easy management in large-scale remote branch office and telecom applications

Data Logging
- Continuous online and offline data logging ensures console events are captured
- Secure data logging over authenticated SSH sessions provides security for console log information
- Console monitor automatically restores connections if they become lost to ensure all data is captured
- Continuous online and offline data logging provides data for regulatory compliance like Sarbanes-Oxley

Event Management and Automation
- Centralized monitoring of console messages scans for pre-defined fault conditions
- Automated e-mail notification alerts operators of fault conditions as they happen
- Integrated trouble ticketing system ensures events are acted upon and resolved
- Event tracking shows full history of all system events

Change and Configuration
- Consolidated management of OOBI components
- Automated provisioning of OOBI components
- Firmware repository allows for automated upgrade of system firmware for OOBI components
- Centralized configuration management

Enterprise Integration and Security
- Enterprise security with embedded IP filtering and VLAN 802.1q support
- Strong authentication options using existing enterprise authentication servers using RADIUS, LDAP, Active Directory, TACACS+, Kerberos and NIS
- Complete audit logs with user access and session logs
- Periodic data replication allows for complete system redundancy

Supported Systems
- Cyclades-TS Series
- AlterPath ACS Series
- AlterPath KVM/net
- IPMI 1.5 servers
- IPMI 2.0 servers

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