AlterPath™ BladeManager

Blade Management

The AlterPath™ BladeManager is designed to address the need for secure, remote out-of-band access to the IBM® BladeCenter™. The AlterPath BladeManager complements IBM Director by adding out-of-band access to and administration of blade servers from "bare metal" and BIOS-level access to operating system (OS) level support for Windows®, Linux® and AIX®.

The AlterPath BladeManager includes the following management features:

Securing Access

The AlterPath BladeManager provides a single point of entry into the BladeCenter Network. The BladeManager is configured to authenticate users by utilizing the existing corporate authentication infrastructure such as RADIUS, LDAP, TACACS+, Kerberos, NIS, SecureID, and Active Directory. Once authenticated, the user has access to BladeCenter resources as defined by the security administrator in the access control list (ACL). All access to the AlterPath BladeManager and to the BladeCenter resources is logged providing a security audit trail.

The AlterPath BladeManager implements security profiles that are applied to each user or user group. Each security profile can define access restrictions based on any combination of client IP address, VLAN and time of day. Security profiles also define what actions each user or user group may perform such as serial console access, KVM over IP access, remote power control and virtual media access. When used in combination with ACLs, the AlterPath BladeManager provides secure and scalable access management for the IBM BladeCenter.

Console Access

The AlterPath BladeManager includes both a Web-based interface and command line interface (CLI) using SSHv2 to allow access to the serial console of individual blade servers in each BladeCenter. This provides access to BIOS-level messages as well as OS boot/shutdown and runtime access. Power control for each blade server is integrated in the user interface for convenient and controlled access to the power management features of the BladeCenter. The Web interface also provides controlled access to the KVM over IP interface to allow management of graphical operating systems such as Windows.

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Applications:

- BIOS-level access to blade servers
- BIOS logging and event detection/notification
- Console logging capability for Linux and Windows 2003 Emergency Management Server (EMS)
- OS event notification for Linux and Windows 2003 EMS
- Multi-user access to Serial over Lan (SoL) console ports
- Single sign on for multiple BladeCenters

Benefits:

- Centralized authentication (RADIUS, LDAP, TACACS+, Kerberos, NIS, RSA SecurID, and Active Directory)
- Access control per user and/or user group for each blade server
- Access logging and auditing
- Serial console/KVM access for each blade server and power control
- Security proxy functionality for the existing BladeCenter Web interfaces
- Secure Shell (SSHv2) proxy providing secure encrypted access to
  - BladeCenter copper pass through module (I/O modules)
  - BladeCenter management module (MM)
  - Blade servers serial console (using SoL)
- Out-of-band administration for 84 blades, 24 blade switches and 12 BladeCenter Management Module (12 MM)
- BladeCenter Management Module (MM) failover

Application Example
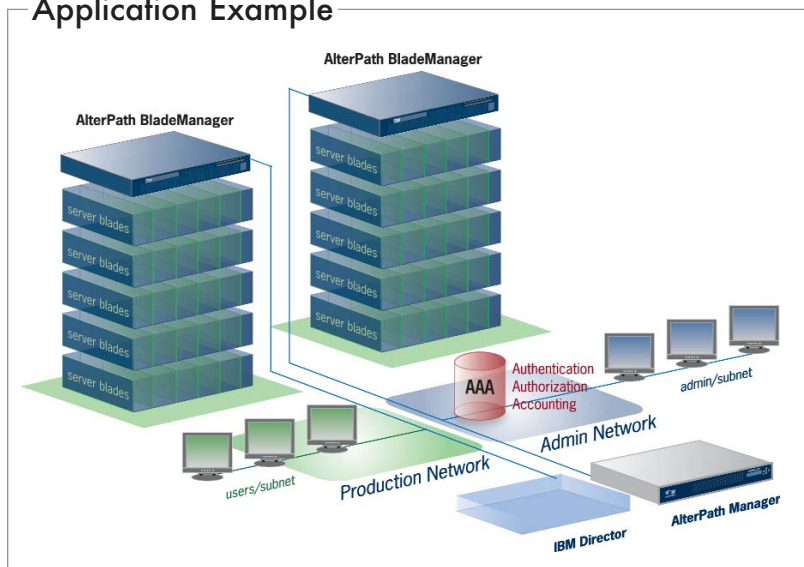
AlterPath™ BladeManager Specifications

Access is also provided via the Web interface to the virtual media, which allows for complete remote system reboots and rebuilds, and for installation of patches and software packages. Granular access control ensures that users will only have access to blade servers and features as predefined by the management team.

I/O Module Access

Access to the BladeCenter I/O modules (switches) can be through the current Web interface using the AlterPath BladeManager as an authentication and security proxy or through a secure and encrypted SSHv2 CLI. In both cases, the AlterPath BladeManager will enhance the security profile of the standard BladeCenter management interfaces by allowing secure deployment and ongoing management of the BladeCenter.

Access and Console Logging

The AlterPath BladeManager provides the ability to record or log user access to systems, a function critical to a secure deployment. The AlterPath BladeManager records a time-stamped entry each time any user connects to the AlterPath BladeManager, or begins a session to access a BladeCenter resource including the blade server consoles themselves.

Additionally, the AlterPath BladeManager can be configured to record all user keystrokes during a console session, thus providing a complete audit trail of all user sessions.

Hardware

- Support for 6 fully populated BladeCenter chassis
  (84 blade servers, 24 switch modules, 12 management modules)
- 20GB of logging
- 1U rack mounted system
- 2X Ethernet interfaces
- Intel® Pentium® 4 processor 2.8GHz with 800MHz
  front-side bus speed
- Incredibly shallow depth: 20" deep mechanical
- Intel® Extended Memory 64 Technology
- 512MB standard memory
- Internal storage: SATA (80GB standard)

Part Number	Model
ATP5010-000	AlterPath™ BladeManager

Features

View Consolidation
- Web-based interface with SSL encryption provides access to 120 ports
- SSH command line interface for console access
- Simultaneous access to console, KVM virtual media, and embedded power cycling capability
- Console and user grouping allows simple management of access control list (ACL) and user views
- Single sign on provides centralized authentication, authorization and accounting

Remote Access
- Web and encrypted command line for remote access over VLAN

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

Event Management and Automation
- Centralized monitoring of console messages scans for pre-defined fault conditions
- Automated email 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

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

Supported Systems
- IBM eSeries BladeCenter
- AlterPath™ Manager
- IBM Director pass through module

cyclades®

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