MegaRAC® CM-X
Chassis Management Firmware Solution

Compliant with the Open Blade Architecture System Management Specification

The MegaRAC CM-X Chassis Management Firmware Solution from American Megatrends implements and is fully compliant with the Open Blade Architecture System Management Specification from the Server System Infrastructure (SSI) Forum, an industry organization promoting design guidelines for blade chassis components and interfaces. This group, which aims to expand the product offering available in the market at a price point that appeals to small and medium-sized businesses (SMBs), gathers support from major industry players such as Asus, Dell, Intel, Quanta and SuperMicro, among others.

MegaRAC CM-X is a robust Linux®-based management stack, including an embedded web server. This solution enables the discovery, health monitoring and management of all modules inside the blade chassis, including compute blades, Baseboard Management Controllers (BMCs), I/O modules, power supplies and cooling devices.

Management functions of MegaRAC CM-X include:
- Power and cooling management
- Chassis initialization
- Blade authentication
- Blade presence hardware detection
- Blade state management
- New blade discovery events
- New Chassis Management Controller (CMC) initialization
- Failover support (optional component)

Discovery is based on universal, standard protocols, such as UPnP, RMCP Ping, SNMP, SLP and WS-Discovery. Management of the chassis components is based on AMI's own MegaRAC Service Processor (SP-X) firmware stack and the IPMI 2.0 protocol. MegaRAC CM-X supports the Distributed Management Task Force (DMTF) management standards for interoperability, such as the Common Information Model, WS-MAN for management through web services and SMASH-CLP for text line console and scripting.

MegaRAC CM-X relies on a robust 10/1000 Ethernet vLAN, a private network internal to the chassis for communication between the CMCs and the IMC/BMC within each blade. Virtual BMC technology provides the chassis manager with faster access to blade FRU information. MegaRAC CM-X also features optional support for two redundant chassis management modules in an active-passive fail-over configuration. This means that one management unit is active all the time, while the second unit, in stand-by, is ready to take service in case of failure of the primary CMC. A Consolidated Chassis Event Log (CEL) registers events for all processor blades and other modules.

MegaRAC CM can be easily customized and extended with AMI's Integrated Development Environment (IDE) for management, MegaRAC Development Studio (DS), based on the widely-used Eclipse® IDE. MegaRAC DS includes Visual Web Developer (VWD), Software Development Kits for CIM, SMASH and WS-MAN software development and an IPMI PDK for the graphical layout of platform sensors.

MegaRAC management products from AMI are designed to provide OEMs with the most advanced technologies, with a special focus on porting tools that preserve investment over time.

HIGHLIGHTS:

- Fully compliant with the Open Blade Architecture System Management Specification from the Server System Infrastructure (SSI) Forum

- Blade element discovery, health monitoring & management, including power cycle, blade presence and state change events

- Asset tracking and management for all chassis product data and FRUs

- LED, LCD display and components control

- Consolidated Chassis Event Log (CEL)

- Common console for remote KVM (mKVM) and media (vMedia) for all blades

- Serial Over LAN (SOL) proxy service for all compute blades and I/O modules

- Multiple SOL support

- Centralized firmware image management

- Alert management with SNMP v3 and SMTP-based email alert support

- Optional Active/Passive fail-over configuration

American Megatrends International LLC | ami.com
5555 Oakbrook Parkway, Bldg. 200
Norcross GA 30093 | 770.246.8600

For more information: https://ami.com/products/remote-management/blade-management/

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