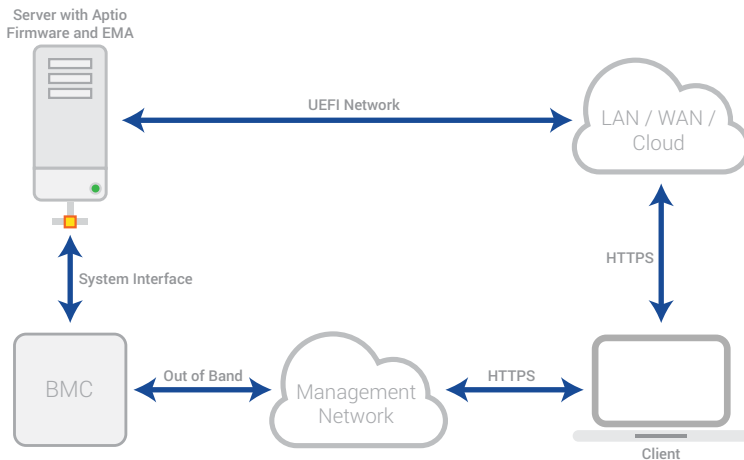


AMI Remote Firmware Management

Remote Management



AMI Remote Firmware Management integrates BIOS, BMC and EMA, creating the comprehensive server platform management solutions expected by the industry



In an industry where cloud and web-based infrastructures are increasingly becoming the norm, many OEMs look towards scalability and scale-out solutions. In scale-out management, many find that they are limited by a reduced set of standard functionality and homogeneous interfaces, where vendor extensions are typically proprietary across all platforms. This in turn requires customers to develop their own tools to counteract the issues with incompatible solutions from different vendors. With the need for scale-out solutions, customers seek a newer, simpler standard management interface that gives them extensive functionality and addresses the modern requirements for firmware management. By integrating BIOS, BMC and EMA (Extensible Management Architecture), AMI Remote Firmware Management extends management solutions and meets the expectations of the industry.

BIOS, EMA, BMC AND MANAGEMENT SERVER

The BIOS communicates with BMC, providing information such as inventory information, Runtime Error Logs and configuration. BMC is able to communicate with management clients through remote firmware management, network port and communicates with BIOS using system interfaces.

AMI's EMA (Extensible Management Architecture) is a set of preboot firmware solutions that work alongside Aptio® V and provide architectural solutions for purposes such as firmware configuration and update, OS deployment, preboot diagnostics, recovery services and much more.

BIOS delivers similar levels of firmware manageability without BMC, but without the advantage of a dedicated platform management infrastructure active during OS runtime. The AMI architecture incorporates the usage of a separate management server to deliver similar BIOS management functionality also during OS runtime. AMI BIOS implements the UEFI REST protocol on top of HTTP protocol: BIOS and EMA use the UEFI network stack to communicate with the management server.

Management Features:

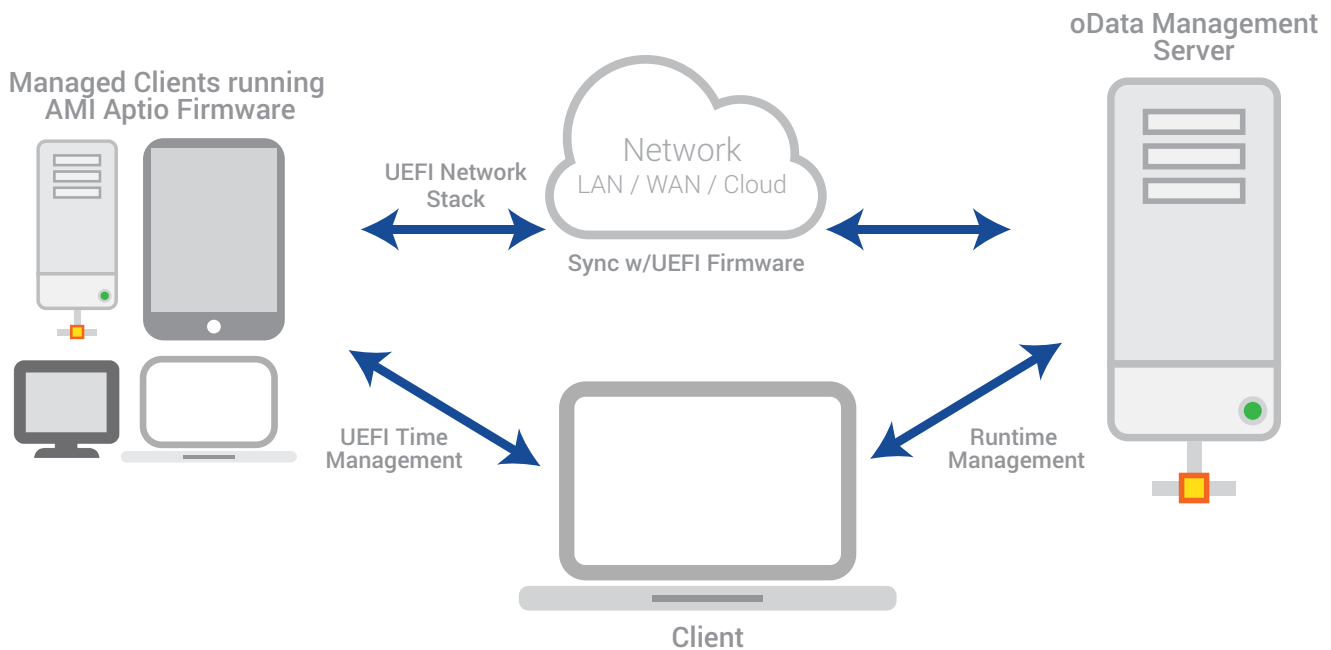
- System data repository
 - Basic server identification / asset info
 - Health State
 - System configuration
 - Power supply / consumption
- Services
 - Events
 - Actions
 - Discovery
 - System Topology
 - Logging
- Security
 - Session based leverages HTTPS
 - Session management
 - Account services
- Basic I/O Infrastructure data
 - Platform NICs configuration
 - Hard drives status / fault reporting
- Perform Common Actions
 - Reboot / Power cycle server
 - Change configuration
 - Change Boot order / device
 - Set power thresholds
- Provision for Advanced Actions
 - Firmware update
 - OS installation
 - Diagnostic
 - System recovery
- Access and notification
 - Serial console access via SSH
 - Event notification methods
- BMC Interface
 - View / configure BMC configuration
 - Manage local BMC user accounts

AMI REMOTE FIRMWARE MANAGEMENT

AMI Remote Firmware Management is designed to extend management solutions between BIOS, BMC and EMA. The BIOS and BMC communicates via a system interface (KCS, USB, BT, SMIC, etc) while any communication between BMC and clients occurs using a LAN interface through a management network.

The consistent exchange of information allows for the integration of the BIOS and BMC. This is done through the exchange of IPMI commands, with standard and OEM IPMI commands. When the BIOS and BMC exchange information, they do so in the form of JSON data. The information is then validated by the recipient through an OData schema and compliant management tools are enabled for the server. If necessary, the BMC is also able to make a HTTP network interface available to the BIOS to perform HTTPBoot.

An advantage of using the RESTful interface is the limited number of operations. By presenting information using RESTful protocols in JSON formats by an OData server, customers can expect their requirements to be met through a modern infrastructure interoperable among several vendors to a larger extent.



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