Phoenix ServerBMCTM



A baseboard management controller (BMC) is used for remote monitoring and managing a server or host. Phoenix ServerBMC provides the ability to monitor system health (e.g., temp, voltage, fans, power supplies, etc.), flash BIOS/UEFI firmware, give console access, power cycle the server, log events, and many other related functions.

Phoenix ServerBMC is based on the Linux Foundation OpenBMCTM firmware stack with significant value-added features and capabilities, including industry-leading integration and post-production support from customer engineering. Phoenix is actively involved in the OpenBMC community and regularly updates its codebase to the latest validated version. Additionally, Phoenix works directly with ODM and OEM customers from platform selection to custom feature development, thru production and delivery, along with ongoing support, including security alerts and patches.

The combination of Phoenix ServerBMC and ServerCoreTM is an integrated solution that provides an industry-leading server firmware offering that meets the quality and functionality standards of even the most demanding ODM, OEM, or embedded server customer.

ServerBMC HIGHLIGHTS

Value-Added Features

- Validation with Phoenix UEFI firmware
- BMC SDK with modern, intuitive development tools
- Redfish and IPMI 2.0 support
- KVM support via HTML5 or VNC client
- Extensive inventory capabilities including SMBIOS data
- Modern, customizable, HTML5 compliant
 WebUI, including support for simplified Chinese
- Open Compute Platform (OCP) extensions
- Delivery and support via GitHub

Hardware Support

- Support for SoCs from leading BMC silicon vendors such as ASPEED (AST2500/2600) and Nuvoton (NPCM7xx)
- Support for a variety of Intel/AMD platforms, including:
 - O Intel Xeon, Xeon-D, and Atom families
 - AMD EPYC families

Industry Standards Compliance

- Redfish
- IPMI 2.0
- DCMI 1.5 extensions
- HTML5
- SNMP v3
- OpenLDAP and Active Directory integration
- IPv4/IPv6

Redfish and Intelligent Platform Management Interface (IPMI)

ServerBMC management is based on Redfish and Intelligent Platform Management Interface (IPMI). Redfish is the eventual replacement for IPMI, though ServerBMC supports both for a seamless transition.

Redfish is an extensive suite of specifications that provides an industry-standard protocol for managing different types of devices, including servers, storage, networking, and converged infrastructure. Phoenix carefully chooses the most important and relevant features based upon detailed planning with the customer. Some examples of these features for ServerBMC are as follows:

- Out-of-Band (OOB) firmware management
- Extensive inventory capabilities, including SMBIOS data
- System monitoring for health and high availability
- Network monitoring for performance and reliability
- Telemetry collection and reporting

Kernel-based Virtual Machine (KVM) and Virtual Media

The virtual KVM facilitates full graphical access to the ServerBMC using any standard HTML5 web browser with an IP connection. Furthermore, there is no need for any special software, plugins, or extensions on the remote client. Virtual media facilitates software installation from any remote device such as USB, HDD, or CD/DVD. The combination of KVM plus virtual media provides complete control over even bare-metal software installations.





