



Platform Management Interface

Table of contents

Redfish Management Interface

Redfish Implementation for NVIDIA BlueField BMC

Redfish POST (Action)

IPMI

External Host Retrieving Data from BMC Via LAN

External Host Retrieving Data from BMC Via UART

NVIDIA® BlueField® provides management interfaces to the BMC and the BlueField device.

Redfish Management Interface

The BlueField's BMC provides a standard DMTF Redfish management interface, which is accessible via an HTTPS RESTful interface. This Redfish interface enables users to inquire about and configure the system:

```
curl -k -u root:'<password>' -H 'Content-Type: application/json'  
-X GET https://<bmc_ip>/redfish/v1
```

Redfish Implementation for NVIDIA BlueField BMC

[Redfish Specification DSP0266](#) defines the necessary protocols, data model, behaviors, and other architectural components for creating an interoperable, multivendor, remote, and out-of-band capable interface. This interface is designed to meet the scalable platform management expectations of cloud-based and web-based IT professionals.

The specification outlines the mandatory elements required for all Redfish implementations and the optional elements that system vendors and manufacturers can choose to include. It also specifies where implementations can provide OEM-specific extensions.

NVIDIA BlueField BMC's Redfish implementation is based on the bmcweb implementation from the OpenBmc open-source community, ensuring compliance with the Redfish specification. As part of the BlueField development cycle, the code is synchronized with the upstream community, making it subject to changes and modifications derived from the upstream implementation. While NVIDIA is committed to adhering to the Redfish specification, the actual implementation may vary due to this development process.

Redfish POST (Action)

The bmcweb POST operation implementation complies with the DSP0266 specification definition. For more information, refer to the "[POST \(action\)](#)" section of Redfish Specification DSP0266.

IPMI

The BMC, based on the Intelligent Platform Management Interface (IPMI) standard, supports both out-of-band (OOB) dedicated interfaces, and a serial port to access the CLI of the BMC.

External Host Retrieving Data from BMC Via UART

If an external host is connected and logged into the BMC via UART, IPMI commands can be issued to fetch information from the BMC as follows:

```
ipmitool <ipmitool_arguments>
```

External Host Retrieving Data from BMC Via LAN

The BMC is connected to an external host server via LAN. IPMItool commands may be issued from the external server to retrieve information from the BMC as follows:

```
ipmitool -C 17 -I lanplus -H <bmc_ip> -U ADMIN -P ADMIN  
<ipmitool_arguments>
```

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