

# Server Hardware Console Reference Guide

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### **Hardware**

**January 2021**

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## Preface

This guide explains how to use the Server Hardware Console (SHC) to manage a BullSequana Edge server.

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**See** The Bull support web site for the most up-to-date product information, documentation, firmware updates, software fixes and service offers:  
<http://support.bull.com>

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## Intended Readers

This guide is intended for use by system administrators and operators



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# Chapter 1. Getting started

## 1.1. Overview

The BullSequana Edge Server Hardware Console (SHC) provides a web based interface to manage, configure and monitor the server.

The SHC is powered by OpenBMC, an open source implementation of the Baseboard Management Controller (BMC) firmware stack.

## 1.2. Connecting to the Server Hardware Console (SHC)

If there are problems with the host name connection, or if the host name is changed, the connection may be made using the BMC IP address.

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**See** The Getting Started Guide for more information.

---

### Prerequisites

- The BullSequana Edge server and the laptop are on the same LAN
- Chrome or Firefox are used to make the connection from the laptop

---

**Note** For browsers with proxy settings, the proxy configuration must allow the proxy to be bypassed for local addresses.

---

### Procedure

#### 1. Open a web browser

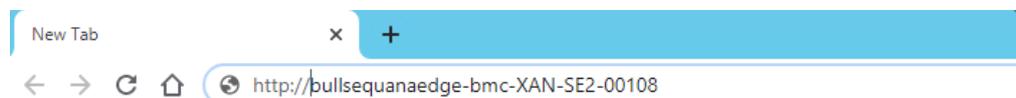
Enter the factory default host name into the address bar.

---

**Notes** • The factory default host name is in the following format  
http://bullsequanaedge-bmc-**<Serial\_Number>**.

- The serial number is written on the label on the side.
- 

### Example



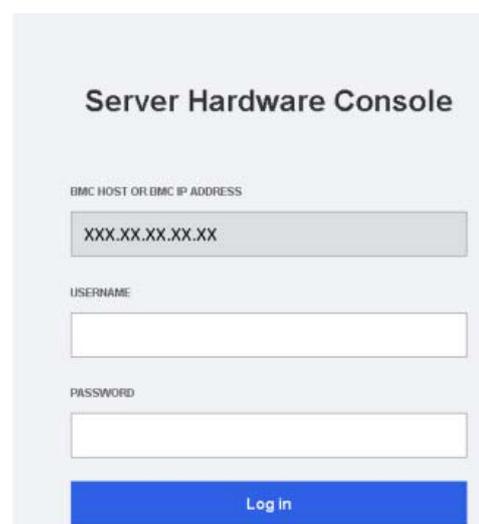
#### 2. Ignore any security warning messages displayed

Ignore all security warning messages including advanced messages.

The Server Hardware Console (SHC) authentication page opens.

**Atos**  
BullSequana Edge

POWERED BY  
  
OpenBMC

A screenshot of the Server Hardware Console (SHC) authentication page. The page has a light blue background. At the top, it says "Server Hardware Console". Below that, there are three input fields: "BMC HOST OR BMC IP ADDRESS" with a placeholder "XXX.XX.XX.XX.XX", "USERNAME", and "PASSWORD". At the bottom, there is a blue "Log in" button.

## 1.3. Logging in to the Server Hardware Console (SHC)

### Prerequisites

- The BullSequana Edge server and the laptop are on the same LAN
- Chrome or Firefox are used to make the connection from the laptop

### Procedure

#### 1. Connect to the SHC

A screenshot of the Server Hardware Console login interface. It features a light blue background with the title "Server Hardware Console" at the top. Below the title, there are three input fields: "BMC HOST OR BMC IP ADDRESS" with a placeholder "XXX.XX.XX.XX", "USERNAME", and "PASSWORD". A blue "Log in" button is positioned at the bottom right of the form area.

Server Hardware Console (SHC)	
BMC host name or IP address	Automatically completed with the host name or IP address according to the connection method
Username	admin
Password	pass

#### 2. Complete the Username and Password fields and click Log in.

---

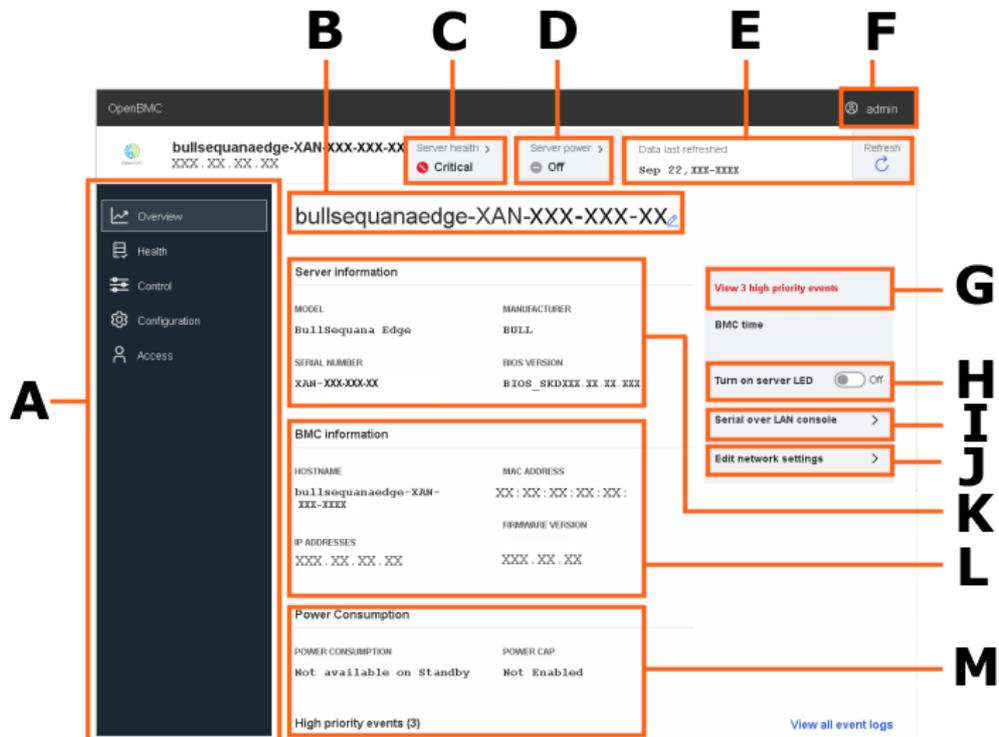
**Important** It is strongly recommended to change the default user password once initial setup is completed, taking care to record the new account details for subsequent connections.

---

## 1.4. The Server overview page

The Server overview page provides a summary of the BullSequana Edge system details and status. It also includes links to some server management and configuration features.

**Note** Some operations, for example, turning on the server LED, can be performed both from the shortcut (H) on the Server overview page or via the feature tab on the left hand side (A).



Mark	Description
A	Feature tabs with sub-items used to monitor, manage and configure a BullSequana Edge server
B	The host name of the server. Click <b>Edit</b> to change the host name
C	Summary of the server health status with a link to the <b>System Logs</b> page
D	Server power state with a link to the <b>Server power operations</b> page
E	Refresh button for the overview page with the date and time of the last refresh
F	User profile button to profile password and to log out
G	View high priority SELs. Click the link for more details
H	Button to turn on the server identification LED on the front of the server
I	Link to the Serial over LAN (SoL) console page
J	Link to the Network Settings page
K	Summary of the server information
L	Summary of the BMC information
M	Summary of the power information

## 1.5. Server Hardware Console (SHC) features

The SHC tabs include features to:

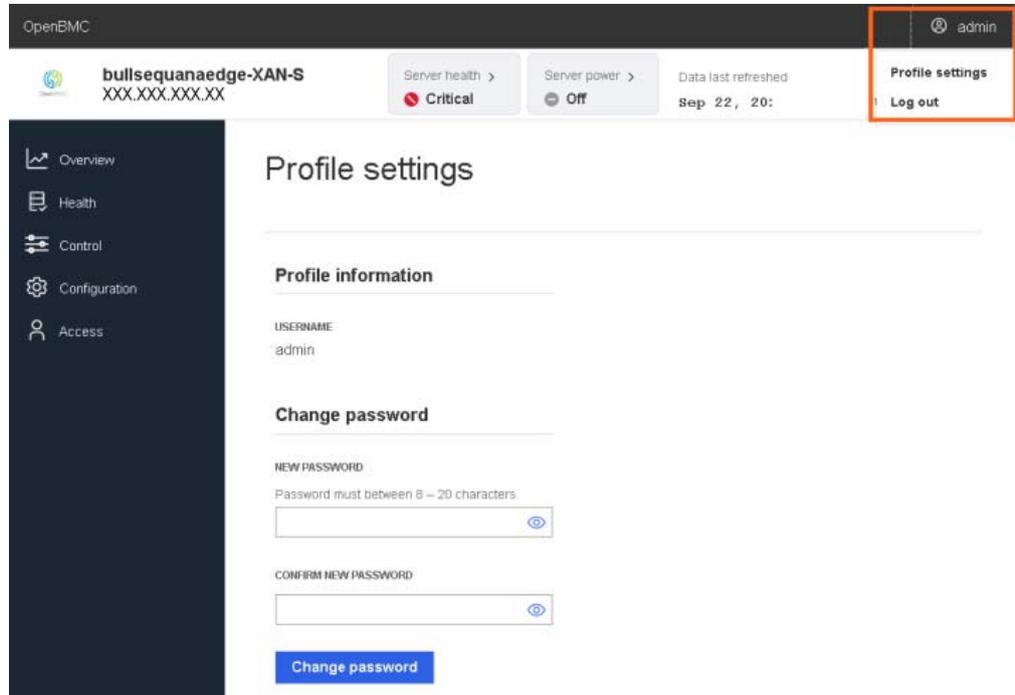
- Provide an overview of the server
- Monitor the health of the server
- Manage the server
- Configure the server
- Configure access and user settings for the server

Tab	Item
Overview	Server information
	BMC information
	Power consumption
	Events
Health	Event log
	Hardware status
	Sensors
Control	Server power operations
	Manage power usage
	Server LED
	Reboot BMC
	Serial over LAN console
	KVM
	Intrusion Detection
	Security Settings
Configuration	Virtual Media
	Network settings
	Firmware
Access	Date and time settings
	LDAP
	Local users
	SSL certificates

## 1.6. Changing the default password

**Note** The user must have administrator privileges to change the default password.

1. From the **admin** button, click **Profile settings**.

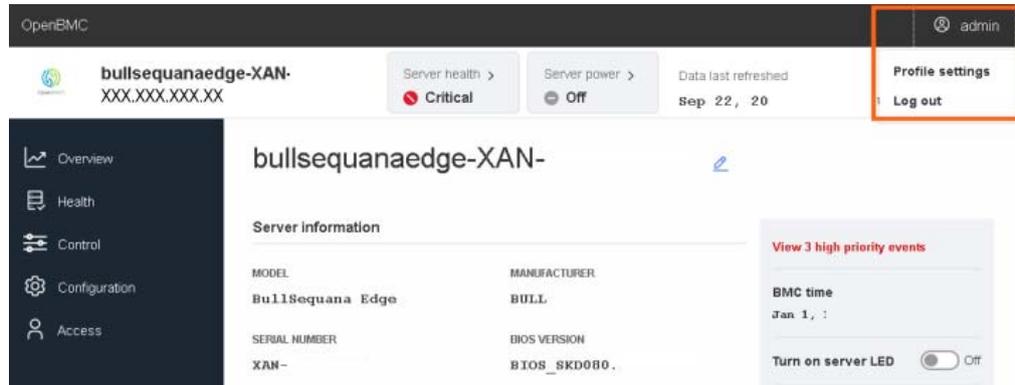


2. Enter and confirm the new password. Click **Change password**.

**Note** The password must be between eight and twenty characters long. The password must be different from the user name and not be the word 'password'.

## 1.7. Stopping the Server Hardware Console (SHC)

From the **admin** button, click **Log out** to stop the SHC.





## Chapter 2. Monitoring the server

### 2.1. Checking event logs

#### Prerequisites

The server is in the powered on state

#### Procedure

1. From the **Health** tab, click **Event log**. The **Event log** page opens.

The screenshot shows the 'Event log' page. At the top right, there is a 'REMOTE LOGGING SERVER' section with an '+ Add server' button. Below this, it says 'All events from the BMC' with a 'USER TIMEZONE' dropdown. A 'FILTER EVENTS' search bar is present with a magnifying glass icon and a 'Filter' button. Below the search bar are two filter sections: 'FILTER BY SEVERITY' with buttons for 'All', 'High', 'Medium', and 'Low'; and 'FILTER BY DATE RANGE (MM/DD/YYYY)' with two input boxes for dates. Below these is a 'FILTER BY EVENT STATUS' dropdown menu set to 'All events'. A summary bar shows '3 Events are logged' with icons for 'Delete', 'Mark as resolved', and 'Export'. The main content area displays a list of events. The first event is #3, with severity 'LOW' and type 'NOTICE', dated 'Nov 30, 2020 08:26:03 UTC+1', with the message 'Host power is ON'. The second event is #2, also with severity 'LOW' and type 'NOTICE', dated 'Nov 30, 2020 08:25:36 UTC+1'.

2. Set the log name, severity and date range parameters.
3. Click **Filter**. The list of logged events is displayed.

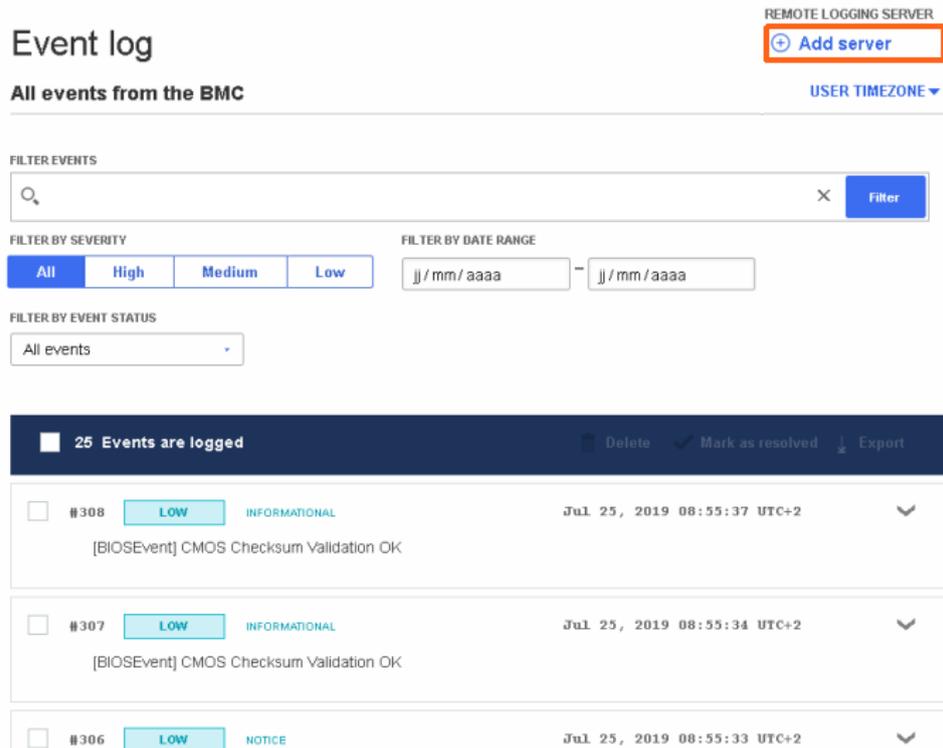
## 2.2. Adding a remote BMC log server

### Prerequisites

The BullSequana Edge server is in the powered on state

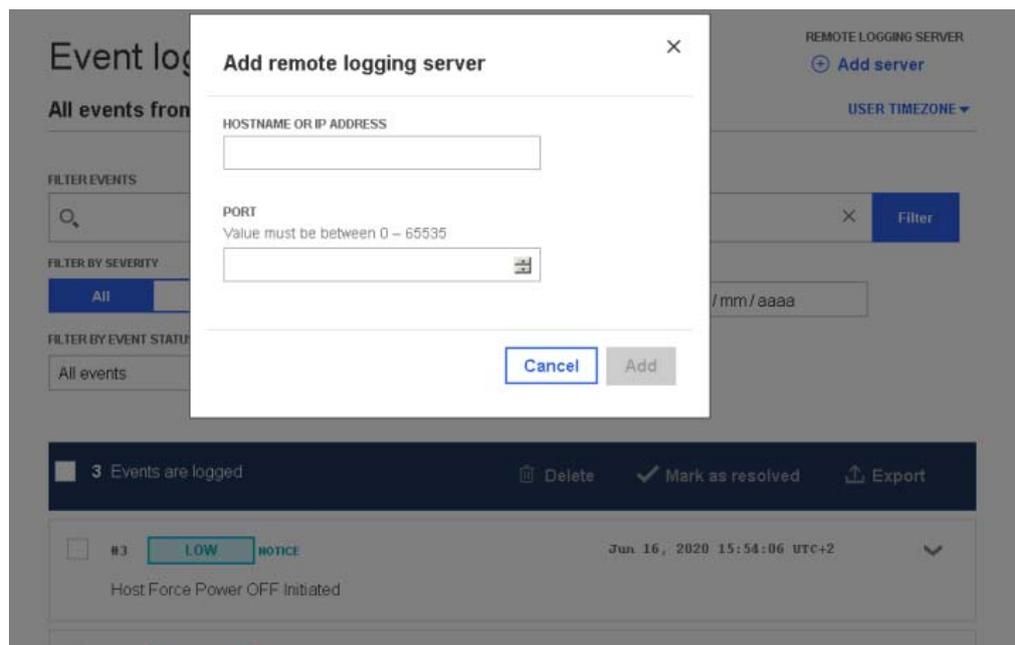
### Procedure

1. From the **Health** tab, click **Event log**. The **Event log** page opens.
2. Click **Add server**.



The screenshot shows the 'Event log' interface. At the top right, there is a 'REMOTE LOGGING SERVER' section with a blue '+ Add server' button highlighted by a red rectangle. Below this, the page displays 'All events from the BMC' and a 'USER TIMEZONE' dropdown. A 'FILTER EVENTS' section includes a search bar and a 'Filter' button. Below the search bar are filters for severity (All, High, Medium, Low) and date range (jj/mm/yyyy). A 'FILTER BY EVENT STATUS' dropdown is set to 'All events'. The main area shows a list of 25 logged events, with the top three visible: #308 (LOW, INFORMATIONAL), #307 (LOW, INFORMATIONAL), and #306 (LOW, NOTICE), all dated Jul 25, 2019.

3. Enter the server host name or IP address and port parameters.



The screenshot shows a modal dialog box titled 'Add remote logging server'. It has two input fields: 'HOSTNAME OR IP ADDRESS' and 'PORT'. The 'PORT' field has a tooltip that says 'Value must be between 0 - 65535'. At the bottom of the dialog are 'Cancel' and 'Add' buttons. The background shows the 'Event log' page with the 'Add server' button highlighted in a blue box.

4. Click **Add**.

## 2.3. Checking the hardware status

### Prerequisites

The server is in the powered on state

### Procedure

1. From the **Health** tab, click **Hardware status**. The **Hardware status** page opens.

## Hardware status

All hardware in the system

[Export](#)

FILTER HARDWARE COMPONENTS

 × Filter

NOTE: System power is off. DIMMs seen below were detected during the last power-on.

Hardware	
System	▼
Motherboard	▼
CPU 0	▼
DIMM 0	▼
DIMM 1	▼
DIMM 2	▼
DIMM 3	▼
Fan 0_PCI	▼
Fan 1_CPU	▼
Fan 2_PSU	▼
HDD_0	▼
HDD_1	▼
PCI_0	▼
PCI_1	▼

2. Enter the hardware component in the search field.
3. Click **Filter**.

- Click the downward pointing arrow on the right hand side to expand the information details for a component. Full details including the presence status for the component is displayed.

## Hardware status

All hardware in the system [Export](#)

---

FILTER HARDWARE COMPONENTS

×
Filter

Hardware

System
▼

Motherboard
▲

BUILD DATE	CUSTOM FIELD 1	CUSTOM FIELD 2
2019-04-19 - 17:00:00	XXXXXXXXXX	12345678
CUSTOM FIELD 3	CUSTOM FIELD 4	CUSTOM FIELD 5
1234	SFOK	12001665-002
CUSTOM FIELD 6	MANUFACTURER	PART NUMBER
BULL PRESENT	PLEXUS	11540978-002
Yes	PRETTY NAME	SERIAL NUMBER
VERSION	MIPCS	XXXXXXXXXX
02		

- Export** the hardware details, as required.

---

**Note** The hardware details are exported as .json data files.

---

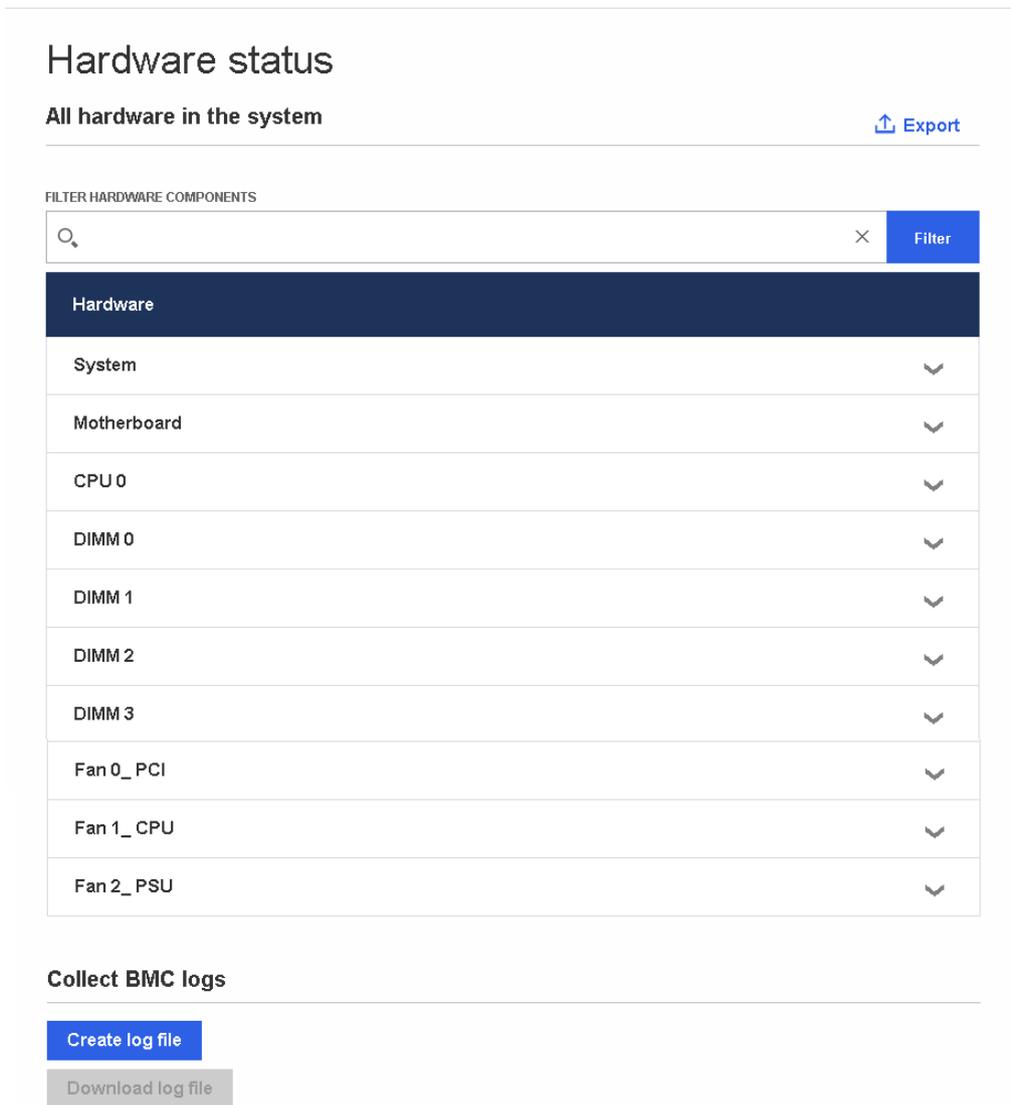
## 2.4. Collecting BMC logs

### Prerequisites

The BullSequana Edge server is in the powered on state

### Procedure

1. From the **Health** tab, click **Hardware status**. The **Hardware status** page opens.



The screenshot shows the 'Hardware status' page. At the top, it says 'Hardware status' and 'All hardware in the system' with an 'Export' button. Below this is a search bar labeled 'FILTER HARDWARE COMPONENTS' with a search icon, a close button, and a 'Filter' button. A table lists hardware components with expandable arrows:

Hardware	
System	▼
Motherboard	▼
CPU 0	▼
DIMM 0	▼
DIMM 1	▼
DIMM 2	▼
DIMM 3	▼
Fan 0_PCI	▼
Fan 1_CPU	▼
Fan 2_PSU	▼

Below the table is a section titled 'Collect BMC logs' with two buttons: 'Create log file' (blue) and 'Download log file' (grey).

2. Click **Create log file**.

DIMM 1	<b>Success!</b> Creating log file.
DIMM 2	
DIMM 3	▼
Fan 0_PCI	▼
Fan 1_CPU	▼
Fan 2_PSU	▼
HDD_0	▼
HDD_1	▼
PCI_0	▼
PCI_1	▼

**Collect BMC logs**

Creating log file...

Create log file

Download log file

---

**Note** This operation may take a long time to complete.

---

3. Wait for the BMC log file to be created.

CPU 0	<b>Success!</b> Log file is ready to download.
DIMM 0	
DIMM 1	▼
DIMM 2	▼
DIMM 3	▼
Fan 0_PCI	▼
Fan 1_CPU	▼
Fan 2_PSU	▼

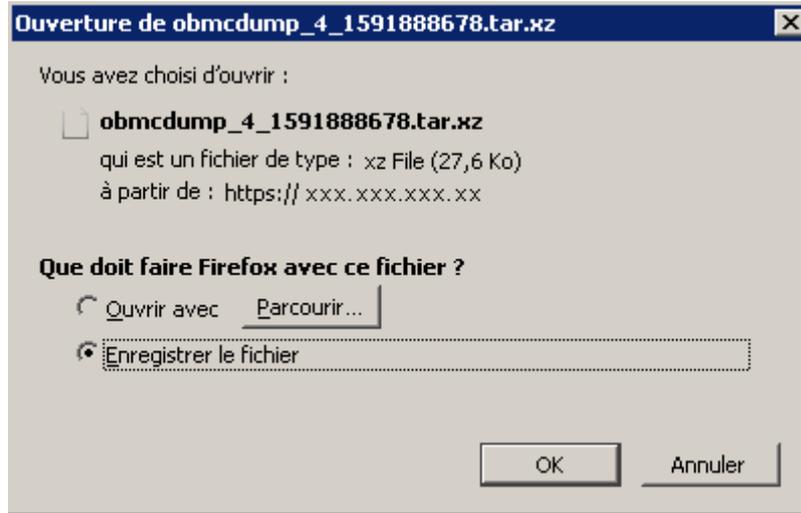
**Collect BMC logs**

Create log file

Download log file

4. When the **Success** message appears, click **Download log file**

5. Save the archive of the BMC logs, as required.



## 2.5. Checking the sensors

### Prerequisites

The server is in the powered on state

### Procedure

1. From the **Health** tab, click **Sensors**. The **Sensors** page opens.

## Sensors

All sensors present in the system

[Export](#)

FILTER SENSORS

 × Filter

FILTER BY SEVERITY

All Critical Warning Normal

Sensors (19)	Low critical	Low warning	Current	High warning	High critical
Temperature Psu Temp2	0° C	5° C	30.75° C	85° C	100° C
Temperature Psu Temp3	0° C	5° C	33.625° C	85° C	100° C
Temperature Temp Dimm	0° C	5° C	29.437° C	80° C	85° C
Temperature Temp Mpciebmrc	0° C	5° C	29.375° C	65° C	70° C

Severity Description	
GREEN	NORMAL Operation correct. No problem has been detected.
ORANGE	WARNING A problem has been detected that may need preventive or corrective action.
RED	CRITICAL A problem has been detected. Immediate preventive or corrective action is required.

2. Enter the sensor name in the search field.
3. Set the severity parameter.
4. Click **Filter**.
5. Click **Export** to export the sensor states, as required.

**Note** The sensor states are exported as .json data files.

---

## Chapter 3. Controlling the server

### 3.1. Checking the power state

#### Procedure

1. From the **Control** tab, click **Server power operations**. The **Server power operations** page opens.

#### Server power operations

##### Current status

Last power operation at Jan 10, 2020 00:11:11 UTC+1

bullsequanaedge-XXX-XXX-XXXXX - XXX.XX.XX.XX

Running

##### Host OS boot settings

BOOT SETTING OVERRIDE

None

Enable one time boot

TPM REQUIRED POLICY

Enable to ensure the system only boots when the TPM is functional.

Off

Save

Cancel

##### Operations

###### REBOOT SERVER

- Orderly - OS shuts down, then server reboots
- Immediate - Server reboots without OS shutting down; may cause data corruption

Reboot

###### SHUTDOWN SERVER

- Orderly - OS shuts down, then server shuts down
- Immediate - Server shuts down without OS shutting down; may cause data corruption

Shut down

##### Server Power Restore Policy

- Always On (Perform a complete power on process)
- Always Off (Remain powered off)
- Restore (Restore power to last requested state recorded before the BMC was reset)

<b>Current Status</b>	
Last power operation	Date and time of last power operation
Host name	The host name of the server
Power status	<ul style="list-style-type: none"> <li>• Unreachable</li> <li>• Off</li> <li>• Running</li> </ul>
<b>Host OS boot settings</b>	
Boot Setting Override	<ul style="list-style-type: none"> <li>• None</li> <li>• Pxe - Boots from a PXE server</li> <li>• Hdd - Boots from a hard disk</li> <li>• Cd - Boots from a CD</li> <li>• Diags - Boots from the diagnostic partition</li> <li>• BiosSetup - Boots from the BIOS menu</li> <li>• Usb - Boots from a USB key</li> </ul>
Enable one time boot	Select to apply the boot setting once
TPM Required Policy	Ensures the system will only boot if the TPM is fully functional. This feature can be enabled or disabled with the On / Off slider button.
Save button	Saves the Host OS boot settings
Cancel button	Cancels the Host OS boot settings
<b>Operations</b>	
Power on button	Only active / visible when the server is in standby power mode. Powers on the server
Reboot server	<p>Only active / visible when the server is in powered on mode</p> <ul style="list-style-type: none"> <li>• Orderly - Shuts down the operating system before the server reboots</li> <li>• Immediate - Server reboots immediately without the operating system shutting down. <b>N.B. Risk of data loss and corruption.</b></li> </ul> <p>Reboot button - reboots the server applying the reboot option selected</p>
Shutdown server	<p>Only active / visible when the server is in powered on mode</p> <ul style="list-style-type: none"> <li>• Orderly - Shuts down the operating system before the server shuts down</li> <li>• Immediate - Server shuts down immediately without the operating system shutting down. <b>N.B. Risk of data loss and corruption.</b></li> </ul> <p>Shut down button - shuts down the server applying the shut down option selected</p>

System Power Restore Policy	
Power Restore Policy	Description
Always On	Returns the server to power on mode with the BMC ON and the OS launched.
Always Off	Returns the server to standby power mode with the BMC ON but the OS is not launched.
Restore	Returns the server to the power mode already in place before the reboot.

- In the **Current status** section, check the power state. Three power states are possible **Unreachable**, **Off** or **Running**. The date and time of the last power operation is also indicated.

## Server power operations

### Current status

Last power operation at Jan 10, 2020 00:11:11 UTC+1

bullsequanaedge-XXX-XXX-XXXXX - XXX.XX.XX.XX

✔ Running

### Host OS boot settings

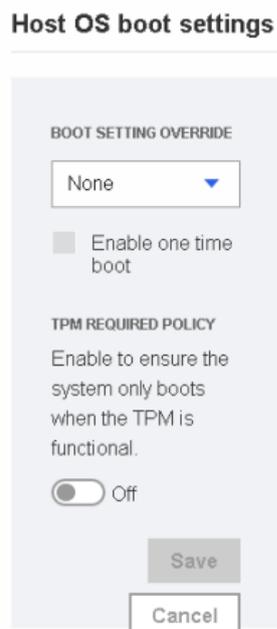
## 3.2. Setting boot options for host OS

### Procedure

1. From the **Control** tab, click **Server power operations**. The **Server power operations** page opens.
2. In the **Host OS boot settings** section, from the boot setting override drop-down list select the boot setting required.



3. If required, enable the option so that the system only boots when the Trusted Platform Module (**TPM**) is functional.



4. Click **Save**.

## 3.3. Powering on the server

### Prerequisites

The server is in standby power mode

### Procedure

1. From the **Control** tab, click **Server power operations**. The **Server power operations** page opens.
2. In the **Operations** section, select the power restore policy required.

#### Operations

---

Power on

#### Server Power Restore Policy

---

- Always On** (Perform a complete power on process)
- Always Off** (Remain powered off)
- Restore** (Restore power to last requested state recorded before the BMC was reset)

3. Click **Power on**.

## 3.4. Powering off the server

**W087**  **WARNING**

**W087:**

**The immediate reboot and shutdown buttons should only be used if the Operating System is unable to respond to an orderly reboot or shutdown request.**

**These sequences may result in data loss and file corruption.**

---

**Note** A BullSequana Edge server can also be powered off by pushing the front power button or via the Machine Intelligence System Management (MISM) console.

---

---

**See** The Getting Started Guide or the Management Console User's Guide for more information.

---

### Prerequisites

The server is in the powered on state

### Procedure

1. From the **Control** tab, click **Server power operations**. The **Server power operations** page opens.
2. In the **Operations** section, select either the reboot or shut down option required.

#### Operations

##### REBOOT SERVER

- Orderly - OS shuts down, then server reboots
- Immediate - Server reboots without OS shutting down; may cause data corruption

**Reboot**

##### SHUTDOWN SERVER

- Orderly - OS shuts down, then server shuts down
- Immediate - Server shuts down without OS shutting down; may cause data corruption

**Shut down**

#### Server Power Restore Policy

- Always On** (Perform a complete power on process)
- Always Off** (Remain powered off)
- Restore** (Restore power to last requested state recorded before the BMC was reset)

3. Select the power restore policy required.
4. Click **Reboot** or **Shut down**.

## 3.5. Managing power usage

### Procedure

1. From the **Control** tab, click **Manage power usage**. The **Manage Power Usage** page opens.

### Manage Power Usage

#### Power information

---

POWER CONSUMPTION

73 W

#### Server power cap setting

---

Set a power cap to keep power consumption at or below the specified value in watts.

Off

POWER CAP VALUE IN WATTS

0

Cancel

Save settings

2. To set a power cap:
  - a. Enable the **Server power cap setting**.
  - b. Set the power cap value in the **Power Cap Value in Watts** box.
3. Click **Save settings**.

---

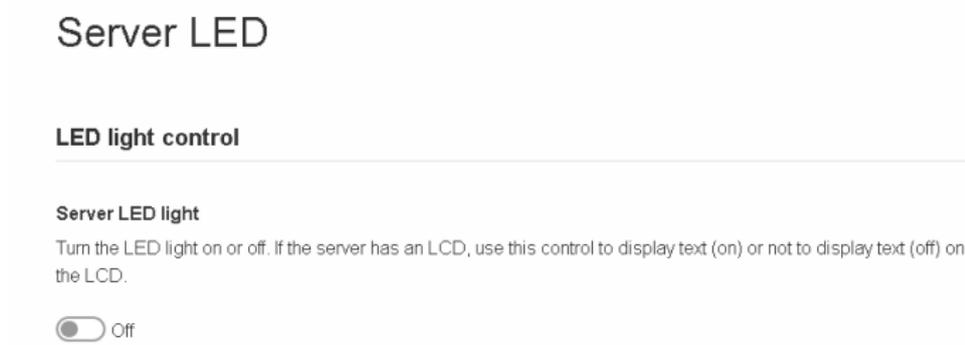
**Note** The power consumption and power cap value are indicated on the Server overview page.

---

## 3.6. Enabling / disabling the identification LED

### Procedure

1. From the **Control** tab, click **Server LED**. The **Server LED** page opens.



2. Turn the server identification LED off / on.

---

**See** The Description Guide to locate the blue server identification LED at the front of the server.

---

## 3.7. Rebooting the Baseboard Management Controller (BMC)

### Procedure

1. From the **Control** tab, click **Reboot BMC**. The **Reboot BMC** page opens.

### Reboot BMC

**Current BMC boot status**

BMC last reboot at **not available**

---

When you reboot the BMC, your web browser loses contact with the BMC for several minutes. When the BMC is back online, you must log in again. If the Log In button is not available when the BMC is brought back online, close your web browser. Then, reopen the web browser and enter your BMC IP address.

---

 **Reboot BMC**

2. Click the **Reboot BMC** button.

---

**Note** When the BMC is rebooted the browser loses contact with the BMC for several minutes. The log in procedure must be performed when the BMC is back online. If the log in button is not available, close the browser, reopen it and enter the BMC IP address.

---

## 3.8. Connecting to the Serial over LAN (SoL) console

### Procedure

1. From the **Control** tab, click **Serial over LAN console**. The **Serial over LAN console** page opens.

### Serial over LAN console

#### Access the Serial over LAN console

---

The Serial over LAN (SoL) console redirects the output of the server's serial port to a browser window on your workstation.



 Open in new tab

2. If required, click the **Open in new tab** link to open the console in a new window.

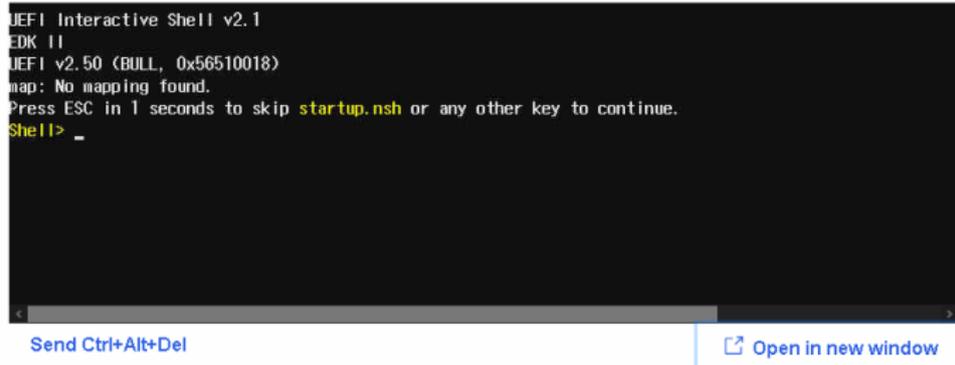
### 3.9. Connecting to the Keyboard Video Mouse (KVM)

KVM is used by the remote console to transmit the screen data to the administrator machine and the keyboard and mouse data back to the host.

#### Procedure

From the **Control** tab, click **KVM**. The **IP KVM** page opens.

#### IP KVM



---

**Important** The **Send Ctrl+Alt+Del** command is for Windows systems only. If the command is launched twice on a Red Hat system the server will reboot.

---

## 3.10. Managing intrusions

Different actions can be configured in the event of an intrusion being detected by the BullSequana Edge server intrusion detection switch. The history and of the intrusions detected are recorded in the System Event Logs.

### 3.10.1. Checking intrusions detected

#### Procedure

1. From the **Control** tab, click **Intrusion Detection**. The **Chassis Intrusion** page opens.

#### Chassis Intrusion

##### CURRENT INTRUSION STATUS

---

NO INTRUSION DETECTED

##### CLEAR INTRUSION

---

CLEAR

NOTE: Intrusion status will be updated during next boot up. Make sure the chassis is properly closed before pressing CLEAR button.

##### ACTION

---

Ignore

Cancel

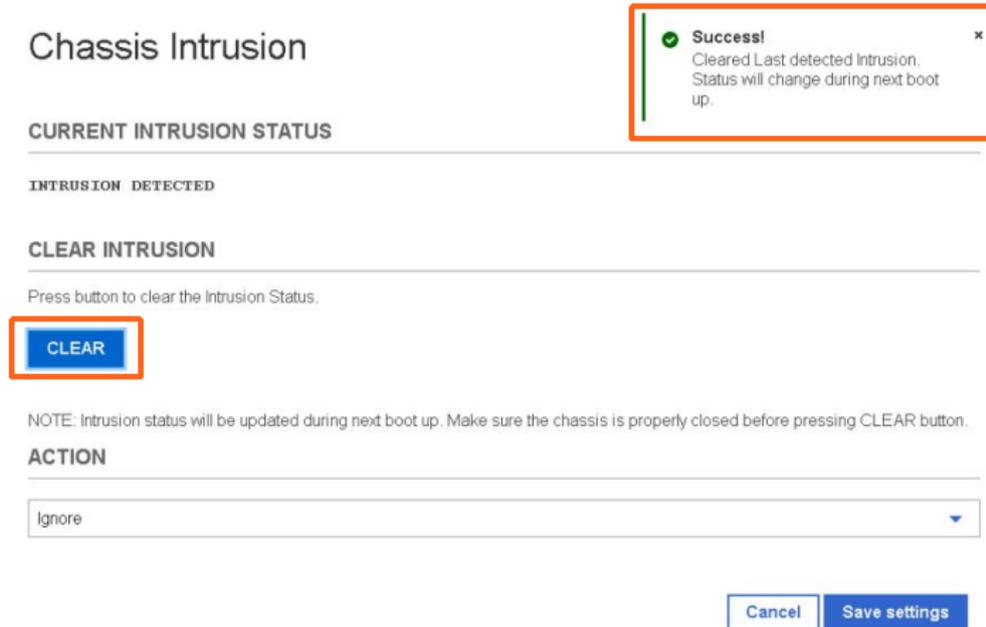
Save settings

2. All intrusions detected are listed under **Current Intrusion Status**.

### 3.10.2. Clearing intrusions detected

#### Procedure

1. From the **Control** tab, click **Intrusion Detection**. The **Chassis Intrusion** page opens.



The screenshot shows the 'Chassis Intrusion' page. At the top right, a success message box is highlighted with an orange border, containing a green checkmark icon and the text: 'Success! Cleared Last detected Intrusion. Status will change during next boot up.' Below the title, the 'CURRENT INTRUSION STATUS' is 'INTRUSION DETECTED'. Under the 'CLEAR INTRUSION' section, there is a blue 'CLEAR' button highlighted with an orange border. Below the button, a note states: 'NOTE: Intrusion status will be updated during next boot up. Make sure the chassis is properly closed before pressing CLEAR button.' At the bottom, there is an 'ACTION' dropdown menu set to 'Ignore' and two buttons: 'Cancel' and 'Save settings'.

2. Click **CLEAR** to remove any actions detected from the list.
3. Wait until the Success message appears.

---

**Note** The intrusion(s) detected will only be cleared from the intrusion status list following a reboot of the host server.

---

### 3.10.3. Configuring actions for intrusions

#### Procedure

1. From the **Control** tab, click **Intrusion Detection**. The **Chassis Intrusion** page opens.

Chassis Intrusion

**CURRENT INTRUSION STATUS**

---

NO INTRUSION DETECTED

**CLEAR INTRUSION**

---

CLEAR

NOTE: Intrusion status will be updated during next boot up. Make sure the chassis is properly closed before pressing CLEAR button.

**ACTION**

---

Ignore

Power Off

Ignore

Cancel Save settings

2. In the **Action** section, select either **Power Off** or **Ignore** from the drop down list, for any intrusions detected.

---

**Important** If the **Power Off** action is set, the server will not start until the intrusion is removed from the **Current Intrusion Status** list.

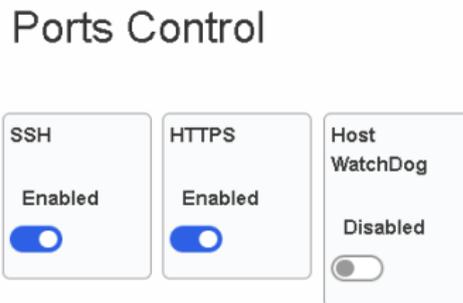
---

3. Click **Save settings**.

## 3.11. Enabling port security controls

### Procedure

1. From the **Control** tab, click **Security Settings**. The **Ports Control** page opens.



2. Enable / disable the SSH, HTTPS and Host WatchDog controls as required.

---

**Notes**

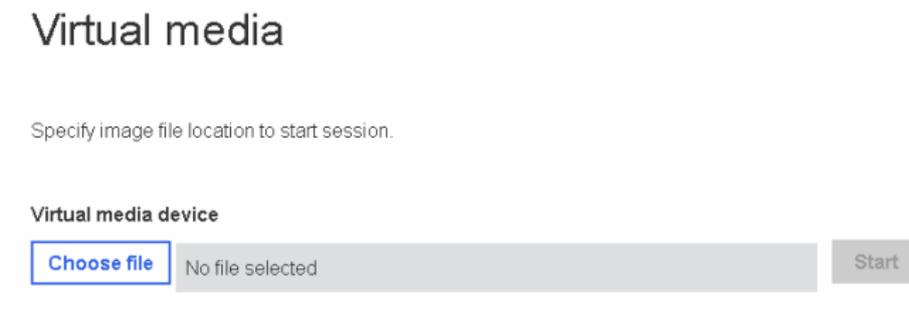
- If SSH is disabled, the OpenBMC console will not respond until it is enabled.
- If HTTPS is disabled, neither the web interface or any of the REST commands will respond. HTTPS can only be re-enabled from the OpenBMC console.

---

## 3.12. Creating a virtual media session

### Procedure

1. From the **Control** tab, click **Virtual Media**. The **Virtual Media** page opens.



The screenshot shows a web interface for creating a virtual media session. At the top, the heading "Virtual media" is displayed. Below it, a text prompt reads "Specify image file location to start session." Underneath this is a section titled "Virtual media device". This section contains a file selection interface with a "Choose file" button, a text field showing "No file selected", and a "Start" button.

2. Click **Choose file**.
3. Select an ISO file.
4. Select a media format for the next boot.

# Chapter 4. Configuring the server

## 4.1. Configuring network settings

### Prerequisites

- A laptop computer with the Chrome or Firefox browser installed
- The laptop is connected to the BullSequana Edge BMC port
- The server BMC has an IP address allocated
- The laptop computer is connected to the LAN

### 4.1.1. BMC network settings overview

#### Procedure

From the **Configuration** tab, click **Network settings**. The **BMC network settings** page opens.

BMC network settings

COMMON SETTINGS

HOSTNAME	NETWORK INTERFACE	MAC ADDRESS	DEFAULT GATEWAY
bullsequanaedge-XA8	eth0	XX:XX:XX:XX:XX:XX	XX.XX.XX.XX

IPV4 SETTINGS

OBTAIN AN IP ADDRESS AUTOMATICALLY USING DHCP

ASSIGN A STATIC IP ADDRESS

[Add IPv4 address](#)

ENABLE LINK LOCAL ADDRESSING

Note: Link-Local address will be enabled on one ethernet interface at a time.

IPV4 CUSTOM ROUTE

IPV4 ADDRESS	GATEWAY	NETMASK PREFIX LENGTH

[Add](#)

Interface	IPv4 Address	Gateway
-----------	--------------	---------

DNS SETTINGS

DNS SERVER 1

[Remove](#)

[Add DNS server](#)

BMC WIFI SETTINGS

[Scan](#)

AVAILABLE NETWORK

PASSWORD

[Connect](#)

AUTO CONNECT AFTER BMC REBOOT

[Cancel](#) [Save settings](#)

<b>Common settings</b>	
Hostname	The server hostname
Network interface	Select the option required: <ul style="list-style-type: none"> <li>• Eth1</li> <li>• Eth2</li> </ul>
MAC address	The server MAC address
Default gateway	Default gateway IP address
<b>IPV4 settings</b>	
Obtain an IP address automatically using DHCP	When enabled, network IP address is retrieved from a DHCP server
Assign a static IP address	When enabled, network IP address is static
Add IPV4 address button	Click to add a static IPV4 address
Enable link local addressing	When enabled a link local address will be assigned to the interface.
<b>IPV4 custom route</b>	
IPV4 address	Valid IP address of the host or Network ID of the Network.
Gateway	Valid IP Address of the gateway.
Netmask prefix length	Valid netmask of the Network or the host
Add button	Click to add the IPV4 address
<b>DNS settings</b>	
DNS server 1	DNS server IP address
Remove	Click to remove the DNS server
Add DNS server button	Click to add a DNS server
<b>BMC WIFI settings</b>	
Scan button	Click to discover the available wireless networks
Available network	Lists the available networks. From the drop-down list, select the network required
Password	Enter the password of the network selected
Connect button	Click to connect to the network selected
Autoconnect after BMC reboot	Enable to connect automatically to the network selected after a BMC reboot
<b>Buttons</b>	
Cancel	Click to cancel the operation
Save settings	Save the configuration

## 4.1.2. Configuring common settings

### Procedure

1. From the **Configuration** tab, click **Network settings**. The **BMC network settings** page opens.
2. In the **Common settings** section, select the network interface from the drop-down list.

### BMC network settings

#### COMMON SETTINGS

HOSTNAME	NETWORK INTERFACE	MAC ADDRESS	DEFAULT GATEWAY
<input type="text" value="bullsequanaedge-XAN"/>	<input type="text" value="eth0"/> ▼	<input type="text" value="XX:XX:XX:XX:XX"/>	<input type="text" value="XXX.XX.XX.XX"/>

---

#### IPV4 SETTINGS

---

**Note** The MAC address and default gateway for the BMC are configured automatically.

---

3. If required, change the settings for the MAC address and default gateway.
4. Click **Save settings**.

### 4.1.3. Configuring IPV4 address with DHCP

#### Procedure

1. From the **Configuration** tab, click **Network settings**. The **BMC network settings** page opens.
2. In the **IPV4 settings** section, click **OBTAIN AN IP ADDRESS AUTOMATICALLY USING DHCP**.
3. Click **Add IPV4 address**.

IPV4 SETTINGS

---

OBTAIN AN IP ADDRESS AUTOMATICALLY USING DHCP

ASSIGN A STATIC IP ADDRESS

IPV4 ADDRESS	GATEWAY	NETMASK PREFIX LENGTH	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Remove"/>

ENABLE LINK LOCAL ADDRESSING

Note: Link-Local address will be enabled on one ethernet interface at a time.

---

**Note** Deselect **Enable Link Local Addressing** once it has been used for the first configuration.

---

4. Click **Save settings**.

## 4.1.4. Assigning a static IP address

### Prerequisites

The network parameters for static IP addresses are known

### Procedure

1. From the **Configuration** tab, click **Network settings**. The **BMC network settings** page opens.
2. In the **IPV4 settings** section, click **ASSIGN A STATIC IP ADDRESS**.
3. Click **Add IPV4 address**.

#### IPV4 SETTINGS

OBTAIN AN IP ADDRESS AUTOMATICALLY USING DHCP

ASSIGN A STATIC IP ADDRESS

IPV4 ADDRESS	GATEWAY	NETMASK PREFIX LENGTH	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<a href="#">Remove</a>

ENABLE LINK LOCAL ADDRESSING

Note: Link-Local address will be enabled on one ethernet interface at a time.

4. Click **Remove** to remove the existing IP address, if one exists.
5. Enter the network parameters for the static IP address.
6. Click **Add IPV4 address** if additional addresses are to be configured.
7. Click **Save settings**.

### 4.1.5. Configuring an IPV4 custom route

It is possible to customize a SSH connection to the BMC from a different network.

#### Procedure

1. From the **Configuration** tab, click **Network settings**. The **BMC network settings** page opens.
2. In the **IPV4 Custom Route** section, enter the network parameters for customized connection.

**IPV4 CUSTOM ROUTE**

---

IPV4 ADDRESS	GATEWAY	NETMASK PREFIX LENGTH	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="button" value="Add"/>			
Interface	IPv4 Address	Gateway	
eth0	XXX.XX.XX.XX/XX	XXX.XX.XX.X	<a href="#">Remove</a>
eth0	XXX.XX.XX.XX/XX	XXX.XX.XX.X	<a href="#">Remove</a>

3. Click **Add**.
4. If required, click **Remove** to delete existing custom routes.

## 4.1.6. Configuring DNS settings

### Procedure

1. From the **Configuration** tab, click **Network settings**. The **BMC network settings** page opens.
2. In the **DNS settings** section, click **Remove** to remove the existing DNS server

#### DNS SETTINGS

---

DNS SERVER 1

[Remove](#)

[Add DNS server](#)

3. Enter the DNS server to be used.
4. Click **Add DNS server**.
5. Click **Save settings**.

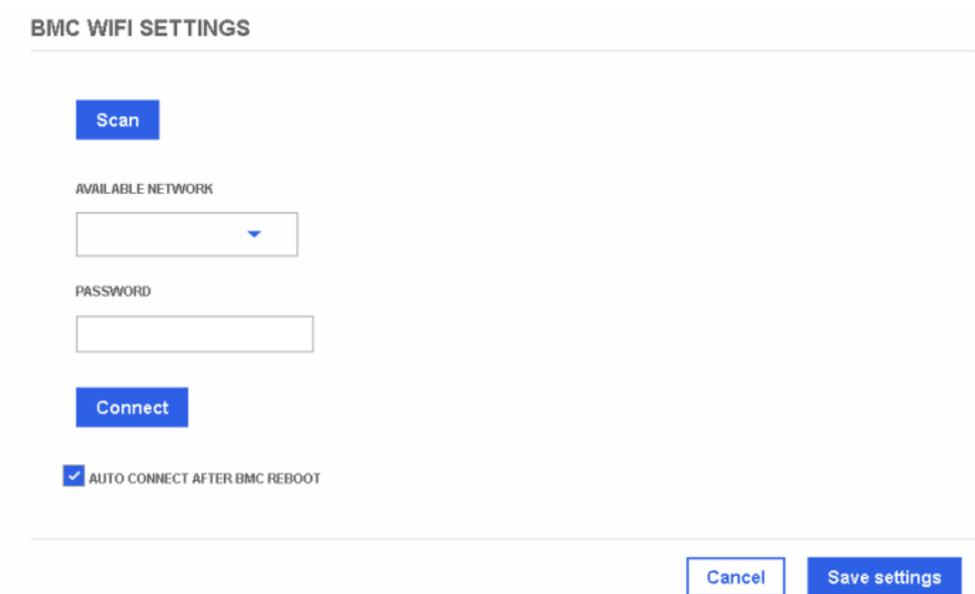
## 4.1.7. Configuring WIFI settings

### Prerequisites

- The laptop computer is connected to the WIFI LAN
- The WiFi network and password are known

### Procedure

1. From the **Configuration** tab, click **Network settings**. The **BMC network settings** page opens.
2. In the **BMC WIFI Settings** section, click **Scan**.



The screenshot shows the 'BMC WIFI SETTINGS' interface. At the top, there is a blue 'Scan' button. Below it is a section titled 'AVAILABLE NETWORK' with a dropdown menu. Underneath is a 'PASSWORD' field. A blue 'Connect' button is positioned below the password field. At the bottom of the settings area, there is a checked checkbox labeled 'AUTO CONNECT AFTER BMC REBOOT'. At the very bottom of the page, there are two buttons: 'Cancel' and 'Save settings'.

3. From the list of available networks displayed, select the network required.
4. Enter the password.
5. Click **Connect**.
6. Check the **Auto Connect after BMC reboot** box to reconnect after a BMC reboot.
7. Click **Save Settings**.

## 4.2. Managing firmware versions

---

**Important** The BMC firmware must be updated before the BIOS and CPLD firmware.

---

**See** The Bull support web site for the most up-to-date product information, documentation, firmware updates, software fixes and service offers:  
<http://support.bull.com>

---

The SHC can be used to change firmware boot priorities and to update BMC, BIOS and CPLD firmware files.

## 4.2.1. Checking firmware versions

### Prerequisites

The server is in the powered on state

### Procedure

1. From the **Configuration** tab, click **Firmware**. The **Firmware** page opens.

**Firmware**

[Check and get new firmwares](#)

Note: The server BMC has to be connected to Internet

**Manage BMC, BIOS and CPLD firmware**

Use the following tables to manage firmware image files. The image file that is listed at the top, the image with the highest boot priority, is used the next time that the device is booted. To change the boot priority for the image, click the arrow icons.

**Scroll down to upload an image file** to transfer a new firmware image to the BMC. After uploading a new image, Activate it to make it available for use.

**BMC images** Functional firmware version: 33.00.0420

Boot priority	Image state	Version	Action
	Functional	33.00.0420	

**BIOS images** Functional firmware version: BIOS\_SKD080.18.02.002

Boot priority	Image state	Version	Action
	Functional	BIOS_SKD080.18.02.002	

**CPLD images** Functional firmware version: 4.2.0.0

Boot priority	Image state	Version	Action
	Functional	4.2.0.0	

2. Check the BMC, BIOS and CPLD functional image versions listed.

## 4.2.2. Checking the firmware is up-to-date

### Prerequisites

- A laptop computer with the Chrome or Firefox browser installed
- Connection to the internet
- The server is in the powered on state

### Procedure

1. From the **Configuration** tab, click **Firmware**. The **Firmware** page opens.
2. Click **Check and get new firmware** to go to the support site.



3. Download the latest versions, if more up-to-date versions are available.

### 4.2.3. Updating the BMC firmware

#### Prerequisites

The server is in the standby power state

#### Procedure

##### 1. Check the server power status

Check that the server is in the standby power state.

##### 2. Update the firmware

1. From the **Configuration** tab, click **Firmware**. The **Firmware** page opens.
2. From the **Specify image file location** section:
  - a. Either click **Choose a file** > **Upload firmware** to upload an image file from a workstation.
  - b. Or click **Download firmware** to download an image file from a TFTP server.

#### Specify image file location

---

Specify an image file located on your workstation or a TFTP server. An image file may contain firmware images for the BIOS, BMC, or other hardware devices. Each image that you upload will be unpacked from the image file and added to the appropriate list above.

##### Upload image file from workstation

Select the image file saved on the workstation storage medium to upload to the server BMC.

No file chosen

##### Download image file from TFTP server

Specify both the TFTP server IP address and the image file name stored on it to download to the server BMC.

TFTP SERVER IP ADDRESS	FILE NAME	<input type="button" value="Download firmware"/>
<input type="text"/>	<input type="text"/>	

### 3. Activate the BMC image

1. Select the BMC image using the boot priority arrows.
2. Click **Activate**.

Scroll down to upload an image file to transfer a new firmware image to the BMC. After uploading a new image, Activate it to make it available for use.

BMC images Functional firmware version: 15.00.0179

Boot priority	Image state	Version	Action
 	Functional	15.00.0179	
	Ready	14.00.0162	<a href="#">Activate</a> <a href="#">Delete</a>

3. The Confirm BMC firmware file activation page opens. Click **Activate firmware file and automatically reboot BMC**.

 **Confirm BMC firmware file activation**

When you activate the BMC firmware file, 14.00.0162, the BMC must be rebooted before it will operate with the new firmware code. Note that when you reboot the BMC, the BMC will be unavailable for several minutes and you must log in again.

ACTIVATE FIRMWARE FILE WITHOUT REBOOTING BMC

ACTIVATE FIRMWARE FILE AND AUTOMATICALLY REBOOT BMC

[Cancel](#) [Continue](#)

4. Click **Continue**.

- 
- Notes**
- When the BMC is rebooted the browser loses contact with the BMC for several minutes. The normal log in procedure must be performed when the BMC is back online. If the log in button is not available, close the browser, reopen it and enter the BMC IP address.
  - Earlier firmware versions disappear from the BMC image list once a new version has been activated.
-

## 4.2.4. Updating the BIOS and CPLD firmware

---

**Important** Check that the latest BMC firmware version is installed. If not, the BMC firmware must be updated before the BIOS and CPLD firmware.

---

### Prerequisites

The server is in the standby power state

### Procedure

#### 1. Check the server power status

Check that the server is in the standby power state.

#### 2. Update the firmware

1. From the **Configuration** tab, click **Firmware**. The **Firmware** page opens.
2. From the **Specify image file location** section:
  - a. Either click **Choose a file** > **Upload firmware** to upload an image file from a workstation.
  - b. Or click **Download firmware** to download an image file from a TFTP server.

#### Specify image file location

---

Specify an image file located on your workstation or a TFTP server. An image file may contain firmware images for the BIOS, BMC, or other hardware devices. Each image that you upload will be unpacked from the image file and added to the appropriate list above.

##### Upload image file from workstation

Select the image file saved on the workstation storage medium to upload to the server BMC.

<input type="button" value="Choose a file"/>	No file chosen	<input type="button" value="Upload firmware"/>
----------------------------------------------	----------------	------------------------------------------------

##### Download image file from TFTP server

Specify both the TFTP server IP address and the image file name stored on it to download to the server BMC.

TFTP SERVER IP ADDRESS	FILE NAME	<input type="button" value="Download firmware"/>
<input type="text"/>	<input type="text"/>	

### 3. Activate the firmware

1. Select the firmware using the boot priority arrows.
2. Click **Activate**.

Boot priority	Image state	Version	Action
	Functional	4.3.0.0	
	Ready	4.1.0.0	<b>Activate</b> Delete

### 4. Wait two to three minutes and then refresh the page

The firmware is now active.

### 5. Power on the server

1. From the **Control** tab, click **Server power operations**. The **Server power operations** page opens.

**Operations**

**Power on**

**Server Power Restore Policy**

**Always On** (Perform a complete power on process)

**Always Off** (Remain powered off)

**Restore** (Restore power to last requested state recorded before the BMC was reset)

2. In the **Operations** section, click **Power on**.

## 4.3. Configuring date and time settings

### Procedure

1. From the **Configuration** tab, click **Date and time settings**. The **Date and time settings** page opens.

### Date and time settings

Set date and time manually or configure a Network Time Protocol (NTP) Server

OBTAIN AUTOMATICALLY FROM A NETWORK TIME PROTOCOL (NTP) SERVER

NTP SERVER ADDRESS 1 (PRIMARY)

129.184.124.7 [Remove](#)

NTP SERVER ADDRESS 2

129.184.124.8 [Remove](#)

NTP SERVER ADDRESS 3

129.184.124.9 [Remove](#)

[Add new NTP server](#)

MANUALLY SET DATE AND TIME

BMC TIME

08/12/2020

16:10:05.000

Central European Standard Time (UTC+01:00)

HOST TIME

08/12/2020

15:59:03.000

Central European Standard Time (UTC+01:00)

TIME OWNER

Split

BMC

Host

Both

Split

[Cancel](#)

[Save settings](#)

2. Set the data and time, either:
  - a. Either select **Obtain automatically from a Network Time Protocol (NTP) server**.
  - b. Or select **Manually set date and time** and use the **Time owner** drop-down list to set the time owner according to system requirements.

<b>Time owner</b>	<b>Description</b>
BMC	Configure the date and time for the BMC
Host	Configure the date and time for the host
Both	Configure the date and time for both the BMC and the host
Split	Configure the BMC date and time settings separately from the host

3. Click **Save settings**.



# Chapter 5. Managing Access

## 5.1. LDAP settings

From the **Access** tab, click **LDAP**. The **LDAP** settings page opens.

### LDAP

Configure LDAP settings and manage role groups.

#### Settings

**Enable LDAP authentication**  
LDAP authentication must be enabled to modify role groups.

**Secure LDAP using SSL**

A CA certificate and LDAP certificate are required. One or more are missing.

**Go to SSL certificates**

**SERVICE TYPE**

Open LDAP

Active directory

**SERVER URI**

**BIND DN**

**BIND PASSWORD**

Show

**BASE DN**

**USER ID ATTRIBUTE**  
(OPTIONAL)

**GROUP ID ATTRIBUTE**  
(OPTIONAL)

#### Role groups

+ Add role group
Remove role groups

	Group name	Group privilege
LDAP authentication must be enabled before creating role groups.		

Settings	
Enable LDP authentication	Allows LDAP authentication to be configured
Secure LDAP using SSL	Secures LDAP server using a Secure Socket Layer certificate
Go to SSL certificates	Redirects to the <b>SSL certificates</b> page. The link is active when LDAP authentication is enabled
Service type	Selects the LDAP service type: <ul style="list-style-type: none"> <li>Open LDAP</li> <li>Microsoft Active Directory</li> </ul>
Server URI	ldap://<LDAP Server IP>

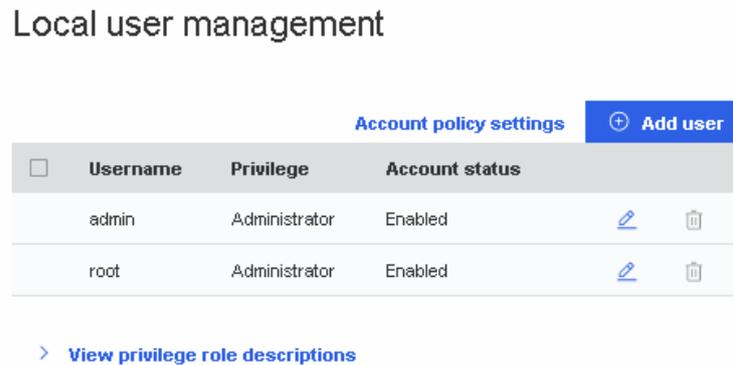
<b>Settings</b>	
Bind DN	Bind Distinguished Name
Bind password	Bind user password
Base DN	Base Distinguished Name. The point from which a server will start searching for users.
User ID attribute	The log in attribute that uniquely identifies a single user record.
Group ID attribute	The log in attribute that uniquely identifies a group user record.
Reset button	Clears the fields
Save button	Saves the configurations
<b>Role groups</b>	
Role groups enable a set of permissions to be assigned to a group of administrators or specialist users.	
Group name	Group name
Group privilege	Role assigned to the group

## 5.2. Managing users

### 5.2.1. Viewing the user list

#### Procedure

1. From the **Access** tab, click **Local users**. The **Local user management** page opens.



Local user management	
Username	Name the user uses to log on
Privilege	Role assigned to the user
Account status	When enabled, the user account is active and the user is able to log on. When disabled, the user's account is unavailable: the user's account is maintained but it is no longer possible to log on using this account
Buttons	
	Edit button to display and modify the user account
	Remove button to delete the user

## 5.2.2. Viewing privilege roles

### Procedure

1. From the **Access** tab, click **Local users**. The **Local user management** page opens.
2. Click **View privilege role descriptions** to display the roles.

### Local user management

[Account policy settings](#) [+ Add user](#)

<input type="checkbox"/>	Username	Privilege	Account status		
	admin	Administrator	Enabled	<a href="#">✎</a>	<a href="#">🗑</a>
	root	Administrator	Enabled	<a href="#">✎</a>	<a href="#">🗑</a>

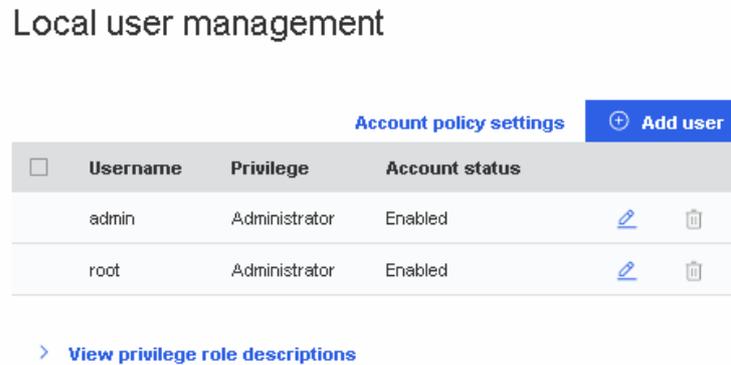
[Hide privilege role descriptions](#)

	Admin	Operator	ReadOnly	NoAccess
Configure components managed by this service	✓			
Configure manager resources	✓			
Update password for current user account	✓			
Configure users and their accounts	✓			
Log in to the service and read resources	✓	✓	✓	
IPMI access point	✓	✓	✓	
Redfish access point	✓	✓	✓	
SSH access point	✓			
WebUI access point	✓	✓	✓	

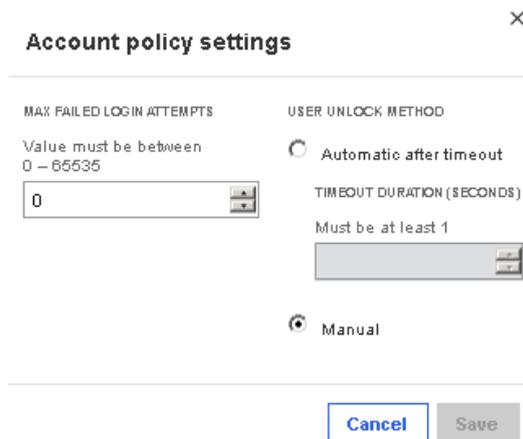
### 5.2.3. Setting the account policy

#### Procedure

1. From the **Access** tab, click **Local users**. The **Local user management** page opens.



2. Click the **Account policy settings** tab. The **Account policy settings** page opens.



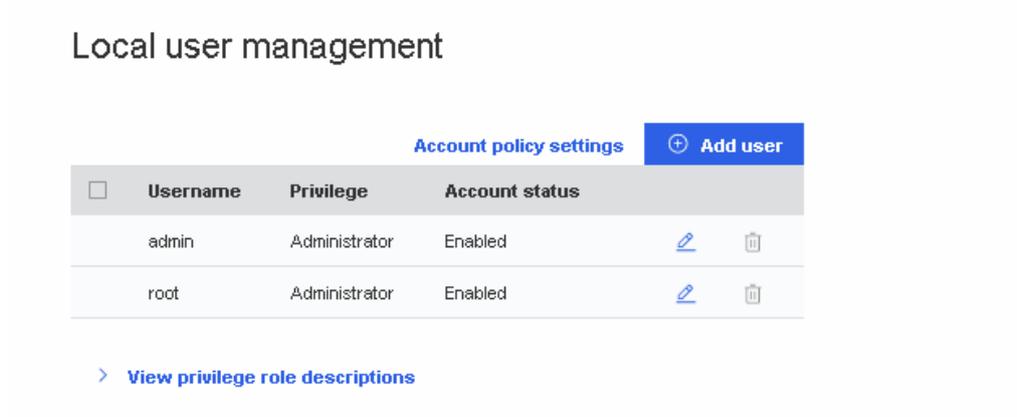
Account policy settings	
Max failed login attempts	The number of failed login attempts allowed. The value must be set between 0 (default) and 65535
Automatic after timeout	Automatic unlock after the period set in the Timeout duration parameter
Timeout duration (seconds)	Period in seconds during which the user account remains locked. The minimum setting is 1 second
Manual	A locked user account stays locked until it is unlocked manually

3. Complete the fields as required.
4. Click **Save**.

## 5.2.4. Creating a new user account

### Procedure

1. From the **Access** tab, click **Local users**. The **Local user management** page opens.



Local user management

[Account policy settings](#) [+ Add user](#)

<input type="checkbox"/>	Username	Privilege	Account status		
	admin	Administrator	Enabled	<a href="#">✎</a>	<a href="#">🗑️</a>
	root	Administrator	Enabled	<a href="#">✎</a>	<a href="#">🗑️</a>

[> View privilege role descriptions](#)

2. Click **Add user** tab. The **Add user** page opens.

**Add user**
✕

---

**ACCOUNT STATUS**

Enabled

Disabled

**USER PASSWORD**

Password must between 8 – 20 characters

**USERNAME**

Cannot start with a number  
No special characters except underscore

**CONFIRM USER PASSWORD**

**PRIVILEGE**

Select an option ▼

---

Cancel
Add user

<b>Add user</b>	
Account status enabled	When selected, the user account is active and the user is able to log on. This is the default status
Account status disabled	When selected, the user's account is unavailable
Username	Name the user uses to log on <ul style="list-style-type: none"> <li>Names cannot start with a number</li> <li>Special characters are not allowed except underscores</li> </ul>
Privilege	Use the drop-down list to select the role to assign to the user
User password	The password the user will use to log on <ul style="list-style-type: none"> <li>Minimum password length: 8 characters</li> </ul>
Confirm user password	<ul style="list-style-type: none"> <li>Maximum password length: 20 characters</li> <li>The password must be different from the user name</li> <li>The password must not be the word 'password'</li> </ul>

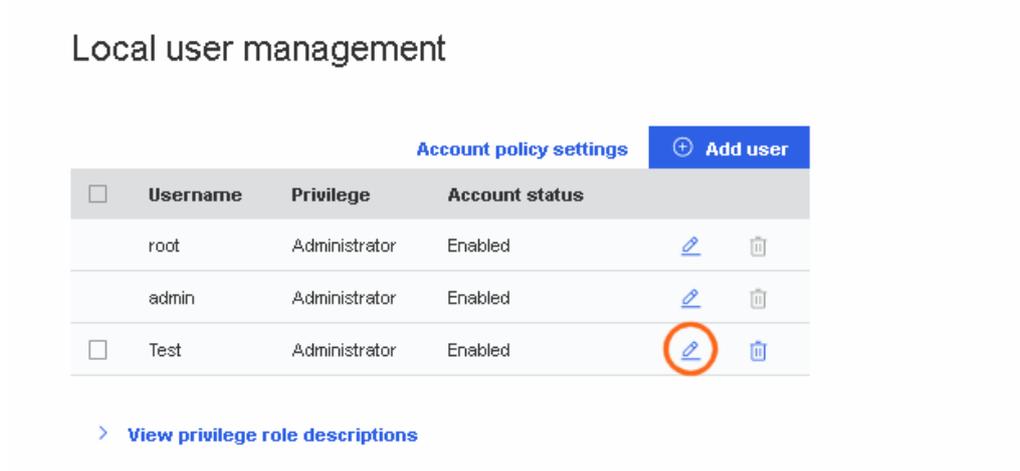
3. Complete the fields as required.

4. Click **Add user**. The user is created.

## 5.2.5. Modifying a user account

### Procedure

1. From the **Access** tab, click **Local users**. The **Local user management** page opens.



2. Click the **Edit** button of the required user. The **Modify user** page opens.

The 'Modify user' form is displayed with a close button (X) in the top right corner. It contains the following fields:

- ACCOUNT STATUS:** Radio buttons for 'Enabled' (selected) and 'Disabled'.
- USER PASSWORD:** A text input field with a password strength indicator and a note: 'Password must between 8 – 20 characters'. The field contains '\*\*\*\*\*'.
- CONFIRM USER PASSWORD:** A text input field with a note: 'Cannot start with a number. No special characters except underscore'. The field contains '\*\*\*\*\*'.
- USERNAME:** A text input field containing 'Test'.
- PRIVILEGE:** A dropdown menu with 'Administrator' selected.

At the bottom right, there are 'Cancel' and 'Save' buttons.

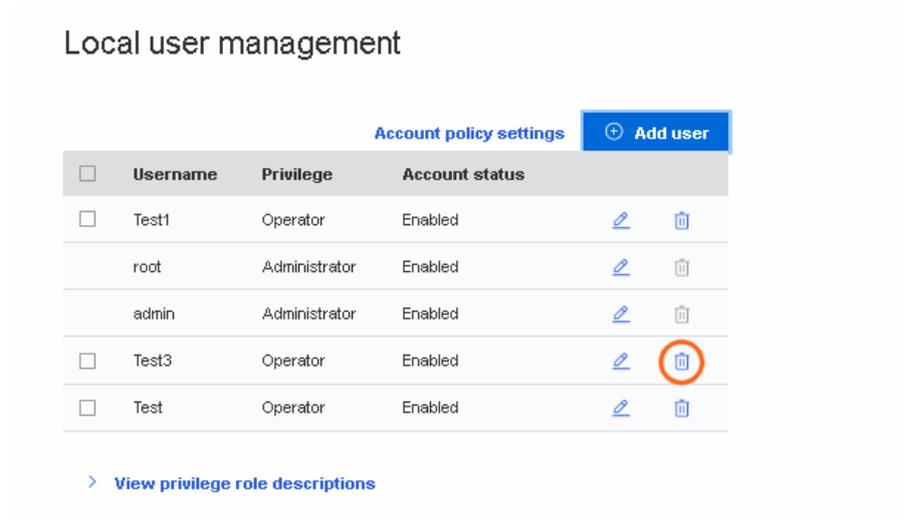
3. Modify one (or more) of the following fields depending on the requirements:
  - Account status
  - Username
  - Privilege
  - User password and Confirm user password
4. Click **Save**. User account details are changed.

## 5.2.6. Deleting a user account

### 5.2.6.1. Deleting a single user account

#### Procedure

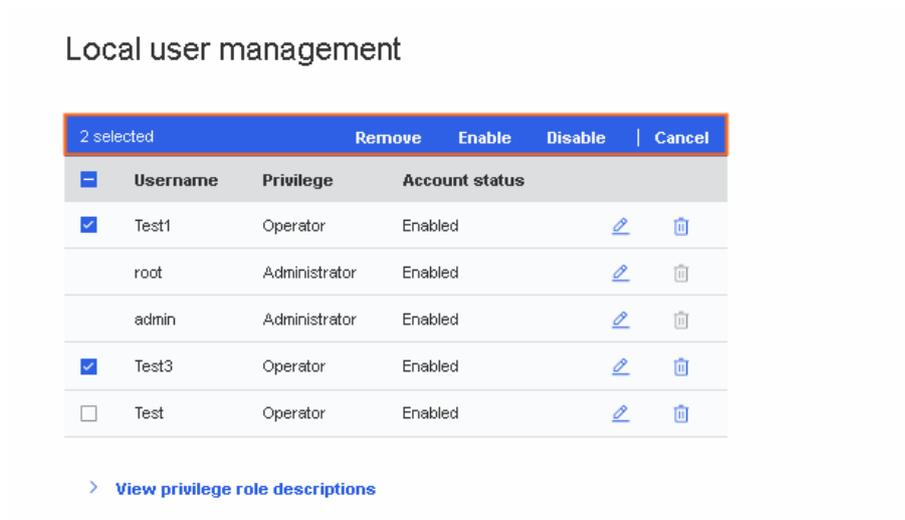
1. From the **Access** tab, click **Local users**. The **Local user management** page opens.



2. Click the remove button of the required user.
3. Click **Remove** in the confirmation dialog box to remove the user.

### 5.2.6.2. Deleting several user accounts

1. From the **Access** tab, click **Local users**. The **Local user management** page opens.
2. Select the required users. A new menu bar appears.

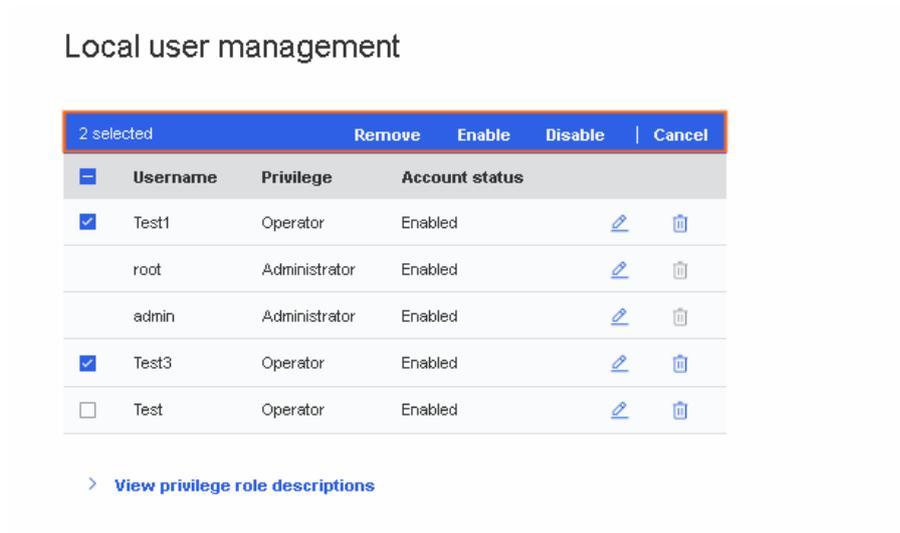


3. Click **Remove** in the menu bar.
4. Click **Remove** in the confirmation dialog box to remove the users.

## 5.2.7. Disabling/enabling user accounts

### Procedure

1. From the **Access** tab, click **Local users**. The **Local user management** page opens.
2. Select the required user(s). A new menu bar appears.

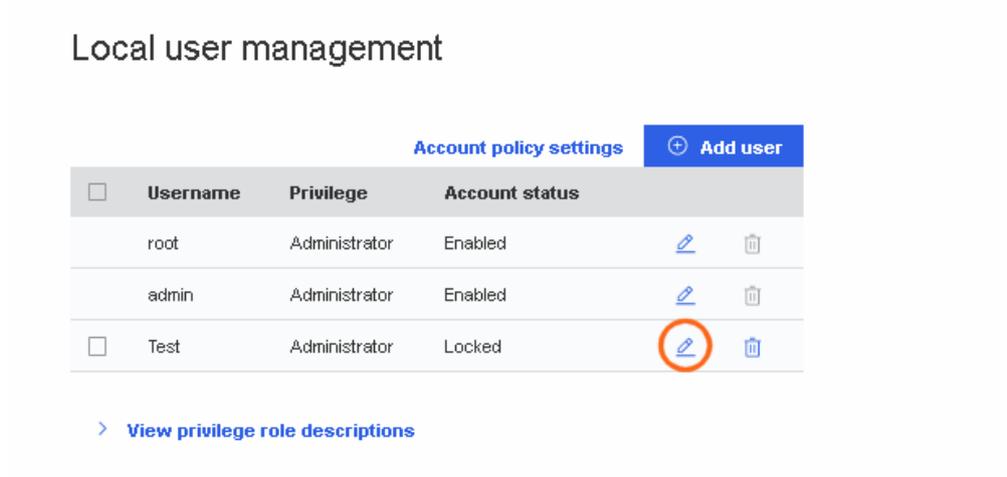


3. To disable the account(s), click **Disable** in the menu bar; to enable the account(s), click **Enable** in the menu bar.

## 5.2.8. Manually unlocking a user account

### Procedure

1. From the **Access** tab, click **Local users**. The **Local user management** page opens.



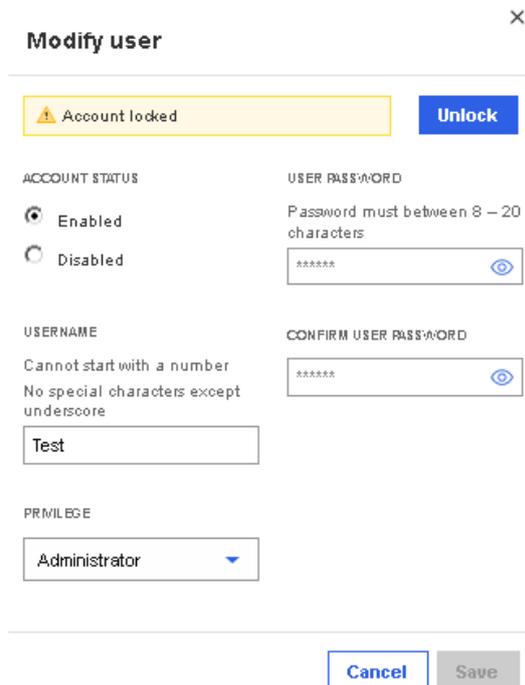
Local user management

Account policy settings [+ Add user](#)

<input type="checkbox"/>	Username	Privilege	Account status		
	root	Administrator	Enabled	<a href="#">✎</a>	<a href="#">🗑️</a>
	admin	Administrator	Enabled	<a href="#">✎</a>	<a href="#">🗑️</a>
<input type="checkbox"/>	Test	Administrator	Locked	<a href="#">✎</a>	<a href="#">🗑️</a>

> [View privilege role descriptions](#)

2. Click the Edit button to edit the locked user account.



Modify user ×

⚠️ Account locked [Unlock](#)

ACCOUNT STATUS

Enabled

Disabled

USER PASSWORD

Password must between 8 – 20 characters

\*\*\*\*\* [👁️](#)

USERNAME

Cannot start with a number  
No special characters except underscore

Test

PRIVILEGE

Administrator [▼](#)

[Cancel](#) [Save](#)

3. Click **Unlock**.
4. Click **Save**.

### 5.3. User roles and privileges

For each user account, a profile is created that includes the user name, the password and a role. Different sets of privileges are available for each user role.

Privilege	User Role			
	Admin	Operator	Read Only	No Access
Configure components managed by this service	X			
Configure manager resources	X			
Update password for current user	X			
Configure users and their accounts	X			
Log in to the service and read resources	X	X	X	
IPMI access point	X	X	X	
Redfish access point	X	X	X	
SSH access point	X			
Web UI access point	X	X	X	

---

**See** [Section 5.2. Managing users, on page 5-3](#)

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## 5.4. Managing SSL certificates

### 5.4.1. Viewing certificate list

#### Procedure

From the **Access** tab, click **SSL certificates**. The **SSL certificates** page opens.

#### SSL certificates

[+ Add new certificate](#)   [+ Generate CSR](#)

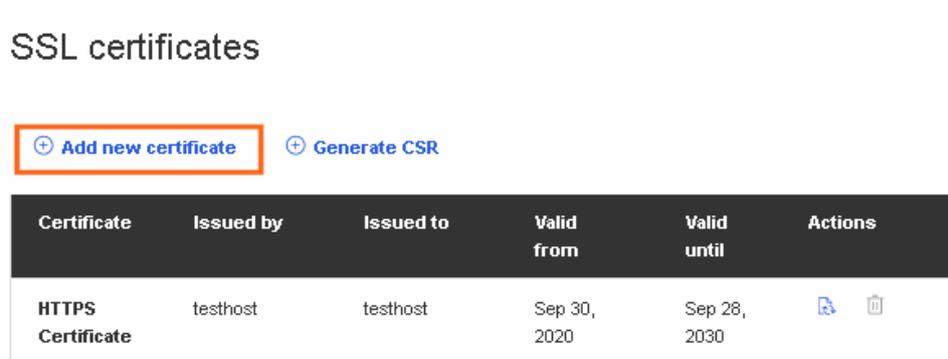
Certificate	Issued by	Issued to	Valid from	Valid until	Actions
HTTPS Certificate	testhost	testhost	Sep 30, 2020	Sep 28, 2030	 

SSL certificates	
Certificate	Certificate name
Issued by	Certificate details
Issued to	
Valid from	Validity period
Valid until	
Actions	
	Update button to replace the certificate
	Remove button to delete the certificate

## 5.4.2. Adding a certificate

### Procedure

1. From the **Access** tab, click **SSL certificates**. The **SSL certificates** page opens.



2. Click the **Add new certificate** tab. The **Add new certificate** page opens.

The screenshot shows the 'Add new certificate' dialog box. It has a title bar with a close button (X). The form contains the following elements:

- CERTIFICATE TYPE**: A drop-down menu with the text 'Select an option' and a downward arrow.
- CERTIFICATE FILE**: A button labeled 'Choose file' and a text area below it that says 'No file selected'.
- At the bottom right, there are two buttons: 'Cancel' and 'Save'.

3. Use the drop-down list to select a certificate type. There are two possible options:
  - LDAP Certificate
  - CA Certificate
4. Click **Choose file** and select a certificate file.

---

**Note** The certificate file must be a .pem file.

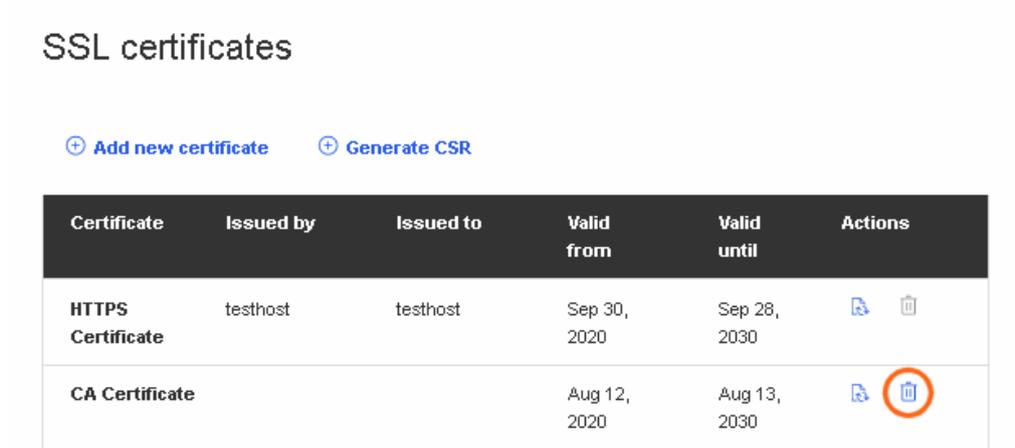
---

5. Click **Save**.

### 5.4.3. Deleting a certificate

#### Procedure

1. From the **Access** tab, click **SSL certificates**. The **SSL certificates** page opens.



2. Click the remove button of the required certificate.
3. Click **Remove** in the confirmation dialog box to remove the certificate.

## 5.4.4. Updating a certificate

### Procedure

1. From the **Access** tab, click **SSL certificates**. The **SSL certificates** page opens.

SSL certificates

[+ Add new certificate](#) [+ Generate CSR](#)

Certificate	Issued by	Issued to	Valid from	Valid until	Actions
HTTPS Certificate	testhost	testhost	Sep 30, 2020	Sep 28, 2030	 
CA Certificate			Aug 12, 2020	Aug 13, 2030	 

2. Click the update button of the required certificate.

SSL certificates

[+ Add new certificate](#) [+ Generate CSR](#)

Certificate	Issued by	Issued to	Valid from	Valid until	Actions
HTTPS Certificate	testhost	testhost	Sep 30, 2020	Sep 28, 2030	 
CA Certificate			Aug 12, 2020	Aug 13, 2030	 

×  No file selected

3. Click **Choose file** and select a certificate file.
4. Click **Replace**.

## 5.4.5. Generating a Certificate Signing Request (CSR)

### Procedure

1. From the **Access** tab, click **SSL certificates**. The **SSL certificates** page opens.

#### SSL certificates

[+ Add new certificate](#)

[+ Generate CSR](#)

Certificate	Issued by	Issued to	Valid from	Valid until	Actions
HTTPS Certificate	testhost	testhost	Sep 30, 2020	Sep 28, 2030	 

2. Click the **Generate CSR** tab. The **Generate CSR** page opens.

### Generate a Certificate Signing Request (CSR) ×

**GENERAL**

CERTIFICATE TYPE^

COUNTRY^

STATE^

CITY^

COMPANY NAME^

COMPANY UNIT^

COMMON NAME^

CHALLENGE PASSWORD

CONTACT PERSON

EMAIL ADDRESS

ALTERNATE NAME^  [+ Add another alternate name](#)

**PRIVATE KEY**

KEY PAIR ALGORITHM^

<b>General</b>	
Certificate type	Use the drop-down list to select the option required: <ul style="list-style-type: none"> <li>• HTTPS certificate</li> <li>• LDAP certificate</li> </ul>
Country	Use the drop-down list to select the country
State	Name of the state
City	Name of the city
Company name	Name of the company
Company unit	Generally the name of the department (within the company) using the system (example: Research and Development)
Common name	"Fully Qualified Domain Name" (FQDN) (example: hostName.DomainName.Top-LevelDomain).
Challenge password	Depending on the certification authority, it may be necessary to define a password to authorize changes being made later to the certificate (For example: revocation of the certificate).
Contact person	Generally the administrator's name
Email address	Generally the administrator's email address
Alternate name	Subject alternative name
Add another alternate name	Click to add another Alternate name field
<b>Private key</b>	
Key pair algorithm	Use the drop-down list to select the option required: <ul style="list-style-type: none"> <li>• EC</li> <li>• RSA</li> </ul>
Key curve ID	This field is displayed when the EC option is selected. Use the drop-down list to select the option required: <ul style="list-style-type: none"> <li>• None</li> <li>• prime256v1</li> <li>• secp521r1</li> <li>• secp384r1</li> </ul>
Key bit length	This field is displayed when the RSA option is selected. Length of the generated key in bits. Use the drop-down list to select 2048 bits

3. Complete the fields as required.

4. Click **Generate CSR**. A new page opens.



5. Click **Copy** or **Download** to save the CSR to the computer and to send it to the Certification Authority, who will check the information, and then generate and return a signed certificate.





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