# PMU CLI tool

The HS350X V3 command line interface tool

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# PMU overview

The HS350X V3 does not support OneCLI and instead uses PMU (Platform management utility) CLI. PMU can be used to perform various server management actions, including:

- Display inventory information
- Configure the server
- Collect service data
- Update firmware
- Power actions

PMU supports both out-of-band (OOB) and in-band mode.
PMU is only supported in a Linux environment.

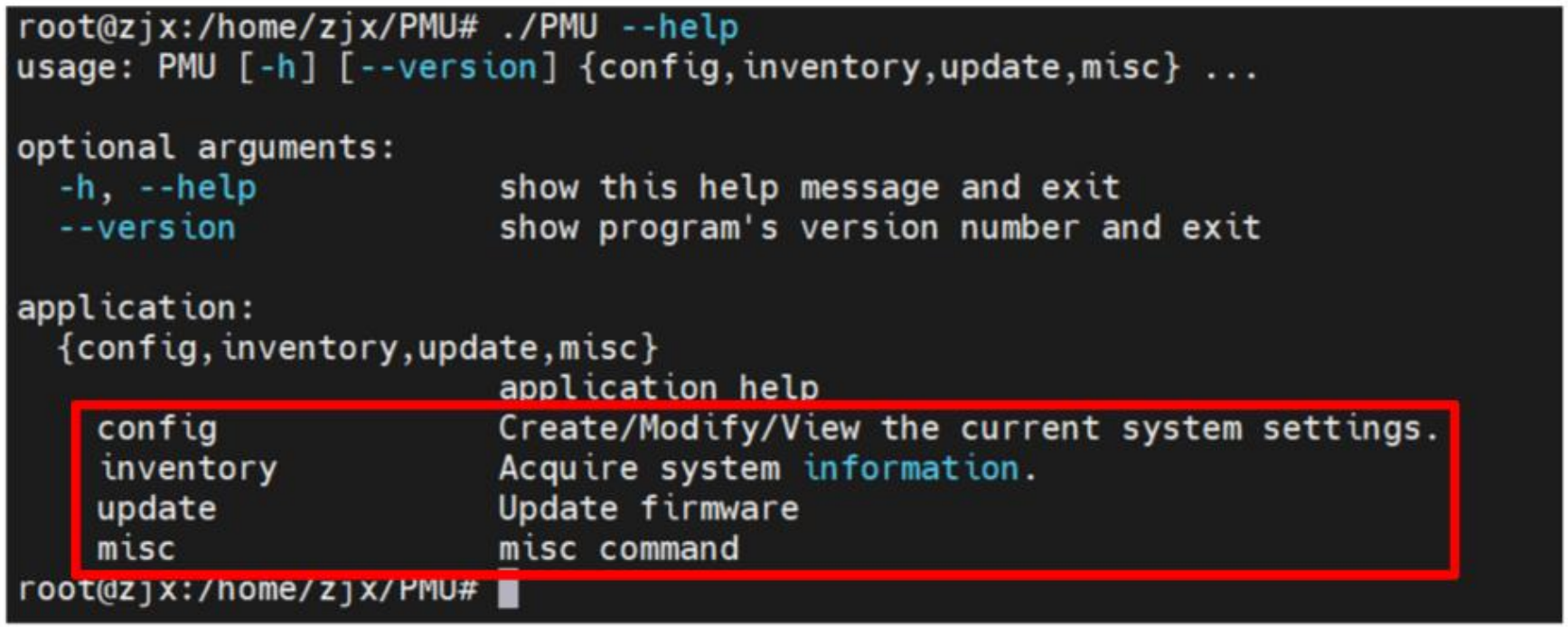
# How to run PMU

To use PMU, work through the following steps:

- Obtain the PMU zip file (a tar.gz file) from support.Lenovo.com and save it on a Linux system.
- Move the tar.gz file to the desired directory, and then decompress it by running the following shell command: `tar -zxvf <PMU tar.gz filename>`
  Example: `tar -zxvf PMU_1.02_20230901.tar.gz`
- Run the `./PMU` command to display all the PMU command options.

# PMU help command

Use the `./PMU help` command to display available PMU usages. In this screenshot, you can see the four PMU applications: config, inventory, update, and misc.



# PMU command syntax construction

PMU command line syntax is similar to OneCLI syntax, and you can see its construction below.

```
./PMU <application> <application's command> <command's option>
<optional variable for parameter> <optional BMC username,
password, and IP address if you are using OOB mode>
```

**Example:**

To obtain hardware and software information (system overview) for the target system, use the following command:

```
./PMU inventory getinfor --device system_overview --bmc
admin:Passw0rd@10.50.105.150
```

# Useful PMU commands

Click the buttons to see the syntax and output of selected PMU commands.

Check system health

Collect service data

Update firmware

Display UEFI settings

Modify UEFI settings

Use the following command to check system health status:

**Syntax:**

```
./PMU misc syshealth --bmc <BMC account>:<BMC password>@<BMC IP address>
```

**Example:**

```
./PMU misc syshealth --bmc admin:aZ!123456@10.50.10.150
```

**Command output**

```
{
    "State": "Success",
    "Message": [
        {
            "System": "OK",
            "CPU": "OK",
            "Memory": "OK",
            "PSU": "OK",
            "Fan": "OK"
        }
    ]
}
```

# Useful PMU commands

Click the buttons to see the syntax and output of selected PMU commands.

Check system health

Collect service data

Update firmware

Display UEFI settings

Modify UEFI settings

Use the following command to collect service data for problem escalation:

**Syntax:**

```
./PMU misc ffdc -file <filename>
```

**Example:**

```
./PMU misc ffdc --file ffdclog.tar
```

**Command output**

```
2023-08-31 14:17:04 Start to get ffdc log, please wait a few
minutes...
2023-08-31 14:18:02 End
2023-08-31 14:18:02 Start to save log to file...
2023-08-31 14:18:02 End
{
    "State": "Success",
    "Message": [
        "Collected data is saved to file: ffdclog.tar"
    ]
}
```

# Useful PMU commands

Click the buttons to see the syntax and output of selected PMU commands.

Check system health

Collect service data

Update firmware

Display UEFI settings

Modify UEFI settings

Use the following command to update system firmware:

**Syntax:**

```
./PMU update flash --dir ./package --forceid <firmware filename> --type <firmware type> --preserve --bmc <BMC account>:<BMC password>@<BMC IP address>
```

The firmware types are UEFI, BMC, and CPLD. Click the following links to see examples:

Update UEFI firmware

Update BMC firmware

Update CPLD firmware (which includes system board CPLD, DC-SCM CPLD, and backplane CPLD)

# Useful PMU commands

Click the buttons to see the syntax and output of selected PMU commands.

Check system health

Collect service data

Update firmware

Display UEFI settings

Modify UEFI settings

Use the following command to display UEFI settings:

**Syntax:**

```
./PMU config show UEFI --bmc <BMC account>:<BMC password>@<BMC IP address>
```

**Example:**

```
./PMU config show UEFI --bmc admin:aZ!123456@10.50.10.150
```

**Command output**

```
{
    "State": "Success",
    "Message": [
        {
            "ACPI004(Enable ACPI Auto Configuration)": false,
            "ACPIPB(Power Button)": "Unlock",
            "ACPIPD(Power Delay Button)": "Enable",
            "ACPIPRM(PSU Redundant Mode)": "Auto mode",
            "ACPIWOLS(Wake On Lan Support)": "Disable",
            "BootMode(Boot Mode Select)": "UEFI",
            "BootPerfMode(Boot performance mode)": "Max Performance",
            "C1E(Enhanced Halt State (C1E))": "Enable",
.....
}
    ]
}
```

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# Useful PMU commands

Click the buttons to see the syntax and output of selected PMU commands.

Check system health

Collect service data

Update firmware

Display UEFI settings

Modify UEFI settings

Use the following command to modify UEFI settings:

**Syntax:**

```
./PMU config set <UEFI option> <option value> --bmc <BMC account>:<BMC password>@<BMC IP address>
```

**Example:**

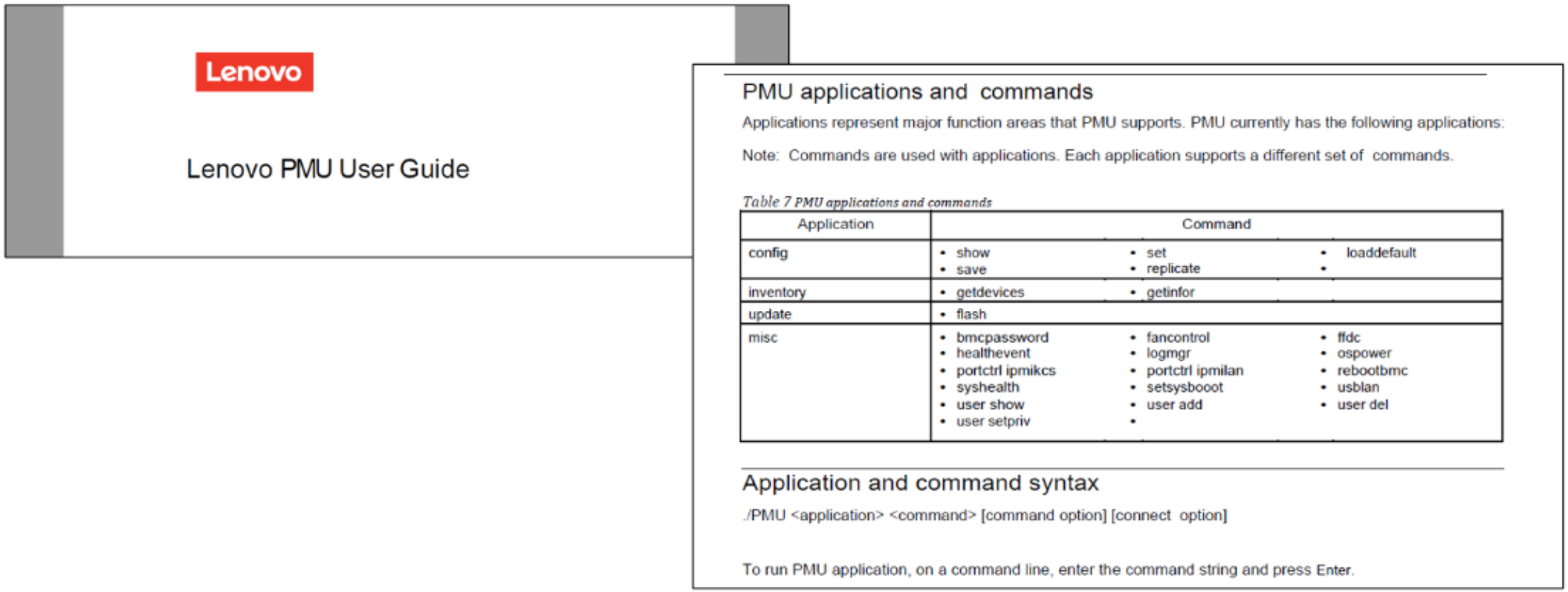
```
./PMU config set BootMode UEFI --bmc admin:aZ!123456@10.50.10.150
```

**Command output**

```
{
    "State": "Success",
    "Message": [
        "BootMode set Successful"
    ]
}
```

# Reference

For more information about PMU command line syntax and usages, refer to the Lenovo PMU User Guide on support.Lenovo.com.



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Lenovo PMU User Guide

## PMU applications and commands

Applications represent major function areas that PMU supports. PMU currently has the following applications:

Note: Commands are used with applications. Each application supports a different set of commands.

*Table 7 PMU applications and commands*

| Application | Command | | |
|---|---|---|---|
| config | • show<br>• save | • set<br>• replicate | • loaddefault<br>• |
| inventory | • getdevices | • getinfor | |
| update | • flash | | |
| misc | • bmcpassword<br>• healthevent<br>• portctrl ipmikcs<br>• syshealth<br>• user show<br>• user setpriv | • fancontrol<br>• logmgr<br>• portctrl ipmilan<br>• setsysbooot<br>• user add<br>• | • ffdc<br>• ospower<br>• rebootbmc<br>• usblan<br>• user del |

## Application and command syntax

./PMU <application> <command> [command option] [connect option]

To run PMU application, on a command line, enter the command string and press Enter.

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