

HPE Gen10 Plus & Gen10 服务器

iLO5 中通过 iLO 联合批量升级 BIOS 固件

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一. 适用范围与注意事项

- 本文档旨在说明 HPE Gen10 Plus & Gen10 系列服务器通过 iLO5 Federation 界面批量升级 BIOS 固件方法。
- 实际情况是否适用本文档，请通过下面导航链接进行确认：
<https://zhiliao.h3c.com/Theme/details/218273>
- 提示：
 - 本文档中的信息（包括产品，软件版本和设置参数）仅作参考示例，具体操作与目标需求设置请以实际为准。
 - 固件更新有风险，请注意提前备份数据。
 - 本文档不定期更新维护，请以发布的最新版本为准。

二. 升级准备

1. 固件获取

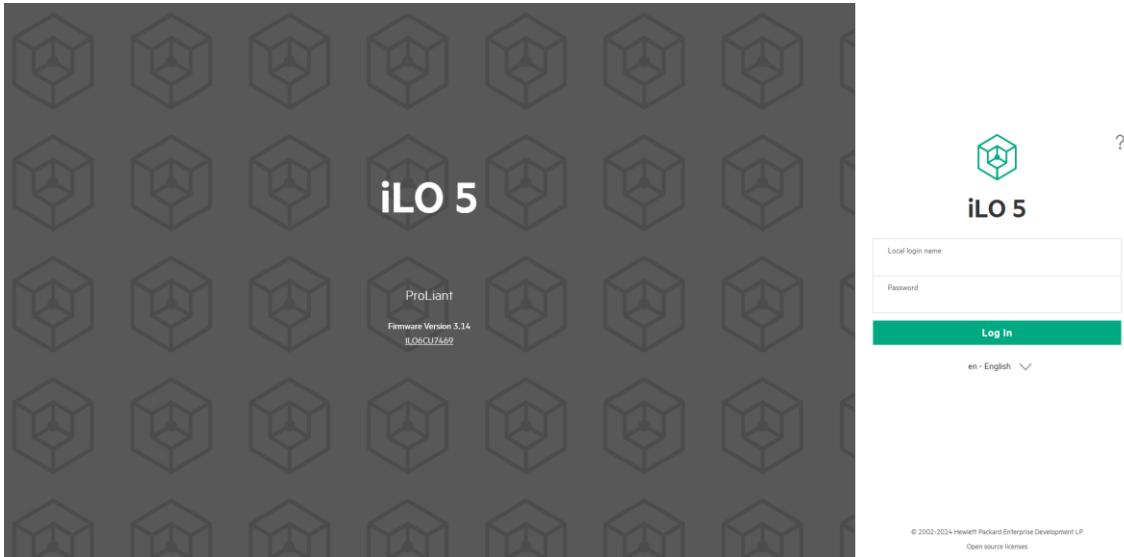
具体方法请参考：<https://zhiliaoh3c.com/Theme/details/216386>

2. 连接 iLO5

具体方法请参考：<https://zhiliaoh3c.com/Theme/details/216337>

三. 升级步骤

1. 访问 iLO5

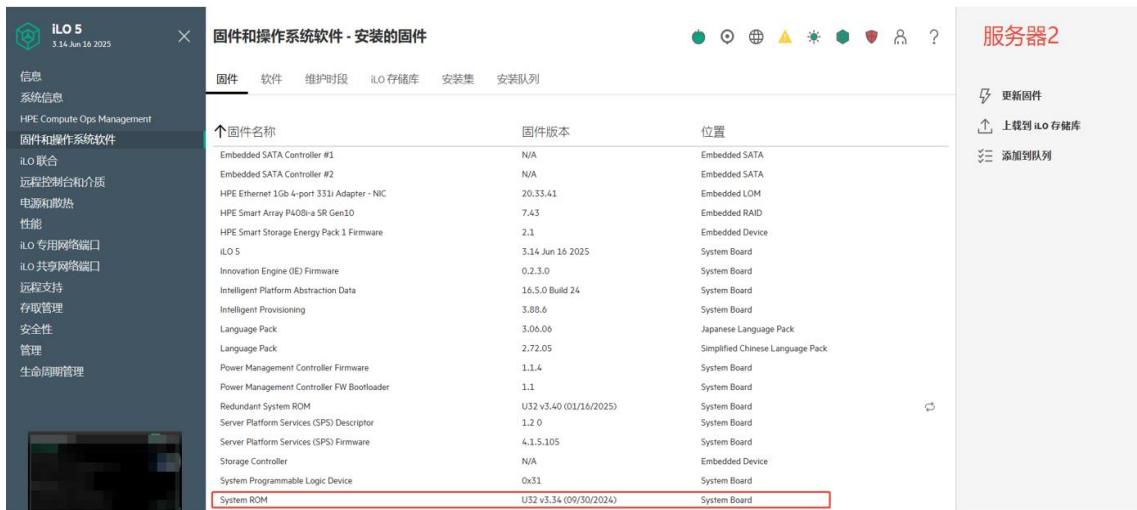


2. 通过 iLO5 检查固件更新前的版本

通过 iLO5 页面 **Firmware & OS Software - Installed Firmware** 查看 BIOS 的固件版本。

本文以批量升级两台服务器为例。

| Name | Version | Location |
|--|-------------------------------|----------------------------------|
| 900GB 12G SAS HDD | HPDA | Slot 0/Port 1/Box=1/Bay=2 |
| 900GB 12G SAS HDD | HPDA | Slot 0/Port 1/Box=1/Bay=3 |
| 900GB 12G SAS HDD | HPDA | Slot 0/Port 1/Box=1/Bay=4 |
| Embedded SATA Controller #1 | N/A | Embedded SATA |
| Embedded SATA Controller #2 | N/A | Embedded SATA |
| HPE Ethernet 1Gb 4-port 331i Adapter - NIC | 20.24.41 | Embedded LOM |
| HPE Smart Array P408i-a SR Gen10 | 7.11 | Embedded RAID |
| HPE Smart Array S100 SR Gen10 | 2.04-0 | Embedded Device |
| HPE Smart Storage Energy Pack 1 Firmware | 0.60 | PCI-E Slot 1 |
| HPE SN15000 32Gb 2p FC HBA | 2.04.01 | System Board |
| iLO 5 | 3.14 Jun 16 2025 | System Board |
| Innovation Engine (IE) Firmware | 0.23.0 | System Board |
| Intelligent Platform Abstraction Data | 16.5.0 Build 24 | System Board |
| Intelligent Provisioning | 3.89.4 | System Board |
| Language Pack | 2.72.05 | Simplified Chinese Language Pack |
| Power Management Controller Firmware | 1.1.4 | System Board |
| Power Management Controller FW Bootloader | 1.1 | System Board |
| Power Supply Firmware | 1.00 | Bay 1 |
| Power Supply Firmware | 1.00 | Bay 2 |
| Redundant System ROM | U32 v2.76 (02/09/2023) | System Board |
| Server Platform Services (SPS) Descriptor | 1.2.0 | System Board |
| Server Platform Services (SPS) Firmware | 4.1.5.2 | System Board |
| System Programmable Logic Device | 0x2E | System Board |
| System ROM | U32 v3.10 (02/22/2024) | Slot 0/Port 1/Box=1/Bay=2 |



3. 通过 iLO 联合更新 BIOS 固件

3.1 下载与解压固件

- 1) 通过 [HPE 官网](#) 搜索对应服务器的 BIOS 固件，可选择任意 Windows Server 系统，下载 exe 固件文件。

The screenshot shows the HPE Support Center interface for the Online ROM Flash Component. The main page displays a list of available versions for different server models. On the right, a modal window titled "Download Software" is open, showing the "cp066792.exe" file selected for download. The file size is 11 MB and its SHA256 checksum is provided.

- 2) 将 exe 文件解压缩，获取 xxx.flash 文件。

| | | | |
|--|-----------------|--------------------|-----------|
| cp066792.exe | 2025/7/8 13:31 | 应用程序 | 11,552 KB |
| cp066792 | 2025/7/8 13:31 | 文件夹 | |
| cp066792.xml | 2025/4/18 10:14 | Microsoft Edge ... | 504 KB |
| cpqsetup.exe | 2024/4/7 20:09 | 应用程序 | 177 KB |
| LICENSE.txt | 2024/6/18 6:53 | 文本文档 | 10 KB |
| payload.json | 2025/4/18 10:14 | JSON 文件 | 1 KB |
| SecureFlash64.dll | 2024/6/18 6:58 | 应用程序扩展 | 520 KB |
| U30_350_04_17_2025.signed.flash | 2025/4/18 9:46 | FLASH 文件 | 32,777 KB |

3.2 在 iLO 联合中配置 Group

- 在第一台服务器的 iLO Federation (iLO 联合) 中点击 Join Group (加入组)。

The screenshot shows the 'iLO Federation - Setup' interface. On the left is a sidebar with various navigation options. The main area is titled 'Group Membership for this iLO' and contains a section for 'Multicast Options'. A red box highlights the 'Join Group' button at the top of this section. Below it are checkboxes for 'ILO Federation Management' and 'Multicast Discovery', and fields for 'Multicast Announcement Interval' and 'Multicast Scope'. At the bottom is an 'Apply' button.

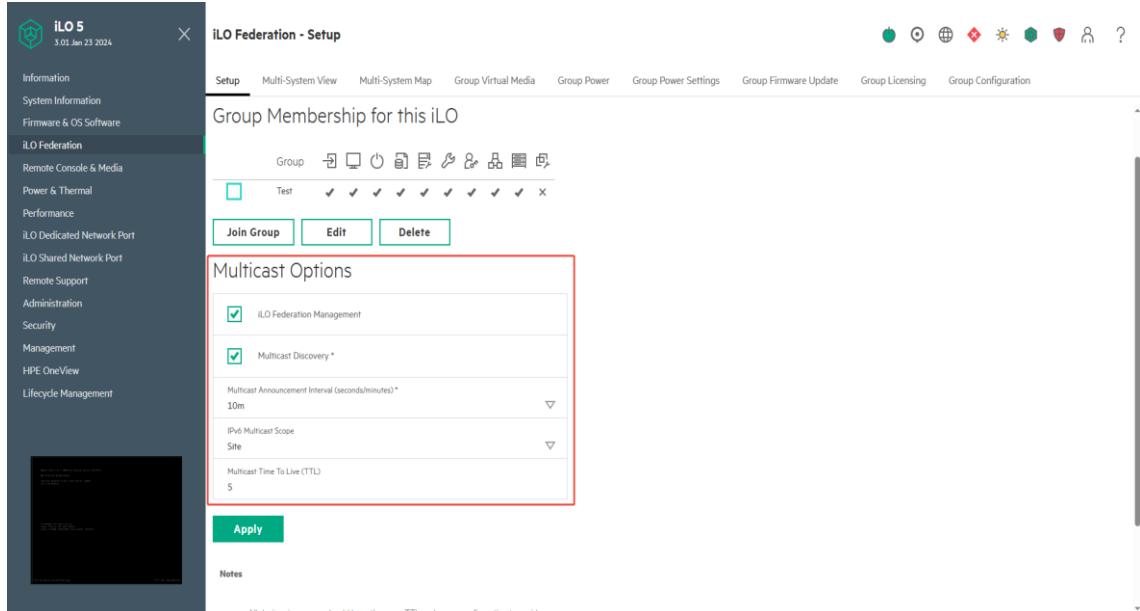
- 设置 Group Name (组名) 及 Group Key (组密码)。

The screenshot shows the 'iLO Federation - Setup' interface. The 'Group Name' field is set to 'Test' and is highlighted with a red box. Below it are fields for 'Group Key' and 'Group Key Confirm', also highlighted with a red box. To the right is a 'Group Permissions' section with a list of checkboxes for various management functions, none of which are checked. At the bottom is a 'Join Group' button.

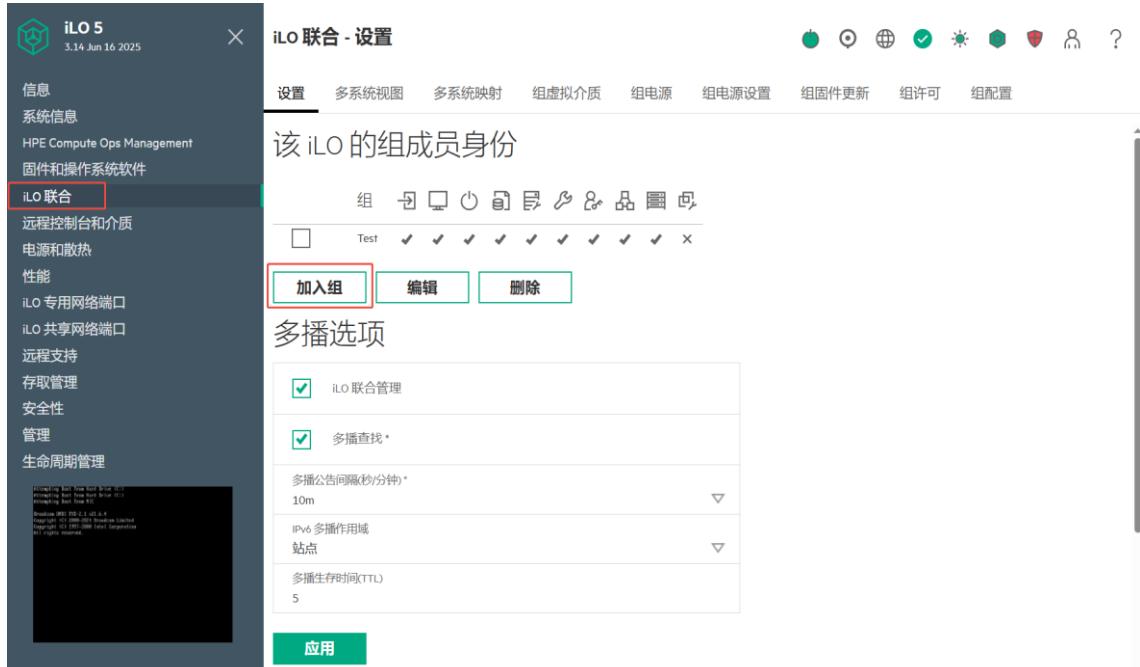
- 勾选组权限，并点击 Join Group (加入组)。

The screenshot shows the 'iLO Federation - Setup' interface. The 'Group Name' field is set to 'Test'. The 'Group Key' and 'Group Key Confirm' fields are present but not highlighted. The 'Group Permissions' section shows a list of checkboxes for various management functions, all of which are now checked (indicated by a red box). At the bottom is a 'Join Group' button, which is also highlighted with a red box.

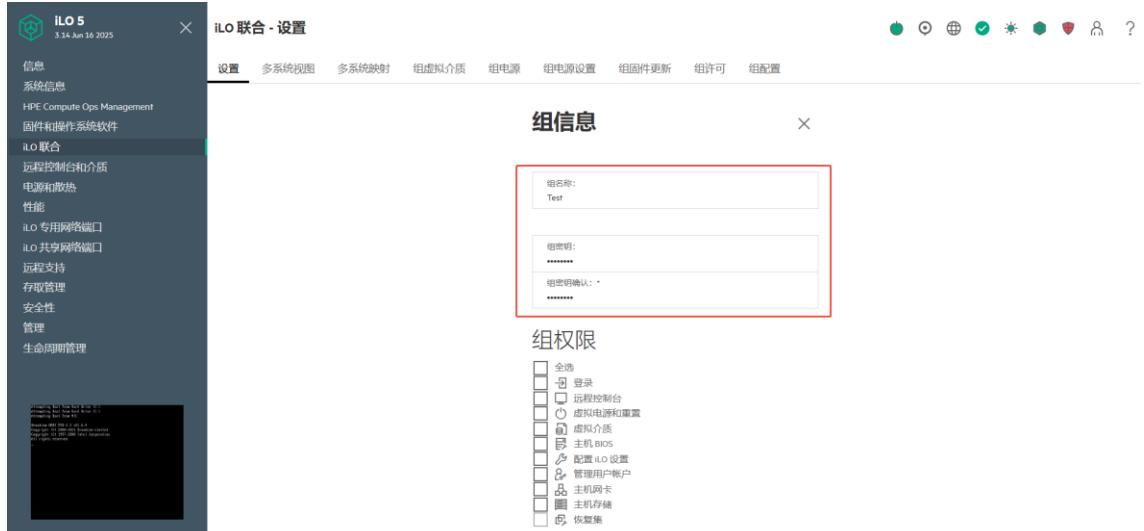
4) 设置 **Multicast Options (多播选项)**, 如无特殊要求, 保持默认即可。



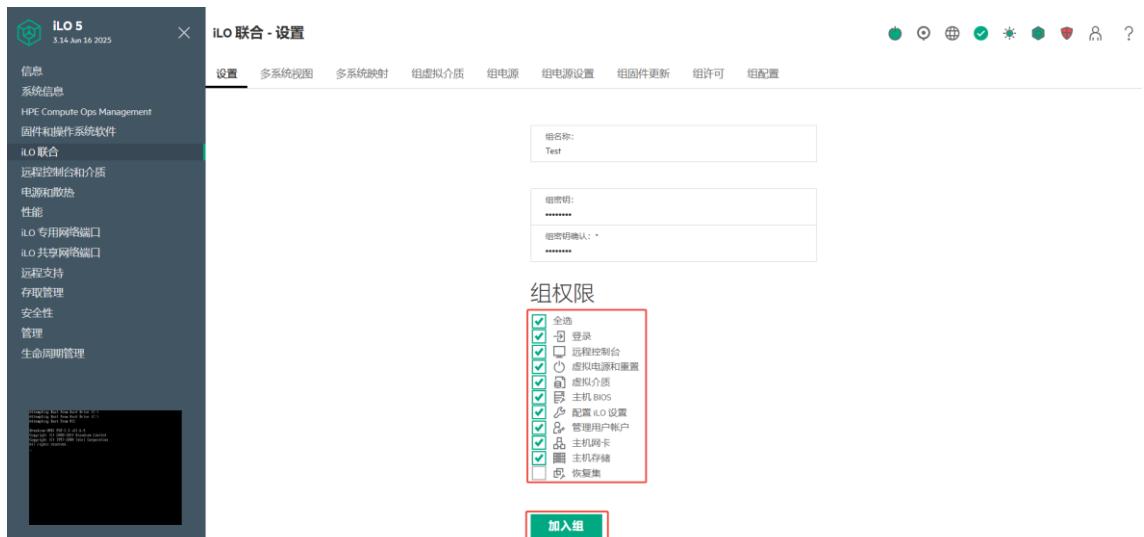
5) 登录其他需要升级的服务器的 iLO 界面, 通过 **iLO Federation (iLO 联合) - Join Group (加入组)**, 将其也加入相同的 Group。



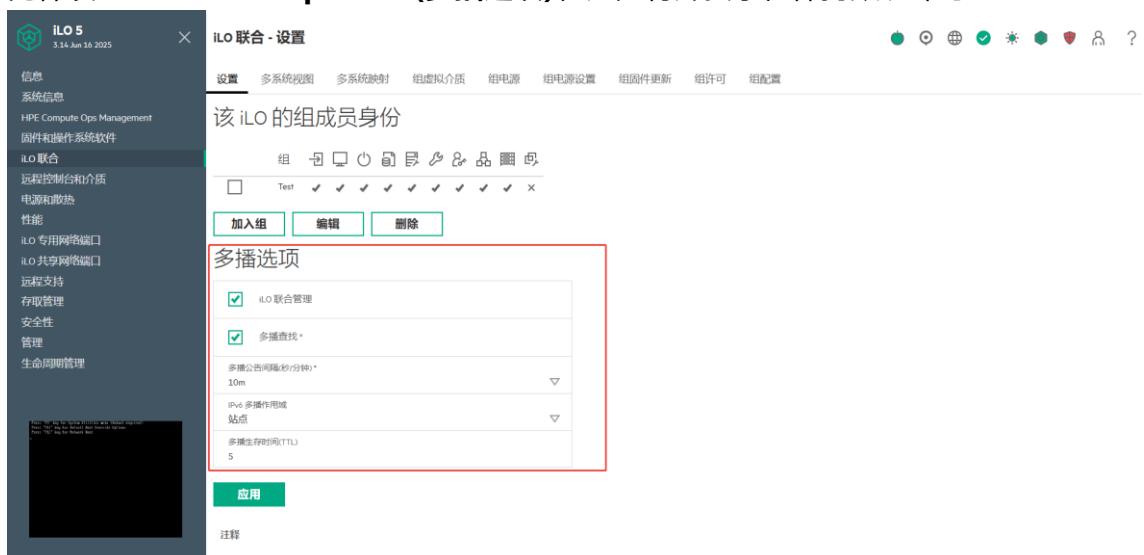
6) 输入相同的组信息。



7) 勾选对应的组权限并点击加入组。

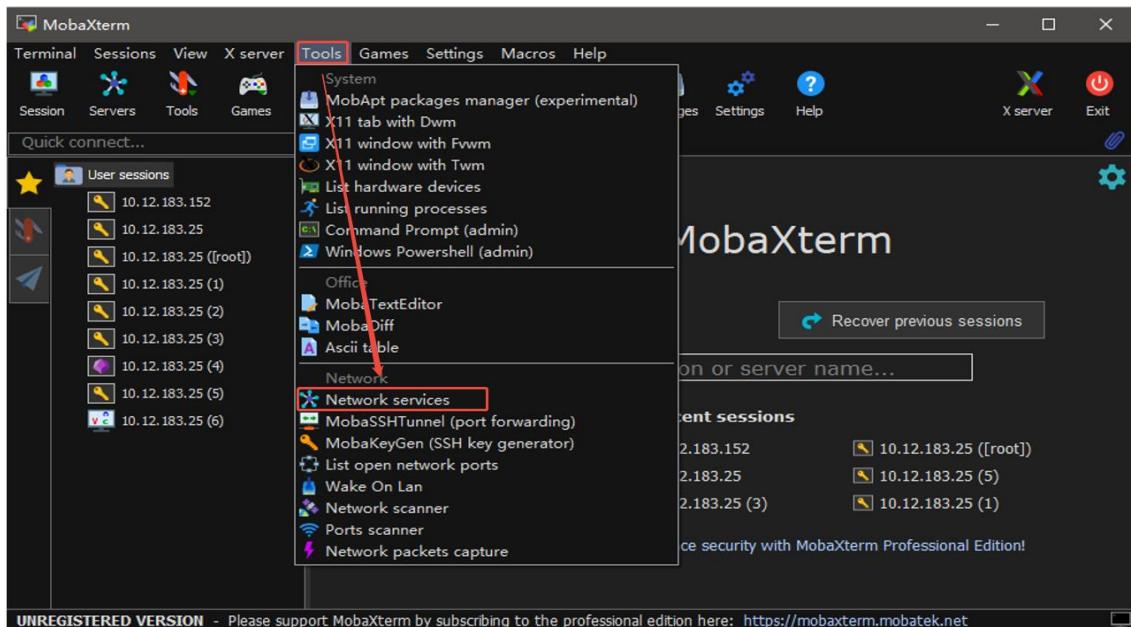


8) 同样设置 Multicast Options (多播选项)，如无特殊要求，保持默认即可。



3.3 设置 Web 服务器 (以使用第三方 MobaXterm 为例)

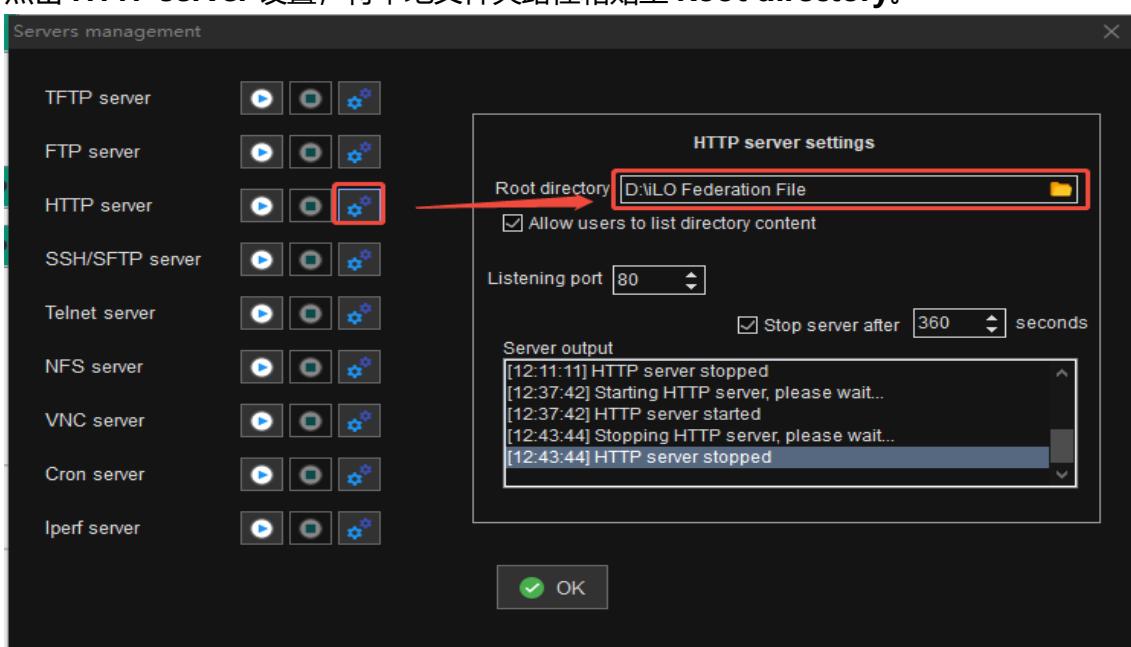
1) 打开 Tools 中的 Network services 工具。



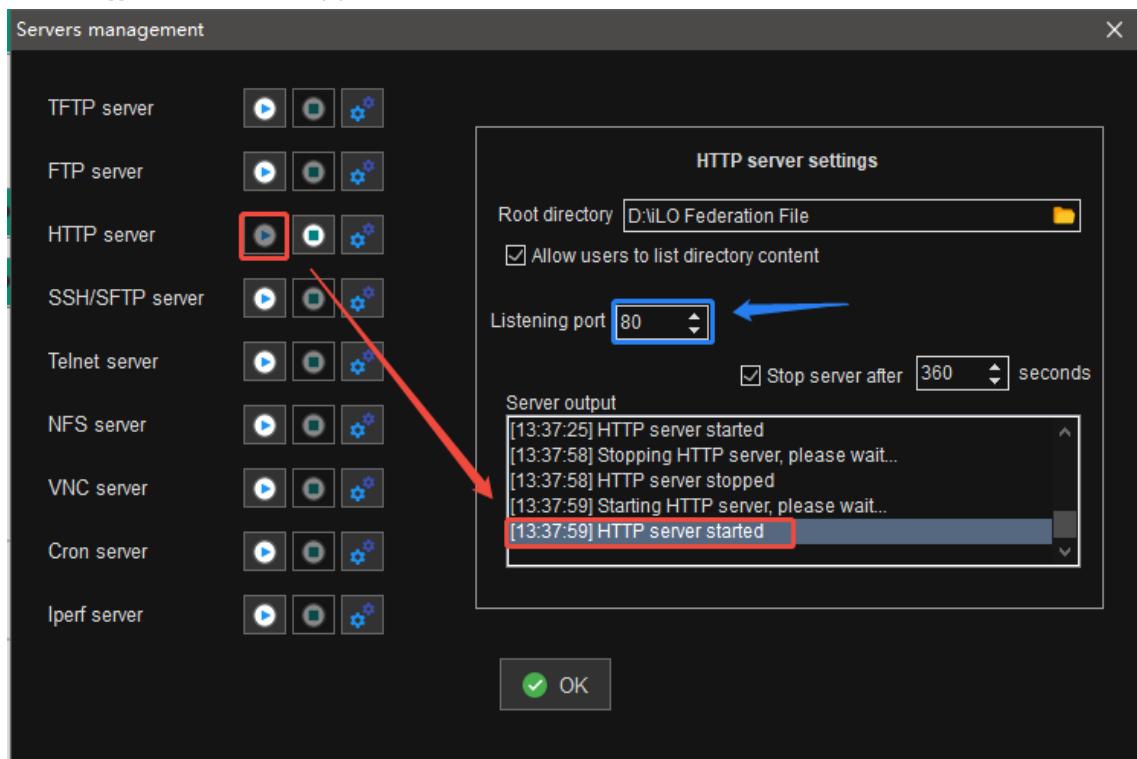
2) Network services 工具可以将本地文件夹作为 Web 服务器使用。复制要作为 Web 服务器使用的本地文件夹路径。



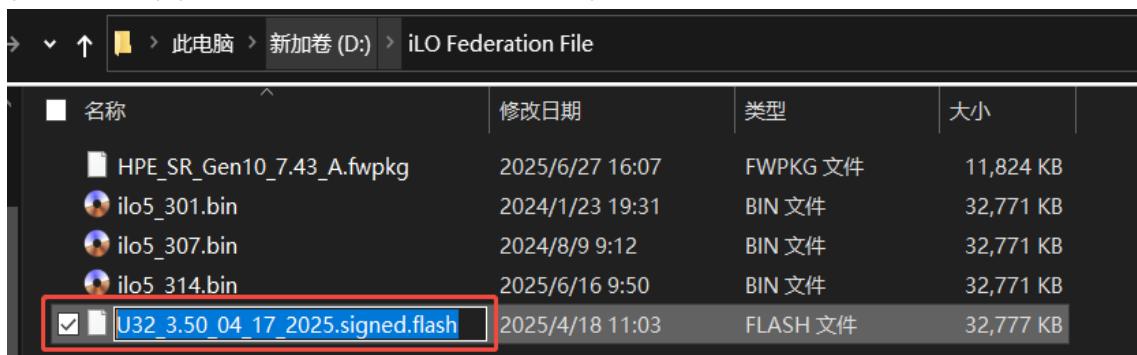
3) 点击 HTTP server 设置，将本地文件夹路径粘贴至 Root directory。



4) 点击开始, Web 服务器启动。



5) 将要升级的固件文件放入本地 Web 服务器路径下。

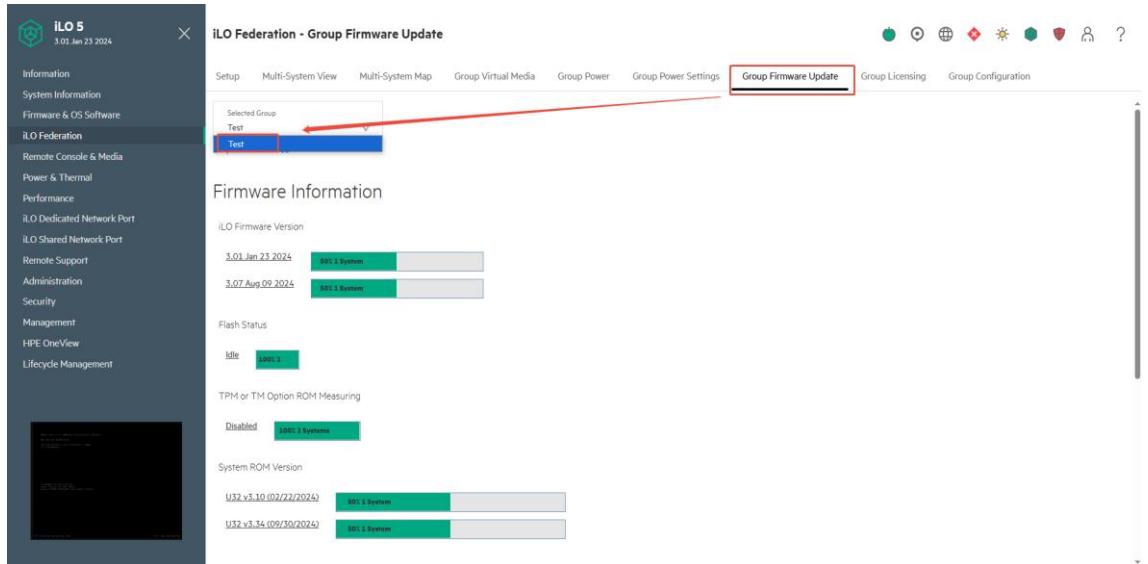


6) 查看本机 IP 地址。

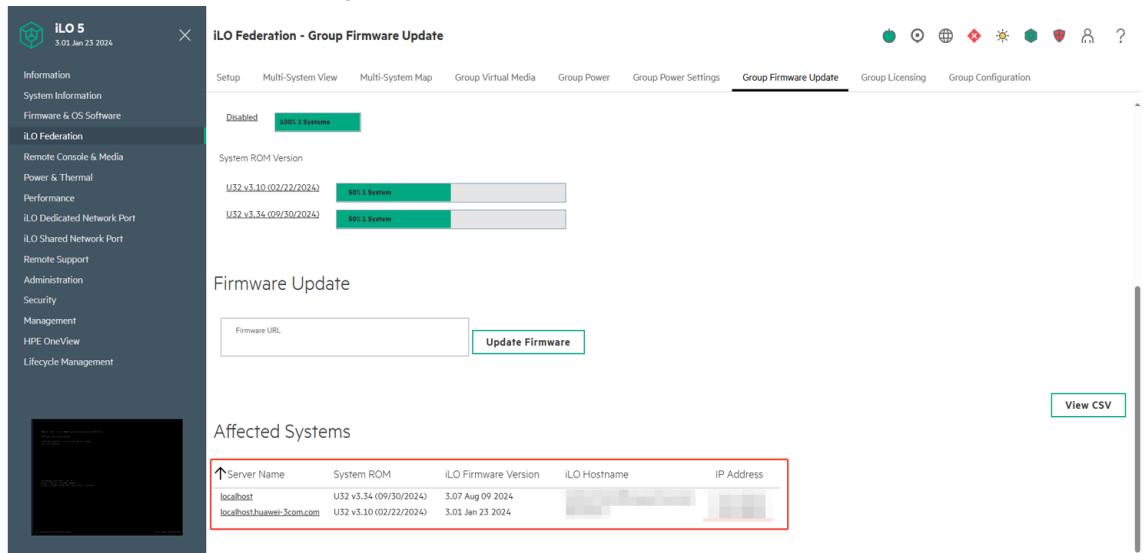


3.4 在 iLO 联合中更新 BIOS 固件

- 在 **iLO Federation - Group Firmware Update - Selected Group** 中选择已加入的 Group。



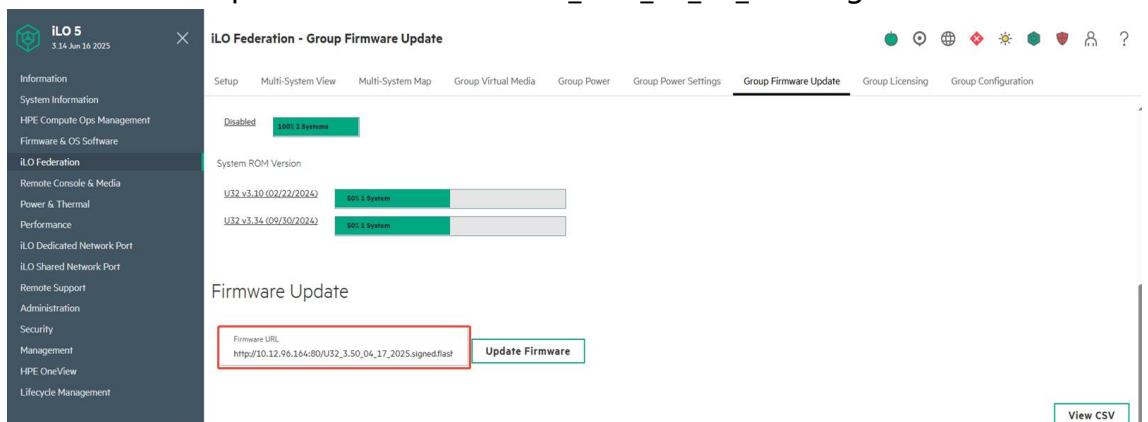
2) 选择后，可在 **Affected Systems** 位置看到组内的服务器列表。



3) 在 **Firmware URL** 中输入 Web 服务器上的 URL。

要输入的 URL 类似于以下形式: `http://<web 服务器地址/<.bin 文件所在路径>`

本文举例如下 `http://10.12.96.164:80/U30_3.50_04_17_2025.signed.flash`

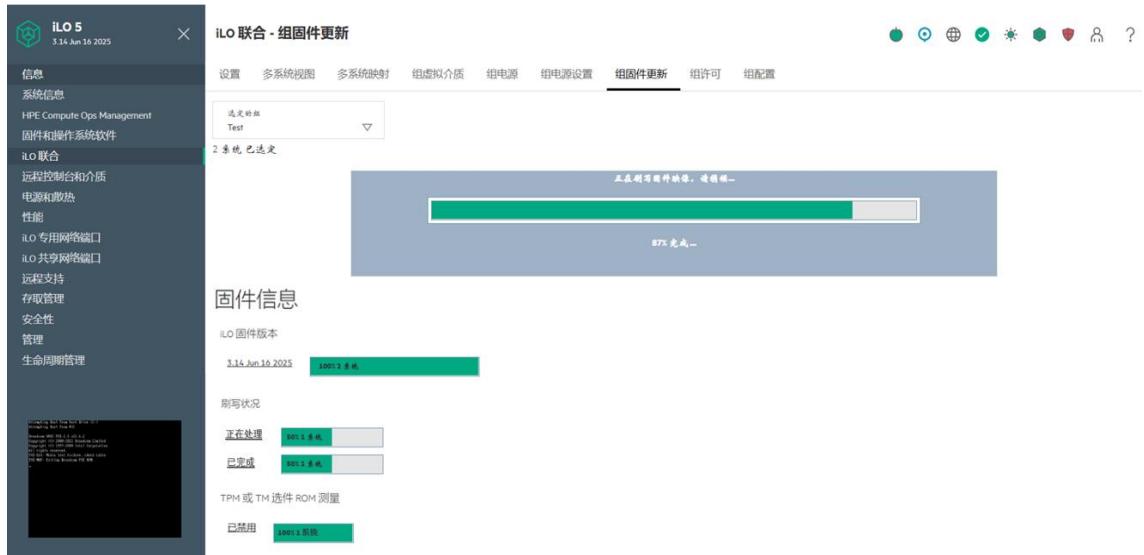


4) 输入 URL 后，点击 **Update Firmware** 开始更新。

The screenshot shows the iLO Federation - Group Firmware Update interface. On the left, there's a sidebar with navigation links like Information, System Information, HPE Compute Ops Management, etc. The main area has tabs for Setup, Multi-System View, Multi-System Map, Group Virtual Media, Group Power, Group Power Settings, and Group Firmware Update (which is selected). Under Group Firmware Update, it shows 'Disabled' status for 100% of 2 Systems. Below that, 'System ROM Version' lists two entries: 'U32 v3.10 (02/22/2024)' and 'U32 v3.34 (09/30/2024)', both with 100% completion. A 'Firmware Update' section contains a 'Firmware URL' input field with the value 'http://10.12.96.164:80/U32_3.50_04_17_2025.signed.flash' and a red-bordered 'Update Firmware' button. Another section titled 'Firmware Information' shows 'iLO Firmware Version' as '3.14 Jun 16 2025' and 'TPM or TM Option ROM Measuring' as 'Disabled'. At the bottom, 'Affected Systems' lists two systems with their details: Server Name, System ROM, iLO Firmware Version, iLO Hostname, and IP Address.

5) 查看两台服务器均在更新中。

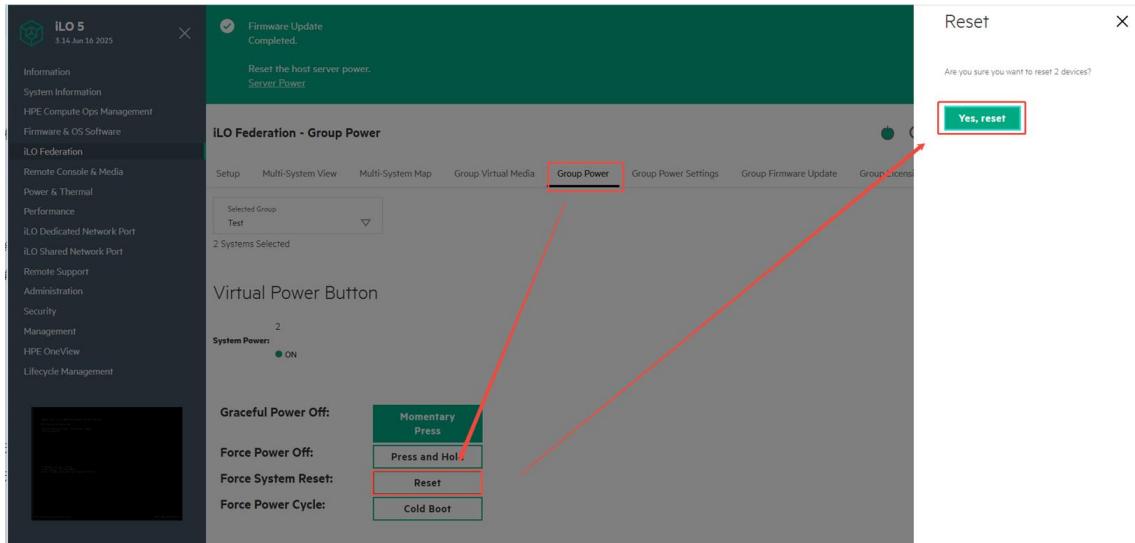
This screenshot shows the same interface as above, but the 'Affected Systems' table now includes a 'Flash Status' column. For both servers, it shows 'Uploading' with a progress bar at 7%. The rest of the interface remains the same, including the sidebar, navigation tabs, and the 'Firmware Update' section with its URL and button.



6) 固件刷新完毕。

The screenshot shows the 'iLO Federation - Group Firmware Update' page with a green success message: 'Firmware Update Completed.' It also shows the 'Affected Systems' section with a list of 2 systems. Below it, the 'iLO 联合 - 组固件更新' page shows the same progress bar and information as the previous screenshot.

7) 点击 Group Power 的 Reset 批量重启服务器。



8) 服务器重启后固件更新生效

The screenshot displays the iLO 5 interface with two main windows. The left window shows the 'Firmware & OS Software - Installed Firmware' section, listing various system components and their current firmware versions. The 'System ROM' entry is highlighted with a red box. The right window shows the 'Hardware Inventory' section, listing hardware components like drives and controllers. A separate window titled '服务器1' (Server 1) shows a 'Firmware Queue' with three items: 'Update Firmware', 'Upload to iLO Repository', and 'Add to Queue', all of which are highlighted with red boxes.

4. 通过 iLO5 检查固件更新后的版本

与本文<[2.通过 iLO5 检查固件更新前的版本](#)>方法一致，完成更新后可到 iLO5 相应页面查看更新后的固件版本，以验证更新是否成功。