

LiveAction™ Quick Start Guide

LiveAction Net LineDancer Network Change and Configuration Management

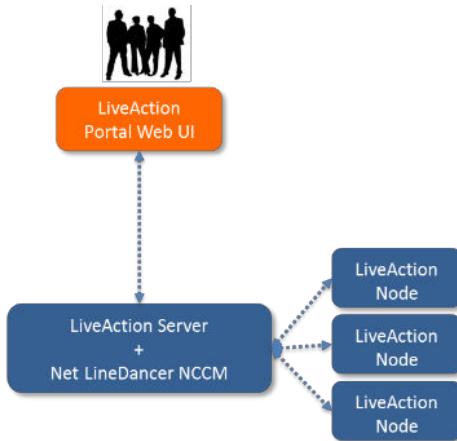
1. Overview

Net LineDancer (NetLD) provides Network Change and Configuration Management (NCCM) capabilities.



- Configuration management
 - Scalable 20,000+ devices
 - Scheduled and real time backup and restore
 - Historical configuration and change reports
 - Compliance rule engine
- Change management
 - Scheduled and on-demand network wide changes
 - Abstracted multi-vendor change deployment
- Inventory management
 - Scheduled and automatic discovery process
 - Network device IOS and HW module inventory
 - Device IOS upgrades
- Terminal proxy
 - One click SSH and telnet to any device

LiveAction and netLD System



The LiveAction server and netLD work together as a system.

- netLD can be installed using a separate installer either on the same machine as LiveAction server or another server.

- User accounts can be local and separate between LiveAction and netLD or use the same Active Directory system for common accounts (only available on netLD 14.0 or higher)
- netLD is accessed via the portal web UI on the LiveAction server with a separate login page to netLD.

Licensing

- NetLD is provided via subscription license separate from the LiveAction server license.
- The subscription license can be requested from LiveAction directly.

2. Installation Steps

The following is the windows installer steps for netLD. More detailed information and for Linux install, please refer to the netLD download webpage and user manual.

<https://logicvein.com/trialdownload>

Installing on server without Internet:

If the install server has no internet connection, please contact support@logicvein.com with the MAC Address of the install server. If there are multiple NIC, send the MAC for one of the connections that is plugged into the network and is active.

Installation:

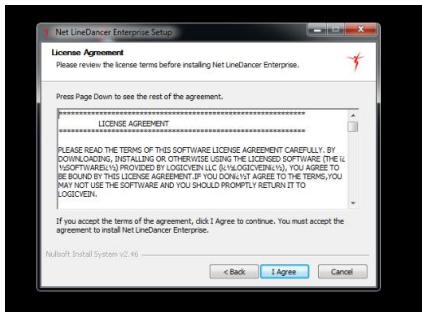
1. Start the netLD installer and select the language.



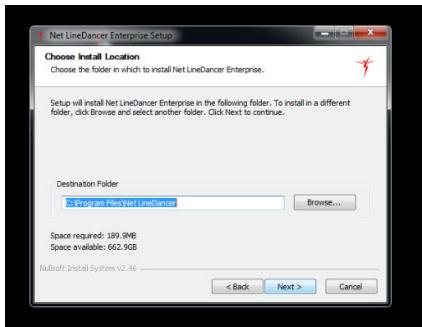
2. Welcome screen in English should display



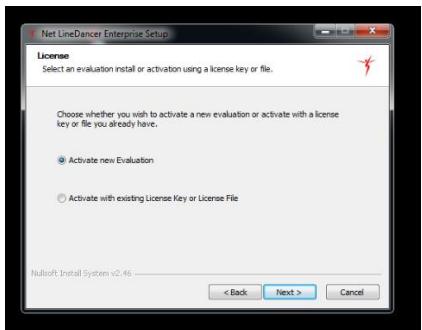
3. Agree to license



4. Location of install



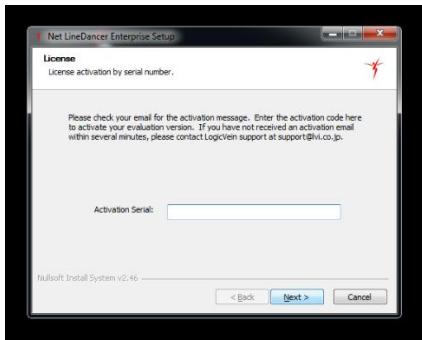
5. Choose new activation



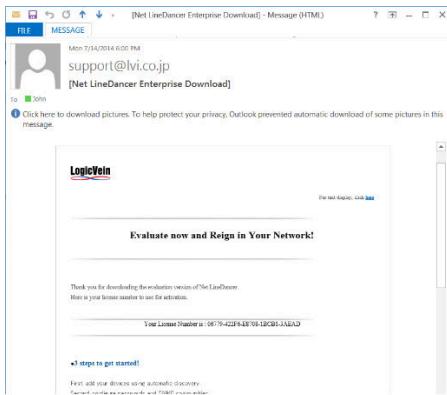
6. Enter email address to receive license key to activate. Response is automated so the email should be sent almost immediately.



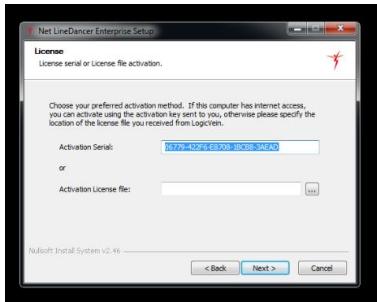
7. Wait for email to enter into activation screen



8. Receive automated email with license key



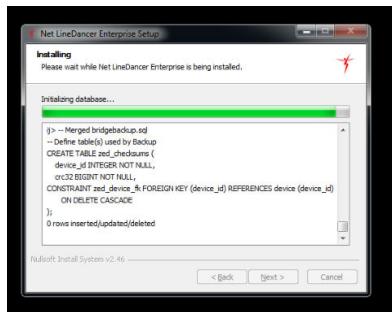
9. Enter license key



10. Enter SSL information to generate secure connection capability.



11. Continue install



12. Done



3. Setup and Administration

Setup

If netLD was installed on a server that is separate than LiveAction server, then the LiveAction server console properties need to be modified to specify the IP address in netlinedancer.ssl.host and netlinedancer.ssl.port to communicate to netLD to integrate into the LiveAction server web pages. Typically the port should remain 443 for SSL use.

| Property | Value |
|--------------------------------|----------------|
| httpserver.maxRequests | 8092 |
| httpserver.port | 8092 |
| httpserver.requestlogging.days | False |
| httpserver.secure | False |
| management.console.port | 7001 |
| msi.ca.certificate.dir | |
| msi.ca.certificate.filename | |
| msi.ca.certificate.password | |
| msi.notification.port | 8090 |
| netlinedancer.ssl.host | 443 |
| netlinedancer.ssl.port | 443 |
| remoting.server.hostname | 172.17.101.173 |
| remoting.server.port | 7026 |
| server-status-port | 7003 |
| snmp.localPort | 0 |

The server is currently running.

License Setup

To update the license from evaluation to a subscription version, request a subscription license from LiveAction. LiveAction will then provide a license.enc file which will be copied to the netLD install directory under the folder osgi-config/security.

Once the license.enc file is placed in that directory, restart the netLD service for the license to take effect. NetLD can be restarted by clicking on the netLD icon in the windows task bar service on the server.



Administration

netLD is accessed from the LiveAction server portal via the "Configuration" link. Most browsers are compatible with netLD although Microsoft IE maybe issue some security certificate warnings.

Initial steps are listed below.

1. Click "Configuration" menu to bring up the netLD screen.

LiveAction Server

LiveAction Client

Launch LiveAction Client

If you experience problems launching the LiveAction Client:

- The LiveAction Client requires the Oracle JRE (Java Runtime Environment) version 1.7
- If you have an Oracle JRE installed, but do not have the required version, the launcher will automatically download and install the required version for you.
- If you do not have an Oracle JRE installed, or the launcher fails to install the required version, you will need to install the required Oracle JRE manually. Download Oracle JRE: [Windows \(32-bit\)](#)
- For users of the Google Chrome browser, there is a known issue which may prevent webstart applications from launching. If you experience this problem, a known workaround is to open the configured Chrome download directory and manually remove the "client.jnlp" file, if it exists. This must be done each time you wish to start LiveAction. See [Chrome Issue 92946](#) for more information.
- If you receive a "mismatched version" error between the client and the server and the LiveAction Server has been recently upgraded, the old client may still be cached in your browser. Potential resolutions: (1) Close all browser windows and then try again. (2) Clear your browser's cache and then try again.
- When upgrading from LiveAction 3.0 or earlier, the LiveAction Client may fail to start for users who have an older version of LiveAction Client cached on their computer. To resolve this issue, remove the older client from Java's download cache. On Windows, this can be done as follows:
 1. Open the system control panel.
 2. Click on "Programs".
 3. Click on "Java" to open the Java Control Panel.
 4. On the "General" tab, under the "Temporary Internet Files" heading, click the "View..." button. The Java Cache Viewer should appear.
 5. In the "Show" combobox at the top of the window, select "Applications".
 6. In the application list, highlight all instances of "LiveAction Client", and click the "Remove" toolbar button to remove these applications from the cache.
 7. Dismiss the cache viewer and control panel, and try to launch the client again.

If netLD was not installed or cannot communicate to the netLD server, the page below will be shown with possible remedies shown.

Net LineDancer Configuration Management is unavailable

- If you have not installed the Net LineDancer Configuration Manager, please download a trial copy from this location.
<http://www.logicview.com/download.html>
- If you have already installed Net LineDancer, please make sure of the following.
 1. The `netlinedancer.ssl.port` and `netlinedancer.ssl.host` properties are correctly set in the LiveAction Management Console.
 2. Net LineDancer is installed on the machine `127.0.0.1`.
 3. Net LineDancer is configured for port `443`.
 4. The port `443` is open for TCP/PS.
 5. Net LineDancer is currently running.
 6. Certificate is installed in browser. Please visit Net LineDancer directly to ensure this. <https://127.0.0.1:443>

2. Login to netLD

When prompted, login with netLD credentials, initially it defaults to:

- Username: admin
- Password: password

3. Run startup wizard

This will run automatically on first login and go through steps needed to bring in devices and backup the configurations. The process will bring in devices and perform the device discovery.

4. Manual device add

Alternatively, devices can be added manually if the startup wizard was not utilized.

Manual add is done by providing a list of IP address of the devices to be added. LiveAction could be used to export the inventory list of IP address which are inserted into the excel template provided by netLD.

In the template, the exact Network and Adapter ID for each device has to be specified and will be validated by the template usually set to Default and Cisco IOS. The information can be filled down for large number of devices. The list can then be imported back into netLD.

| A | B | C | D |
|------------|---------|------------|------|
| IP Address | Network | Adapter ID | Host |
| 172.16.1.1 | Default | Cisco IOS | |
| 172.16.1.2 | Default | Cisco IOS | |
| 172.16.1.3 | Default | Cisco IOS | |
| 172.16.1.4 | Default | Cisco IOS | |
| 172.16.1.5 | Default | Cisco IOS | |
| 172.16.1.6 | Default | Cisco IOS | |
| 172.16.1.7 | Default | Cisco IOS | |

See section 9-1-2 of the netLD user manual on "Adding Devices Manually" for more information.

5. Setup additional user account

- a. If using active directory, then setup the AD settings, and the login will be identical for both systems. The permissions for users will need to be setup specifically in netLD to the authorized capabilities of that user in performing actions within netLD.
- b. If local user accounts are used on LiveAction and in netLD, then the users need to be created on the netLD side for single sign on to work. Otherwise they can be kept separate if needed.
- c. Add additional roles and access restrictions as needed, please see netLD manual.

6. Upgrading netLD

Upgrading netLD will be done using a separate netLD installer.

7. Accessing netLD

- a. netLD is accessible from the LiveAction web portal.
- b. A separate login step is required at this time into netLD.

4. Usage and Workflow

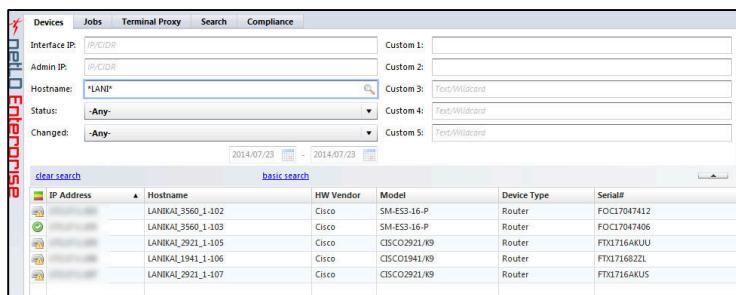
netLD can be used as a standalone NCCM capability but can be used in conjunction to compliment LiveAction capabilities.

- NCCM Capabilities
 - Setup daily backup of configurations
 - Setup syslog to netLD for config change notification
 - Restoration and comparison of configurations
 - Sending out CLI commands and templates adhoc or scheduled to large number of devices
 - Verify configuration settings and compliance
- Complimentary workflows with LiveAction
 - Scheduled QoS configuration changes
 - Large scale QoS device configuration changes requiring multiple actions
 - Customized auditing of QoS settings via graphical rule engine
 - ACL changes across large number of devices

4.1 How to share tag, group and site information

From netLD, you can export the inventory of all the devices into an excel file and use the LiveAction exported csv file information to populate information into the excel file and re-imported back into netLD for use in searching.

For example, for this particular set of routers, the inventory excel will be exported.



| IP Address | Hostname | HW Vendor | Model | Device Type | Serial# |
|------------|--------------------|-----------|--------------|-------------|-------------|
| | LANIKAI_3560_1-102 | Cisco | SM-E3-16-P | Router | FOC17047412 |
| | LANIKAI_3560_1-103 | Cisco | SM-E3-16-P | Router | FOC17047406 |
| | LANIKAI_2921_1-105 | Cisco | CISCO2921/K9 | Router | FT1716AKUU |
| | LANIKAI_1941_1-106 | Cisco | CISCO1941/K9 | Router | FT171682ZL |
| | LANIKAI_2921_1-107 | Cisco | CISCO2921/K9 | Router | FT1716AKUS |

Select the devices and choose "Export inventory as ..." from the Inventory menu.

The screenshot shows a list of devices in the main pane. The context menu, which is open on the right, has a 'Import/Export' section. The 'Import/Update inventory from Excel file...' option is highlighted with a red circle.

In the file there are 5 custom fields that can be used to map to sites, group and other tag information.

| Network | Adapter ID | Hostname | Type | Vendor | Model | OS Version | Serial Number | Memo | Custom 1 | Custom 2 | Custom 3 | Custom 4 | Custom 5 |
|---------|------------|--------------------|--------|--------|--------------|-------------|---------------|------|--------------|----------|----------|----------|----------|
| Default | Cisco IOS | LANIKAI_3560_1-102 | Router | Cisco | SM-ES3-16-P | 12.2(58)SE2 | FOC17047412 | | San Franciso | WAN | West | | |
| Default | Cisco IOS | LANIKAI_3560_1-103 | Router | Cisco | SM-ES3-16-P | 12.2(58)SE2 | FOC17047406 | | New York | WAN | East | | |
| Default | Cisco IOS | LANIKAI_2921_1-105 | Router | Cisco | CISCO2921/K9 | 15.4(1)T | FTX1716AKUU | | Seattle | WAN | West | | |
| Default | Cisco IOS | LANIKAI_1941_1-106 | Router | Cisco | CISCO1941/K9 | 15.4(1)T | FTX171682ZL | | Honolulu | WAN | West | | |
| Default | Cisco IOS | LANIKAI_2921_1-107 | Router | Cisco | CISCO2921/K9 | 15.4(1)T | FTX1716AKUS | | Miami | WAN | East | | |

The file is then re-imported back into netLD.

The screenshot shows a list of devices in the main pane. The context menu, which is open on the right, has a 'Import/Export' section. The 'Import/Update inventory from Excel file...' option is highlighted with a red circle.

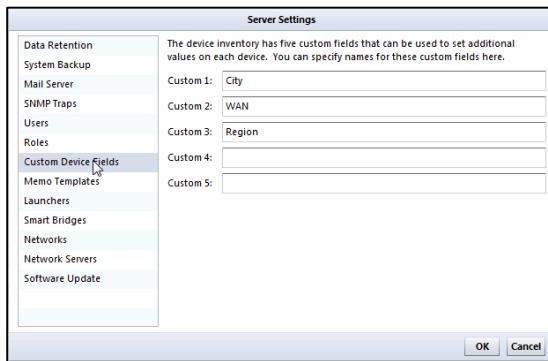
Now those fields can be used for advanced searching to find devices including wildcard based searches. In this example find all WAN devices.

The screenshot shows the search interface with 'Custom 2' set to 'WAN'. The search results below show all devices with 'WAN' in their custom field 2.

All sites that start with a "S"

The screenshot shows the search interface with 'Custom 1' set to 'S*'. The search results below show devices whose custom field 1 starts with 'S'.

You can also rename the title for Custom fields from the settings.



Now the custom fields show up as City, WAN and Region.



Use the device list setting button to bring in custom fields City, WAN and Region in to the table view.

| IP Address | Hostname | HW Vendor | Model | Device Type | Serial# | City | WAN | Region |
|--------------|----------------------|-----------|-------------|---|---|---------------|-----|--------|
| 172.17.1.81 | CSR1K-DMVPN-LHQ-81 | Cisco | CSR1000V | Router | 9Q8DMEBL2M | San Francisco | WAN | West |
| 172.17.1.82 | CSR1K-DMVPN_CLOUD-82 | Cisco | CSR1000V | Router | 928PN6OPSW | New York | WAN | East |
| 172.17.1.83 | CSR1K-DMVPN_SITE-83 | Cisco | CSR10 | Switch | 4V574K | Seattle | WAN | West |
| 172.17.1.84 | CSR1K-DMVPN_SITE-84 | Cisco | CSR10 | Switch | 1GQ37U | Honolulu | WAN | West |
| 172.17.1.102 | LANIKAI_3560_1-102 | Cisco | SM-ES | <input checked="" type="checkbox"/> Backup Status | <input type="checkbox"/> OS Version | San Francisco | WAN | West |
| 172.17.1.103 | LANIKAI_3560_1-103 | Cisco | SM-ES | <input checked="" type="checkbox"/> IP Address | <input checked="" type="checkbox"/> Serial# | New York | WAN | East |
| 172.17.1.105 | LANIKAI_2921_1-105 | Cisco | CISCO | <input checked="" type="checkbox"/> Hostname | <input type="checkbox"/> SW Vendor | Seattle | WAN | West |
| 172.17.1.106 | LANIKAI_1941_1-106 | Cisco | CISCO | <input type="checkbox"/> Adapter | <input checked="" type="checkbox"/> city | Honolulu | WAN | West |
| 172.17.1.107 | LANIKAI_2921_1-107 | Cisco | CISCO | <input type="checkbox"/> Memo | <input checked="" type="checkbox"/> WAN | Miami | WAN | East |
| 172.17.1.112 | QoS_cisco891_1-112 | Cisco | CISCO | <input type="checkbox"/> Model | <input checked="" type="checkbox"/> Region | 682R0 | | |
| 172.17.1.113 | QoS_cisco891_1-113 | Cisco | CISCO | <input checked="" type="checkbox"/> Region | <input type="checkbox"/> WAN | 682QK | | |
| 172.17.1.114 | APN-ASR1001-114 | Cisco | ASR10 | <input checked="" type="checkbox"/> Device Type | <input type="checkbox"/> Custom 4 | 409DQ | | |
| 172.17.1.116 | LAB_4503E_1-116 | Cisco | WS-C4 | <input checked="" type="checkbox"/> HW Vendor | <input type="checkbox"/> Custom 5 | 500FB | | |
| 172.17.1.117 | LAB_ce6503E_1-117 | Cisco | WS-C4 | | | 5023A | | |
| 172.17.1.118 | LAB_c921_1-118 | Cisco | CISCO | | | 6AKUX | | |
| 172.17.1.128 | LAB_881_1-128 | Cisco | CISCO | | | 6544Q | | |
| 172.17.1.129 | LAB_891_1-129 | Cisco | CISCO891-X9 | Router | FTX171683FU | | | |

4.2 How to change flow exporter settings to multiple devices

1. Select the devices that you want to use the "Command Runner..." tool.



| IP Address | Hostname | HW Vendor | Model | Device Type | Serial# |
|--------------|-----------------------|-----------|-------|-------------|-----------------------|
| 172.17.1.135 | PFRv3_HUB-MC_1-135 | Cisco | IOSv | Router | 9AFKH66Z1OI8P57EOGP |
| 172.17.1.136 | PFRv3_R2_1-136 | Cisco | IOSv | Router | 9T9MMSCQNLZ838DLW5R9T |
| 172.17.1.137 | PFRv3_HUB-BR1_1-137 | Cisco | IOSv | Router | 945TQIUVL88CQKZA7MBO9 |
| 172.17.1.138 | PFRv3_HUB-BR2_1-138 | Cisco | IOSv | Router | 9Z8U4W00T1I7L0CFSULEL |
| 172.17.1.139 | PFRv3_R8_1-139 | Cisco | IOSv | Router | 967GFBNA102A88FMW416N |
| 172.17.1.140 | PFRv3_R9_1-140 | Cisco | IOSv | Router | 9L26P5M8GD9IEAMOA5MBM |
| 172.17.1.141 | PFRv3_BR1-MC-BR_1-141 | Cisco | IOSv | Router | 9560GYFBUQTGOE998U2NP |
| 172.17.1.142 | PFRv3_BR2-MC-BR_1-142 | Cisco | IOSv | Router | 9N8HVKKIYFRWLF3PRVUJX |

2. Select "Change --> Command Runner"



3. Set the commands to run in Command Runner



Specify the commands to run against the devices

```
conf t
flow exporter LIVEACTION-FLOWEXPORTER
destination 172.17.101.141
end
write
```

Override the default prompt regex:

Response timeout (seconds):

Perform backup after tool completes Execute Cancel

4. Confirm execution



5. Verify Command Runner results:

Devices | Jobs | Terminal Proxy | Search | Compliance

Search IP/Hostname: PR advanced search

| IP Address | Hostname | HW Vendor | Model | Device Type | Serial# |
|--------------|----------------------|-----------|-------|-------------|-----------------------|
| 172.17.1.135 | PRv3_HUB-MC_1-135 | Cisco | IOSv | Router | 94FKH6Z1016P57E0GIP |
| 172.17.1.136 | PRv3_R2_1-136 | Cisco | IOSv | Router | 9TMM5CQH2Z53DLW5R9T |
| 172.17.1.137 | PRv3_HUB-BR1_1-137 | Cisco | IOSv | Router | 945TQU1V8BCQZATMB09 |
| 172.17.1.138 | PRv3_HUB-BR2_1-138 | Cisco | IOSv | Router | 9ZB4WV00T7U0CF5U1EL |
| 172.17.1.139 | PRv3_R3_1-139 | Cisco | IOSv | Router | 967GEFNA102A8PMV4V6N |
| 172.17.1.140 | PRv3_R3_1-140 | Cisco | IOSv | Router | 9L2P5M8GCD99EAM0A5MBM |
| 172.17.1.141 | PRv3_BR1-MC-BR_1-141 | Cisco | IOSv | Router | 9560GY0BUDGCE99U2H1P |
| 172.17.1.142 | PRv3_BR2-MC-BR_1-142 | Cisco | IOSv | Router | 9N8HVK0YFPRV13PRVUJX |
| 172.17.1.143 | PRv3_SER/ER_1-143 | Cisco | IOSv | Router | 9LM1502AVN8V25L5V/C34 |
| 172.17.1.144 | PRv3_P | Cisco | IOSv | Router | 9LM1502AVN8V25L5V/C34 |
| 172.17.1.145 | PRv3_PMOD2_1-145 | Cisco | IOSv | Router | 9LM1502AVN8V25L5V/C34 |
| 172.17.1.146 | PRv3_B1CLNT_1-146 | Cisco | IOSv | Router | 9LM1502AVN8V25L5V/C34 |
| 172.17.1.147 | PRv3_B2CLNT_1-147 | Cisco | IOSv | Router | 9LM1502AVN8V25L5V/C34 |

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Command Runner

Default/Command Runner (2014/07/22 16:15)

| Device | Duration (seconds) |
|--------------|--------------------|
| 172.17.1.135 | 4 |
| 172.17.1.141 | 5 |
| 172.17.1.142 | 8 |
| 172.17.1.140 | 5 |
| 172.17.1.139 | 4 |
| 172.17.1.138 | 4 |
| 172.17.1.137 | 4 |
| 172.17.1.136 | 4 |

Find Next: Results per page: 254

```

cont t
Enter configuration commands, one per line.  End with CNTL/Z.
PRv3_HUB-MC_1-135(config)#flow exporter LIVEACTION-FLOWEXFORES
PRv3_HUB-MC_1-135(config)#flow exporter liveaction 172.17.1.142
PRv3_HUB-MC_1-135(config)#flow exporter 172.17.1.142
PRv3_HUB-MC_1-135(config)#flow exporter 172.17.1.143
PRv3_HUB-MC_1-135(config)#end
PRv3_HUB-MC_1-135wrte
Building configuration...
[OK]
PRv3_HUB-MC_1-135#
PRv3_HUB-MC_1-135#
PRv3_HUB-MC_1-135#
PRv3_HUB-MC_1-135#

```



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