

vRealize Network Insight Frequently Asked Questions

vRealize Network Insight 3.0

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Intended Audience

This information is intended for administrators or specialists responsible for using VMware® vRealize® Network Insight™ 3.0.0.

Document Conventions

Conventions	Description
Bold	Lowercase commands and mixed case commands that are otherwise difficult to distinguish from surrounding text. Interface controls (check boxes, push buttons, radio buttons, spin buttons, text boxes, folders, icons, list boxes, items inside list boxes, multicolumn lists, containers, menu choices, menu names, tabs, property sheets), labels (such as Tip and Operating system considerations) Keywords and parameters in text.
<i>Italic</i>	Emphasis of words (words as words) Variables and values you must provide
Monospace	Examples and code examples File names, programming keywords, and other elements that are difficult to distinguish from surrounding text Message text and prompts addressed to the user Text that the user must type Values for arguments or command options

Support

To deploy VMware® vRealize® Network Insight™ and for any troubleshooting queries, contact the support team.

Prerequisites, Setup, Licensing, and Installation

What are the resource requirements for vRealize Network Insight?

Refer to the vRealize Network Insight 3.0.0 Installation Guide for Resource Requirements.

What happens if I enter the incorrect secret during vRealize Network Insight Proxy OVA deployment?

The secret key is not validated during vRealize Network Insight Proxy OVA deployment. The deployment completes even with incorrect secret key. However, pairing can fail and vRealize Network Insight Proxy does not show up as detected on vRealize Network Insight UI.

To correct the shared secret, log in to vRealize Network Insight Proxy CLI and run `set-proxy-shared-secret` command to set the correct secret key. This command replaces the old key with the new one, and consequently, vRealize Network Insight Platform detects vRealize Network Insight Proxy and pair up.

How to configure DNS after vRealize Network Insight Proxy OVA is deployed?

Log in to vRealize Network Insight Proxy CLI, and run `setup` command. This interactive command will provide the user an option to add or modify DNS after which the vRealize Network Insight Proxy will be reconfigured with the new DNS.

How to change the IP Address/Gateway/Netmask after vRealize Network Insight Proxy OVA is deployed?

Log in to vRealize Network Insight Proxy CLI and run `setup` command. This interactive command will provide the user an option to modify the IP address, gateway, netmask and so forth after which the vRealize Network Insight Proxy are reconfigured with new details.

Note:

- a) *The IP address can only be changed before pairing of vRealize Network Insight Platform and vRealize Network Insight Proxy.*
- b) *VM reboot is required, when Gateway IP subnet is changed.*

How to find out vRealize Network Insight Proxy VM IP from the UI?

Go to Settings page and select **vRealize Network Insight Infrastructure** menu option. The IP address of both, vRealize Network Insight Platform and vRealize Network Insight Proxy VMs is displayed.

What should I do if vRealize Network Insight Proxy is not detected in 5 minutes after deploying vRealize Network Insight Proxy OVA?

Log in to vRealize Network Insight Proxy support console (refer to the vRealize Network Insight Command Line Reference Guide) and verify the following:

- Verify vRealize Network Insight Platform pairing status with vRealize Network Insight Proxy using `show-connectivity-status` command.
- If the pairing status is showing “Failed”, then the shared secret key specified during vRealize Network Insight Proxy OVA deployment could be wrong. To fix this problem, use `set-proxy-shared-secret` command to set the correct secret key. This command replaces the old key with the new one, and therefore, vRealize Network Insight Platform can detect vRealize Network Insight Proxy.
- If the `show-connectivity-status` shows network reachability to vRealize Network Insight Platform as “Failed”, then verify whether vRealize Network Insight Platform is reachable from vRealize Network Insight Proxy VM using `ping` command.
- If it is not reachable, then verify if the DNS, gateway and so on are configured correctly using `show-config` command.
- If not, use `setup` command to modify the network configuration parameters.

What to do if I forget my login credentials?

Please contact your Administrator. If you are an administrator, contact vRealize Network Insight support team.

How to change login password?

To change the login password:

1. Go to **Administrator > Settings**, and then click **My Profile** on the left pane.
2. On the **Change Password** page, fill in the required information and click **Save**

Got the login screen before detecting the vRealize Network Insight Proxy VM, what to do?

- This behaviour is expected when the browser is refreshed or url is opened in a new window before detecting the proxy
- Proceed with log in using credentials mentioned in email, license activation step-3 page will be displayed.

Does vRealize Network Insight support multiple vCenter Server/NSX Manager?

Yes, vRealize Network Insight supports multiple vCenter Server and NSX Manager.

Which services of vRealize Network Insight need Internet access and why?

vRealize Network Insight runs few remote services that require Internet access. These services allow the vRealize Network Insight team to gain a better understanding of customer environments and proactively troubleshoot or repair issues. The following services need Internet access:

1. **Upgrade Service:** vRealize Network Insight uses this service to contact the remote upgrade host and pull in newly released bits as they become available. Certain metrics related to key services and performance of vRealize Network Insight are periodically gathered and uploaded using upgrade host for

the vRealize Network Insight Support team to monitor and identify any anomaly in the environment so that they can act before it impacts critical services.

2. **Log Service:** vRealize Network Insight uses this service to gather, compress, and upload exception logs for different components to the log server for analysis by the vRealize Network Insight R&D team.
3. **Support Service:** This service establishes remote secured tunnels to the vRealize Network Insight support host that allow authorized personnel to remotely access and work on deployments.

Note: If the vRealize Network Insight platform is behind an Internet proxy, whitelist these domain names and ports: *support2.arkin.net:443*, *logserver.vnera.com:443*, and *upgrade.vnera.com:443*.

How do I change from Evaluation License to Perpetual License?

Refer to the **Change License** section in the vRealize Network Insight 3.0.0 User Guide.

Supported data center Hardware and Software Versions

Environment	Version/Model	Description
VMware vSphere	vSphere 5.5 and 6.0 For IPFIX support <ul style="list-style-type: none"> ● VMware ESXi: <ul style="list-style-type: none"> ○ 5.5 Update 2 (Build 2068190) and above ○ 6.0 Update 1b (Build 3380124) and above VMware VMware Tools should be installed on all the virtual machines in the data center. This helps in identifying the VM to VM traffic.	VMware vCenter Server VMware vSphere connects VCenter Server over HTTPS to fetch virtual environment information.
VMware NSX	6.0, 6.1, 6.2	VMware NSX connects: <ul style="list-style-type: none"> ● VMware NSX Manager Central CLI ● VMware NSX Manager - over HTTPS ● VMware NSX Controller - over SSH ● VMware NSX Edge - over SSH
Cisco Nexus	N5K, N7K, N9K, VSM N1K	Cisco Nexus connects to device over SSH and SNMP.
Cisco UCS (Unified Computing System)	Series B blade servers, Series C rack servers, Chassis, Fabric interconnect	Cisco UCS connects to UCS Manager over HTTPS and UCS Fabric Interconnect over SSH and fetches information. It also connects to SNMP service.
Cisco Catalyst switches	3000, 3750, 4500, 6000, 6500	Cisco Catalyst switches connect to device over SSH and SNMP.
Dell switches	FORCE10 MXL 10, FORCE10 S6K	Dell switches connect to device over SSH and SNMP.
Arista switches	7050TX, 7250QX	Arista switches connect to device over SSH and SNMP.
Brocade Switches	VDX 6740, VDX 6940	Brocade switches connect to device over SSH and SNMP
Juniper Switches	EX3300	Juniper switches connect to device over SSH and SNMP
Palo Alto Networks	Panorama 7.0.3 and above	Beta Support Connects to device over HTTPS
HP	HP Virtual Connect Manager 4.41	Beta Support Connects to device over SSH

Adding/Configuring vCenter Server(s) as Data Source

What if I am getting a “Request timed out” message while adding vCenter Server using IP address?

- Verify that the vCenter Server IP address is reachable from the vRealize Network Insight Proxy VM.
- Log in to vRealize Network Insight Proxy CLI and use the `ping` to ensure that IP is reachable and `telnet` to ensure that the vCenter Server is reachable on port 443.
- If vCenter Server is reachable, then retry adding.
- If IP address is not reachable, then verify whether the gateway is correctly configured from vRealize Network Insight Proxy VM using command `show-config`
- If gateway is incorrect, then correct it using `setup` command

What if I am getting a “IP/FQDN is invalid” message while adding vCenter Server?

- Verify whether provided IP/FQDN for vCenter Server is correct.
- Verify whether FQDN is reachable from vRealize Network Insight Proxy VM using `ping` command.
- If it is not reachable, then verify if the DNS is configured correctly on vRealize Network Insight Proxy VM using `nslookup` FQDN and `show-config` command.
- If DNS is incorrect, then correct it using `setup` command

What privileges does the vRealize Network Insight Security and Operations Platform require?

vRealize Network Insight requires the VMware vCenter Server credentials with the following privileges:

Distributed Switch: Modify

dvPort group: Modify

What if I am getting error “User does not have required privileges.” while enabling IPFIX on vCenter Server Data source page?

vRealize Network Insight requires the VMware vCenter Server credentials with the following privileges to enable IPFIX:

Distributed Switch: Modify

dvPort group: Modify

Please make sure that provided VMware vCenter Server user have permission on vCenter Server's root folder and all of its child entities e.g all folders and all datacenters.

How frequently is the data fetched from environment?

vRealize Network Insight Proxy fetches data every 10 minutes from environment.

How soon the analysis of data will start after adding the vCenter Server?

Analysis of data starts right away after adding a vCenter Server. Product UI will show partial picture of data within few minutes which can take two hours to get complete.

Note: Flow traffic data changes continuously and include at least 24 hours of data in its analysis.

How to clean up IPFIX settings in vCenter Server if you have deleted vRealize Network Insight OVAs?

Using VMware vSphere Web Client:

Goto Home > Networking > VDS (Name) > Netflow Settings. Remove vRealize Network Insight Proxy IP from Collector settings.

Using VMware vSphere Windows Client:

Goto Home > Inventory > Networking > VDS (Name) > Edit Settings. Remove vRealize Network Insight Proxy IP from Collector settings in Netflow tab. This step is required to be done for each VDS for which IPFIX is enabled.

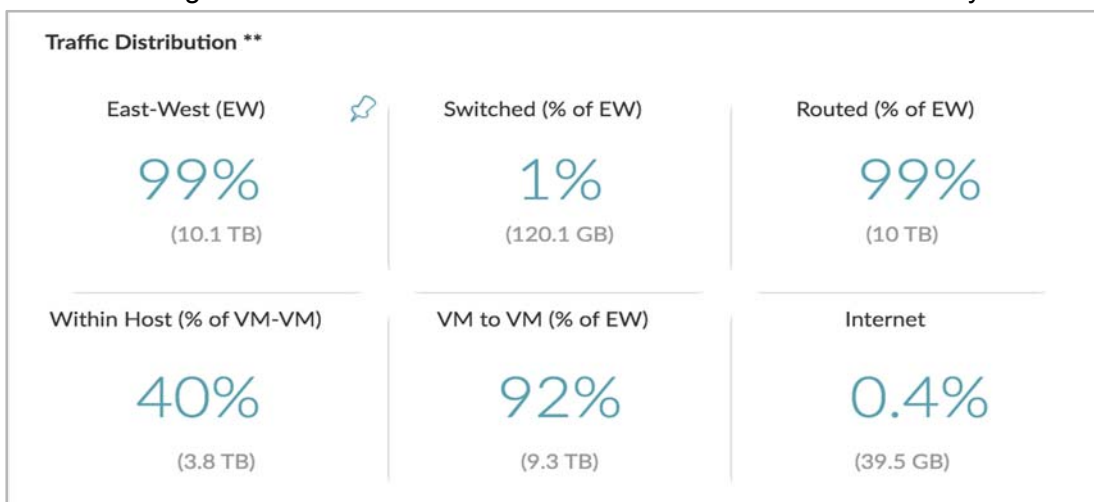
How to clean up IPFIX configuration in vRealize Network Insight?

In vRealize Network Insight UI, goto settings > Data Sources, delete the vCenter Server. This removes IPFIX configuration done by vRealize Network Insight.

Operations

What do the numbers in the Traffic Distribution Pin represent?

The numbers give an overview of the traffic distribution based on flow analysis.



East-West (EW):

East-West traffic as the percentage (%) of total group's traffic

Switched (% of EW):

Switched traffic as the percentage (%) of East-West traffic

Routed (% of EW):

Routed traffic as the percentage (%) of East-West traffic

Within Host (% of VM-VM):

Traffic with source and destination on same host as percentage of virtual machine to virtual machine traffic

VM to VM (% of EW):

Virtual machine to virtual machine Traffic as percentage of East-West traffic

Internet:

Internet traffic as percentage of total group's traffic

IPFIX

What is IPFIX?

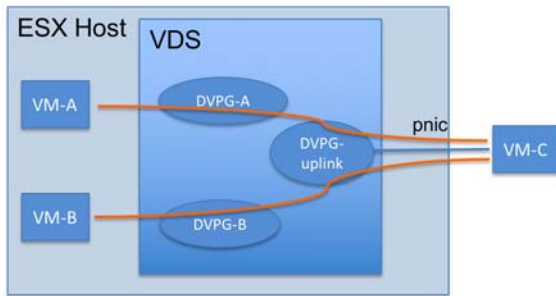
IPFIX is an IETF protocol for exporting flow information. A flow is defined as a set of packets transmitted in a specific timeslot, and sharing 5-tuple values - source IP address, source port, destination IP address, destination port, and protocol. The flow information may include properties such as timestamps, packets/bytes count, Input/output interfaces, TCP Flags, VXLAN Id, Encapsulated flow information and so on.

What flow information is exported by the VDS?

A VDS in vSphere environment can be configured to export flow information using IPFIX. Enable flow monitoring on all the port groups attached to the VDS. If packets arrive on port X of a VDS and exit from port Y, a corresponding flow record is emitted if flow monitoring is enabled on port Y. The direction of every flow record is set as "Egress".

How does vRealize Network Insight use IPFIX?

vRealize Network Insight uses VMware VDS IPFIX to collect network traffic data. Every session has two paths. For example: Session A↔C has A→C packets and C→A packets. To analyze the complete information of any session, IPFIX data about packets in both the directions is required. Refer following diagram where VM-A is connected to DVPG-A and is talking to VM-C. Here DVPG-A will only provide data about the C→A packets, and DVPG-Uplink will provide data about A→C packets. To get the complete information of A's traffic, Ipfix should be enabled on DVPG-A, DVPG-uplink.



Troubleshooting vRealize Network Insight Flow Collection -

1. Please ensure that the specific VDS and its DVPGs and Uplink properties has Netflow monitoring “Enabled” and the collector IP address is that of vRealize Network Insight Collector.
2. IPFIX Netflow packets getting dropped in between by a firewall (NSX, Virtual or Physical).
 - a. Please ensure that the Netflow packets destined for port 2055 on vRealize Network Insight Collector IP is allowed by any firewall that may be present in the route between ESXi Host and the vRealize Network Insight Collector.
3. ESXi Host has ceased to send IPFIX Netflow packets.
 - a. ESXi Host back off sending the Netflow packets after some time if port 2055 is not reachable. This may happen due to firewall dropping the packets.
4. vRealize Network Insight Collector is not reachable by ESXi Host due to network routing problem.
 - a. Please ensure that the proper route exist between ESXi Host and the vRealize Network Insight Collector.

Which VMware KB articles should I be aware of, related to IPFIX?

VMware ESXi 6.0 Update 1:

http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=2135956

How to Create a Support Bundle?

Refer to the **support-bundle** section in the **vRealize Network Insight 3.0.0 Command Line Reference Guide**.

How to Create read only “Admin Role” in Palo Alto Networks Panorama for XML API access?

To add an Admin Role for XML API access:

1. Select **Panorama** → **Admin Roles**



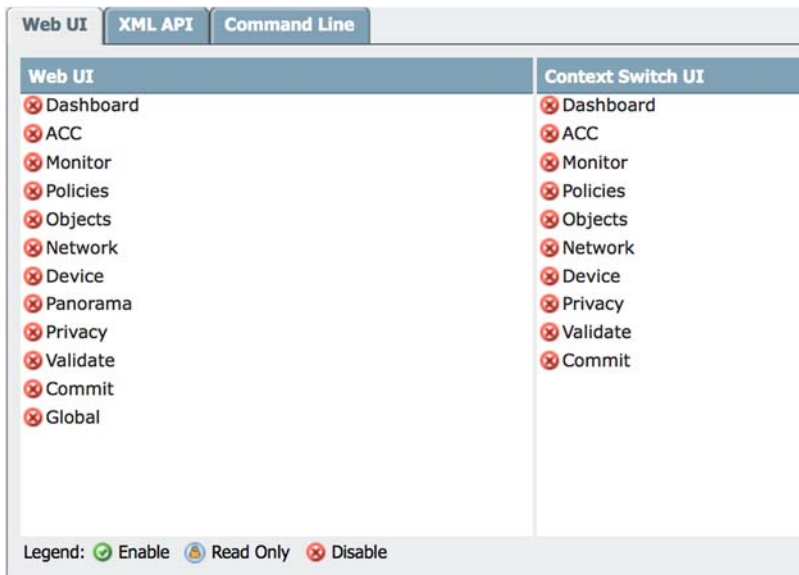
2. Click **Add** to add a new **Admin Role** to open **Admin Role Profile** dialog box

3. In **Admin Role Profile** dialog box

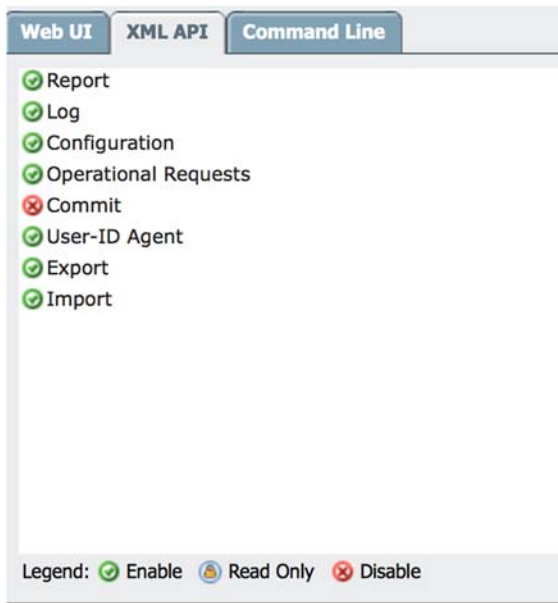
a. Give a name to the role (for example, api-only-admin) Name

b. Select the **Role as Panorama** Role Panorama Device Group and Template

c. Disable all entries in the **Web UI** tab



- d. Enable all entries **except** “Commit” in the **XML API** tab



- e. Click “OK” to close the dialog box, a new “Admin Role” appears in the list with the name



- f. Click “Commit” to commit the changes to Panorama



4. Assign this **Admin Role** to an administrative account.