Installing vRealize Network Insight

VMware vRealize Network Insight 5.0

You can find the most up-to-date technical documentation on the VMware website at:

https://docs.vmware.com/

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Contents

About vRealize Network Insight Installation Guide

The *vRealize Network Insight Installation Guide* is intended for administrators or specialists responsible for installing vRealize Network Insight.

Intended Audience

This information is intended for administrators or specialists responsible for installing vRealize Network Insight. The information is written for experienced virtual machine administrators who are familiar with enterprise management applications and datacenter operations.

Preparing for Installation

1

Before you install vRealize Network Insight, prepare the deployment environment to meet the system requirements.

This chapter includes the following topics:

- System Recommendations and Requirements
- Supported Products and Versions

System Recommendations and Requirements

For optimum performance, you must match the minimum recommendations for the deployment.

Recommendations for the Platform Deployment

Table 1-1. Specifications for Platform Brick Size

	CPU Number of Cores when CPU speed				
Brick Size	**2.1 GHz**	**2.3 GHz**	**2.6 GHz**	**RAM**	**Disk**
Medium	10	9	8	32 GB	1 TB
Large	15	14	12	48 GB	1 TB
Extra Large	20	18	16	64 GB	2 TB

Note

- The reservation for the CPU speed and RAM for each node must be 100% of the value specified above.
- For a large cluster deployment model that has more than 5 nodes, the Platform1 node might need more than 2 TB of disk space.
- To match your setup to all the specifications, you might have to add the resources (RAM, Disk, CPU). See https://kb.vmware.com/s/article/53550 and Increase the Brick Size of your Setup.

Table 1-2. Non-Cluster Deployment - Maximum Capacity

Brick Size	Number of VMs	Flows per Day	Total Flows	Flow Planning
Medium	4000	1 million	10 million	2 million
Large	6000	2 million	10 million	4 million

Table 1-3. Non-Cluster Deployment - Maximum Capacity for VMware SD-WAN

Brick Size	Number of Edges	Flows per Day	Total Flows	Flow Planning
Medium	2000	1 million	10 million	2 million
Large	2000	2 million	10 million	4 million

Note

- The count of VMs includes the templates on the vCenter as well.
- Total Flows is the maximum count of flows the system can store for the RP.
- Flow Planning is the total flows for which the system can perform security planning.

Table 1-4. Cluster Deployment - Maximum Capacity

Brick Size	Cluster Size	Number of VMs	Flows per Day	Total Flows	Flow Planning
Large	3	10000	2 million	10 million	4 million
Extra Large	3	18000	6 million	10 million	4 million
Extra Large	5	30000	10 million	10 million	4 million
Extra Large	10	100000	10 million	10 million	4 million

Table 1-5. Cluster Deployment - Maximum Capacity for VMware SD-WAN

Brick Size	Cluster Size	Number of Edges	Flows per Day	Total Flows	Flow Planning
Large	3	6000	2 million	10 million	4 million
Extra Large	3	6000	6 million	10 million	4 million
Extra Large	5	10000	10 million	10 million	4 million
Extra Large	10	10000	10 million	10 million	4 million

Note

- The count of VMs includes the templates on the vCenter as well.
- Cluster size is the total number of nodes in the cluster.
- Total Flows is the maximum count of flows the system can store for the RP.
- Flow Planning is the total flows for which the system can perform security planning.

Recommendation for the Collector Deployment

Table 1-6. Specifications for Collector Brick Size

	CPU Number of Cores when CPU speed				
Brick Size	**2.1 GHz**	**2.3 GHz**	**2.6 GHz**	**RAM**	**Disk**
Medium	5	5	4	12 GB	150 GB
Large	10	9	8	16 GB	150 GB
Extra Large	10	9	8	24 GB	200 GB

Note

- The reservation for the CPU speed and RAM for each node should be 100% of the value specified above.

Table 1-7. Collector Deployment - Maximum Capacity

Collector Size	Number of VMs	Flows per Day	Flow count in 4 days
Medium	4000	2.5 million	3.25 million
Large	10000	5 million	6.5 million
Extra Large	10000	10 million	13 million

Table 1-8. Collector Deployment - Maximum Capacity for VMware SD-WAN

Collector Size	Number of Edges	Flows per Day	Flow count in 4 days
Medium	4000	2.5 million	3.25 million
Large	10000	5 million	6.5 million
Extra Large	10000	10 million	13 million

Note

- The count of VMs includes the templates on the vCenter as well.
- For a single deployment with more than one collector, the limitation on the total flows across collectors is based on the capacity of the platform.

Other Requirements and Considerations

- The maximum time skew between the platform nodes has to be lesser than 30 seconds.
- The availability of the NTP service is critical to system operations. Ensure that you do not reboot the platform node or the collector node when the NTP service is not available.
- When the existing compute resources are completely used by the other processes on the platform, vRealize Network Insight crashes and does not recover automatically. If the services fail to recover, reboot the platform node.

- If the network latency between platform node and upgrade server is greater than 500ms, the vRealize Network Insight upgrade might encounter an error. So, the network latency must be less than 500ms.
- The recommended disk latency for optimal performance is up to 5ms. If the disk latency is greater than 5ms, the system performance degrades.
- The recommended disk IOPS is 7500.

Supported Web Browser

- Google Chrome: The latest two versions.
- Mozilla Firefox: The latest two versions.

Recommendations to Support High Availability

You can customize vSphere HA options to enable vSphere high availability.

- **Host Failure** - Restart VMs
- **Host Isolation**- Disabled
- **Guest not heartbeating**- Disabled

Privileges

Privileges Required for Data Sources

- Privileges required to configure and use IPFIX
  - vCenter Server Credentials with privileges:
    - Distributed Switch: Modify
    - dvPort group: Modify
  - The predefined roles in the vCenter server must have the following privileges assigned at root level that need to be propagated to the children roles:
    - System.Anonymous
    - System.Read
    - System.View
    - global.settings

    To know more about roles in vCenter, see Using Roles to Assign Privileges section in *vSphere Security* guide.
- Privileges required for NSX Manager Data Provider
  - NSX Manager Data Provider requires the **Enterprise** role.

  - If Central CLI is enabled, then the `system admin` credentials are required for NSX Manager Data Provider.

- User privileges required on Cisco switches for metrics collection

  - vRealize Network Insight is capable of collecting metric data via SNMP as well as configuration via SSH from Cisco Switches. Cisco Switches UCS platform requires the use of both SSH and API for collection.

Table 1-9.

Type of data	User Privileges
Configuration Data	Read-Only
Metric Data	SNMP read-only
	SNMPv2 read-only SNMP community
	SNMPv3 read-only

System Ports

Following is the list of ports required for the vRealize Network Insight inbound communication:

Ports for the Platform Cluster Setup

Table 1-10.

Source	Target	Port	Protocol	Purpose	Sensitive	SSL	Authentication
SSH client	Platform	22	SSH	CLI or host access	No	Yes	User/ Password or SSH key-based authentication
Client Web-Browser and vRNI Collector	Platform	443	HTTPS	UI/API access and communication with vRNI Collector	Yes	Yes	SSL channel encrypted with 2048b RSA key based SHA2 cert (or User configured custom cert). Collector to Platform messages on this channel also encrypted further with HMAC.

Table 1-10. (continued)

Source	Target	Port	Protocol	Purpose	Sensitive	SSL	Authentication
Platform	Platform	2181	HTTP	Communication between zookeeper servers on other nodes (in case of cluster). And stores metdata information(znode data)	No	No	
Platform	Platform	2888	HTTP	Used to connect to zookeeper leader	No	No	
Platform	Platform	3000	HTTP	Used for email notifications	Yes	No	
Platform	Platform	3888	HTTP	Used for zookeeper leader election	Yes	No	
Platform	Platform	5432	jdbc	Storing VM configuration data and infra meta data	Yes	No	
Platform	Platform	8020	TCP/RPC	Communicate between other name node(s) and data nodes	Yes	No	
Platform	Platform	8025	HTTP	Node managers use this port to connect to resource manager	No	No	
Platform	Platform	8030	HTTP	Used by resource manager to schedule the tasks	No	No	

Table 1-10. (continued)

Source	Target	Port	Protocol	Purpose	Sensitive	SSL	Authentication
Platform	Platform	8032	HTTP	The address of the applications manager interface in the RM	No	No	
Platform	Platform	8033	HTTP	The address of the RM admin interface	No	No	
Platform	Platform	8042	HTTP	Node manager web app address	No	No	
Platform	Platform	8080	HTTP	Serves UI requests	Yes	No	
Platform	Platform	8088	HTTP	The HTTP address of the Resource Manager web application	No	No	
Platform	Platform	8480	TCP/RPC	JournalNode HTTP server	No	No	
Platform	Platform	8485	TCP/RPC	HDFS shared edits data dir	No	No	
Platform	Platform	9090	HTTP	Serves requests from collector and sends commands to collector	Yes	Yes (protected via nginx)	
Platform	Platform	9092	Binary over TCP	Port on which other brokers communicate	Yes	No	

Table 1-10. (continued)

Source	Target	Port	Protocol	Purpose	Sensitive	SSL	Authentication
Platform	Platform	9200-9300	HTTP	Serves search requests. ES uses range of ports to listen, if 9200 is by it uses next port available.	Yes	No	
Platform	Platform	9300	HTTP	Serves search requests. ES uses range of ports to listen, if 9200 is by it uses next port available.	Yes	No	
Platform	Platform	30000:65535	TCP	Ephemeral ports range used by various processes to make the TCP connection with the other processes	No	No	
Platform	Platform	60000	IPC	Used for communication between other hbase primary and region servers	Yes	No	
Platform	Platform	60010	HTTP	Used for hbase web UI	No	No	
Platform	Platform	60020	IPC	Communication between hbase primary and region server	Yes	No	

Ports for the Single Platform Setup

Table 1-11.

Source	Target	Port	Protocol	Purpose	Sensitive	SSL	Authentication
SSH client	Platform	22	SSH	CLI or host access	No	Yes	User/ Password or SSH key-based authentication
Client Web-Browser and vRNI Collector	Platform	443	HTTPS	UI/API access and communication with vRNI Collector	Yes	Yes	SSL channel encrypted with 2048b RSA key based SHA2 cert (or User configured custom cert). Collector to Platform messages on this channel also encrypted further with HMAC.

Ports for the Collector Server

Table 1-12.

Source	Target	Port	Protocol	Purpose	Sensitive	SSL	Authentication
SSH client	Collector	22	SSH	CLI or host access	No	Yes	User/Password or SSH key-based authentication
vRNI Collector	Platform	443	HTTPS	Primary communication channel with Platform	Yes	Yes	SSL channel encrypted with 2048b RSA key based SHA2 cert (or User configured custom cert). Collector to Platform messages on this channel also encrypted further with HMAC.
Flow Forwarder	Collector	UDP 2055	NetFlow/IPFIX	Flows from target are pushed to this port	Yes	No	
Flow Forwarder	Collector	UDP 6343	sFlow	Flows from target are pushed to this port	Yes	No	

Table 1-12. (continued)

Source	Target	Port	Protocol	Purpose	Sensitive	SSL	Authentication
ESXi Host	Collector	1991	TCP	Collecting latency measurement of virtual infrastructure, for example: latency between vNIC to pNIC, VTEP to VTEP, TEP to TEP, and so on.	No	No	
Dell OS10	Collector	50000	GRPC	Receiving buffer stats telemetry information from Dell OS10 devices	No	No	

Network Communication Ports

The following table lists the ports and the protocols that are used for the network communication in vRealize Network Insight.

You can also see the list of ports at https://ports.vmware.com/home/vRealize-Network-Insight.

Table 1-13.

Purpose	From	To	Port	Protocol
Communication between the VMs of vRealize Network Insight	Collector	Platform **Note** The port must be enabled for all platforms.	443	HTTPS
Services that require Internet access	Platform and Collector	svc.ni.vmware.com support2.ni.vmware.com reg.ni.vmware.com	443	HTTPS
Communication for miscellaneous services configured	Platform	LDAP server	389, 636	LDAP and LDAPS
		SNMP server	Configurable	SNMP
	Platform and Collector	DNS server	53	UDP
		Syslog server	Configurable	

Table 1-13. (continued)

Purpose	From	To	Port	Protocol
	ESXi Hosts	Collector	2055	
	ESXi Hosts	Collector	1991	TCP
Communication with AWS as a data source	Collector	AWS(*.amazonaws.com)	443	HTTPS
Communicate with Telemetry service	Browser	Telemetry URLhttps://vcsa.vmware.com	433	HTTPS
Communication with other data sources within the data center	Collector	Arista switches	161 and 22	SNMP and SSH
		Azure	443	HTTPS
		Brocade switches	161 and 22	SNMP and SSH
		Check Point firewall	443	HTTPS
		Cisco Nexus	161 and 22	SNMP and SSH
		Cisco UCS (Unified Computing System)	161, 22, and 443	SNMP, SSH, and HTTPS
		Cisco Catalyst switches	161 and 22	SNMP and SSH
		Cisco ACI Switches	161	SNMP
		Cisco APIC Controller	161 and 443	HTTPS and SNMP
		Dell switches	161 and 22	SNMP and SSH
		Dell OS10	50000	TCP
		VeloCloud	443, 2055	HTTPS
		HP	22	SSH
		Juniper Switches	161 and 22	SNMP and SSH
		Palo Alto Networks	443	HTTPS
		VMware vSphere	443	HTTPS
		VMware NSX - V (All Component)	22 and 443	SSH and HTTPS
		NSX-T Manager	443	TCP
		VMware PKS API Server	8443 and 9021	TCP
		Kubernetes API Server	8443	TCP
		vRealize Log Insight	443	HTTPS
		Fortinet FortiManager	443	HTTPS

Supported Products and Versions

vRealize Network Insight supports several products and versions.

Data Source	Version/Model	Connection Protocol	Permissions/Privileges
Amazon Web Services (Enterprise License Only)	Not Applicable	HTTPS	See the Add a Standard AWS Data Source section in the *vRealize Network Insight User Guide*.
Arista switches	7050TX, 7250QX, 7050QX-32S, 7280SE-72	SSH, SNMP	Read only user Read only SNMP user

Azure Subscription	Not Applicable	HTTPS	You must have the following permission:
			`Microsoft.Resources/subscriptions/read`
			`Microsoft.Compute/virtualMachines/read`
			`Microsoft.Network/virtualNetworks/read`
			`Microsoft.Network/networkSecurityGroups/read`
			`Microsoft.Network/networkInterfaces/read`
			`Microsoft.Network/applicationSecurityGroups/read`
			`Microsoft.Storage/storageAccounts/read`
			`Microsoft.Storage/storageAccounts/listkeys/action`
			`Microsoft.Network/networkWatchers/queryFlowLogStatus/action`
			Alternatively, for ease of use you can add the `Storage Account Key Operator Service Role`, `Network Contributor`, and `Reader` permission.

Brocade Switches	VDX 6740, VDX 6940, MLX, MLXe	SSH, SNMP	Read only user Read only SNMP user
Check Point Firewall	Check Point R80 , R80.10	HTTPS, SSH	See the Check Point Firewall section in the *vRealize Network Insight User Guide*.

Data Source	Version/Model	Connection Protocol	Permissions/Privileges
Cisco ACI	3.2	HTTPS (to APIC controller) SNMP (to APIC controller and ACI switches)	To connect to the APIC controller REST API over HTTPS, a user with the read-only permission having access to all the tenants is required For SNMP, the user needs the read-only permission.
Cisco ASA	X Series with OS 9.4	SSH, SNMP	The user should have rights to switch to the enable mode. The user's password should be same as the one used for the enable mode of Cisco ASA.
Cisco Catalyst	3000, 3750, 4500, 6000, 6500	SSH, SNMP	Read only SNMP user with default privilege level 15
Cisco Nexus	3000, 5000, 6000, 7000, 9000	SSH, SNMP	Read only user Read only SNMP user
Cisco UCS (Unified Computing System)	Series B blade servers, Series C rack servers, Chassis, Fabric interconnect	UCS Manager: HTTPS UCS Fabric: SSH, SNMP	Read only user Read only SNMP user
Dell switches	FORCE10 MXL 10, FORCE10 S6000, S4048, Z9100, S4810, PowerConnect 8024, Dell OS10	SSH, SNMP	Read only user Read only SNMP user
Fortinet FortiManager	6.0.1	HTTPS	The user must have: ■ at least the **Restricted User** role with access to all ADOMs and policy packages. ■ the **rpc-permit read** access enabled from Command Line Interface (CLI).
F5 BIG - IP	12.1.2 and later	HTTPS, SSH, SNMP	The user must have at least the guest role. Also, TMSH must be enabled and must have access to all partitions. F5 BIG-IP supports both routing and load balancing.
HP	HP Virtual Connect Manager 4.41, HP OneView 3.0	HP OneView 3.0: HTTPS HP Virtual Connect Manager 4.41: SSH	Read only user
Huawei Cloud Engine	6800, 7800, 8800	SSH, SNMP	Read only user Read only SNMP user

Data Source	Version/Model	Connection Protocol	Permissions/Privileges
Infoblox	Infoblox NIOS version 8.0, 8.1, 8.2	HTTPS	Read only user with API Interface access Read-only permissions for DNS object types as follows: ■ Permission Type - DNS ■ Resource - A Records, DNS Zones, DNS Views
Juniper Switches	EX3300, QFX 51xx Series (JunOS v12 & v15, without QFabric)	Netconf, SSH, SNMP	Read only user Read only SNMP user
Kubernetes	■ 1.12 on NSX-T 2.3.1 ■ 1.12 on NSX-T 2.3.2 ■ 1.13 on NSX-T 2.3.2	HTTPS	User must have cluster admin role with read permissions.
Palo Alto Networks	Panorama 7.0.x, 7.1, 8.x, 9.0	HTTPS	User must have admin role with XML API access. For details, see the Palo Alto Networks section in the *vRealize Network Insight User Guide.*
ServiceNow	London	HTTPS	User must have admin role
VMware SD-WAN	VeloCloud Orchestrator and Edge Version 3.3.1 and later	HTTPS	User must have **Account Role** with any of the following permission: ■ **Superuser** ■ **Standard Admin** ■ **Customer Support**
VMC on AWS - vCenter	M5P2 and above **Note** Only NSX-T based VMware Cloud on AWS SDDCs are supported.	HTTPS	User must have the following permission: ■ **Cloud Administrator**: To add data source and enable IPFIX.
VMC on AWS - NSX Manager	M5P2 and above **Note** Only NSX-T based VMware Cloud on AWS SDDCs are supported.	HTTPS	User must have any of the following permission: ■ **Org Member.Administrator**: To add data source and enable IPFIX. ■ **Org Member.Cloud Admin**: To add data source and enable IPFIX. ■ **Org Member.VMware Cloud on AWS (all role)**: To add data source and enable IPFIX. ■ **Org Member.Cloud Auditor**: To add data source.
VMware Identity Manager	3.3 and later	HTTPS	User must have admin role.

Data Source	Version/Model	Connection Protocol	Permissions/Privileges
VMware PKS	PKS 1.3.2 on NSX-T 2.3.1 PKS 1.3.2 on NSX-T 2.3.2		User must have cluster admin role with read permissions.
VMware NSX Manager (VMware NSX-V)	Supported Versions	SSH, HTTPS	See the Edge Data Collection section in the *vRealize Network Insight User Guide.*
VMware NSX-T Manager	2.4. For additional supported version, see Supported Versions	HTTPS	Read only user
VMware vRealize Log Insight	Supported Versions	HTTPS	API user with permissions to install, configure, and manage the content pack

VMware vSphere	Supported Versions
	For IPFIX, VMware ESXi version needed:
	■ 5.5 Update 2 (Build 2068190) and above
	■ 6.0 Update 1b (Build 3380124) and above
	■ VMware VDS 5.5 and above
	Note VMware tools should be installed on all the VMs in the data center to identify the VM to VM path.
		HTTPS	Read only user
			Privileges required to configure and use IPFIX
			vCenter Server Credentials with privileges:
			`Distributed Switch: Modify`
			`dvPort group: Modify`
			The predefined roles in the vCenter server must have the following privileges assigned at root level that need to be propagated to the children roles:
			`System.Anonymous`
			`System.Read`
			`System.View`
			`global.settings`

Installing vRealize Network Insight 2

You can deploy vRealize Network Insight using vSphere Web client or vSphere Windows native client.

Note After you successfully deploy vRealize Network Insight Platform OVA, verify whether the given static IP is set on vCenter Server.

To automate installation, configuration, upgrade, patch, configuration management, drift remediation and health from within a single pane of glass, you can use vRealize Suite Lifecycle Manager. If you are a new user, click here to install vRealize Suite Lifecycle Manager. This provides the IT Managers of Cloud admin resources to focus on business-critical initiatives, while improving time to value (TTV), reliability and consistency.

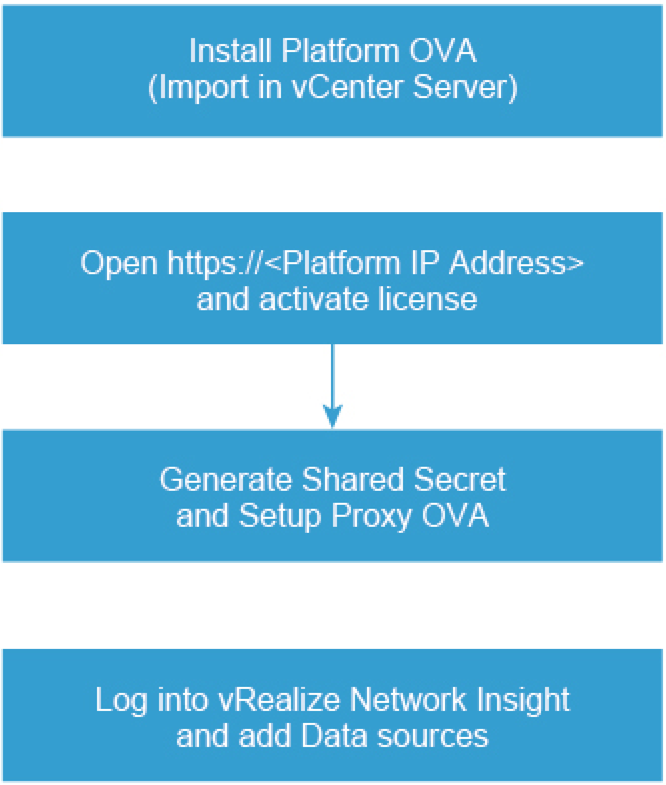
You can also install and upgradevRealize Network Insight by using vRealize Suite Lifecycle Manager. For more information, see the vRealize Suite Lifecycle Manager Installation, Upgrade, and Management Guide.

This chapter includes the following topics:

- Installation Workflow
- Deploying vRealize Network Insight Platform OVA
- Activating the License
- Generating Shared Secret
- Setting up Network Insight Collector (OVA)
- Setting up Network Insight Collector (AMI) in AWS for VMware SD-WAN
- Deploy Additional Collector to an Existing Setup

Installation Workflow

To install vRealize Network Insight, you install the platform OVA, activate the license, generate shared secret, and setup collector OVA.



Deploying vRealize Network Insight Platform OVA

You can import the vRealize Network Insight Platform OVA to your vCenter Server.

Note Deployment of vRealize Network Insight Platform OVA on the VMC SDDC is not supported.

Deployment using vSphere Web Client

You can deploy vRealize Network Insight using vSphere Web Client.

Procedure

1 Right-click the **Datacenter** where you want to install the appliance and select **Deploy OVF Template**.

2 Enter the URL to download and install the OVA package or browse to select the source location of the OVA package.

3 Enter the OVA name. Select the destination folder for deployment.

4 Select a host or a cluster or a resource pool where you want to run the deployed template.

5 Verify the OVF template details.

6 Read the End User License Agreement and click **Accept**.

7 Select a deployment configuration. Click **Next**.

8 Select the location to store the files for the deployed template. Select **Thin Provision** as the Virtual Disk format. Select the datastore or the datastore clusters where you want to store the files. Click **Next**.

9 Select the network that the deployed VM will use.

The selected network should allow the appliance to reach out to Internet for support and upgrade.

10 To customize the template for the deployment, you will have to manually configure the appliance using the VM console. Click **Next**.

11 Verify the configuration details and click **Finish**.

12 Increase the Brick Size of your Setup to match the System Recommendations and Requirements.

13 Once the platform is installed, start the VM and launch the console.

14 Log in with the given console credentials. Run the `setup` command.

15 Create the password for the *support* login. Change the password for the *consoleuser*.

Note Your password must contain a minimum of 6 characters. A single quote (`'`) is not allowed.

Note You must change the *support* and *consoleuser* password periodically to comply with your organization policy.

16 Enter the following details to configure the network:

a **IPv4 Address**: Second reserved static IP address

b **Netmask**: Subnet mask for the above static IP

c **Default Gateway**: Default gateway of your network

d **DNS** : DNS server of your environment

Note For multiple DNS servers, ensure that they are separated by space.

e **Domain Search List** : The domain that needs to be appended for dns lookups

f Enter `y` to save the configuration.

17 Enter the NTP Sever and ensure that it can reached from the VM. The services will fail to start if NTP time is out of sync.

Note For multiple NTP servers, ensure that they are separated by commas.

18 (Optional) To configure Web Proxy, enter `y`.

19 All the services are verified.

20 Add additional disk space based on your setup requirement. See https://kb.vmware.com/s/article/53550.

Deployment Using vSphere Windows Native Client

You can deploy vRealize Network Insight using vSphere Windows native client.

Procedure

1 Click **File > Deploy OVF Template**.

2 Enter the URL to download and install the OVA package from the internet or browse to select the source location of the OVA package on your computer.

3 Click **Next** and verify the OVF template details.

4 Read the End-User License Agreement and click **Accept**.

5 Provide a name and specify the location for the deployed template. Click **Next**.

6 Select the **Deployment Configuration**.

7 Select a **Host/Cluster** where you want to run the deployed template.

8 Select the **Resource Pool** in which you want to deploy this template.

9 Select a destination storage for the VM files. Click **Next**.

10 Specify the format in which you want to store the virtual disks. Select **Thin Provision** as the virtual disk format. Click **Next**.

11 Specify the network that the deployed template should use. Map the network from OVA to your inventory.

12 Customize the template for the deployment. Provide the shared secret that was generated on the onboarding page. You will have to manually configure the appliance using the VM console. Click **Next**.

13 Verify all the configuration data. Check **Power on after deployment**. Click **Finish**.

14 Increase the Brick Size of your Setup to match the System Recommendations and Requirements.

15 Once the Collector OVA is installed, start the VM and launch the console.

16 Log in with the given console credentials. Run the `setup` command.

17 Create the password for the `support` login. Change the password for the `consoleuser`.

Note Your password must contain a minimum of 6 characters. A single quote (`'`) is not allowed.

Note You must change the *support* and *consoleuser* password periodically to comply with your organization policy.

18 Enter the following details to configure the network:

   a **IPv4 Address**: Second reserved static IP address

   b **Netmask**: Subnet mask for the above static IP

   c **Default Gateway**: Default gateway of your network

   d **DNS** : DNS server of your environment

   > **Note** For multiple DNS servers, ensure that they are separated by space.

   e **Domain Search List** : The domain that needs to be appended for `dns lookup`.

   f Enter `y` to save the configuration.

19 Enter the NTP Sever and ensure that it can reached from the VM. The services will fail to start if NTP time is out of sync.

> **Note** For multiple NTP servers, ensure that they are separated by commas.

20 (Optional) To configure Web Proxy, enter `y`.

21 All the services are verified.

22 Add additional disk space based on your setup requirement. See https://kb.vmware.com/s/article/53550.

Activating the License

After installing the vRealize Network Insight Platform OVA, open *https://<vRealize Network Insight Platform IP address>* in the Chrome Web browser.

Procedure

1 Enter the license key received in the welcome email.

2 For UI admin (`admin@local`) user name, set the password.

> **Note** Your password must be alphanumeric, with a minimum of 8 characters and a maximum of 100 characters. Space between the characters is not allowed.

3 Click **Activate**.

4 Add the vRealize Network Insight Collector after activating the license.

Generating Shared Secret

You can generate and import the vRealize Network Insight collector virtual appliance.

Generate a shared secret and import the vRealize Network Insight collector virtual appliance:

Procedure

1 Generate a shared secret after activating the license on the **Setup Proxy Virtual Appliance** page.

2 Copy the shared secret.

   You will require this during the deployment of vRealize Network Insight Collector OVA.

Setting up Network Insight Collector (OVA)

You can set up vRealize Network Insight collector by importing OVA to your vCenter server.

Follow the steps below to import the vRealize Network Insight collector OVA to your vCenter Server.

Deployment Using vSphere Web Client

You can import the vRealize Network Insight Collector OVA using vSphere Web Client.

Procedure

1 Right-click the **Datacenter** where you want to install the appliance and select **Deploy OVF Template**.

2 Enter the URL to download and install the OVA package from the internet or browse to select the source location of OVA from your computer.

3 Provide a name and specify the location for the deployed template. Click **Next**.

4 Select a resource (host or a cluster) where you want to run the deployed template. Click **Next**.

5 Verify all the details of the template. Click **Next**.

6 Read the End-User License Agreement and click **Accept**. Click **Next**.

7 Select a deployment configuration. Click **Next**.

8 Select the location where you want to store the files for the deployed template. Specify the format in which you want to store the virtual disks. Select **Thin Provision** as the virtual disk format. Select the Datastore in which you want to install the files. Click **Next**.

9 Specify the destination network for the source network. Click **Next**.

10 Customize the template for the deployment. Provide the shared secret that was generated from the UI. You will have to manually configure the appliance using the VM console. Click **Next**.

11 Verify all the configuration data. Click **Finish**.

12 Once the Collector OVA is installed, start the VM and launch the console.

13 Log in with the given console credentials. Run the `setup` command.

14 Create the password for the `support` login. Change the password for the `consoleuser`.

15 Enter the following details to configure the network:

   a **IPv4 Address**: Second reserved static IP address

   b **Netmask**: Subnet mask for the above static IP

   c **Default Gateway**: Default gateway of your network

   d **DNS** : DNS server of your environment

   Note For multiple DNS servers, ensure that they are separated by space.

   e **Domain Search List** : The domain that needs to be appended for dns lookups

   f Enter `y` to save the configuration.

16 Enter the NTP Sever and ensure that it can reached from the VM. The services will fail to start if NTP time is out of sync.

   Note For multiple NTP servers, ensure that they are separated by commas.

17 (Optional) To configure Web Proxy, enter `y`.

18 A check is made to see if the shared secret key has been configured. The collector is paired with the corresponding platform. This may take few minutes.

19 All the services are verified.

20 Click **Finish**, once **Proxy Detected!** message is displayed on the onboarding page. It will redirect to the Login Page.

Deployment using vSphere Windows Native Client

You can import the vRealize Network Insight Collector OVA using vSphere Windows native client.

Procedure

1 Click **File > Deploy OVF Template**.

2 Enter the URL to download and install the OVA package from the internet or browse to select the source location of the OVA package on your computer.

3 Verify the OVF template details. Click **Next**.

4 Read the End-User License Agreement and click **Accept**. Click **Next**.

5 Provide a name and specify the location for the deployed template. Click **Next**.

6 Select a **Deployment Configuration**. Click **Next**.

7 Select a **Host/Cluster** where you want to run the deployed template. Click **Next**.

8 Select the **Resource Pool** in which you want to deploy this template. Click **Next**.

9 Select a destination storage for the VM files. Click **Next**.

10. Specify the format in which you want to store the virtual disks. the Select **Thin Provision** as the virtual disk format. Click **Next**.
11. Specify the network that the deployed template should use. Map the network from OVA to your inventory.
12. Customize the template for the deployment. Provide the shared secret that was generated on the onboarding page. You will have to manually configure the appliance using the VM console. Click **Next**.
13. Verify all the configuration data. Check **Power on after deployment**. Click **Finish**.
14. Once the Collector OVA is installed, start the VM and launch the console.
15. Log in with the given console credentials. Run the `setup` command.
16. Create the password for the `support` login. Change the password for the `consoleuser`.
17. Enter the following details to configure the network:

    a. **IPv4 Address**: Second reserved static IP address

    b. **Netmask**: Subnet mask for the above static IP

    c. **Default Gateway**: Default gateway of your network

    d. **DNS** : DNS server of your environment

       Note For multiple DNS servers, ensure that they are separated by space.

    e. **Domain Search List** : The domain that needs to be appended for `dns lookup`.

    f. Enter `y` to save the configuration.
18. Enter the NTP Sever and ensure that it can reached from the VM. The services will fail to start if NTP time is out of sync.

    Note For multiple NTP servers, ensure that they are separated by commas.
19. (Optional) To configure Web Proxy, enter `y`.
20. A check is made to see if the shared secret key has been configured. The collector is paired with the corresponding platform. This may take few minutes.
21. All the services are verified.
22. Click **Finish**, once **Proxy Detected!** message is displayed on the onboarding page. It will redirect to the Login Page.

Setting up Network Insight Collector (AMI) in AWS for VMware SD-WAN

You can set up vRealize Network Insight collector for AWS by importing Amazon Machine Image (AMI) to your AWS environment.

If your environment does not have a vCenter server, and you want to deploy your collector in a cloud environment then you can deploy your collector in AWS.

Note Currently, vRealize Network Insight supports the collector deployment in AWS using AMI only for VMware SD-WAN.

The procedure and task related to EC2 instances are documented in https://docs.aws.amazon.com/efs/index.html.

Procedure

1 Launch your EC2 instance using the VMware provided AMI in the Amazon EC2 console. For procedure details, see Create Your EC2 Resources and Launch Your EC2 Instance topic in the *Amazon Elastic File System* documentation.

   Note When you Launch your EC2 instance in AWS, you must select the following:

Option	Action
Instance type	m4.xlarge (MEDIUM BRICK)
Network	Select an appropriate network and subnet.
Storage	Default Storage.
Tags	As per customer Policies.
Security Group	Allow Outbound to 0.0.0.0/0 for port 443 (or for restricted rules, allow outbound for NI SaaS Prod FQDN for port 443).
Key	Select appropriate Key (SSH Login is enabled for the AMI).

2 When your EC2 instance is in the running state, log in to your EC2 instance.

3 Log in with the given console credentials. Run the `setup` command.

4 Create the password for the `support` login. Change the password for the `consoleuser`.

   Note After you change the password, the network options will be skipped during setup CLI.

   Proxy AMI does not support the following:

   - IP change
   - IPv6
   - Web Proxy Configuration.

5 Enter the NTP Server and ensure that it can be reached from the VM. The services fail to start if the NTP time is out of sync.

   Note For multiple NTP servers, ensure that they are separated by commas.

6. A check is made to see if the shared secret key has been configured. The collector is paired with the corresponding platform. This process can take few minutes.
7. All the services are verified.

What to do next

Enable the flow collection from Edges to the collector you deployed in AWS. To enable the flow collection, do the following:

- Make the collector you deployed in AWS as a Non-VeloCloud Site. For details, contact VMware support.

Deploy Additional Collector to an Existing Setup

You can add additional vRealize Network Insight collector to an existing setup.

Procedure

1. Log into the vRealize Network Insight UI. Navigate to **Settings > Install and Support**.
2. Click **Add Proxy VM**.
3. Copy the shared secret from the dialog that is displayed.
4. Follow the steps in section Setting up Network Insight Collector (OVA) in step 3.

Accessing vRealize Network Insight by using the Evaluation License

3

vRealize Network Insight starts in the NSX assessment mode when you use the evaluation license.

You can add a data source to vRealize Network Insight, analyze traffic flow, and generate reports.

Note To switch to the Full Product mode, click Switch to Full Product Evaluation located in the bottom right corner.

This chapter includes the following topics:

Add vCenter Server

You can add vCenter Servers as data source to vRealize Network Insight.

Multiple vCenter Servers can be added to vRealize Network Insight to start monitoring data.

Procedure

1 Click **Add vCenter**.

2 Click **Add new source** and customize the options.

Option	Action
Source Type	Select the vCenter Server system from the drop-down menu.
IP Address/FQDN	Enter the IP address or fully qualified domain name of the vCenter Server.

Option	Action
Username	Enter the user name with the following privileges: ■ **Distributed Switch**: Modify ■ **dvPort group**: Modify For information about the required additional privileges, see the *vCenter Privileges section in the Install Guide*.
Password	Enter the password for vRealize Network Insight software to access the vCenter Server system.

3 Click **Validate**.

If the number of VMs discovered exceeds the capacity of the platform or a collector node or both, the validation fails. You will not be allowed to add a data source until you increase the brick size of the platform or create a cluster.

The specified capacity for each brick size with and without flows is as follows:

Brick Size	VMs	State of Flows
Large	6k	Enabled
Large	10k	Disabled
Medium	3k	Enabled
Medium	6k	Disabled

4 Select **Enable Netflow (IPFIX) on this vCenter** to enable IPFIX.

For more information on IPFIX, see the Enabling IPFIX configuration on VDS and DVPG section.

5 Add advanced data collection sources to your vCenter Server system.

6 Click **Submit** to add the vCenter Server system. The vCenter Server systems appear on the homepage.

Analyze Traffic Flows

You can use vRealize Network Insight to analyze flows in your datacenter.

Prerequisites

At least two hours of data collection must occur before starting the flow analysis.

Procedure

1 Specify the scope of the analysis. For example, if you are interested in flows of all virtual machines in a **Cluster**, select Cluster from the dropdown menu. You can alternately select all virtual machines connected to a VLAN or VXLAN.

2 Select the entity name for which you want to analyze the flows.

3 Select the duration and click **Analyze**.

Generate a Report

You can generate a report of the flow assessment.

Prerequisites

Analyze traffic flows in the datacenter. For comprehensive reports, collect 24 hours of data before the analysis.

Procedure

1 In the **EVAL NSX Assessment Mode**, click **Generate Report** in the Analyze Flows page.

2 In the **Non EVAL Mode**, on the **Microsegmentation** page, click **Traffic Distribution > More Options > Assesment Report**.

Planning to Scale up your Deployment

4

If the VM count or the number of active flows in your setup are high or expected to grow, you can increase the size of the platform or collector.

This chapter includes the following topics:

Planning to Scale up the Platform Cluster

You can scale up the platform cluster to meet the increasing load. Based on the load, you can either scale up by increasing the brick size or creating or expanding a platform cluster. Three LARGE platform bricks can be connected together to form a platform cluster. If a platform is of LARGE or EXTRA LARGE brick size, then you have to scale up by creating a platform cluster.

To decide platform brick size and number of platform bricks, see System Recommendations and Requirements.

Note The platform cluster does not support the high availability configuration. All the platform nodes need to be up and running for the cluster to work at optimal performance levels.

Scaling up Scenarios for the Platform Cluster

- Scenario 1 : Your platform is running 5000 VMs and 1.5 million active flows

  Convert your platform MEDIUM to LARGE. See Increase the Brick Size of your Setup.

- Scenario 2 : Your platform is running a single LARGE node with 9000 VMs and 2 million active flows

  Add two more LARGE brick nodes to convert into 3-node LARGE brick cluster. See *Expand Clusters in the vRealize Network Insight User Guide*.

- Scenario 3 : Your platform is running a 3-node LARGE cluster with one or more colletors, 15000 VMs and 4 million active flows.

Convert your existing platform nodes from LARGE to EXTRA–LARGE. See Increase the Brick Size of your Setup.

- Scenario 4 : Your platform is running a 3-node EXTRA–LARGE cluster with one or more colletors, 25000 VMs and 8 million active flows.

  Add two more EXTRA–LARGE brick nodes to convert into 5-node Extra–LARGE cluster. See *Expand Clusters in the vRealize Network Insight User Guide*.

Planning to Scale up the Collector

The collector capacity is based on the brick size. The datasource that you can add to a collector is depended on the capacity of the collector (VMs and flows).

See Table 1-7. Collector Deployment - Maximum Capacity. After a collector is of LARGE brick size, you have to add more collectors. You can scale up each collector to EXTRA–LARGE size.

You can add multiple datasources to a collector based on the supported collector capacity. However, you cannot add same datasource to multiple collectors.

Scaling up Scenarios for the Collectors

- Scenario1: 2000 VMs in a vCenter.

  Install one medium collector VM. Add the vCenter to this collector. See Add vCenter Server.

- Scenario 2: 1000 VMs in vCenter1 and 2000 VMs in vCenter2 (all of them are in one data center)

  Install one medium collector VM. Add both vCenters to this collector. See Add vCenter Server.

- Scenario 3: 1000 VMs in vCenter1 (data center1) and 2000 VMs in vCenter2 (data center2)

  Install one medium collector VM in each data center. Add vCenter1 to a collector VM in same data center and Add vCenter2 to a collector VM in its data center. See Add vCenter Server.

- Scenario 4: VM count exceeds 4000, active flows exceeds 2.5 Million.

  Convert your collector VM from MEDIUM to LARGE. See Increase the Brick Size of your Setup.

- Scenario 5: 9,000 VMs in vCenter1 without flows (data center1).

  Install one large collector VM. Add this vCenter to the collector. See Add vCenter Server.

- Scenario 6: VM count is less than or equal to 10000, but the active flow exceeds 5 million.

  Convert your collector VM from LARGE to EXTRA–LARGE. See Increase the Brick Size of your Setup.

- Scenario 8: Two vCenters, vCenter1 has 10000 VMs and 9 million active flows, and vCenter2 has 10000 VMs and 4 million active flows.

Install one EXTRA–LARGE and one LARGE proxies. Add vCenter1 to EXTRA–LARGE proxy and add vCenter2 to LARGE proxy.

- Scenario 9: One vCenter that runs 10000 VMs and 9 million active flows.

  Install one EXTRA–LARGE proxy and add the vCenter to the proxy.

Increase the Brick Size of your Setup

To match your requirements, you can change the brick size of your platform or the collector appliance from MEDIUM to LARGE or LARGE to EXTRA–LARGE.

Procedure

- Perform the steps that are relevant to your setup.

Option	Description
For a single node platform or fresh independent OVA	a Log in to vCenter. b Shutdown the platform VM. c Increase the disk, RAM, total vCPU and corresponding reservation of the VM to match the target brick size. For more information, see the System Recommendations and Requirements page. d Restart Platform VM.
For a cluster platform	a Log in to vCenter. b Shutdown the platform VM in the reverse chronological order. For example: Shut down from Node 3 to Node 1. c Increase the disk, RAM, total vCPU and corresponding reservation. For more information, see the System Recommendations and Requirements. d Restart Platform VMs in the chronological order. For example: Restart from Node 1 to Node 3.
For a collector	a Log in to vCenter. b Shutdown the collector VM. c Increase the disk, RAM, total vCPU and corresponding reservation of the VM to match the target brick size. For more information, see the System Recommendations and Requirements page. d Restart the collector VM.

Upgrading vRealize Network Insight

5

You can upgrade your current vRealize Network Insight environment to the latest version.

vRealize Network Insight provides the following modes of upgrade:

- Online Upgrade
- Single-Click Offline Upgrade
- Offline Upgrade using Command Line Interface (CLI)

Note If issues such as upload failure or UI failure come up while performing the centralized upgrade, contact VMware support.

Note the following important points to upgarde:

- During upgrade from 4.1 to 5.0, the Operating System of vRealize Network Insight setup (Platforms and Collectors) is upgraded from Ubuntu 14.04 to Ubuntu 16.04.
- During upgrade from 4.1 to 5.0, vRealize Network Insight setup VMs are rebooted as part of the upgrade process.
- It takes around 1-2 hours to upgrade a vRealize Network Insight setup. But, if you are upgrading from 4.1 to 5.0 then a single node setup takes around 1-2 hours and around 3-4 hours to upgrade a cluster. The upgrade time does not depend on the number of nodes.
- After upgrade, vRealize Network Insight takes around two to three hours to reflect the latest data in UI.
- vRealize Network Insight does not support rollback or product downgrade. You must take a backup before you proceed to upgrade. For more information about the back up and restore process, see the https://kb.vmware.com/s/article/55829 KB article.

Note In a cluster environment, you must perform the upgrade operation only from Platform 1 (P1) node.

This chapter includes the following topics:

Online Upgrade

Whenever there is a new version of vRealize Network Insight available, you receive a notification.

Prerequisites

- Verify you meet the following disk space requirements for platform and collector server:
  - `/tmp` - 6 GB
  - `/home` - 2 GB
- Verify you meet the following disk space requirement for platform server:
  - /- 6 GB (Only for the Platform1 node)
- **Note** The upgrade steps may fail if there is insufficient space in the `/tmp` directory.
- Verify you have sufficient bandwidth to download the upgrade bundle from the server. The minimum bandwidth requirement is 500 KB/s.

  Note vRealize Network Insight checks for minimum download bandwidth requirement. The **Install and the Support** page throws an error, if the download bandwidth check fails.

Procedure

1. To enable online upgrade, you have to contact the VMware support. Verify the upgraded version from the product UI under **Settings** page to be one that is mentioned in the update.

   Note

   - If the update notification is not available, verify that both vRealize Network Insight Platform and Collector VMs have connectivity to `svc.ni.vmware.com` on port 443 and `reg.ni.vmware.com` on port 443 by running the `show-connectivity-status` command. If this connectivity requires `http proxy`, configure it on each VM using the `set-web-proxy` command. Ensure that the output contains upgrade connectivity status as `Passed`.
   - File a support ticket and provide the service tag from the product UI. The service tag is shown under **Settings > About**.
   - Provide a screenshot of the `show-connectivity-status` command output from each vRealize Network Insight Platform and Collector VMs.

2. When an update is available, you see **Update available** message notification.
3. In the **Update available** message notification, click **View details** to view details of update.

   vRealize Network Insight 5.0.0 Upgrade window appears.

4. Read the **Before you proceed** instruction and click **Continue**.
5. Wait for the pre-checks to complete, and then click **Install Now**.

6 Once the upgrade process begins, the **vRealize Network Insight 5.0.0 Upgrade** window provides the status of the upgrade process.

Note

- Ensure that all the nodes are online before beginning the upgrade. If any node is inactive before the upgrade begins, you will not be allowed to trigger the upgrade.
- Once the upgrade begins, if a node becomes inactive, the upgrade process does not continue. The upgrade will not resume until the node becomes active again.
- The Platform1 becomes the upgrade server here. If Platform1 is offline, then no other node is upgraded.
- Once the platforms are upgraded, you can resume your normal vRealize Network Insight operations even though the collector upgrade happens in parallel. Until the upgrade process is completely over, the `Node Version Mismatch detected` message is shown in the **Install and Support** page.

Single-Click Offline Upgrade

vRealize Network Insight supports the single-click offline upgrade of the product from Release 3.7 and later.

Prerequisites

- Verify you meet the following disk space requirements for platform and collector server:
  - `/tmp` - 6 GB
  - `/home` - 2 GB
- Verify you meet the following disk space requirement for platform server:
  - /- 12 GB (Only for the Platform1 node)

  Note The bundle upload and the subsequent upgrade steps may fail if there is insufficient space in the `/tmp` directory.
- To avoid the UI session timeout, increase the **User Session Timeout** to at least 2 hours. To increase the session timeout, go to **Settings > System Configuration > User Session Timeout**. After you change the session timeout duration, you must log in again to the system.
- Ensure that you have taken snapshots for all the platform and collector VMs.

Procedure

1 Download the required upgrade bundle file from My VMware and save the update package in your local disk.

2 Check and ensure that the `MD5SUM` value of the downloaded bundle matches the `MD5SUM` value specified in the VMware website.

3 On the **Install and Support** page, under **Software version**, click **Click here**.

4 Click **Browse** to select the file and click **Upload**.

When the upload is complete, vRealize Network Insight show the `Bundle Upload Complete` message notification within 2-3 minutes and the bundle processing happens in the background.

Note Do not refresh the page after bundle upload until you see the `Update Available` message notification.

5 In the `Update Available` message notification, click **View details**.

vRealize Network Insight Upgrade screen appears.

6 Read the **Before you proceed** instruction and click **Continue**.

7 Wait for the pre-checks to complete, and then click **Install Now**.

8 Once the upgrade process begins, vRealize Network Insight Upgrade screen provides the status of the upgrade process.

Note

- Ensure that all the nodes are active before beginning the upgrade. If any node is inactive before the upgrade begins, the upgrade is not triggered.
- Once the upgrade begins, if a node becomes inactive, the upgrade process does not continue. The upgrade will not resume until the node becomes active again.
- Until the upload of the package happens, the user should take care that the session is not closed. If the session ends, the user has to restart the upload process.
- The Platform 1 becomes the upgrade server here. If Platform1 is offline, then no other node is upgraded.
- Once the platforms are upgraded, you can resume your normal vRealize Network Insightoperations even though the collector upgrade happens in parallel. Until the upgrade process is completely over, the `Node Version Mismatch detected` message is shown in the **Install and Support** page.

9 Upon the completion of upgrade process, you see the confirmation message.

All platforms and the collectors nodes are upgraded.

What to do next

- Log in to vRealize Network Insight and perform your tasks.
- After two or three days, delete the snapshots to save the disk space.

Offline Upgrade

Consider the offline upgrade only if both online upgrade or single-click offline upgrade does not work. You must upgrade Platform VMs before Collector VMs.

In a cluster environment, you must perform the upgrade operation only from Platform 1 (P1) node and the other Platform nodes in the cluster get upgraded automatically. But you must upgrade each Collector individually.

Procedure

1. Download the required upgrade bundle file from My VMware.
2. Check and ensure that the `MD5SUM` value of the downloaded bundle matches the `MD5SUM` value specified in the VMware website.
3. Copy the upgrade bundle to vRealize Network Insight Platform 1 VM and all Collector VMs.
   - To copy the file from Linux VM to vRealize Network Insight VM, run command `scp <filename>.upgrade.bundle consoleuser@<IP_Address_vRNI_VM>:~/`.
   - To copy the file from Windows VM to vRealize Network Insight VM, run command `pscp –scp <SOURCE_PATH>\<filename>.upgrade.bundle consoleuser@<IP_Address_vRNI_VM>:~/`.

   Note Use the `pscp` utility from `https://the.earth.li/~sgtatham/putty/latest/w64/pscp.exe`.
4. Log in to the vRealize Network Insight Platform 1 through CLI using `consoleuser` and run the following commands:
   - `package-installer copy --host localhost --user consoleuser --path /home/consoleuser/<filename>.upgrade.bundle`
   - `package-installer upgrade --name <filename>.upgrade.bundle`

   Note You must perform the Platform upgrade first then start the Collector update.
5. For 4.1 to 5.0 upgrade, run the `package-installer upgrade` command again after the setup is rebooted as part of OS upgrade.

   Important During the 4.1 to 5.0 upgrade, if you get an SSH session timeout error, you must check `/var/log/arkin/centralized_upgrade.log` to know if the reboot has already happened. If the reboot is successful, you must run the `package-installer upgrade` command again.
6. Log in to each Collector node through CLI and perform the upgrade using the same commands used for platform upgrade.

   Note You can upgrade all the Collectors simultaneously.
7. Verify the upgraded version using the `show-version` command.

Uninstall vRealize Network Insight

6

You must uninstall vRealize Network Insight through vSphere Web Client.

Procedure

1 If you can access the vRealize Network Insight web portal, do the following:

   a Log in to the vRealize Network Insight web portal.

   b Go to **Settings > Accounts and Datasources**.

   c Turn off and delete all datasources.

      Deletion of the vCenter datasource removes IPFIX settings (if configured) on VDS. Similarly deletion of the NSX Manager datasource removes IPFIX settings from NSX Flow Monitor.

2 If you are unable to access the vRealize Network Insight web portal, do the following:

   a If Netflow (IPFIX) is enabled on vCenter, remove vRealize Network Insight collector IP from VDS/DVPG IPFIX settings. See Remove Collector IP When Netflow is Enabled in vCenter.

   b If IPFIX is enabled on NSX, remove vRealize Network Insight collector IP Flow Monitoring settings. See Remove Collector IP When Netflow is Enabled in NSX.

   c If Netflow is configured on physical switches to send Netflow to vRealize Network Insight Netflow Collector, modify the configuration at switches to stop sending NetFlow information.

3 If any specific firewall or routing rules are created to allow or route traffic to and from vRealize Network Insight VMs, remove those firewall/routing rules.

4 For security reasons, clean up access credentials used to configure data sources in vRealize Network Insight.

5 Shutdown and delete all vRealize Network Insight Collectors and Platform VMs.

Remove Collector IP When Netflow is Enabled in vCenter

If Netflow (IPFIX) is enabled in vCenter, use this procedure to remove vRealize Network Insight Collector IP from Virtual Dedicated Server (VDS)/Distributed Virtual Port Group (DVPG) IPFIX settings.

Procedure

1 Log in to vSphere Web Client.

2 Go to **Home > Networking**.

3 In the left pane, select the **VDS** and click **Configure > Edit**.

4 In the **Collector IP address** field, remove vRealize Network Insight Collector IP details.

5 In the **Collector Port** field, remove the port details.

6 Click **OK**.

You must wait around two minutes before you move to the next step.

7 Select the DVPG of this VDS and click **Configure > Policies > Edit**.

8 In the **Netflow** field, select **Disable** from the drop-down.

9 Verify your settings and click **Apply**.

What to do next

Perform the steps again for each VDS and its DVPGs for which IPFIX is enabled to remove vRealize Network Insight Collector IP.

Remove Collector IP When Netflow is Enabled in NSX

If Netflow (IPFIX) is enabled in NSX, use this procedure to remove vRealize Network Insight (vRealize Network Insight) Collector IP flow monitoring settings.

Procedure

1 Log in to vSphere Web Client.

2 Click **Home > Networking & Security > Tools > Flow Monitoring > Configuration**.

3 In the **Global Flow Collection Status**, click **Disable**.

4 To disable the flow connection, click **IPFIX**.

5 In the **IPFIX** tab, select the **Collector IP** and click **Delete**.

6 If there are no more IPs left, then click **Edit** and clear **Enable IPFIX Configuration** check-box.

7 Click **Save**.