vRealize Network Insight Installation Guide

vRealize Network Insight 3.1

vmware®

You can find the most up-to-date technical documentation on the VMware Web site at:
http://www.vmware.com/support/
The VMware Web site also provides the latest product updates.
If you have comments about this documentation, submit your feedback to:
docfeedback@vmware.com

Contents

VMware, Inc.

Intended Audience

This information is intended for administrators or specialists responsible for installing VMware® vRealize® Network Insight™ 3.1

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.
Italic	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.

This guide explains how to install the VMware® vRealize® Network Insight™ 3.1

Installation Workflow

```
┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│ Install Platform │      │      Open        │      │ Generate Shared │
│ OVA (Import in   │ ───▶ │ https://<Platform IP │ ──▶ │ Secret and Setup│
│ vCenter Server)  │      │ Address> and activate│      │   Proxy OVA     │
│                  │      │     license      │      │                 │
└─────────────────┘      └─────────────────┘      └─────────────────┘
                                                            │
                                                            ▼
                                                   ┌─────────────────┐
                                                   │ Log into vRealize│
                                                   │ Network Insight and│
                                                   │ add Data sources │
                                                   └─────────────────┘
```
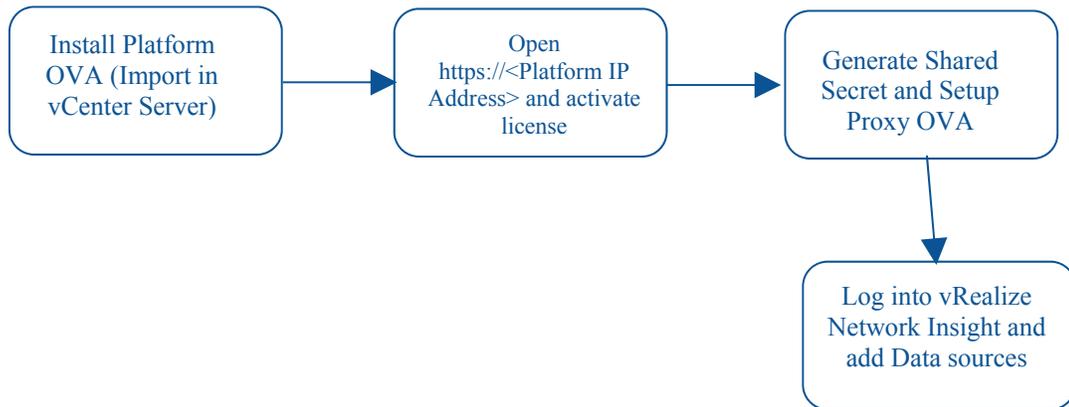
System Requirements

Following are the requirements for installing vRealize Network Insight.

Minimum resource requirements

- vRealize Network Insight Platform OVA:

    - 8 cores - Reservation 4096 Mhz
    - 32 GB RAM - Reservation - 16GB
    - 750 GB - HDD, Thin provisioned
- vRealize Network Insight Proxy OVA
    - 4 cores - Reservation 2048 Mhz
    - 10 GB RAM - Reservation - 5GB
    - 150 GB - HDD, Thin provisioned
- To configure and use IPFIX
    - vCenter Server Credentials with privileges:

        - ***Distributed Switch:* Modify**
        - ***dvPort group:* Modify**

Software requirements

- Google Chrome or Mozilla Firefox web browser

Supported products and versions

Environment	Version/Model	Description

VMware vSphere	vSphere 5.5 (up to U3)
	
	vSphere 6.0 (up to U2)
	
	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
	
	Recommended that VMware Tools installed on all the Virtual Machines in the data center. This helps in identifying the VM to VM path.
		Data provider connects to VMware vCenter over HTTPS to fetch virtual environment information.

VMware NSX	6.2 (up to 6.2.4) 6.1 (up to 6.1.7) 6.0	The data provider connects ● VMware NSX Manager over HTTPS ● VMware NSX Controller over SSH ● VMware NSX Edge over SSH or Central CLI depending on customer preference

Cisco Nexus	5000, 7000, 9000, VSM N1000	The data provider connects Cisco Nexus switches over SSH v2 and SNMP.
Cisco UCS (Unified Computing System)	Series B blade servers, Series C rack servers, Chassis, Fabric interconnect	The data provider connects to UCS Manager over HTTPS and UCS Fabric Interconnect over SSH to fetch information. It also connects to the SNMP service on UCS.
Cisco Catalyst switches	3000, 3750, 4500, 6000, 6500	The data provider Cisco Catalyst switches connects to device over SSH and SNMP.
Dell switches	FORCE10 MXL 10, FORCE10 S6K	The data provider connects to Dell switches over SSH v2 and SNMP.
Arista switches	7050TX, 7250QX	The data provider connects to Arista switches over SSH v2 and SNMP.
Brocade Switches	VDX 6740, VDX 6940	The data provider connects to Brocade switches over SSH v2 and SNMP.
Juniper Switches	EX3300	The data provider connects to Juniper switches over SSH v2 and SNMP.
Palo Alto Networks	Panorama 7.0.3 and above	**Beta Support** The data provider connects to Palo Alto Panorama appliance HTTPS.
HP	HP Virtual Connect Manager 4.41	**Beta Support** The data provider connects to HP Virtual Connect Manager over SSH v2.

The Installation Process

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1. Installing vRealize Network Insight Platform OVA

Refer the following steps to import the vRealize Network Insight Platform OVA in your vCenter Server:

- **For deployment using vSphere Web Client**

  a. Right-click on the *Datacenter* where you want to install the appliance and select Deploy OVF Template.
  b. Browse to select the *source location* of the appliance OVA.
  c. Verify the OVF template details.
  d. Read the End User License Agreement and click Accept.
  e. Select the *destination folder* in which you want to create the VM and give a *desired name* to the VM.
  f. Select the **Deployment Configuration**
  g. Select a *Host/Cluster* where you want to run the deployed template.
  h. Select the *Resource Pool* in which you want to deploy this template.
  i. Select the *Datastore* where you want to store the files.
  j. Select the Virtual Disk format as "Thin Provision".
  k. Select the *Network* that the deployed VM will use.
     (Selected network should allow the appliance to reach out to the Internet for support and upgrade)
  l. Customize the template as mentioned below:
     - **IPv4 Address:** First reserved static IP address
     - **Netmask:** Subnet mask for the above static IP
     - **Gateway:** Default gateway of your network
     - **DNS Server List:** DNS servers of your environment
     - **Domain Search List** [*Optional*]: Determines which domain to be appended for dns lookups
     - **NTP Server List:** You can either enter your own list of NTP servers or you can also use the defaults already provided

- **Web Proxy IP/FQDN** [*Optional*] and **Web Proxy Port** [*Optional*]:
  For accessing the Internet using a proxy
- **Syslog server IP** [*Optional*]: IP address of the syslog server where you want to send the syslog messages
- Uncheck the **Log Push Enable** checkbox if you do not want to send diagnostic and troubleshooting data to VMware.

m. Review the details and select the "**Power on after deployment checkbox",** then click **Finish**.

- **For deployment using vSphere Windows native client**

  a. Click File > Deploy OVF Template.
  b. Browse to select the source location of the OVA.
  c. Click **Next** and Verify OVF template details.
  d. Read the End User License Agreement and click Accept.
  e. Ensure the desired folder is selected and give a name to the VM.
  f. Select the **Deployment Configuration**
  g. Select a *Host/Cluster* where you want to run the deployed template.
  h. Select the *Resource Pool* in which you want to deploy this template.
  i. Select the *Datastore* where you want to store the files.
  j. Select the Virtual Disk format as "Thin Provision".
  k. Map the *Network* from OVA to your inventory.
  l. Customize the template as mentioned below:
     - **IPv4 Address:** First reserved static IP address
     - **Netmask:** Subnet mask for the above static IP
     - **Gateway:** Default gateway of your network
     - **DNS Server List:** DNS servers of your environment
     - **Domain Search List** [*Optional*]: Determines which domain to be appended for dns lookups
     - **NTP Server List:** You can either enter your own list of NTP servers or you can also use the defaults already provided
     - **HTTP Proxy IP/FQDN** [*Optional*] and **HTTP Proxy Port** [*Optional*]:
       For accessing the Internet using a proxy
     - **Syslog server IP** [*Optional*]: IP address of the syslog server where you want to send the syslog messages
     - Uncheck the **Log Push Enable** checkbox if you do not want to send diagnostic and troubleshooting data to VMware.
     - Select the **Health Telemetry Enable** checkbox, to improve the product by sending anonymous data about product performance.
  m. Review the details and select the "**Power on after deployment"** checkbox, then click **Finish**.

2. After the vRealize Network Insight Platform OVA is deployed and running, you must verify whether the given static IP is set on vCenter Server.
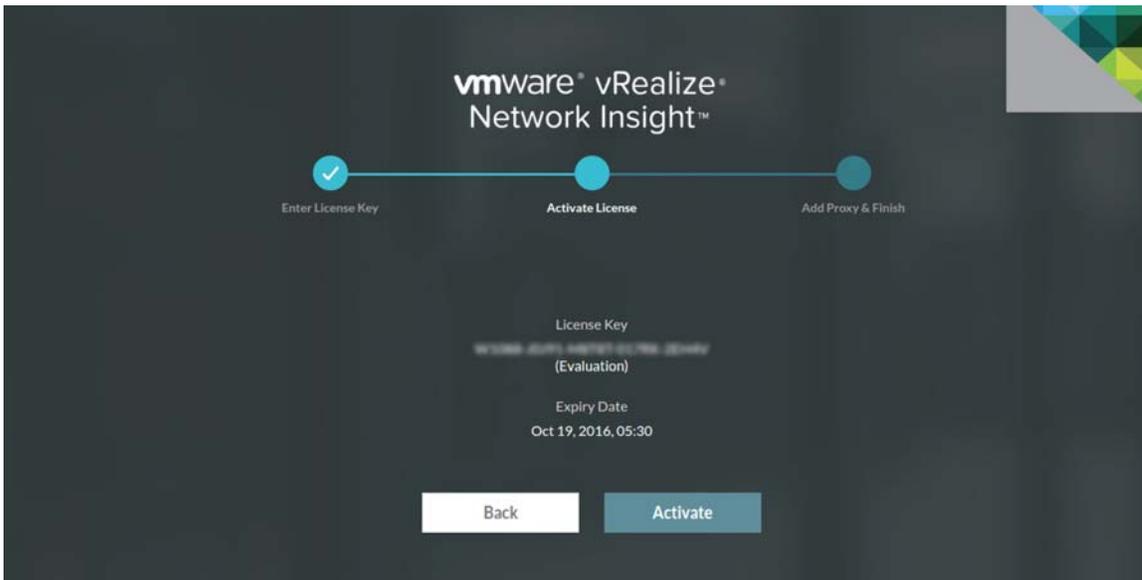
2. Activating the license

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

1. Enter the license key received in the welcome email, and click **Validate**.

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2. Review the license details, and click **Activate**.


After activating the license, start installing the vRealize Network Insight Proxy virtual appliance.

3. Generating Shared Secret and Setting up vRealize Network Insight Proxy virtual appliance (OVA)

Follow the steps below to generate a shared secret and import the vRealize Network Insight Proxy virtual appliance:

1. After activating the license, on the "Setup Proxy Virtual Appliance" onboarding page, **Generate** a shared secret.
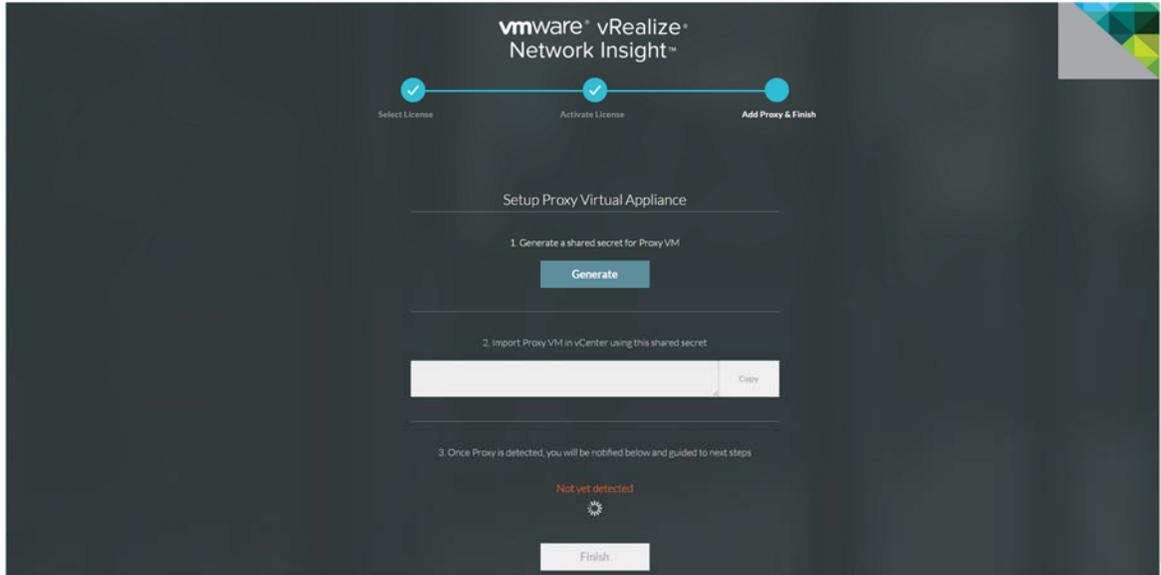
2. Copy the shared secret. You will require this during deployment of vRealize Network Insight Proxy OVA.
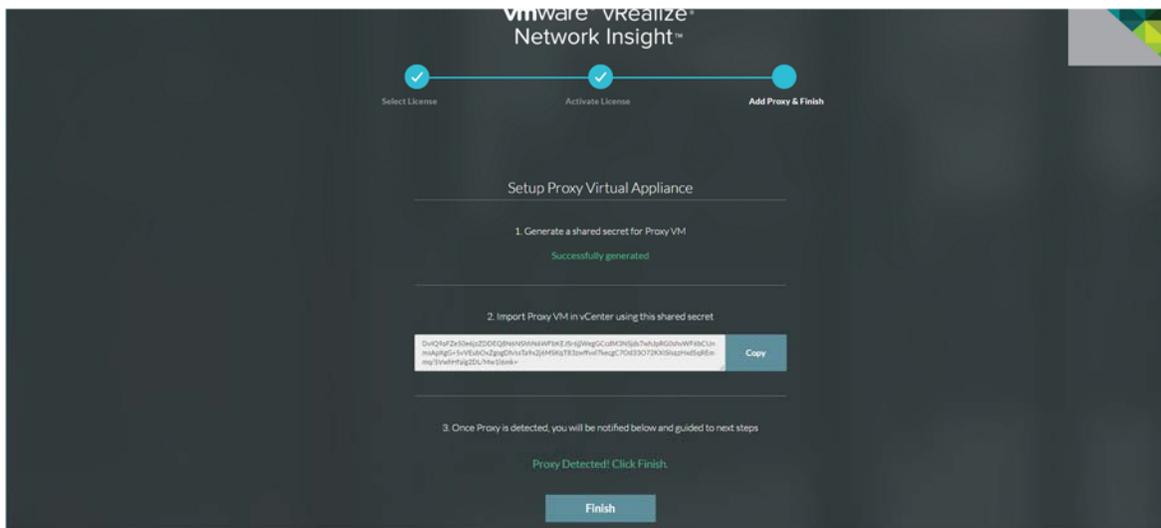
3. Refer to the following steps to import the **vRealize Network Insight Proxy OVA** in your vCenter Server:

For deployment using vSphere web client

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

    b. Browse to select the source location of the appliance OVA.

    c. Verify the OVF template details.

    d. Read the End User License Agreement and click Accept.

    e. Select the destination folder in which you want to create the VM and give a desired name to the VM.

    f. Select the **Deployment Configuration**

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

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

    i. Select the *Datastore* where you want to store the files.

    j. Select the Virtual Disk format as "Thin Provision".

    k. Select the *Network* that the deployed VM will use.

    l. Customize the template as mentioned below:

- **Shared Secret for vRealize Network Insight Proxy:** The shared secret generated on the onboarding page.
- **IPv4 Address:** Second reserved static IP address
- **Netmask:** Subnet mask for the above static IP
- **Gateway:** Default gateway of your network
- **DNS Server List:**, DNS servers of your environment
- **Domain Search List** [*Optional*]: Determines which domain to be appended for dns lookups
- **NTP Server List:** You can either enter your own list of NTP servers or you can also use the defaults already provided
- **Web Proxy IP/FQDN** [*Optional*] and **Web Proxy Port** [*Optional*]:
  For accessing the Internet using a proxy
- **Syslog server IP** [*Optional*]: IP address of the syslog server where you want to send the syslog messages
- Uncheck the **Log Push Enable** checkbox if you do not want to send diagnostic and troubleshooting data to VMware.
- Select the **Health Telemetry Enable** checkbox, to improve the product by sending anonymous data about product performance.

    m. Review the details and select the **Power on after deployment** checkbox then click **Finish**.

For deployment using vSphere Windows native client

    a. Click File > Deploy OVF Template.

    b. Browse to select the source location of the OVA.

    c. Verify OVF template details.

    d. Read the End User License Agreement and click Accept.

    e. Ensure the desired folder is selected and give a name to the VM.

    f. Select the **Deployment Configuration**

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

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

i. Select the *Datastore* where you want to store the files.

j. Select the Virtual Disk format as "Thin Provision".

k. Select the network that the deployed VM will use.

l. Map the network from OVA to your inventory.

m. Customize the template as mentioned below:

- **Shared Secret for vRealize Network Insight Proxy:** The shared secret generated on the onboarding page.
- **IPv4 Address:** Second reserved static IP address
- **Netmask:** Subnet mask for the above static IP
- **Gateway:** Default gateway of your network
- **DNS Server List:** DNS servers of your environment
- **Domain Search List** [*Optional*]: Determines which domain to be appended for dns lookups
- **NTP Server List:** You can either enter your own list of NTP servers or you can also use the defaults already provided
- **HTTP Proxy IP/FQDN** [*Optional*] and **HTTP Proxy Port** [*Optional*]: For accessing the Internet using a proxy
- **Syslog server IP** [*Optional*]: IP address of the syslog server where you want to send the syslog messages
- Uncheck the **Log Push Enable** checkbox if you do not want to send diagnostic and troubleshooting data to VMware.
- Select the **Health Telemetry Enable** checkbox, to improve the product by sending anonymous data about product performance.

n. Review the details and select the **Power on after deployment** checkbox then click **Finish**.
   Note: After the vRealize Network Insight Proxy OVA is deployed and running, you must verify whether the given static IP is set on vCenter Server.

4. Click **Finish,** once "**Proxy Detected!"** message is displayed on the onboarding page. It will redirect to the Login Page.
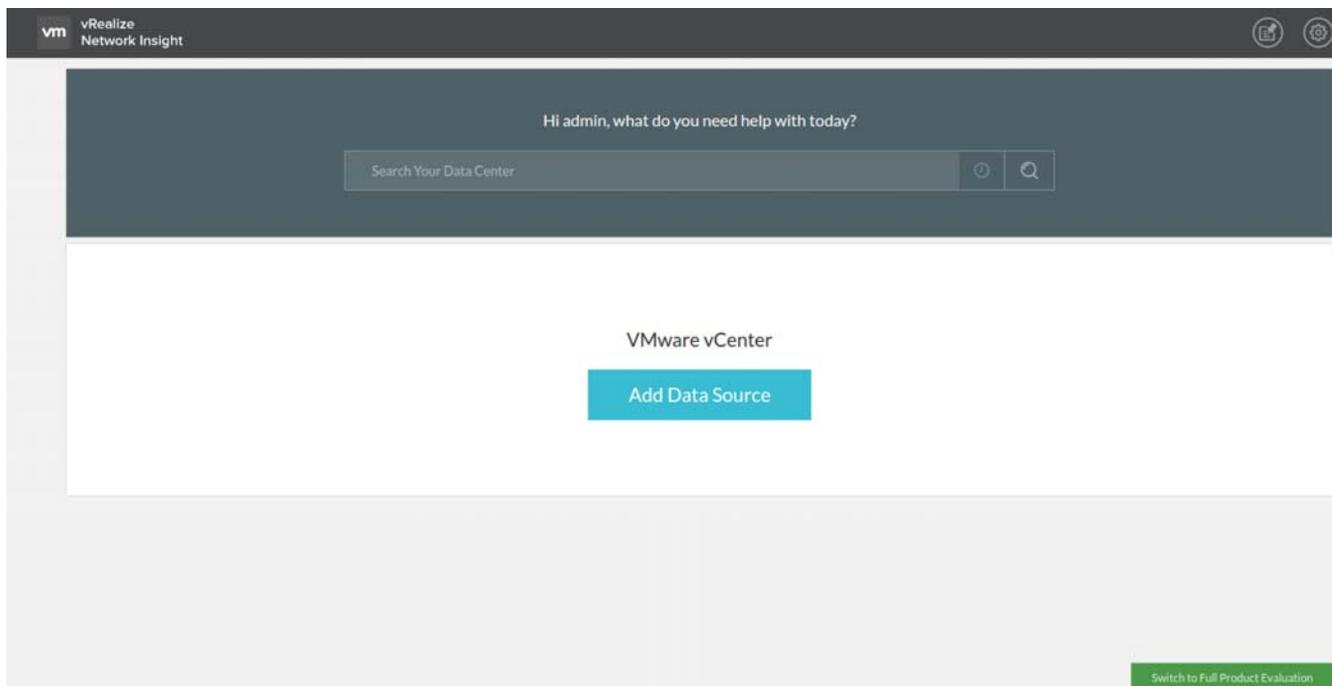
4. Default Login Credentials to the product

Open *https://<vRealize Network Insight Platform IP address>* in Chrome web browser. The default credentials to login to the product UI are:
- Username – admin@local
- Password - admin

5. NSX Assessment Mode for Evaluation License

For evaluation license users, the product starts in NSX Assessment Mode as shown below:

Add vCenter Server(s)

Multiple vCenter Servers can be added to vRealize Network Insight to start monitoring flows from

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 list.
IP Address/FQDN	Enter the IP address or fully qualified domain name of the vCenter Server
Username	Enter the username, with the following privileges: ***Distributed Switch: Modify*** ***dvPort group: Modify***
Password	Enter the password for vRealize Network Insight software to access the vCenter Server system.

3. Click **Validate.**
4. (Optional) Add advanced data collection sources to your vCenter Server system
5. Click **Submit** to add the vCenter Server system. The vCenter Server systems appear on the homepage.

Analyze Traffic Flows

vRealize Network Insight can be used to analyze flows in your datacenter

Prerequisite

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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.
4. 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
In the Analyze Flows page, click Generate Report.

6. Using Full Product with Evaluation License

To switch to Full Product mode, click on the "Switch to Full Product Evaluation" button located in the bottom right corner

Switch to Full Product Evaluation
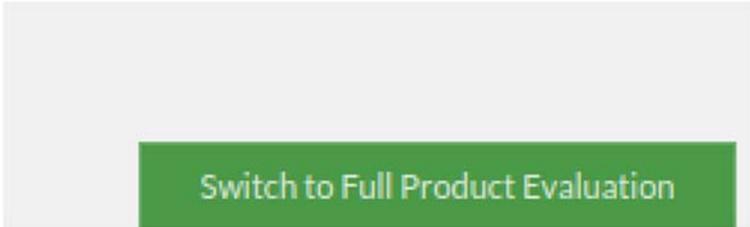
7. Adding Data Sources

After login, add the various Data sources to vRealize Network Insight to ensure that the software can start monitoring your data center.

To add a Data source:

1. Select **Profile** > **Settings**.
2. Click the **Add new source** button.
3. Select the **Source Type.**
3. Enter the required details and click **Submit** to add the Data source.

Repeat the above steps to add all the required data sources from your environment.

The product will start showing the data from your environment after 2 hours of data collection