Enabling ntop Packet Monitoring with Cisco OnPlus Service

Last Revised: October 14, 2011

This Application Note provides instructions for enabling the ntop Packet Monitoring application on the Cisco OnPlus Portal and setting up packet monitoring using either NetFlow or port spanning with output sent to the OnPlus Network Agent MON port.

NOTE: The ntop Packet Monitoring application is a Beta feature. It is only available for OnPlus Market Trial partners with accounts on www.onplusbeta.com.

Contents

Overview

ntop is a network traffic probe that shows network usage. For more information, visit www.ntop.org.

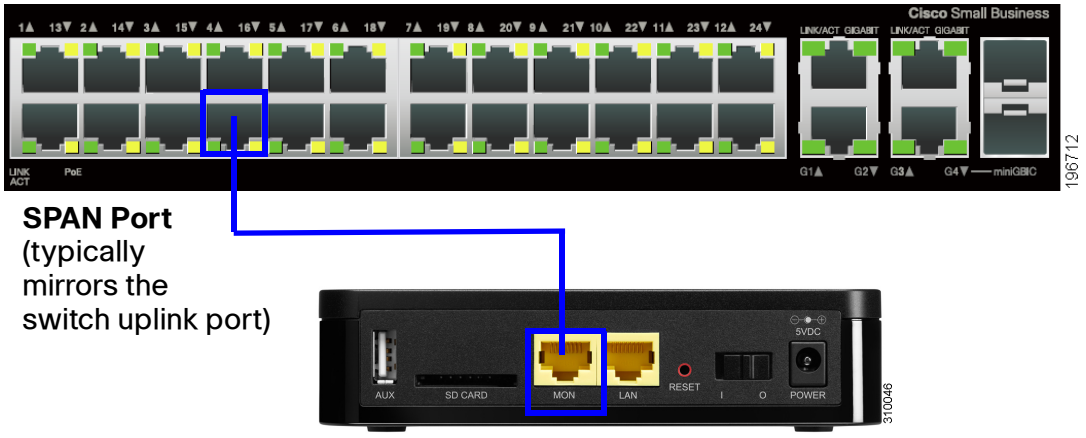
The ntop application is downloaded to the OnPlus Network Agent and accessed from the portal. You do not need to download the ntop application software.

Two methods are supported for collecting network information to use with ntop:

- **Span**. Using the OnPlus Network Agent MON port for input, you can use ntop to sniff the traffic you are interested in. When the span traffic is monitored, you must provide the source for the network traffic to be examined. Some switches and routers have the ability to span traffic to a specific port. If you have a network tap or a simple network hub, you can use it to tap the network where you want to look at the traffic.

  Refer to the documentation for the device you are using for instructions on how to set up port spanning.

  The follow diagram shows the connection between a span port on a Cisco Small Business 300 Series Switch and the MON port on the back of the Cisco OnPlus Network Agent.



OnPlus Network Agent **MON** Port

NOTE for PLG1000 Users: If you want to use the Span method, and you have a PLG1000 appliance, you must use an Ethernet USB adapter (plugged into the USB port on the PLG1000) to connect the second Ethernet network interface to the SPAN (mirror) port. Only the Cisco Linksys USB300M (10 /100) Ethernet adapter has been tested for compatibility with the PLG1000 appliance and software. The NetFlow (IPFIX) method works exactly the same on the PLG1000 as it does on the ON100 Network Agent.

- **NetFlow (IPFIX)**. Most Cisco IOS routers support the NetFlow protocol. In that case, you can simply enable the protocol in the router and point it at the OnPlus Network Agent. The NetFlow protocol uses less CPU resources on the OnPlus Network Agent and does not require you to use the MON port.

When using NetFlow, we recommend that you assign a static IP address or static DHCP lease to the OnPlus Network Agent, since the NetFlow configuration uses the IP address of the OnPlus Network Agent. Also, NetFlow must be activated in ntop, and the port number that it listens on must match the NetFlow configuration on the IOS router.

See **Using ntop With NetFlow, page 6**.

Notes, Limitations, and Caveats

These notes, limitations, and caveats apply to using the ntop application with the Cisco OnPlus Network Agent:

- Export of data or writing of data to disk on the OnPlus Network Agent is not supported.
- A static IP address is recommended for the OnPlus Network Agent when using NetFlow.
- The OnPlus Portal sets the initial ntop administration username and password to **admin/admin**.
- Some configuration changes in the ntop application (for example, changes to settings that configure reachability) can cause the ntop application to stop functioning or not function correctly.
- If you encounter problems when using the ntop application with the OnPlus Portal, you can try removing the service, then re-adding and enabling it.
- After you remove and re-add the ntop application or after a newer version of ntop is installed on the OnPlus Network Agent by the OnPlus Portal:
  - All historical data is lost.
  - Any custom configuration of the ntop application is lost.
  - The password is reset to the default (admin/admin).
- The ntop application is automatically restarted when the OnPlus Network Agent is restarted.
- When you use the **Admin** > **Shutdown** option in the Web-based ntop administration tool, ntop is automatically restarted. Remove the ntop service through the OnPlus Portal if you do not want the application to run.

Adding the ntop Application on the Cisco OnPlus Portal

Follow the procedures in this section to configure settings on the Cisco OnPlus Portal to enable the ntop Packet Monitoring App:

Installing the ntop Packet Monitoring Application on the OnPlus Network Agent

You must add and configure the ntop application for each customer.

To add and enable ntop packet monitoring for a customer, follow these steps.

STEP 1 From the Overview page on the portal, choose a customer for which you want to enable ntop Packet Monitoring, and choose **Apps**.

STEP 2 Under All applications, locate the **ntop Packet Monitoring** application and click **FREE**.

The **Add App** dialog appears.

STEP 3 Click **Add**.

The application is downloaded to the OnPlus Network Agent and started. If the application is added successfully, the ntop application s moved to the **Installed** section.

Continue with the next section, **Launching the ntop Packet Monitoring Application**.

Launching the ntop Packet Monitoring Application

To launch ntop, follow these steps.

STEP 1 From the Overview page on the portal, choose a customer with ntop Packet Monitoring installed.

STEP 2 Choose **Apps**.

STEP 3 Click **Installed**.

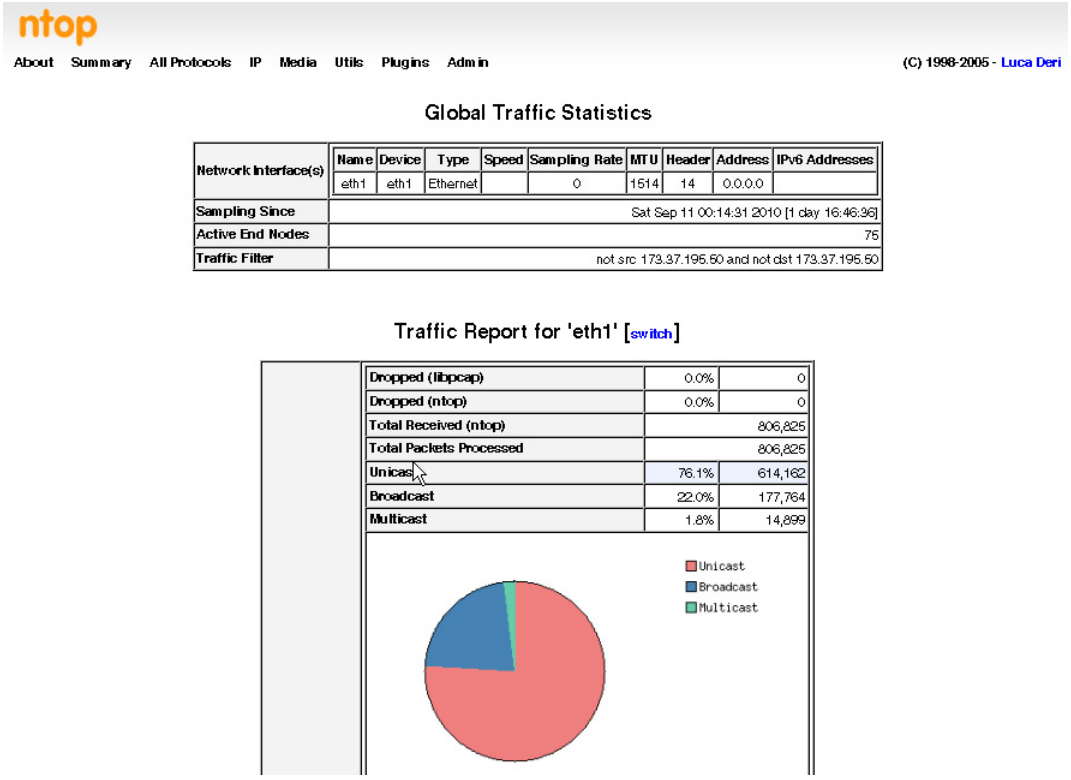
STEP 4 Under **Installed** applications, locate the **ntop Packet Monitoring** application and click **Details**.

If you have just installed the app, you may see a message indicating that the option to launch the ntop portal is not available yet. Close the dialog and check again in a few minutes.

When the ntop installation finishes, the Launch ntop Portal button will become available.

STEP 5 To open the ntop portal in a new window, click **Launch ntop Portal**.

When you click the icon to cross-launch the ntop application, the initial page looks similar to the following screen.



The network feed that you want to use for the traffic source must be connected (span port) or configured (NetFlow) before useful data can be collected.

If you are using NetFlow, see **Using ntop With NetFlow, page 6** for additional configuration steps.

Using ntop With NetFlow

To use ntop with NetFlow configured on an IOS router, follow the procedures in the following sections:

- **Configuring NetFlow on the Cisco IOS Device**
- **Configuring ntop Settings**

Configuring NetFlow on the Cisco IOS Device

NetFlow mode uses the OnPlus Network Agent WAN port with a Cisco router configured to direct NetFlow traffic to the IP address of the OnPlus Network Agent.

The following sequence of IOS commands can be used as a model for configuring NetFlow. In the example, the `ip flow-export destination` IP address is the IP address of the OnPlus Network Agent.

The `2055` in the `ip flow-export destination` command example corresponds to the Local Collector UDP Port number configured for the NetFlow plugin. The `flow export source` interface will vary, depending on the interface providing the source traffic.

```
router#enable
Password:*****
router#configure terminal
router-2621(config)#interface FastEthernet 0/1
router-2621(config-if)#ip route-cache flow
router-2621(config-if)#exit
router-2621(config)#ip flow-export destination <OnPlus_Network
Agent_IP_Address> 2055
router-2621(config)#ip flow-export source FastEthernet 0/1
router-2621(config)#ip flow-export version 5
router-2621(config)#ip flow-cache timeout active 1
router-2621(config)#ip flow-cache timeout inactive 15
router-2621(config)#snmp-server ifindex persist
router-2621(config)#^Z
router#write
```

Configuring ntop Settings

If you are using NetFlow, you must perform the following additional configuration steps using the ntop application:

STEP 1 Open the ntop application from the OnPlus portal:

a. Log in to the Cisco OnPlus Portal and select your customer.

b. Choose **Apps**.

c. Click **Installed** and locate the ntop Packet Monitoring application.

d. Click **Details**.

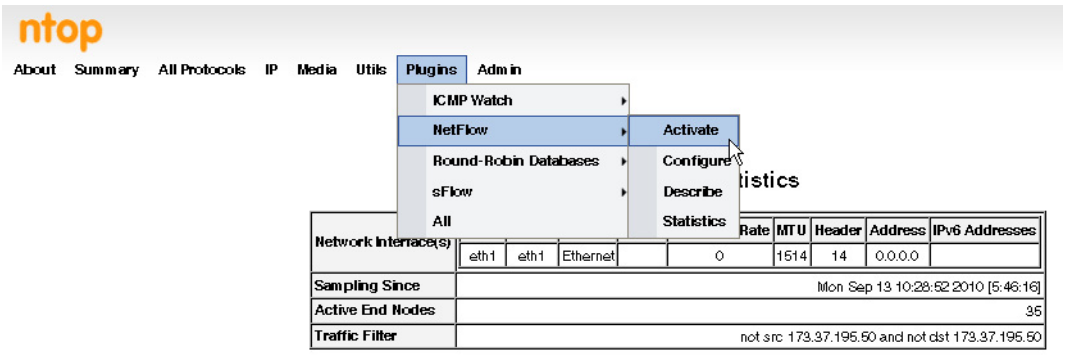
e. Click **Launch ntop Portal**.

STEP 2 When prompted to authenticate, enter the default administrative username and password.

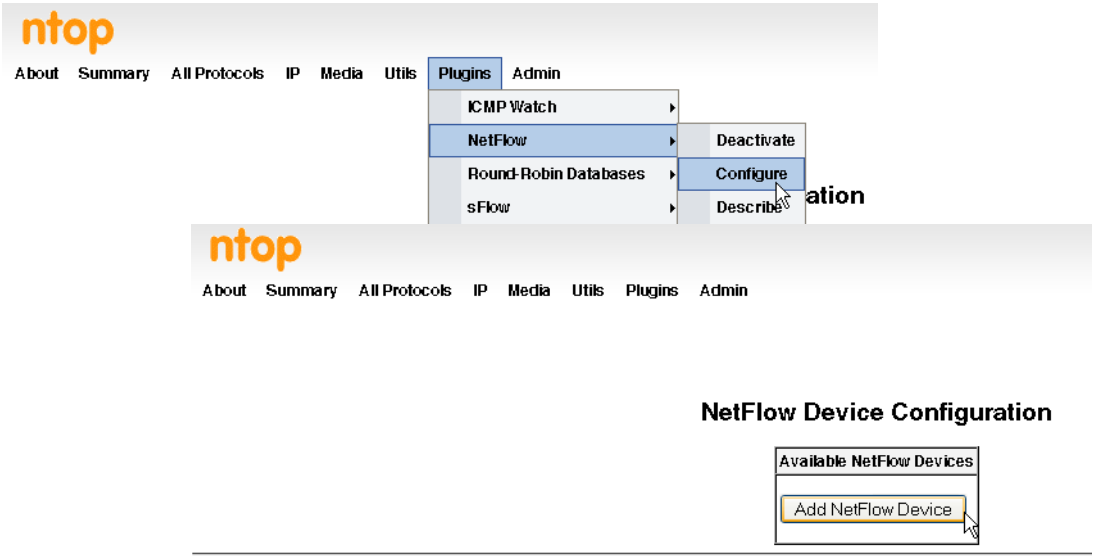
Username: **admin**
Password: **admin**

NOTE When ntop is installed on the OnPlus Network Agent, the password is always reset to the default.

STEP 3 Activate the NetFlow plugin. To do this, choose **Plugins** > **NetFlow** > **Activate**.



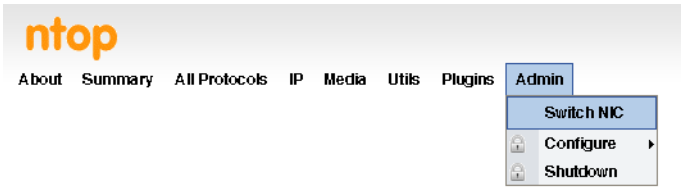
STEP 4 Create a NetFlow device. In the ntop application, choose **Plugins** > **NetFlow** > **Configure** and click **Add NetFlow Device**.



STEP 5 Configure these settings for the NetFlow device:

- **NetFlow Device**. This setting is optional, but useful. Enter a name for the interface and click **Set Device Interface Name**.
- **Local Collector UDP Port**. Enter a port number and click **Set Port**. This port number should correspond to the *<Port>* configured for the `ip flow-export destination` *<IP_address>* *<Port>* command configured on the router or switch.

STEP 6 In order to see NetFlow content, the NetFlow device must be selected under **Admin** > **Switch NIC**.



If you do not perform this step, you may be examining traffic on the default eth1 port instead of the NetFlow port configured on the IOS device.

Removing the ntop Packet Monitoring App

To remove the ntop Packet Monitoring application for a specific customer, follow these steps.

STEP 1 From the Partner Account Overview page, select the customer and choose **Apps**.

STEP 2 In the list of Installed apps, locate the ntop Packet Monitoring icon and click **Remove**.

STEP 3 Click **OK** to confirm.

When you remove the application, all historical data and custom ntop configuration is lost, and the password is reset to the default (admin/admin).

Where To Go From Here

Cisco provides a wide range of resources to help you and your customer obtain the full benefits of the Cisco OnPlus Portal.

Community	
Cisco Small Business Support Community for the OnPlus Service	https://supportforums.cisco.com/community/netpro/small-business/onplus
OnPlus Training Library videos and podcasts	https://supportforums.cisco.com/docs/DOC-17701
Device Compatibility Matrix	https://supportforums.cisco.com/docs/DOC-17501
Support	
Cisco Small Business Support and Resources	www.cisco.com/go/smallbizhelp
Cisco Small Business Home	www.cisco.com/smb
Cisco Small Business Support Center	www.cisco.com/go/sbsc

Cisco Software Downloads	
Cisco Software Download Center	Downloads for all Cisco Small Business products are available in the Download area on Cisco.com at www.cisco.com/go/software (registration/login required).
OnPlus Portal and Documentation	
All Cisco OnPlus Technical Documentation	www.cisco.com/go/onplus
Small Business Support Community OnPlus Documentation	https://supportforums.cisco.com/docs/DOC-17447
ntop	
ntop	www.ntop.org
For Partners	
Cisco OnPlus Portal Partner Account Signup and Login	www.cisco-onplus.com
Cisco Partner Central for Small Business (Partner Login Required)	www.cisco.com/web/partners/sell/smb

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