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This document outlines the steps necessary to have a PacketShaper sending Netflow-5 Data into Reporter Analyzer from NetQoS.

First, you have to have a Reporter Analyzer being set up in your environment. If Reporter Analyzer hasn't received any Flows yet, there will be no interface seen at Interfaces tab.

C ReporterAnalyzer: Interface Select - Windows Internet Explorer		
C	🖌 🗲 🗙 Live Search	P -
Netviewer Support 👻		
🚖 🏟 🎉 ReporterAnalyzer: Interface Select	🟠 🔹 📾 🔹 🔂 F	Page 🗸 🍈 Tools 🗸 🂙
Net@oS. // ReporterAnalyzer	NPC Help Support About	Sign Out nqadmin
Enterprise Overview Interfaces Custom Reporting Flow Forensics Analysis Administration		
→Interface Index ①		
Router Group		
Search Clear Filter	Max	oer Page: 20 🗸
No items were found.		
		<b>~</b>
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Figure 1 - No Interface reported

Next, you should have SNMP Profiles configured, where SNMP from a PacketShaper has been added correctly. This will be done through NPC Administration Tab - SNMP Profiles. This will make sure, you get correct ifIndex, Interface Description, Aliases and Speed Values.

Net	Qo	s. // N	letQoS Performa	Help Suppo	ort   About   Sign Out nqadmin		
Admir	nistr	ation	System Setti	ngs User Settings	NetQoS Settings		
				SNN	/IP Profiles		
	Confic	ured Pro	files				
		Order	Profile Name	SNMP Version	Authentication	Privacy	Used During Discovery
	۲	1	home_ro	SNMPv1/SNMPv2C	None	None	Yes
	0	2	Migrated Community public	SNMPv1/SNMPv2C	None	None	Yes
					Move Up	Move Down New	Edit Delete



## DISCLAIMER

This Technical Tip or TechNote is provided as information only. I cannot make any guarantee, either explicit or implied, as to its accuracy to specific system installations / configurations. Readers should const each Vendor for further information or support.

Although I believe the information provided in this document to be accurate at the time of writing. I reserve the right to modify, update, retract or otherwise charge the information contained within for any re and without notice. This technote has been created after studying the material and / or practical evoluation by myself. All liability for use of the information presented here remains with the user Make sure PacketShaper SNMP Settings does match with the value, you just had configured on the NetQoS Performance Center.

Blue©Coat Packe	tShaper®	HOME   BLUE COAT SKY New!   DOCUMEN	TATION   SUPPORT   FEEDBACK   LOG OUT
Unit: home-shaper Traffic Discovery:	On Shaping: Off		
Top Ten Monitor Ma	nage Report Setup	Info	HELP
apply changes reset for	on		<u>_</u>
Look Community String:	home_ro		
Touch Community String:	schreiben		
SNMP Trap Destination(s):	192.168.10.72		
	(Up to eight dotted decimal addre	sses)	~

Next, you will have to configure the PacketShaper to deliver Netflow-5 Data to the reporter Analyzer.

Blue©Coat PacketShaper®	HOME   BLUE COAT SKY New!   DOCUMENTATION   SUPPORI   FEEDBACK   LOG OUT
Unit: home-shaper Traffic Discovery: On Shaping: Off	
Top Ten Monitor Manage Report Setup Info	HELP
SETUP	
Choose Setup Page: flow detail records	
apply changes reset form	
Collector IP Port Record Type Enabled	
Collector 1 192.168.10.72 9995 NetFlow-5 🗸 on 🗸 clear	
Collector 2 off 🗸 clear	
Collector 3 off v clear	
Collector 4 off v clear	
default: 9800	
NetFlow-5 only attributes	
Engine Type 0	
Engine ID 0	

Engine Type and Engine ID is the equivalent of the Source ID field, which is a 32-bit value and is used to guarantee uniqueness for all flows exported from a particular device. The format of this field is Vendor specific. In Cisco's implementation, the first two bytes are reserved for future expansion, and will always be zero. Byte 3 provides the uniqueness with respect to the routing engine on the exporting device. Byte 4 provides uniqueness with respect to the particular line card or Versatile Interface Processor on the exporting device.

If you use more than one PacketShaper, you may want to use those attributes in a unique fashion to associate incoming NetFlow export packets with a unique instance of NetFlow on a particular device.



Once you have NetFlow activated on the PacketShaper, go grab a coffee and be patient for 45 minutes

If you want to add manually a Router / PacketShaper to the Flow Manager before receiving Flows, you can use Flow Manager Utility. Normally, Routers will be added automatically, once Reporter Analyzer get Flows.

I like the Tool "PacketMonitor" - It's a Freeware and can be downloaded from www.analogx.com

🦎 AnalogX P	🐧 AnalogX PacketMon (www.analogx.com)									
<u>File R</u> ules <u>I</u>	File Rules Help									
Status ——	Status									
Packet monit	Packet monitor active Pause Pause									
		[	1							
ID	Time	Protocol	Source IP	Source Port	Dest IP	Dest Port	Size	<u> </u>		
1	00:00:00:54:094	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
2	00:00:01:06:077	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
3	00:00:01:10:077	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
4	00:00:01:10:077	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
5	00:00:01:24:265	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
6	00:00:01:29:202	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
7	00:00:01:34:171	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
8	00:00:01:38:827	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
9	00:00:01:41:436	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
10	00:00:01:48:077	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
11	00:00:02:02:094	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
12	00:00:02:11:625	UDP	192.168.10.152	9912	192.168.10.72	9995	1444			
13	00:00:02:21:061	UDP	192.168.10.152	9912	192.168.10.72	9995	1444	_		
14	00:00:02:21:061	LIDP	192 168 10 152	9912	192 168 10 72	9995	1444			

This tool does a graphical display of incoming Packets on a certain IP Address on the local Reporter Analyzer. Just configure a filter and have all Packets displayed, which are destined for 9995. This is the default NetFlow Port for Reporter Analyzer.

As I said, the PacketShaper will be added automatically to the Interfaces.

C ReporterAnalyzer: Interface Select - Windows Internet Explorer	
Figure 1000 mm = 3     Second	Live Search
Netviewer Support 👻	
😭 🏟 🌈 Reporter Analyzer: Interface Select	🏠 🔹 🔝 🔹 🖶 🕈 🔂 Page 👻 🎯 Tools 👻
Net@oS. // ReporterAnalyzer	NPC   Help   Support   About   Sign Out nqadmin 📤
Enterprise Overview Interfaces Custom Reporting Flow Forensics Analysis Administration	100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100
→Interface Index ()	
Router Group	
Search Clear Filter	Max per Page: 20 🗸
home-shaper (192.168.10.152) 2 Interfaces	
	👩 🚭 Internet 🔍 100% 👻



Next, you should Test SNMP Profile.

NetQoS.	FLOW N	Manager	 NetQoS	nqadmin Log Off
	-			
	Flow Manager R	outer Configuration		
Flow Manager				
<ul> <li>Settings</li> <li>Authentication</li> </ul>	Router Communicat	ion Parameters		
<ul> <li>Interfaces</li> </ul>	Profiles last undated 11/2	1/2009 10:05 AM GMT		
Flow Harvester				
Administration	Select a Router:	192.168.10.152 💌		
<ul> <li>Routers</li> </ul>	Last Poll: 2010-02-02	10:19:41		
Ports	Last Discovery: 2010	-02-02 10:19:41		
+ About	Edit			
	IPAddress:	192.168.10.152		
	SNMP Profile:	home_ro Test Profile Rediscover Profile		
	SNMP Version:	2		
	SNMP Port:	161		
	Looking for templates	\$?		
	Templates are now admi	nistered from the ReporterAnalyzer Master Console		
		AN ****	 	
	© 2001-2007 NetQoS, Inc.	All rights reserved.		-

## Click on Test Profile

NetQoS.	FLOW MANAGER		nqadmin I Support I NetQoS I Log Of
Flow Manager • Settings • Authentication • Interfaces Flow Harvester • Administration • Routers • Ports • About	Flow Manager Router Configuration         Profiles last updated 11/21/2009 10:06 AM GMT         Select a Router:       192.168.10.152          Router successfully contacted with configured prof         Name:       home-shaper         Description:       Blue Coat PacketShe         Uptime:       0 days 0 hours 34 m         Interface Count:       4         Last Poli: 2010-02-02 10:19:41         Last Discovery: 2010-02-02 10:19:41	file! Iaper 8.5.1 minutes	
	IPAddress:       192.168.10.152         SNMP Profile:       home_ro_Test Profile Rediscove         SNMP Version:       2         SNMP Port:       161	<u>er Profile</u> Master Console	





Click on Interfaces and have only the required Interfaces selected.

NetQoS.	FLOW MANA	GER						Support	NetQoS I	nqadmin Log Off
Flow Manager	Router Interfaces     Select a Router: 192.     sysName: home-sha     sysDescr: Blue Coat Packe	168.10.15 <b>per</b> stShaper (	2 🗸							
Routers     Ports     About	IPAddress: 192.168.10.152 Collector: 192.168.10.72									
	(for Reporter only)	ifIndex	Description Inside	Alias	Speed In 100.00 Mbps	Speed Out				
	<b>N</b>	2	Outside		100.00 Mbps	100.00 Mbps				
		4	Management		10.00 Mbps	10.00 Mbps				
			Submit							
	© 2001-2007 NetQoS, Inc. All rig	ghts reser	ved.							

So, you may have already data received from other interfaces. To remove that Interface, highlight and click on Delete

7	ReporterAna	alyzer A	dministration	Tool					
N		05			Rep	orterAnaly	zerm		
	ICLY		•		-				
	x		,	,					
Re	porter Reser	rved Seat	ing Custom Vi	rtual Interfaces	Application Ma	pping   DSA Sc	hedule DSA	Interfaces Data Sources	
	Merce	Show	ving all 2 interf	aces					
	Melde		Data Source	Router Name	Name	Description	Last Update		
(	<u>D</u> elete	<del>)</del> _	fm	home-shaper	Inside		2010-02-02 10:4	5:00 CET	
			fm	home-shaper	Outside		2010-02-02 10:4	15:00 CET	
		•							•
			L					-	
		I Un	iy snow interfac	es where  Data :	ource				





Next, verify Interface Speeds. My PacketShaper is connected to the T-DSL with 3072K downstream and 384k upstream, so I change those values.

Blue©Coat PacketShaper®	HOME   BLUE COAT SKY New!   DOCUMENTATION   SUPPORT   FEEDBACK   LOG OUT
Unit: home-shaper Traffic Discovery: On Shaping: Off	
Top Ten Monitor Manage Report Setup	Info
WAN settings	<u>^</u>
Inbound Rate: 3072k	
Outbound Rate: 384k	
	~

From the ReporterAnalyzer Page, click on Administration and Interfaces and "Select an Interface"

NetQoS. // R	e <b>porter</b> Analyzer	Help   Support   About   Sign Out nqadmin	
Enterprise Overview	Interfaces Custom Reporting	g 🔰 Flow Forensics 📄 Analysis	Administration
Data Collection Sources Routers → Interfaces ▼	Interface Configuration		
→NPC Interface Groups Aggregations Links Templates Protocols Addresses			

Click on the Interface you have chosen (in my case Outside) and you will get into the Edit Option

🖉 Interface Index W	ebpage Dialog		×
C http://192.168.10.72/Ad	lmin/modalDialogFrame.asp?url=/agentSele	ct.asp&windowTitle=Interface%20Index&parameters=	=singleSelect%3Dtrue%26modal 🚩
Interface Index			
Select an Interface - Ex continue.	kpand and collapse the interface lists by clic	king on the blue arrows to the left of a router or probe n	name. Click on an interface to
Quick Search: ALL H			Advanced Search
			Expand All Contract All
	ces		
Interface	Description	Type In/Out Speed	Active Last Updated
Outside		LAN-ET 100.00 M / 100.0	0 M Yes 02/02/10 09:45 GMT
http://192.168.10.72/Admin/r	nodalDialogFrame.asp?url=/agentSelect.as	sp&windowTitle=Interface Index&parameters=singli 🄇	Internet



Interface Configuration			
Select an Interface			
Edit Interface			
Name:	home-shaper::Outside		
Description:			
Туре:	LAN-ET		
Speed:	100.00 Mbps / 100.00 Mbps / 100.00 Mbps		
Status:	Active - Last updated on 2/2/2010 9:45:00 AM GMT		

## Click on Edit

Interface Configuration					
Edit an Interface					
Interface Name:	Outside				
Description:	PacketShaper-connected to DSL-Router				
Interface Speed:	10000000				
In Speed:	3072000				
Out Speed:	384000				
Туре:	LAN Ethernet				
Status:	Active - Last updated on 2/2/2010 10:00:00 AM GMT Submit Reset Cancel Delete				

## Make your Changes and Submit

Interface Configuration				
Select an Interface				
Edit Interface				
Name:	home-shaper::Outside			
Description:	PacketShaper connected to DSL-Router			
Type:	LAN-ET			
Speed:	3.07 Mbps / 384.00 Kbps / 100.00 Mbps			
Status:	Active - Last updated on 2/2/2010 10:00:00 AM GMT			











Net@oS. // Reporter	rAnalyzer				NPC	Help Support	About Sign Out no	qadmin
Enterprise Overview Interface	s Custom Reporting	Flow Forensics	Analysis	Administrat	ion			
home-shaper::Outside - Pac	ketShaper connected	to DSL-Router	[change]				C 📑	EMAI
1. For this interface, show me:								
S Flow Forensics	◀ 1 Trend - In	Feb 2010 20:28:0	00 - <b>2 Feb 20</b>	<b>10</b> 20:28:00 C	CET ►	Feb 2010 20:28:00 - 2 F	eb 2010 20:28:00 CET	
home-shaper::Outside - I	PacketShaper connected to DSL-	Router					3.07 Mbps	
500 400 - 300 - 9 200 - 100 -	40 :	samples at 15 minute re				http (*.ip.tcp.80) https (*.ip.tcp.443) pop3 (*.ip.tcp.110) snmp (*.ip.udp.161 iomp (*.ip) TCP-5000 (*.ip.tcp. TCP-8006 (*.ip.tcp. Other	) 5000) 8006)	
20:28 23: 1 Feb	13 1:58 4:43 2 Feb	7:28 10:1	13 12:58	15:43	18:28 20:28 2 Fet	3 6		
Stacked Protocol home-shaper::Outside - F	Trend - Out PacketShaper connected to DSL- 40 :	Router samples at 15 minute re	esolution		1	Feb 2010 20:28:00 - 2 F http (*.ip.top.80) s snmp (*.ip.udp.161 https (*.ip.top.443) i omp (*.ip)	eb 2010 20:28:00 CET 384.00 Kbps	



Host Summary - Volume - From 1 Feb 2010 20:29:00 - 2 Feb 20		010 20:29:00 CET	
er connected to DSL-Router		3.07 Mbps	
<ul> <li>(10) (0) (0) (0)</li> </ul>	35.10 MBytes	15.37 %	
<ul> <li>(% 10.30 %);</li> </ul>	27.75 MBytes	12.15 %	
<ul> <li>Ballion (1976) (16) (16) (17,24)</li> </ul>	24.57 MBytes	10.76 %	
<ul> <li>(% 00.0000)</li> </ul>	20.06 MBytes	8.78 %	
- L-MARAGEL (100-100-10-10)	16.23 MBytes	7.11 %	
<ul> <li>(10) + (20)</li> </ul>	12.16 MBytes	5.32 %	
<ul> <li>(% 0) (% 0)</li> </ul>	8.85 MBytes	3.87 %	
<ul> <li>(No.100-100-20)</li> </ul>	7.51 MBytes	3.29 %	
	From er connected to DSL-Router	From         1 Feb 2010 20:29:00 - 2 Feb 201           er connected to DSL-Router         35:10 MBytes           •         27.75 MBytes           •         24:57 MBytes           •         20:06 MBytes           •         16:23 MBytes           •         12:16 MBytes           •         8:85 MBytes           •         7:51 MBytes	





