

NFSEN: How is My Network Being Used (Apps)?

AfNOG 2009 - Cairo








Mark Tinka
Sunday Folayan

I Use it to Look at BGP Peers!




Here is the Profile for BGP


Home | Graphs | Details | Alerts | Stats | Plugins | continuous | [Bookmark URL](#) | Profile: BGP ▼


Profile: BGP 	
Group:	(nogroup) 
Description:	<div style="border: 1px solid gray; height: 40px;"></div> 
Type:	Continuous 
Start:	2007-04-18-13-45
End:	2007-04-25-13-40
Last Update:	2007-04-25-13-40
Size:	39.1 MB
Max. Size:	unlimited 
Expire:	7 Days 
Status:	OK
▼ Channel List: 	


Entries for Two Peers

Channel List: +

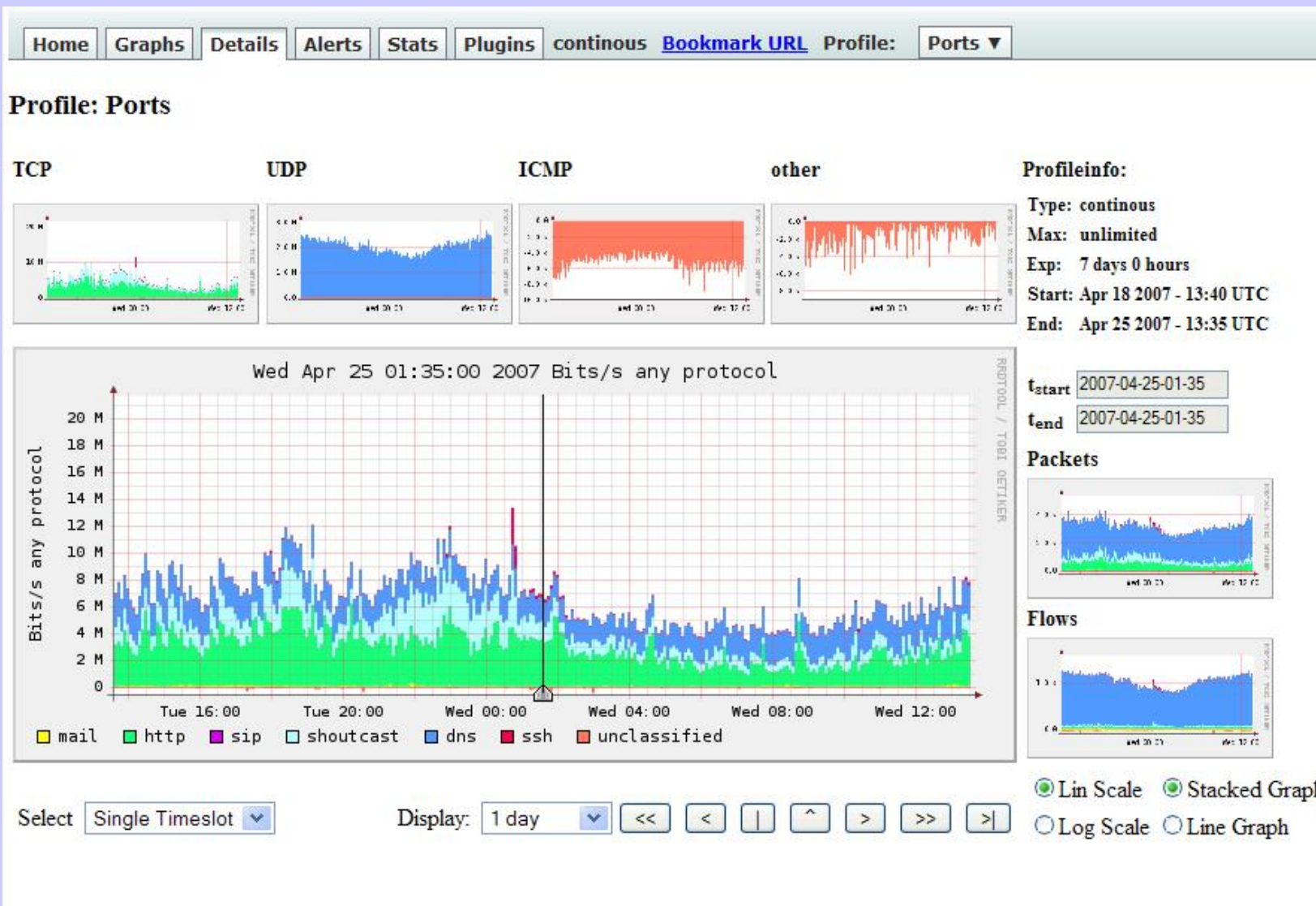
▼ **ntt-cust** 

Colour:	#99FF8F	Sign:	+	Order:	4
Filter:	port 179 and (host 199.238.113.9 or host 199.238.113.10)				
Sources:	psg0 				

▼ **ntt** 

Colour:	#007800	Sign:	+	Order:	3
Filter:	port 179 and (host 129.250.11.41 and host 129.250.11.42)				
Sources:	psg0 				

Application Ports



Focusing on Applications

The image shows a network configuration interface with two profiles: 'http' and 'mail'. Each profile has a 'Colour' field, a 'Sign' field with a '+' button, an 'Order' field, a 'Filter' field, and a 'Sources' field with a list of sources and scroll arrows.








http profile:

- Colour: #18FF77
- Sign: +
- Order: 2
- Filter: proto tcp and (port 80 or port 443)
- Sources: psg0, psg1

mail profile:

- Colour: #FFFF18
- Sign: +
- Order: 1
- Filter: proto tcp and (port 25 or port 995 or port 110 or port 143 or port 465 or port 993)
- Sources: psg0, psg1

Making a New Channel

Profile: mail 	
Group:	(nogroup) 
Description:	Mail Deaggregated 
Type:	Continous 
Start:	2007-04-27-12-45
End:	2007-04-27-12-55
Last Update:	2007-04-27-12-55
Size:	60.0 KB
Max. Size:	100.0 MB 
Expire:	never 
Status:	OK
Channel List:	+ 

New Channel Form

Channel name		<input type="text"/>
Colour:	<input type="text" value="Enter new value"/>	<input type="text" value="#abcdef"/> OR <input type="text" value="Select a colour from"/> <input type="button" value="v"/>
Sign:	<input type="button" value="+"/> <input type="button" value="v"/>	Order: <input type="text" value="4"/> <input type="button" value="v"/>
Filter:	<input type="text"/>	
Sources:	Available Sources	Selected Sources
	<input type="text" value="peer1"/> <input type="text" value="upstream1"/> <input type="button" value="v"/>	<input type="text"/> <input type="button" value="v"/>
<input type="button" value="<<"/> <input type="button" value=">>"/>		
<input type="button" value="Cancel"/>		<input type="button" value="Add Channel"/>

SMTP Channel

The image shows a configuration dialog box for an SMTP channel. It has several sections: 'Channel name' with the value 'smtp', 'Colour' with a blue highlight and a color picker showing '#4020FF', 'Sign' with a '+' dropdown and 'Order' with a '4' dropdown, 'Filter' with the text 'proto tcp and (port 25 or port 465)', and 'Sources' with two lists: 'Available Sources' (empty) and 'Selected Sources' (containing 'peer1' and 'upstream1'). At the bottom are 'Cancel' and 'Add Channel' buttons. Four red arrows point from text labels on the right to specific elements in the dialog.

Channel name smtp

Colour: Enter new value #4020FF or Select a colour from

Sign: + **Order:** 4

Filter: proto tcp and (port 25 or port 465)

Sources: Available Sources Selected Sources peer1 upstream1

Cancel Add Channel

Name for Legend

Pick Contrasting Colors

Get Secure and Insecure

Which Interfaces

Unclassified

The screenshot shows a configuration window for an unclassified rule. The title bar reads "unclassified". Below the title bar, there are several fields:

- Colour:** #FF7A60
- Sign:** - (indicated by a red arrow)
- Order:** 1

The **Filter:** field contains the following text:

```
not (port 22 or port 80 or port 143  
or port 25 or port 443 or port 110  
or port 25 or port 995 or port 465  
or port 53 or port 5060 or (port GT  
41000 and port LT 42000))
```

The **Sources:** field contains the following text:

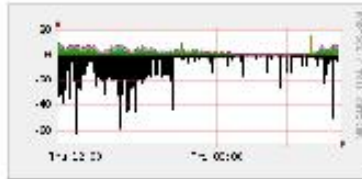
```
psg0  
psg1
```

Good Habit to Show What We Missed

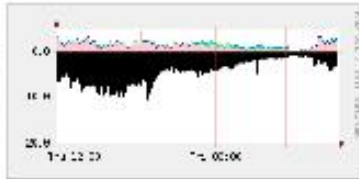
Unclassified?

Profile: flows

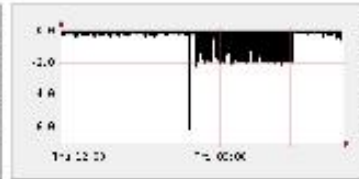
TCP



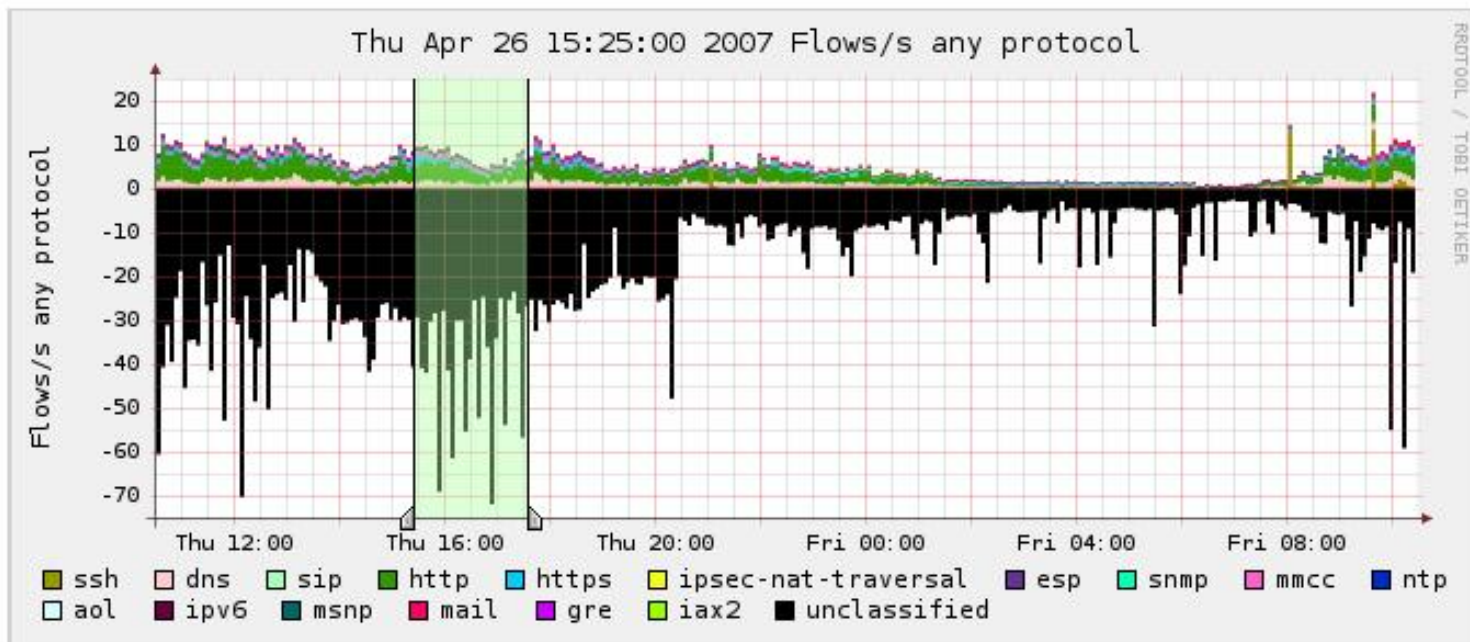
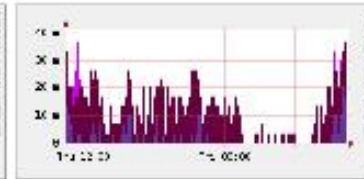
UDP



ICMP



other



Select Time Window

Display: 1 day

Select only Unclassified

Netflow Processing

Source:

https
http
sip
dns
ssh
unclassified

All Sources

Filter:

and <none>

The image shows a web-based interface for Netflow processing. It has two main sections: 'Source' and 'Filter'. The 'Source' section contains a list of protocols: https, http, sip, dns, ssh, and unclassified. The 'unclassified' option is highlighted in blue. Below this list is a button labeled 'All Sources'. The 'Filter' section is currently empty, with a dropdown menu below it showing '<none>'.

What we Want to See

Options:

List Flows Stat TopN

Top: 20

Stat: Flow Records order by bytes

Aggregate

proto


srcPort srcIP

dstPort dstIP

Limit: Packets > 0 -

Output: line / IPv6 long

Clear Form process



And we Get Stats!

Aggregated flows 269938

Top 20 flows ordered by bytes:

Date	flow start	Duration	Proto	Src IP Addr:Port		Dst IP Addr:Port	Packets	Bytes	Flows
2007-04-26	15:23:42.874	7523.945	UDP	192.103.19.37:14532	->	196.200.216.229:16384	375870	71.7 M	5
2007-04-26	15:20:31.420	4772.982	TCP	84.49.63.24:10000	->	196.200.216.189:56169	23375	30.9 M	3
2007-04-26	15:10:04.232	5400.197	TCP	85.197.140.176:23885	->	196.200.216.189:54509	33461	29.3 M	43
2007-04-26	14:57:39.221	6145.328	TCP	89.142.30.173:37035	->	196.200.216.189:57626	39873	21.8 M	12
2007-04-26	15:09:13.029	5451.780	TCP	85.165.2.127:6881	->	196.200.216.189:56424	30136	20.3 M	14
2007-04-26	15:25:25.826	7825.700	UDP	196.3.64.137:18710	->	196.200.216.242:14962	141847	15.3 M	77
2007-04-26	15:19:53.943	4155.149	TCP	84.41.253.66:21711	->	196.200.216.189:57975	23103	12.4 M	3
2007-04-26	15:06:43.314	3268.540	TCP	200.83.46.63:9090	->	196.200.216.189:57208	17100	8.2 M	3
2007-04-26	15:53:15.490	3201.426	TCP	159.148.172.196:995	->	196.200.213.218:1921	6458	6.5 M	9
2007-04-26	17:13:53.895	1382.056	TCP	65.212.71.21:5999	->	196.200.223.1:64883	6921	5.9 M	1
2007-04-26	16:05:13.696	1435.464	TCP	84.217.205.218:6881	->	196.200.216.189:58807	5347	4.3 M	10
2007-04-26	15:35:44.980	113.764	TCP	193.190.198.20:34750	->	196.200.218.19:54390	2925	4.2 M	1
2007-04-26	15:16:36.662	4368.722	TCP	201.219.138.119:12958	->	196.200.216.189:53382	5037	3.5 M	31
2007-04-26	15:23:01.307	2497.848	TCP	193.69.51.155:32484	->	196.200.216.189:58012	7388	3.4 M	20
2007-04-26	15:32:38.548	142.236	TCP	193.190.198.20:34168	->	196.200.218.19:63803	2118	3.0 M	1
2007-04-26	15:24:10.258	3898.718	TCP	81.151.205.133:12709	->	196.200.216.189:57645	4954	2.6 M	56
2007-04-26	15:17:55.992	1027.144	TCP	85.224.194.227:39167	->	196.200.216.189:56800	1865	2.5 M	1
2007-04-26	16:06:28.479	1360.357	TCP	85.226.148.160:11037	->	196.200.216.189:58863	3830	2.3 M	18
2007-04-26	16:05:13.688	1446.388	TCP	84.250.45.107:6881	->	196.200.216.189:58817	3126	2.2 M	27
2007-04-26	15:55:41.071	89.436	TCP	193.190.198.20:38806	->	196.200.218.19:51978	1506	2.2 M	1

Summary: total flows: 314900, total bytes: 333.7 M, total packets: 1.2 M, avg bps: 287782, avg pps: 131, avg bpp: 274

Time window: 2007-04-26 14:57:39 - 2007-04-26 17:39:47

Total flows processed: 314900, skipped: 0, Bytes read: 16375196

Sys: 0.396s flows/second: 794351.5 Wall: 1.278s flows/second: 246269.0

Who Was It?

Dst IP Addr:Port	Packets	Bytes	Flows
196.200.216.229:16384			
196.200.216.189:56169			
196.200.216.189:54509			
196.200.216.189:57626			
196.200.216.189:56424			
196.200.216.242:14962			
196.200.216.189:57975			
196.200.216.189:57208			
196.200.213.218:1921			
196.200.223.1:64883	6921	5.9 M	1

196.200.216.229:
dhcp-216-229.wifi.ws.afnog.org

IP range 196.200.208.0 - 196.200.216.255
Network name AFNOG

Infos -----
Infos Temporary PI Assignmer

At your site, you would use better names 😊

To Whom Were They Talking?

Src IP Addr:Port	Dst IP Addr:Port	Packets	Bytes	Flows
192.103.19.37:14532				
84.49.63.24:10000				
85.197.140.176:23885				
89.142.30.173:37035				
85.165.2.127:6881				
196.3.64.137:18710				
84.41.253.66:21711				
200.83.46.63:9090				
159.148.172.196:995				
65.212.71.21:5999	-> 196.200.223.1:64883	6921	5.9 M	

Broken in-addr.arpa ☹

Yep, in-addr.arpa ☹️

```
% host 192.103.19.37  
;; connection timed out; no servers could be  
reached
```

Try Whois

```
% whois -h whois.arin.net 192.103.19.37
```

```
OrgName:      Nokia Data Communications  
Corporation  
OrgID:        NDCC-2  
Address:      2300 Tall Pines Drive, Suite 100  
City:         Largo  
StateProv:    FL  
PostalCode:   34641  
Country:      US
```

Hi Joel 😊