Herramientas para analizar tu tráfico de Internet

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Tecnocom

¿Que?

- Recopilación de herramientas que nos ayudan a verificar nuestro tráfico con la red
- Supervisión, detección de problemas
- Locales y servicios de la red
- Intercambio de conocimientos
- Ping y Traceroute se dan por asumidos

Tecnocom

Tipos de verificación

- DNSs
- Enrutado BGP
- Anchos de banda

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DNS

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4 DNS Tools

- Diversas herramientas de IP, DNS, dominios...
- Verificación de IPs en listas negras
- Busqueda de dirección abuse
- Permite verificar la visibilidad de nuestro DNS desde el exterior

  http://www.4dnstools.com/

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Results

Root Server	Root Data
NS-EXT.NIC.CL	dns1.tecnocom.es www.cutre.net dns2.eurocomercial.es
NS.UU.NET	www.cutre.net dns1.tecnocom.es dns2.eurocomercial.es
NS1.CESCA.ES	www.cutre.net dns1.tecnocom.es dns2.eurocomercial.es
NS1.NIC.ES	www.cutre.net dns1.tecnocom.es dns2.eurocomercial.es
NS2.NIC.ES	www.cutre.net dns1.tecnocom.es dns2.eurocomercial.es
NS3.NIC.FR	www.cutre.net dns1.tecnocom.es dns2.eurocomercial.es
SUN.REDIRIS.ES	dns2.eurocomercial.es www.cutre.net dns1.tecnocom.es
SUNIC.SUNET.SE	www.cutre.net dns1.tecnocom.es dns2.eurocomercial.es

Nameserver	'@' Record(s)	'WWW' Record(s)	'MX' Record(s)
dns1.tecnocom.es	89.107.50.10	89.107.50.10	mail.tecnocom.es
dns2.eurocomercial.es	89.107.50.10	89.107.50.10	mail.tecnocom.es
www.cutre.net	89.107.50.10	89.107.50.10	mail.tecnocom.es

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DNS Colos

- Un buen informe del estado del DNS de un dominio y de sus entradas
- Servidores padre
- registros DNS
- Open relay
- Reverse DNS

http://www.dnscolos.com/

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DNS report for tecnocom.es

Category	Status	Test name	Information
Parent	Pass	Parent nameservers tecnocom.es	Your NS records at the parent server **ns2.nic.es** are: dns1.tecnocom.es [89.107.48.30] dns2.eurocomercial.es [89.107.48.73] www.cutre.net [87.216.217.85]
	Pass	Nameservers for domain in DNS tecnocom.es	Your NS records at your nameservers are: dns1.tecnocom.es [89.107.48.30] dns2.eurocomercial.es [89.107.48.73] www.cutre.net [87.216.217.85]
MX	Pass	MX records for domain tecnocom.es	Your 1 MX records are: 10 mail.tecnocom.es ip=89.107.48.18
	Pass	Mailserver connection test HELO, MAIL FROM, RCPT TO, QUIT	Connect to mailserver mail.tecnocom.es Success 250 Recipient OK
	Pass	Public IPs test	MX records are public IPs conform RFC 1918
	Failed	Mailserver greeting	The server should have an A record which points to the mailserver for the hostname which is presented in the greeting mail.tecnocom.es 220 tecnocom.es [ESMTP Server] service ready;TECNOCOM SMTP SERVER SPAM PROTECTED; 10/14/08 08:19:16
	Pass	Open relay test for tecnocom.es	mail.tecnocom.es FAILED (VERY GOOD) 220 tecnocom.es [ESMTP Server] service ready;TECNOCOM SMTP SERVER SPAM PROTECTED; 10/14/08 08:19:17 250 tecnocom.es 250 Sender OK 550 domain of forward path is not allowed -
	Info	Reverse DNS entries for MX records	18.48.107.89.in-addr.arpa -> mail.tecnocom.es.
SOA	Pass	SOA record for domain tecnocom.es	Your SOA record is: Primary nameserver: dns1.tecnocom.es Hostmaster E-mail address: hostmaster.tecnocom.es Serial #: 1223628690 Refresh: 16384 Retry: 2048

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intoDNS

- Muy similar al anterior
- Más completo
  - Servidores Padre, NS, SOA, MX, WWW

http://www.intodns.com/

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Category	Status	Test name	Information	send feedback
Parent	i	Domain NS records	Nameserver records returned by the parent servers are: www.cutre.net. ['87.216.217.85'] (NO GLUE) [TTL=7200] dns1.tecnocom.es. ['89.107.48.30'] (NO GLUE) [TTL=7200] dns2.eurocomercial.es. ['89.107.48.73'] [TTL=7200] **ns.uu.net** was kind enough to give us that information.	
	✓	TLD Parent Check	Good. ns.uu.net, the parent server I interogated, has information for your TLD. This is a good thing as there are some other domain extensions like "co.us" for example that are missing a direct check.	
	✓	Your nameservers are listed	Good. The parent server ns.uu.net has your nameservers listed. This is a must if you want to be found as anyone that does not know your DNS servers will first ask the parent nameservers.	
	i	DNS Parent sent Glue	The parent nameserver ns.uu.net is not sending out GLUE for every nameservers listed, meaning he is sending out your nameservers host names without sending the A records of those nameservers. It's ok but you have to know that this will require an extra A lookup that can delay a little the connections to your site. This happends a lot if you have nameservers on different TLD (domain.com for example with nameserver ns.domain.org.)	
	✓	Nameservers A records	Good. Every nameserver listed has A records. This is a must if you want to be found.	
NS	i	NS records from your nameservers	NS records got from your nameservers listed at the parent NS are: dns1.tecnocom.es ['89.107.48.30'] [TTL=259200] dns2.eurocomercial.es ['89.107.48.73'] [TTL=259200] www.cutre.net ['87.216.217.85'] [TTL=259200]	
	✓	Recursive Queries	Good. Your nameservers (the ones reported by the parent server) do not report that they allow recursive queries for anyone.	
	✓	Same Glue	The A records (the GLUE) got from the parent zone check are the same as the ones got from your nameservers. You have to make sure your parent server has the same NS records for your zone as you do according to the RFC. This tests only nameservers that are common at the parent and at your nameservers. If there are any missing or stealth nameservers you should see them below!	
	i	Glue for NS records	INFO: GLUE was not sent when I asked your nameservers for your NS records.This is ok but you should know that in this case an extra A record lookup is required in order to get the IPs of your NS records. The nameservers without glue are: **89.107.48.30**	

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Pingability

- Parecido a los anteriores
- Permite suscribirse y que hagan comprobaciones periódicas del dominio

  http://pingability.com/

Tecnocom

Zone Info: tecnocom.es

Zone Info

Info Type	Message
Information	tecnocom.es./89.107.50.10 is located in Spain (ES)
Heads-up	tecnocom.es. points to 89.107.50.10, which has 4 10.50.107.89.in-addr.arpa PTR records: www.tecnocom.biz., www.eurocomercial.es., tecnocom.es., www.tecnocom.es.. It is more common - though not mandatory - to just have a single PTR record per IP
Good	The RDNS entry 10.50.107.89.in-addr.arpa (tecnocom.es./89.107.50.10) points to tecnocom.es.. tecnocom.es. has an IP Address (A) record that matches this IP as well. Good.
Information	www.tecnocom.es resolves to 89.107.50.10
Information	3315 milliseconds to complete zone checks.

Parent Name Servers

This section lists the hierarchy of name servers that a DNS lookup needs to walk to find your zone's name servers. For brevity only one name server is listed per zone.

Zone	Name Server	IP	Location	Response Time (ms)
es.	ns.uu.net	137.39.1.3	United States	0
.	a.root-servers.net	198.41.0.4	United States	0

tecnocom.es Name Servers

Zone Configuration Info

Info Type	Message
Information	Setting the master name server to 'dns1.tecnocom.es' per the SOA record on dns2.eurocomercial.es

Tecnocom

You Get Signals

- En realidad un potpourri
- Localización geográfica de IP
- Port forwarding test
- Visual traceroute

  http://www.yougetsignal.com/

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Network Location Tool

approximate geophysical location

locate a network

Remote Address 80.66.113.143 Locate

Use Current IP

Source ◉ MaxMind ○ Hostip.info

network information

IP Address
80.66.113.143

Base Domain
80.66.113.143

Country
Spain

Region
56

City
Barcelona

Latitude
41.3833

Longitude
2.1833

Area Code
Unknown

Postal Code
Unknown

Distance from Last (as the crow flies)
314.1 miles

Source
MaxMind


Church of God
of Prophecy
EVERY DAY
ABOVE GROUND
IS A GOOD ONE

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Ancho de banda

Tecnocom

mrtg

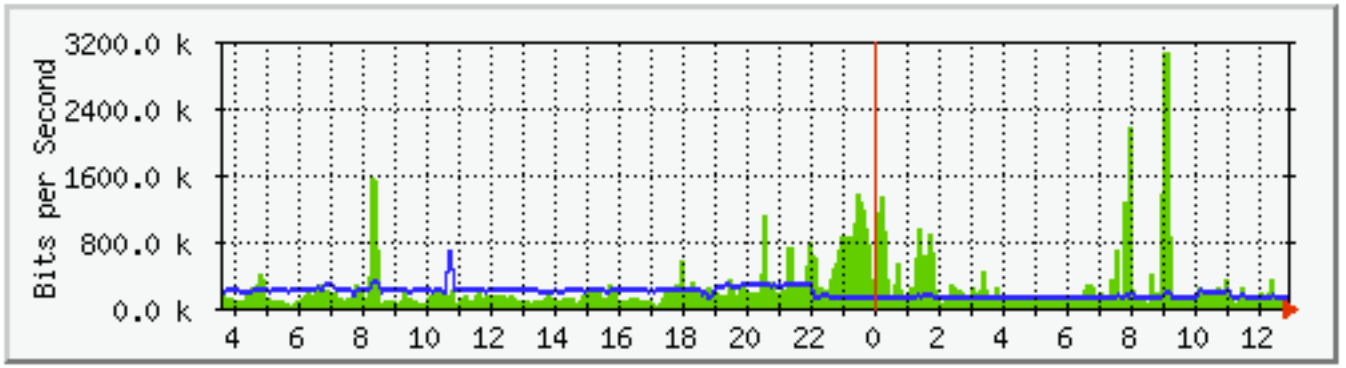
- Monitorización permanente de interfaces por SNMP
- Normalmente ancho de banda
- Puede aplicarse a otros MIBs (errores, tamaño tabla de rutas...)

  http://oss.oetiker.ch/mrtg/

Tecnocom

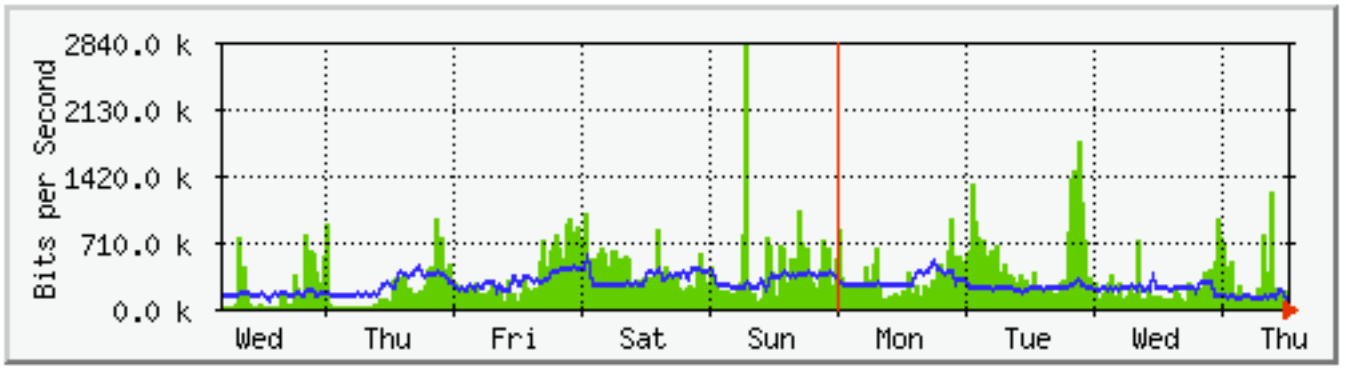
The statistics were last updated **Thursday, 9 October 2008 at 12:55**, at which time the device had been up for **9 days, 18:05:41**.

`Daily' Graph (5 Minute Average)



	Max	Average	Current
In	3063.5 kb/s (3.1%)	235.4 kb/s (0.2%)	113.8 kb/s (0.1%)
Out	656.5 kb/s (0.7%)	174.1 kb/s (0.2%)	110.3 kb/s (0.1%)

`Weekly' Graph (30 Minute Average)



	Max	Average	Current
In	2825.2 kb/s (2.8%)	315.2 kb/s (0.3%)	170.8 kb/s (0.2%)
Out	565.6 kb/s (0.6%)	244.7 kb/s (0.2%)	117.1 kb/s (0.1%)

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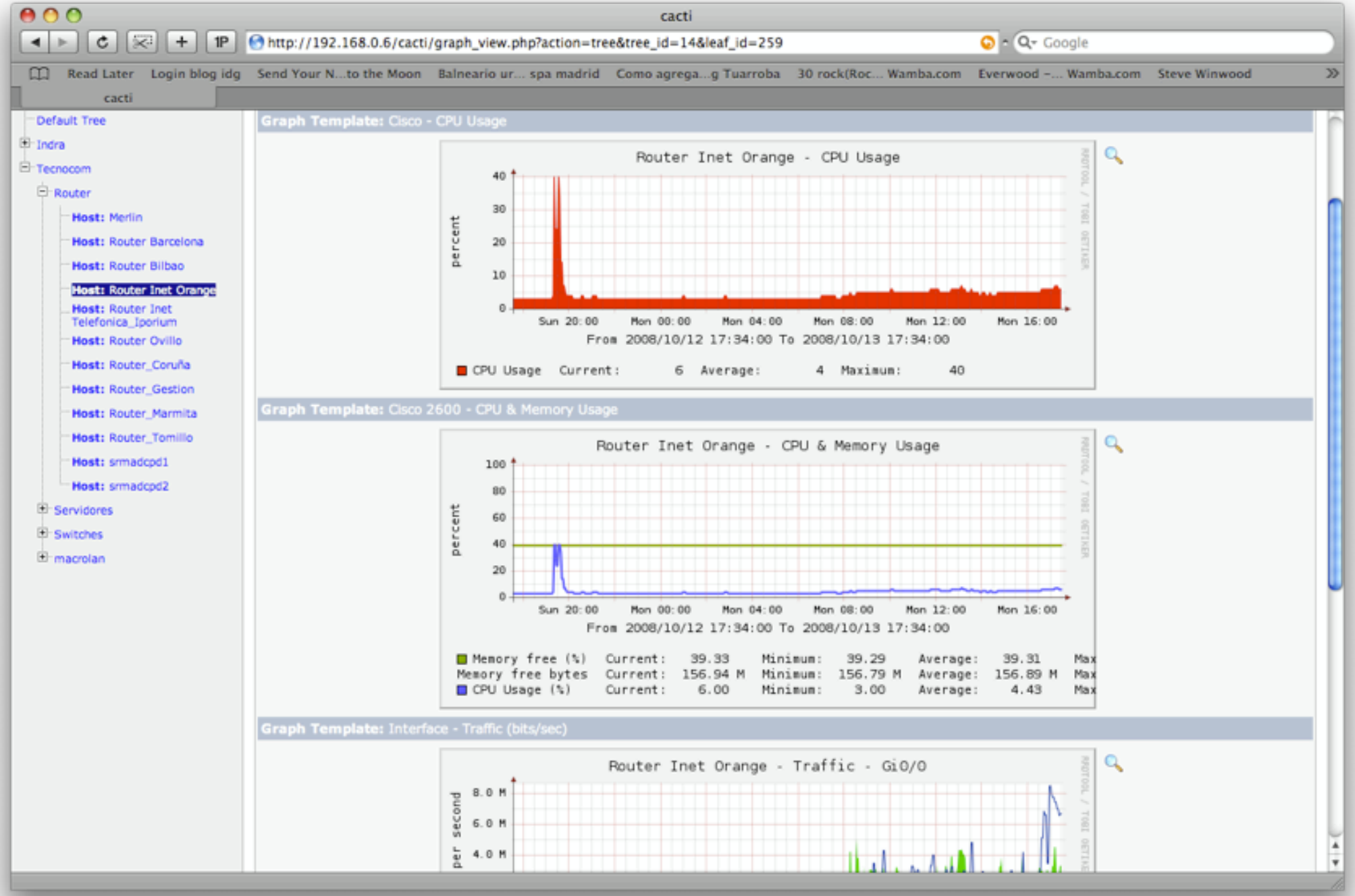
Cacti

- Monitorización permanente de interfaces por SNMP
- versión mejorada de MRTG
- Multiples sitios, diversas gráficas agrupadas

http://www.cacti.net/

Tecnocom


cacti
http://192.168.0.6/cacti/graph_view.php?action=tree&tree_id=14&leaf_id=259
Google
Read Later
Login blog idg
Send Your N...to the Moon
Balneario ur... spa madrid
Como agrega...g Tuarroba
30 rock(Roc... Wamba.com
Everwood -... Wamba.com
Steve Winwood
cacti
Default Tree
Indra
Tecnocom
Router
Host: Merlin
Host: Router Barcelona
Host: Router Bilbao
Host: Router Inet Orange
Host: Router Inet Telefonica_Iporium
Host: Router Ovillo
Host: Router_Coruña
Host: Router_Gestion
Host: Router_Marmita
Host: Router_Tomillo
Host: srmadcpd1
Host: srmadcpd2
Servidores
Switches
macrolan
Graph Template: Cisco - CPU Usage
Router Inet Orange - CPU Usage
percent
40
30
20
10
0
Sun 20:00
Mon 00:00
Mon 04:00
Mon 08:00
Mon 12:00
Mon 16:00
From 2008/10/12 17:34:00 To 2008/10/13 17:34:00
CPU Usage Current: 6 Average: 4 Maximum: 40
Graph Template: Cisco 2600 - CPU & Memory Usage
Router Inet Orange - CPU & Memory Usage
percent
100
80
60
40
20
0
Sun 20:00
Mon 00:00
Mon 04:00
Mon 08:00
Mon 12:00
Mon 16:00
From 2008/10/12 17:34:00 To 2008/10/13 17:34:00
Memory free (%) Current: 39.33 Minimum: 39.29 Average: 39.31
Memory free bytes Current: 156.94 M Minimum: 156.79 M Average: 156.89 M
CPU Usage (%) Current: 6.00 Minimum: 3.00 Average: 4.43
Graph Template: Interface - Traffic (bits/sec)
Router Inet Orange - Traffic - Gi0/0
per second
8.0 M
6.0 M
4.0 M

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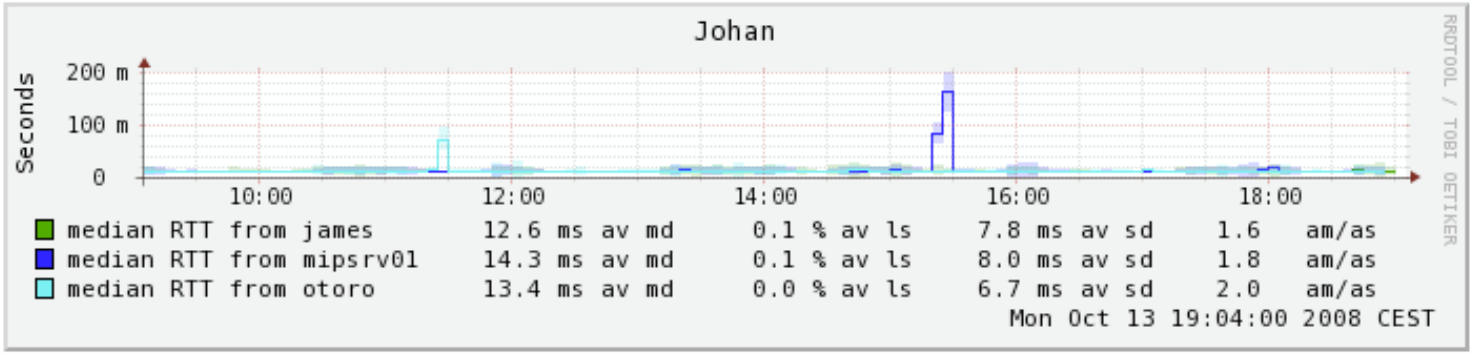
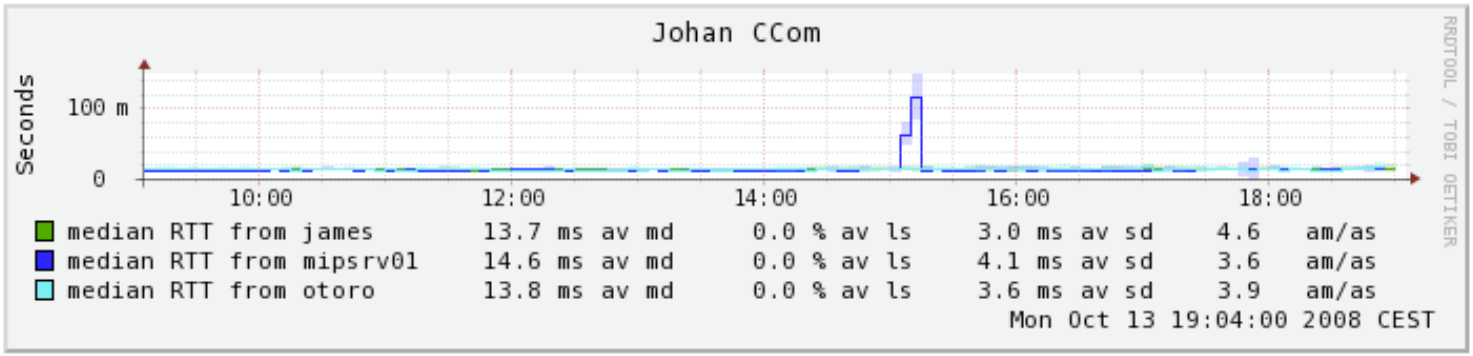
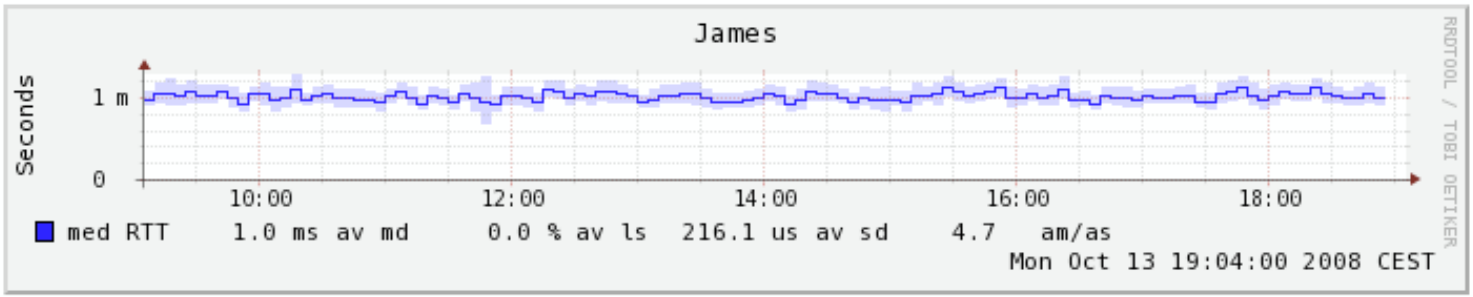
Smokeping

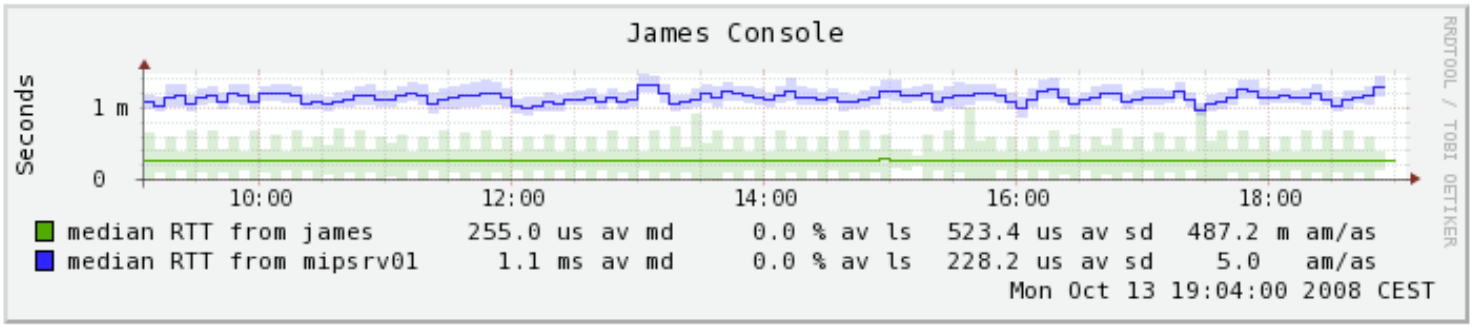
- Medida de latencias
- Genera gráficos

Tecnocom


Johan
Seconds
200 m
100 m
0
10:00
12:00
14:00
16:00
18:00
median RTT from james 12.6 ms av md 0.1 % av ls 7.8 ms av sd 1.6 am/as
median RTT from mipsrv01 14.3 ms av md 0.1 % av ls 8.0 ms av sd 1.8 am/as
median RTT from otoro 13.4 ms av md 0.0 % av ls 6.7 ms av sd 2.0 am/as
Mon Oct 13 19:04:00 2008 CEST
RRDTOOL / TOBI OETIKER


Johan CCom
Seconds
100 m
0
10:00
12:00
14:00
16:00
18:00
median RTT from james 13.7 ms av md 0.0 % av ls 3.0 ms av sd 4.6 am/as
median RTT from mipsrv01 14.6 ms av md 0.0 % av ls 4.1 ms av sd 3.6 am/as
median RTT from otoro 13.8 ms av md 0.0 % av ls 3.6 ms av sd 3.9 am/as
Mon Oct 13 19:04:00 2008 CEST
RRDTOOL / TOBI OETIKER


James
Seconds
1 m
0
10:00
12:00
14:00
16:00
18:00
med RTT 1.0 ms av md 0.0 % av ls 216.1 us av sd 4.7 am/as
Mon Oct 13 19:04:00 2008 CEST
RRDTOOL / TOBI OETIKER


James Console
Seconds
1 m
0
10:00
12:00
14:00
16:00
18:00
median RTT from james 255.0 us av md 0.0 % av ls 523.4 us av sd 487.2 m am/as
median RTT from mipsrv01 1.1 ms av md 0.0 % av ls 228.2 us av sd 5.0 am/as
Mon Oct 13 19:04:00 2008 CEST
RRDTOOL / TOBI OETIKER

Tecnocom

pchar

- Mide el ancho de banda disponible en cada uno de los pasos de un traceroute
- Necesita una red estable
- Buena aproximación

  http://www.kitchenlab.org/www/bmah/Software/pchar/

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```
pchar to www.bt.es (212.49.189.100) using UDP/IPv4
Using raw socket input
Packet size increments from 32 to 1500 by 128
11 test(s) per repetition
8 repetition(s) per hop
Warning: target host did not respond to initial test.
 0: 89.107.48.36 (89.107.48.36)
    Partial loss: 0 / 88 (0%)
    Partial char: rtt = 0.540216 ms,(b = 0.000203 ms/B),r2 = 0.558078
                          stddev rtt = 0.049526, stddev b = 0.000060
    Partial queueing:   avg = 0.003259 ms (16084 bytes)
    Hop char:           rtt = 0.540216 ms, bw = 39481.247809 Kbps
    Hop queueing:       avg = 0.003259 ms (16084 bytes)
 1: 89.107.48.2 (89.107.48.2)
    Partial loss: 0 / 88 (0%)
    Partial char: rtt = 2.000281 ms,(b = 0.001305 ms/B),r2 = 0.973079
                          stddev rtt = 0.059621, stddev b = 0.000072
    Partial queueing:   avg = 0.004510 ms (17218 bytes)
    Hop char:           rtt = 1.460065 ms, bw = 7256.796805 Kbps
    Hop queueing:       avg = 0.001251 ms (1134 bytes)
 2: 85.63.9.89 (85.63.9.89)
```

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Rutas BGP

Aim for The Ass

Something's Wrong With My Gun
(repeat gesture to add "..again!" to indicate frustration)

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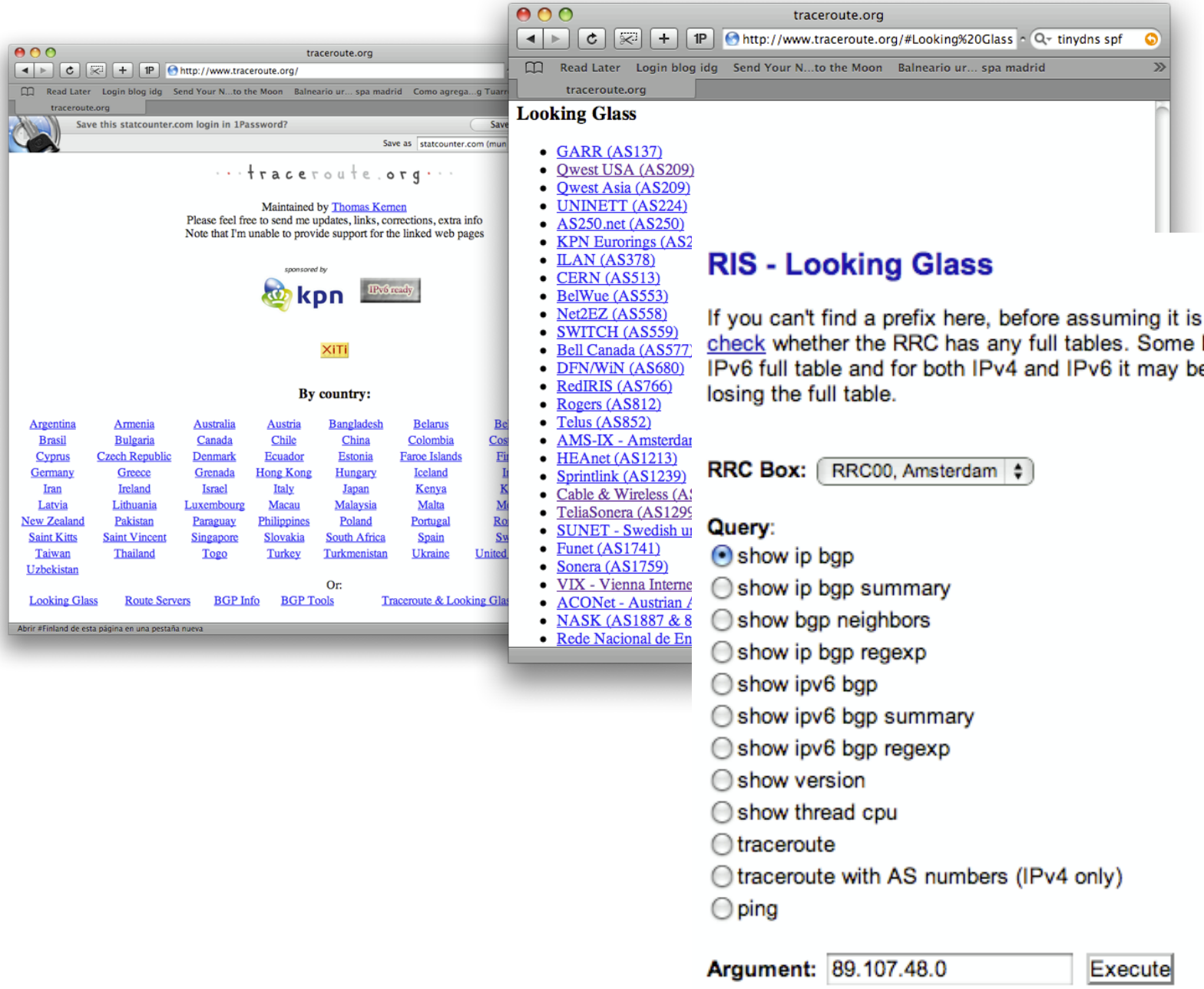
traceroute.org

- Apartado Looking glass
- Recopilación de servidores looking glass
- No demasiado actualizado

  http://www.traceroute.org/

Tecnocom


traceroute.org
http://www.traceroute.org/
Read Later
Login blog idg
Send Your N...to the Moon
Balneario ur... spa madrid
Como agrega...g Tuarr
traceroute.org
Save this statcounter.com login in 1Password?
Save as
statcounter.com (mun
traceroute.org
Maintained by Thomas Kernen
Please feel free to send me updates, links, corrections, extra info
Note that I'm unable to provide support for the linked web pages
sponsored by
kpn
IPv6 ready
XiTi
By country:
Argentina
Armenia
Australia
Austria
Bangladesh
Belarus
Brasil
Bulgaria
Canada
Chile
China
Colombia
Cyprus
Czech Republic
Denmark
Ecuador
Estonia
Faroe Islands
Germany
Greece
Grenada
Hong Kong
Hungary
Iceland
Iran
Ireland
Israel
Italy
Japan
Kenya
Latvia
Lithuania
Luxembourg
Macau
Malaysia
Malta
New Zealand
Pakistan
Paraguay
Philippines
Poland
Portugal
Saint Kitts
Saint Vincent
Singapore
Slovakia
South Africa
Spain
Taiwan
Thailand
Togo
Turkey
Turkmenistan
Ukraine
Uzbekistan
Or:
Looking Glass
Route Servers
BGP Info
BGP Tools
Traceroute & Looking Gla
Abrir #Finland de esta página en una pestaña nueva
traceroute.org
http://www.traceroute.org/#Looking%20Glass
tinydns spf
Read Later
Login blog idg
Send Your N...to the Moon
Balneario ur... spa madrid
traceroute.org
Looking Glass
GARR (AS137)
Qwest USA (AS209)
Qwest Asia (AS209)
UNINETT (AS224)
AS250.net (AS250)
KPN Eurorings (AS2
ILAN (AS378)
CERN (AS513)
BelWue (AS553)
Net2EZ (AS558)
SWITCH (AS559)
Bell Canada (AS577
DFN/WiN (AS680)
RedIRIS (AS766)
Rogers (AS812)
Telus (AS852)
AMS-IX - Amsterdar
HEAnet (AS1213)
Sprintlink (AS1239)
Cable & Wireless (AS
TeliaSonera (AS1299
SUNET - Swedish u
Funet (AS1741)
Sonera (AS1759)
VIX - Vienna Interne
ACONet - Austrian A
NASK (AS1887 & 8
Rede Nacional de En
RIS - Looking Glass
If you can't find a prefix here, before assuming it is not properly announced, check whether the RRC has any full tables. Some RRCs do not yet have an IPv6 full table and for both IPv4 and IPv6 it may be that peerings go down, losing the full table.
RRC Box:
RRC00, Amsterdam
Query:
show ip bgp
show ip bgp summary
show bgp neighbors
show ip bgp regexp
show ipv6 bgp
show ipv6 bgp summary
show ipv6 bgp regexp
show version
show thread cpu
traceroute
traceroute with AS numbers (IPv4 only)
ping
Argument:
89.107.48.0
Execute

Tecnocom

```
BGP routing table entry for 89.107.48.0/21
Paths: (14 available, best #7, table Default-IP-Routing-Table)
  Advertised to non peer-group peers:
  195.28.164.125 203.119.0.116
  3549 12956 3352 39780 39780 39780 39780
    208.51.134.248 from 208.51.134.248 (67.17.80.217)
      Origin incomplete, metric 2937, localpref 100, valid, external
      Community: 3549:2293 3549:30840
      Last update: Wed Oct  8 11:46:20 2008

  3333 5511 12479 39780
    193.0.0.56 from 193.0.0.56 (193.0.0.56)
      Origin IGP, localpref 100, valid, external
      Last update: Wed Oct  8 09:12:53 2008

  42109 41965 41877 12389 8928 31479 39780 39780 39780 39780 39780
    91.103.24.1 from 91.103.24.1 (91.103.24.1)
      Origin EGP, localpref 100, valid, external
      Last update: Tue Oct  7 23:16:55 2008

  3.5 1125 1103 3257 31479 39780 39780 39780 39780 39780
    145.125.80.5 from 145.125.80.5 (145.125.80.5)
      Origin IGP, localpref 100, valid, external
      Community: 1103:1000 3257:4000 3257:5034
      Last update: Tue Oct  7 14:23:41 2008
```

Tecnocom

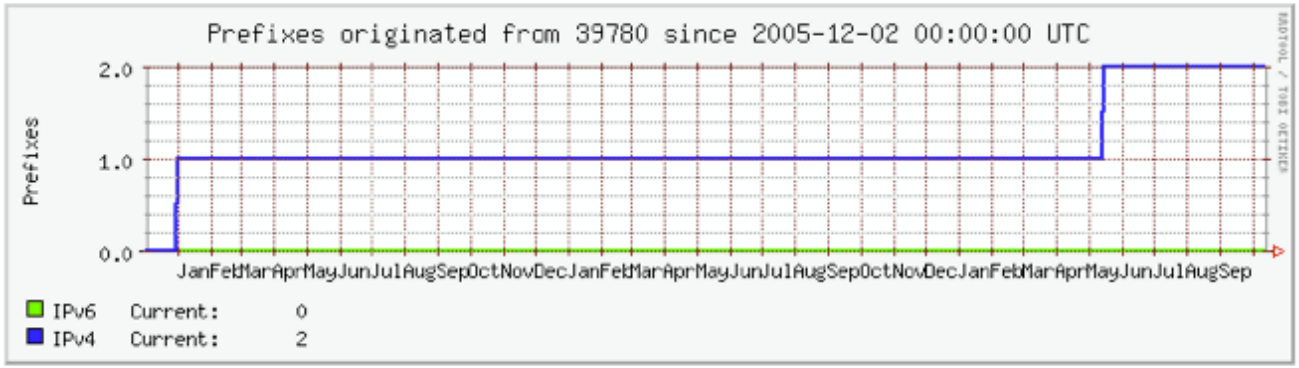
RIPE AS Dashboard

- Resumen de datos de tu AS
- Gran cantidad de información histórica y estadística

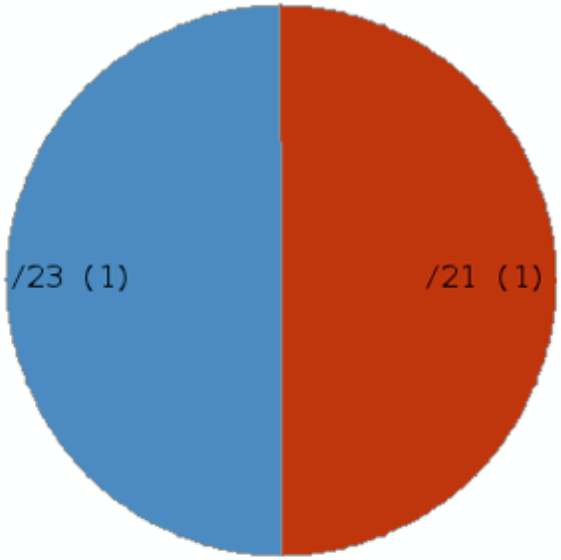
  http://www.ris.ripe.net/dashboard/asXXXX

Tecnocom

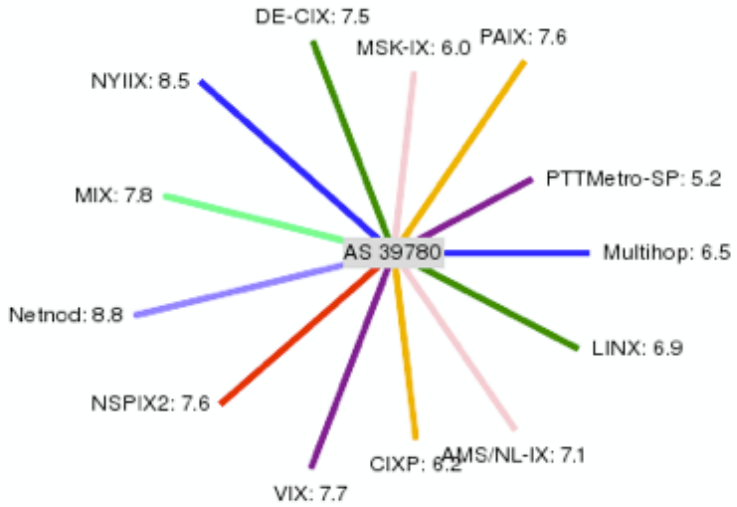
Overview | Prefixes | Transits | AS path lengths | Whois | Former bogon filtering



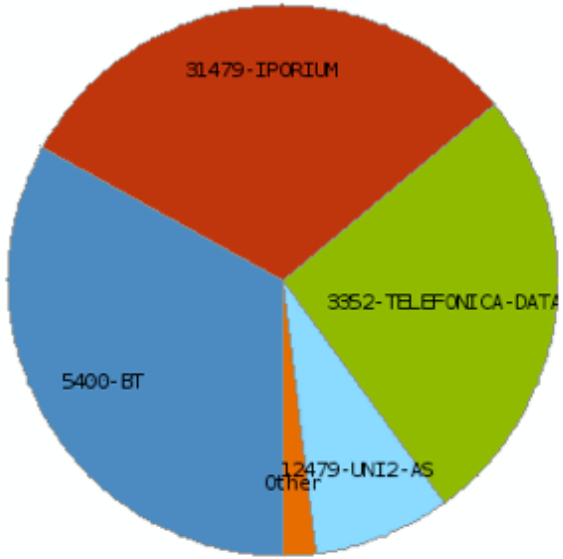
Prefix size distribution



Average AS path length to each collector



Transits distribution



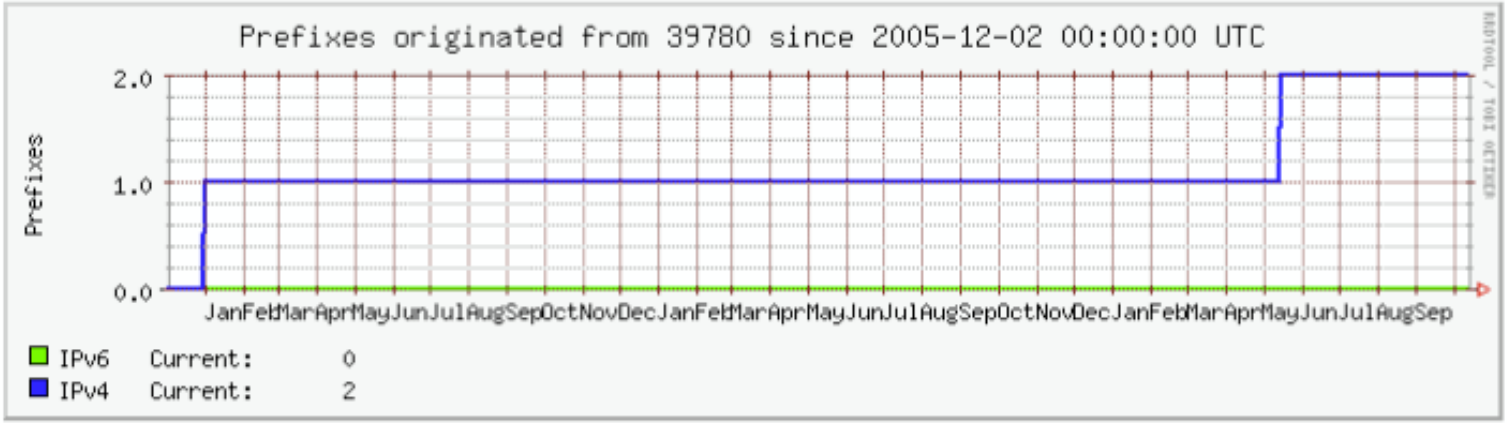
Tecnocom

Overview | Prefixes | Transits | AS path lengths | Whois | Former bogon filtering

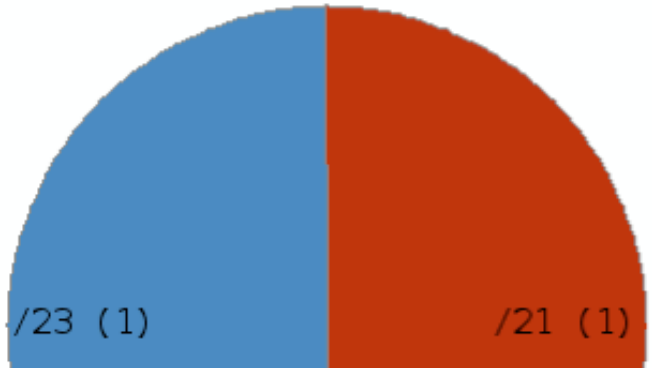
Overview*ation*

This AS originated **2 prefixes** in the last month.
Their announced address space spans between a /20 and a /21 for IPv4.

Prefix	Size	Last seen	First seen	Whois	Registry	Peers seeing
89.107.50.0/23	23	2008-10-13 15:59:59 UTC	2008-05-14 10:19:52 UTC	W	RIPE NCC	115
89.107.48.0/21	21	2008-10-13 15:59:59 UTC	2006-01-01 00:02:25 UTC	W	RIPE NCC	125



Prefix size distribution



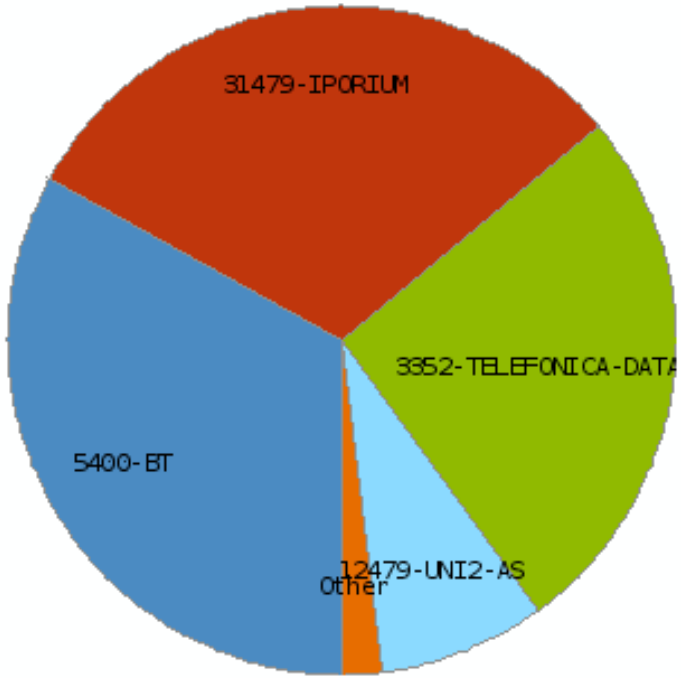
Tecnocom

Overview | Prefixes | Transits | AS path lengths | Whois | Former bogon filtering

⊞ *Explanation*

Transits seen in the last three months

- AS5400: 33 %
  BT
- AS31479: 31 %
  IPORIUM
- AS3352: 26 %
  TELEFONICA-DATA-ESPANA
- AS12479: 8 %
  UNI2-AS



Tecnocom

RIPE Prefix in use

- Otra herramienta de RIPE

  http://www.ris.ripe.net/perl-risapp/prefixinuse.html

Tecnocom

BGPlay **Query for a different prefix, or for an AS:** Query

This prefix originated from AS39780 (EUROCOMERCIAL-NET AS for Eurocomercial Inf and Com network).

This prefix comes from space allocated to RIPE NCC by the IANA.

Related (overlapping) prefixes seen by RIS in the last 30 days

Prefix	Origin AS	AS name	Last seen
89.107.50.0/23	39780	EUROCOMERCIAL-NET AS for Eurocomercial Inf and Com network	2008-10-12 23:59:56 UTC

Prefix stability and visibility in the last 48 hours

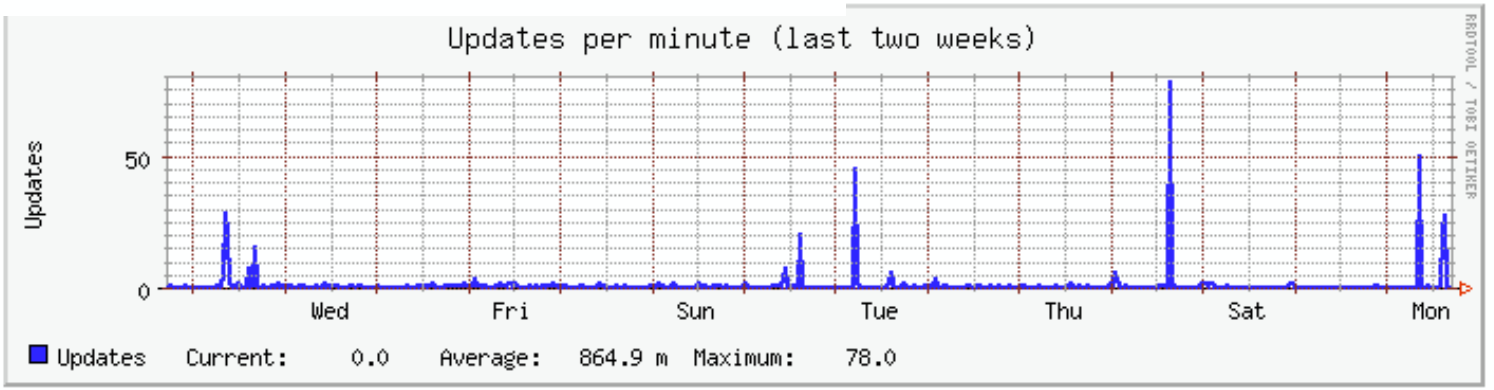
⊞ *Explanation*

Visibility

The visibility of this prefix is **100%**.

During the last 48 hours, **1 updates** per peer sending this prefix were found.

Stability



Tecnocom

RIPE MyASN

- Notificación por correo si alguien anuncia tu prefijo
- Hay que darse de alta en el servicio

  http://www.ris.ripe.net/myasn.html

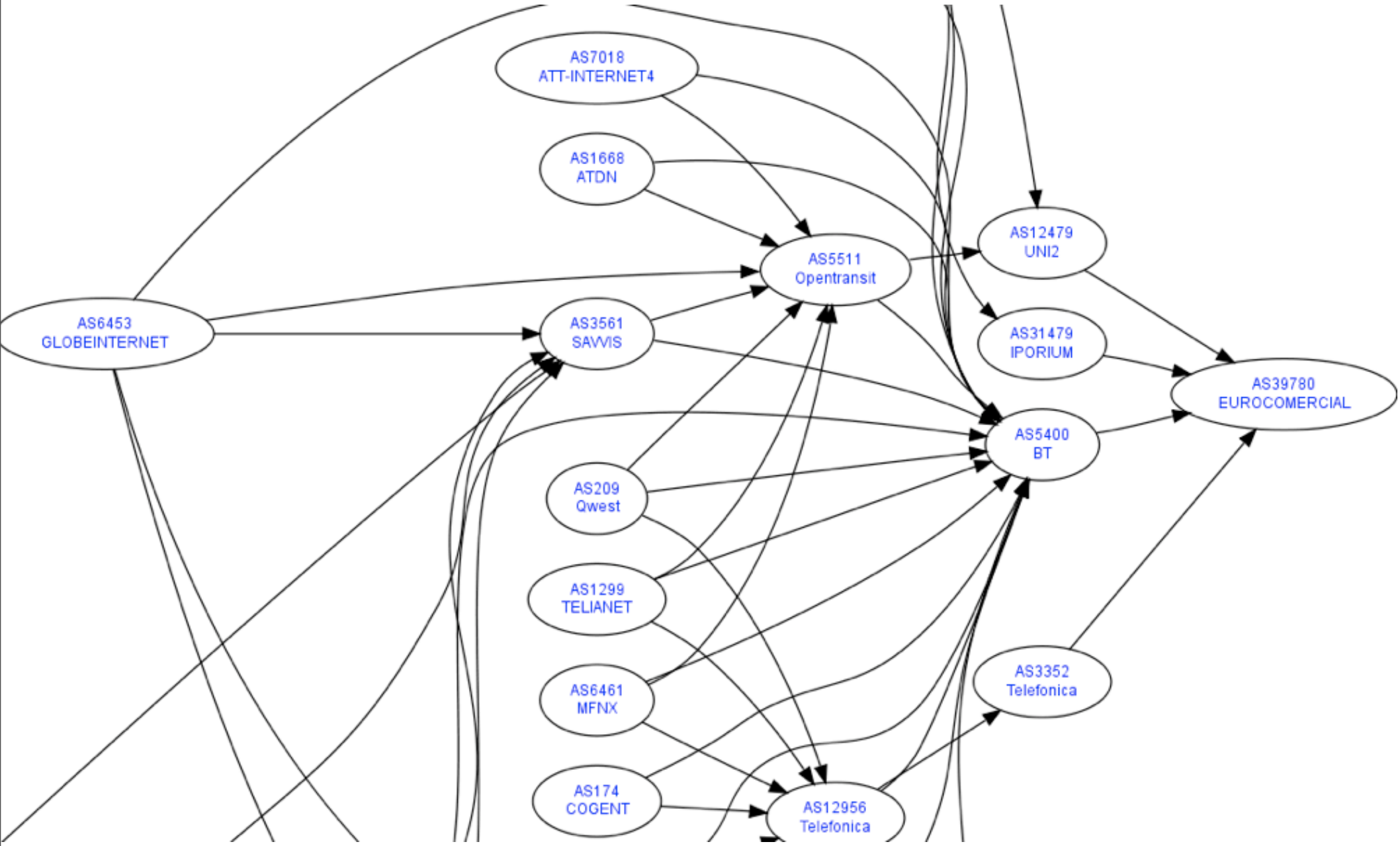
Tecnocom

robtex

- Informe de AS
  - ASINFO con upstreams, IP anunciadas y solapadas
  - Grafo
  - Peers
  - informe de BGP
  - Route Record en RIPE

http://www.robtex.com/

Tecnocom


AS7018
ATT-INTERNET4
AS1668
ATDN
AS5511
Opentransit
AS12479
UNI2
AS6453
GLOBEINTERNET
AS3561
SAVVIS
AS31479
IPORIUM
AS39780
EUROCOMERCIAL
AS5400
BT
AS209
Qwest
AS1299
TELIANET
AS3352
Telefonica
AS6461
MFNX
AS174
COGENT
AS12956
Telefonica

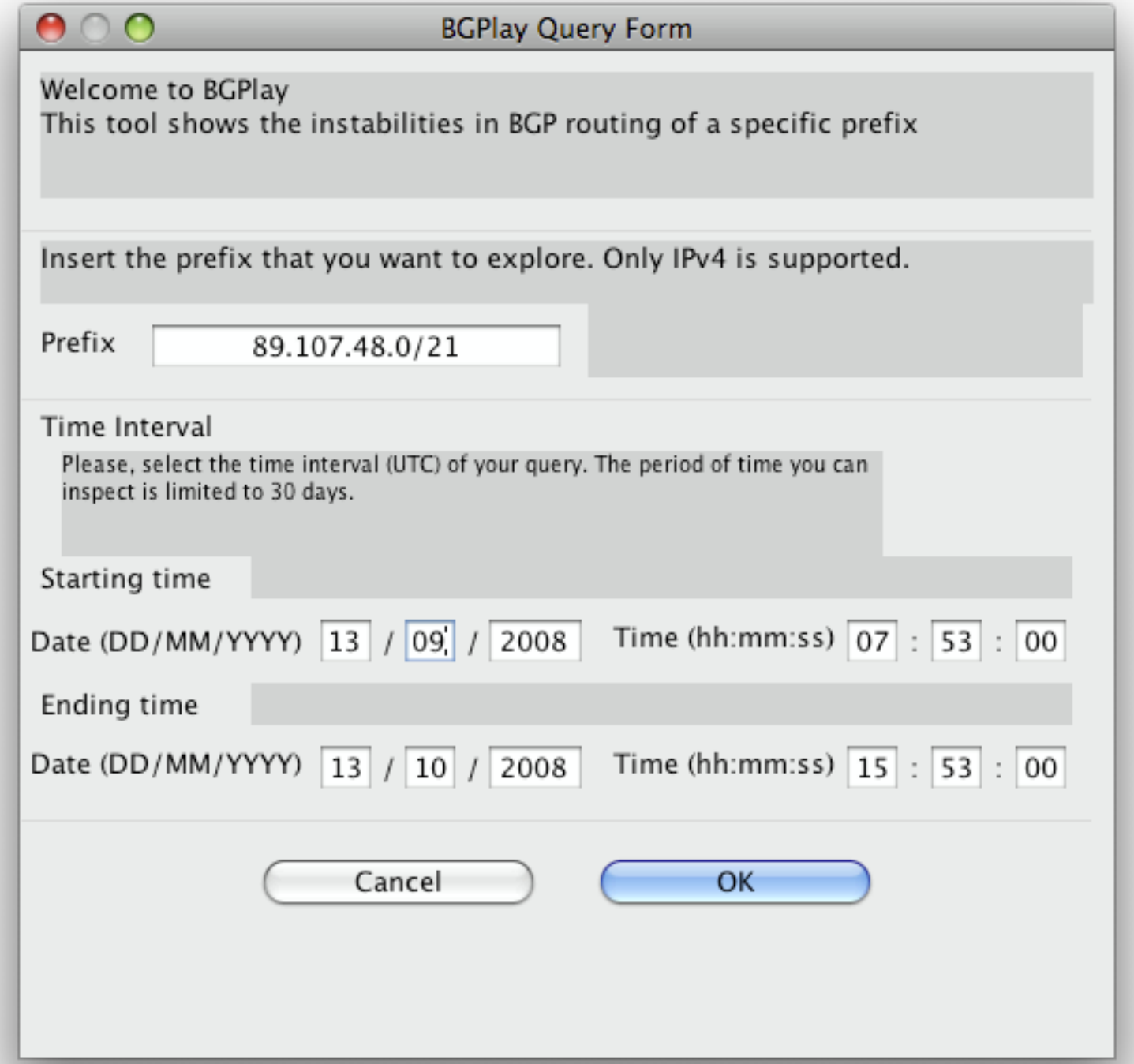
Tecnocom

BGPPlay

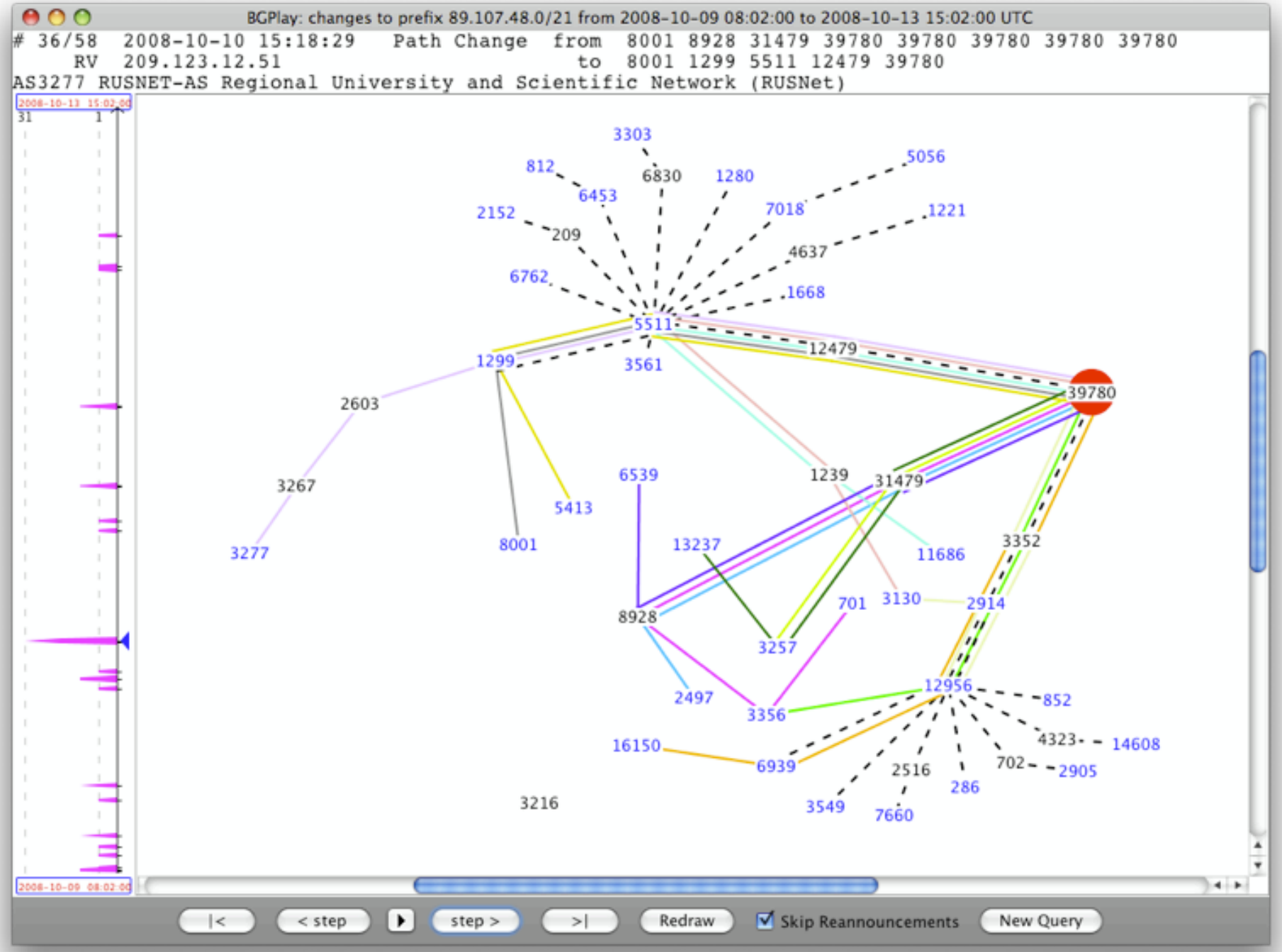
- Visión gráfica e histórica de un prefijo en la red
- Visión parcial pero bastante útil

  http://bgplay.routeviews.org/bgplay/

  http://www.ris.ripe.net/bgplay/


BGPlay Query Form
Welcome to BGPlay
This tool shows the instabilities in BGP routing of a specific prefix
Insert the prefix that you want to explore. Only IPv4 is supported.
Prefix
89.107.48.0/21
Time Interval
Please, select the time interval (UTC) of your query. The period of time you can inspect is limited to 30 days.
Starting time
Date (DD/MM/YYYY) 13 / 09 / 2008
Time (hh:mm:ss) 07 : 53 : 00
Ending time
Date (DD/MM/YYYY) 13 / 10 / 2008
Time (hh:mm:ss) 15 : 53 : 00
Cancel
OK

Tecnocom


BGPlay: changes to prefix 89.107.48.0/21 from 2008-10-09 08:02:00 to 2008-10-13 15:02:00 UTC
36/58 2008-10-10 15:18:29 Path Change from 8001 8928 31479 39780 39780 39780 39780 39780
RV 209.123.12.51 to 8001 1299 5511 12479 39780
AS3277 RUSNET-AS Regional University and Scientific Network (RUSNet)
2008-10-13 15:02:00
31
1
2008-10-09 08:02:00
3303
812
6830
1280
5056
6453
7018
1221
2152
209
4637
6762
1668
5511
12479
1299
3561
39780
2603
3267
6539
1239
31479
5413
3277
8001
13237
11686
3352
3130
2914
701
8928
3257
2497
12956
852
3356
4323
14608
16150
6939
2516
702
2905
286
3549
7660
3216
|<
< step
step >
>|
Redraw
Skip Reannouncements
New Query

Tecnocom

Tecnocom