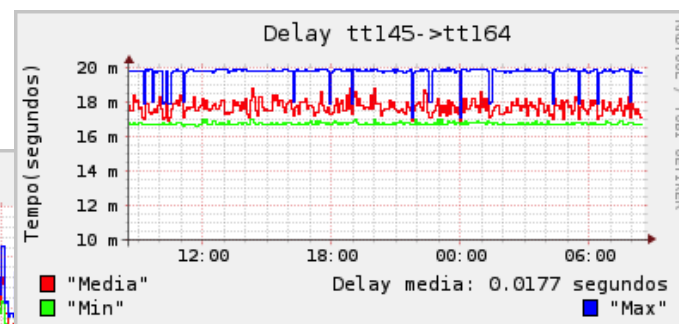
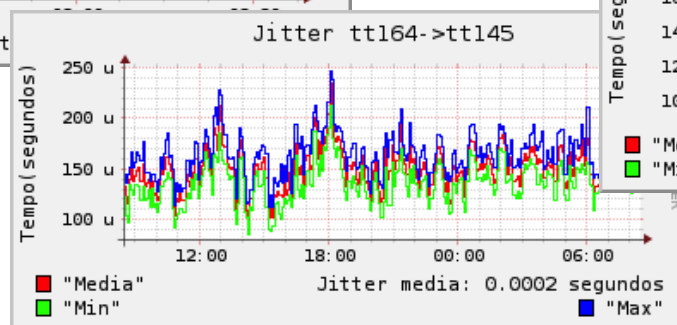
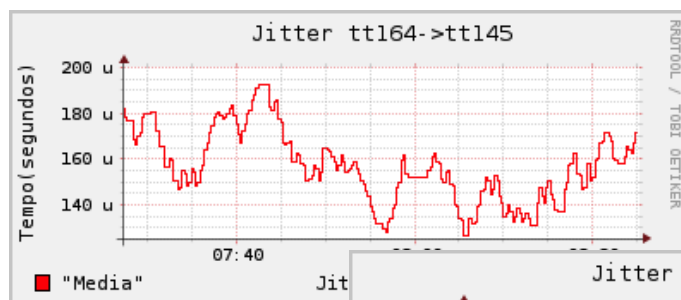
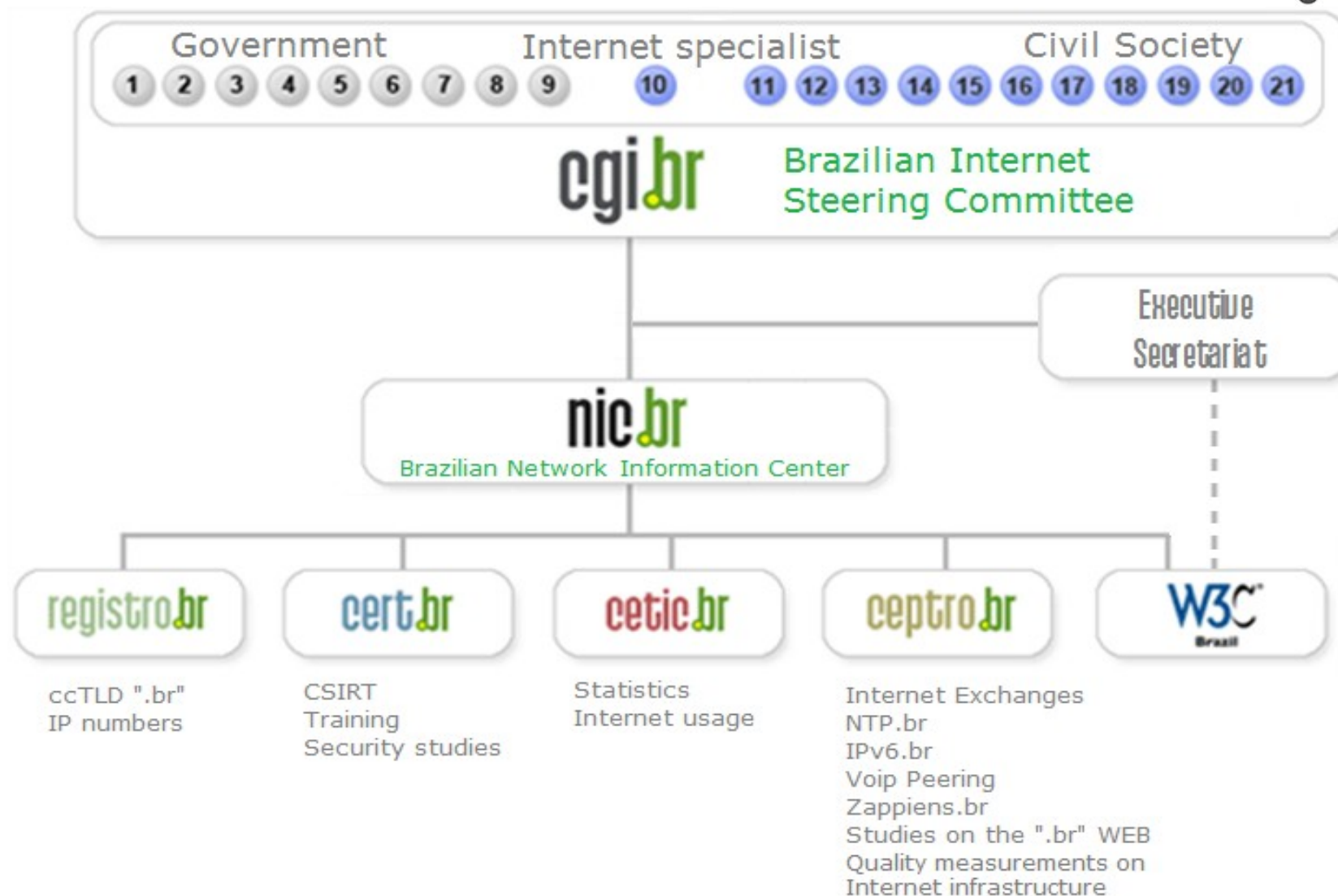


RIPE TTM data in real time



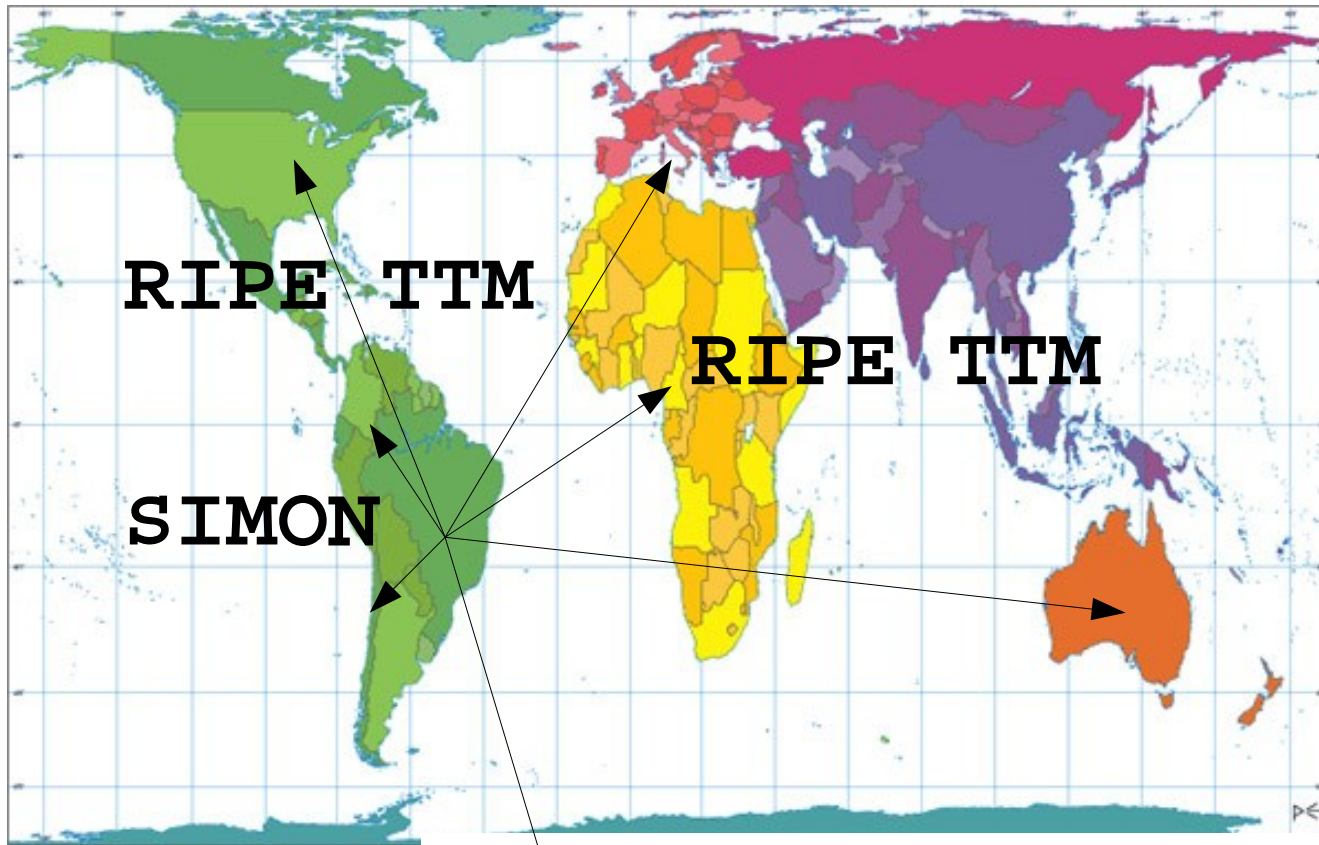
Nov/2011 RIPE 63
Antonio M. Moreiras
moreiras@nic.br
www.nic.br

**Some words about NIC.br,
our interest,
and initiatives,
in measurement systems.**



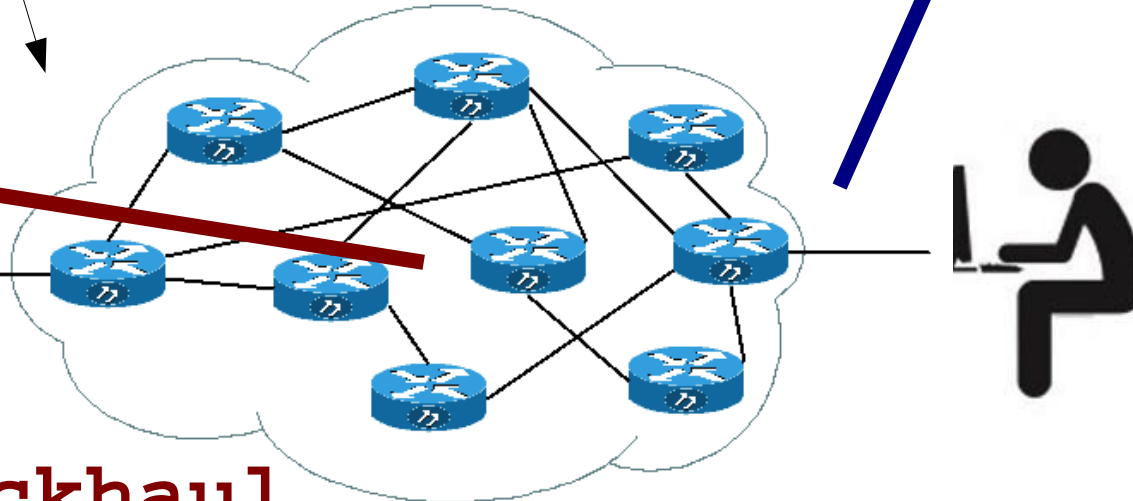
NIC.br is a not for profit organization, created by the Brazilian Internet Steering Committee. We manage the ccTLD .br, that provides our funding. We are the Brazilian NIR. We also have a lot of projects and initiatives to foster the Internet development in Brazil, such as the 18 Brazilian Internet Exchanges "PTTMetro", and the IPv6 dissemination project "IPv6.br". More information at <http://www.nic.br/english>

Measurements in NIC.br

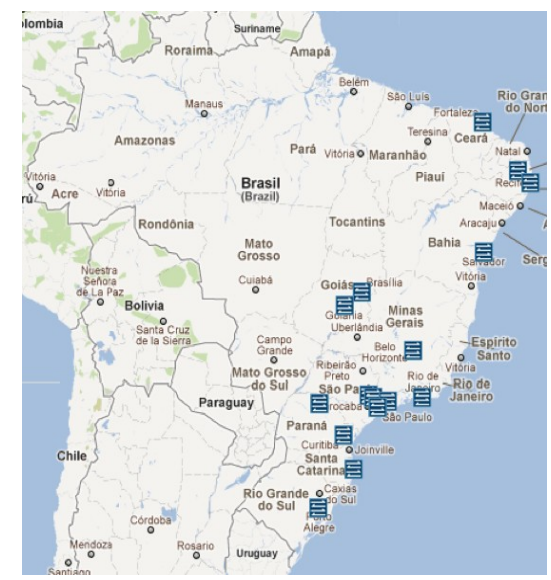
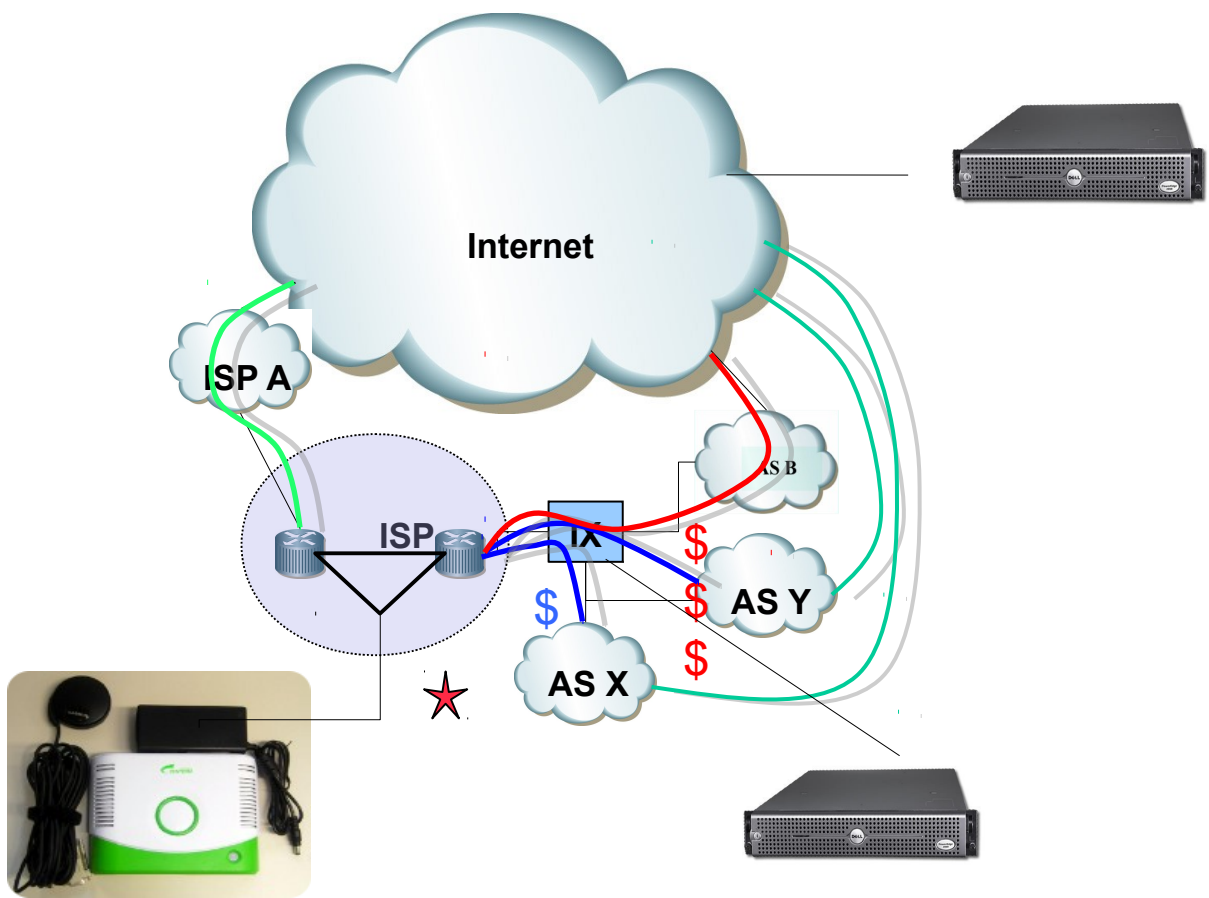


SIMET
Home users
Last mile

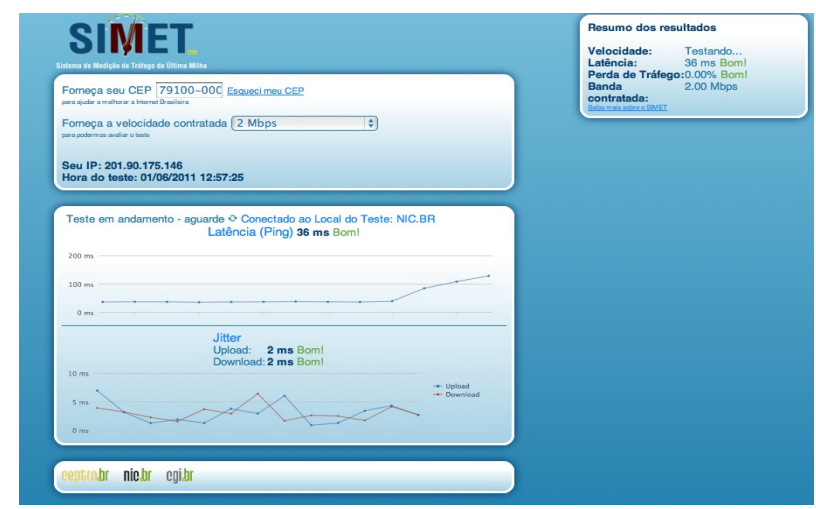
SAMAS
Brazilian
Autonomous
Systems
Backbone/Backhaul



SIMET (last mile)



- Servers in our 16 IXPs
- Thin client + GPS
- Web test == JAVA
- Bandwidth, Latencies, Jitter, Packet Loss, DNS responses
- Data is shared with measured ISPs



SAMAS (backbone/backhaul)

PAS - Portal de Acesso às Informações dos ASs Brasileiros

SAMAS Antonio Moreiras (moreiras)
[Meus acessos](#) | [Minha conta](#) | [Logout](#)

SAMAS - Sistema de Análise e Medição entre ASs

Selecione um coletor:

ASNPPPPP (AS 22548)
(200.160.4.28 / 2001:12ff:0:4::28 - Sao Paulo - SP)

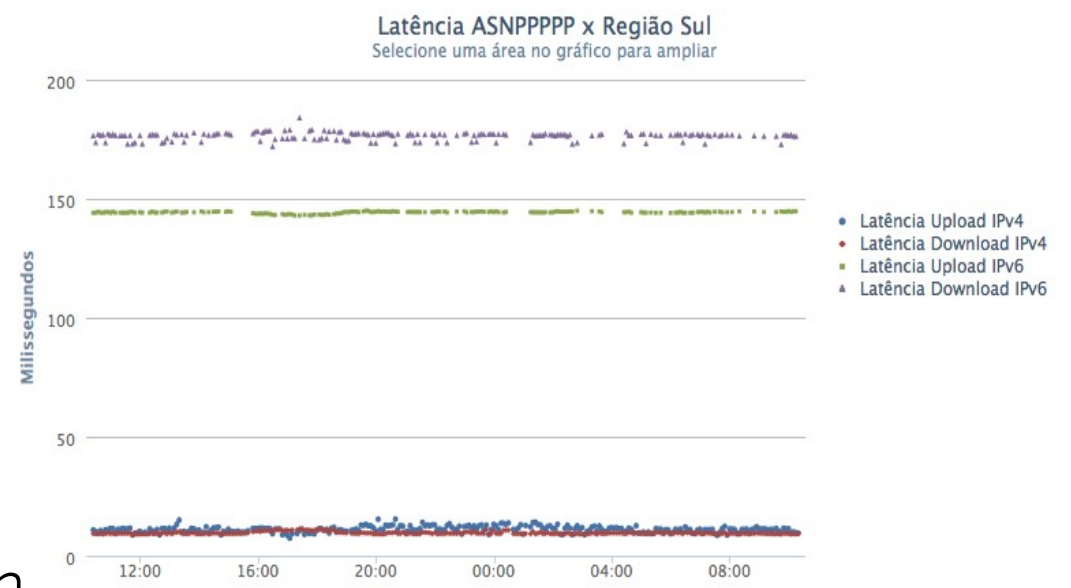
[Status do GPS](#) [Status do Uptime](#)

Destino	Hora	Jitter Upload / Download (ms)	Latência Upload / Download (ms)	RTT (ms)	Pacotes Fora de Ordem Upload / Download	Perda de Pacotes Upload / Download (%)	Traceroute Upload / Download (hops)
Nordeste	07:15	IPv4:0.818 / 2.358 IPv6:0.342 / 3.366	IPv4:22.956 / 22.428 IPv6: 152.596	IPv4: 45.535 IPv6: 0 / 0	IPv4:0 / 0 IPv6:0 / 0	IPv4:0.000 / 0.000 IPv6:0.000 / 0.000	IPv4:5 / 5 IPv6:11 / 13
Norte	07:00	IPv4:3.208 / 0.907	IPv4:16.164 / 18.054	IPv4: 34.315	IPv4:0 / 0	IPv4:0.000 / 0.000	IPv4:13 / 11
Sudeste	07:15	IPv4:1.485 / 1.322 IPv6:0.615 / 3.642	IPv4:5.995 / 8.083 IPv6:69.309 / 85.849	IPv4: 13.233 IPv6: 153.934 IPv4:	IPv4:0 / 0 IPv6:0 / 0	IPv4:0.037 / 0.000 IPv6:0.000 / 0.000	IPv4:8 / 7 IPv6:8 / 12



- 100 first probes distributed among Braz. Aut. Systems
- Thin client + GPS
- v4 + v6: Latencies, Jitter, Packet Loss, Traceroutes.

We would like to have a couple of probes in each world region.

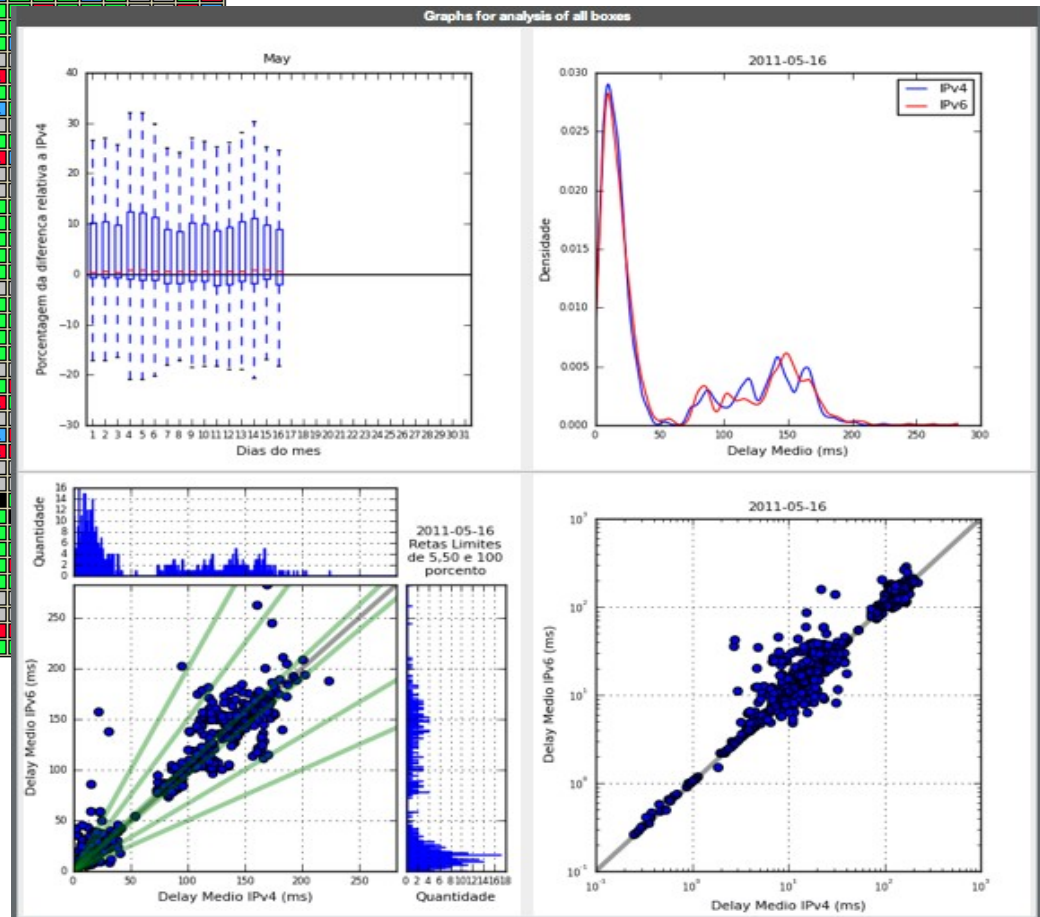
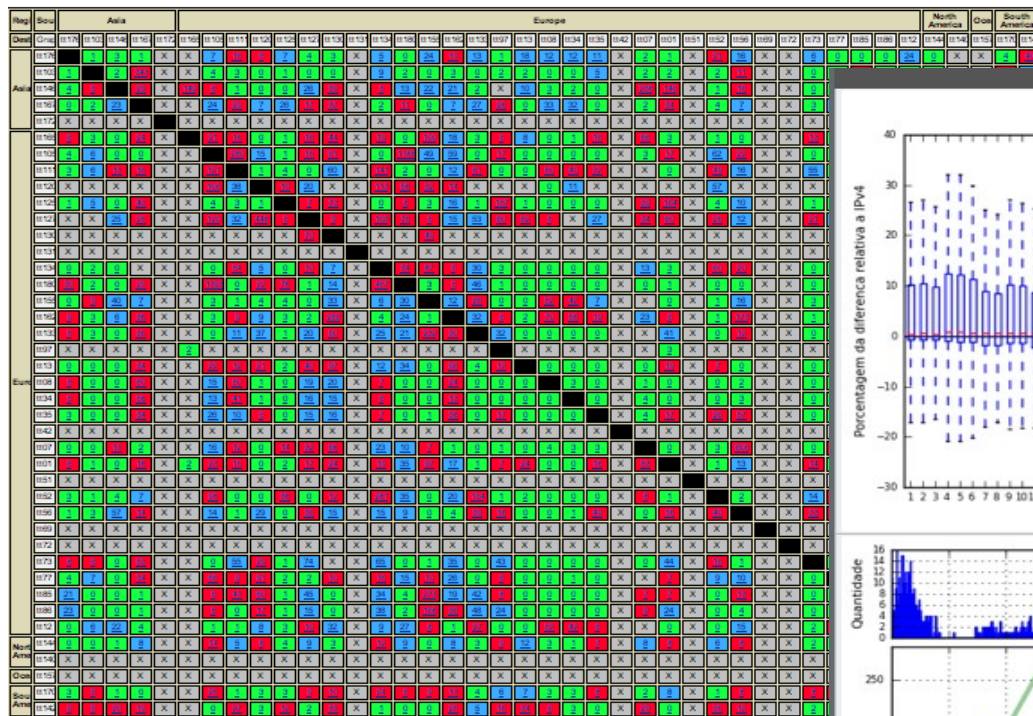


About TTM...

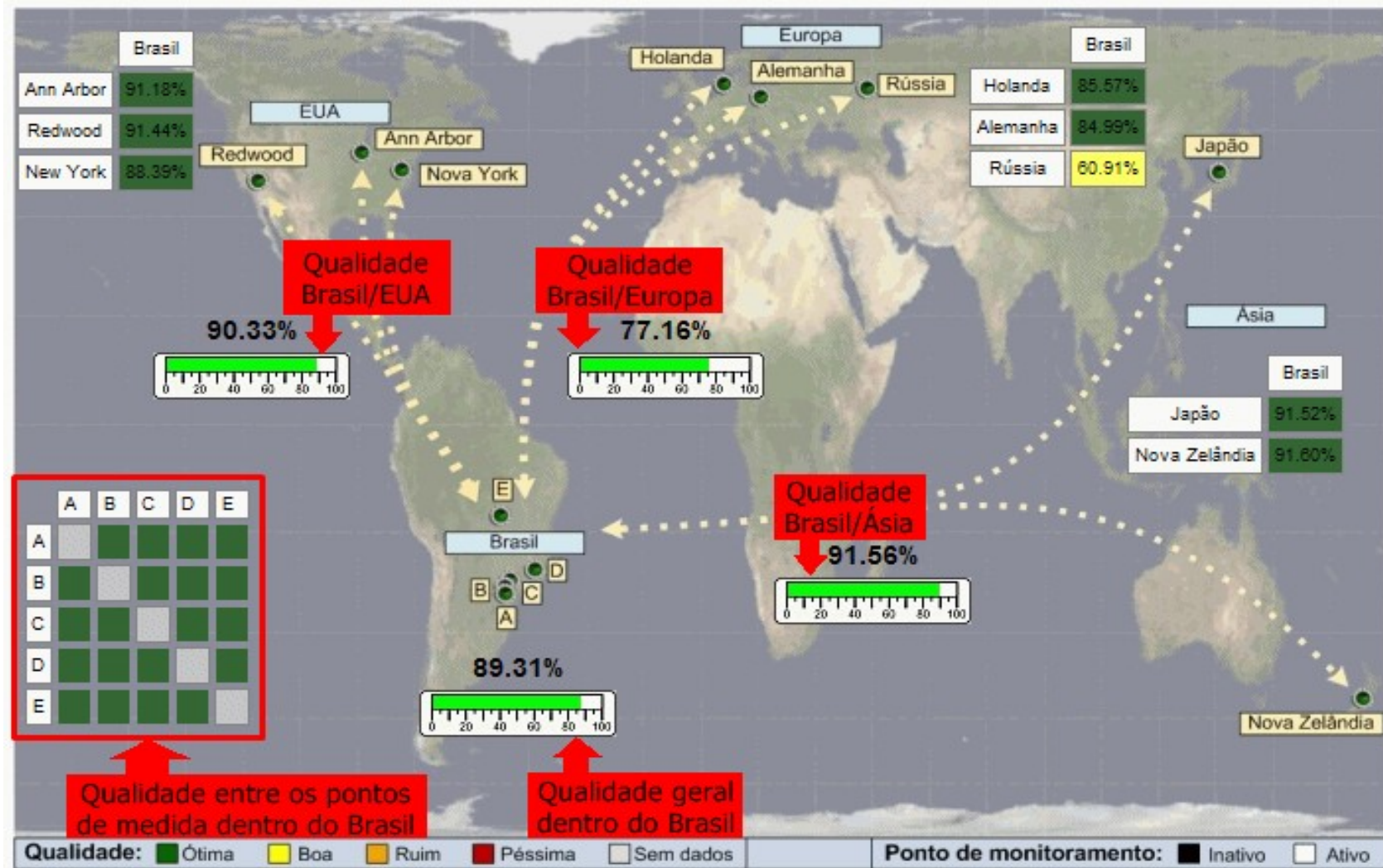
Very valuable information,
but difficult to read...

We try to get the raw data,
or even the consolidated data,
and show it in an easy way...

Table ordered by region, and colored by the percentual difference between v6 and v4 delays.



Data from selected TTM boxes.
Try to evaluate the interconexion
between the main Brazilian
operators and other regions.



About TTM...

Data was $d-1$.

Now is $d-2$.

About TTM...

Telnet Interface

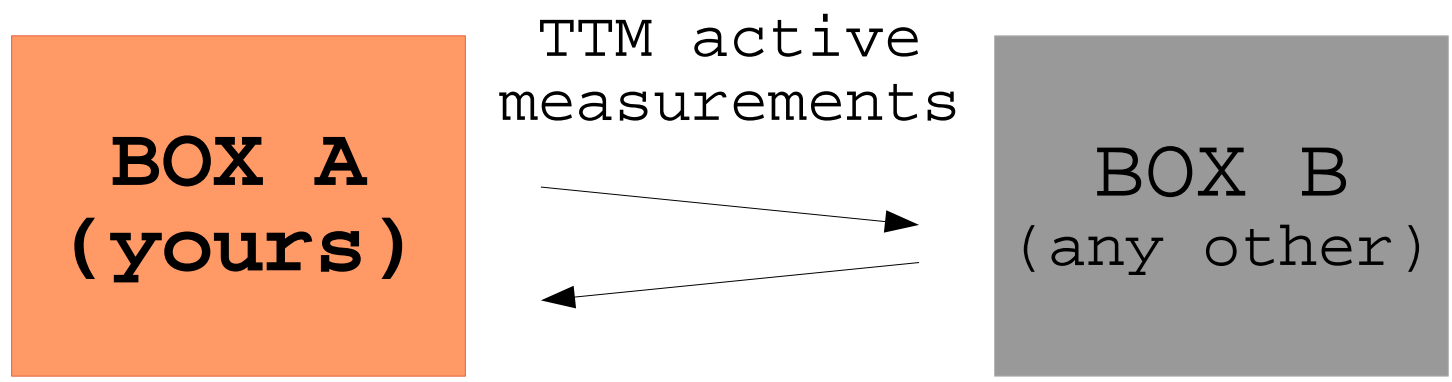
Continuous stream of data, from
(port 9142 of) your box,
via TCP connection.

3 main messages:

SNDP - packets sent (loss)
RCDP - packets received (latency, jitter)
RVEC - paths

Other msgs not documented: IPv6, DNS...

Telnet Interface



TCP port 9142

An arrow points from the bottom of the orange box 'BOX A (yours)' to the text 'TCP port 9142'.

RCDP - latency & jitter from B to A

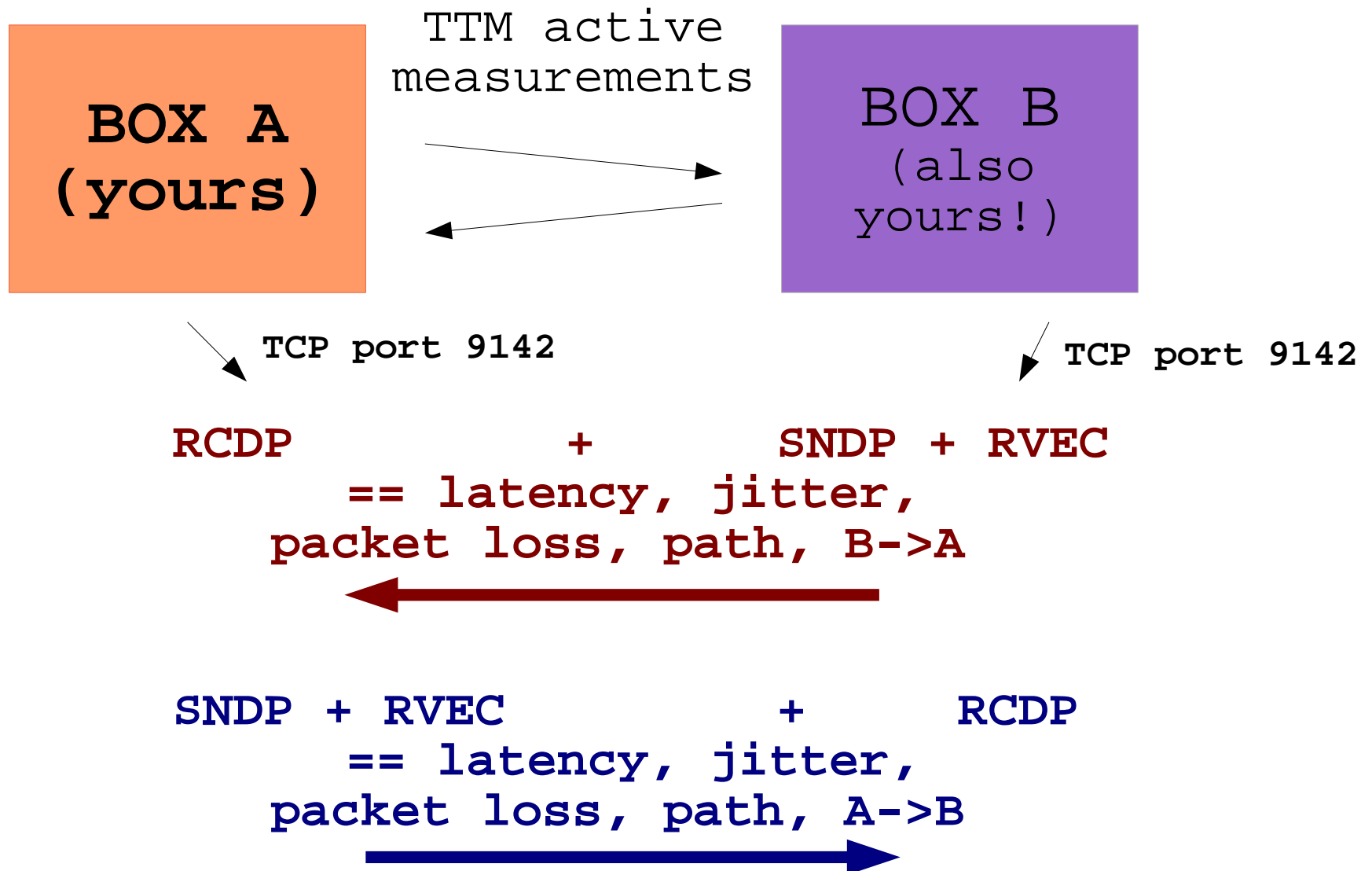


RVEC - path (traceroute) from A to B

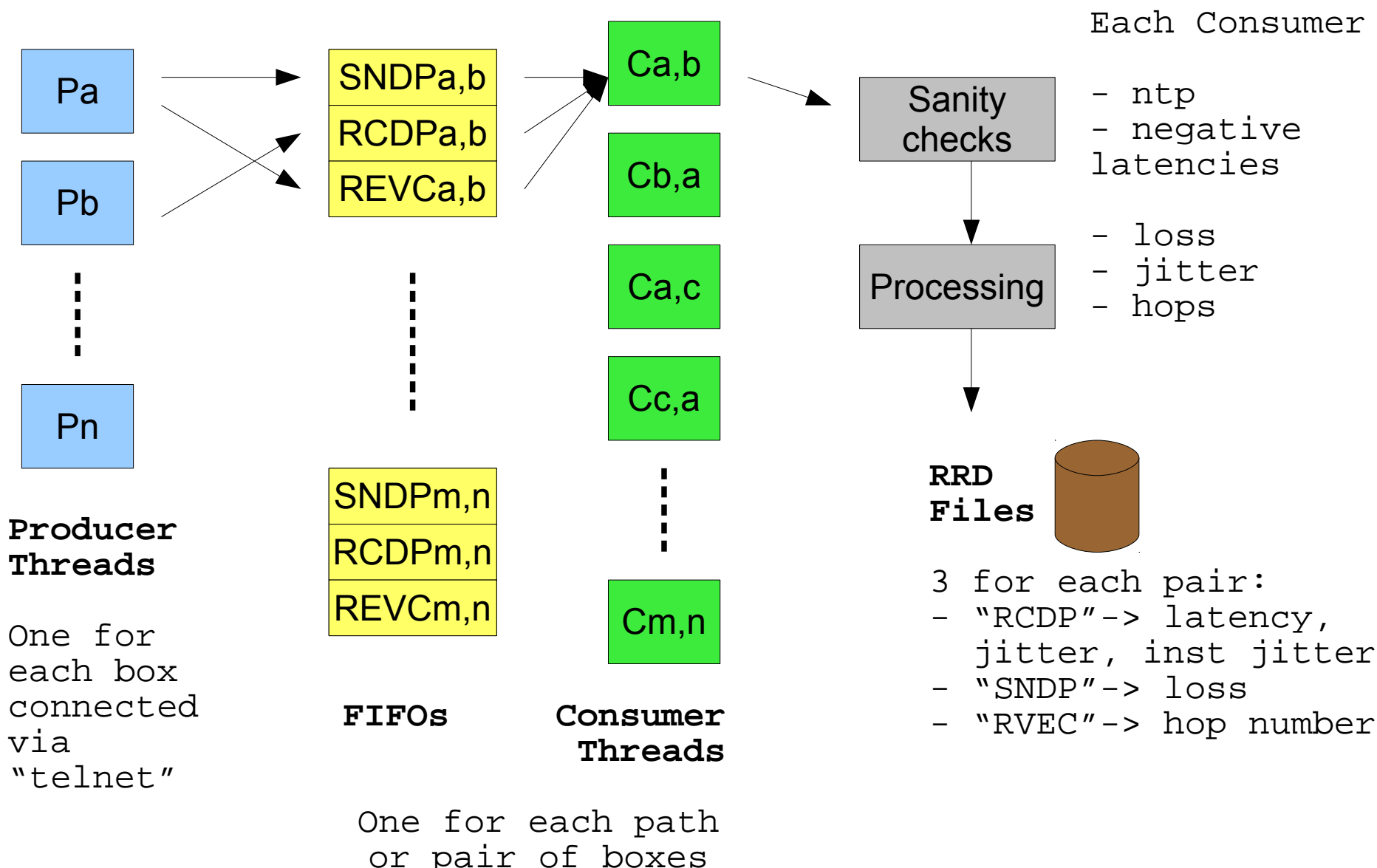
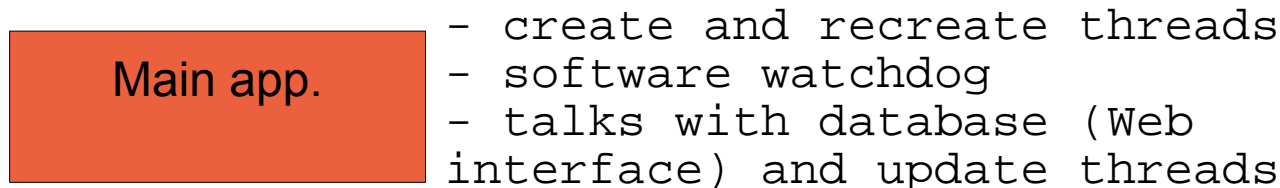


No information about packet loss

Telnet Interface



Our Java Software



Tested (simulating) up to 30 boxes

CCL Tempo Real

Legenda

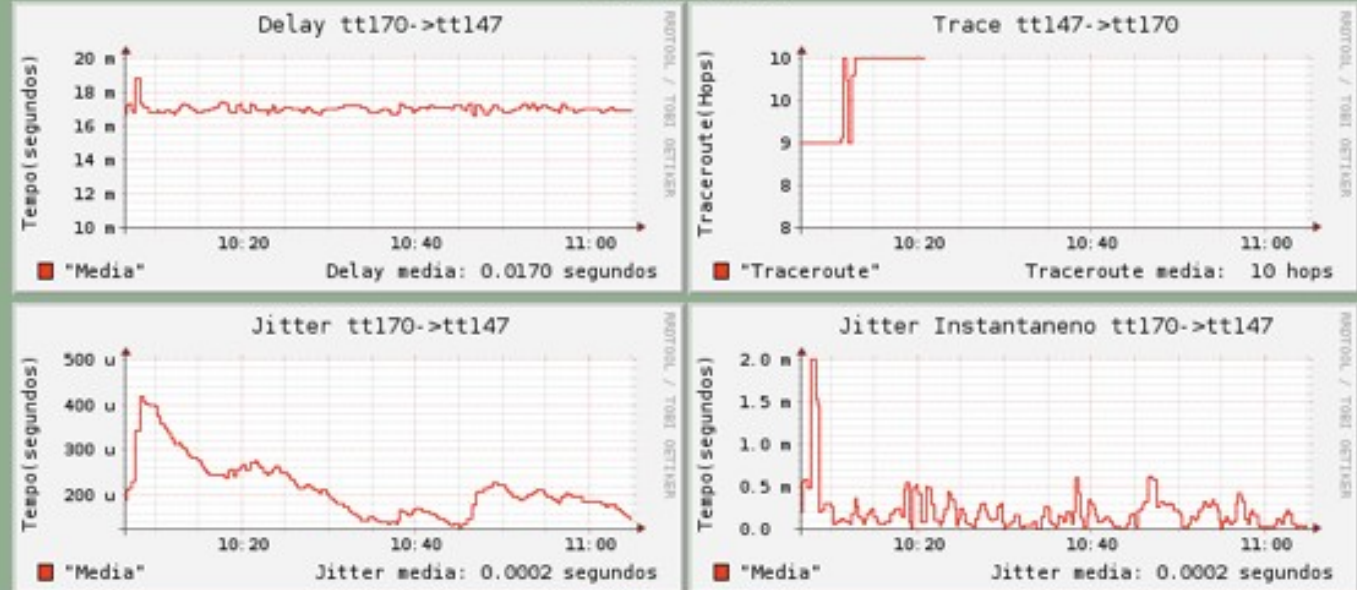
- #142 ->
- #159 ->
- #145 ->
- #147 ->
- #164 ->

Uma outra abordagem sobre os dados dessa conexão se encontra no link: [RIPE](#)

Gráficos

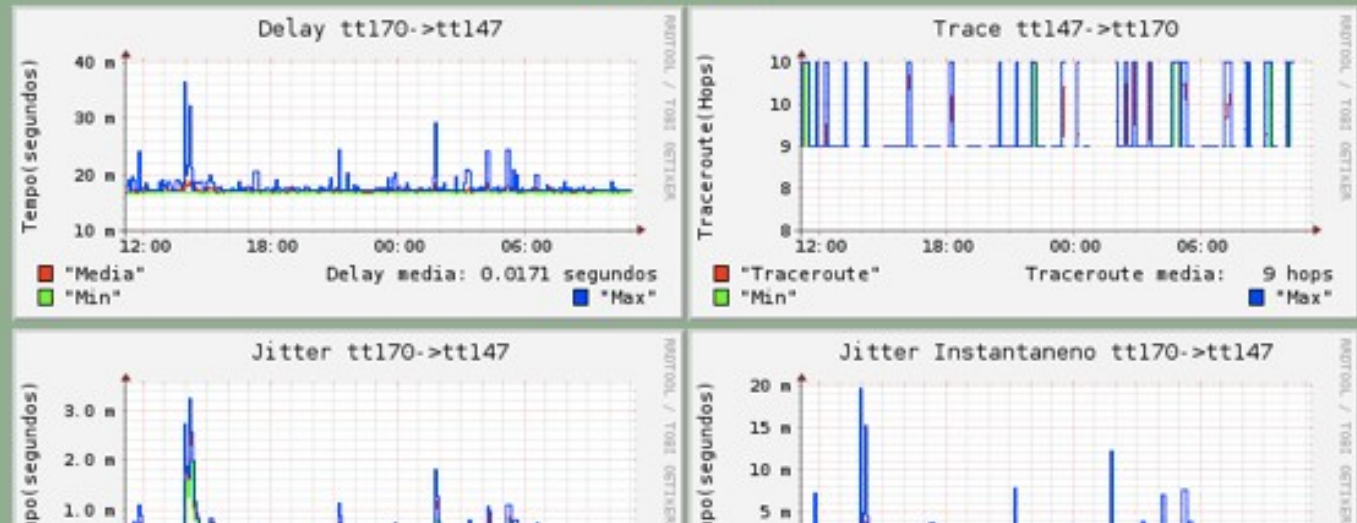
Ultima hora

Gráfico		■ #142	■ #159	■ #145	■ #147	■ #164
SOUTH AMERICA	tt142	X	(3) (4)	(13) (13)	(0) (0)	(0) (0)
	tt159	(3) (3)	X	(9) (9)	(2) (2)	(4) (4)
	tt145	(13) (13)	(9) (9)	X	(13) (13)	(16) (17)
	tt147	(0) (0)	(4) (4)	(13) (13)	X	(0) (0)
	tt164	(0) (0)	(4) (4)	(13) (13)	(0) (0)	X



Ultimo dia

Gráfico		■ #142	■ #159	■ #145	■ #147	■ #164
SOUTH AMERICA	tt170	(32) (32)	(149) (147)	(183) (184)	(16) (17)	(147) (144)
NORTH AMERICA	tt129	(-1) (-1)	(-1) (-1)	(-1) (-1)	(-1) (-1)	(-1) (-1)
	tt140	(60) (60)	(54) (62)	(81) (81)	(71) (72)	(59) (59)
	tt144	(89) (89)	(94) (99)	(107) (107)	(95) (94)	(93) (93)
OCEANIA	tt182	(155) (155)	(149) (156)	(167) (167)	(157) (152)	(157) (163)
	tt167	(177) (173)	(165) (172)	(185) (185)	(160) (164)	(160) (160)
		(141)	(145)	(153)	(167)	(152)



Final remarks...

- We are willing to share this java software, if anybody is interested
- We would like to have the real time data (permission to read the "telnet interface") from:
 - ✓ All the boxes in North America, Asia, Oceania, Africa (because there are few ones in these places).
 - ✓ Maybe 3 or 4 boxes in Europe, in different countries.
 - ✓ We can share the results (Web interface).

Thanks .

Some links:

<http://www.nic.br/english>
<http://www.ceptro.br/english>
<http://www.ceptro.br/mapa>
<http://labs.ceptro.br/simonv6>
<http://labs.ceptro.br/ccl-v6>
<http://simon.lacnic.net>

Antonio M. Moreiras
moreiras@nic.br