

IXP in Brazil

Projeto PTTMetro

Ponto de Troca de Tráfego **Metro**litano – (Metropolitan IXP)

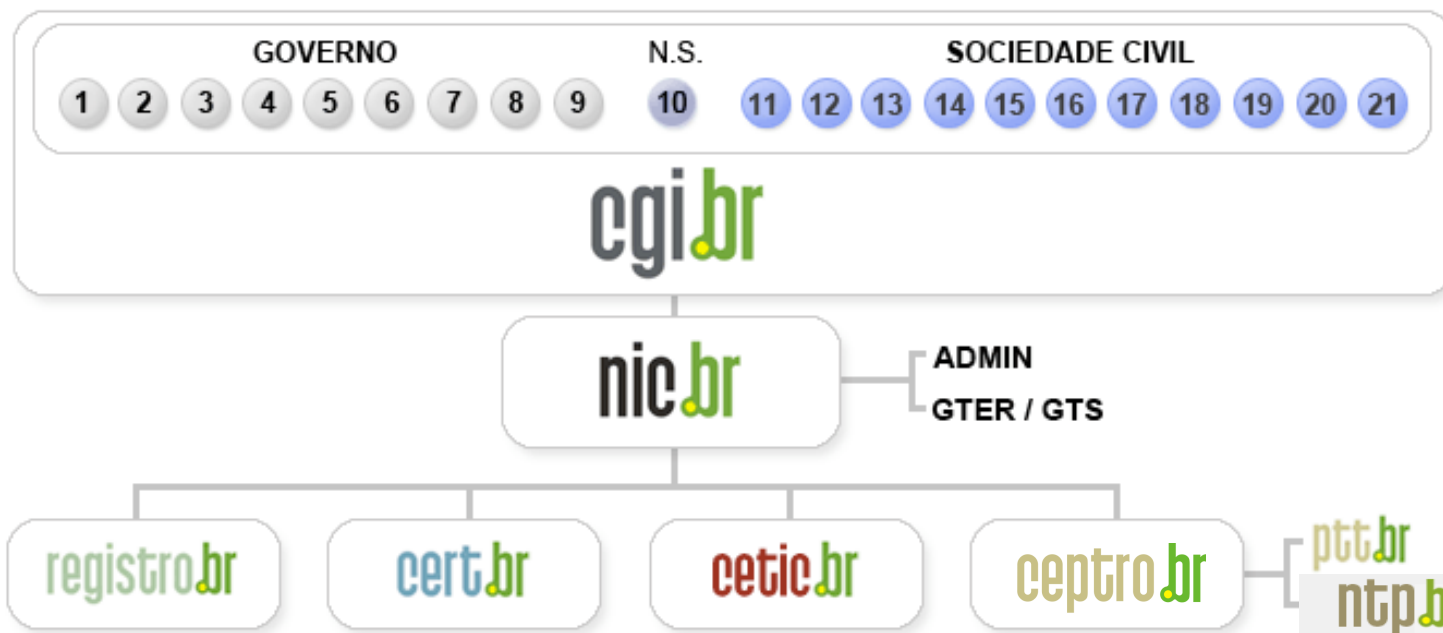
IGF Workshop 2009 – Sharm el Sheikh

Augusto Cesar Gadelha Vieira

CGI.br – Brazilian Internet Steering Committee

About CGI.br





- 1 – Min. da Ciência e Tecnologia
- 2 – Min. das Comunicações
- 3 – Casa Civil da Presidência da República
- 4 – Min. do Planejamento, Orçamento e Gestão
- 5 – Min. do Desenvolvimento, Indústria e Comércio Exterior
- 6 – Min. da Defesa
- 7 – Agência Nacional de Telecomunicações
- 8 – Conselho Nacional de Desenv. Científico e Tecnológico
- 9 – Conselho Nac. Secretários Estaduais p/ Assuntos de Ciência e Tecn.
- 10 – Notório Saber

- 11 – Provedores de acesso e conteúdo
- 12 – Provedores de infra de telecom
- 13 – Indústria TICs e software
- 14 – Empresas usuárias
- 15 – Terceiro setor
- 16 – Terceiro setor
- 17 – Terceiro setor
- 18 – Terceiro setor
- 19 – Academia
- 20 – Academia
- 21 – Academia

PTTMetro (Brazilian Internet Exchange Project)

created in 2004



PTTMetro

Comitê Gestor da Internet no Brasil

NIC.br | CETIC.br | Antispam.br | **CEPTRO.br**

Imprensa

Belo Horizonte - Brasília - Curitiba - Florianópolis - Fortaleza
Londrina - Porto Alegre - Rio de Janeiro - Salvador - São Paulo

nic.br
Núcleo de Informação
e Coordenação

cgi.br Registro
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ptt.br
São Paulo

- Introdução
- Regras
- Adesão
- Participantes
- Tráfego
- Listas
- Contato

Busca

☐ NIC.br
 ☐ Indicadores
 ☒ PTT.br
 ☐ Antispam.br

TRÁFEGO

Trafego Total (todos PTTs)

[Voltar](#)

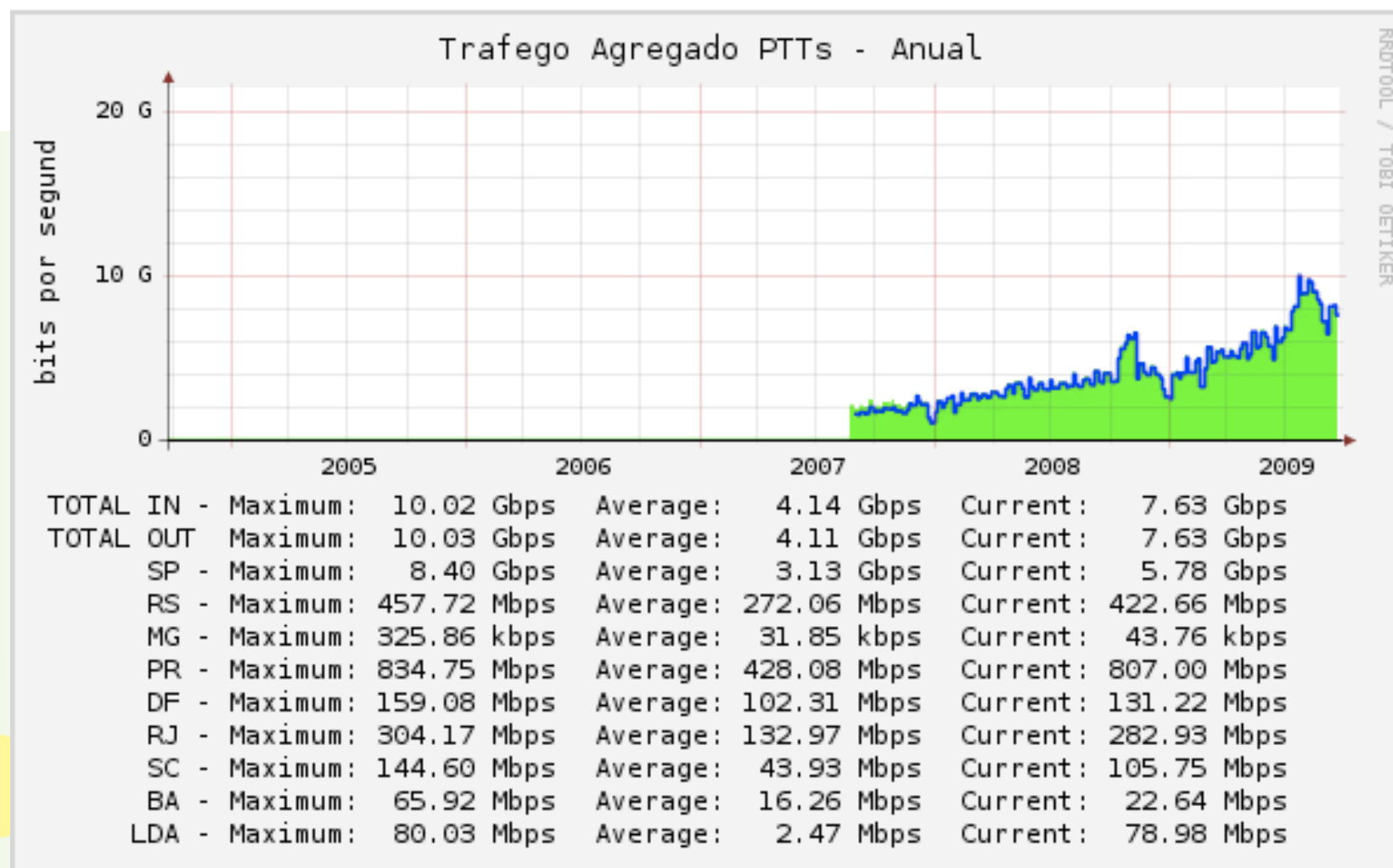
Última atualização: 2009-09-23 11:00

Diario

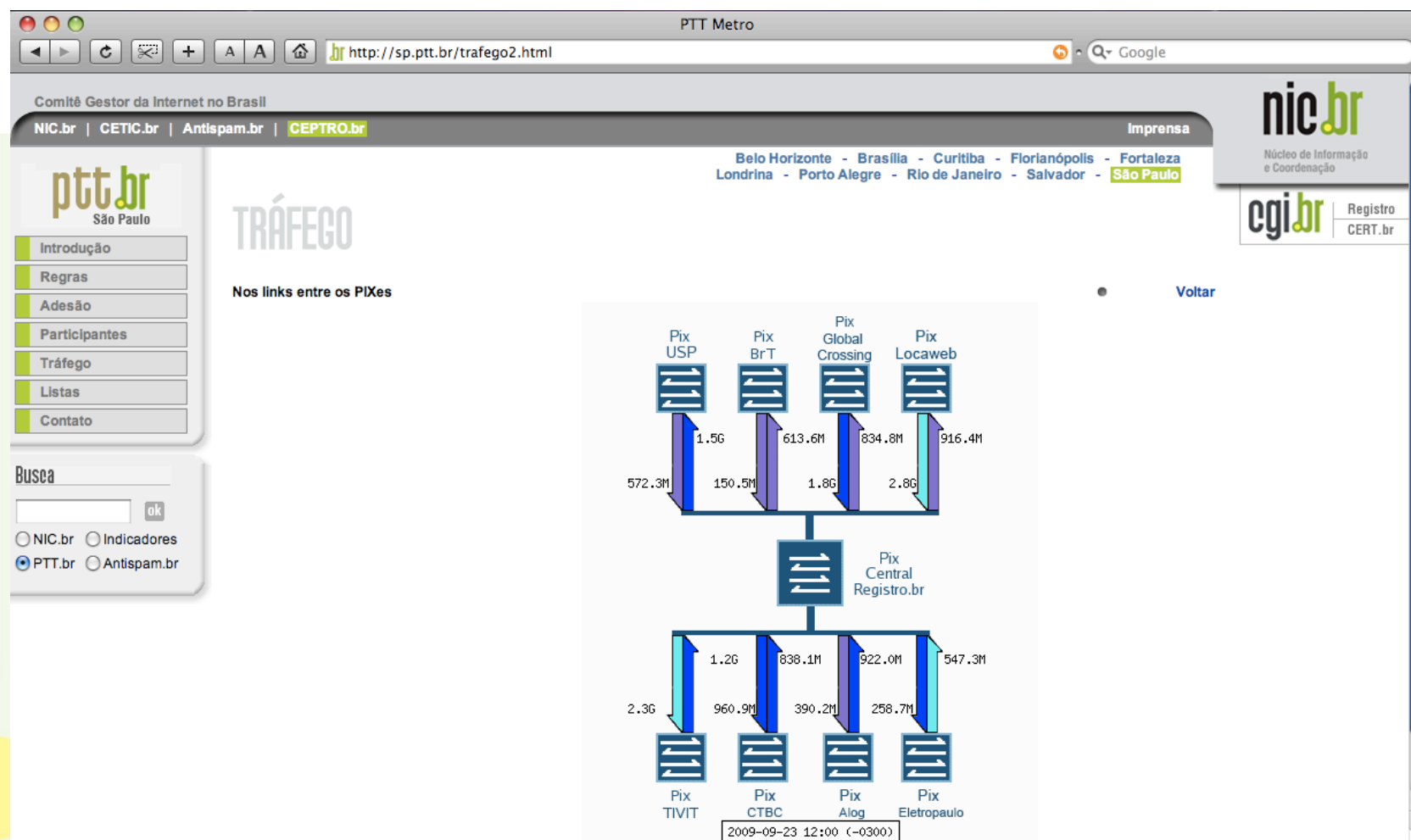
Trafego Agregado PTTs - Diario

TOTAL IN - Maximum:	15.87 Gbps	Average:	9.57 Gbps	Current:	14.72 Gbps
TOTAL OUT - Maximum:	15.89 Gbps	Average:	9.58 Gbps	Current:	14.76 Gbps
SP - Maximum:	12.25 Gbps	Average:	7.28 Gbps	Current:	11.54 Gbps
RS - Maximum:	776.32 Mbps	Average:	496.95 Mbps	Current:	715.72 Mbps
MG - Maximum:	1.30 Mbps	Average:	74.21 kbps	Current:	199.00 kbps
PR - Maximum:	1.65 Gbps	Average:	986.71 Mbps	Current:	1.52 Gbps
DF - Maximum:	355.79 Mbps	Average:	193.54 Mbps	Current:	288.26 Mbps
RJ - Maximum:	692.08 Mbps	Average:	394.91 Mbps	Current:	595.78 Mbps
SC - Maximum:	340.52 Mbps	Average:	148.58 Mbps	Current:	240.77 Mbps
BA - Maximum:	55.41 Mbps	Average:	29.71 Mbps	Current:	47.18 Mbps
LDA - Maximum:	122.12 Mbps	Average:	73.43 Mbps	Current:	94.47 Mbps

PTTMetro



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List of participants

ASN					
42	WoodyNet	13761	BSI	27664	CTBC Multimidia
1916	RNP	14026	NIC	27715	LocaWeb
2688	AT&T	14204	AllNet	28001	LACNIC
2715	REDERIO	14282	Persis	28192	GLOBALWAVE
2716	TCHE	14551	Verizon	28193	UEL
3549	Global Crossing	14840	COMMCORP	28204	Kerax
3856	PCH	14868	COPEL	28206	Abril Digital
6140	Global Crossing (Impsat)	15169	Google	28226	Origem Web
7465	PROCERGS	15201	UOL	28286	Redenetworks
7738	Oi	16397	Alog-SP	28290	Directlink
8055	Value4Net	16685	Tivit	28291	Saude
8167	OI (BRT)	16712	Seven	28299	Cyberweb
10412	RPR	16735	CTBC	28301	DEP-EXERCITO
10417	POP-MG	17222	Mundivox	28305	Conectway
10429	Telefonica	17379	Intelig	28333	Local DataCenter
10704	MICROLINK.	18881	GVT	28338	Net Botanic
10715	RCT	19089	DH&C	28346	Feras Informatica
10881	PoP-PR	19200	UFRGS	28347	UNOTEL
10954	SERPRO	19611	UNISINOS	28571	USP
11242	PoP-SC	19723	CELEPAR	28573	NET
11271	COMSAT	21674	WorldconnectionN*	28587	Yahoo!
11706	Terra	21911	Dualtec	28590	Neovia
11751	ICEP	22250	Abranet	28599	Italnet
11802	CIASC	22356	Durand	28623	PUCRS
11835	SULBBS	22548	Registro.br	28631	BANRISUL
11844	NEWSITE	22689	SERCOMTEL	28640	VIPWay
12140	Onda	22819	UCS	28646	SICREDI
12654	RIPE NCC RIS Project	25933	SOUTHTECH	28658	Gigalink
12956	Telefonica International	26107	BSA Brasil	28663	Flys
13353	Telmex	26592	Alog-RJ	28669	America-Net
13495	NTT	26606	PROCEMPA	28671	Conecta
13522	PUCPR	26622	SIM Telecom	31529	DENIC

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Internet problems in Brazil

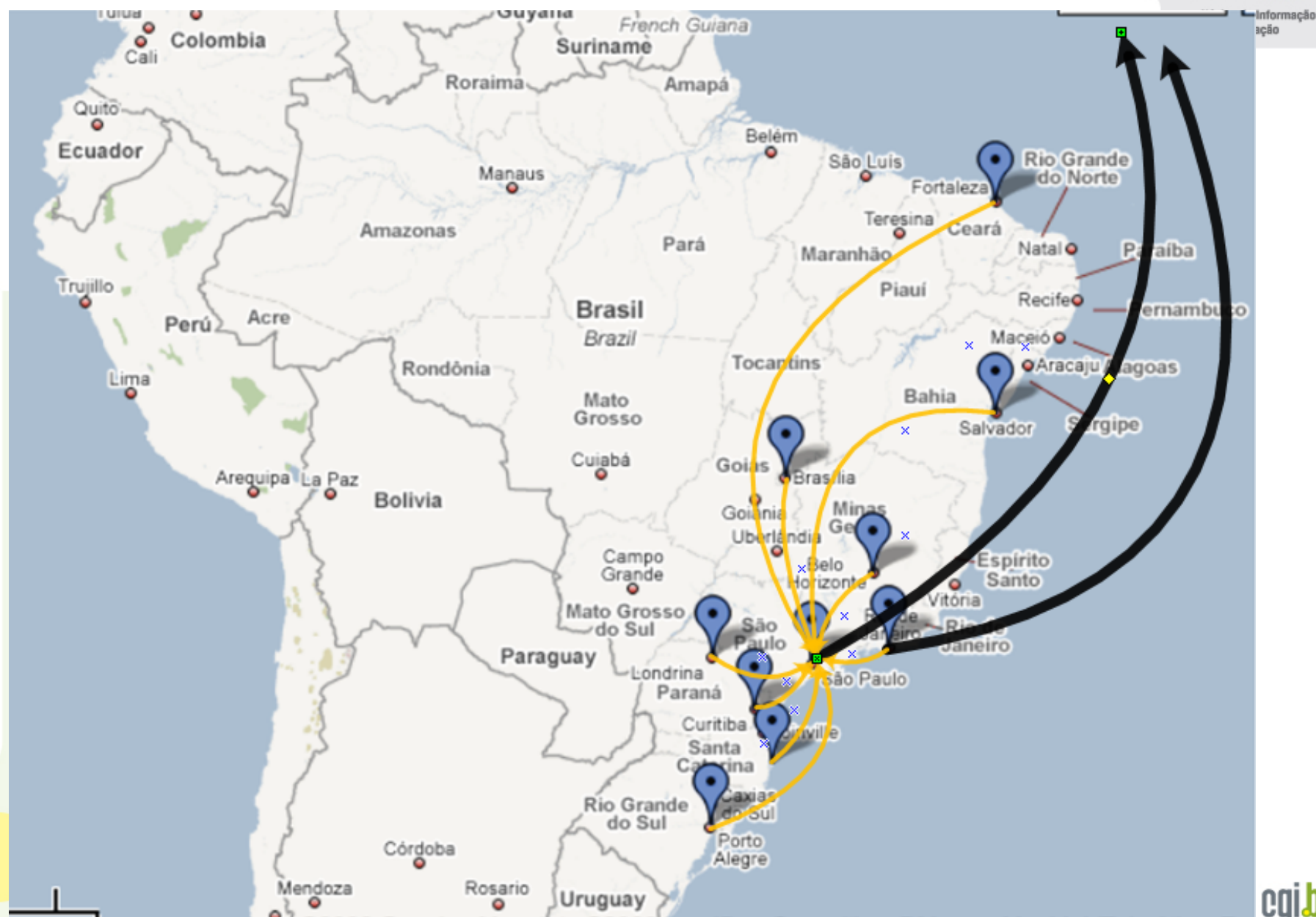


What are the Internet problems in Brazil?

- Digital Inclusion problem:
 - Few cities densely populated with high potencial for consumer (Area ~8,5 mi km² (5th), population ~191 mi (5th), density ~22/) attracts investments;
 - Many cities sparsely populated with low potencial for consumer discourages private investment.
- Market with little competition and defensive attitude of the leading companies
- The undersea cables connecting Brazil with USA land only in Rio de Janeiro and São Paulo cities.
- Brazil has cities served only by satellite.

What are the Internet problems in Brazil?

- Concentration:
 - São Paulo city is attractive due to content providers, low cost of IP transit and Data Center services.
- High cost of equipments
 - Taxes,
 - Customs procedures (long time to clearance), ISPs need to stock equipment to ensure growth
- Large ISPs offer advantages to Content Providers to have their contents, and sell to small ISPs.
- No legislation requiring the exchange of traffic between ISPs.



What are we doing ?



What are we doing?

- Wideband Program
- Encourage companies to obtain ASN
- Encourage companies and government to participate in Internet Exchange Points (cell companies, contents providers, banks, government institutions, etc.)
- Work together with associations of Internet Service Providers to explain what IXPs is and its advantages
- Encourage IXPs creation
- Encourage IXPs participants to jointly buy large capacity between IXPs to reduce costs
- Invite International Internet transit providers to sell bandwidth in IXPs; they do not need local infrastructure

What are we doing?

- Stimulating International submarine Cable companies to open your cabs in others cities (Fortaleza and Salvador)
- Increasing brazilian contents:
 - Reducing taxes for datacenter infrastructure (equipments, Internet transit, electrical energy)
 - Zappiens.br

Further challenges to implement IXP in Brazil

- Needs greater number of participants
- Resistance of big network companies (e.g. Tier 2 netw.) ***
- High costs of equipments (~ 0.5 M US\$/ IXP) and links

*** Is it possible to use regulation to achieve participation?

Thanks!

Augusto César Gadelha Vieira
gadelha@mct.gov.br

