

Estatísticas de Qualidade de Acesso Internet no Brasil para Usuários Finais

NIC.br

SIMET - Introdução

- SIMET – Sistema de Medição de Tráfego IP de Última Milha
 - <http://simet.nic.br>
- Projeto que provê recursos para a medição de qualidade de Internet em última milha em pontos próximos aos clientes
- Utiliza o CEP para localização do usuário
 - Podem ser feitos testes sem identificação de CEP
- Usuários que realizam os testes colocando o CEP podem ver seu histórico de testes em interface WEB (inspirada em um GPS)

SIMET - Introdução

- Tipos de testes realizados
 - Jitter
 - Upload e Download
 - Latência Bidirecional (RTT – Round Trip Time)
 - Durante o teste de latência é medida a perda
 - Estresse de Banda
 - TCP (Upload e Download)
 - UDP (Upload e Download)
- Fornecidas informações detalhadas sobre cada um dos testes

SIMET – Infra-estrutura Utilizada

- Utiliza a infra-estrutura dos PTTMetro do Comitê Gestor da Internet no Brasil
 - 7 localidades com suporte ao SIMET
 - 2 novas localidades em implantação
- Possui servidor público disponível no ASN 22548 (São Paulo)
- Quando possível, é indicado o servidor do estado do cliente para a realização dos testes
 - O cliente pode optar por fazer os testes no servidor público ou outro PTT que ele tenha acesso

SIMET – Testes Realizados Analisados

- Opção por utilização de testes recentes para análise
 - Analisados testes desde 01/10/2009
- Utilização apenas de testes que tenham as seguintes características
 - Download máximo de 17 mbps (TCP)
 - Objetivo de limitar a planos de 15 Mbps
 - Upload máximo de 6 mbps (TCP)
 - Objetivo de barrar conexões síncronas

SIMET - Privacidade dos Resultados

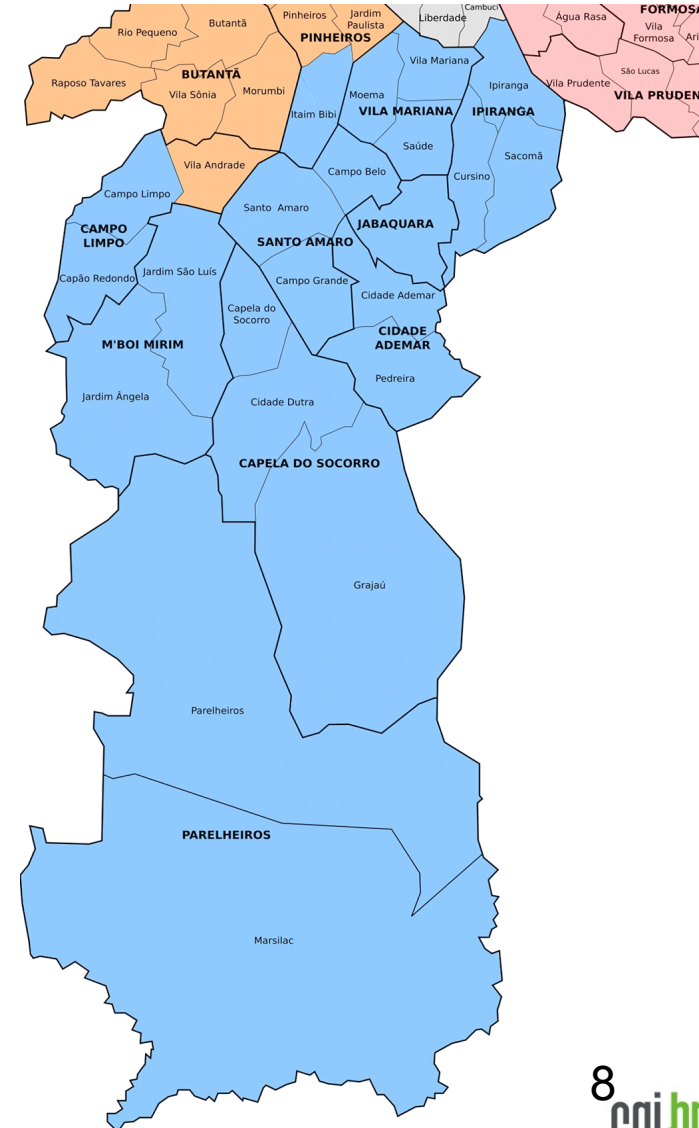
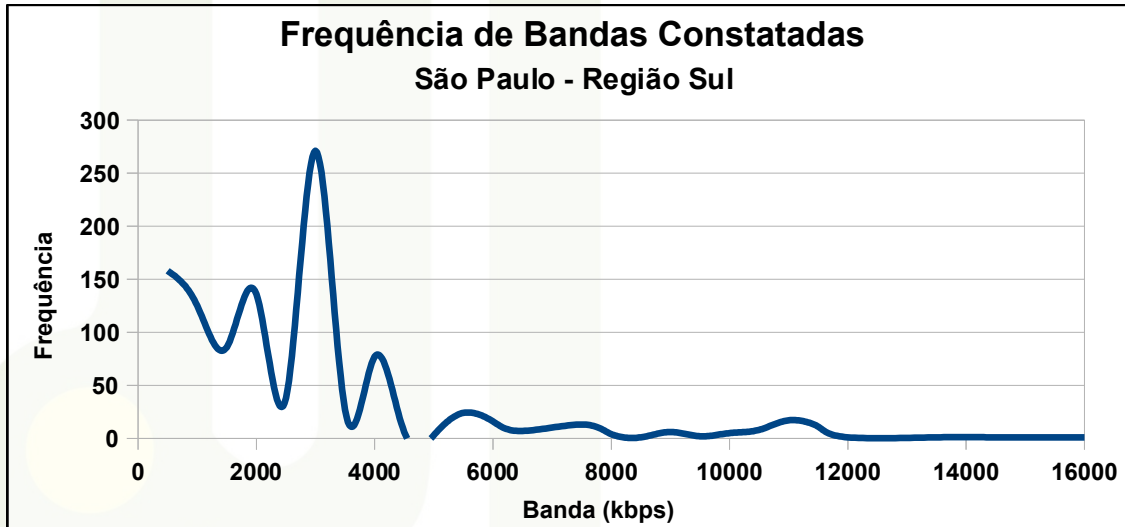
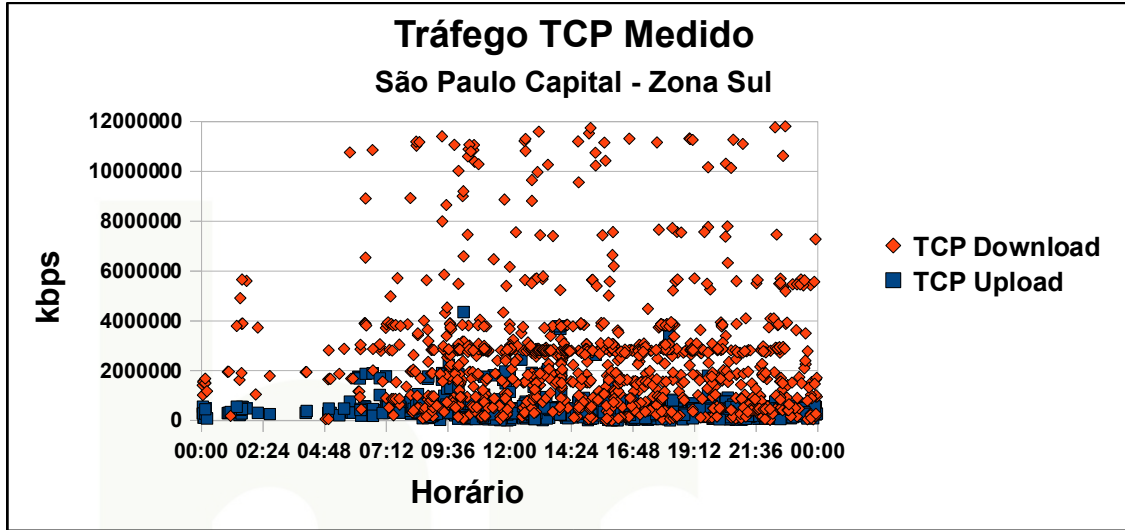
- Resultados foram contabilizados não fazendo divisões por operadoras
 - Busca por privacidade das operadoras nos resultados, evitando mostrar resultados segmentados desta maneira
- No segundo semestre de 2010 será fornecido as operadoras participantes do PTTMetro recursos para análise dos testes realizados
 - A operadora somente poderá ter acesso aos dados referentes a mesma, não identificando o IP do usuário, apenas sua região

Análises dos Dados Por Zonas de São Paulo

- Cidade com a maior quantidade de testes até o momento foi São Paulo
- Possibilidade de realizar a divisão da cidade em zonas
 - Norte
 - Sul
 - Leste
 - Oeste
 - Central
- Localização de sub-distritos realizada através da base de CEPs dos Correios

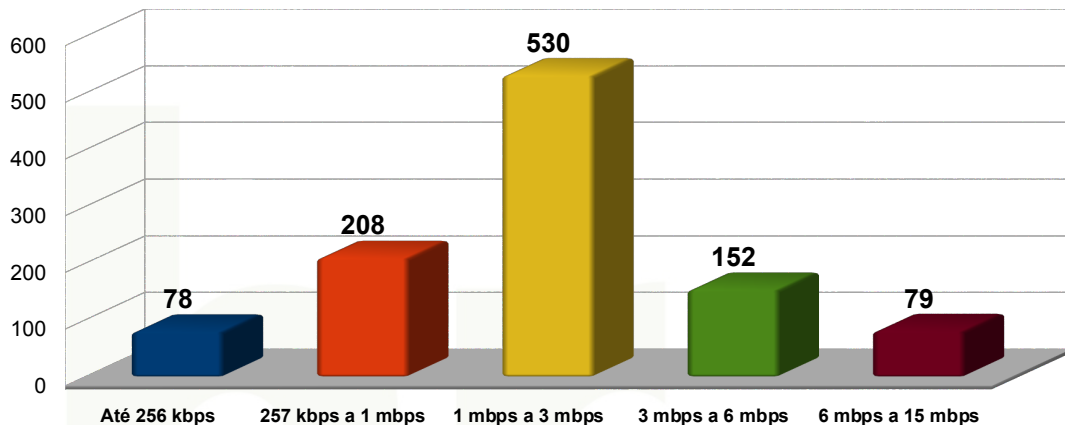


Qualidade da Internet na Cidade de São Paulo – Zona Sul

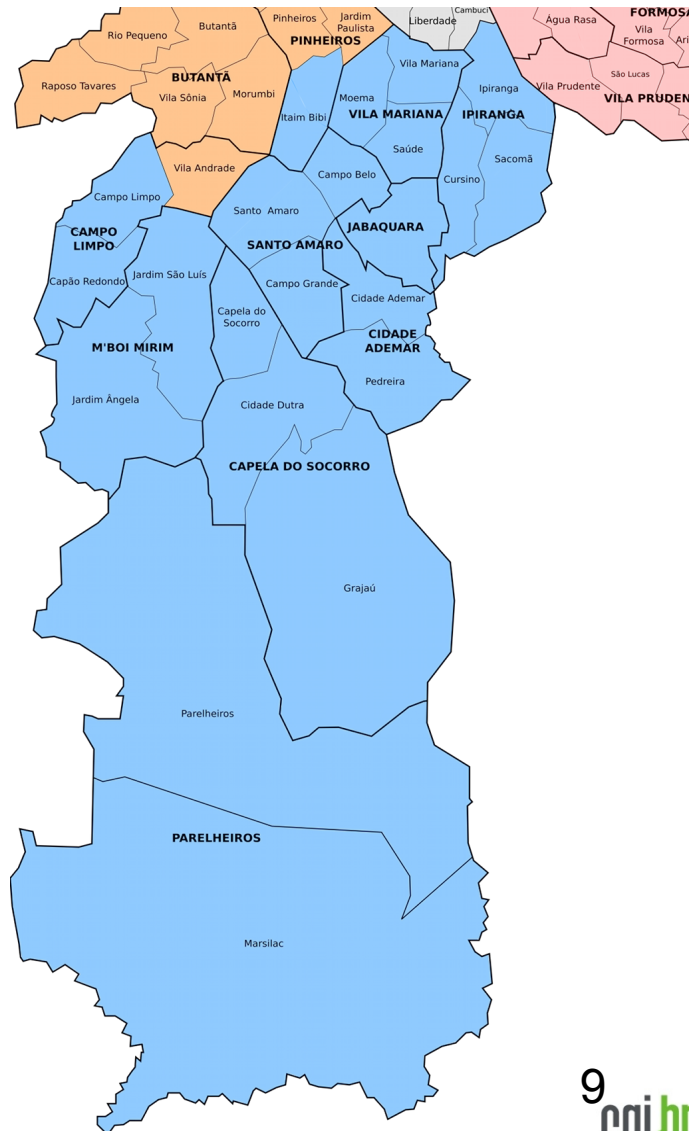
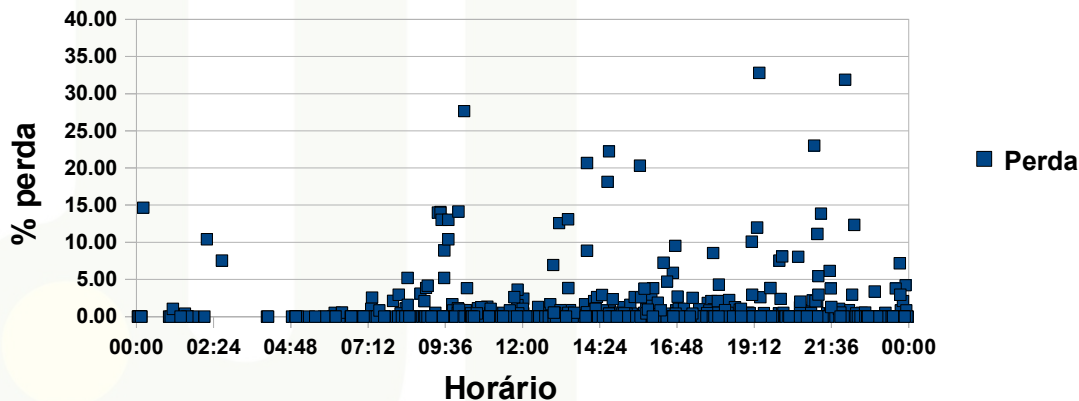


Qualidade da Internet na Cidade de São Paulo – Zona Sul

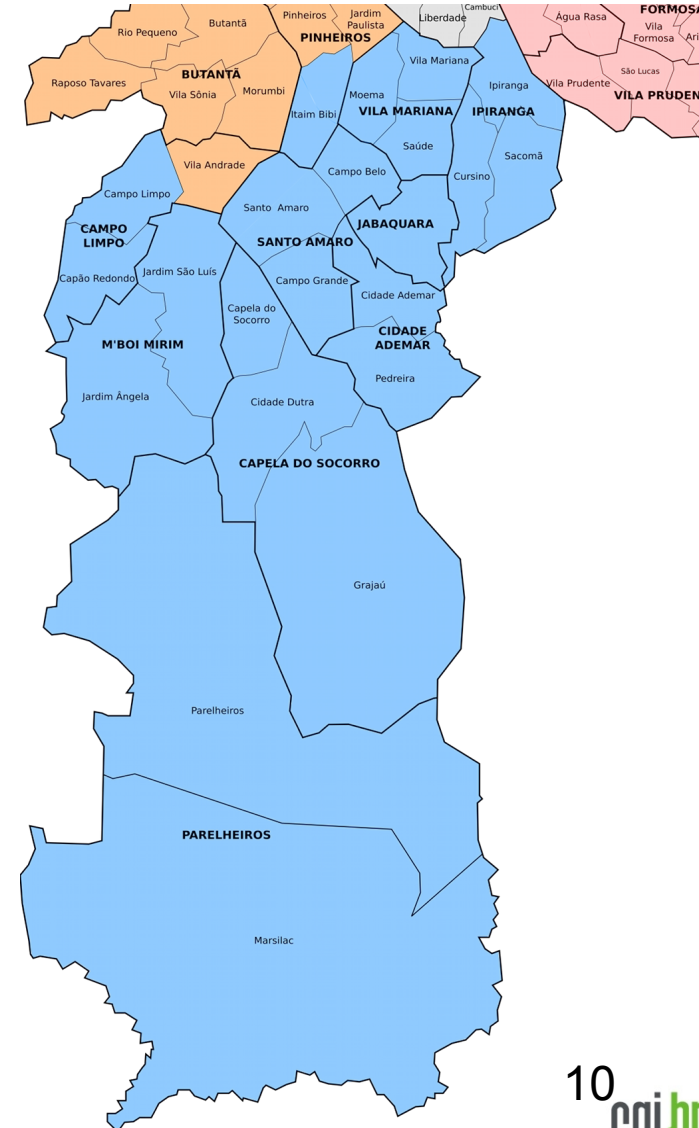
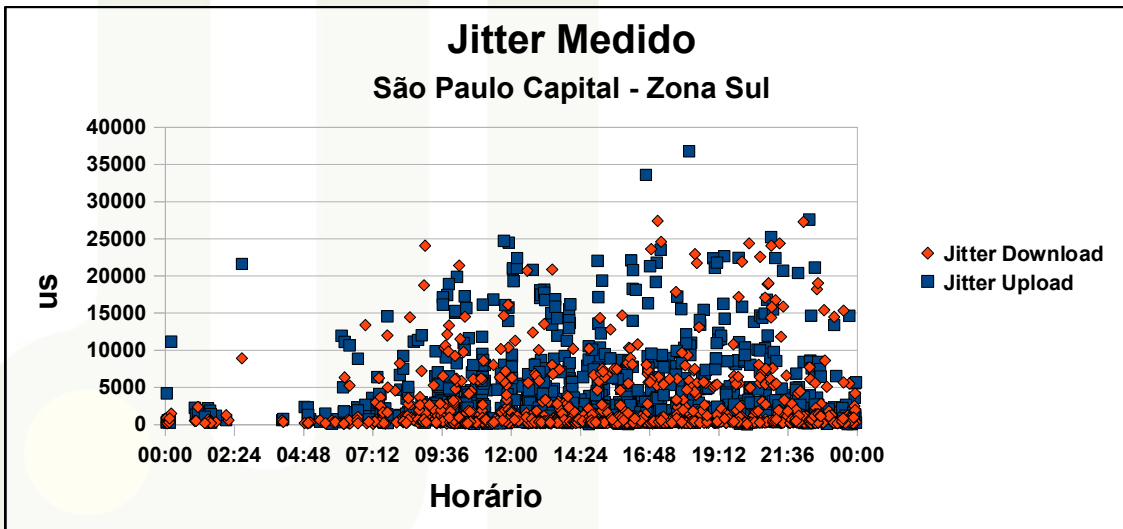
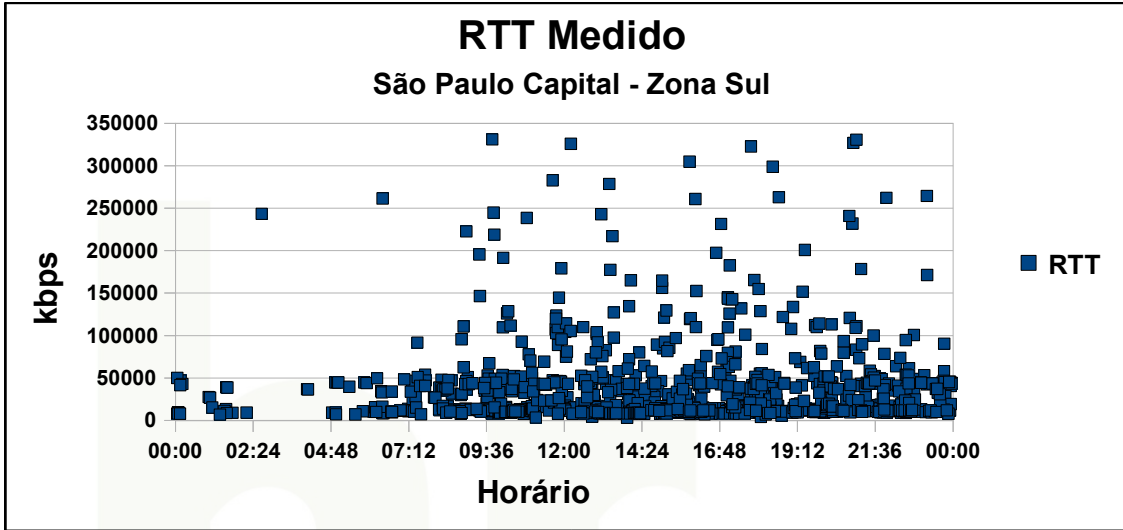
Velocidades Constatadas
São Paulo Capital - Zona Sul



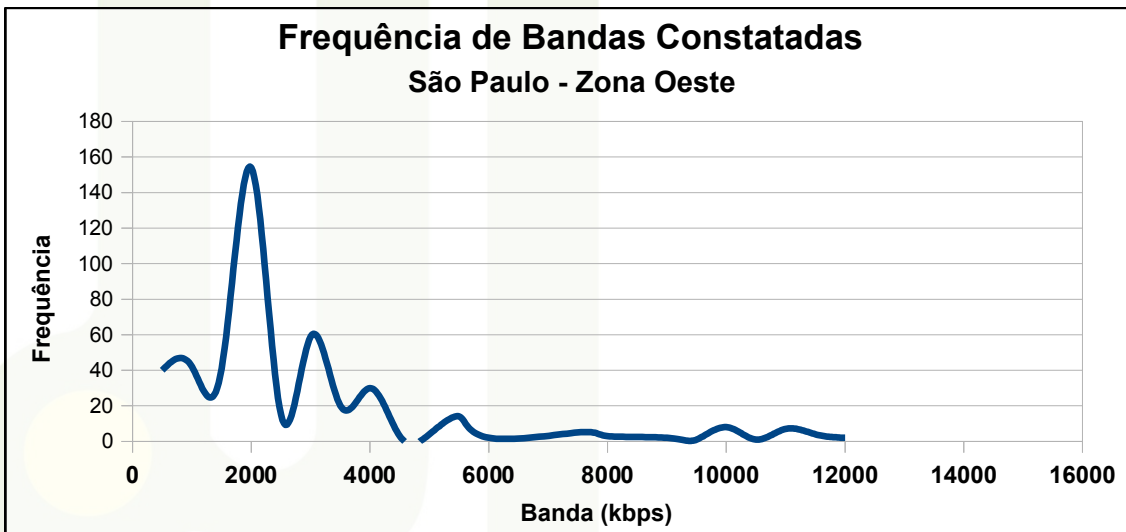
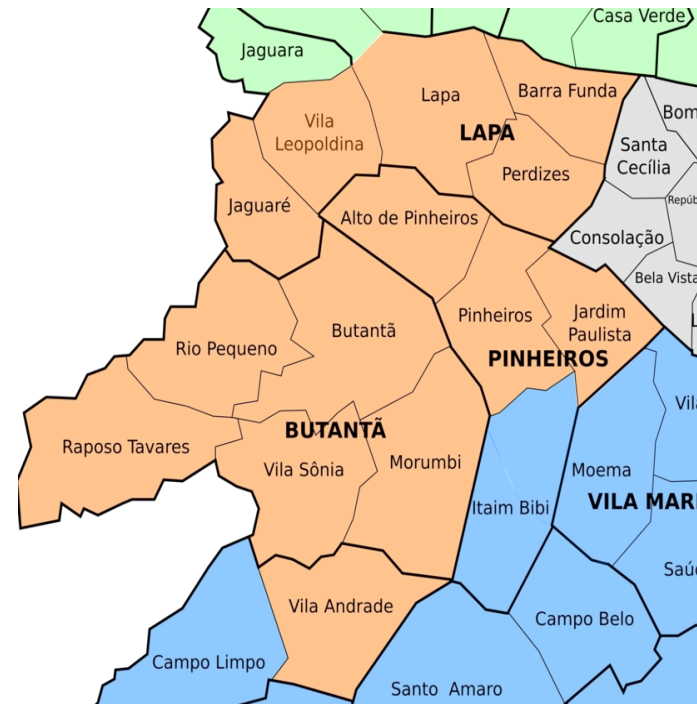
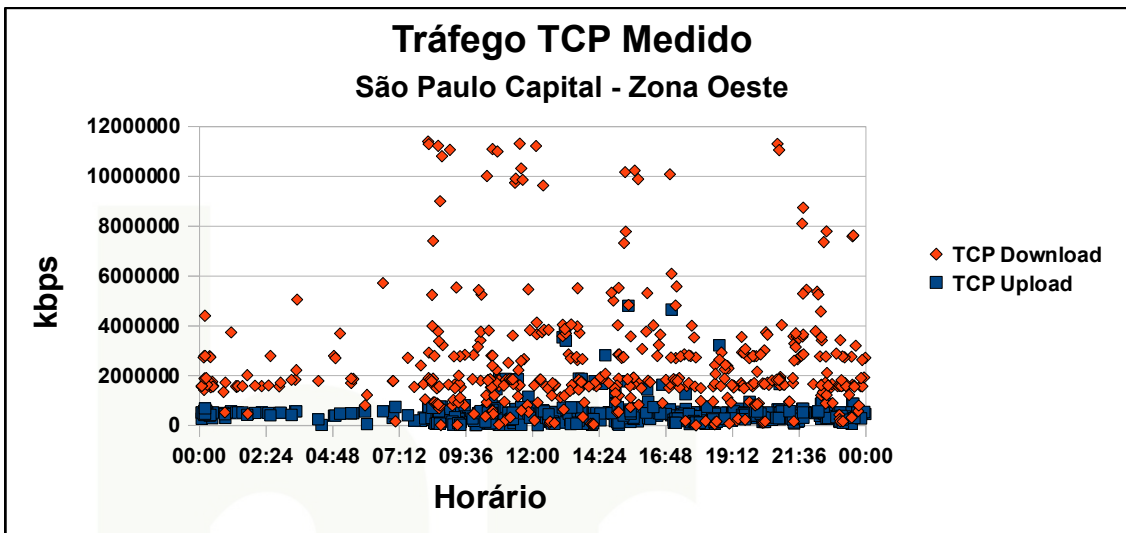
Perda de Pacotes
São Paulo Capital - Zona Sul



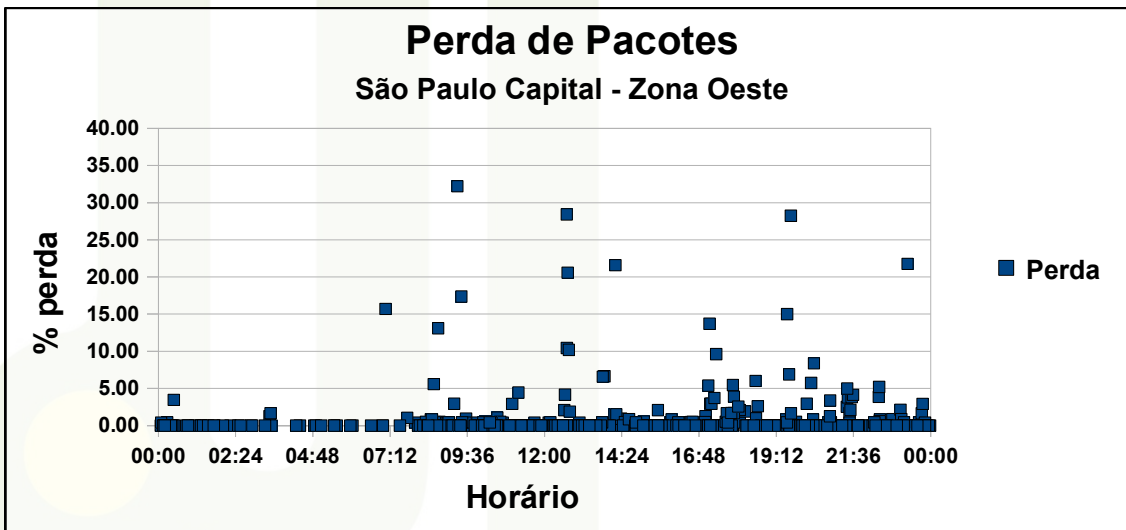
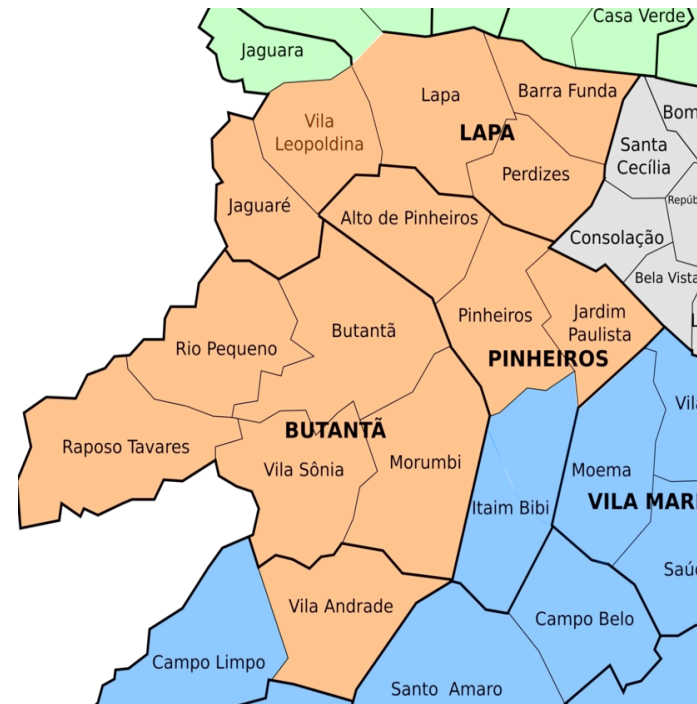
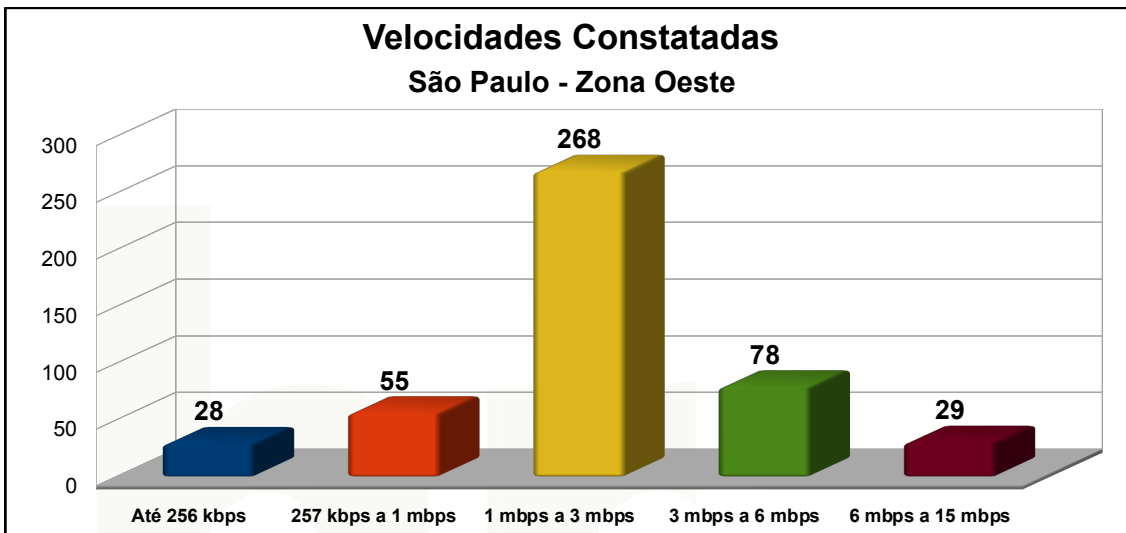
Qualidade da Internet na Cidade de São Paulo – Zona Sul



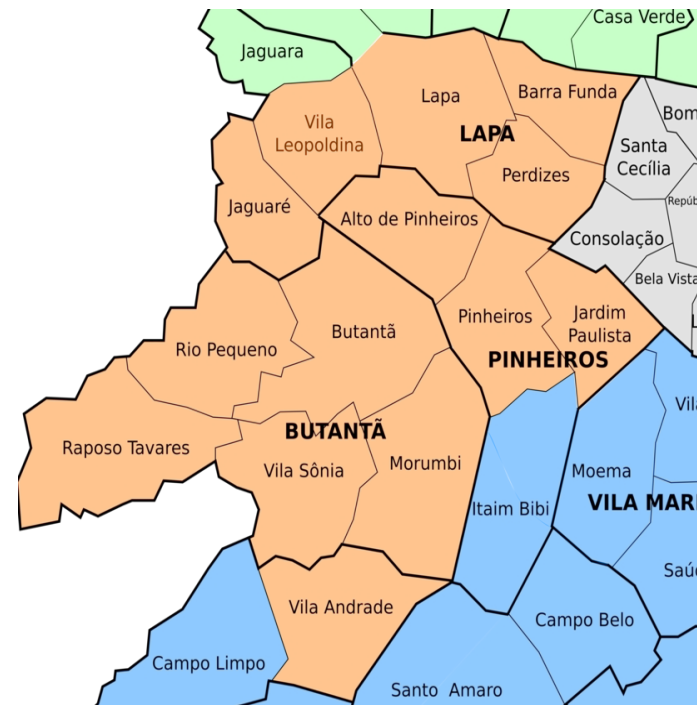
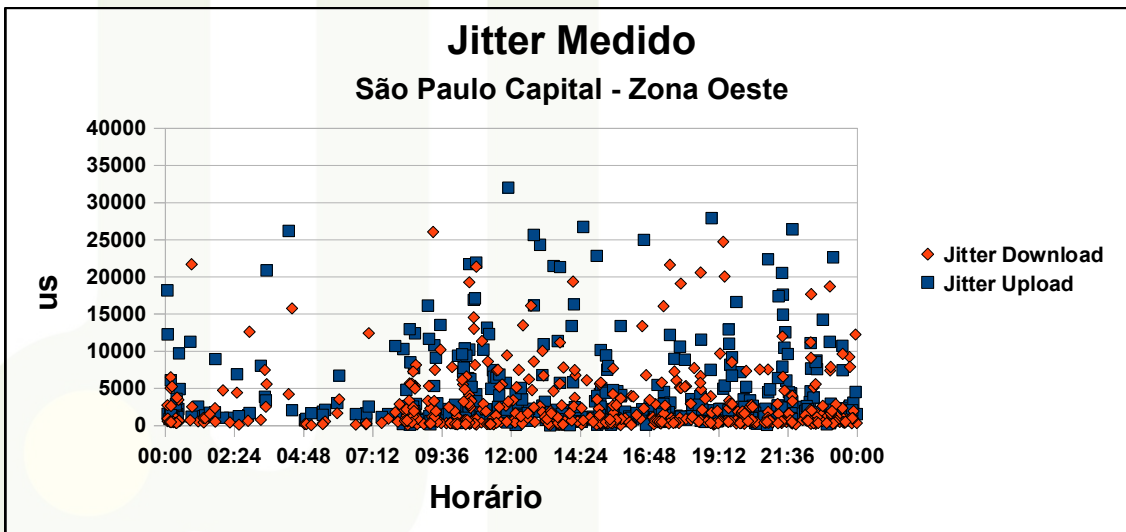
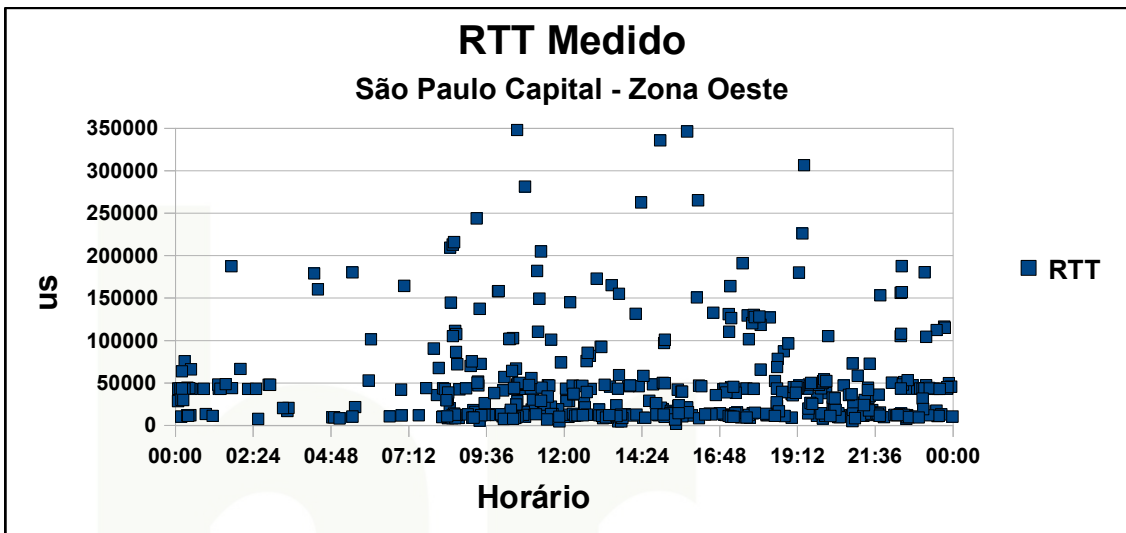
Qualidade da Internet na Cidade de São Paulo – Zona Oeste



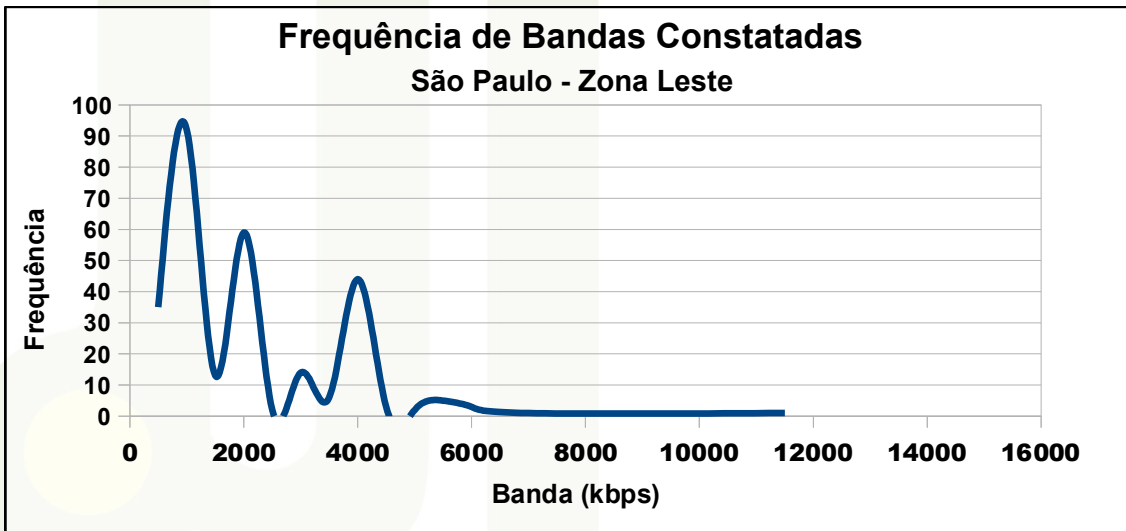
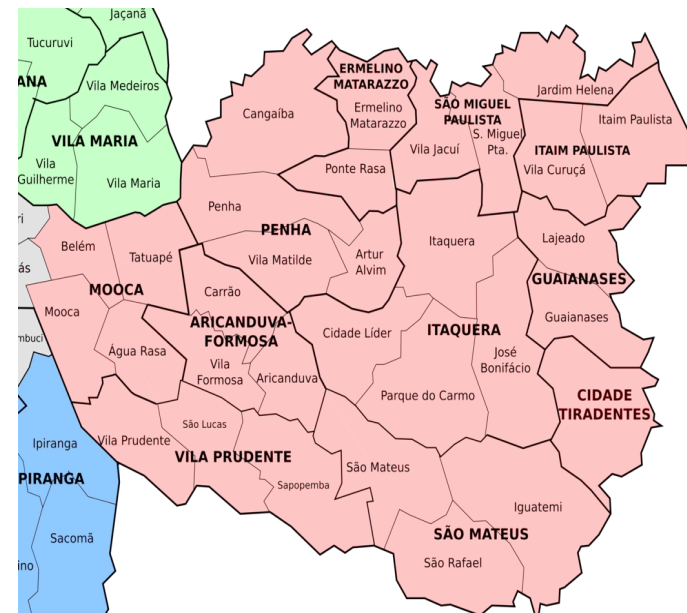
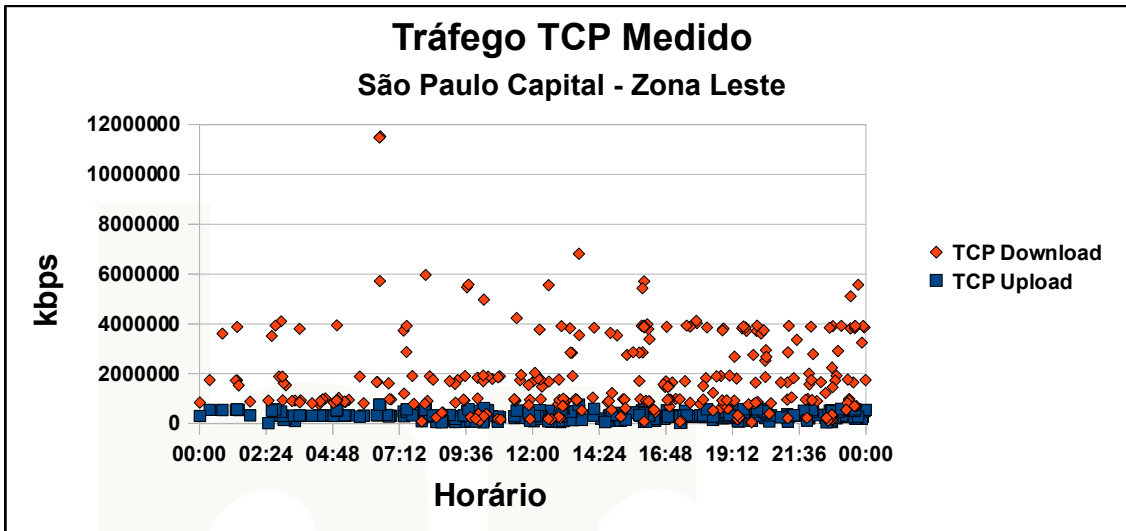
Qualidade da Internet na Cidade de São Paulo – Zona Oeste



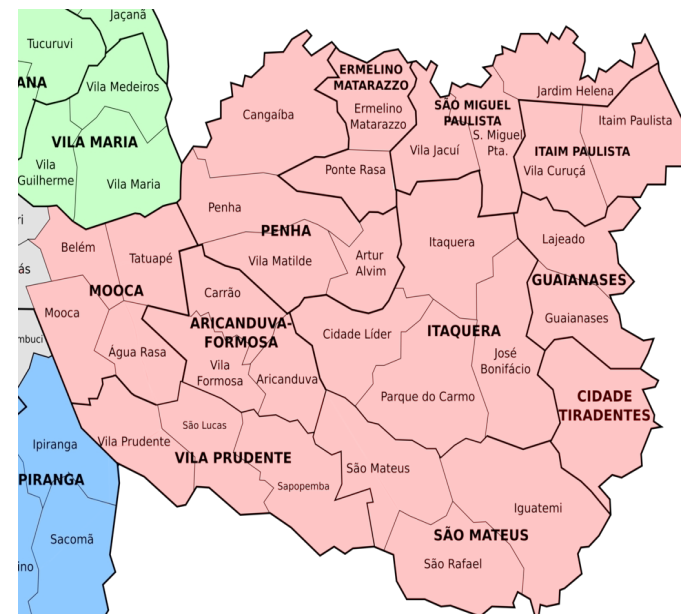
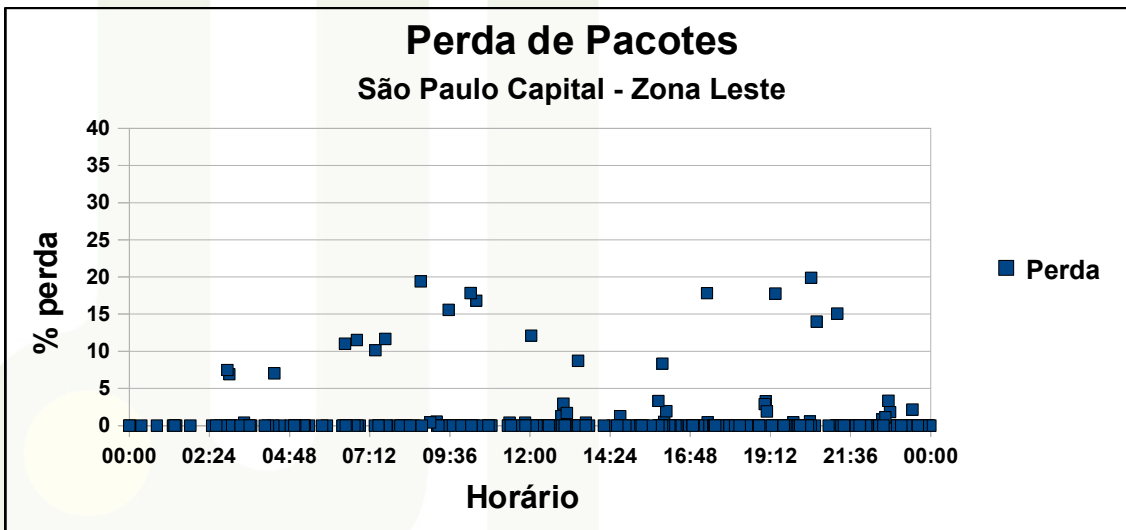
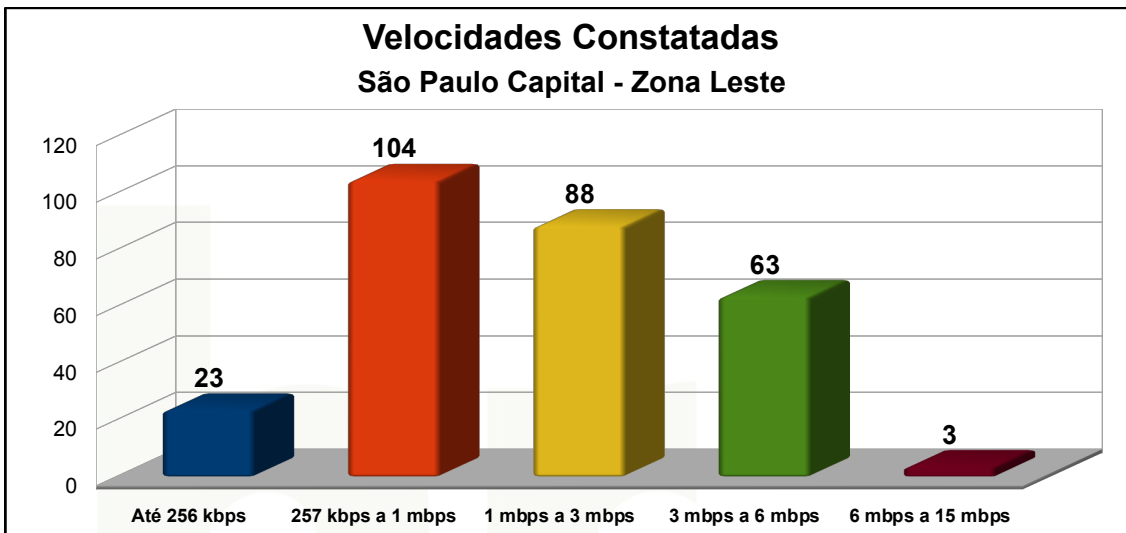
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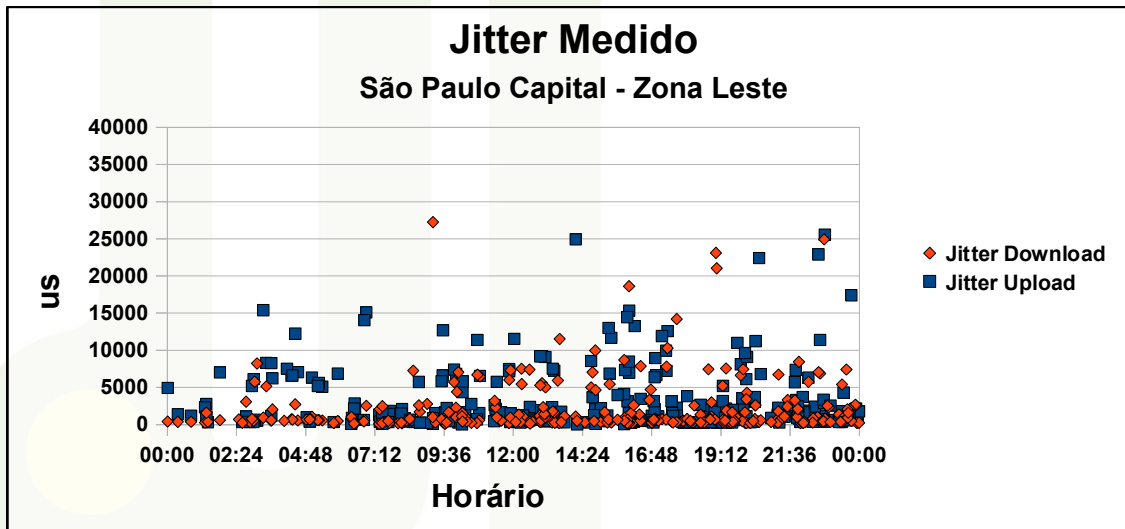
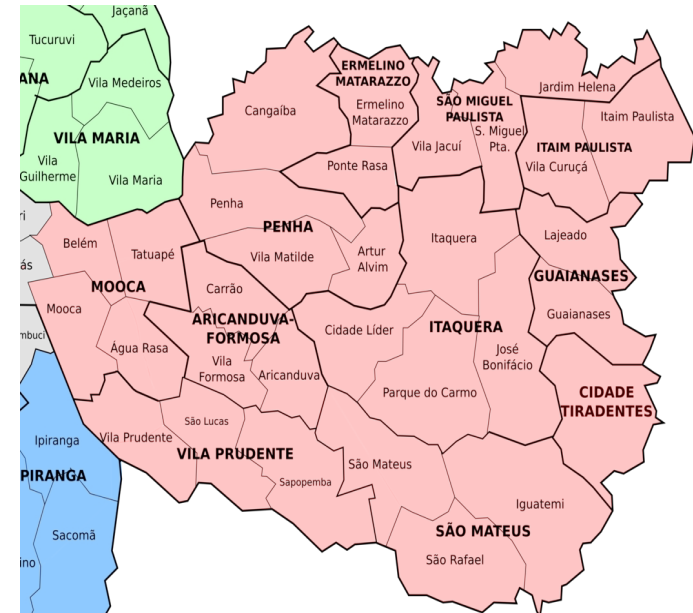
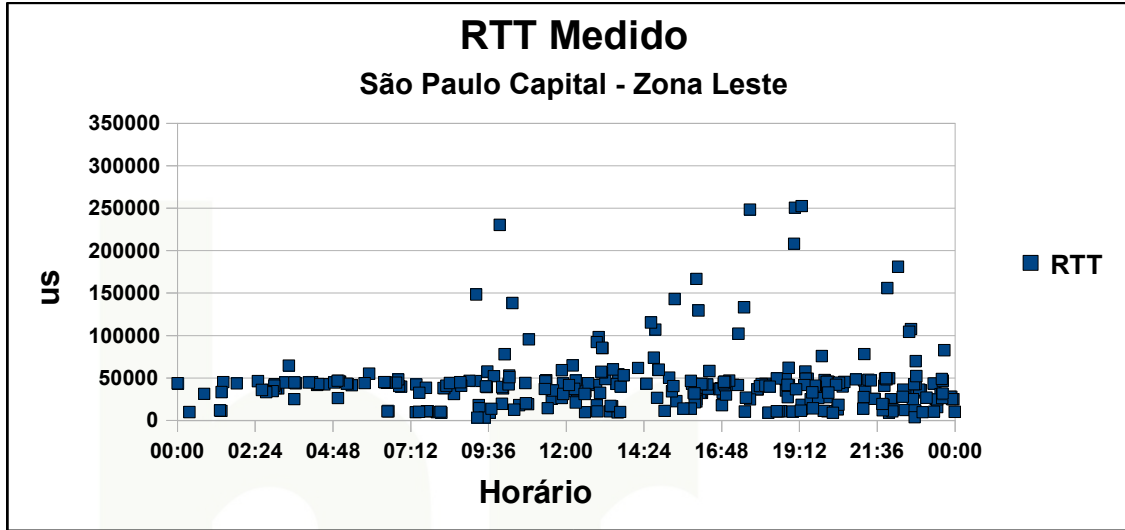
Qualidade da Internet na Cidade de São Paulo – Zona Leste



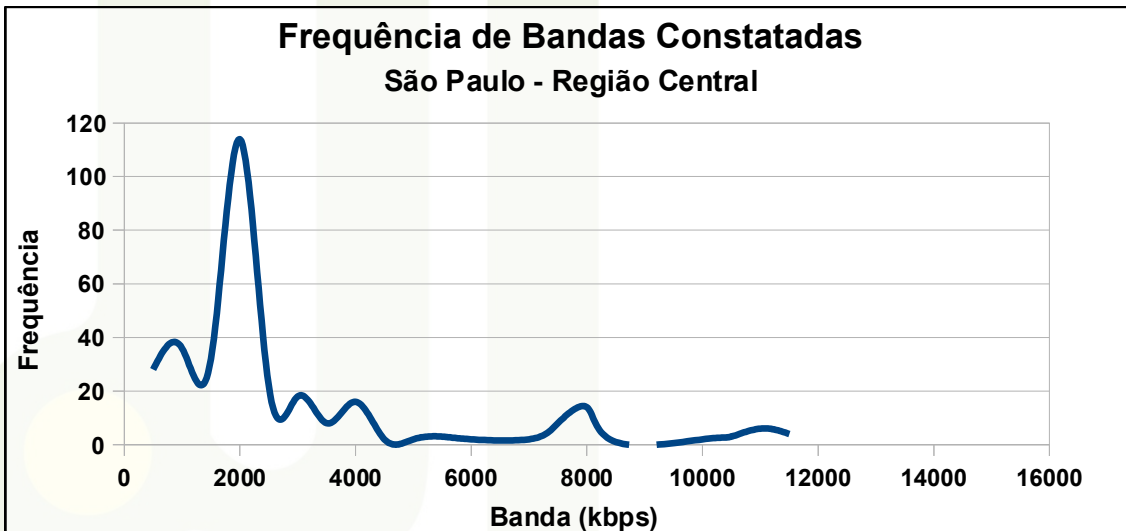
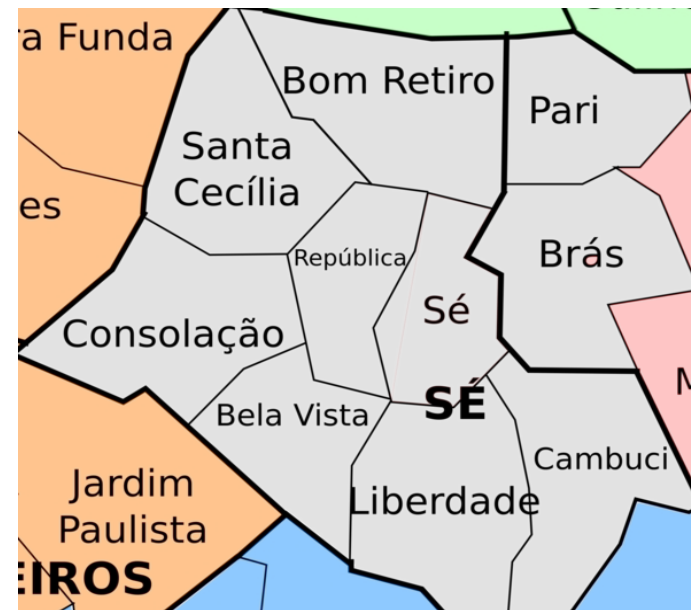
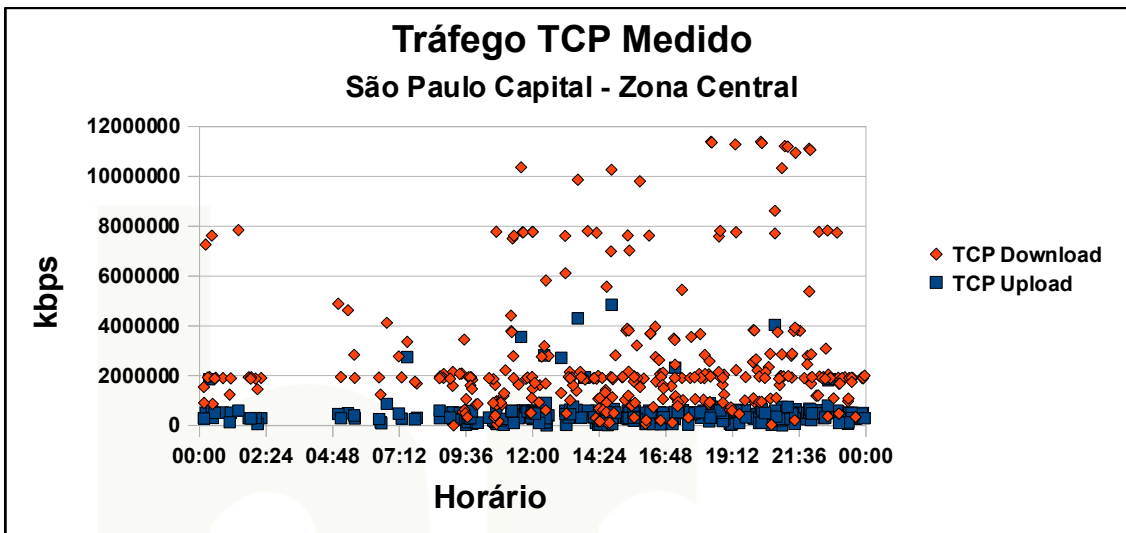
Qualidade da Internet na Cidade de São Paulo – Zona Leste



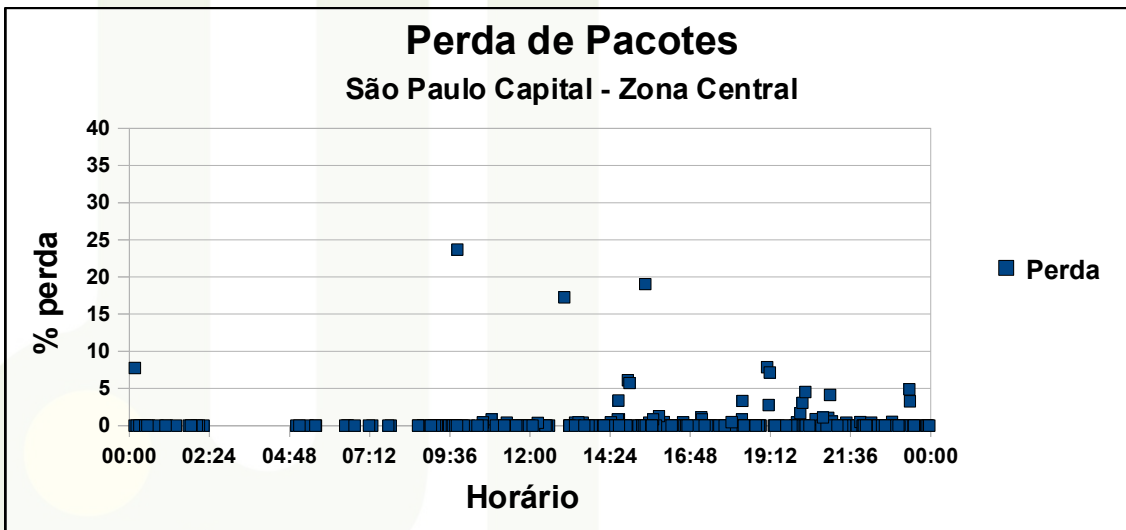
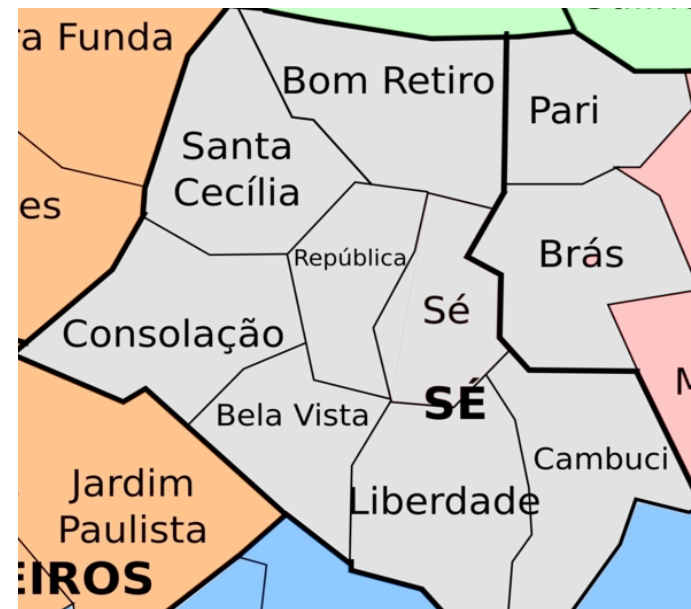
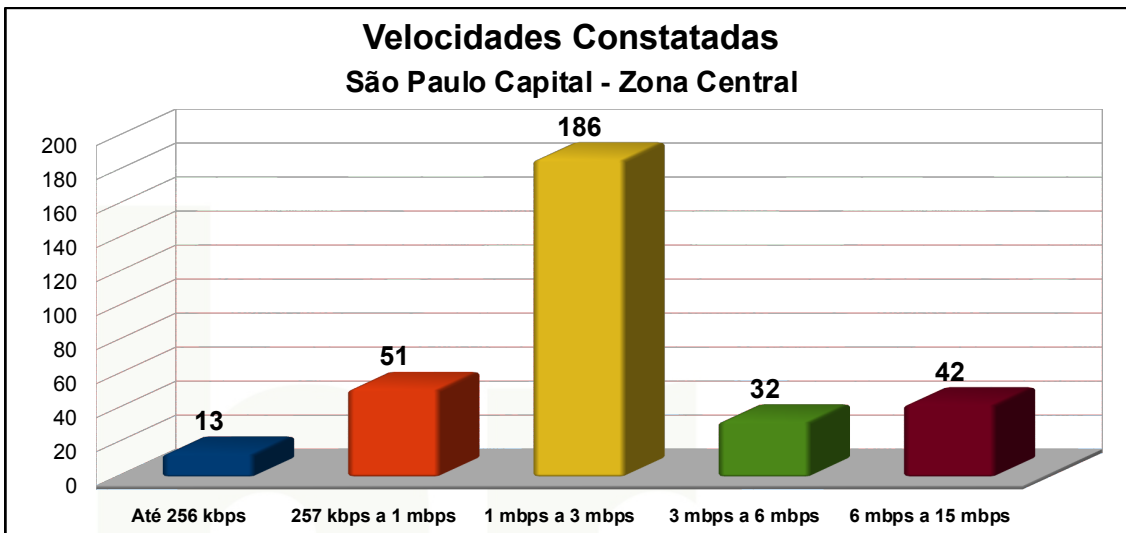
Qualidade da Internet na Cidade de São Paulo – Zona Leste



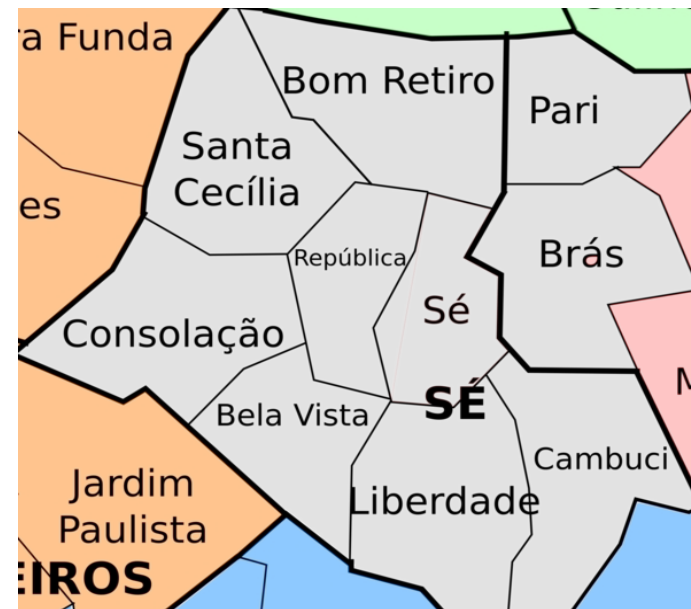
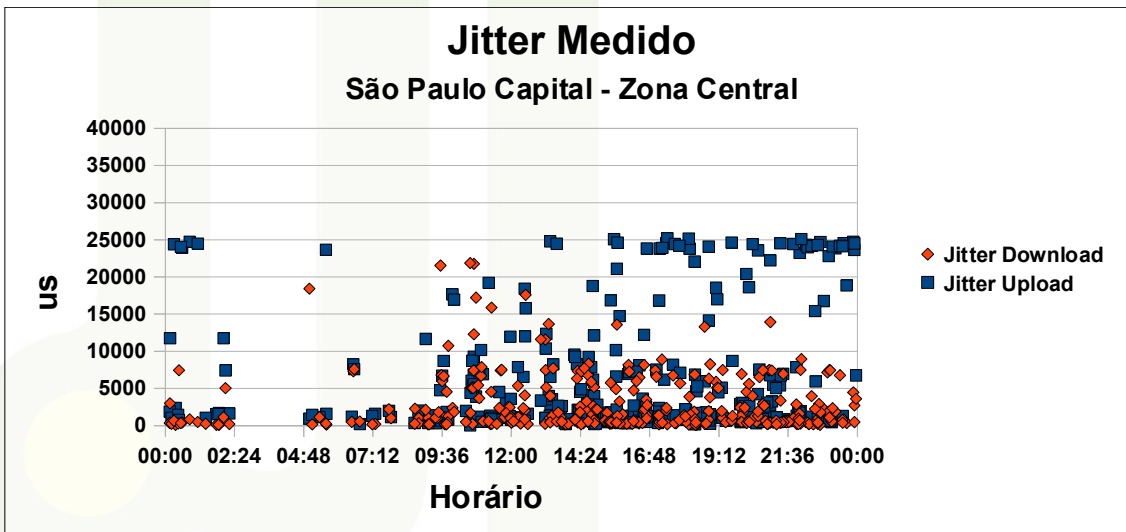
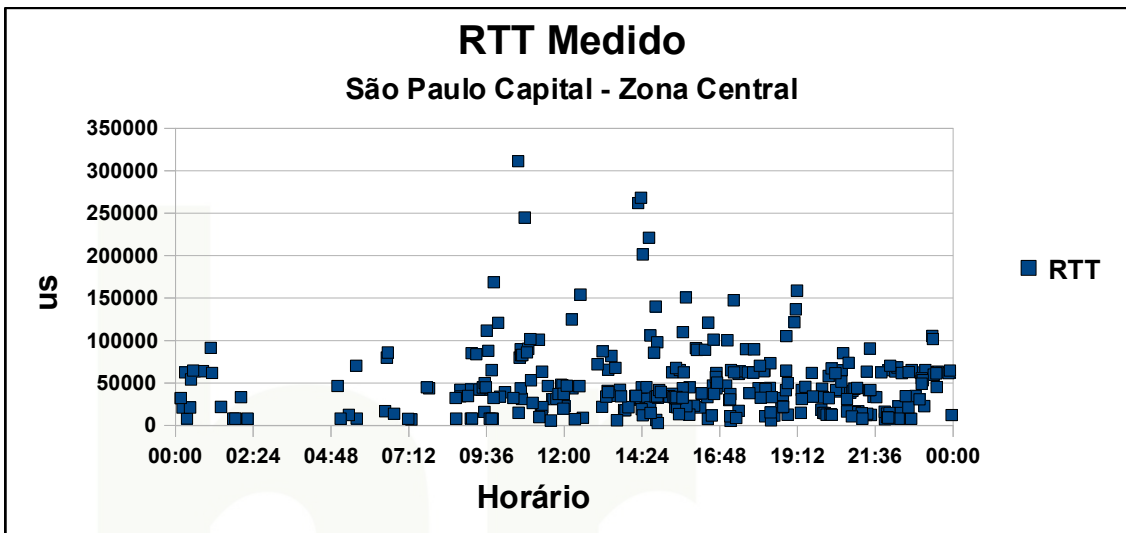
Qualidade da Internet na Cidade de São Paulo – Zona Central



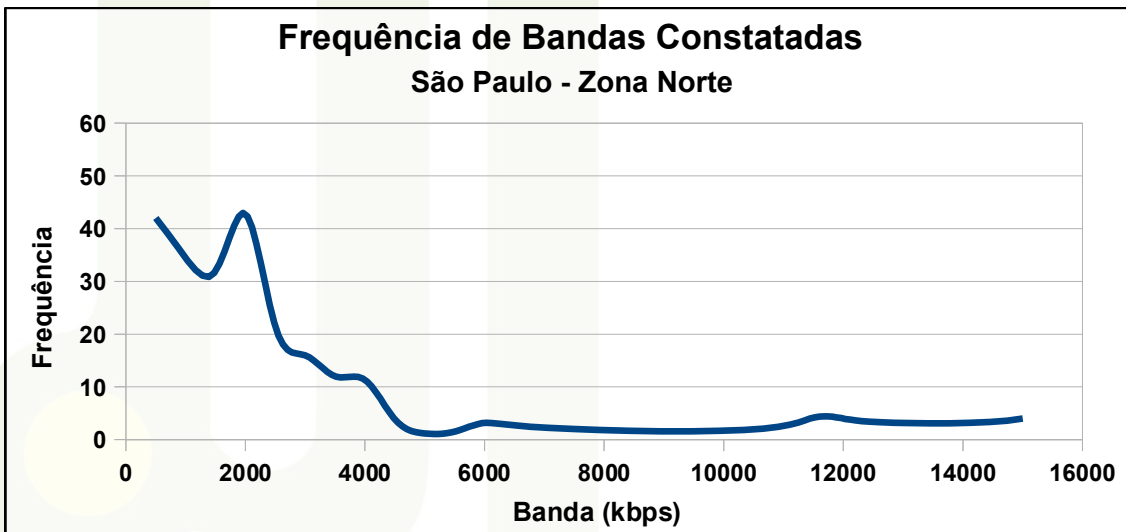
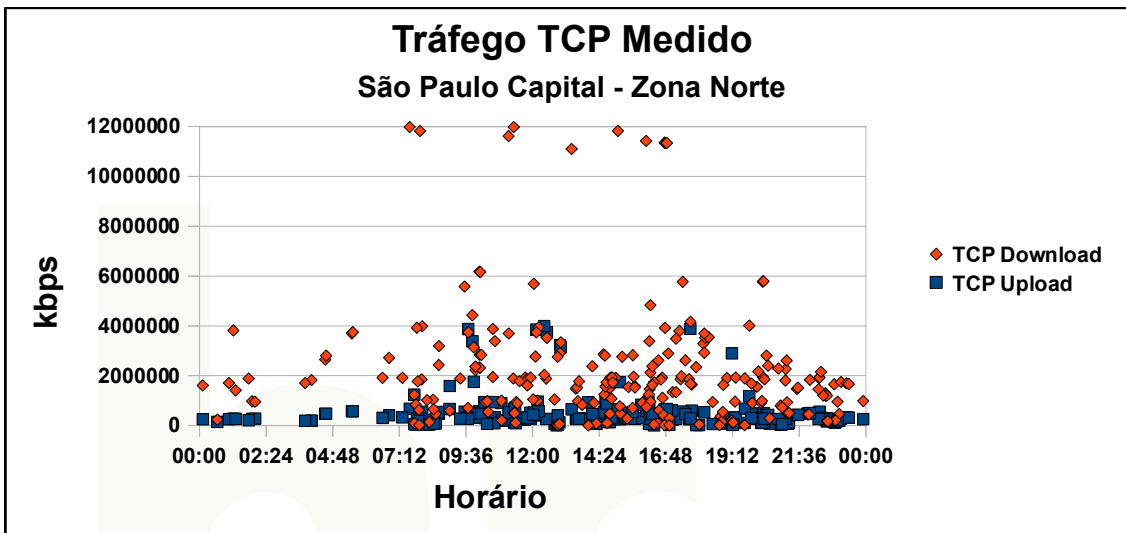
Qualidade da Internet na Cidade de São Paulo – Zona Central



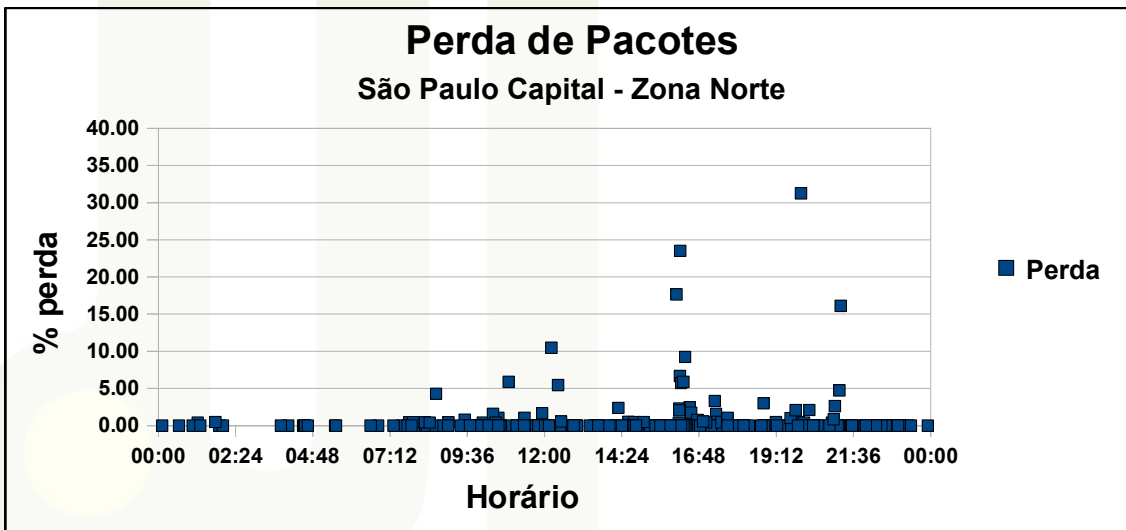
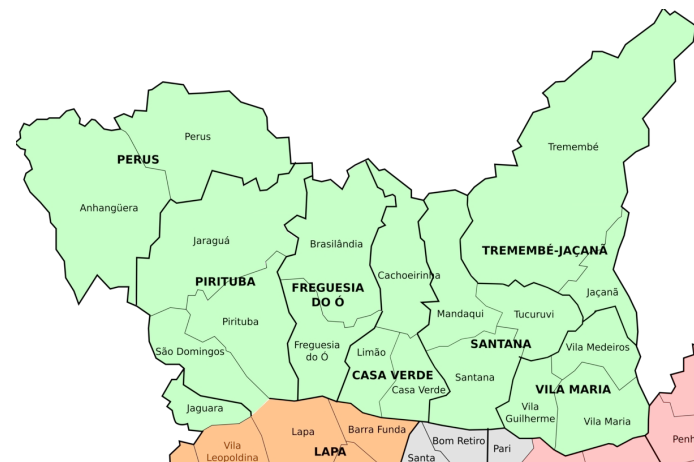
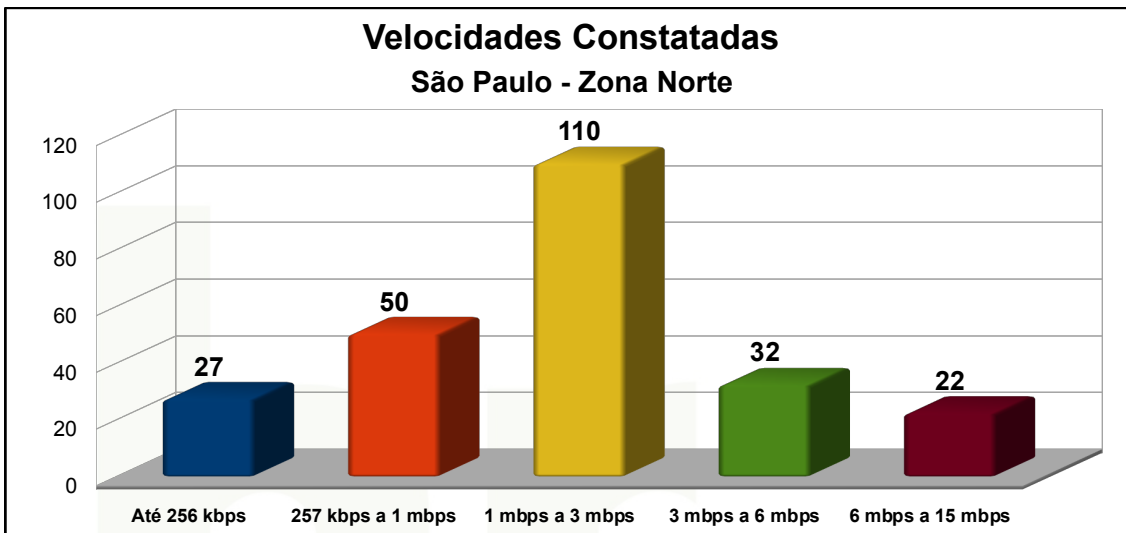
Qualidade da Internet na Cidade de São Paulo – Zona Central



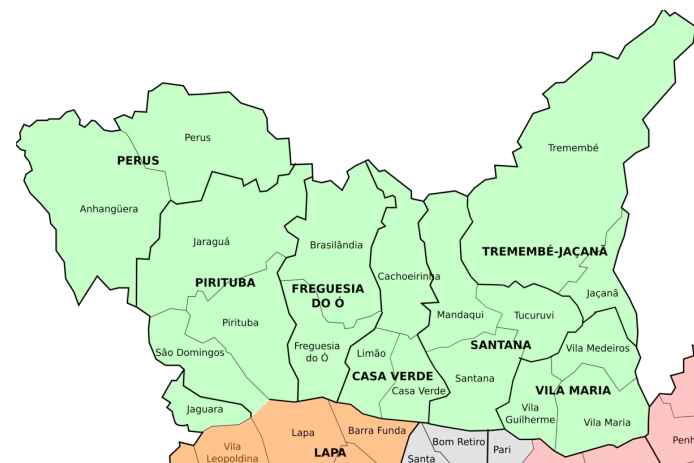
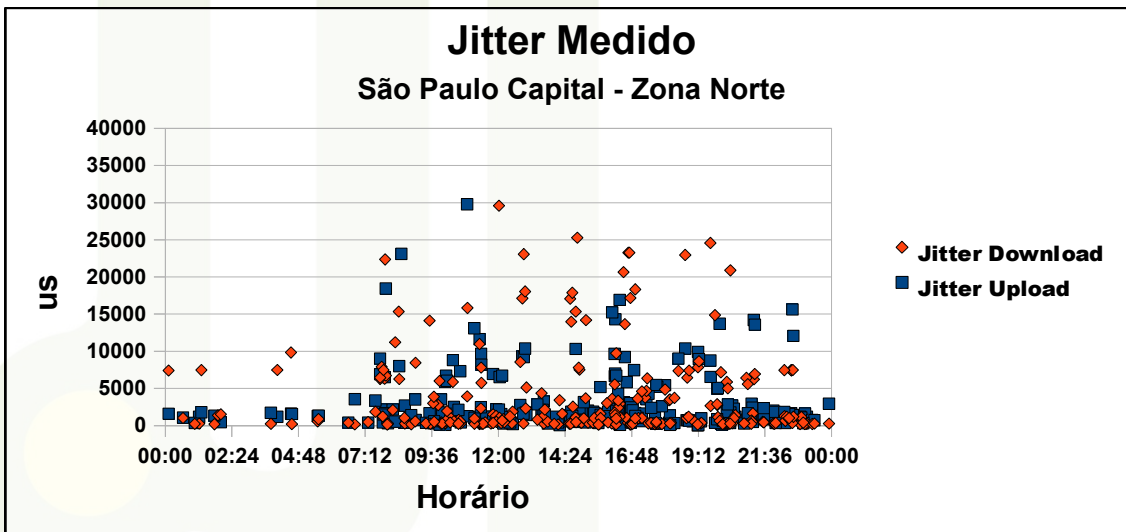
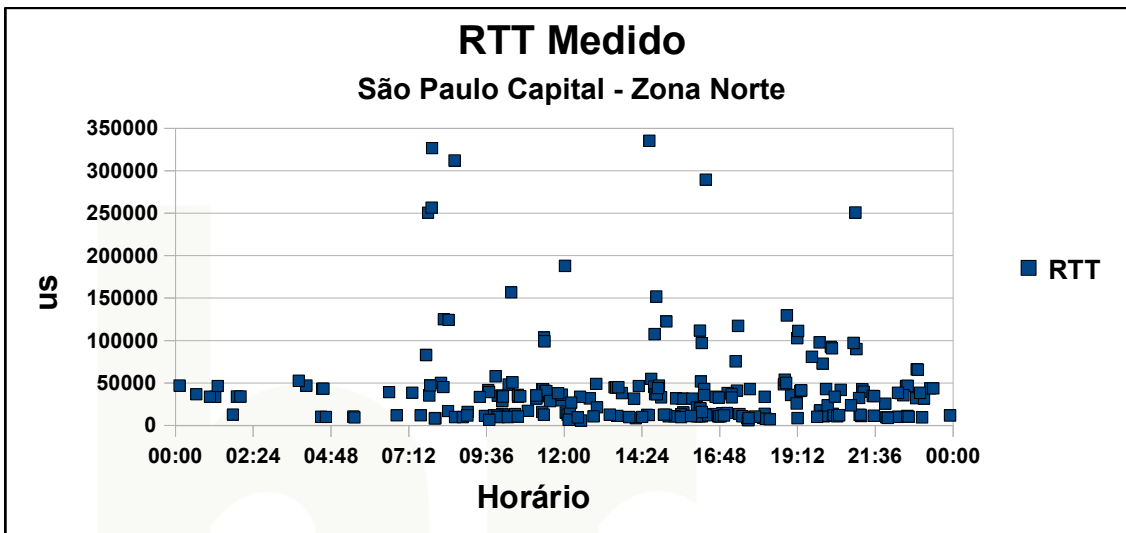
Qualidade da Internet na Cidade de São Paulo – Zona Norte



Qualidade da Internet na Cidade de São Paulo – Zona Norte



Qualidade da Internet na Cidade de São Paulo – Zona Norte

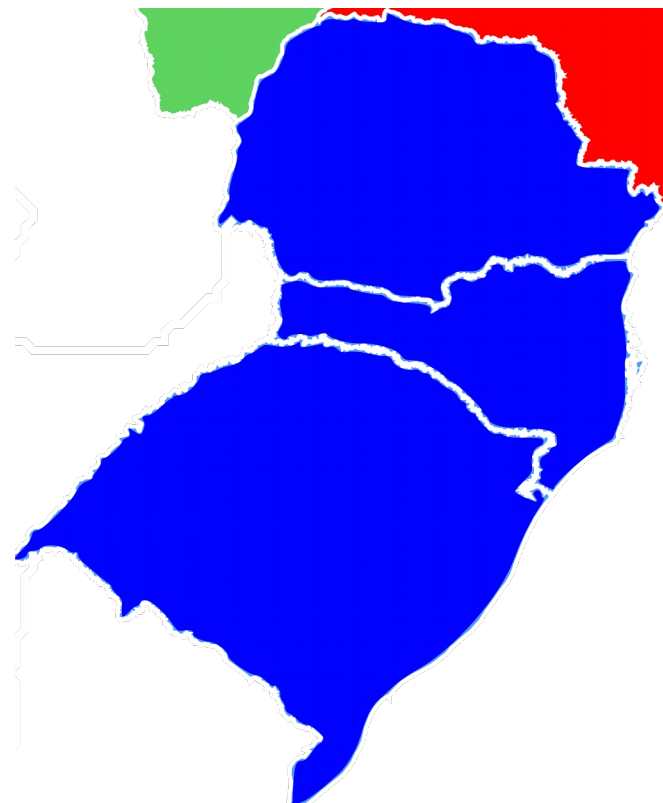
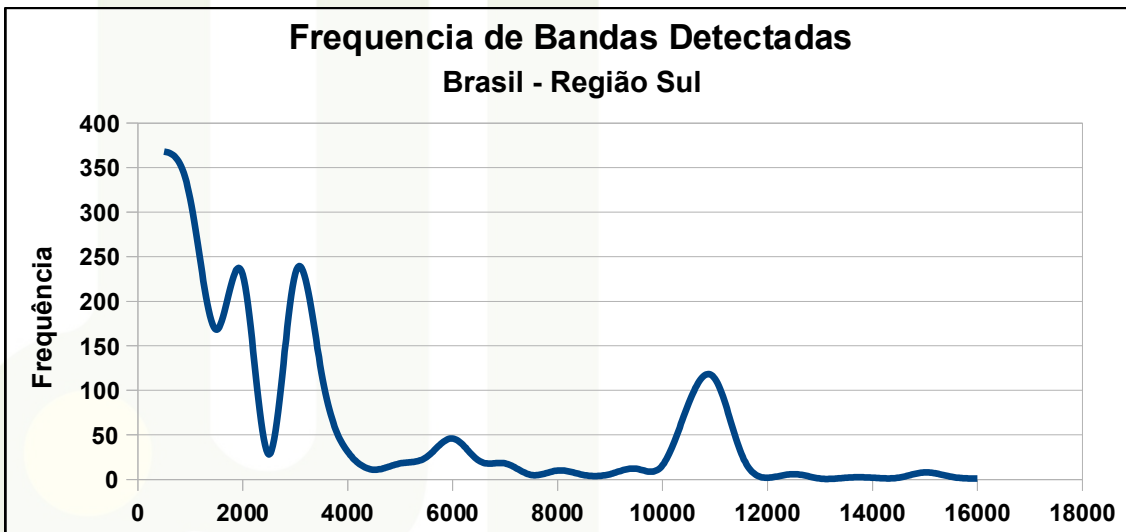
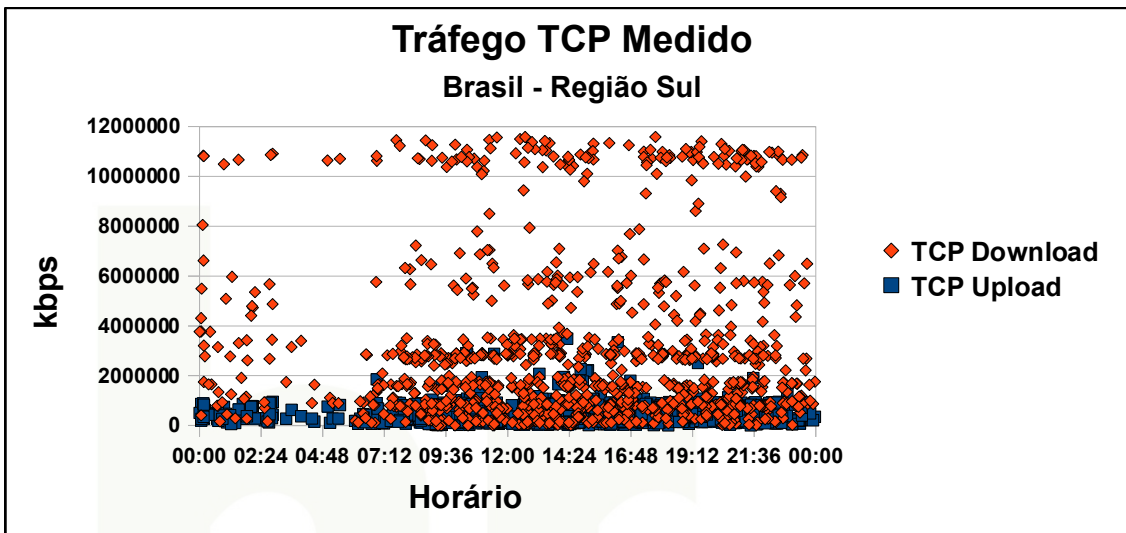


Análises dos Dados Por Regiões do Brasil

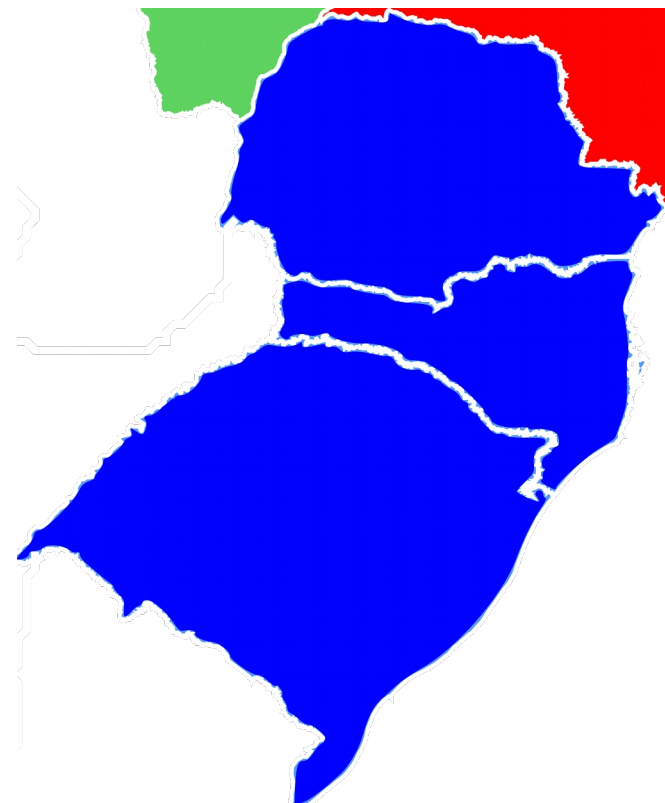
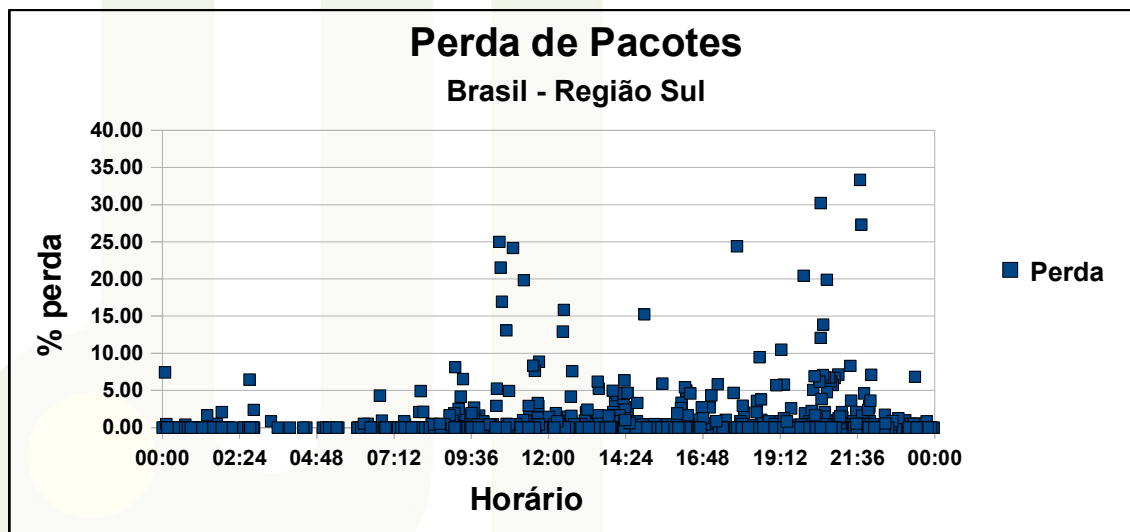
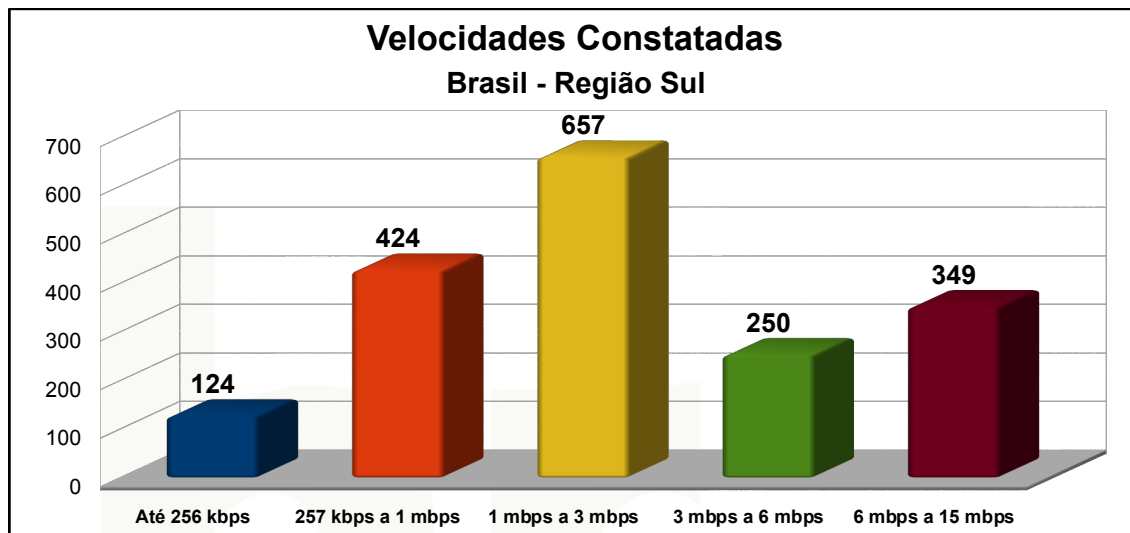
- Analisados testes divididos por regiões no Brasil
 - Norte
 - Sul
 - Sudeste
 - Centro-Oeste
 - Nordeste
- Houve participação nos testes de todos os estados brasileiros



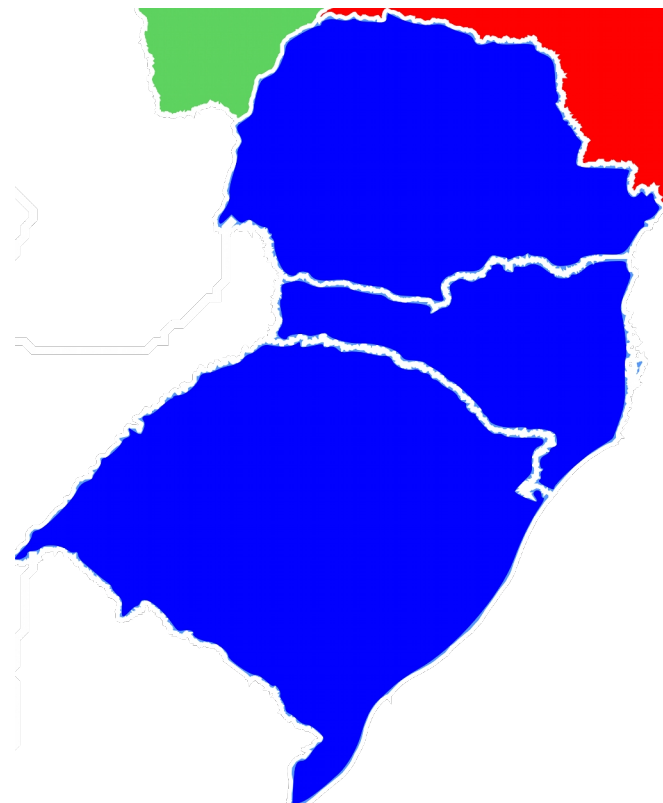
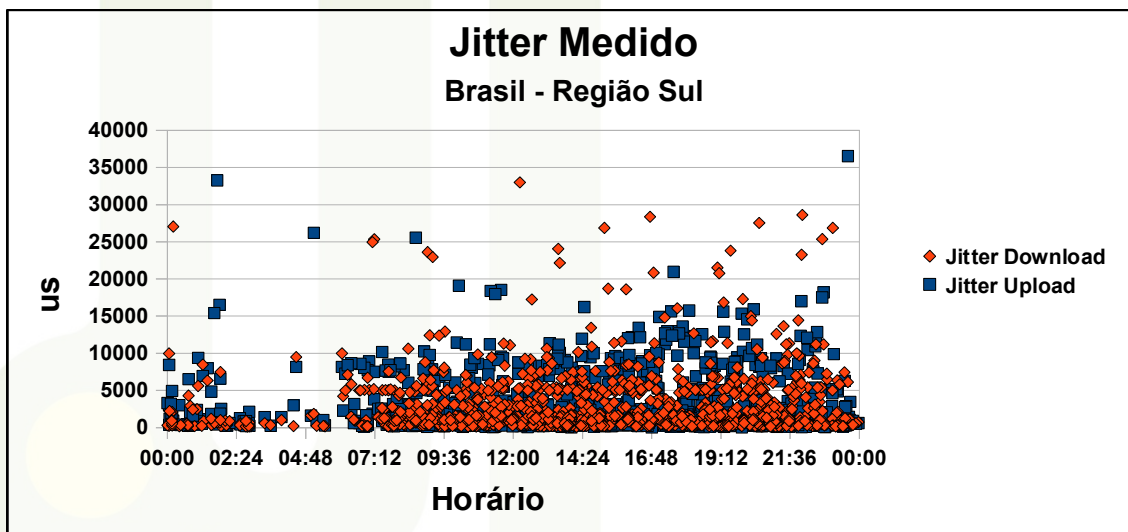
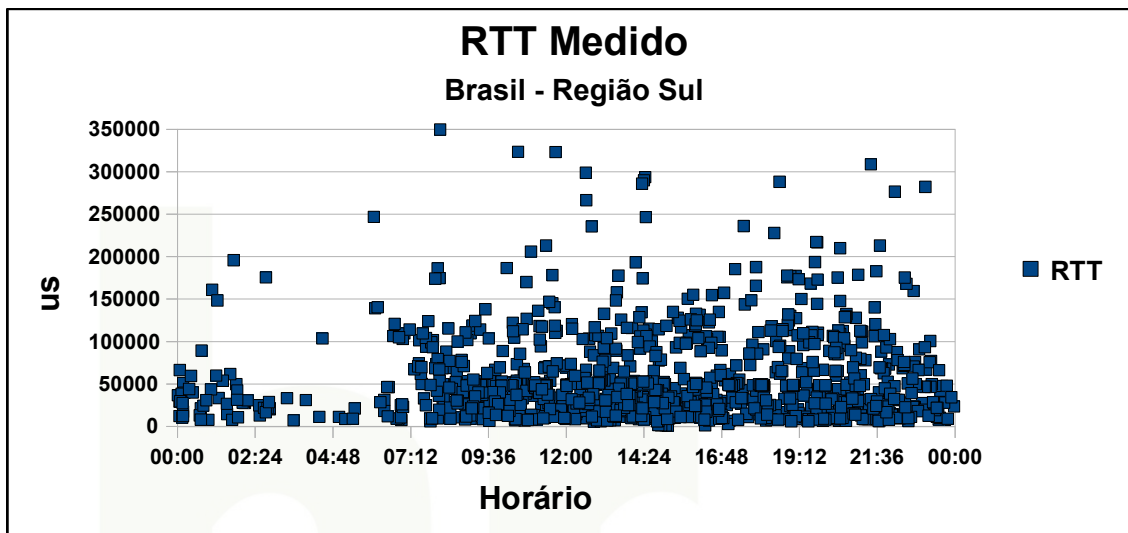
Qualidade da Internet no Brasil – Região Sul



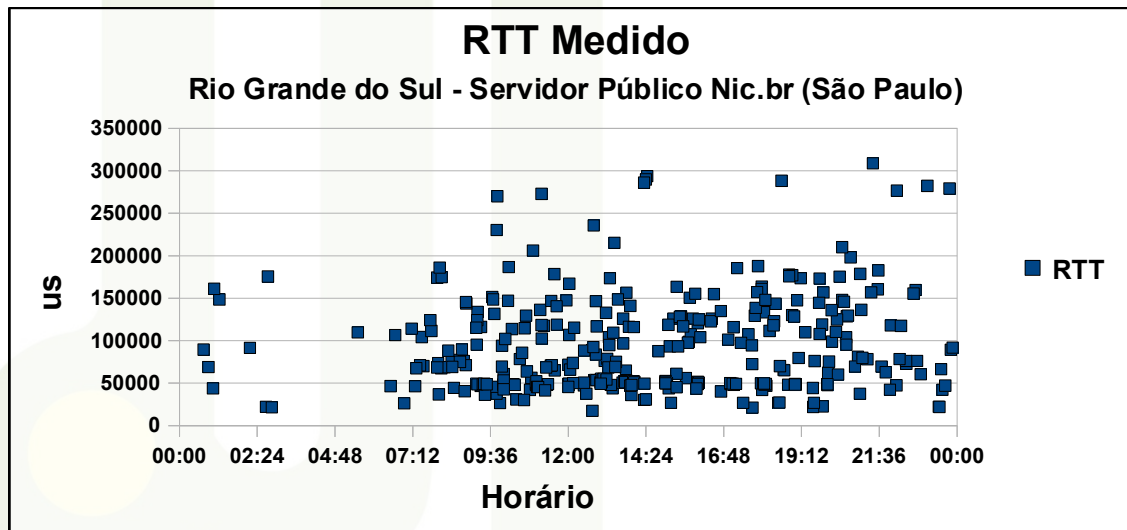
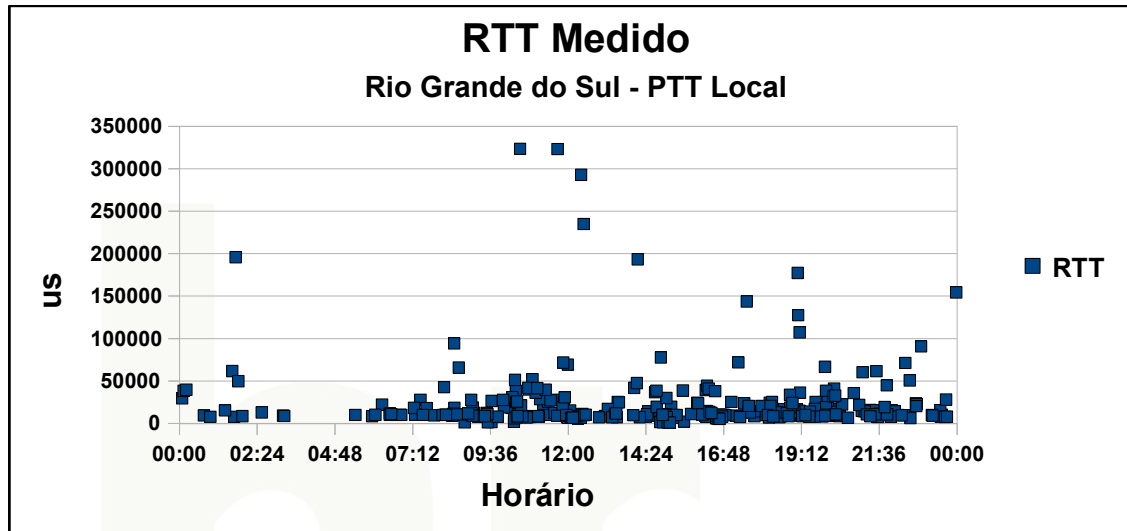
Qualidade da Internet no Brasil – Região Sul



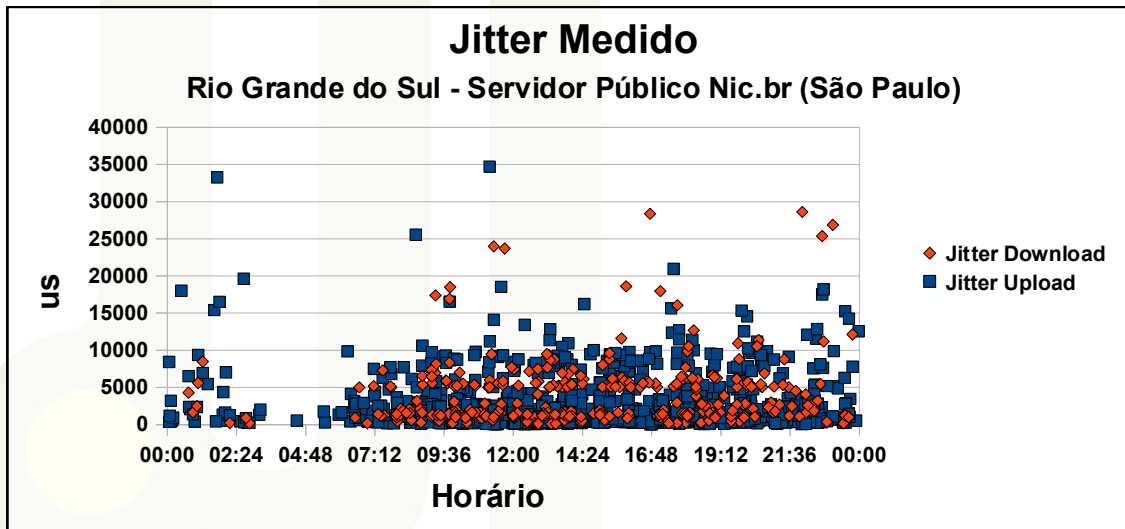
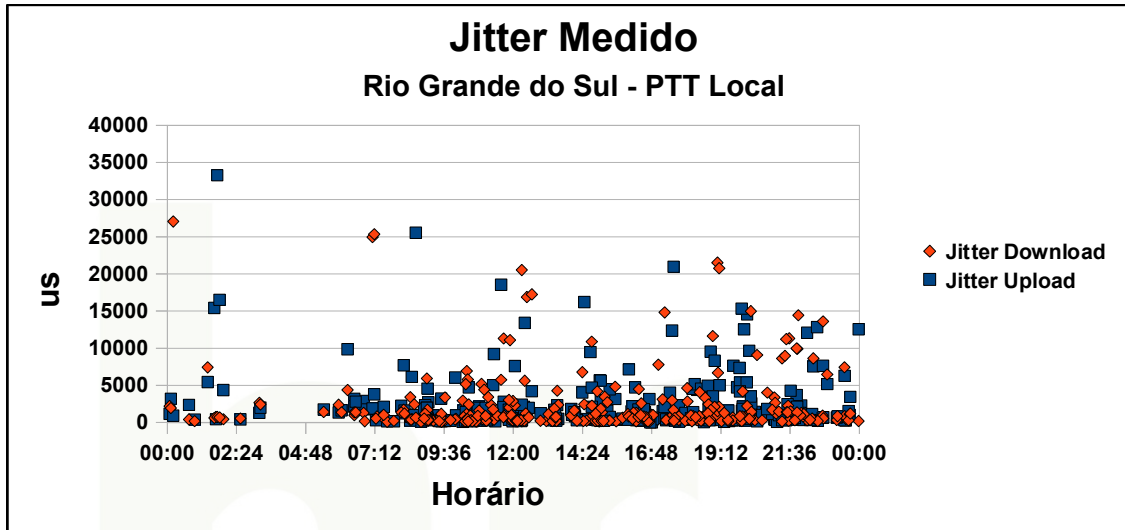
Qualidade da Internet no Brasil – Região Sul



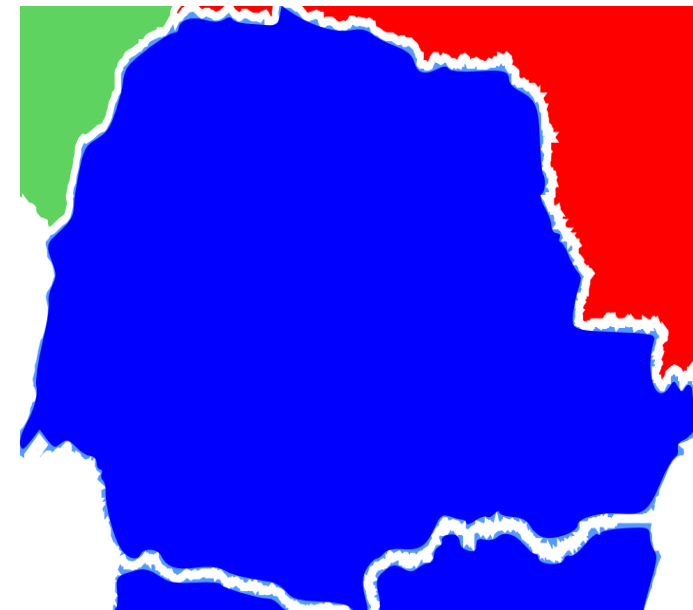
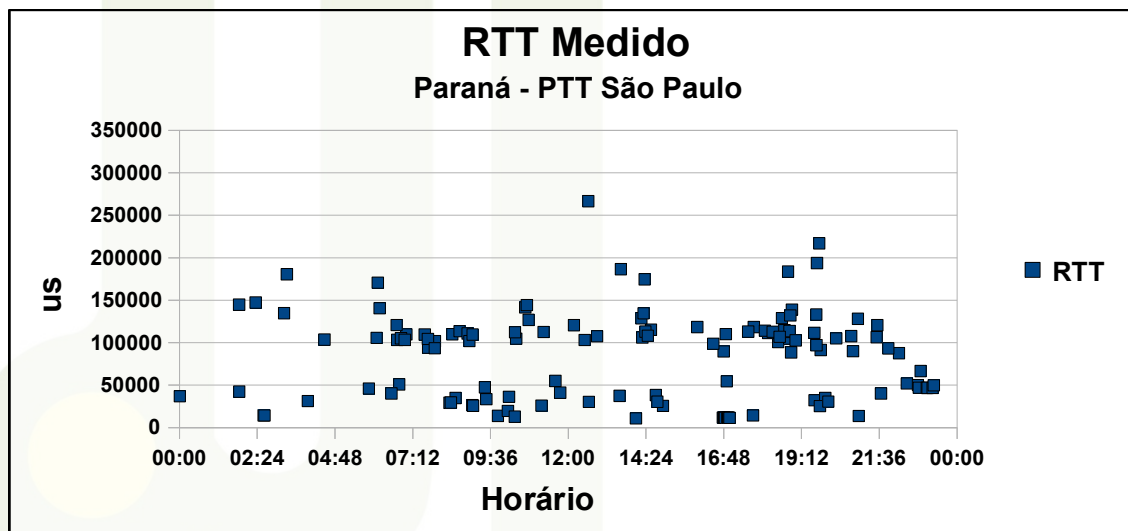
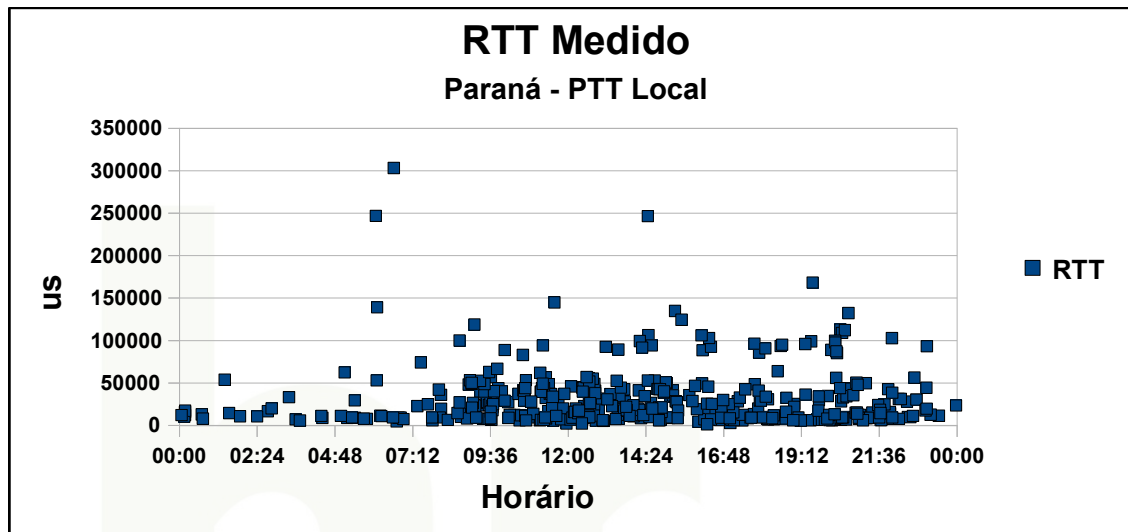
Qualidade da Internet no Rio Grande do Sul (com e sem PTT-Metro)



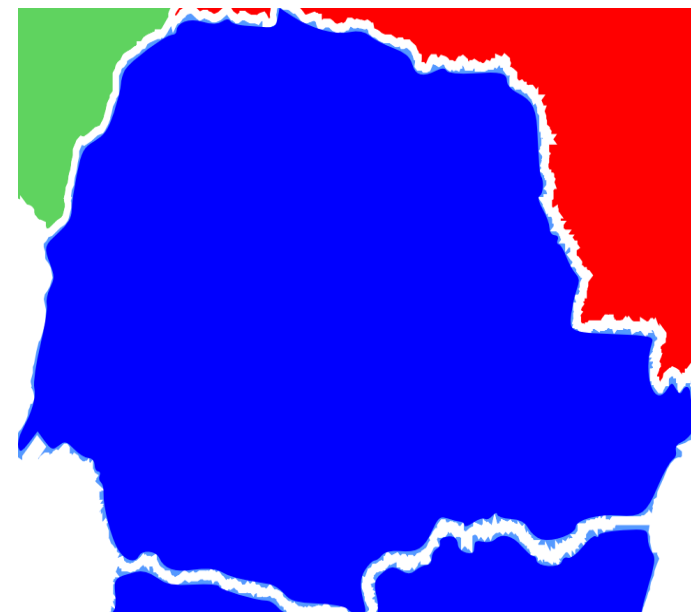
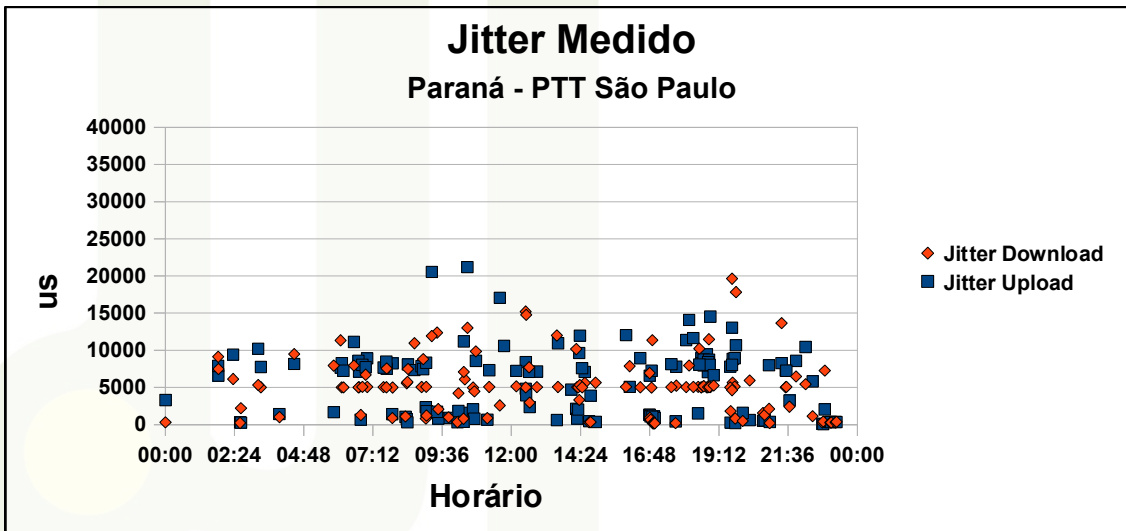
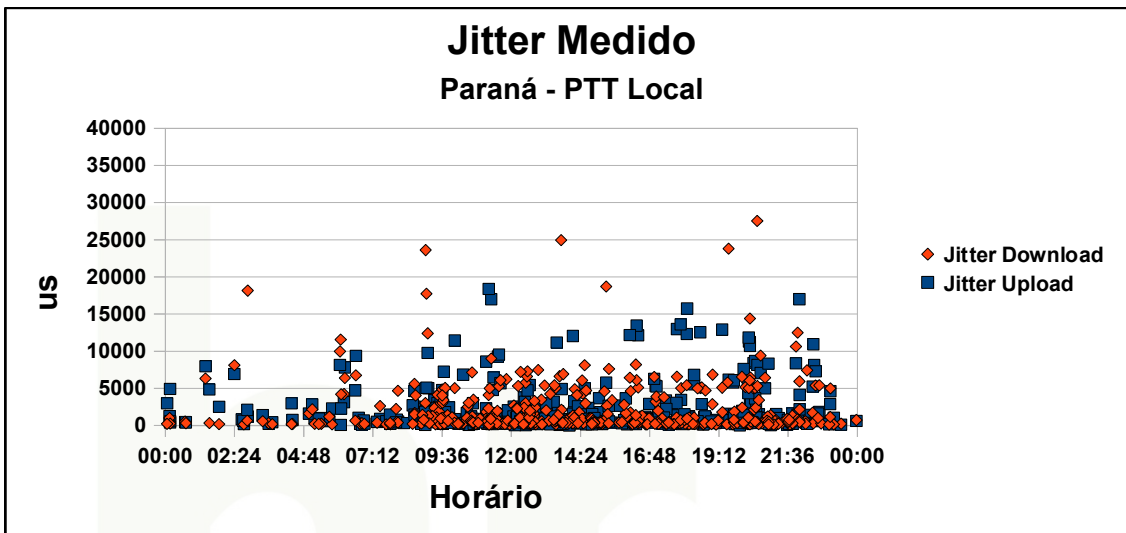
Qualidade da Internet no Rio Grande do Sul (com e sem PTT-Metro)



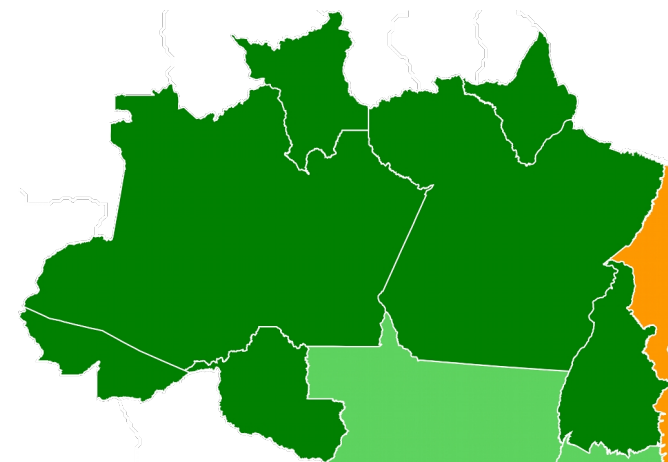
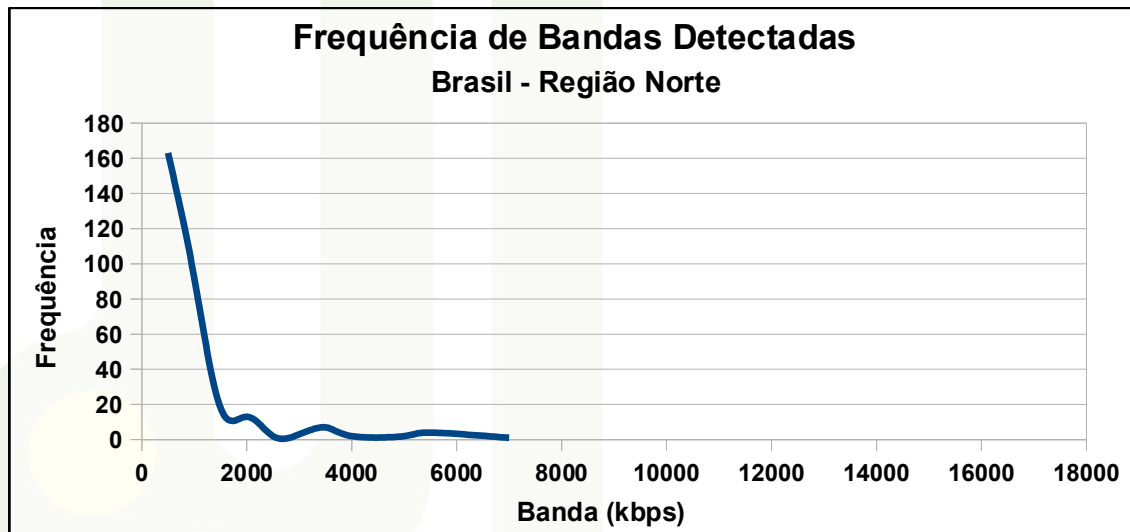
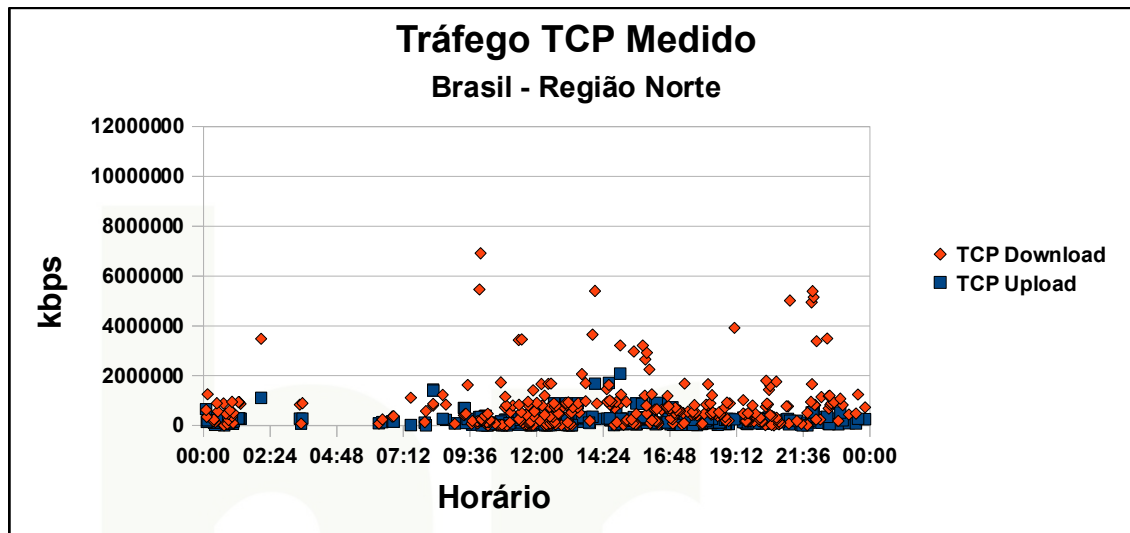
Qualidade da Internet no Paraná (com e sem PTT-Metro)



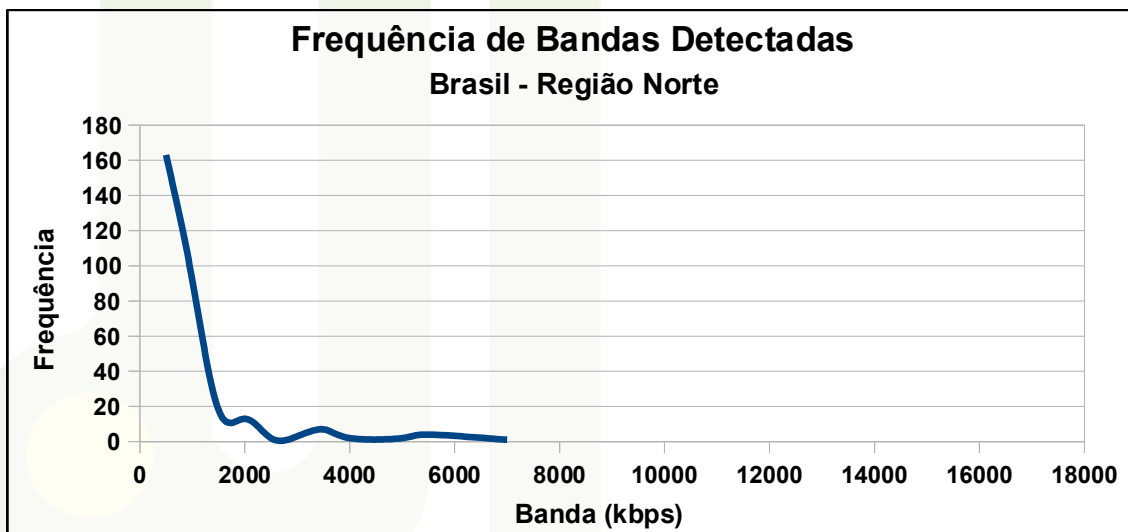
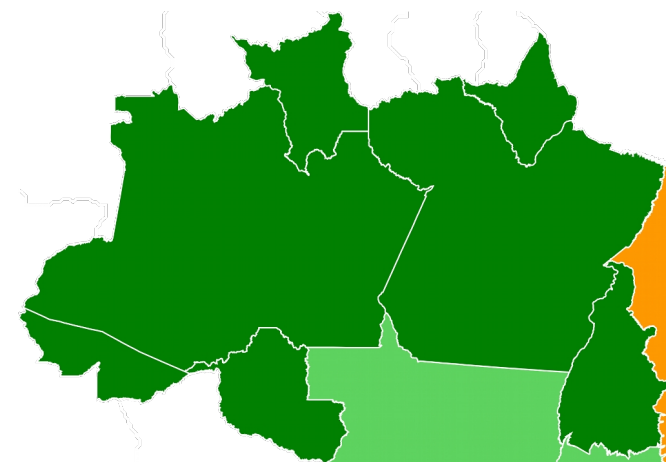
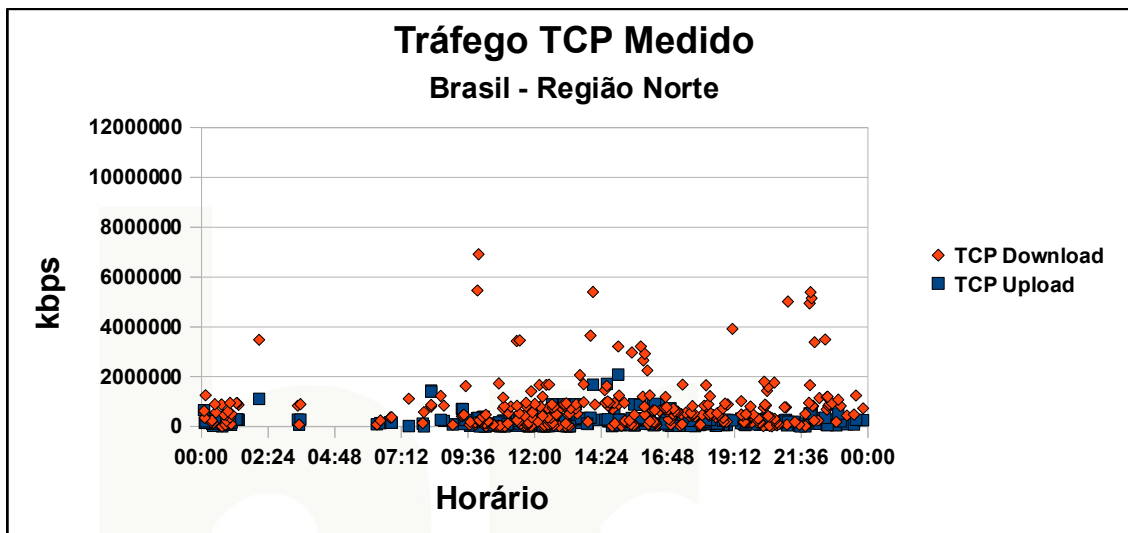
Qualidade da Internet no Paraná (com e sem PTT-Metro)



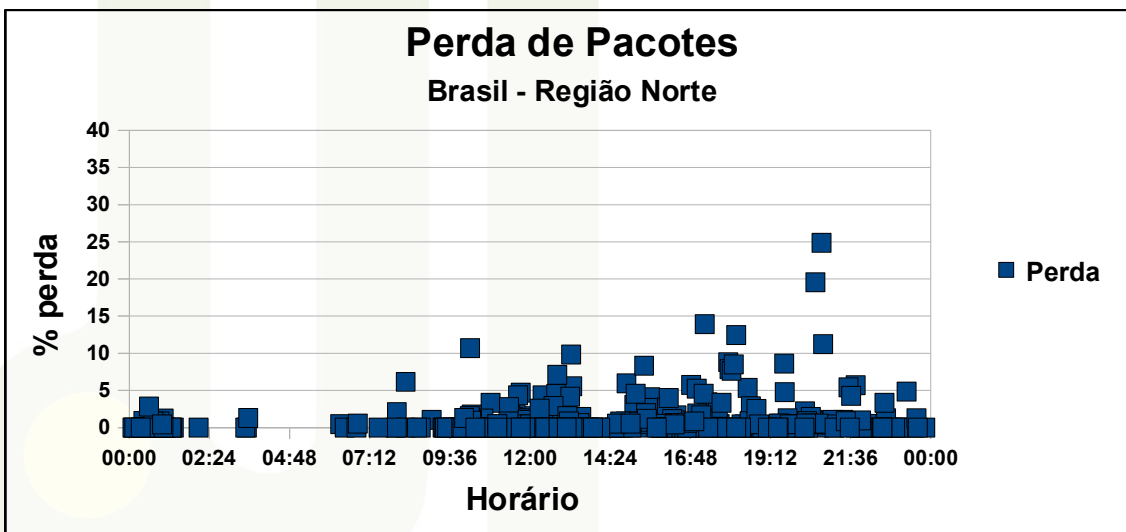
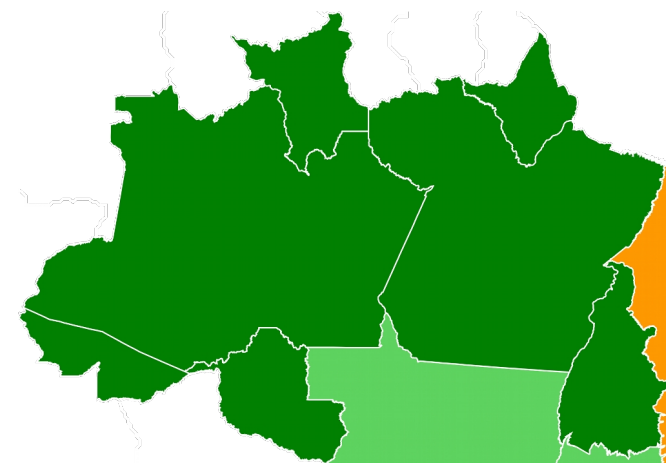
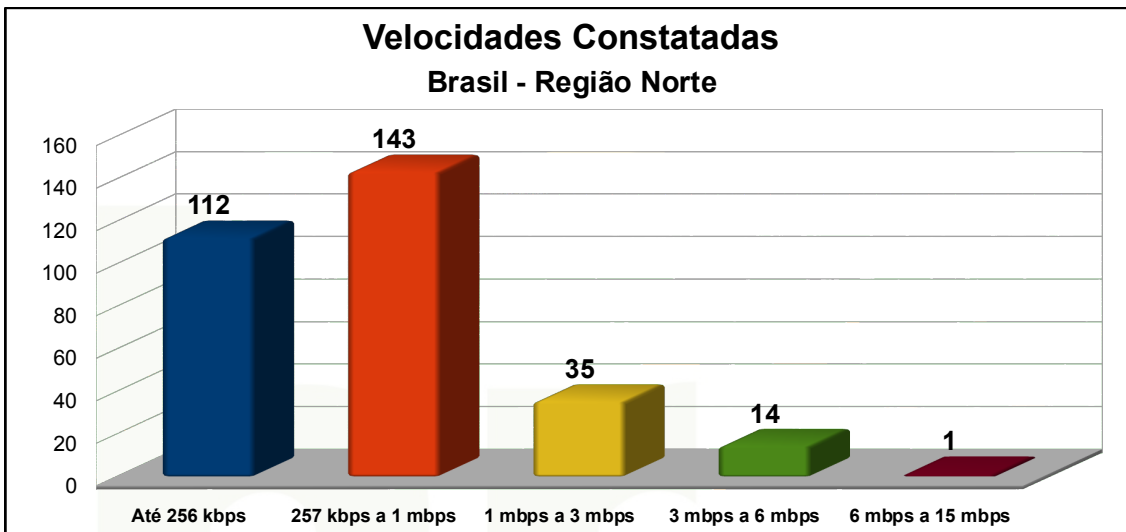
Qualidade da Internet no Brasil – Região Norte



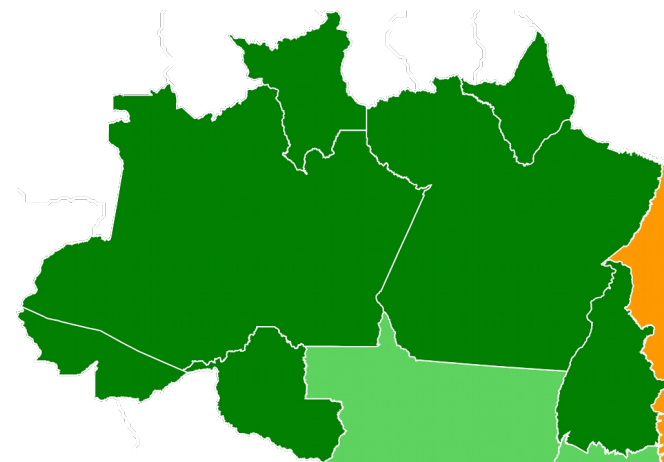
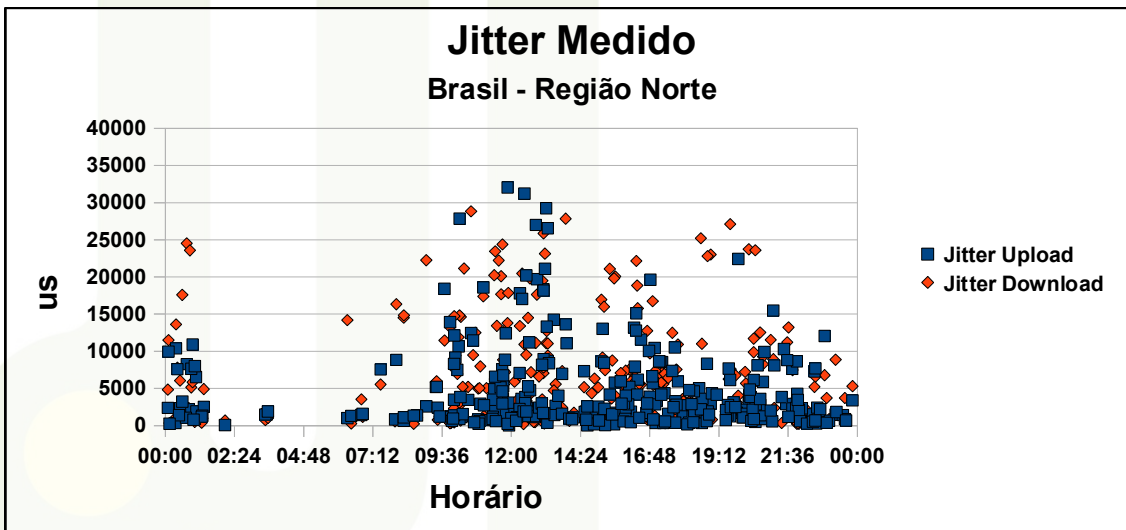
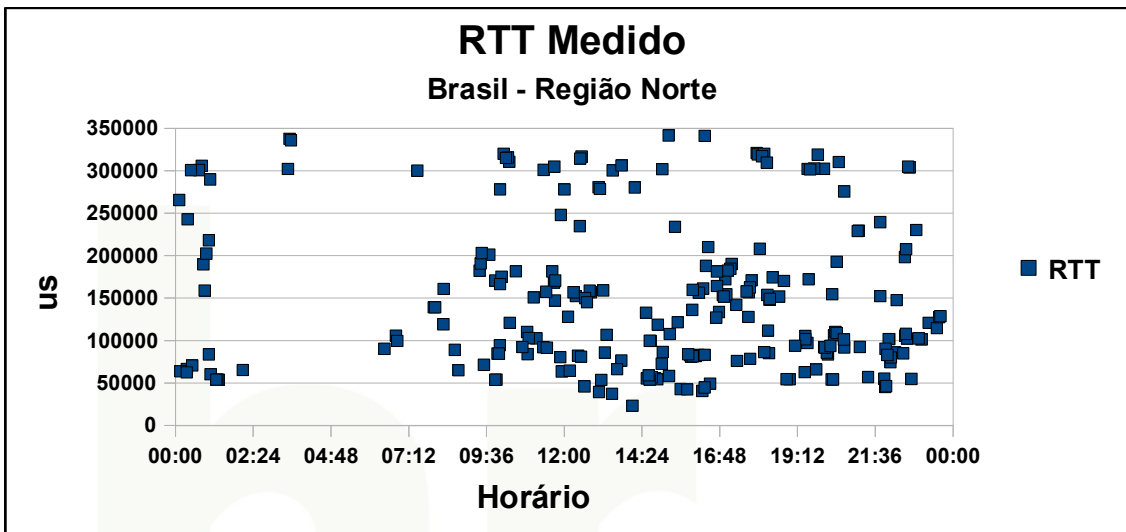
Qualidade da Internet no Brasil – Região Norte



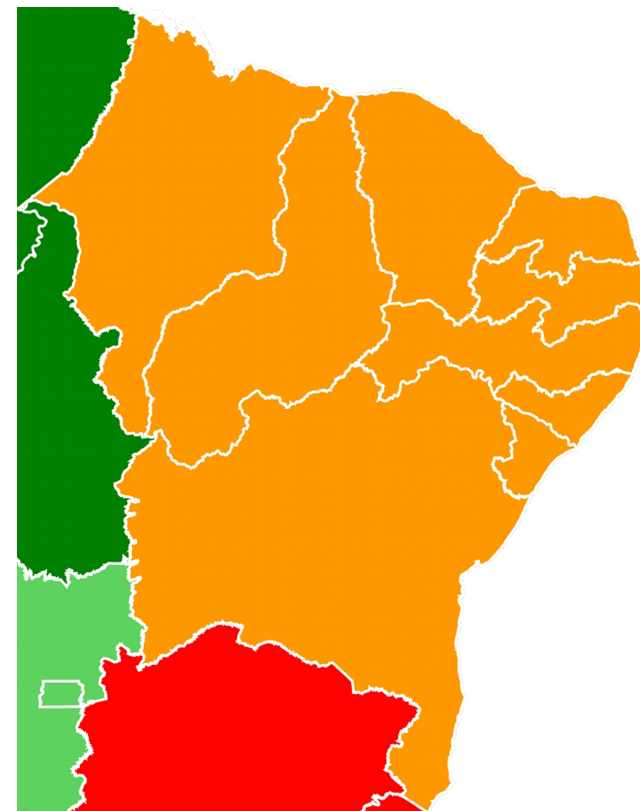
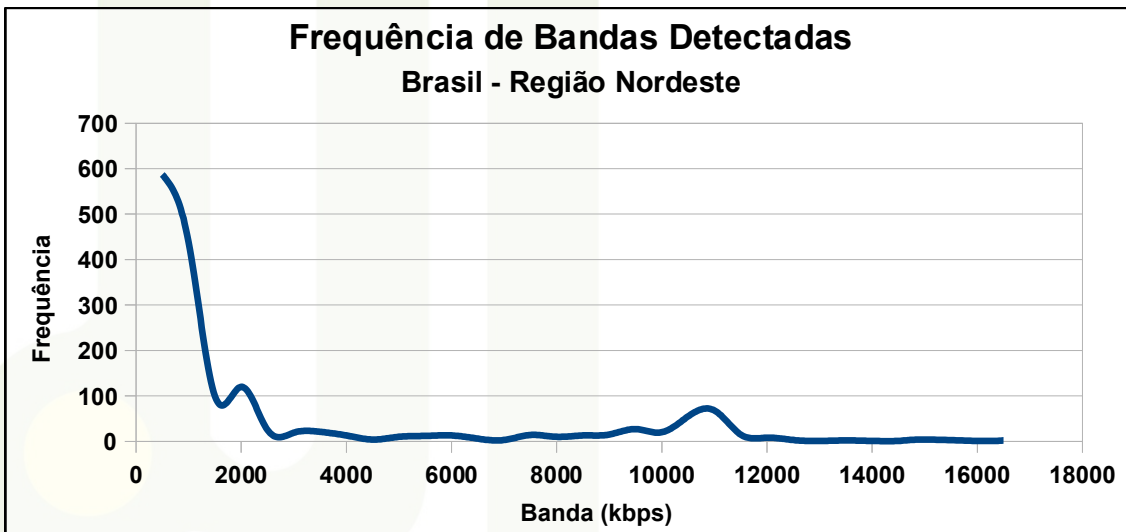
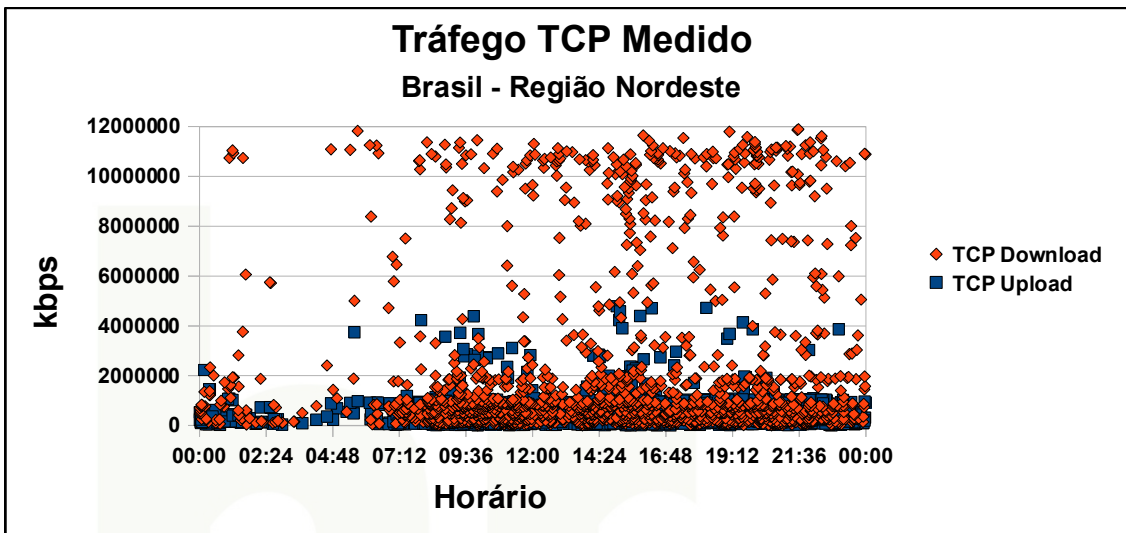
Qualidade da Internet no Brasil – Região Norte



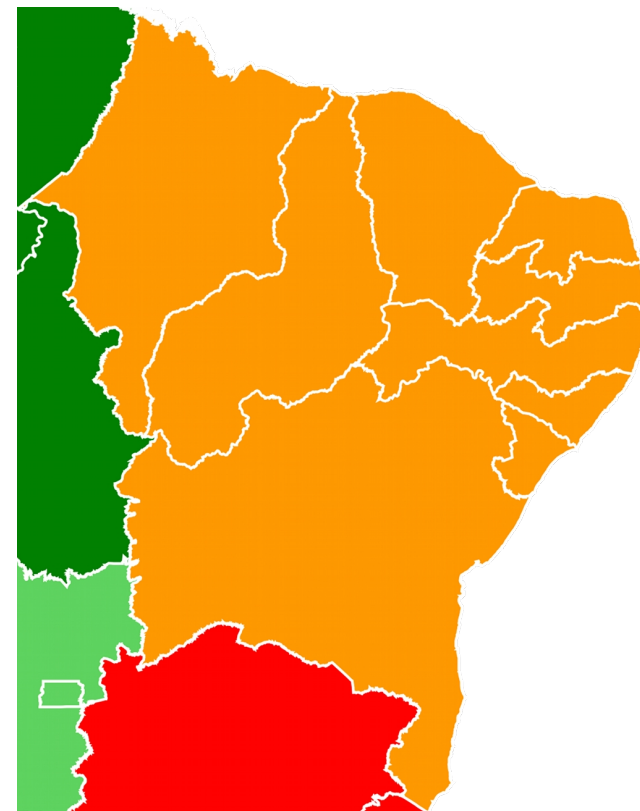
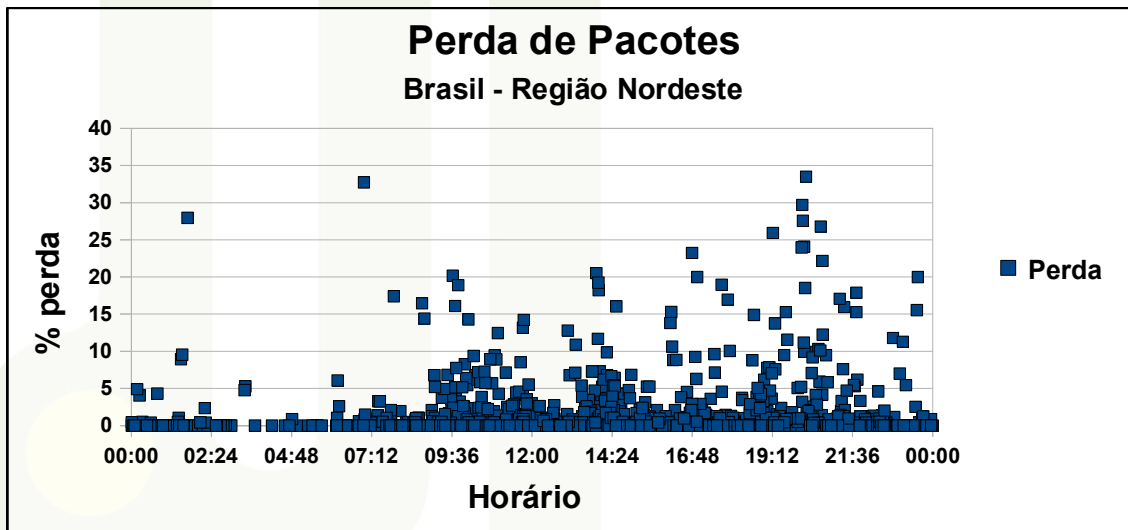
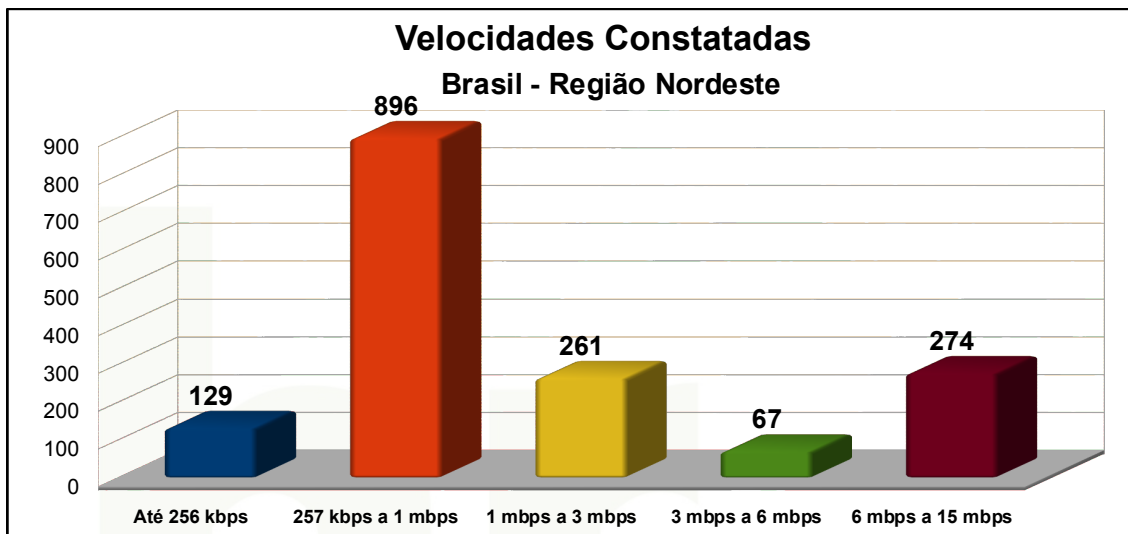
Qualidade da Internet no Brasil – Região Norte



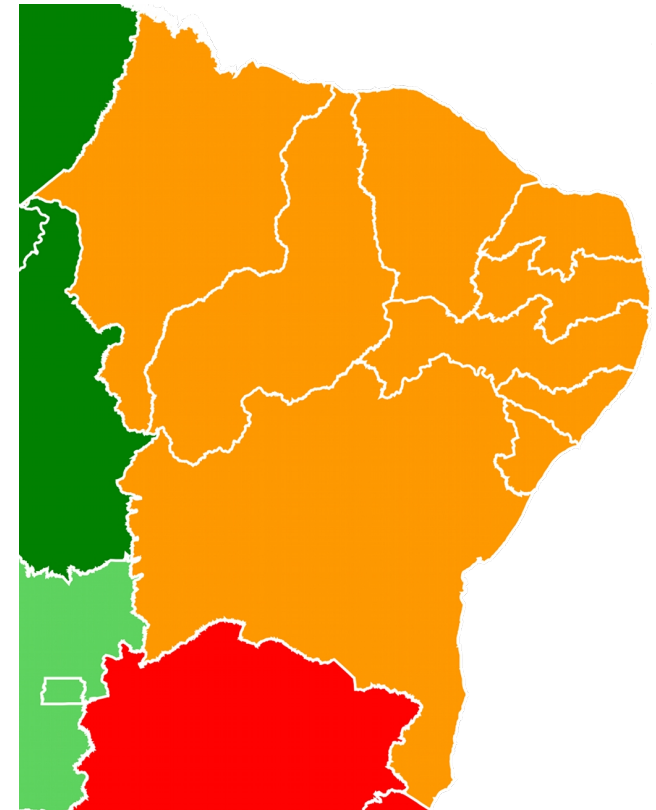
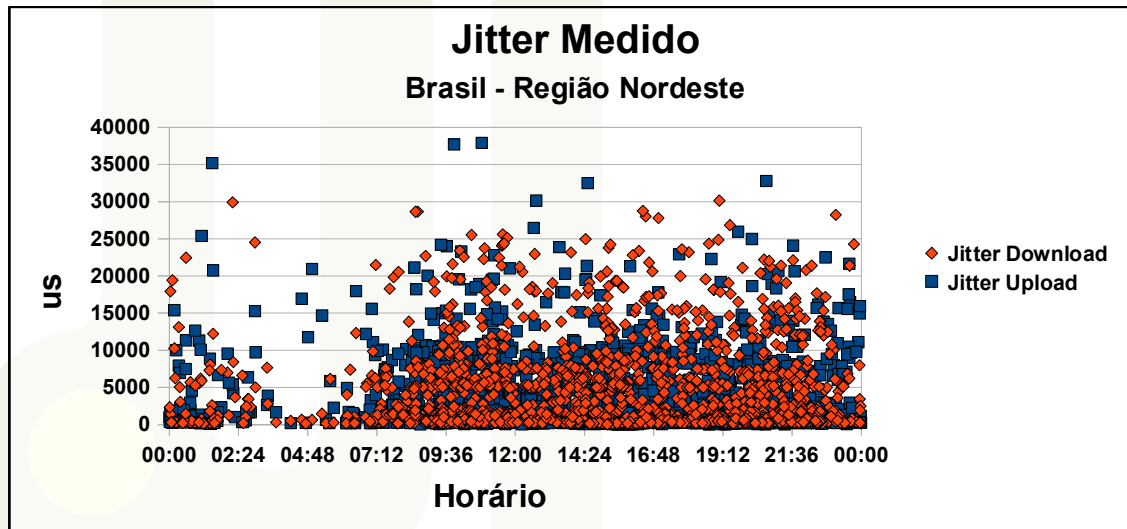
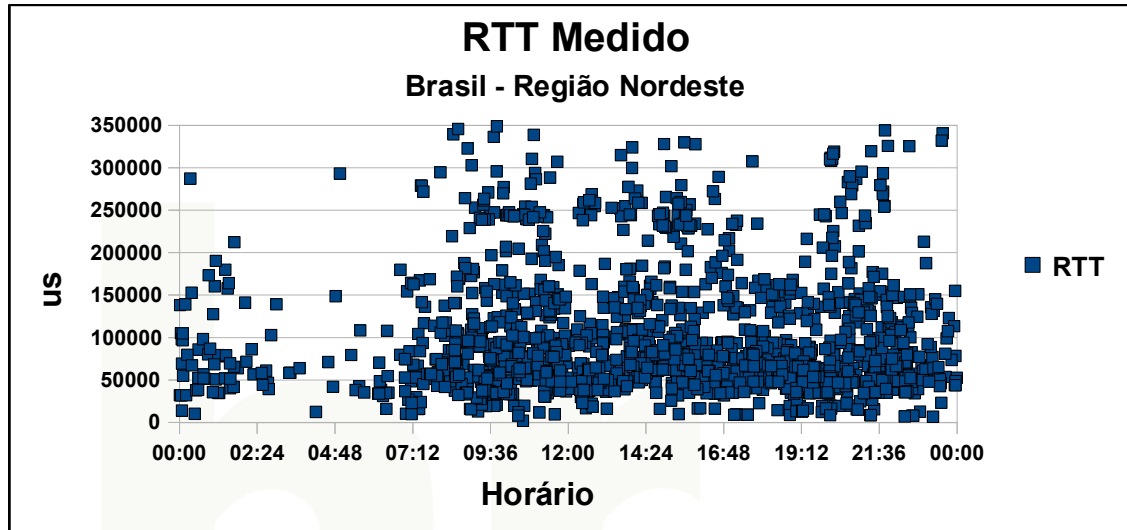
Qualidade da Internet no Brasil – Região Nordeste



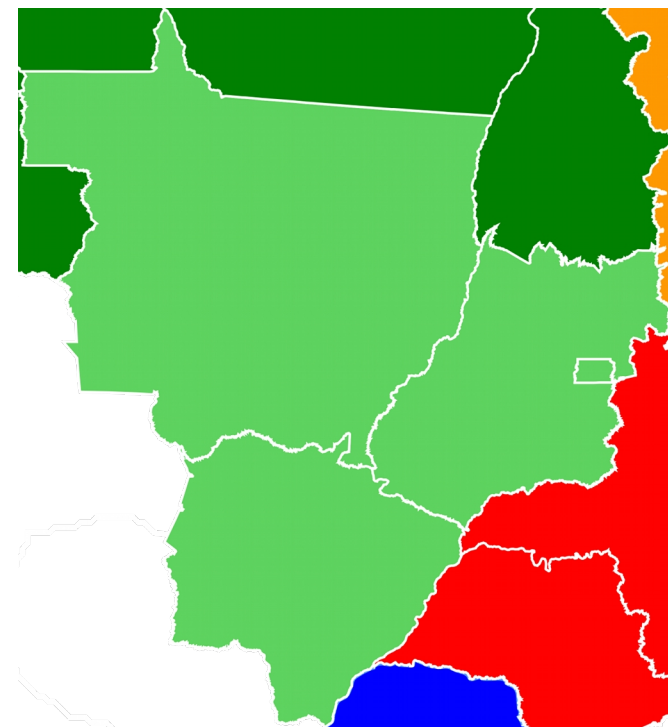
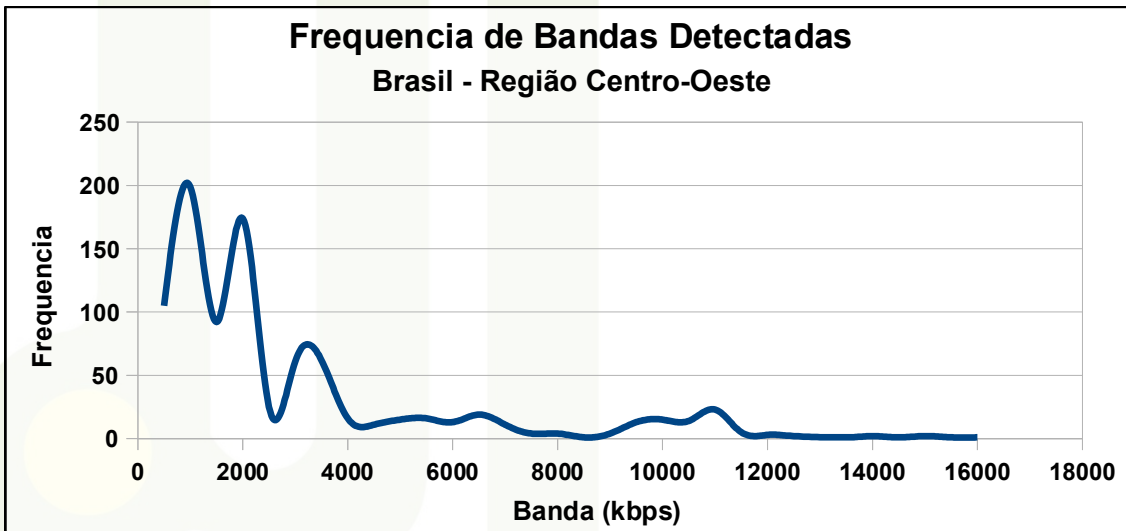
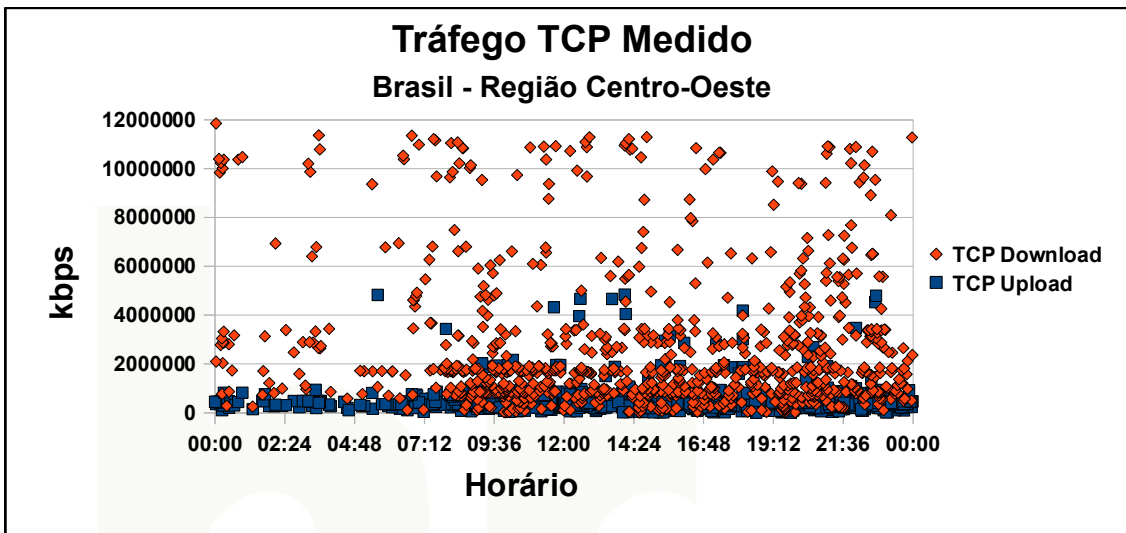
Qualidade da Internet no Brasil – Região Nordeste



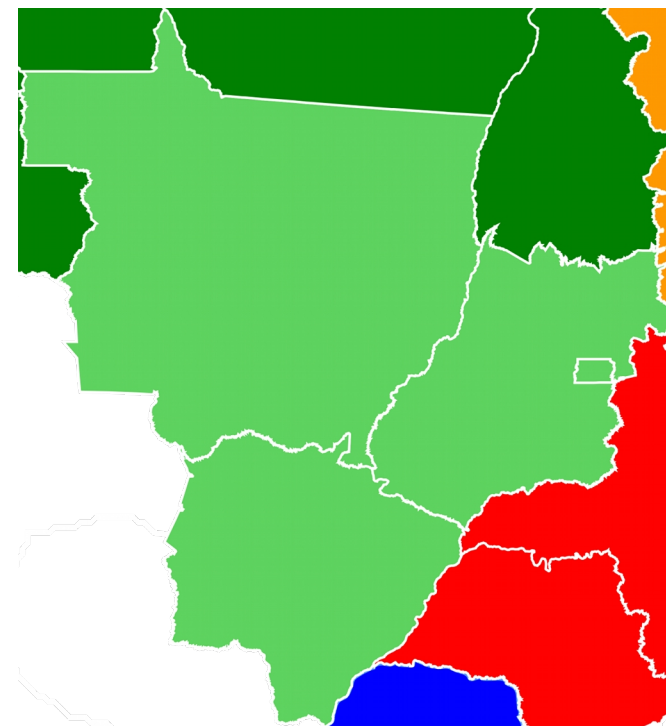
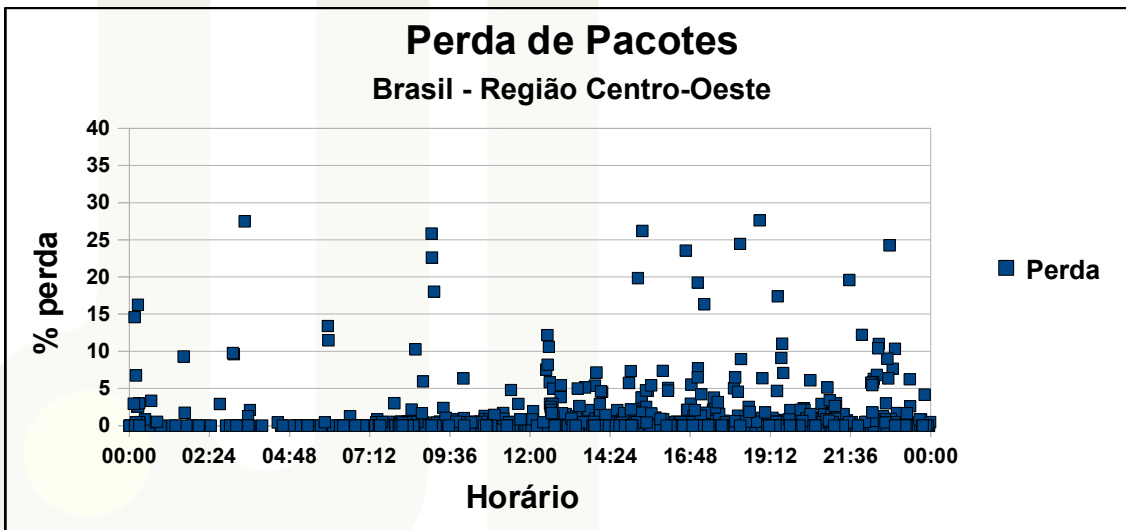
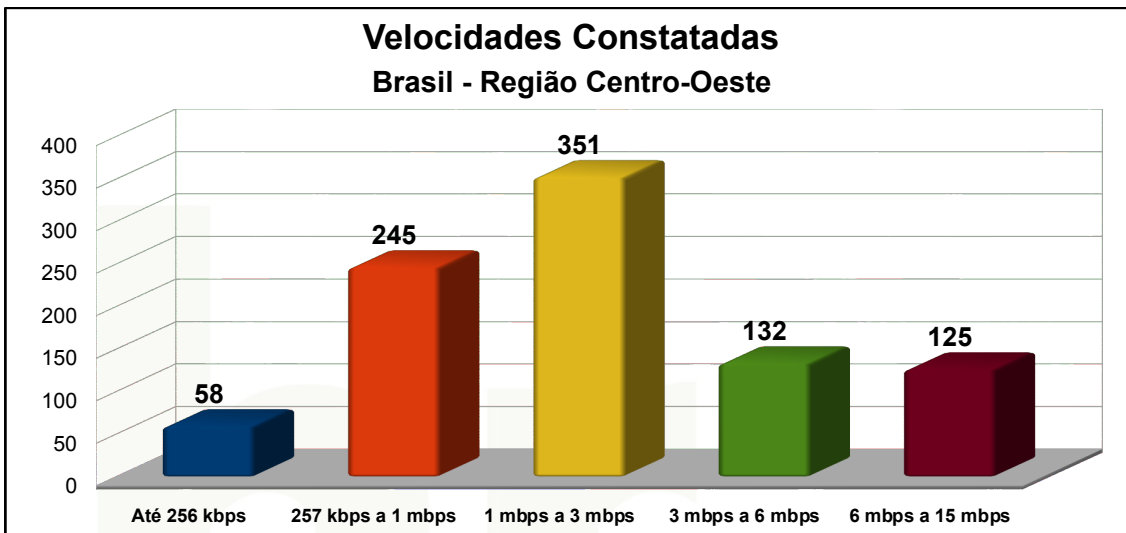
Qualidade da Internet no Brasil – Região Nordeste



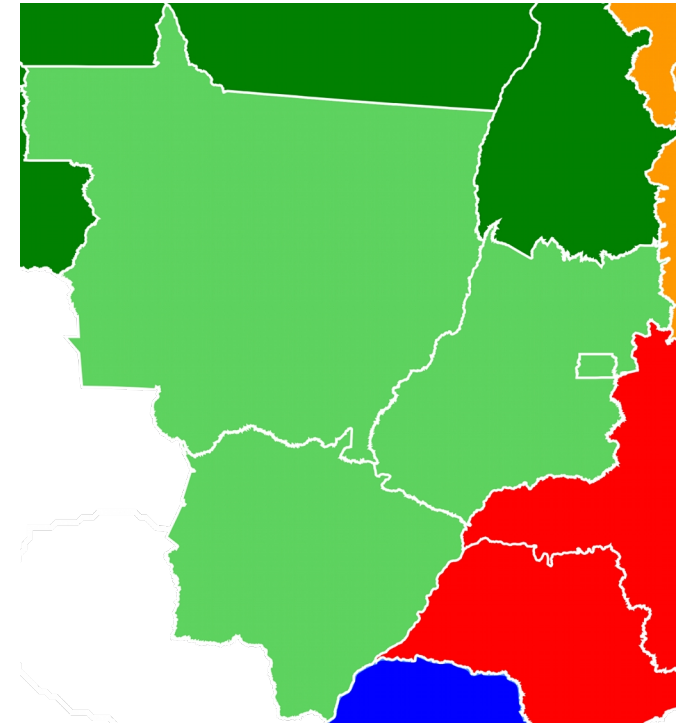
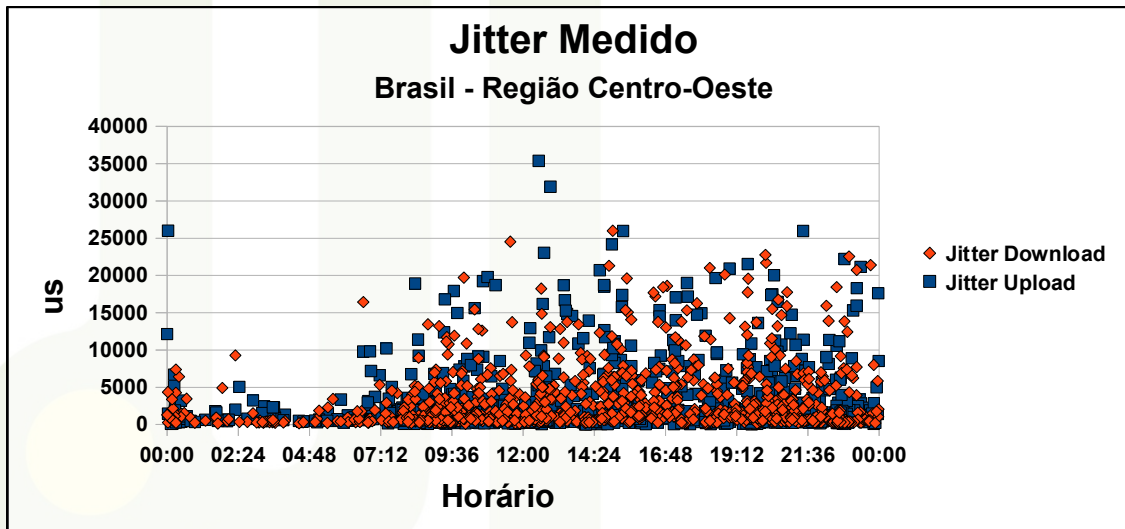
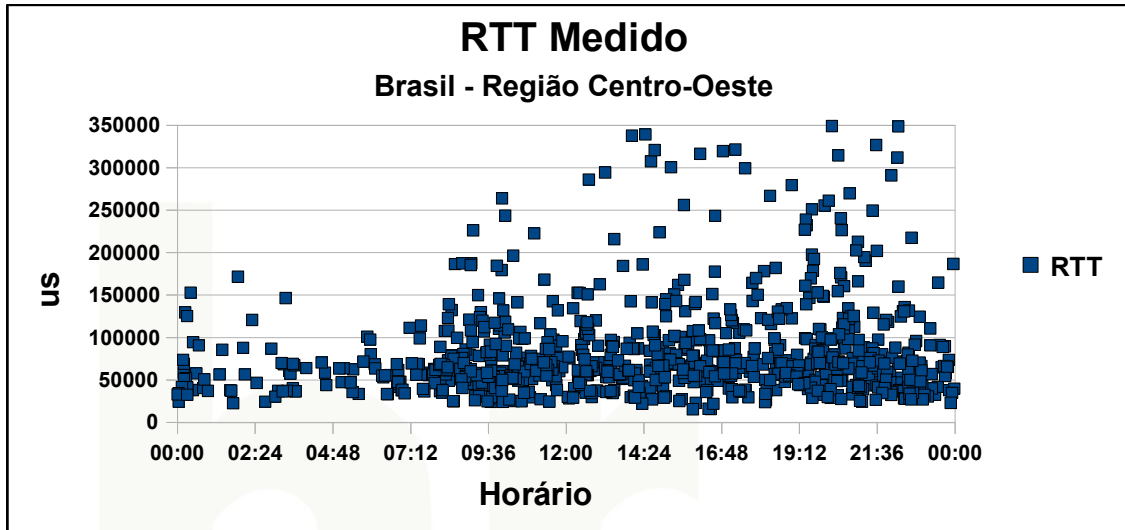
Qualidade da Internet no Brasil – Região Centro-Oeste



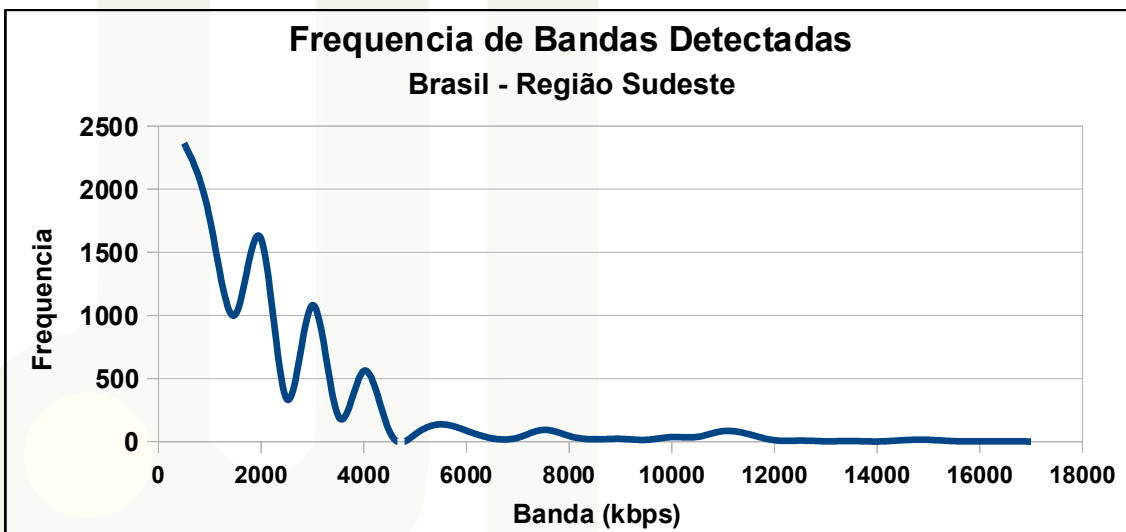
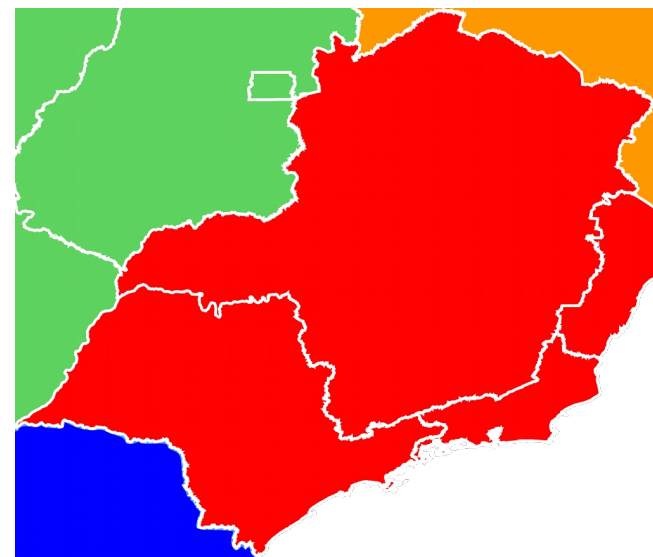
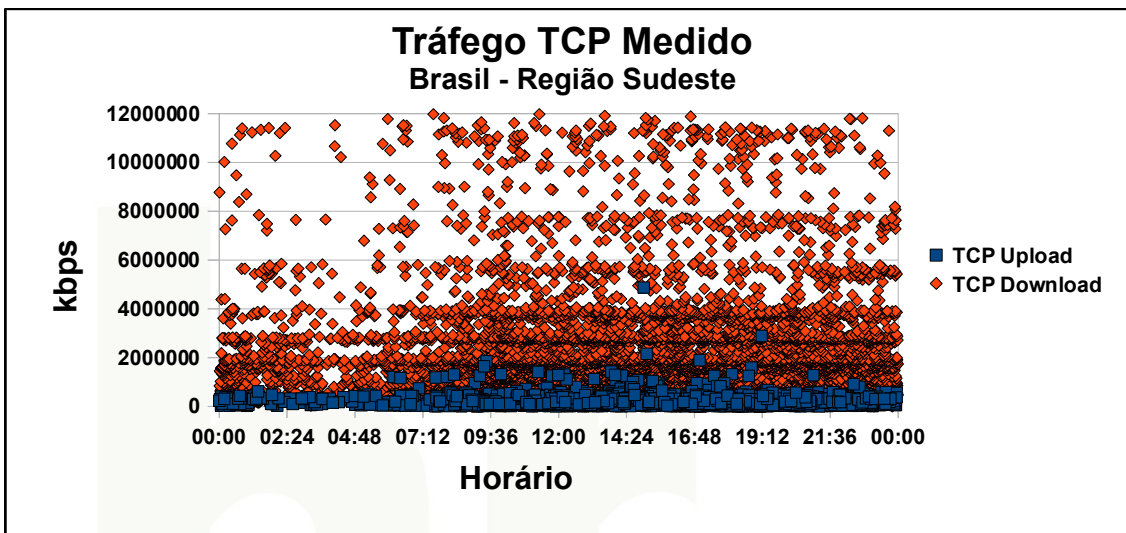
Qualidade da Internet no Brasil – Região Centro-Oeste



Qualidade da Internet no Brasil – Região Centro-Oeste

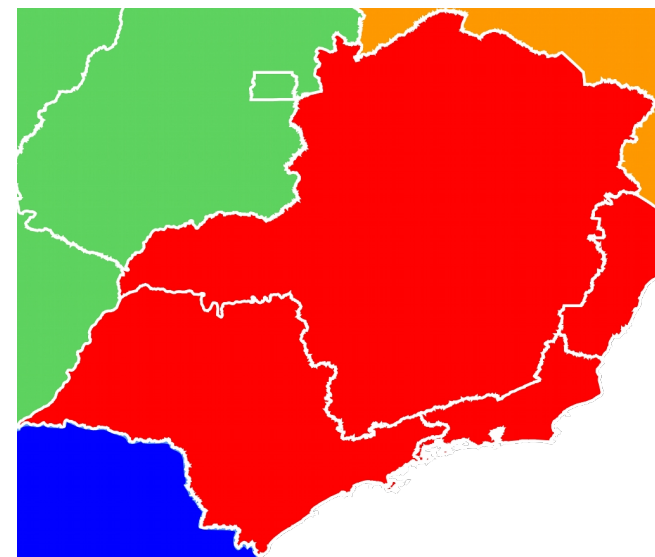
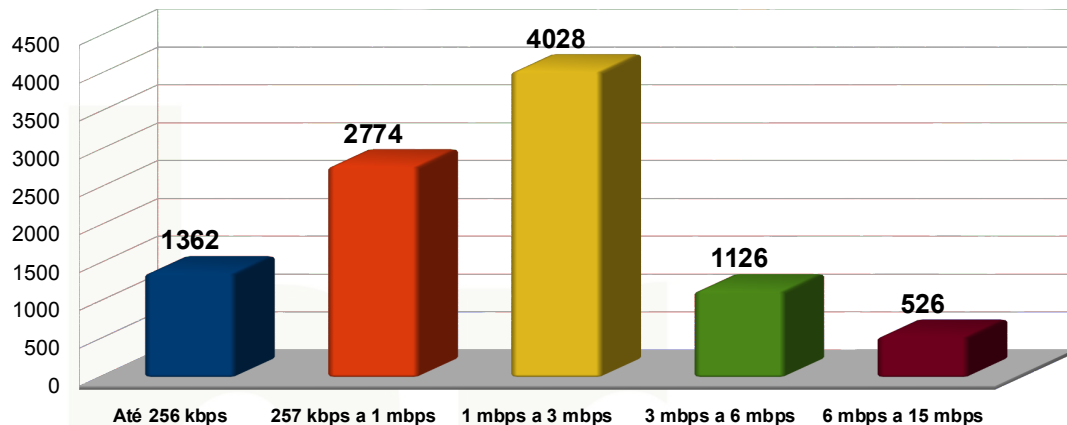


Qualidade da Internet no Brasil – Região Sudeste

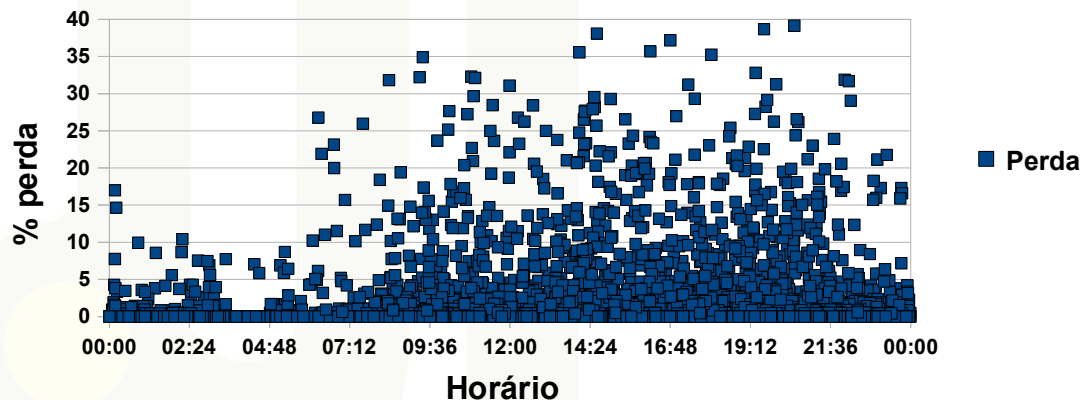


Qualidade da Internet no Brasil – Região Sudeste

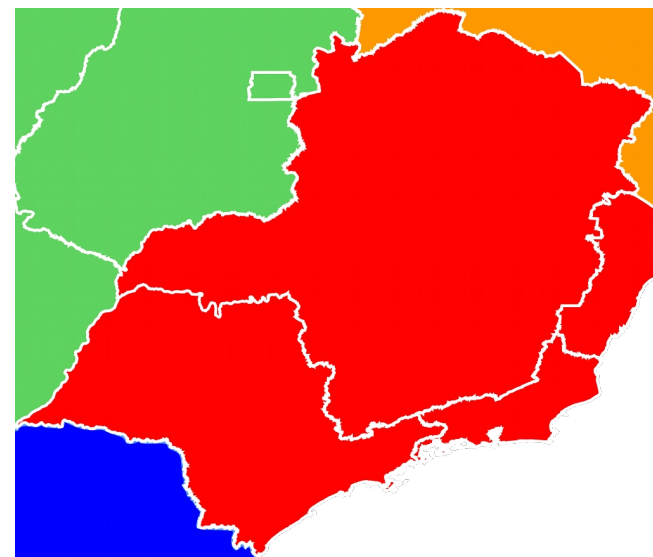
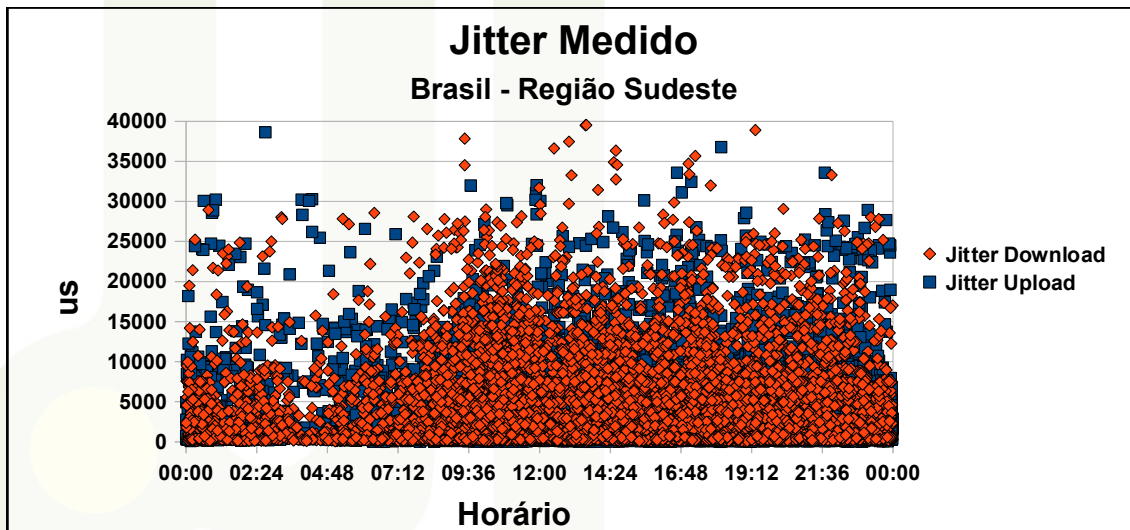
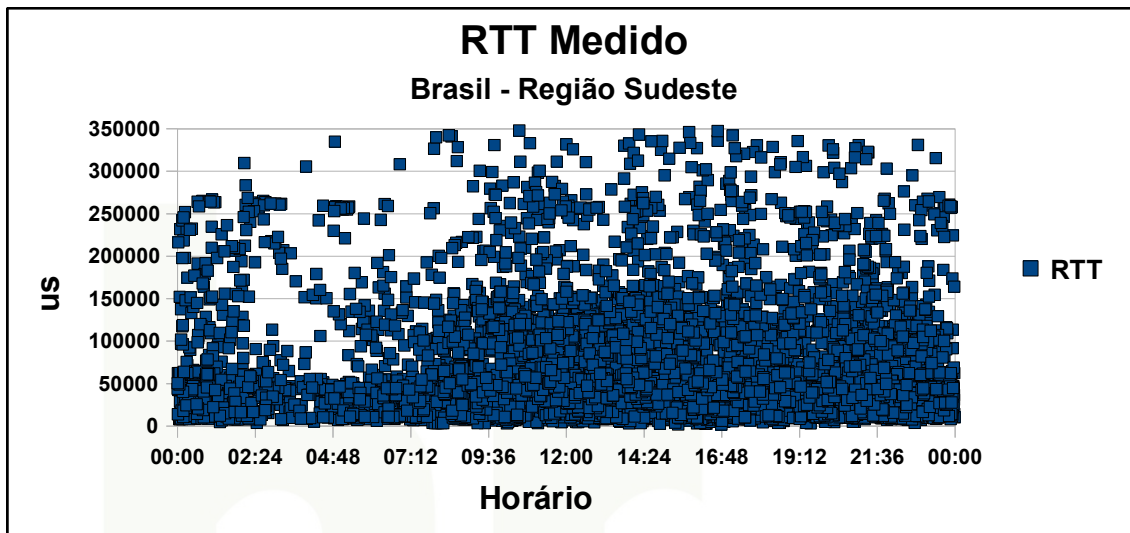
Porcentagem de Velocidades Constatadas
Brasil - Região Sudeste



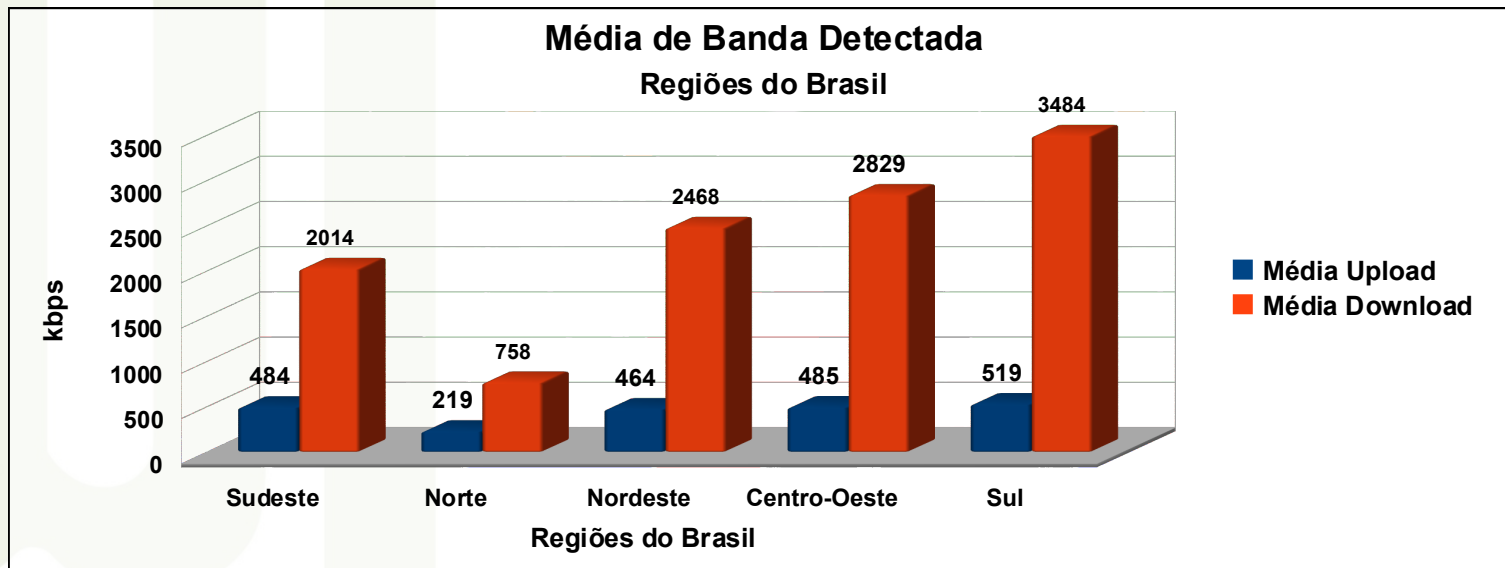
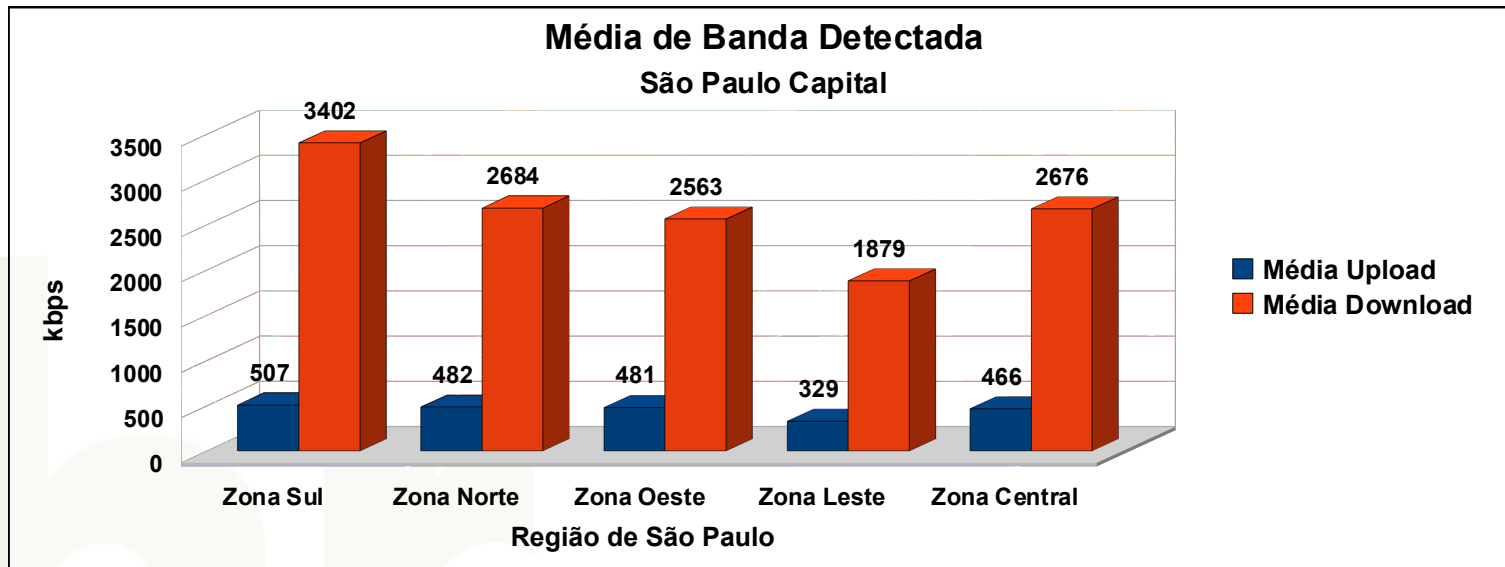
Perda de Pacotes
Brasil - Região Sudeste



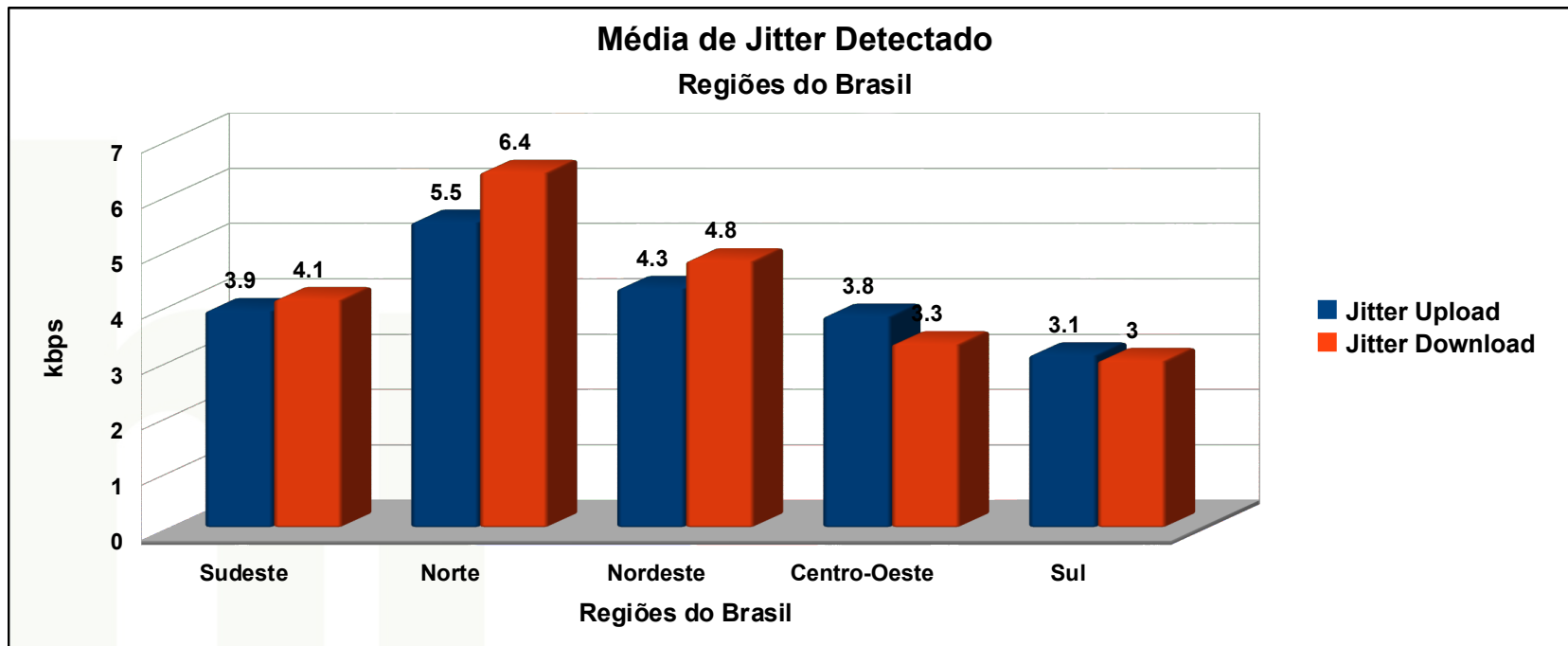
Qualidade da Internet no Brasil – Região Sudeste



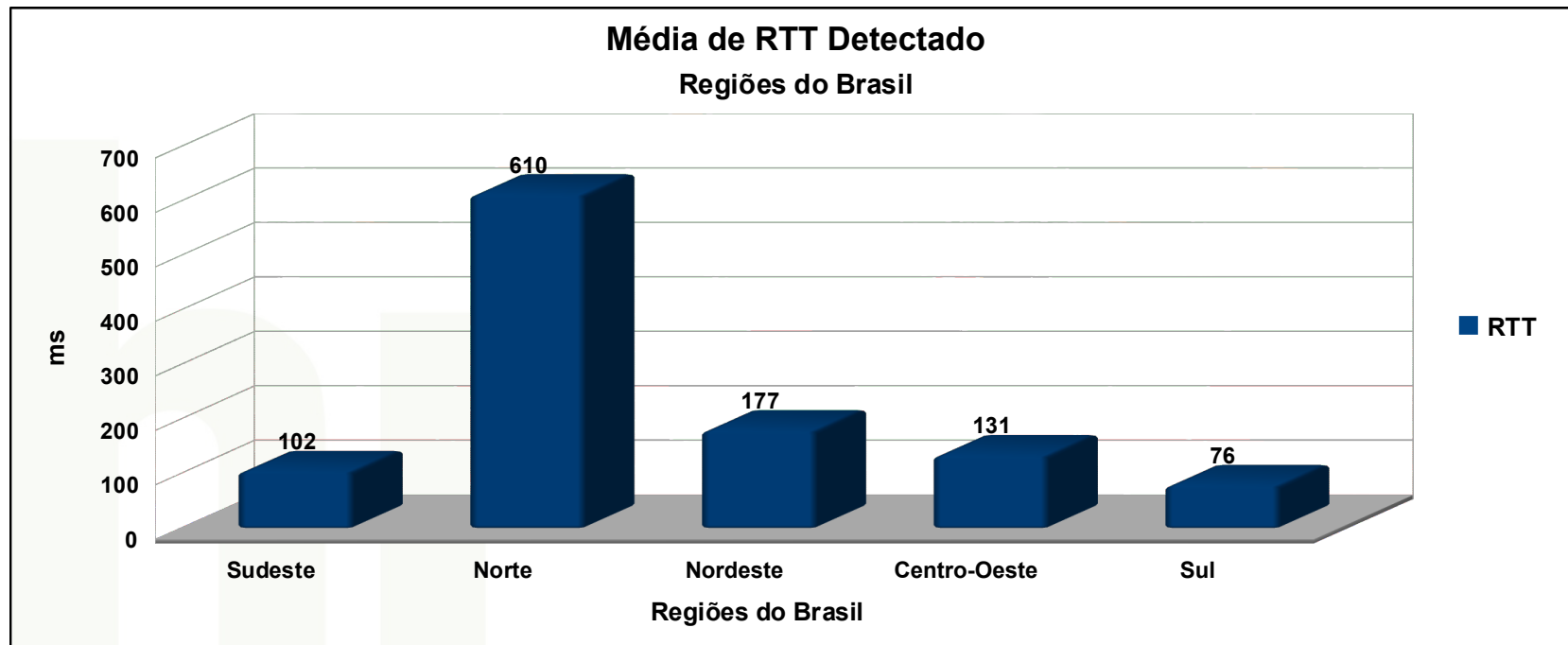
Banda Média Medida por Regiões (TCP)



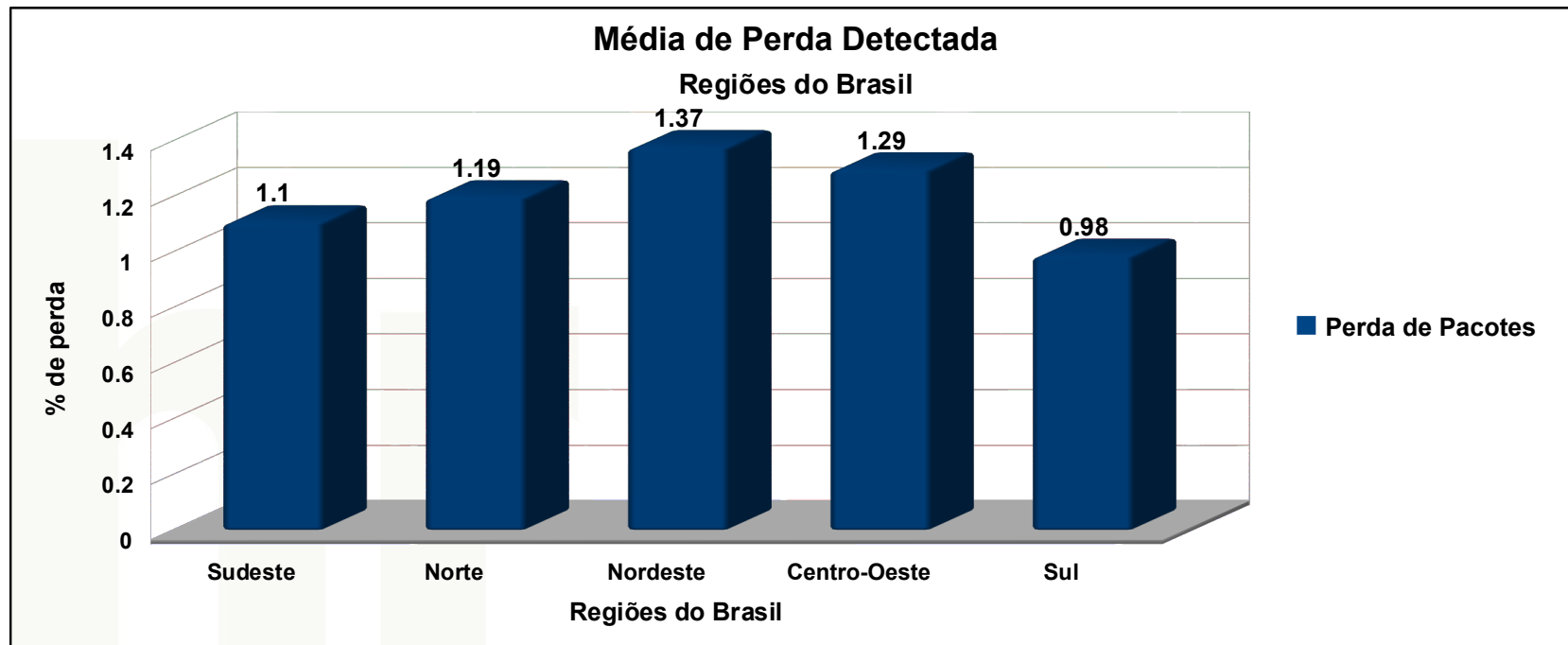
Jitter Médio Medido por Regiões do Brasil



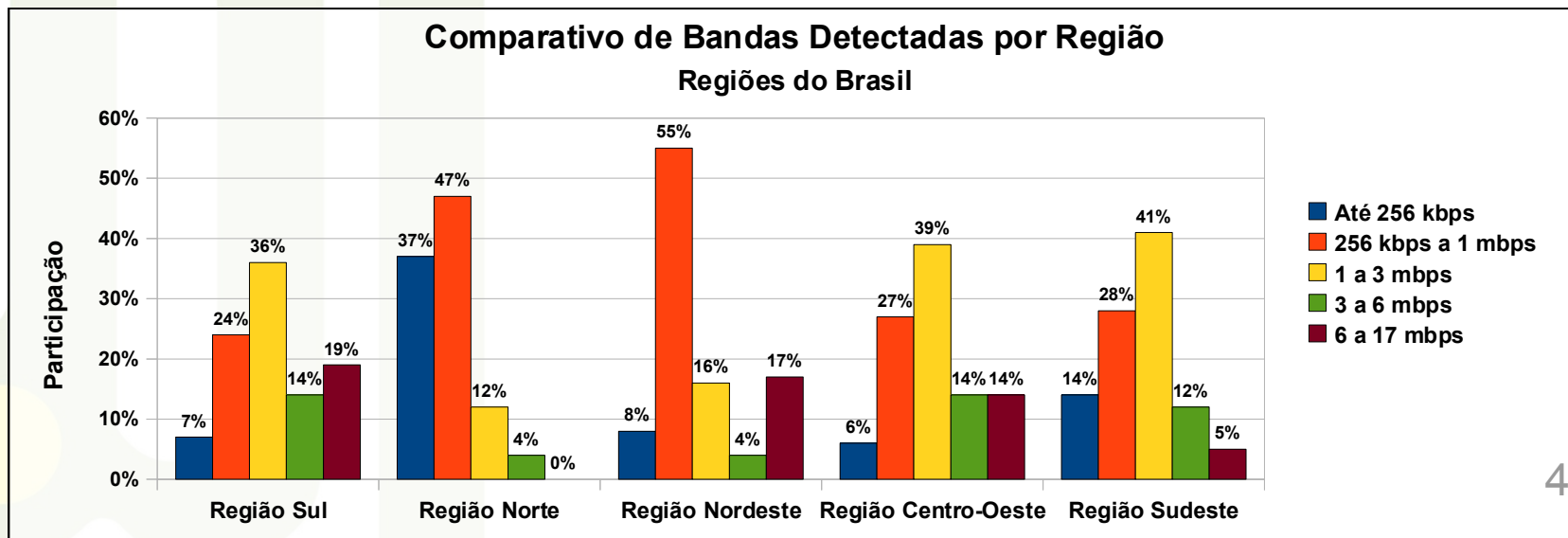
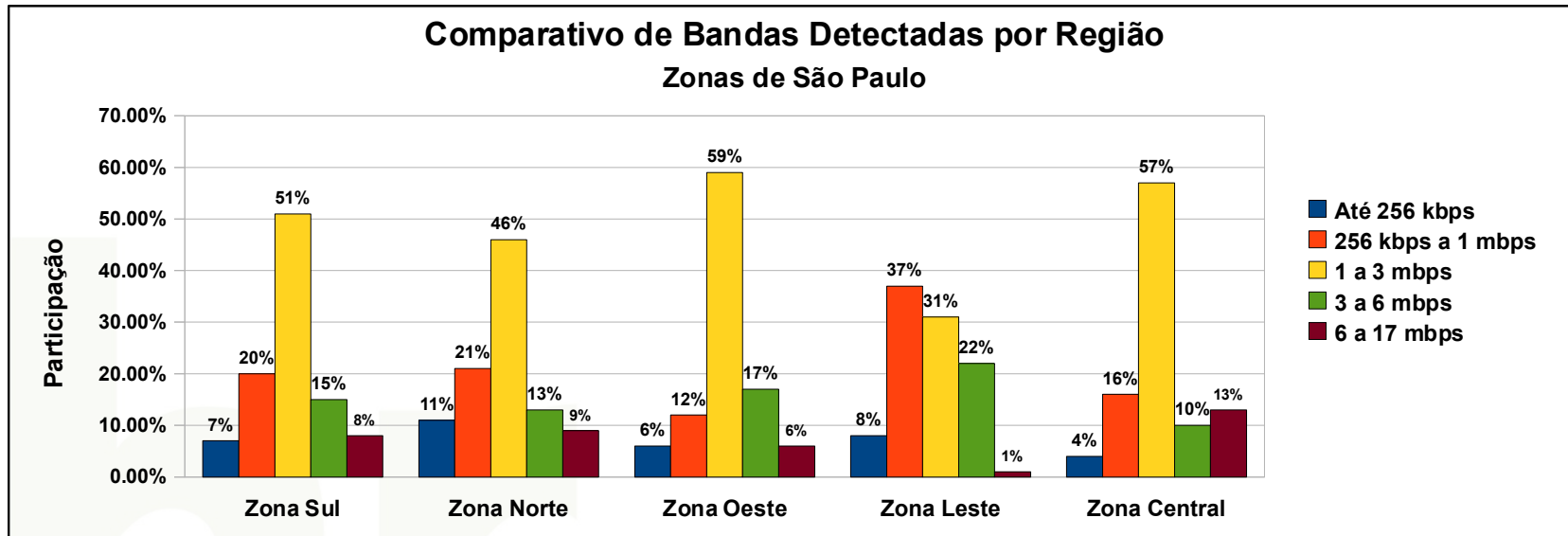
RTT Médio Medido por Regiões do Brasil



Perda Média Medida por Regiões do Brasil



Resumo da Faixas de Banda Detectadas por Região



Trabalhos Futuros

- Divulgação junto as operadoras dos resultados referentes as mesmas
- Criação de versão Mobile do SIMET
 - iPhone
 - J2ME
- Novos trabalhos apresentados para análise da evolução da qualidade da Internet no Brasil em diversas localidades
- Testes referentes a porta 25
- Testes de tempo de resposta DNS

Agradecimentos

- Equipe do CEPTRO.br
 - Em especial para Holger Wiehen
- Reinaldo Ferraz (design da Interface de testes)
- Equipe PTTMetro
 - Em especial para Eduardo Ascenço e Antônio Galvão

Perguntas ?

Projeto SIMET

<http://simet.nic.br>

Utilizem e Divulguem !! Podem colocar o link para o projeto nas suas páginas! Não há royalties :-)

Dúvidas, observações: simet@ceptro.br