

GT IPÊ Analytics

TIME

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SITE

<http://www.inf.ufrgs.br/ipeanalytics>
<http://demo.ipeanalytics.inf.ufrgs.br>

CONTATO

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DESCRIÇÃO

Resumo

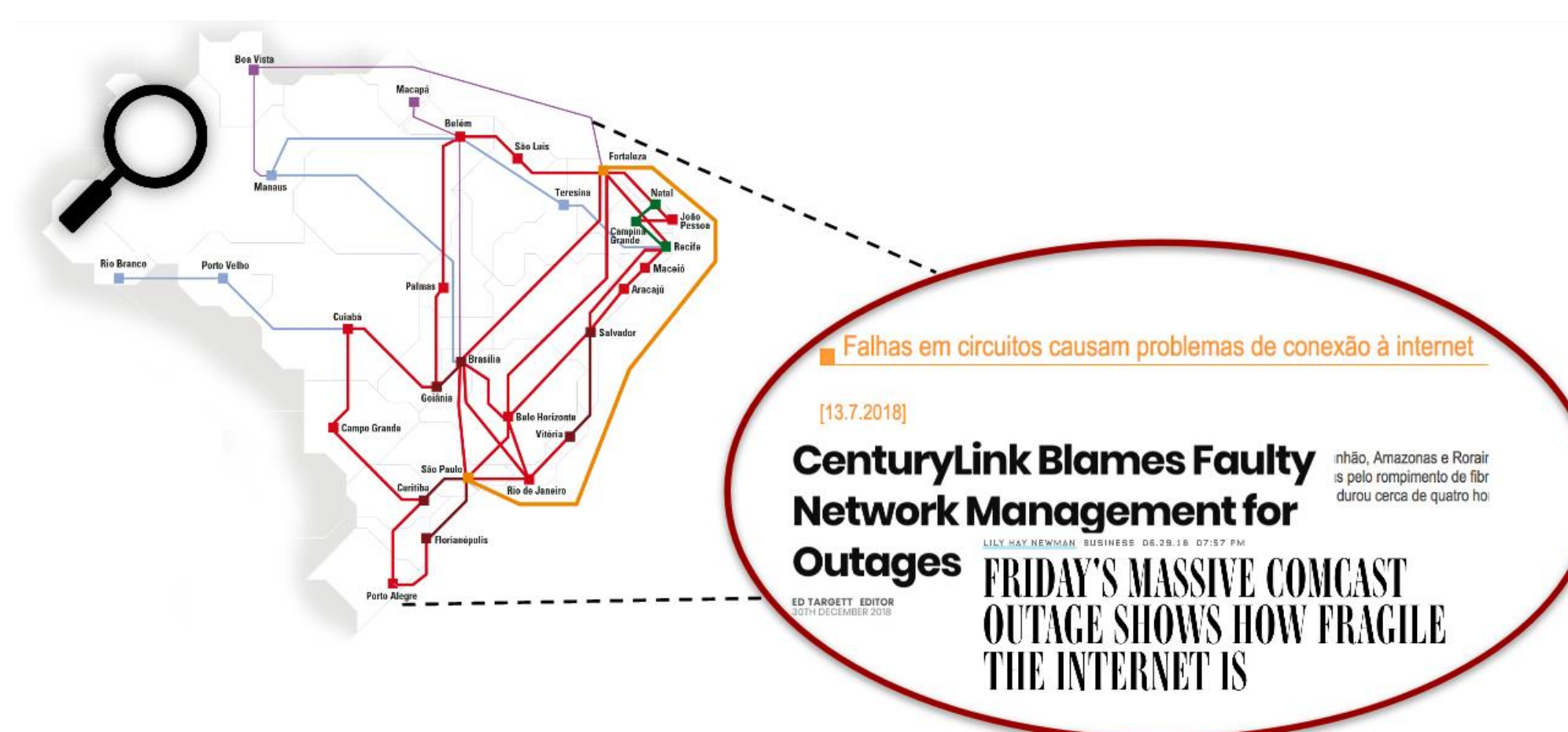
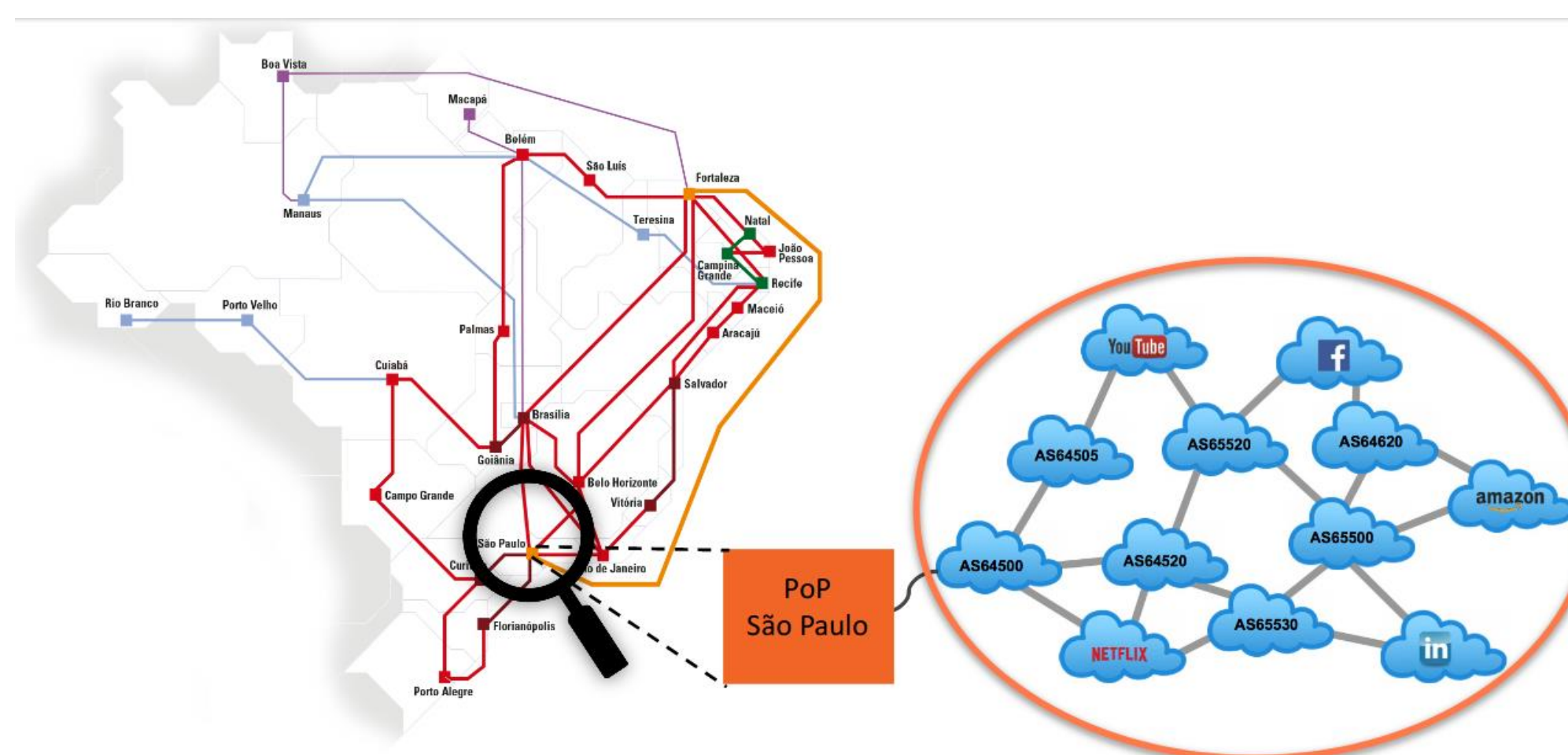
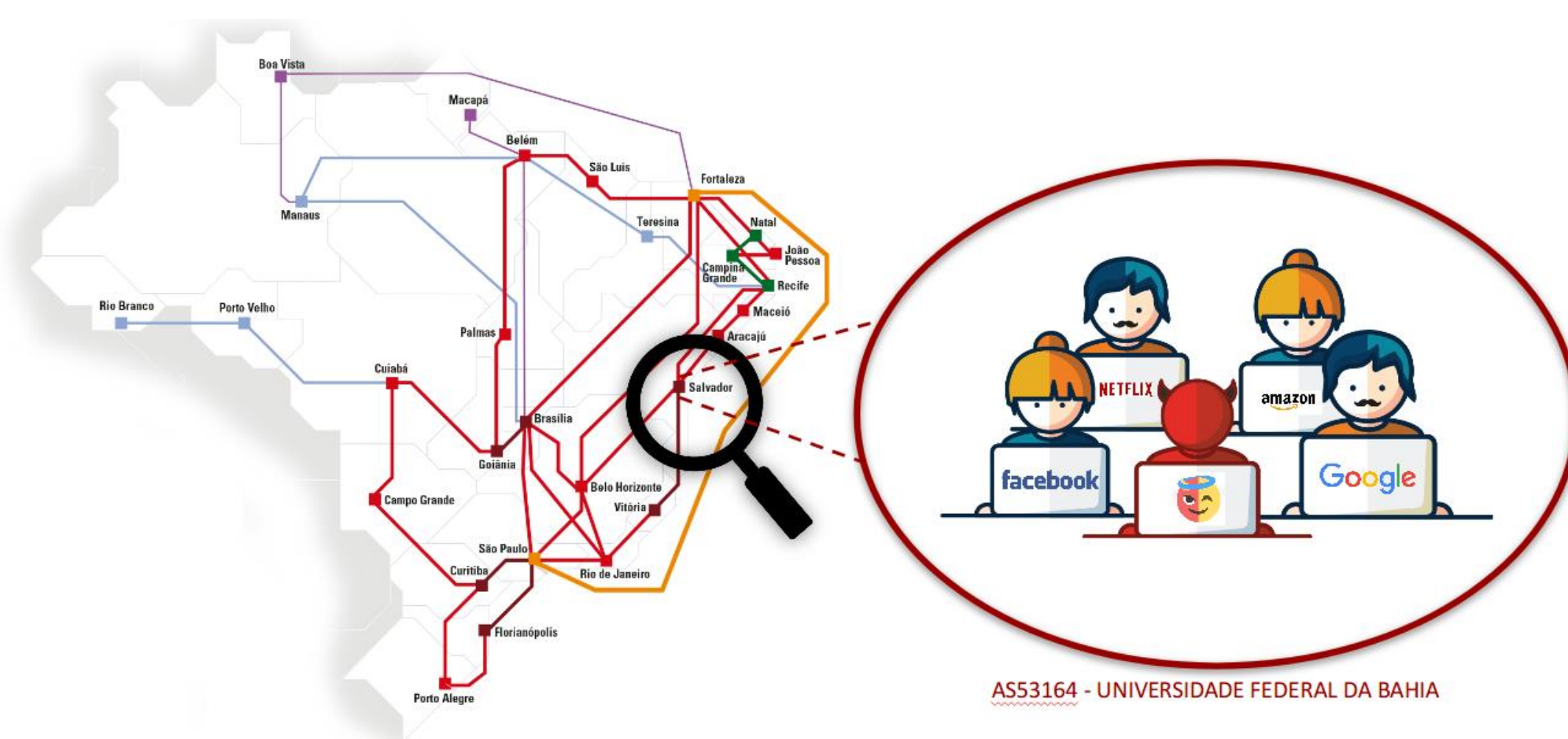
A crescente adoção de técnicas de monitoramento de rede culminou na ampla disponibilidade de dados brutos, coletados por ferramentas diversas.

Entretanto, a escala e complexidade de redes de longa distância, bem como a natureza distribuída da massa de dados, dificultam uma análise mais aprofundada e o estabelecimento de inferências sobre o comportamento da rede.

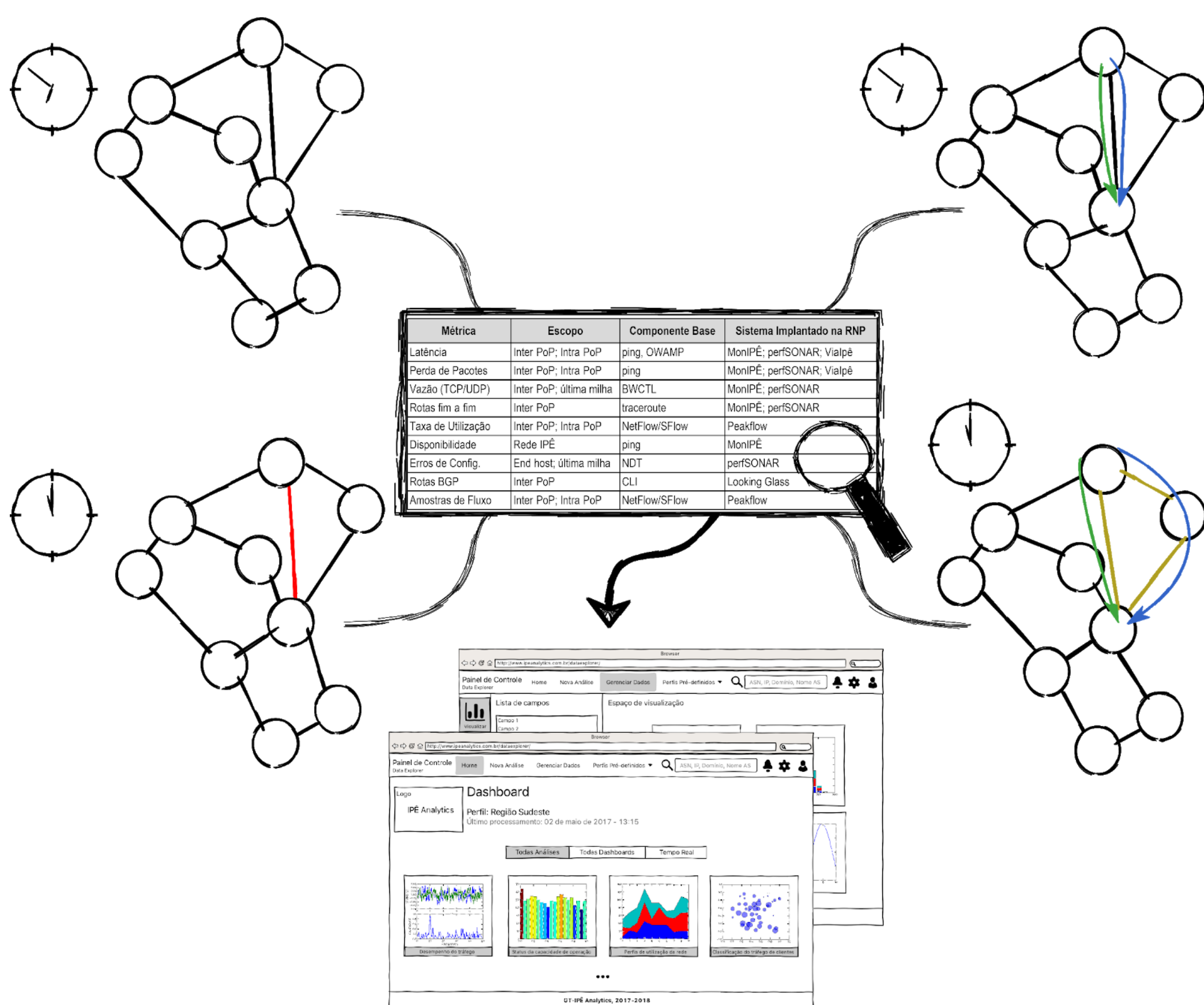
Este Grupo de Trabalho investiga métodos para analisar os dados medidos pelas ferramentas de monitoramento presentes na rede IPÊ. Para tanto, criamos um sistema que fornece inferências de mais alto nível para auxiliar no processo de operação, engenharia de tráfego e planejamento da rede.

Objetivos Gerais

- Fornecer uma ferramenta que auxilia a análise de rede para gerência, operação, engenharia de tráfego e planejamento da rede
- Obter dados já disponibilizados, coletados pelas ferramentas de monitoramento atualmente ativas na rede IPÊ (o *backbone* de rede da RNP)
- Categorizar e correlacionar dados de forma automatizada, para fornecer informações de alto nível sob demanda
- Oferecer filtragem e manipulação de dados de forma interativa e dinâmica, em tempo real
- Preservar a confidencialidade dos dados



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O que faz?

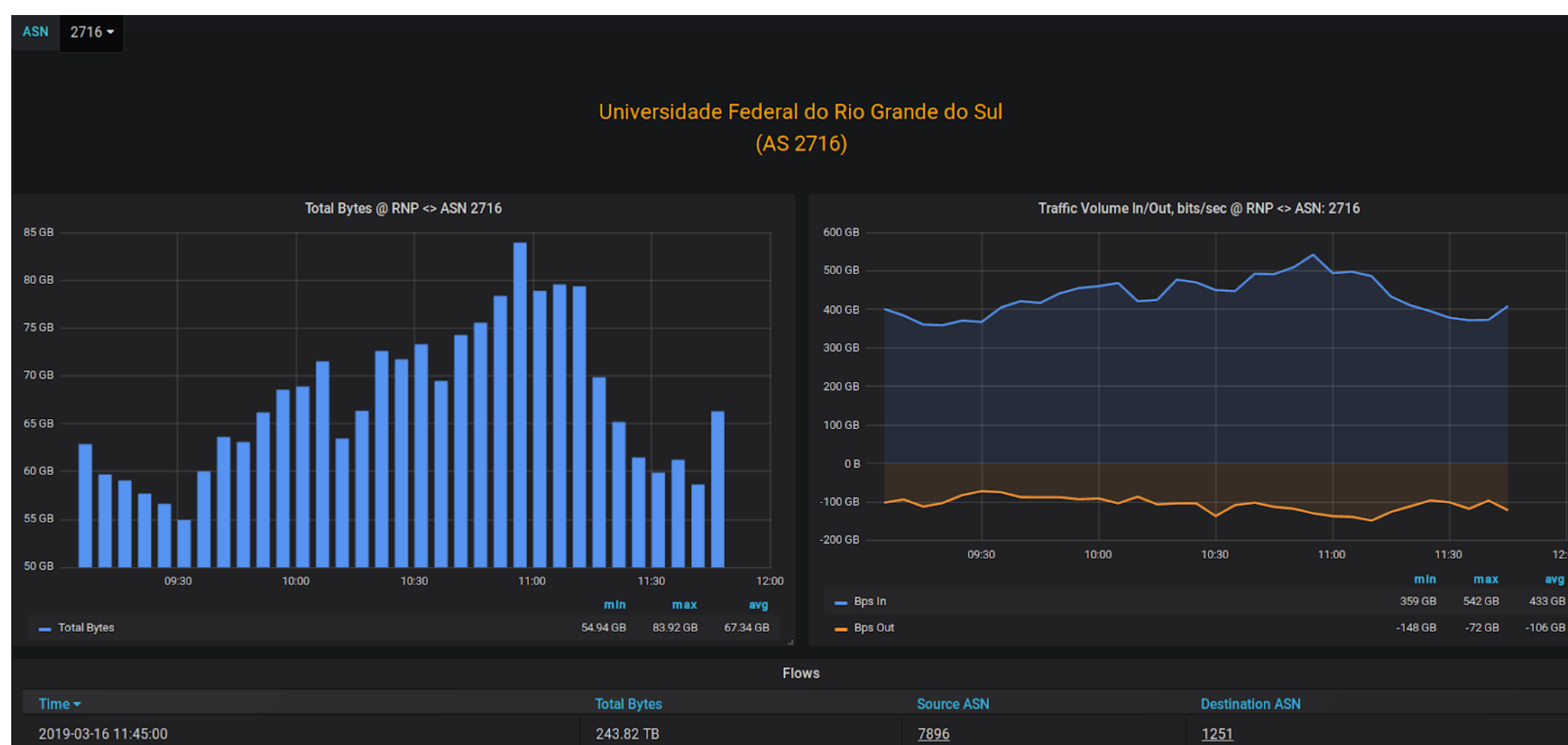
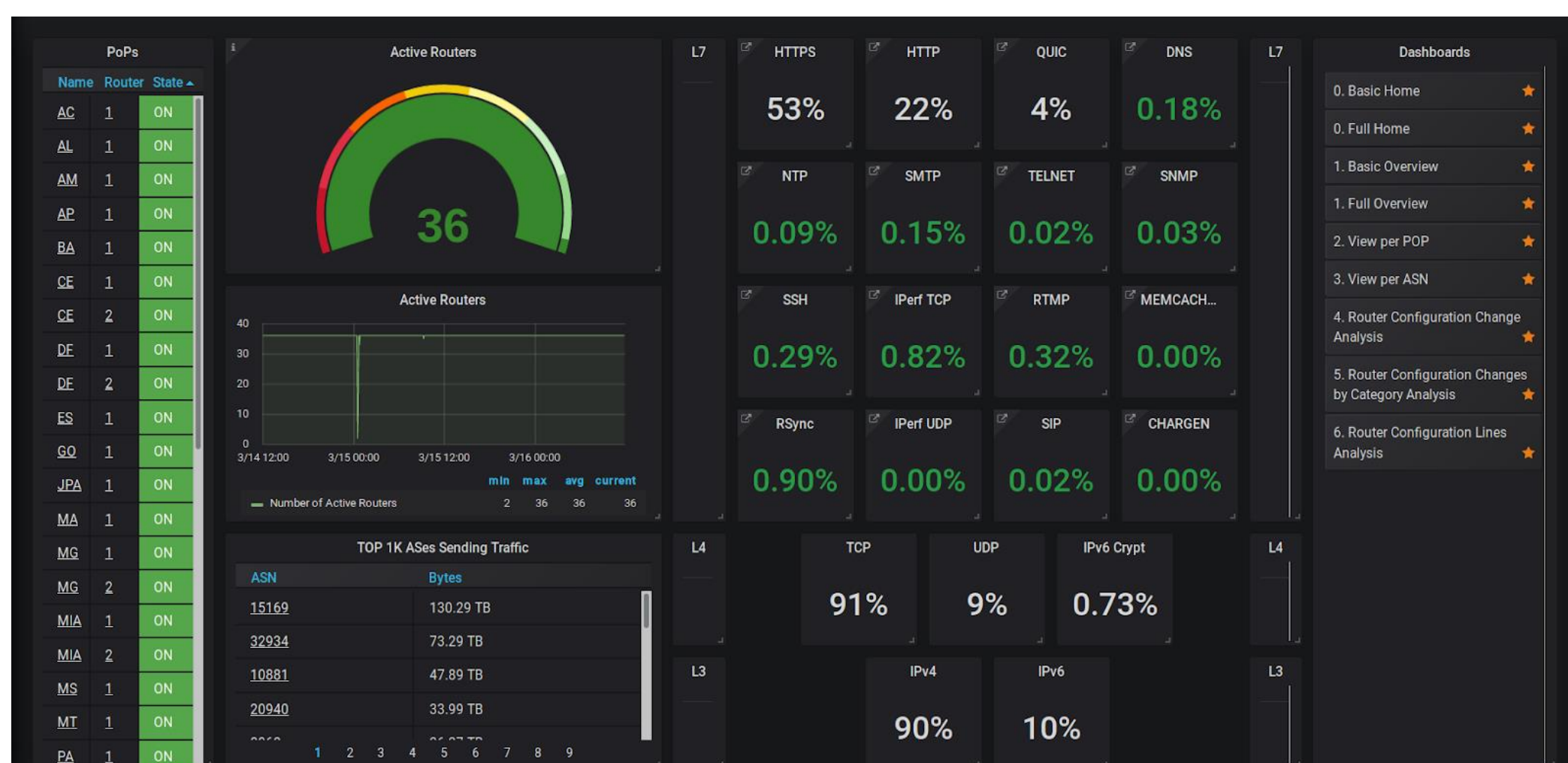
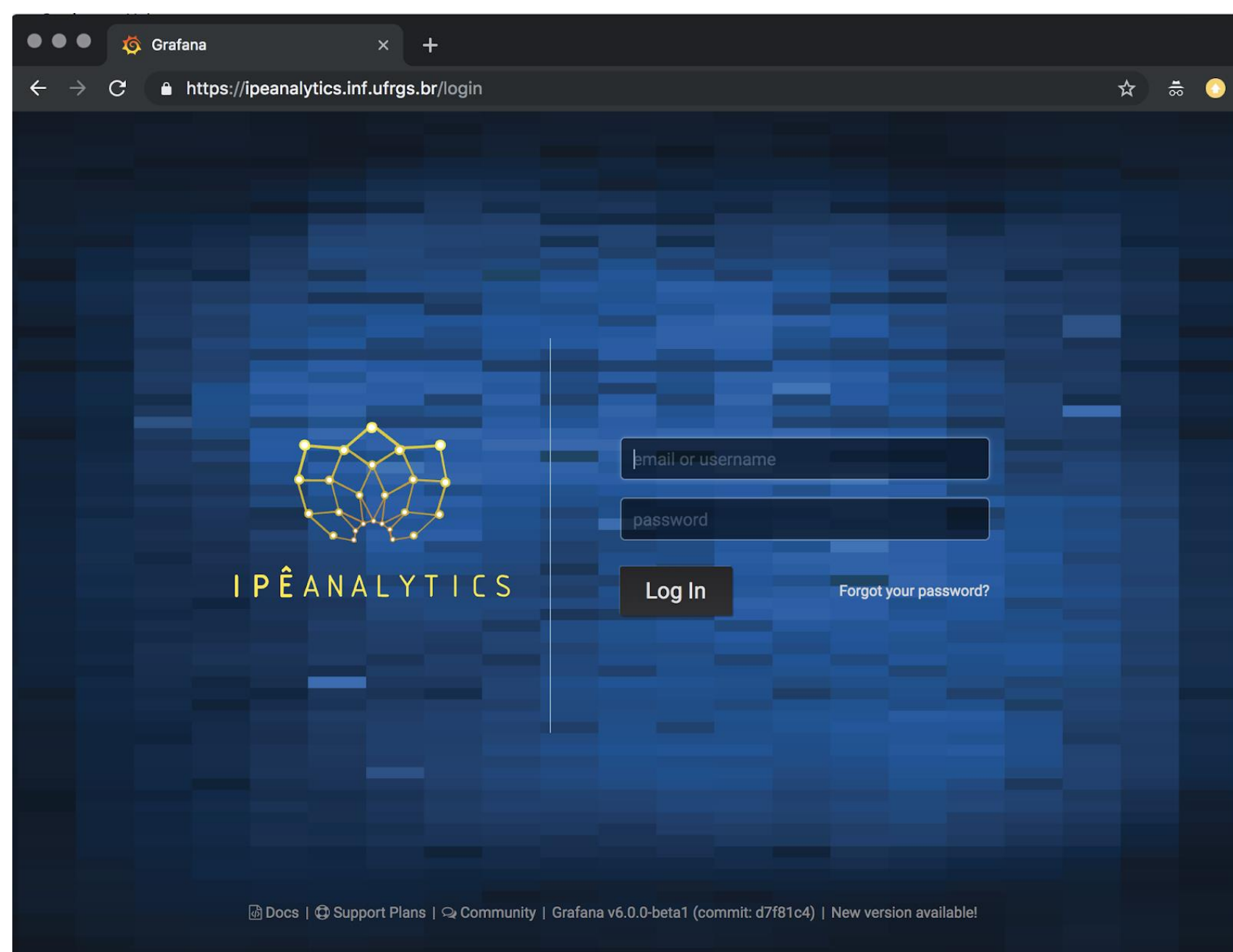
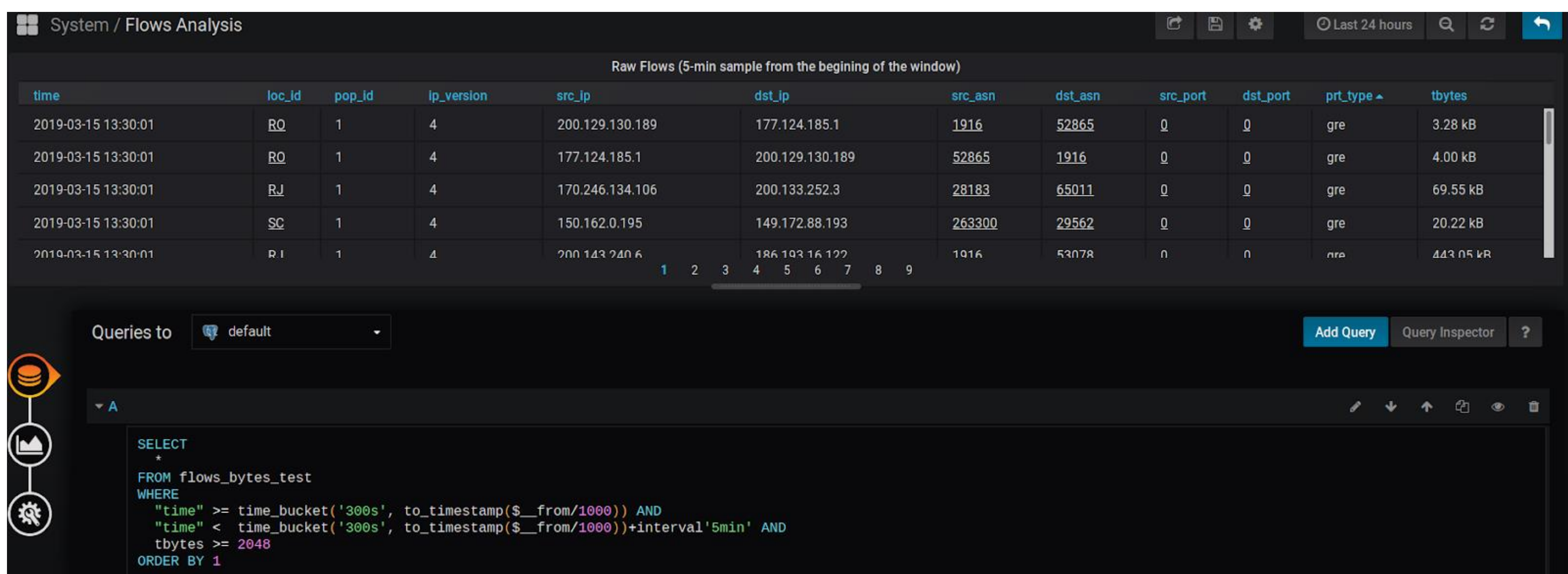
(v) auxilia na análise, investigação e tomada de decisões estratégicas

Poderia fazer algo mais?

() monitorar disponibilidade e consumo de recursos

O que NÃO faz?

(x) controle / automatização de infraestrutura
(x) medições



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usuário: guest
senha: guest



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TEAM

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DESCRIPTION

Abstract

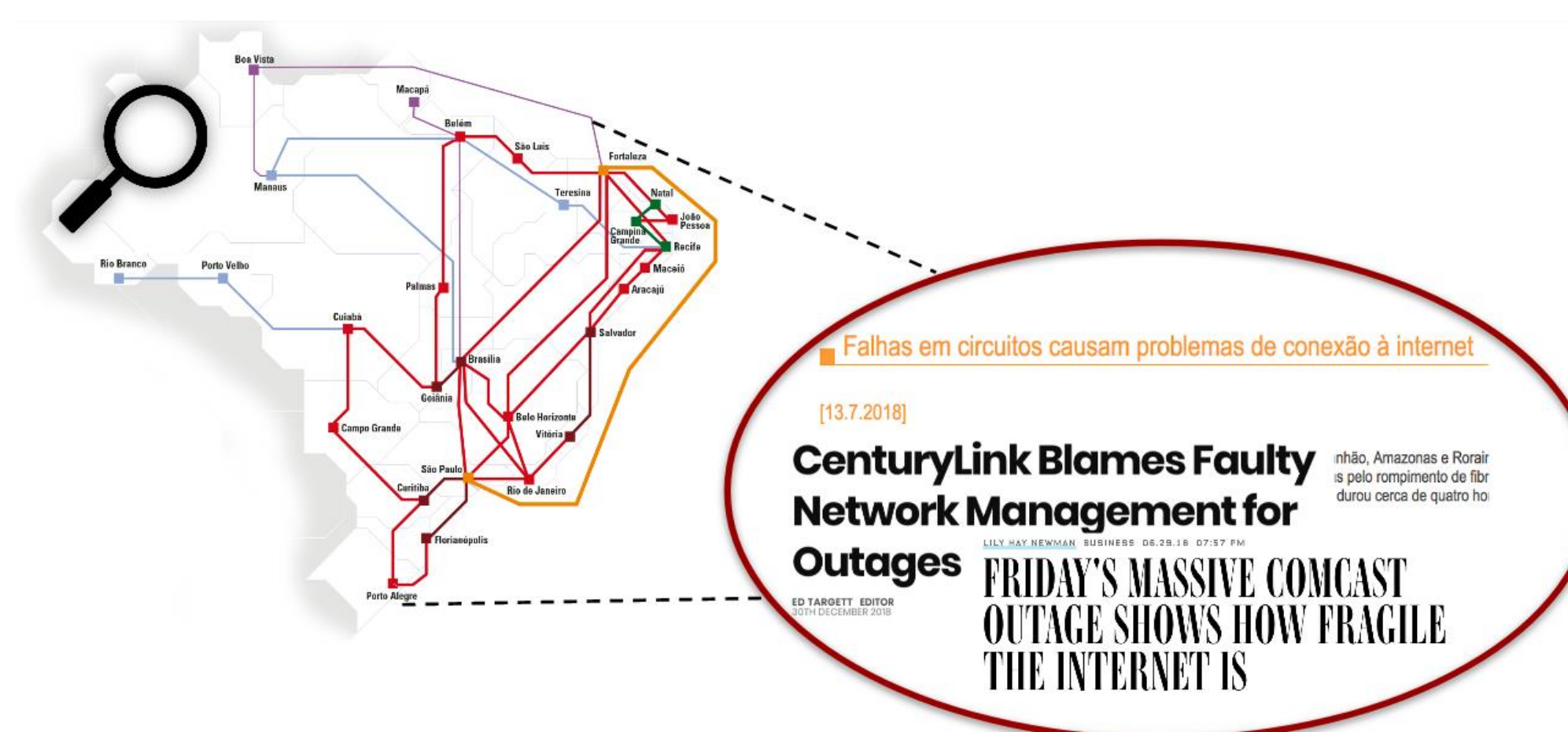
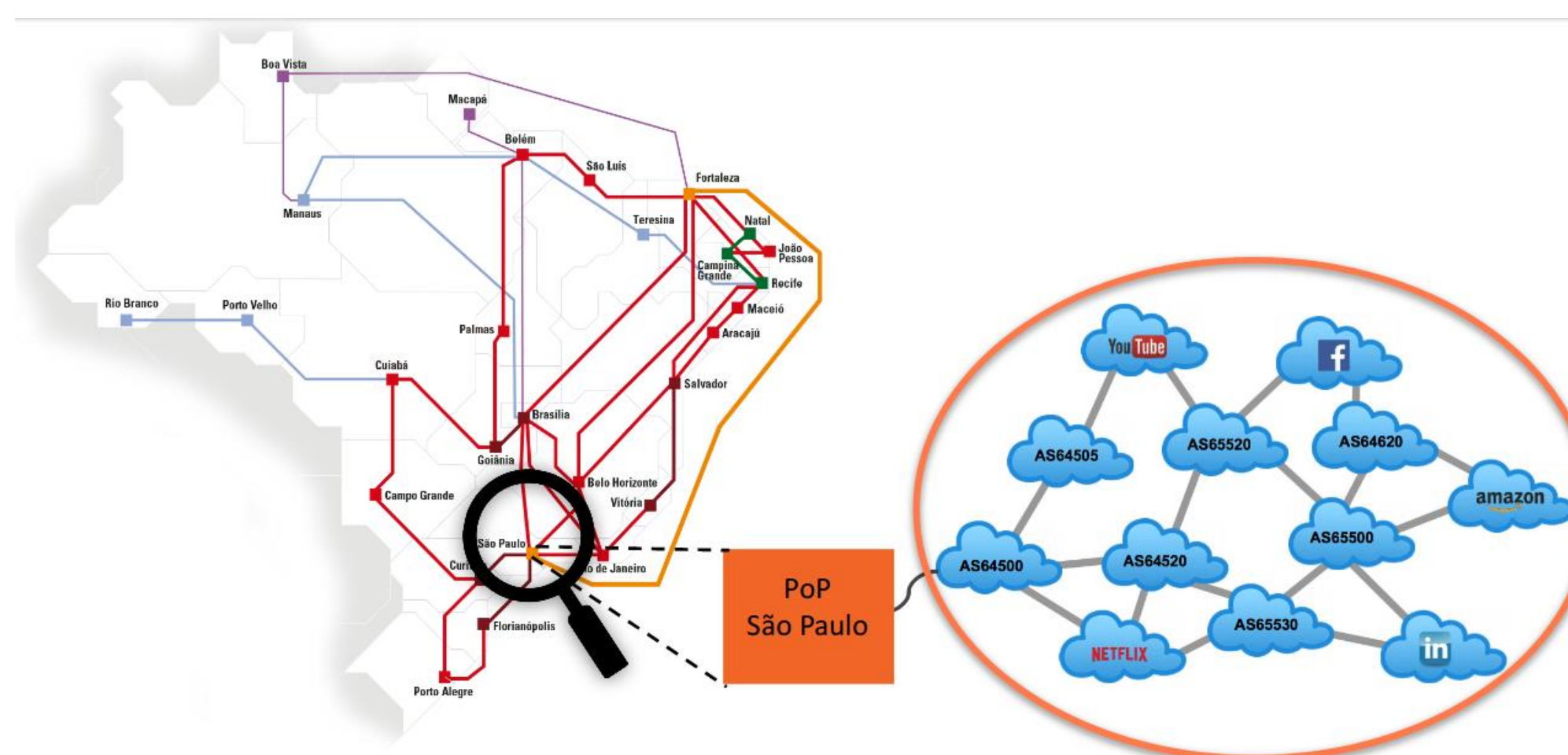
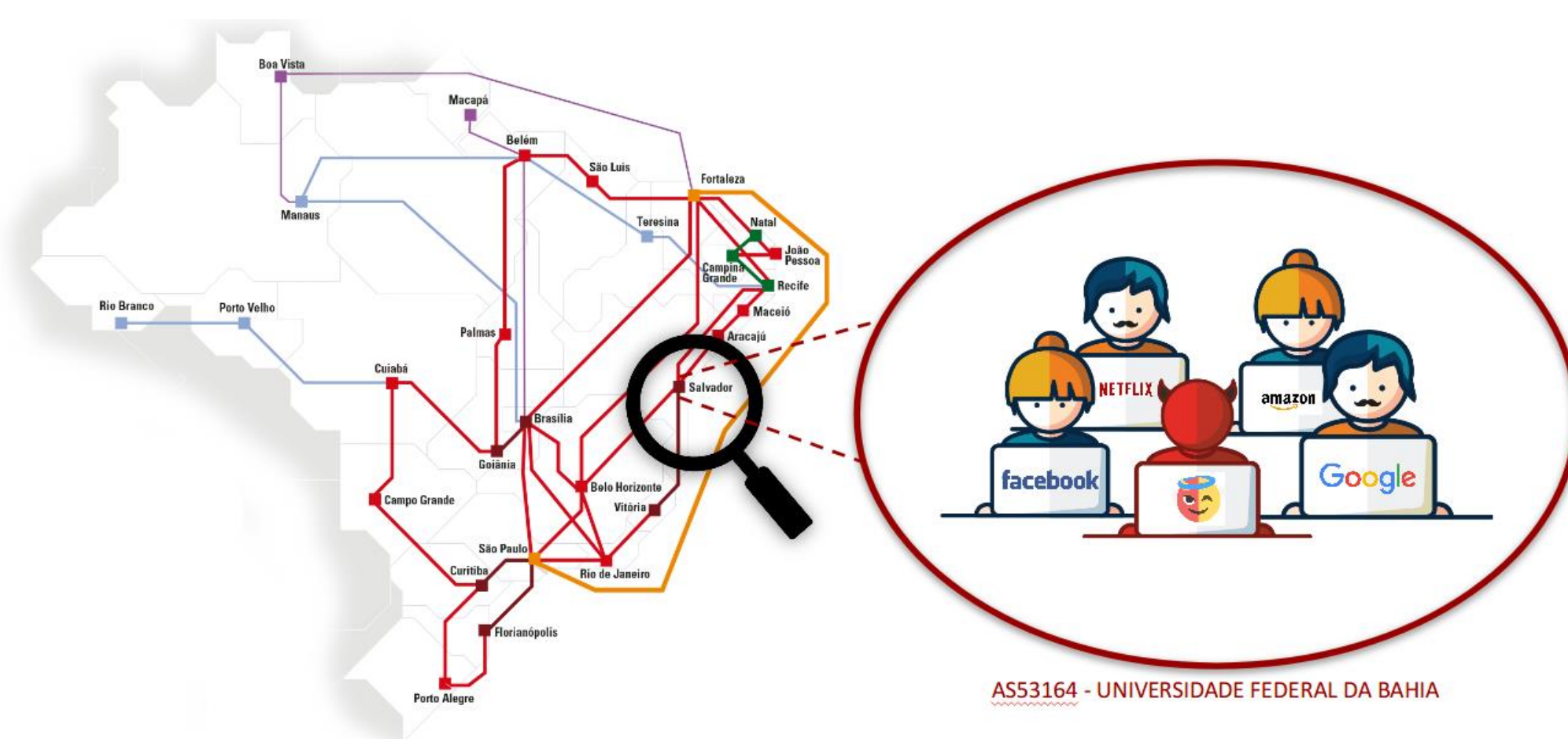
The adoption of network monitoring techniques has culminated in a broad availability of raw data.

However, giving the large-scale and complexity of long-distance networks and the massive volume of distributed data, minor progress has been achieved regarding the in-depth analysis of this collected data and inferences about the network behavior.

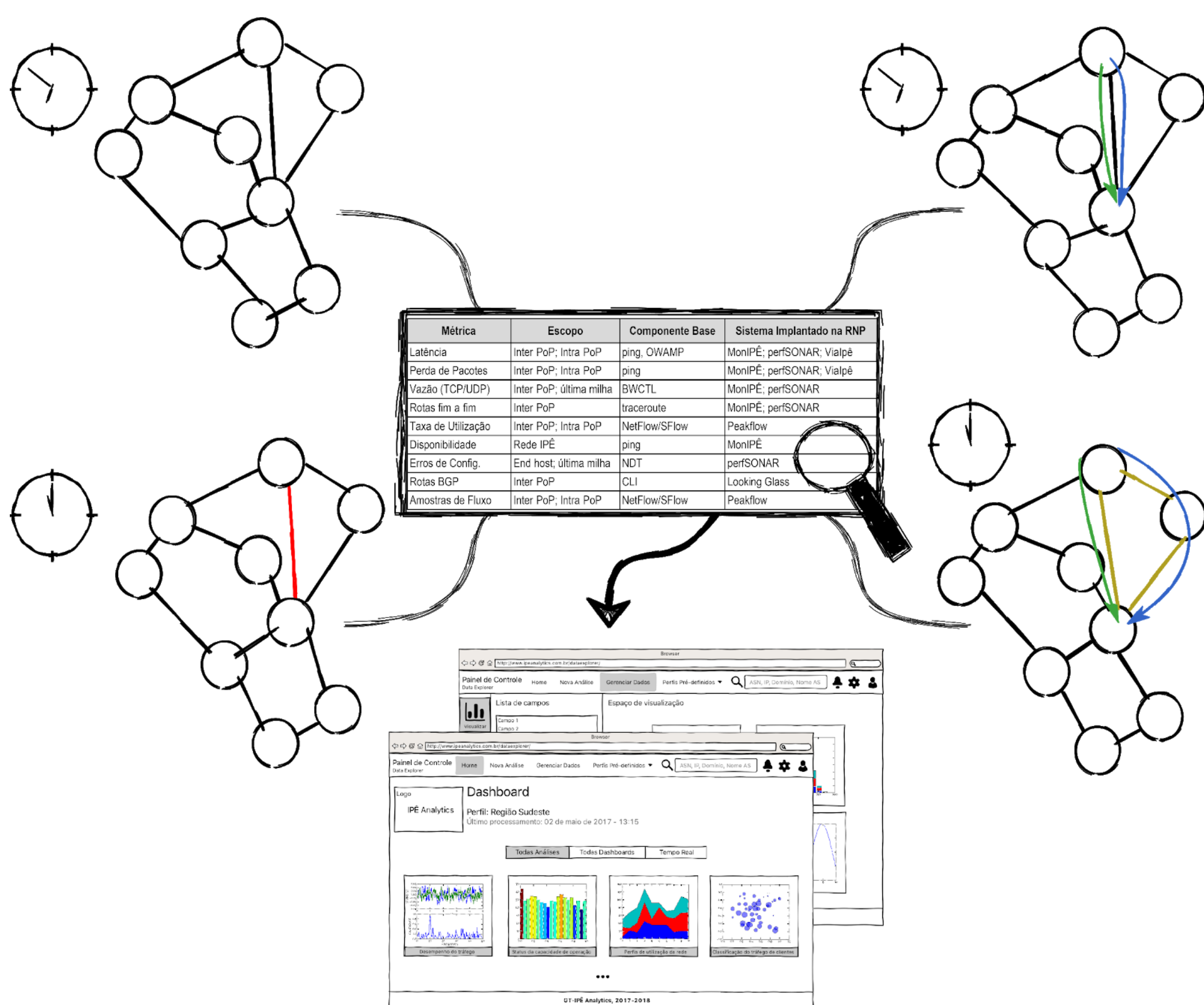
This Work Group investigates methods to analyze the data measured by the existing monitoring tools present in the IPÊ network. We created a system that provides inferences to aid the process of operation, traffic engineering and network planning.

Overall Goals

- Tool that aids network analytics for management, operations, traffic engineering and network planning
- Acquire data already available, collected by active network measurement tools in the IPÊ Network (RNP's backbone network)
- Automated categorization and correlation of several data, to offer higher-level information on demand
- Dynamic, interactive filtering and data manipulation, all in realtime
- Preservation of data confidentiality



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What does it do?
(v) assists in the analysis, investigation and strategic decision making

Could it do something else?
() monitor availability and resource consumption

What it does NOT do?
(x) infrastructure control / automatization
(x) measurement

System / Flows Analysis

Raw Flows (5-min sample from the beginning of the window)

time	loc_id	pop_id	ip_version	src_ip	dst_ip	src_asn	dst_asn	src_port	dst_port	prt_type	tbytes
2019-03-15 13:30:01	RQ	1	4	200.129.130.189	177.124.185.1	1916	52865	0	0	gre	3.28 kB
2019-03-15 13:30:01	RQ	1	4	177.124.185.1	200.129.130.189	52865	1916	0	0	gre	4.00 kB
2019-03-15 13:30:01	RJ	1	4	170.246.134.106	200.133.252.3	28183	65011	0	0	gre	69.55 kB
2019-03-15 13:30:01	SC	1	4	150.162.0.195	149.172.88.193	263300	29562	0	0	gre	20.22 kB
2019-03-15 13:30:01	PI	1	4	200.143.240.6	186.103.16.122	1916	53078	0	0	gre	443.05 kB

```

SELECT
FROM flows_bytes_test
WHERE
"time" >= time_bucket('300s', to_timestamp($_from/1000)) AND
"time" < time_bucket('300s', to_timestamp($_from/1000))+interval'5min' AND
tbytes >= 2048
ORDER BY 1
    
```

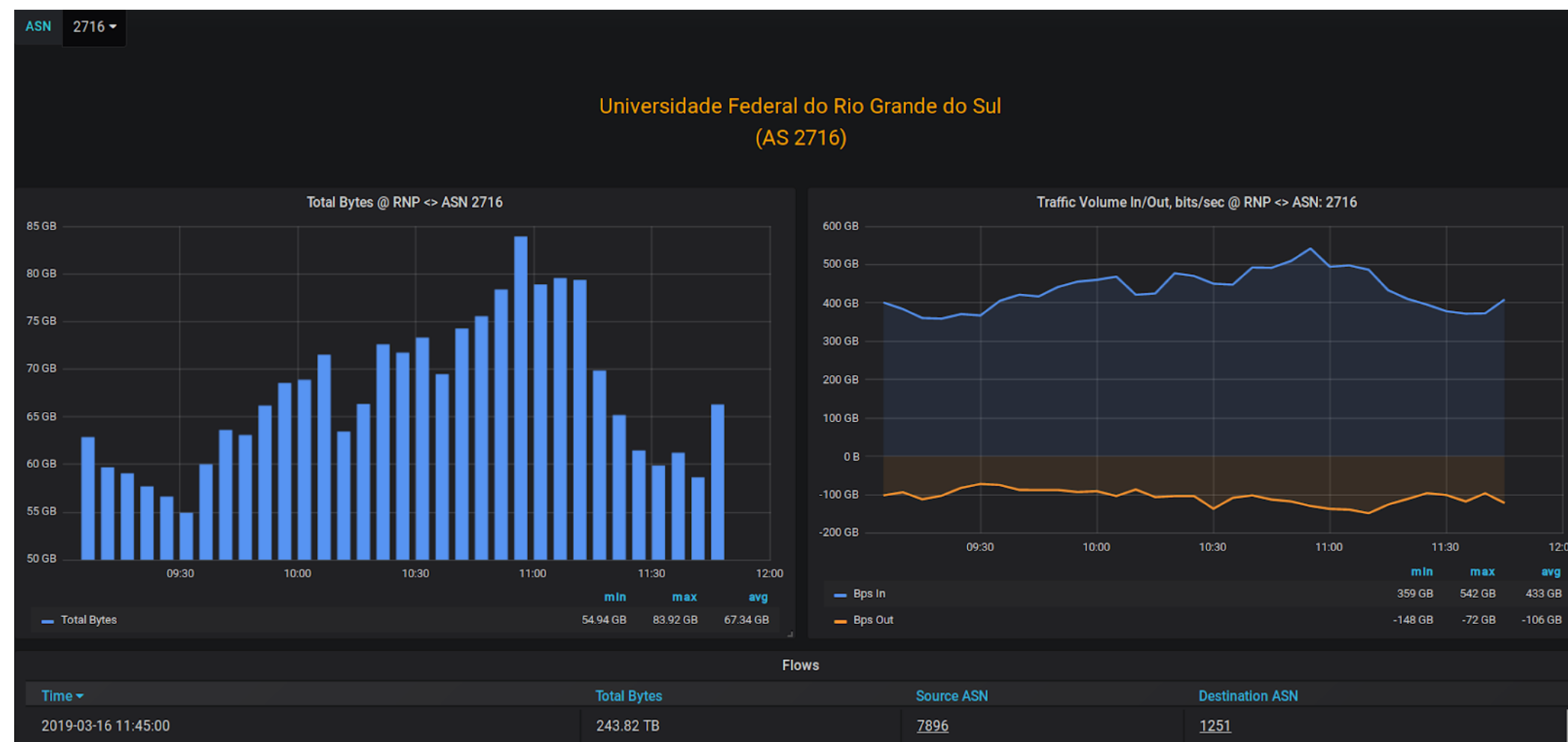
IPÊ ANALYTICS

Log In

Active Routers: 36

TOP 1K ASes Sending Traffic:

ASN	Bytes
15162	130.29 TB
32934	73.29 TB
10881	47.89 TB
20940	33.99 TB



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