

Monitorando e Otimizando sua Infraestrutura com New Relic

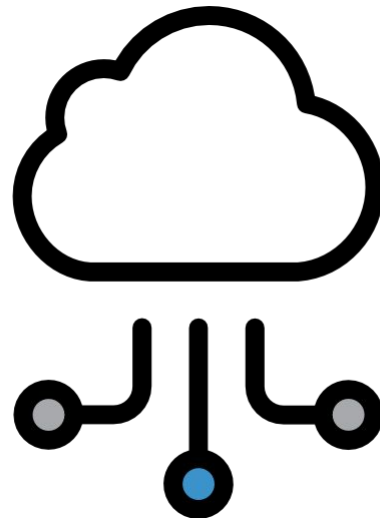
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1. Introdução
2. O que é New Relic?
3. Principais Funcionalidades
4. Configuração Prática em Ambientes AWS
5. Desafios e Soluções na Implementação
6. Demonstração de Resultados
7. Perguntas e Respostas



Introdução



Conceito

01

Importância

02

Conceito



- Definição Geral
- Relação com Monitoramento
- Componentes da Observabilidade

Importância



- Ferramenta de Observabilidade Completa
- Melhoria da Performance e Disponibilidade
- Prevenção de Problemas
- Redução do Tempo de Resolução

O que é New Relic?

1

Definição

Uma plataforma de monitoramento baseada em nuvem

2

Histórico

Fundada em 2008, evoluiu de uma ferramenta focada em APM



Principais Funcionalidades

01



**Monitoramento de
Aplicações e Integração**

02



**Análise de
Performance**

03



Alertas e Notificações

Configuração Prática em Ambientes AWS



Configuração do Ambiente - Etapa 1

ACFv2BR-LTI13-88968 > Módulos > Sandbox > Sandbox Environment

Página inicial

Módulos

Fóruns

Notas

Lucid (Whiteboard)

Details ▾

AWS

Start Lab ↗

End Lab

3:00

Actions ▾

Start Lab

Region: us-east-1
Lab ID: arn:aws:cloudformation:us-east-1:298486755101:stack/c128441a325382417616471t1w298486755101/d4fb5470-7527-11ef-81fd-12d4355beb3b
Creation Time: 2024-09-17T12:05:41-0700

Start session at: 2024-09-17 12:05:42
Remaining session time: 03:00:00(180 minutes)

Lab status: in creation

Estado da instância = running		Limpar filtros							
	Name	ID da instância	Estado da inst...	Tipo de inst...	Verificação de stat	Status do alarm	Zona de dispon...	DNS IPv4	
<input type="checkbox"/>	Bastion Host	i-03b117643c120da9d	Executando	t2.micro	2/2 verificações a	Exibir alarmes +	us-east-1a	ec2-44-21	
<input checked="" type="checkbox"/>	WEB Nuvem	i-01885792375706ea9	Executando	t2.medium	Inicializando	Exibir alarmes +	us-east-1b	ec2-54-22	

Instalação e configuração do New Relic no ambiente - Etapa 2

[illegible]

Verificação de sucesso da instalação e primeira visualização dos dados - Etapa 3

```
aws  Serviços  Q  Pesquisar
Would you like to be notified on your regi...
Notification channel not found for email add...
done
Subscribing alert policy to notification char...
done
✓ Installing Golden Signal Alerts
  Installed

New Relic installation complete

-----
Installation Summary

✓ Golden Signal Alerts  (installed)
✓ Infrastructure Agent  (installed)
✓ Logs Integration      (installed)

View your data at the link below:
- https://onenr.io/0dQeJKoADwe

View your logs at the link below:
- https://onenr.io/0Bj33pX6JjX

-----

ubuntu@ip-172-31-88-36:~$
```

```
New Relic installation complete

-----
Installation Summary

✓ Golden Signal Alerts  (installed)
✓ Infrastructure Agent  (installed)
✓ Logs Integration      (installed)
```

[Data source](#)

Linux

With one command, you'll get infrastructure and log data flowing in so you can start observing your system. We'll also discover and recommend integrations for greater visibility into your stack.

- ✓ Enter your credentials
- ✓ Install agent
- Test the connection

Test the connection

We'll test your connection once the installation has completed.

Agent	Status	Details
Logs Integration	Installed	Agent installed successfully.
Infrastructure Agent	Installed	Agent installed successfully.
Golden Signal Alerts	Installed	Agent installed successfully.
Integrate your AW...	Detected	We found an uninstrumented data source. Install Integrate your AWS account

[Continue](#)

Por dentro do New Relic

The screenshot displays the New Relic monitoring interface for a specific host. The left sidebar contains navigation options such as 'Quick Find', 'Integrations & Agents', 'All Capabilities', and 'All Entities'. The main content area is divided into several sections:

- Hosts:** Shows the selected host 'ip-172-31-88-36' with a 'Good' status and tabs for 'Infrastructure', 'Tags', 'Metadata', and 'Workloads'.
- Summary:** A 'MONITOR' section with links to 'Logs', 'Metrics', 'Network', 'Process', 'Storage', and 'System'.
- Triage:** A 'DIAGNOSE' section with links to 'Events explorer' and 'Metrics explorer'.
- More Views:** Options to 'Add app', 'Change tracking', and 'Cloud flow logs'.
- CPU usage (%):** A line chart showing CPU usage over time. The current value is 4.82%.
- Memory usage (%):** A line chart showing memory usage over time.
- Activity stream:** A section indicating 'No activity in this time range' with a message to adjust filters.
- Latest events:** A list of recent events, including 'Service started: systemd-timedated', 'Agent connected', 'Fluent Bit Started', 'Fluent Bit Stopped', and 'Entity modified: infrastructure/log'.
- Related entities:** A section with a message: 'Is this supposed to work alone? Most things don't operate in isolation. Add'.

Tela de Registros

The screenshot displays the New Relic Logs interface for the host **ip-172-31-88-36**. The left sidebar contains navigation links such as **All Entities**, **Dashboards**, **Query Your Data**, **APM & Services**, **Logs**, **Traces**, **Synthetic Monitoring**, **Alerts**, **Infrastructure**, **Kubernetes**, **Browser**, **Mobile**, **Help**, **Add User**, **Upgrade Now**, and **Matheus Moreira**. The main panel shows the **Logs** section for the selected host, with a **Summary** tab active. The log volume chart shows a peak in errors between 6:53pm and 6:54pm. The log table below displays entries with columns for **level**, **timestamp**, and **message**. A red box highlights an error message: **Errors 0 from 6:53pm to 6:54pm**.

Hosts
ip-172-31-88-36

Infrastructure **Good**

MONITOR
Logs
Metrics
Network
Process
Storage
System

TRIAGE
Diagnose

DATA
Events explorer
Metrics explorer

MORE VIEWS
Add app
Change tracking
Cloud flow logs

Partition (1) **Query logs in the selected entity** **Query logs** **NRQL**

190 Logs

150
100
50
0

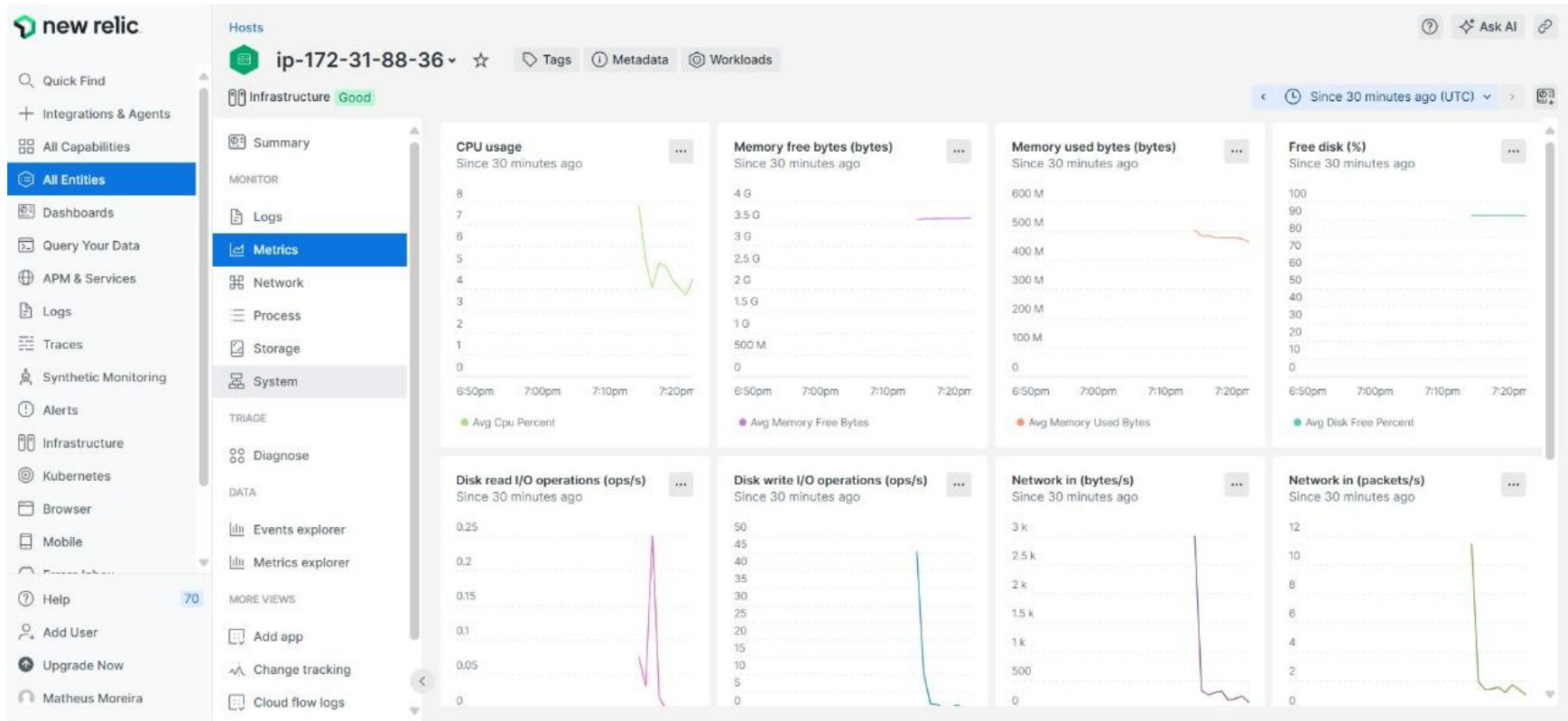
6:53pm - 6:54pm 7:00pm 7:05pm 7:10pm 7:15pm 7:20pm

Errors Warnings Debug Info No Status

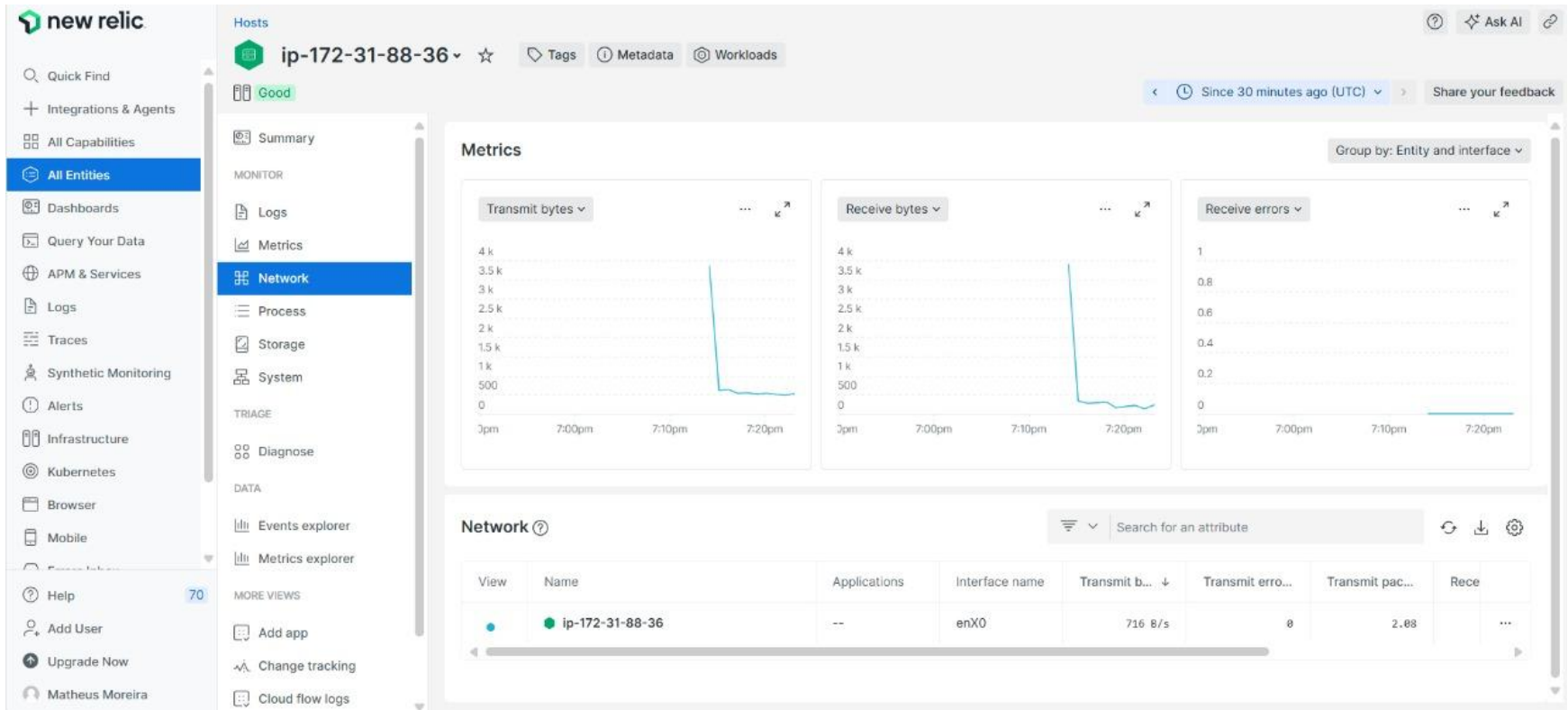
Expand logs Expand table Add column Add to dashboard Export Manage parsing rules Open in logs

level	timestamp	message
	19:18:34.297	2024-09-17T19:18:34.297820+00:00 ip-172-31-88-36 systemd[1405]: launchpadlib-cache-clean.service - Clean up old files in the Launchpadlib cache was skipped because of an unmet condition check (ConditionPathExists=/home/ubuntu/.launchpadlib/api.launchpad.net/cache).
	19:19:42.924	2024-09-17T19:19:42.924602+00:00 ip-172-31-88-36 PackageKit: daemon quit
	19:19:42.929	2024-09-17T19:19:42.929170+00:00 ip-172-31-88-36 systemd[1]: packagekit.service: Deactivated successfully.
	19:20:10.416	2024-09-17T19:20:10.282405+00:00 ip-172-31-88-36 systemd[1]: Starting sysstat-collect.service - system activity accounting tool...
	19:20:10.416	2024-09-17T19:20:10.416782+00:00 ip-172-31-88-36 systemd[1]: sysstat-collect.service: Deactivated successfully.
	19:20:10.416	2024-09-17T19:20:10.416898+00:00 ip-172-31-88-36 systemd[1]: Finished sysstat-collect.service - system activity accounting tool.

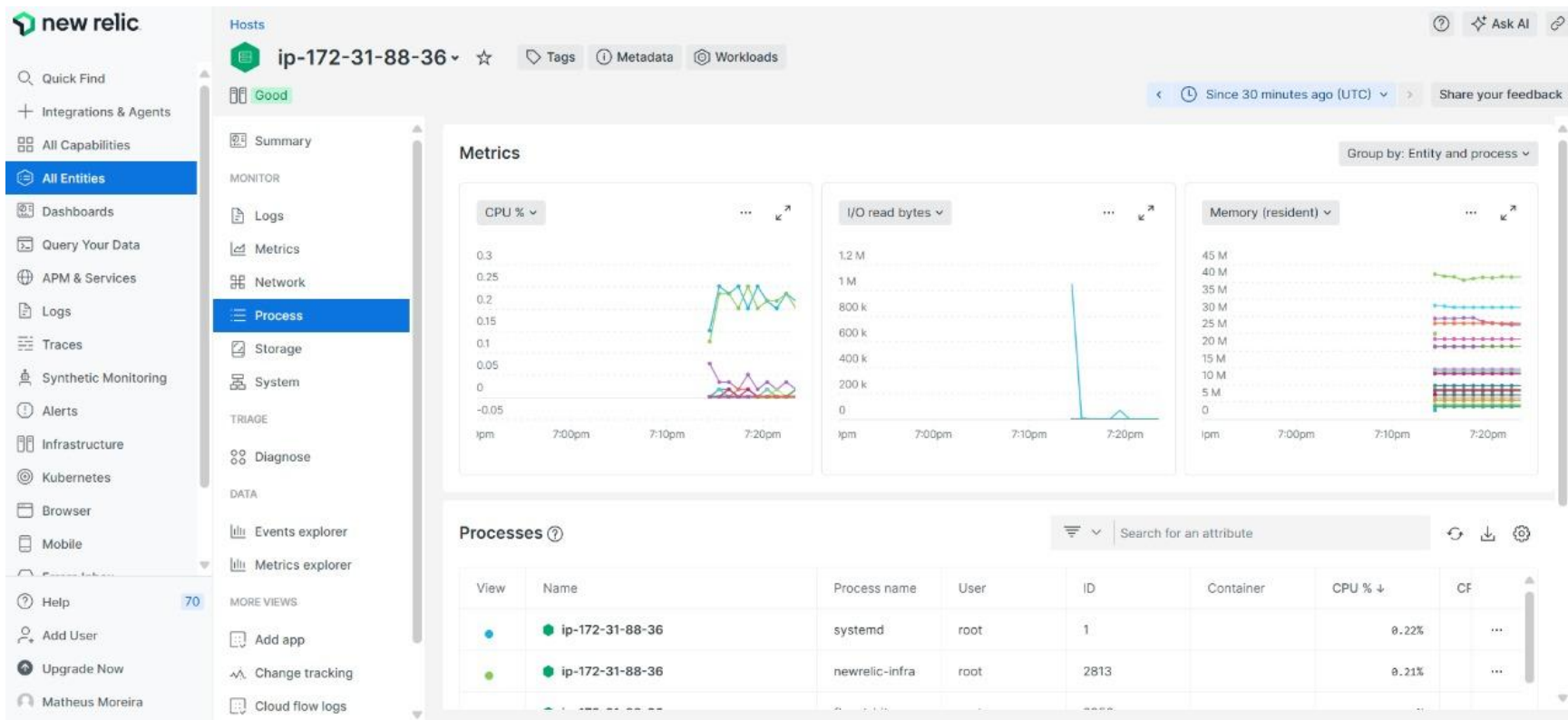
Tela de Métricas



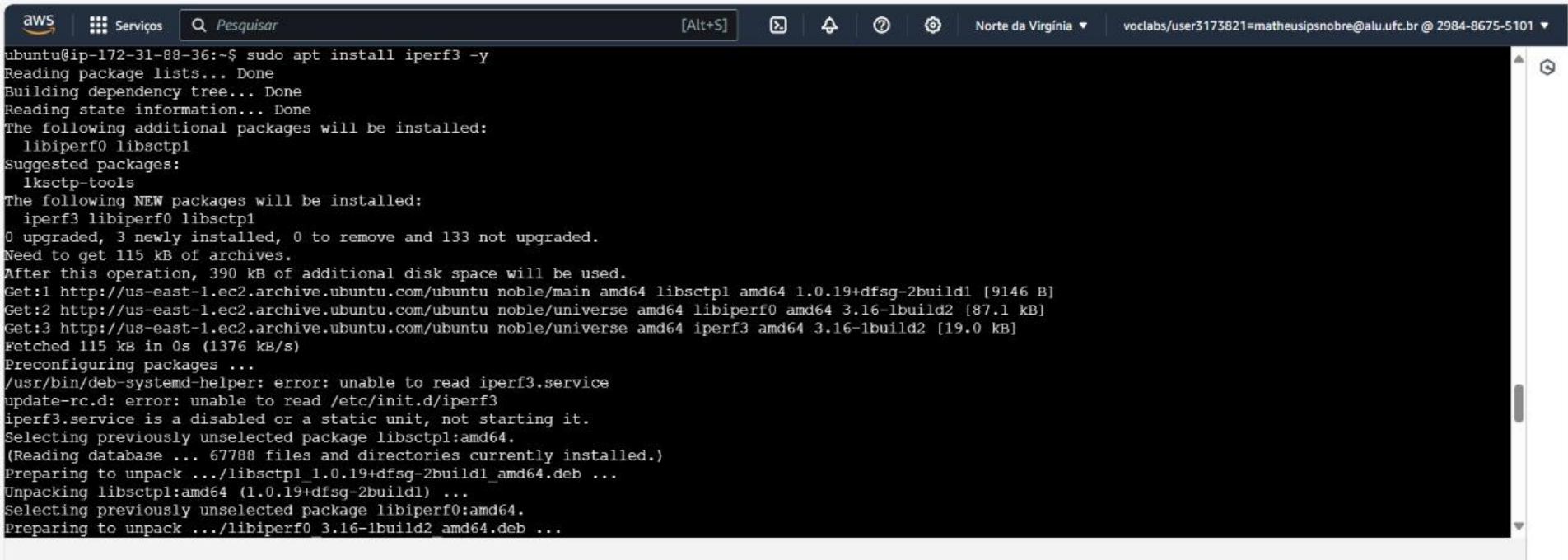
Tela de Rede



Tela do Processos



Estresse utilizando a ferramenta iperf3



The screenshot shows an AWS terminal window with the following content:

```
aws
Serviços
Pesquisar [Alt+S]
Norte da Virgínia
voclabs/user3173821=matheusipsnobre@alu.ufc.br @ 2984-8675-5101

ubuntu@ip-172-31-88-36:~$ sudo apt install iperf3 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libiperf0 libsctp1
Suggested packages:
  lksctp-tools
The following NEW packages will be installed:
  iperf3 libiperf0 libsctp1
0 upgraded, 3 newly installed, 0 to remove and 133 not upgraded.
Need to get 115 kB of archives.
After this operation, 390 kB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libsctp1 amd64 1.0.19+dfsg-2build1 [9146 B]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 libiperf0 amd64 3.16-1build2 [87.1 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 iperf3 amd64 3.16-1build2 [19.0 kB]
Fetched 115 kB in 0s (1376 kB/s)
Preconfiguring packages ...
/usr/bin/deb-systemd-helper: error: unable to read iperf3.service
update-rc.d: error: unable to read /etc/init.d/iperf3
iperf3.service is a disabled or a static unit, not starting it.
Selecting previously unselected package libsctp1:amd64.
(Reading database ... 67788 files and directories currently installed.)
Preparing to unpack .../libsctp1_1.0.19+dfsg-2build1_amd64.deb ...
Unpacking libsctp1:amd64 (1.0.19+dfsg-2build1) ...
Selecting previously unselected package libiperf0:amd64.
Preparing to unpack .../libiperf0_3.16-1build2_amd64.deb ...
```

Host local - Atacante : Enviando dados com 4 fluxos

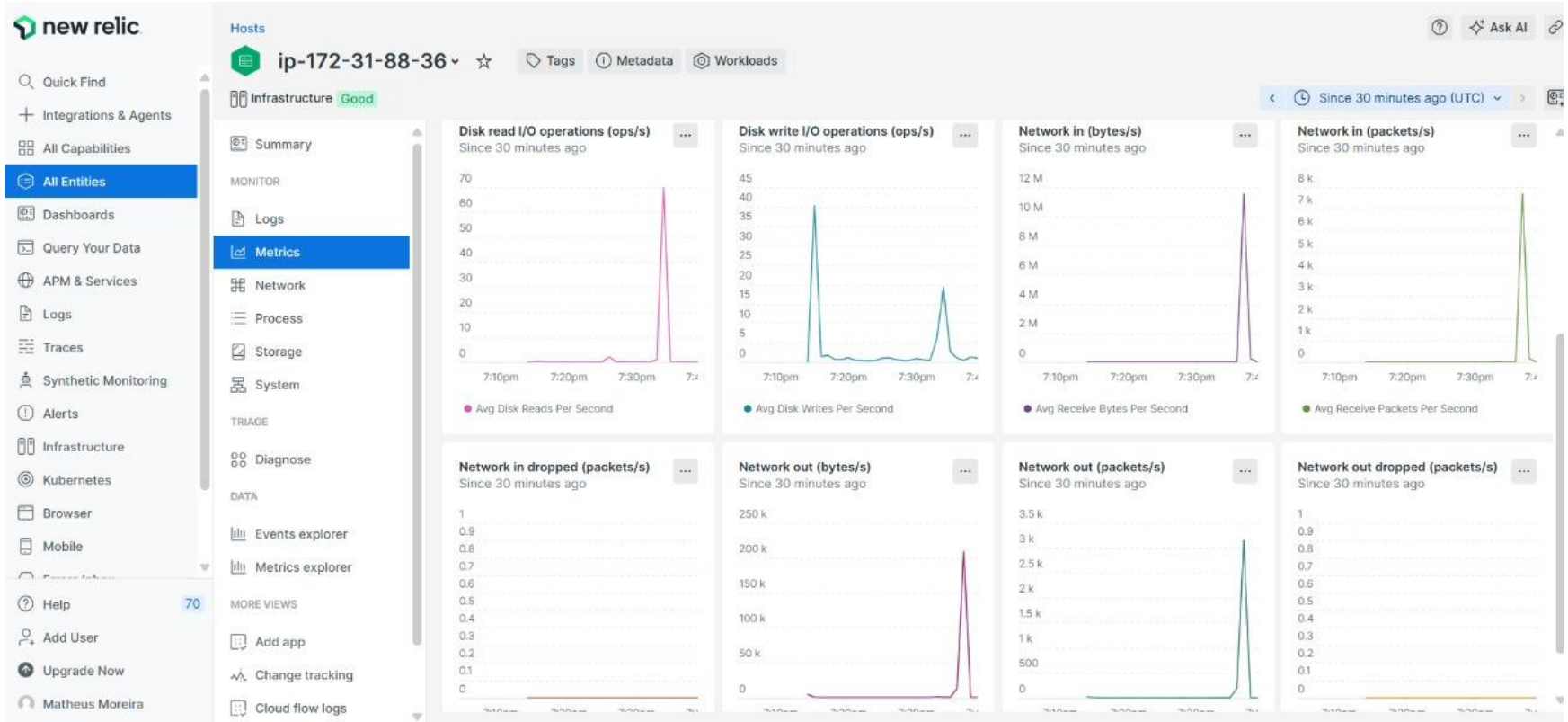
```
o iperf3 -c 54.224.226.252 -P 4 -t 60
Connecting to host 54.224.226.252, port 5201
[ 5] local 172.29.182.180 port 49328 connected to 54.224.226.252 port 5201
[ 7] local 172.29.182.180 port 49338 connected to 54.224.226.252 port 5201
[ 9] local 172.29.182.180 port 49352 connected to 54.224.226.252 port 5201
[11] local 172.29.182.180 port 49368 connected to 54.224.226.252 port 5201
[ ID] Interval          Transfer    Bitrate      Retr  Cwnd
[ 5]  0.00-1.00      sec  1.48 MBytes 12.4 Mbits/sec    2   120 KBytes
[ 7]  0.00-1.00      sec  3.70 MBytes 31.0 Mbits/sec    8   352 KBytes
[ 9]  0.00-1.00      sec  2.19 MBytes 18.3 Mbits/sec    8   192 KBytes
[11]  0.00-1.00      sec  4.45 MBytes 37.4 Mbits/sec   15   464 KBytes
[SUM] 0.00-1.00      sec  11.8 MBytes 99.1 Mbits/sec   33
- - - - -
[ 5]  1.00-2.00      sec  1.07 MBytes 8.96 Mbits/sec    0   148 KBytes
[ 7]  1.00-2.00      sec  3.03 MBytes 25.4 Mbits/sec    5   303 KBytes
[ 9]  1.00-2.00      sec  1.60 MBytes 13.4 Mbits/sec    1   228 KBytes
[11]  1.00-2.00      sec  3.75 MBytes 31.4 Mbits/sec    5   397 KBytes
[SUM] 1.00-2.00      sec  9.45 MBytes 79.3 Mbits/sec   11
- - - - -
[ 5]  2.00-3.00      sec  1.78 MBytes 14.9 Mbits/sec    0   165 KBytes
[ 7]  2.00-3.00      sec  3.27 MBytes 27.4 Mbits/sec    0   313 KBytes
[ 9]  2.00-3.00      sec  1.72 MBytes 14.4 Mbits/sec    2   180 KBytes
[11]  2.00-3.00      sec  5.00 MBytes 42.0 Mbits/sec    0   407 KBytes
```

Ajuste de porta - Vítima 5102

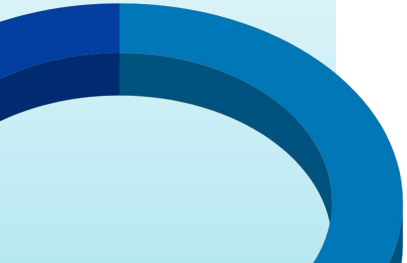
```
aws  Serviços  Q  Pesquisar  [Alt+S]  Norte da Virgínia  voclabs/user3173821=matheusipsnobre@alu.ufc.br @ 2984-8675-5101

iperf3: exiting
ubuntu@ip-172-31-88-36:~$ iperf3 -s
iperf3: error - unable to start listener for connections: Address already in use
iperf3: exiting
ubuntu@ip-172-31-88-36:~$ iperf3 -s
iperf3: error - unable to start listener for connections: Address already in use
iperf3: exiting
ubuntu@ip-172-31-88-36:~$ iperf3 -s
iperf3: error - unable to start listener for connections: Address already in use
iperf3: exiting
ubuntu@ip-172-31-88-36:~$ sudo apt install iperf3
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
iperf3 is already the newest version (3.16-1build2).
0 upgraded, 0 newly installed, 0 to remove and 133 not upgraded.
ubuntu@ip-172-31-88-36:~$ sudo su
root@ip-172-31-88-36:/home/ubuntu# iperf3 -s
iperf3: error - unable to start listener for connections: Address already in use
iperf3: exiting
root@ip-172-31-88-36:/home/ubuntu# exit
exit
ubuntu@ip-172-31-88-36:~$ iperf3 -s -p 5202
-----
Server listening on 5202 (test #1)
-----
```

Resultados



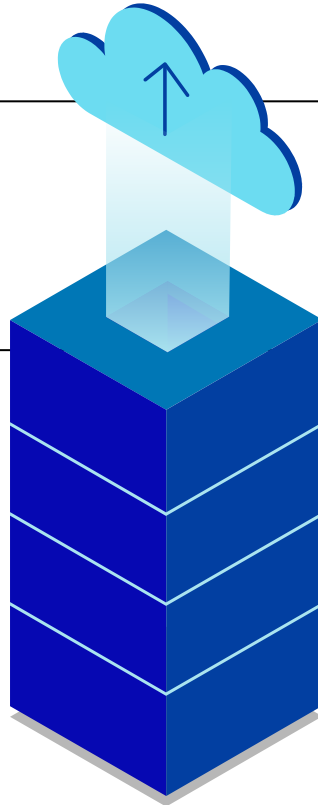
Desafios e Soluções na Implementação



Desafios e Soluções



**Falha na Conexão
Devido a Porta
Bloqueada**



**Problemas de
conexão durante a
instalação**



Pergunta: Qual é o principal objetivo da plataforma New Relic?

- A. Aumentar a segurança de redes locais**
- B. Monitorar e gerenciar o desempenho de aplicações e infraestrutura**
- C. Criar relatórios financeiros automatizados**
- D. Controlar permissões de usuários em sistemas distribuídos**

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Pergunta: Qual das seguintes opções não é uma funcionalidade principal do New Relic?

- A. Monitoramento de Aplicações**
- B. Análise de Performance**
- C. Gestão de Recursos Humanos**
- D. Configuração de Alertas**

Pergunta: Qual das seguintes opções não é uma funcionalidade principal do New Relic?

- A. Monitoramento de Aplicações**
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Pergunta: Qual dos componentes abaixo **NÃO faz parte da observabilidade oferecida pelo New Relic?**

- A. Logs**
- B. Métricas**
- C. Rastreamento**
- D. Firewalls**

Pergunta: Qual dos componentes abaixo **NÃO faz parte da observabilidade oferecida pelo New Relic?**

- A. Logs**
- B. Métricas**
- C. Rastreamento**
- D. Firewalls**

Obrigado pela atenção!