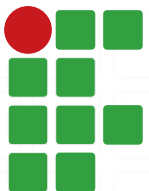


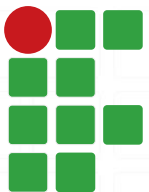
# Projeto Firewall

- Projeto Firewall
- Trocas Appliances
- Licenças de Softwares
- Tipos de suporte Forcepoint



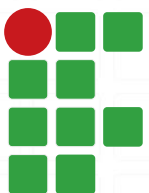
# ■ Projeto Firewall

- Projeto de abrangência institucional iniciado em Jan/2014.
- Implantação de appliance e padronização de rede ethernet nos 37 campi, NTI e reitoria .
- Gerenciamento centralizado na reitoria com autonomia ao campi.



## ■ Marcas envolvidas

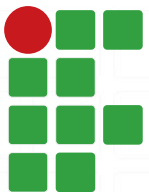
- Foi definido a marca depois de vários meses de estudos, reuniões e teste realizados.
- Optou-se na época pela McAfee, principalmente pela forma de licenciamento.



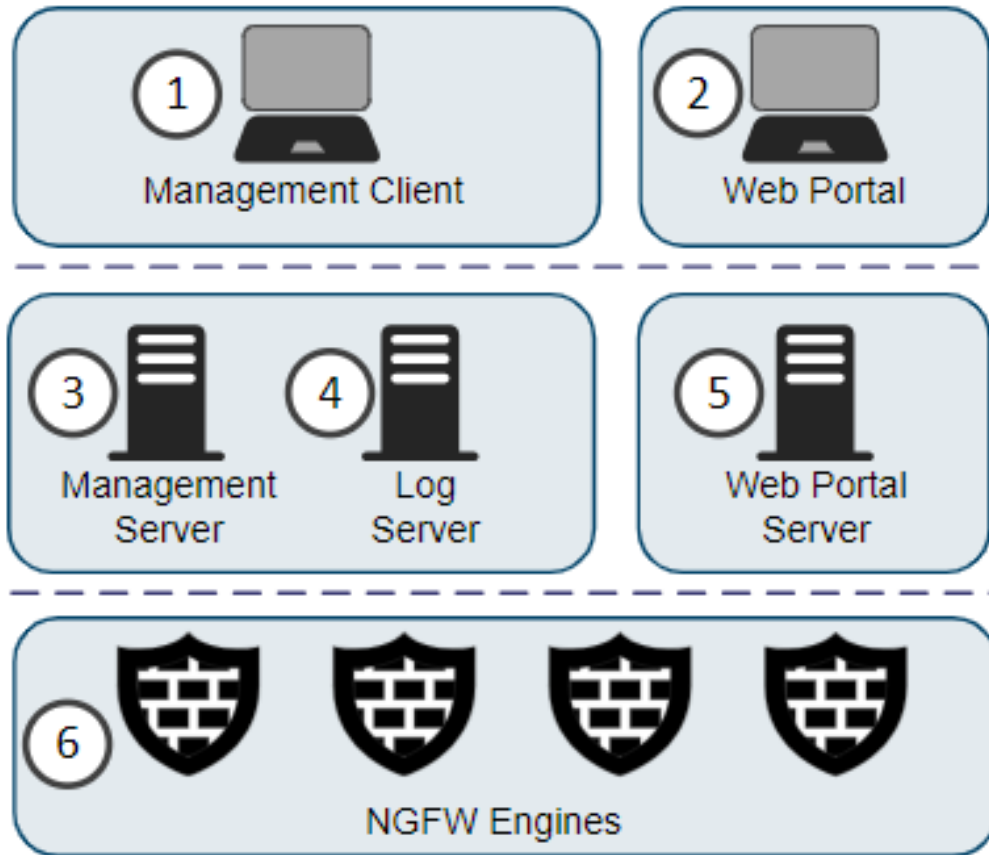
INSTITUTO FEDERAL  
São Paulo

# ■ Projeto Firewall

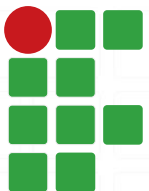
- Todos os campi possui appliance;
- Todos os campi estão conectados via VPN Site-to-Site com o Data Center provendo o acesso a serviços tais como: Relógio de Ponto, Voip, etc.
- Possui suporte facilitado através da reitoria pela padronização realizada.



# ■ Funcionamento da solução



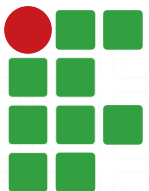
- Atualmente o IFSP utiliza o item 1 e 6 nos campi e reitoria;
- Os itens 3 e 4 são hospedados em VMs no Data Center;



# ■ Suporte Forcepoint

- Tipos de Suporte (média 25% do valor do produto por nível)

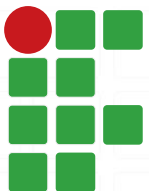
| FORCEPOINT SUPPORT OFFERINGS          | ESSENTIAL | ENHANCED         | ENTERPRISE          |
|---------------------------------------|-----------|------------------|---------------------|
| 24/7 Online Support Coverage          | ●         | ●                | ●                   |
| 24/7 Severity 1 and Severity 2 Issues |           | ●                | ●                   |
| Customer Advocate                     |           | ●                |                     |
| Technical Account Manager (TAM)       |           |                  | ●                   |
| Case Reviews                          |           |                  | Monthly & Quarterly |
| Health Check                          |           | Annual           | Semi-Annual         |
| Onsite Visit                          |           |                  | ●                   |
| INITIAL RESPONSE TIMES                |           |                  |                     |
| Severity 1                            | N/A       | 45 minutes       | 30 minutes          |
| Severity 2                            | N/A       | 2 hours          | 2 hours             |
| Severity 3                            | N/A       | 6 business hours | 4 business hours    |
| Severity 4                            | N/A       | 2 business days  | 1 business day      |



## ■ Versões de Softwares do SMC

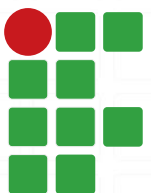
- A forcepoint tem algumas versões softwares do SMC que são Long-Term Support version (LTS). Essas versão são mantidas no mínimo 2 anos após a data de lançamento.
- As versões LTS suportadas atualmente são SMC 6.5. , SMC 6.8. e SMC 6.10.

| Versão | Lançamento   | Versão Atual | Fim da manutenção | Fim do Suporte |
|--------|--------------|--------------|-------------------|----------------|
| 5.8    | Sep 26, 2014 | 5.8.3        |                   | Dec 02, 2015   |
| 6.1    | Oct 19, 2016 | 6.1.3        | Oct 03, 2017      | Oct 03, 2018   |
| 6.4    | Feb 20, 2018 | 6.4.10       | Apr 08, 2019      | Apr 08, 2020   |
| 6.10   | 17 Mai, 2021 | 6.10.10      |                   |                |



# ■ Softwares na Reitoria

- O sistema funciona sobre dois softwares além do hardware (appliance)
- SMC (Security Management Center);
- SMC Domain Elements;
- Atualmente a reitoria está com SMC 6.4.10 e 6.10.7
- Atualmente o IFSP possui as duas licenças com vencimento em 01/Ago/2025 com suporte e updates ativos;





# Softwares na Reitoria

SMC - Domain Overview

Domain Overview

Shared Domain (logged in)

(IFSP) Araraquara (IFSP) Avaré (IFSP) Barretos (IFSP) Birigui (IFSP) Boituva (IFSP) Bragança Paulista

Active Alerts

Servers

Firewalls

Multi-Link

VPN Gateways

VPNs

Domain for all shared elements.

Instituto Federal do Estado de São Paulo

(IFSP) Campinas (IFSP) Campos do Jordão (IFSP) Capivari (IFSP) Caraguatatuba (IFSP) Cubatão

Active Alerts

Firewalls

Multi-Link

VPN Gateways

VPNs

Instituto Federal do Estado de São Paulo

(IFSP) Jundiaí (IFSP) Matão (IFSP) Piracicaba (IFSP) Presidente Epitácio (IFSP) Registro

Active Alerts

Firewalls

Multi-Link

VPN Gateways

VPNs

Instituto Federal do Estado de São Paulo

(IFSP) Sertãozinho (IFSP) Sorocaba (IFSP) São Carlos (IFSP) São José dos Campos (IFSP) São Paulo

Active Alerts

Firewalls

Multi-Link

VPN Gateways

VPNs

Instituto Federal do Estado de São Paulo

Ready

Logs

| Creation Time       | Sender            | Facility         | Situation                    | Action  | Src Addr      | Dst Addr        | Service   | IP Protocol | Src Port | Dst Port | Network Application           |
|---------------------|-------------------|------------------|------------------------------|---------|---------------|-----------------|-----------|-------------|----------|----------|-------------------------------|
| 2019-05-07 19:02:32 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 74.119.119.150  | HTTPS     | TCP         | 56555    | 443      | Criteo                        |
| 2019-05-07 19:02:32 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 10.105.50.3     | DNS (UDP) | UDP         | 16223    | 53       | DNS                           |
| 2019-05-07 19:02:32 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 10.105.50.3     | DNS (UDP) | UDP         | 30497    | 53       | DNS                           |
| 2019-05-07 19:02:35 | ARARAQUARA node 1 | Packet Filtering | Connection_Allowed           | Allow   | 10.105.60.155 | 10.105.50.3     | DNS (UDP) | UDP         | 63282    | 53       | DNS                           |
| 2019-05-07 19:02:35 | ARARAQUARA node 1 | Inspection       | Connection_Rematched         | Allow   | 10.105.60.155 | 10.105.50.3     | DNS (UDP) | UDP         | 63282    | 53       | DNS                           |
| 2019-05-07 19:02:36 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 10.105.50.3     | DNS (UDP) | UDP         | 56020    | 53       | DNS                           |
| 2019-05-07 19:02:37 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 216.58.202.195  | HTTPS     | TCP         | 41205    | 443      | Google-Hosted-Libraries       |
| 2019-05-07 19:02:38 | ARARAQUARA node 1 | Inspection       | Connection_Rematched         | Allow   | 10.105.60.155 | 172.217.192.188 | TCP/5228  | TCP         | 34464    | 5228     | Google                        |
| 2019-05-07 19:02:38 | ARARAQUARA node 1 | Inspection       | Connection_Allowed           | Allow   | 10.105.60.155 | 172.217.192.188 | TCP/5228  | TCP         | 34464    | 5228     | Google                        |
| 2019-05-07 19:02:38 | ARARAQUARA node 1 | Inspection       | Connection_Rematched         | Allow   | 10.105.60.155 | 172.217.192.188 | TCP/5228  | TCP         | 34464    | 5228     | Google                        |
| 2019-05-07 19:02:39 | ARARAQUARA node 1 | Packet Filtering | Connection_Allowed           | Allow   | 10.105.60.155 | 10.105.50.3     | DNS (UDP) | UDP         | 32568    | 53       | DNS                           |
| 2019-05-07 19:02:39 | ARARAQUARA node 1 | Inspection       | Connection_Rematched         | Allow   | 10.105.60.155 | 10.105.50.3     | DNS (UDP) | UDP         | 32568    | 53       | DNS                           |
| 2019-05-07 19:02:40 | ARARAQUARA node 1 | Inspection       | Connection_Rematched         | Allow   | 10.105.60.155 | 172.217.192.188 | TCP/5228  | TCP         | 34464    | 5228     | Google                        |
| 2019-05-07 19:02:41 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 10.105.50.3     | DNS (UDP) | UDP         | 38636    | 53       | DNS                           |
| 2019-05-07 19:02:41 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 10.105.50.3     | DNS (UDP) | UDP         | 31221    | 53       | DNS                           |
| 2019-05-07 19:02:42 | ARARAQUARA node 1 | Inspection       | Connection_Rematched         | Allow   | 10.105.60.155 | 23.3.237.3      | HTTPS     | TCP         | 43564    | 443      | Akamai-Infrastructure         |
| 2019-05-07 19:02:42 | ARARAQUARA node 1 | Inspection       | Connection_Rematched         | Allow   | 10.105.60.155 | 23.3.237.3      | HTTPS     | TCP         | 43564    | 443      | Akamai-Infrastructure         |
| 2019-05-07 19:02:42 | ARARAQUARA node 1 | Inspection       | Connection_Allowed           | Allow   | 10.105.60.155 | 23.3.237.3      | HTTPS     | TCP         | 43564    | 443      | Akamai-Infrastructure         |
| 2019-05-07 19:02:42 | ARARAQUARA node 1 | Inspection       | Connection_Rematched         | Allow   | 10.105.60.155 | 23.3.237.3      | HTTPS     | TCP         | 43564    | 443      | Akamai-Infrastructure         |
| 2019-05-07 19:02:43 | ARARAQUARA node 1 | Packet Filtering | Connection_Discarded         | Discard | 10.105.60.14  | 224.0.0.2       | IGMP      | IGMP        |          |          |                               |
| 2019-05-07 19:02:47 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 52.50.161.137   | HTTP      | TCP         | 45949    | 80       | TLS-1.2                       |
| 2019-05-07 19:02:50 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed-Abnormally |         | 10.105.60.155 | 35.175.90.218   | HTTPS     | TCP         | 46332    | 443      |                               |
| 2019-05-07 19:02:50 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 10.105.50.3     | DNS (UDP) | UDP         | 63282    | 53       | DNS                           |
| 2019-05-07 19:02:50 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 10.105.50.3     | DNS (UDP) | UDP         | 32568    | 53       | DNS                           |
| 2019-05-07 19:02:58 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed-Abnormally |         | 10.105.60.155 | 168.219.61.252  | HTTPS     | TCP         | 40326    | 443      |                               |
| 2019-05-07 19:02:58 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 52.30.201.19    | HTTPS     | TCP         | 57006    | 443      | TLS-1.2                       |
| 2019-05-07 19:03:00 | ARARAQUARA node 1 | Packet Filtering | Connection_Closed            |         | 10.105.60.155 | 31.13.85.49     | 5222      | TCP         | 58755    | 5222     | Unknown-Encrypted-Application |
| 2019-05-07 19:03:11 | ARARAQUARA node 1 | Packet Filtering | Connection_Progress          |         | 10.105.60.23  | 172.217.28.132  | HTTPS     | TCP         | 42460    | 443      | Google                        |

Query

Security Engine

Filter Senders: All Storage

Src Addr: 10.105.60.0/22

Automatic (15 min)

2019-05-07 19:03:37

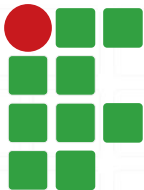
Apply Cancel

Fields

| Field        | Value           |
|--------------|-----------------|
| Nat Dst      | 172.217.172.142 |
| Nat Dst Port | 443             |
| Nat Rule Tag | 2100308.4       |
| Nat Src      | 200.133.218.4   |

Ready

Time Zone: [vovander.br] (IFSP) Araraquara... Default



INSTITUTO FEDERAL  
São Paulo

# ■ Valores dos Softwares - Reitoria

- Investimento realizado em Agosto de 2022

| SMC por 36 Meses  |                                                                   |                   |               |
|-------------------|-------------------------------------------------------------------|-------------------|---------------|
| Item              | Descrição                                                         | SKU               | Valor Unit    |
| 1                 | Forcepoint NGFW ManagementCenter, Cloud Access & Network Security | SMCX-2-CP36-X-N   | R\$65.000,00  |
| 2                 | Essential Support for Forcepoint NGFW ManagementCenter, Support   | ESESPT-2-CP36-X-N | R\$ 9.900,00  |
| Total do Software |                                                                   |                   | R\$ 74.900,00 |

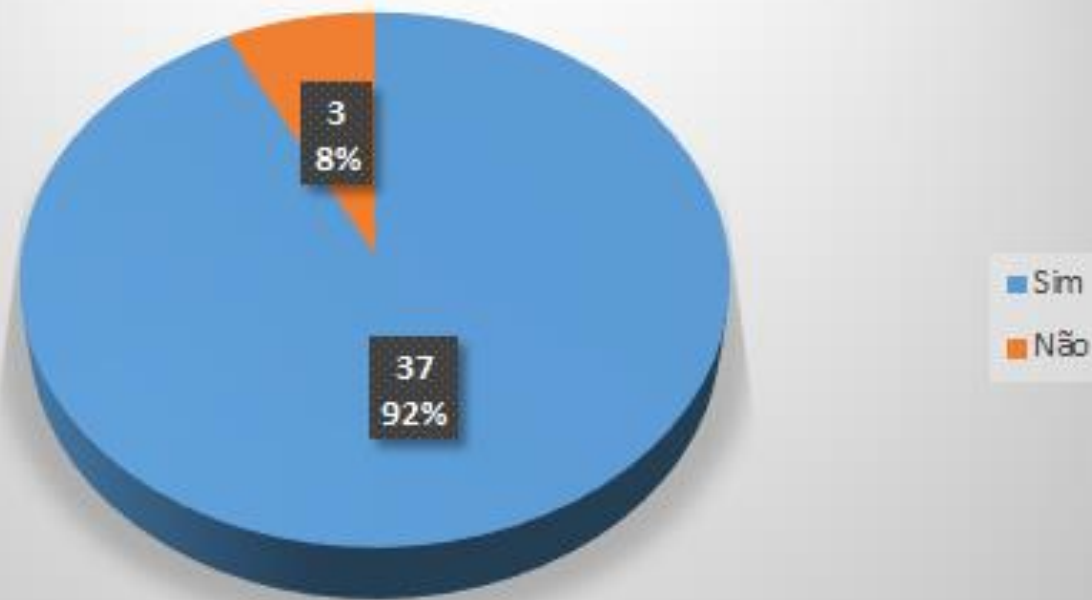
| Domains por 36 Meses |                                                                      |                    |               |
|----------------------|----------------------------------------------------------------------|--------------------|---------------|
| Item                 | Descrição                                                            | SKU                | Valor Unit    |
| 1                    | Forcepoint SMC Domains, Cloud Access & Network Security (200 Domain) | ODFSMCX-0-CP36-X-N | R\$ 17.000,00 |
| 2                    | Essential Support for Forcepoint SMC Domains, Support                | ESESPT-0-CP36-X-N  | R\$ 2.200,00  |
| Total do Software    |                                                                      |                    | R\$ 19.200,00 |
| Total Geral          |                                                                      |                    | R\$ 94.100,00 |



# ■ Projeto Firewall

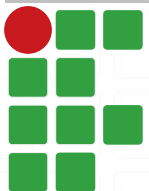
- IPs de rede interna padronizados por campi (Ex: 10.106 –BRT)

IPs interno padronizado



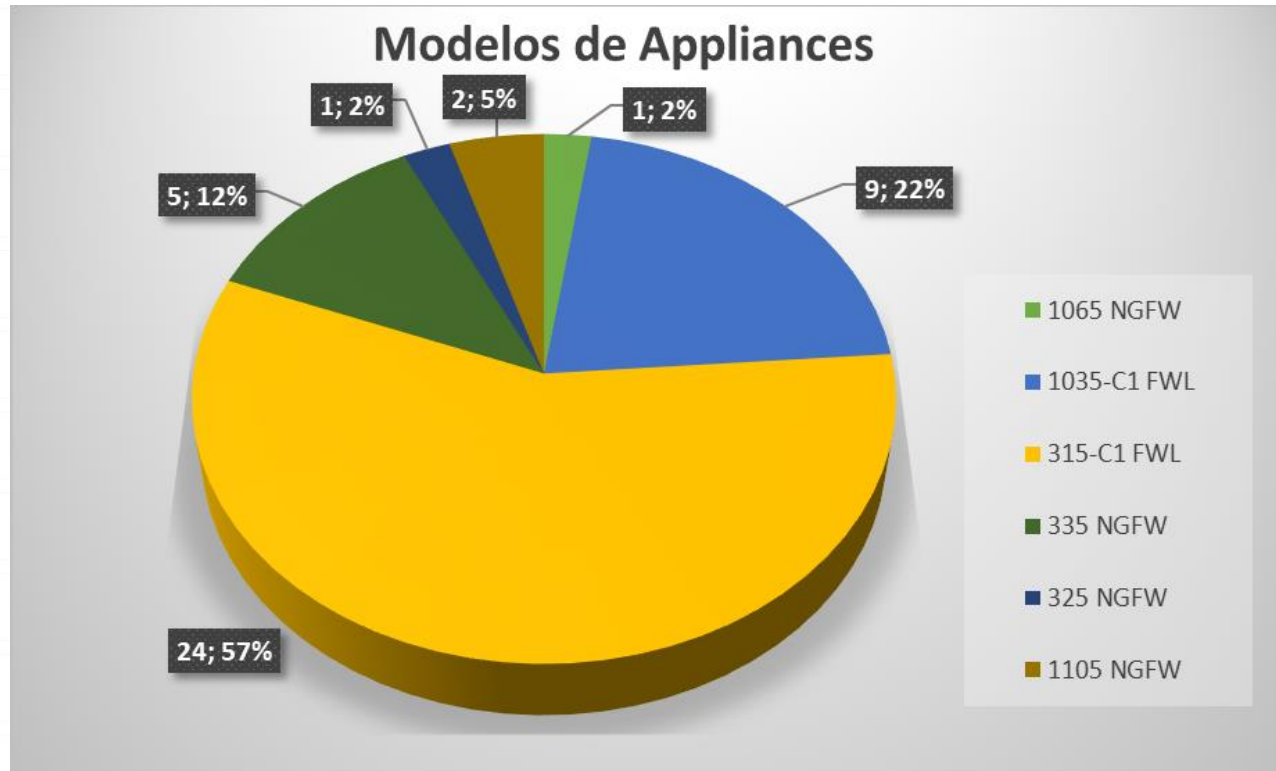
8% Representa 3 campis:

- Caraguatatuba (CAR)
- Catanduva (CTD)
- São Paulo (SPO)

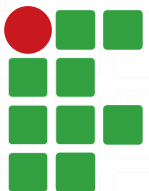


# ■ Projeto Firewall

- Modelos de appliances do IFSP



- Atualmente o IFSP possui 41 appliances de 6 modelos, com variação end of life e fim de suporte.



# ■ Firewall 315 Appliance



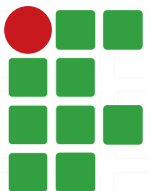
## Informações do Hardware

| Modelo                 | Disponibilidade | Fim de Venda | Última Versão Suportada | Fim da Manutenção | Fim da Garantia Estendida | Fim de Vida do Hardware | Modelo de Migração |
|------------------------|-----------------|--------------|-------------------------|-------------------|---------------------------|-------------------------|--------------------|
| Firewall 315 Appliance |                 | Mar 31, 2016 | 6.3                     | Mar 31, 2019      | Mar 31, 2020              | Mar 31, 2021            | N110               |

## Informações do Firmware

| Versão | Lançamento   | Versão Atual | Fim da manutenção | Fim do Suporte |
|--------|--------------|--------------|-------------------|----------------|
| 6.3    | 03 Out, 2017 | 6.3.15       | 31 Mar, 2021      | Mar 31, 2022   |

- É suportada pelo SMC 6.10.10
- Não suporta SMC 7.x / E updates do SMC
- 57% dos appliance hoje no IFSP



# ■ NGFW 1035 Appliance



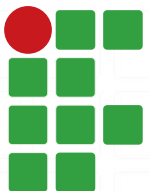
## Informações do Hardware

| Modelo              | Disponibilidade | Fim de Venda | Última Versão Suportada | Fim da Manutenção | Fim da Garantia Estendida | Fim de Vida do Hardware | Modelo de Migração |
|---------------------|-----------------|--------------|-------------------------|-------------------|---------------------------|-------------------------|--------------------|
| NGFW 1035 Appliance | Fev 15,2013     | Dec 31, 2018 | 6.10                    | Dec 31, 2018      | Dec 31,2022               | Dec 31,2023             | N1101              |

## Informações do Firmware

| Versão | Lançamento   | Versão Atual | Fim da manutenção | Fim do Suporte |
|--------|--------------|--------------|-------------------|----------------|
| 6.5    | 08 Out, 2018 | 6.5.14       | 30 Nov, 2022      | 30 Nov, 2023   |

- Desta forma não é suportado o SMC 7.x.
- Fim de vida bem próxima.





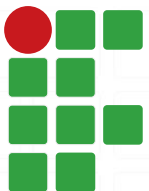
# ■ NGFW 335 Appliance



## Informações do Hardware

| Modelo             | Disponibilidade | Fim de Venda | Última Versão Suportada | Fim da Manutenção | Fim da Garantia Estendida | Fim de Vida do Hardware | Modelo de Migração |
|--------------------|-----------------|--------------|-------------------------|-------------------|---------------------------|-------------------------|--------------------|
| NGFW 335 Appliance | Jul 01, 2018    | May 10, 2023 |                         | May 10, 2027      | May 10, 2027              | May 10, 2028            | N352               |

- Suporta o Firmware versão 7.x
- Os campus que já possui tem seu suporte e garantia antes do fim de vida do hardware;



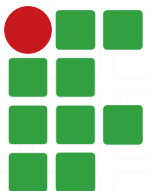
# ■ NGFW 1105 Appliance



## Informações do Hardware

| Modelo             | Disponibilidade | Fim de Venda | Última Versão Suportada | Fim da Manutenção | Fim da Garantia Estendida | Fim de Vida do Hardware | Modelo de Migração |
|--------------------|-----------------|--------------|-------------------------|-------------------|---------------------------|-------------------------|--------------------|
| NGFW 335 Appliance | Oct 28, 2017    | May 10, 2023 |                         | May 10, 2027      | May 10, 2027              | May 10, 2028            | N355               |

- Suporta o Firmware versão 7.x
- Atualmente somente o Data Center e o campus Capivari possui;
- 





# Troca de Appliance

- Ciclo de Vida do suporte do hardware com software

| Modelo                 | Disponibilidade | Fim de Venda | Última Versão Suportada | Fim da Manutenção | Fim da Garantia Estendida | Fim de Vida do Hardware | Modelo de Migração |
|------------------------|-----------------|--------------|-------------------------|-------------------|---------------------------|-------------------------|--------------------|
| Firewall 315 Appliance |                 | Mar 31, 2016 | 6.3                     | Mar 31, 2019      | Mar 31, 2020              | Mar 31, 2021            | N110               |
| NGFW 1035 Appliance    | Fev 15,2013     | Dec 31, 2018 | 6.10                    | Dec 31, 2018      | Dec 31,2022               | Dec 31,2023             | N1101              |
| NGFW 1065 Appliance    | Feb 15, 2013    | Dec 31, 2018 | 6.10                    | Dec 31, 2021      | Dec 31,2022               | Dec 31, 2023            | N1105              |
| NGFW 325 Appliance     | Nov 15, 2014    | Dec 31, 2018 | 6.10                    | Dec 31, 2021      | Dec 31,2022               | Dec 31, 2023            | N335, N120         |
| NGFW 335 Appliance     | Jul 01, 2018    | May, 10 2023 |                         | May, 10 2027      | May, 10 2027              | May, 10 2028            | N352               |
| NGFW 1105 Appliance    | Oct 28, 2017    | May 10, 2027 |                         | May 10, 2027      | May 10, 2027              | May 10, 2028            | N2201              |
| NGFW 352 Appliance     | Feb 10, 2023    |              |                         |                   |                           |                         |                    |
| NGFW 355 Appliance     | Feb 10, 2023    |              |                         |                   |                           |                         |                    |

# ■ Troca de Appliance



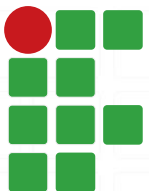
Firewall 315



NGFW 352 /355 Appliance



NGFW 335 Appliance



# ■ Troca de Appliance



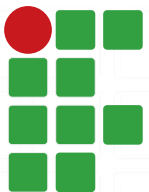
NGFW 1035 Appliance



NGFW 355 Appliance



NGFW 1105 Appliance

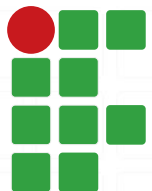


# Troca de Appliance

## Firewall 315 Appliance



| LICENSED PERFORMANCE                                          | FW-315     |
|---------------------------------------------------------------|------------|
| Firewall throughput<br>(UDP 1514 byte packets, no inspection) | 500 Mbps   |
| Throughput<br>(UDP 1514 byte packets, with inspection)        | 250 Mbps   |
| 64 byte PPS                                                   | 250 000    |
| HTTP inspection (21 kB payload)                               | 100 Mbps   |
| SSL inspection client / server side                           | 15 Mbps/-  |
| New TCP connections/sec<br>(no inspection)                    | 10 000     |
| New inspected HTTP connections<br>/sec (21 kB payload)        | 500        |
| Concurrent connections                                        | 300 000    |
| Inspected concurrent connections                              | 150 000    |
| VLANs                                                         | 32         |
| VPN throughput (AES-128-GCM)                                  | 100 Mbps   |
| VPN tunnels                                                   | 500        |
| Concurrent VPN Clients                                        | 25         |
| Server loadbalancing                                          | yes        |
| Management count                                              | 1          |
| High availability                                             | Clustering |

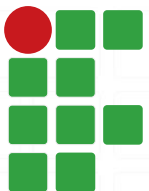


# Troca de Appliance

## NGFW 1035 Appliance



| MAXIMUM PERFORMANCE                                    | L3 FW/VPN |
|--------------------------------------------------------|-----------|
| Throughput<br>(UDP 1514 byte packets, no inspection)   | 5 Gbps    |
| Throughput<br>(UDP 1514 byte packets, with inspection) | 500 Mbps  |
| 64 byte packets per second<br>(no inspection)          | 600 000   |
| HTTP inspection<br>(21 kB payload)                     | 250 Mbps  |
| SSL/TLS inspection throughput<br>(AES-256)             | 150 Mbps  |
| New TCP connections/sec<br>(no inspection)             | 40 000    |
| New inspected HTTP connections<br>(21 kB payload)      | 1 500     |
| Concurrent connections                                 | 6 million |
| Inspected concurrent connections                       | 280 000   |
| VLANs                                                  | Unlimited |
| VPN throughput (AES-128-GCM)                           | 1.2 Gbps  |
| VPN tunnels                                            | 20 000    |
| Concurrent mVPN Clients                                | Unlimited |

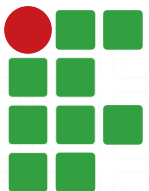


# Troca de Appliance

## NGFW 352/355 Appliance



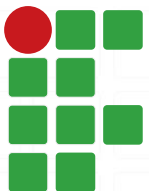
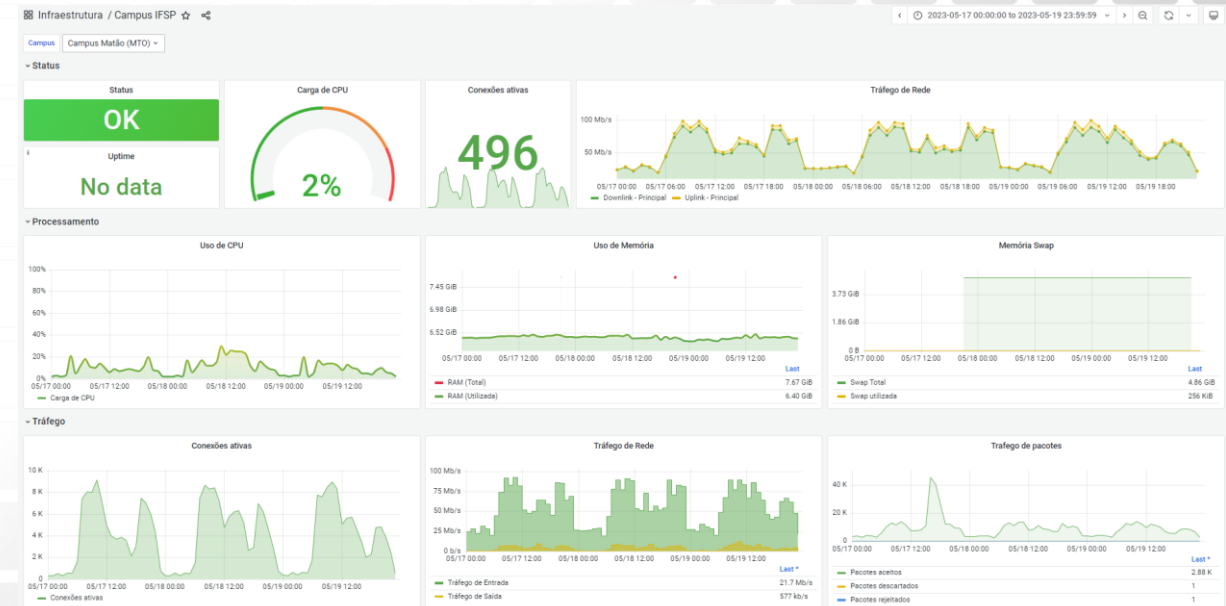
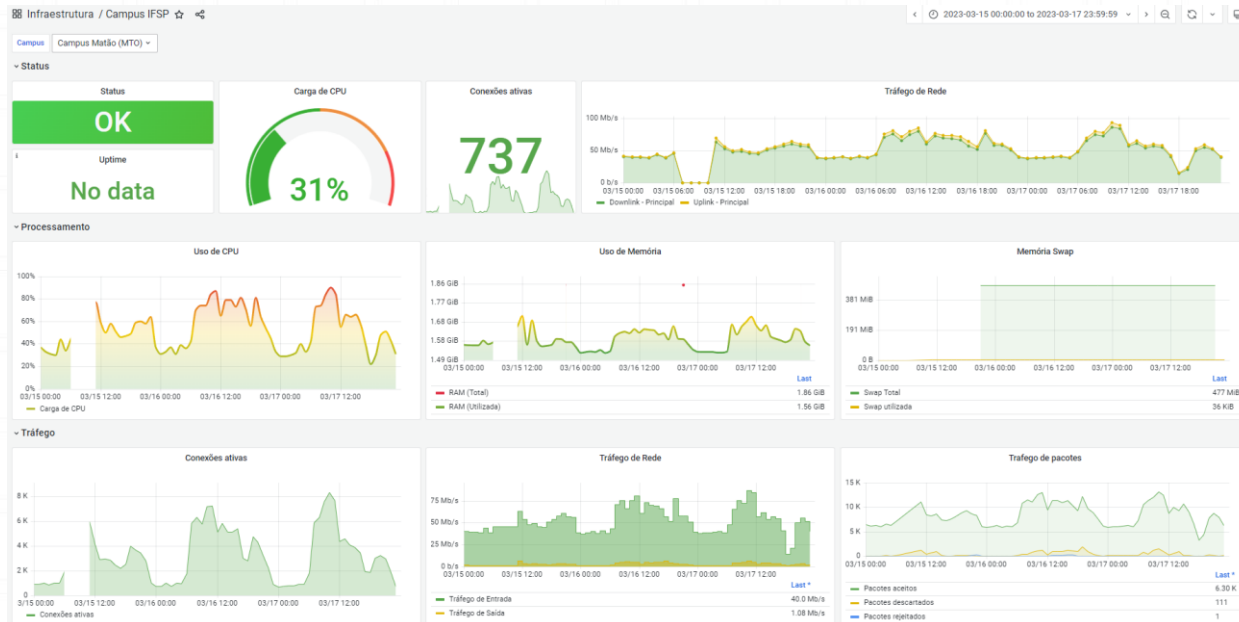
| PERFORMANCE <sup>1</sup>                          | N352      | N355       |
|---------------------------------------------------|-----------|------------|
| NGFW/NGIPS throughput (HTTP 64kB payload)         | 2.0 Gbps  | 4.1 Gbps   |
| Max firewall throughput (UDP 1518 byte payload)   | 40 Gbps   |            |
| Max inspection throughput (UDP 1518 byte payload) | 3.3 Gbps  | 6.2 Gbps   |
| Threat Prevention Throughput                      | 1.5 Gbps  | 3.0 Gbps   |
| TLS 1.2 inspection (44kB payload)                 | 700 Mbps  | 1300 Mbps  |
| IPsec VPN AES-GCM-256                             | 11 Gbps   | 24 Gbps    |
| Mobile VPN clients                                | Unlimited |            |
| Max concurrent IPsec VPNs                         | 20,000    | 30,000     |
| Max concurrent inspected HTTP connections         | 70,000    | 200,000    |
| Max concurrent connections                        | 5 Million | 15 Million |
| New TCP connections/sec                           | 160,000   | 300,000    |
| VLAN tagging                                      | Unlimited |            |
| Virtual contexts default/max                      | 3 / 3     | 5 / 25     |
| Max concurrent ZTNA users                         | 50        | 250        |





# Troca de Appliance

## Firewall 315 VS NGFW 335 Appliance



INSTITUTO FEDERAL  
São Paulo



# ■ Valores Appliance 335

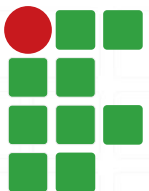


- Orçamentos realizados entre Fev/2022 a Mar/2022

| Item                      | Descrição                                                                                | SKU                | Valor Med            |
|---------------------------|------------------------------------------------------------------------------------------|--------------------|----------------------|
| 1                         | Forcepoint NGFW 335 Appliance, Cloud Access & Network Security (Appliance 335)           | N335-0-XX00-X-N    | R\$ 30.609,33        |
| 2                         | Forcepoint NGFW 335 Warranty - Advanced RMA (36 months), Cloud Access & Network Security | N335WR-0-XX00- X-N |                      |
| 3                         | Essential Support for Forcepoint NGFW 335 Appliance, Support                             | ESESPT-0-CP36- X-N | R\$ 10.103,60        |
| <b>Total do Appliance</b> |                                                                                          |                    | <b>R\$ 40.712,92</b> |

- Appliance / Licenças adicionais no appliance – Não necessárias

|                                             |                                                                                                           |                     |                      |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------|----------------------|
| 4                                           | Forcepoint Advanced Malware Detection for NGFW N1035, N1101, N335, N335W, Cloud Access & Network Security | FPAMD3X-0-CP36- X-N | R\$ 8.239,31         |
| 5                                           | Forcepoint NGFW URL Filtering for N1035, N1101, N335, N335W, Cloud Access & Network Security              | FPURL3X-0-CP36- X-N | R\$ 6.120,92         |
| <b>Total do Appliance + Licenças Extras</b> |                                                                                                           |                     | <b>R\$ 55.073,15</b> |



# ■ Valores Appliance 1105



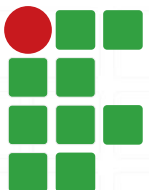
- Orçamentos realizados entre Fev/2022 a Mar/2022

| Item               | Descrição                                                                                 | SKU                | Valor Med     |
|--------------------|-------------------------------------------------------------------------------------------|--------------------|---------------|
| 1                  | Forcepoint NGFW 1105 Appliance, Cloud Access & Network Security (Appliance 1105)          | N1105-0-XX00-X-N   | R\$ 70.360,81 |
| 2                  | Forcepoint NGFW 1105 Warranty - Advanced RMA (36 months), Cloud Access & Network Security | N1105WR-0-XX00-X-N |               |
| 3                  | Essential Support for Forcepoint NGFW 1105 Appliance, Support                             | ESESPT-0-CP36- X-N | R\$ 16.035,23 |
| Total do Appliance |                                                                                           |                    | R\$ 86.396,04 |

- Appliance / Licenças adicionais no appliance – Não necessárias

|   |                                                                                                     |                     |               |
|---|-----------------------------------------------------------------------------------------------------|---------------------|---------------|
| 5 | Forcepoint Advanced Malware Detection for NGFW N1065, N1105, N2201, Cloud Access & Network Security | FPAMD4X-0-CP36- XN  | R\$ 16.056,40 |
| 6 | Forcepoint NGFW URL Filtering for N1105, N2201, Cloud Access & Network Security                     | FPURL6X-0-CP36- X-N | R\$ 14.739,85 |

**Total do Appliance + Licenças Extras R\$ 117.192,29**



# ■ Valores Appliance 352

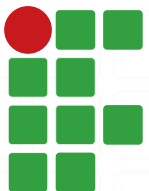
- Orçamentos realizados em Maio de 2023



| Item                      | Descrição                                                       | SKU       | Valor ISH            |
|---------------------------|-----------------------------------------------------------------|-----------|----------------------|
| 1                         | Forcepoint NGFW 352 Appliance                                   | N352      | R\$ 32.000,00        |
| 2                         | Forcepoint NGFW 352 Warranty - Advanced RMA (36 months)         | N352WRNTY |                      |
| 3                         | Essential Support for Forcepoint NGFW 352 Appliance (36 months) | SPRT      | R\$ 6.500,00         |
| <b>Total do Appliance</b> |                                                                 |           | <b>R\$ 38.500,00</b> |

- Appliance / Licenças adicionais no appliance – Não necessárias

|                                             |                                                                          |         |                      |
|---------------------------------------------|--------------------------------------------------------------------------|---------|----------------------|
| 4                                           | Forcepoint Advanced Malware Detection for NGFW 352 Appliance (36 months) | AMDPFWS | R\$ 6.500,00         |
| 5                                           | Forcepoint NGFW URL Filtering for NGFW 352 Appliance (36 months)         | FPURL3X | R\$ 7.100,00         |
| <b>Total do Appliance + Licenças Extras</b> |                                                                          |         | <b>R\$ 52.100,00</b> |



# ■ Valores Appliance 355

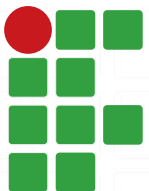
- Orçamentos realizados em Maio de 2023



| Item                      | Descrição                                                       | SKU       | Valor ISH            |
|---------------------------|-----------------------------------------------------------------|-----------|----------------------|
| 1                         | Forcepoint NGFW 355 Appliance                                   | N352      | R\$ 60.000,00        |
| 2                         | Forcepoint NGFW 355 Warranty - Advanced RMA (36 months)         | N352WRNTY |                      |
| 3                         | Essential Support for Forcepoint NGFW 355 Appliance (36 months) | SPRT      | R\$ 12.000,00        |
| <b>Total do Appliance</b> |                                                                 |           | <b>R\$ 72.000,00</b> |

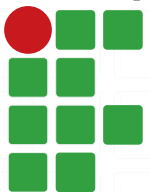
- Appliance / Licenças adicionais no appliance – Não necessárias

|                                             |                                                                          |         |                      |
|---------------------------------------------|--------------------------------------------------------------------------|---------|----------------------|
| 5                                           | Forcepoint Advanced Malware Detection for NGFW 355 Appliance (36 months) | AMDPFWS | R\$ 6.500,00         |
| 6                                           | Forcepoint NGFW URL Filtering for NGFW 355 Appliance (36 months)         | FPURL3X | R\$ 11.500,00        |
| <b>Total do Appliance + Licenças Extras</b> |                                                                          |         | <b>R\$ 90.000,00</b> |



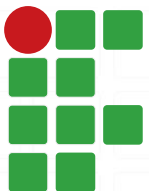
## ■ NGFW URL Filtering

- Categorias serviço externo Forcepoint™ ThreatSeeker® Intelligence Cloud.
- ThreatSeeker Intelligence Cloud (ThreatSeeker) fornece categorias para sites maliciosos e várias categorias para diferentes tipos de conteúdo não malicioso.
- O mecanismo NGFW envia solicitações de categorização usando HTTPS para o ThreatSeeker.



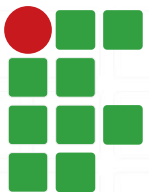
## ■ Advanced Malware Detection

- Um scanner antimalware compara o tráfego de rede com um banco de dados antimalware para procurar vírus e outros malwares. Se for encontrado malware, o tráfego é interrompido;
- Detecta ameaças avançadas analisando o comportamento dos arquivos em um ambiente de sistema operacional restrito normalmente em um sandbox externo.



## ■ DDoS / SQL Injection

- DDoS: Também chamado de ataque de negação de serviço distribuído, o ataque DDoS se aproveita da limitação de um servidor e o bombardeia com solicitações simultâneas de diversas origens para sobrecarregá-lo e deixá-lo fora do ar.
- O SQL Injection é uma técnica de ataque baseada na manipulação do código SQL, que é a linguagem utilizada para troca de informações entre aplicativos e bancos de dados relacionais





# ■ Contato e Dúvidas:

- [infra@ifsp.edu.br](mailto:infra@ifsp.edu.br)

