

Monitoramento Inteligente de Certificados HTTPS no IIS com Zabbix



Uma abordagem proativa para garantir
segurança e disponibilidade nas aplicações.

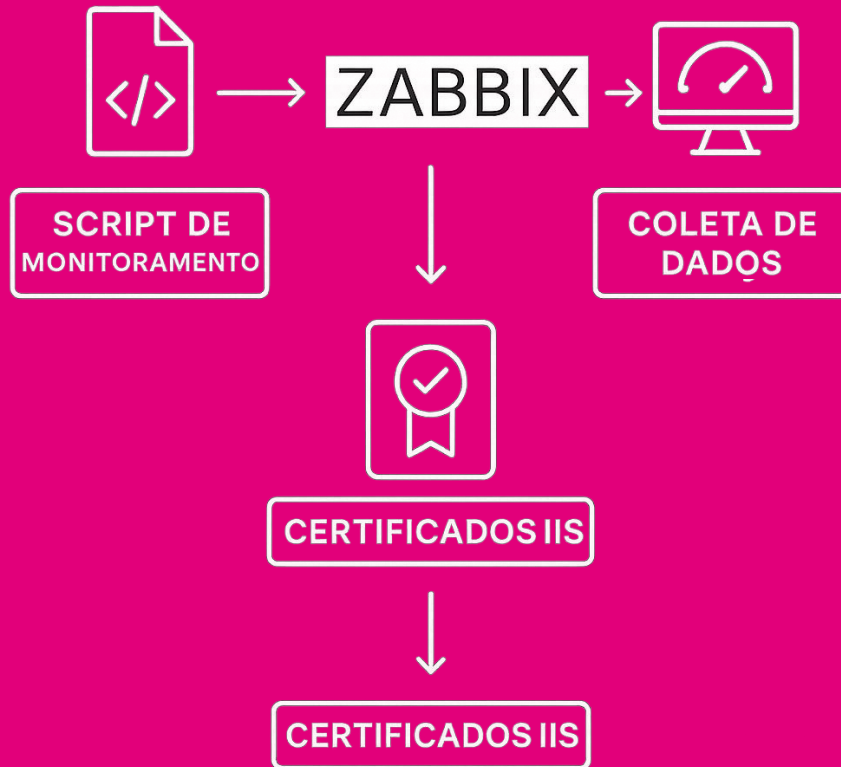
- Anderson Bezerra Silva



Automação e Eficiência

- A descoberta dos sites é dinâmica: **novas aplicações HTTPS são detectadas automaticamente.**
- O processo é escalável, mesmo com dezenas ou centenas de servidores.

COMO FUNCIONA





Resumo

- O agente Zabbix executa o script PowerShell no servidor IIS
- O script descobre todos os sites HTTPS no IIS e verifica os certificados
- É calculado o número de dias até o vencimento de cada certificado
- Esses dados são enviados automaticamente ao Proxy do Zabbix
- A discovery rule cria dinamicamente itens para cada site detectado
- Triggers são configuradas para alertar quando o vencimento estiver próximo
- Alertas são enviados com antecedência, permitindo ação proativa da equipe

Demonstração de descobertas do lado do Servidor

```
PS C:\Users\d154_sbc_a_andesi3> powershell -NoProfile -ExecutionPolicy Bypass -File "C:\Zabbix\scripts\iis_cert_expiry.ps1"
{
  "data": [
    {
      "{#DAYSLEFT}": 336,
      "{#SITE}": "gtttapih.br154.tbintra.net",
      "{#URL}": "https://gtttapih.br154.tbintra.net",
      "{#HOSTNAME}": "gtttapih.br154.tbintra.net"
    },
    {
      "{#DAYSLEFT}": 258,
      "{#SITE}": "gtttapi-hml.br154.tbintra.net",
      "{#URL}": "https://gtttapi-hml.br154.tbintra.net",
      "{#HOSTNAME}": "gtttapi-hml.br154.tbintra.net"
    },
    {
      "{#DAYSLEFT}": 279,
      "{#SITE}": "gttt-hml.br154.tbintra.net",
      "{#URL}": "https://gttt-hml.br154.tbintra.net",
      "{#HOSTNAME}": "gttt-hml.br154.tbintra.net"
    },
    {
      "{#DAYSLEFT}": 336,
      "{#SITE}": "pnrconverter-hml.br154.tbintra.net",
      "{#URL}": "https://pnrconverter-hml.br154.tbintra.net",
      "{#HOSTNAME}": "pnrconverter-hml.br154.tbintra.net"
    },
    {
      "{#DAYSLEFT}": 258,
      "{#SITE}": "ppmihangfire-hml.br154.tbintra.net",
      "{#URL}": "https://ppmihangfire-hml.br154.tbintra.net",
      "{#HOSTNAME}": "ppmihangfire-hml.br154.tbintra.net"
    },
    {
      "{#DAYSLEFT}": 258,
      "{#SITE}": "SGPEletronica-api-hml.br154.tbintra.net",
      "{#URL}": "https://SGPEletronica-api-hml.br154.tbintra.net",
      "{#HOSTNAME}": "SGPEletronica-api-hml.br154.tbintra.net"
    },
    {
      "{#DAYSLEFT}": 258,
      "{#SITE}": "SGPEletronica-hml.br154.tbintra.net",
      "{#URL}": "https://SGPEletronica-hml.br154.tbintra.net",
      "{#HOSTNAME}": "SGPEletronica-hml.br154.tbintra.net"
    }
  ]
}
PS C:\Users\d154_sbc_a_andesi3> █
```

```
{
  "{#DAYSLEFT}": 336,
  "{#SITE}": "gtttapih.br154.tbintra.net",
  "{#URL}": "https://gtttapih.br154.tbintra.net",
  "{#HOSTNAME}": "gtttapih.br154.tbintra.net"
},
{
```

{#DAYSLEFT} - Dias restantes até a expiração do certificado HTTPS

{#SITE} - Nome do site dentro do IIS

{#URL} - URL completa do binding HTTPS

{#HOSTNAME} - Hostname atribuído ao binding no IIS

Exemplo: Template no Zabbix 5

Coletas:

ZABBIX <<

Zabbix Producao

Monitoring ^

Dashboard

Problems

Hosts

Overview

Latest data

Screens

Maps

Discovery

Services

Latest data

▼ ☐ Host ▲

S154ASGTTT01 - WIN IIS FTP ...

Certificados IIS (5 Items)

	Name	Last check	Last value
<input type="checkbox"/>	Dias até expirar certificado para https://gttt.br154.tbintra.net	2025-05-14 08:06:53	279 d
<input type="checkbox"/>	Dias até expirar certificado para https://gtttapi.br154.tbintra.net	2025-05-14 08:06:53	258 d
<input type="checkbox"/>	Dias até expirar certificado para https://ppmihangfire.br154.tbintra.net	2025-05-14 08:06:54	258 d
<input type="checkbox"/>	Dias até expirar certificado para https://sgpeletronica-api.br154.tbintra.net	2025-05-14 08:06:56	258 d
<input type="checkbox"/>	Dias até expirar certificado para https://sgpeletronica.br154.tbintra.net	2025-05-14 08:06:55	258 d

0 selected

Display stacked graph

Display graph

Itens: Template no Zabbix 5

Items

Create item

All hosts / S154ASGTT01 - WIN IIS FTP SGP Enabled ZBX SNMP JMX IPMI Applications 20 Items 164 Triggers 100 Graphs 17 Discovery rules 8 Web scenarios

Filter

Wizard	Name	Triggers	Key	Interval	History	Trends	Type	Applications	Status	Info
	Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://gltt.br154.tbinfra.net	Triggers 1	iis.cert.expiry[https://gltt.br154.tbinfra.net]	3600	90d	365d	Zabbix agent	Certificados IIS	Enabled	
	Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://glttapi.br154.tbinfra.net	Triggers 1	iis.cert.expiry[https://glttapi.br154.tbinfra.net]	3600	90d	365d	Zabbix agent	Certificados IIS	Enabled	
	Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://ppmihangfire.br154.tbinfra.net	Triggers 1	iis.cert.expiry[https://ppmihangfire.br154.tbinfra.net]	3600	90d	365d	Zabbix agent	Certificados IIS	Enabled	
	Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://s154asgtt01.br154.corpinfra.net	Triggers 1	iis.cert.expiry[https://s154asgtt01.br154.corpinfra.net]	3600	90d	365d	Zabbix agent	Certificados IIS	Disabled	
	Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://sgpeletronica-apl.br154.tbinfra.net	Triggers 1	iis.cert.expiry[https://sgpeletronica-apl.br154.tbinfra.net]	3600	90d	365d	Zabbix agent	Certificados IIS	Enabled	
	Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://sgpeletronica.br154.tbinfra.net	Triggers 1	iis.cert.expiry[https://sgpeletronica.br154.tbinfra.net]	3600	90d	365d	Zabbix agent	Certificados IIS	Enabled	

Displaying 6 of 6 found

Triggers: Template no Zabbix 5

Triggers										Create trigger
All hosts / S154ASGTTT01 - WIN IIS FTP SGP										
Enabled ZBX SNMP JMX IPMI										
Applications 20 Items 164 Triggers 100 Graphs 17 Discovery rules 8 Web scenarios										
	Severity	Value	Name	Operational data	Expression	Status	Info	Tags		Filter
	Average	OK	Descoberta de sites HTTPS (IIS): ⚠ Certificado do site https://sgpeletronica.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias		{S154ASGTTT01:iis.cert.expiry[https://sgpeletronica.br154.tbintera.net].last()}<=30 and {S154ASGTTT01:iis.cert.expiry[https://sgpeletronica.br154.tbintera.net].last()}>0	Enabled				
	Average	OK	Descoberta de sites HTTPS (IIS): ⚠ Certificado do site https://sgpeletronica-api.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias		{S154ASGTTT01:iis.cert.expiry[https://sgpeletronica-api.br154.tbintera.net].last()}<=30 and {S154ASGTTT01:iis.cert.expiry[https://sgpeletronica-api.br154.tbintera.net].last()}>0	Enabled				
	Average	OK	Descoberta de sites HTTPS (IIS): ⚠ Certificado do site https://s154asgitt01.br154.corpintra.net vence em {ITEM.LASTVALUE1} dias		{S154ASGTTT01:iis.cert.expiry[https://s154asgitt01.br154.corpintra.net].last()}<=30 and {S154ASGTTT01:iis.cert.expiry[https://s154asgitt01.br154.corpintra.net].last()}>0	Disabled				
	Average	OK	Descoberta de sites HTTPS (IIS): ⚠ Certificado do site https://ppmihangfire.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias		{S154ASGTTT01:iis.cert.expiry[https://ppmihangfire.br154.tbintera.net].last()}<=30 and {S154ASGTTT01:iis.cert.expiry[https://ppmihangfire.br154.tbintera.net].last()}>0	Enabled				
	Average	OK	Descoberta de sites HTTPS (IIS): ⚠ Certificado do site https://gtttapi.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias		{S154ASGTTT01:iis.cert.expiry[https://gtttapi.br154.tbintera.net].last()}<=30 and {S154ASGTTT01:iis.cert.expiry[https://gtttapi.br154.tbintera.net].last()}>0	Enabled				
	Average	OK	Descoberta de sites HTTPS (IIS): ⚠ Certificado do site https://gttt.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias		{S154ASGTTT01:iis.cert.expiry[https://gttt.br154.tbintera.net].last()}<=30 and {S154ASGTTT01:iis.cert.expiry[https://gttt.br154.tbintera.net].last()}>0	Enabled				

Exemplo: Template no Zabbix 7

Coletas:

ZABBIX

HOMOLOGAÇÃO

Dashboards

Monitoring

☐

Q154ASGTTT01 - WI...

Dias até expirar certificado para https://gtttapi-hml.br154.t...

50m 7s

258 d

☐

Q154ASGTTT01 - WI...

Dias até expirar certificado para https://gtttapih.br154.tbin...

50m 8s

336 d

☐

Q154ASGTTT01 - WI...

Dias até expirar certificado para https://pnrconverter-hml....

50m 5s

336 d

☐

Q154ASGTTT01 - WI...

Dias até expirar certificado para https://ppmihangfire-hml....

50m 4s

258 d

☐

Q154ASGTTT01 - WI...

Dias até expirar certificado para https://SGPEletronica-ap...

50m 3s

258 d

☐

Q154ASGTTT01 - WI...

Dias até expirar certificado para https://SGPEletronica-h...

50m 2s

258 d

Itens: Template no Zabbix 7

ZABBIX << >> HOMOLOGAÇÃO											
Monitoring											
Services											
Inventory											
Reports											
Data collection											
Template groups											
Host groups											
Templates											
Hosts											
Maintenance											
		<input type="checkbox"/>	*** Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://SGPEletronica-hml.br154.tbintra.net	Triggers 1	iis.cert.expiry[https://SGPEletronica-hml.br154.tbintra.net]	3600	31d	365d	Zabbix agent	Enabled	
		<input type="checkbox"/>	*** Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://SGPEletronica-api-hml.br154.tbintra.net	Triggers 1	iis.cert.expiry[https://SGPEletronica-api-hml.br154.tbintra.net]	3600	31d	365d	Zabbix agent	Enabled	
		<input type="checkbox"/>	*** Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://ppmihangfire-hml.br154.tbintra.net	Triggers 1	iis.cert.expiry[https://ppmihangfire-hml.br154.tbintra.net]	3600	31d	365d	Zabbix agent	Enabled	
		<input type="checkbox"/>	*** Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://pnrconverter-hml.br154.tbintra.net	Triggers 1	iis.cert.expiry[https://pnrconverter-hml.br154.tbintra.net]	3600	31d	365d	Zabbix agent	Enabled	
		<input type="checkbox"/>	*** Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://gtttapih.br154.tbintra.net	Triggers 1	iis.cert.expiry[https://gtttapih.br154.tbintra.net]	3600	31d	365d	Zabbix agent	Enabled	
		<input type="checkbox"/>	*** Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://gtttapi-hml.br154.tbintra.net	Triggers 1	iis.cert.expiry[https://gtttapi-hml.br154.tbintra.net]	3600	31d	365d	Zabbix agent	Enabled	
		<input type="checkbox"/>	*** Descoberta de sites HTTPS (IIS): Dias até expirar certificado para https://gttt-hml.br154.tbintra.net	Triggers 1	iis.cert.expiry[https://gttt-hml.br154.tbintra.net]	3600	31d	365d	Zabbix agent	Enabled	

Triggers: Template no Zabbix 7

<div>ZABBIX << 🔍</div> <div>HOMOLOGAÇÃO</div> <div><input type="text"/></div> <div><div><div></div><div>Dashboards</div></div><div><div></div><div>Monitoring</div></div><div><div></div><div>Services</div></div><div><div></div><div>Inventory</div></div><div><div></div><div>Reports</div></div><div><div><div></div><div>Data collection</div></div><div>Template groups</div><div>Host groups</div><div>Templates</div><div>Hosts</div><div>Maintenance</div><div>Event correlation</div></div></div>	<input type="checkbox"/>	Average	OK	Descoberta de sites HTTPS (IIS): ⚠️ Certificado do site https://gttt-hml.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias	last(/Q154ASGTTT01/iis.cert.expiry[https://gttt-hml.br154.tbintera.net]) <=30 and last(/Q154ASGTTT01/iis.cert.expiry[https://gttt-hml.br154.tbintera.net])>0	Enabled
	<input type="checkbox"/>	Average	OK	Descoberta de sites HTTPS (IIS): ⚠️ Certificado do site https://gtttapi-hml.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias	last(/Q154ASGTTT01/iis.cert.expiry[https://gtttapi-hml.br154.tbintera.net]) <=30 and last(/Q154ASGTTT01/iis.cert.expiry[https://gtttapi-hml.br154.tbintera.net])>0	Enabled
	<input type="checkbox"/>	Average	OK	Descoberta de sites HTTPS (IIS): ⚠️ Certificado do site https://gtttapih.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias	last(/Q154ASGTTT01/iis.cert.expiry[https://gtttapih.br154.tbintera.net]) <=30 and last(/Q154ASGTTT01/iis.cert.expiry[https://gtttapih.br154.tbintera.net])>0	Enabled
	<input type="checkbox"/>	Average	OK	Descoberta de sites HTTPS (IIS): ⚠️ Certificado do site https://pnrconverter-hml.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias	last(/Q154ASGTTT01/iis.cert.expiry[https://pnrconverter-hml.br154.tbintera.net]) <=30 and last(/Q154ASGTTT01/iis.cert.expiry[https://pnrconverter-hml.br154.tbintera.net])>0	Enabled
	<input type="checkbox"/>	Average	OK	Descoberta de sites HTTPS (IIS): ⚠️ Certificado do site https://ppmihangfire-hml.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias	last(/Q154ASGTTT01/iis.cert.expiry[https://ppmihangfire-hml.br154.tbintera.net]) <=30 and last(/Q154ASGTTT01/iis.cert.expiry[https://ppmihangfire-hml.br154.tbintera.net])>0	Enabled
	<input type="checkbox"/>	Average	OK	Descoberta de sites HTTPS (IIS): ⚠️ Certificado do site https://SGPEletronica-api-hml.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias	last(/Q154ASGTTT01/iis.cert.expiry[https://SGPEletronica-api-hml.br154.tbintera.net]) <=30 and last(/Q154ASGTTT01/iis.cert.expiry[https://SGPEletronica-api-hml.br154.tbintera.net])>0	Enabled
	<input type="checkbox"/>	Average	OK	Descoberta de sites HTTPS (IIS): ⚠️ Certificado do site https://SGPEletronica-hml.br154.tbintera.net vence em {ITEM.LASTVALUE1} dias	last(/Q154ASGTTT01/iis.cert.expiry[https://SGPEletronica-hml.br154.tbintera.net]) <=30 and last(/Q154ASGTTT01/iis.cert.expiry[https://SGPEletronica-hml.br154.tbintera.net])>0	Enabled