

# Zabbix proxy com PfSense



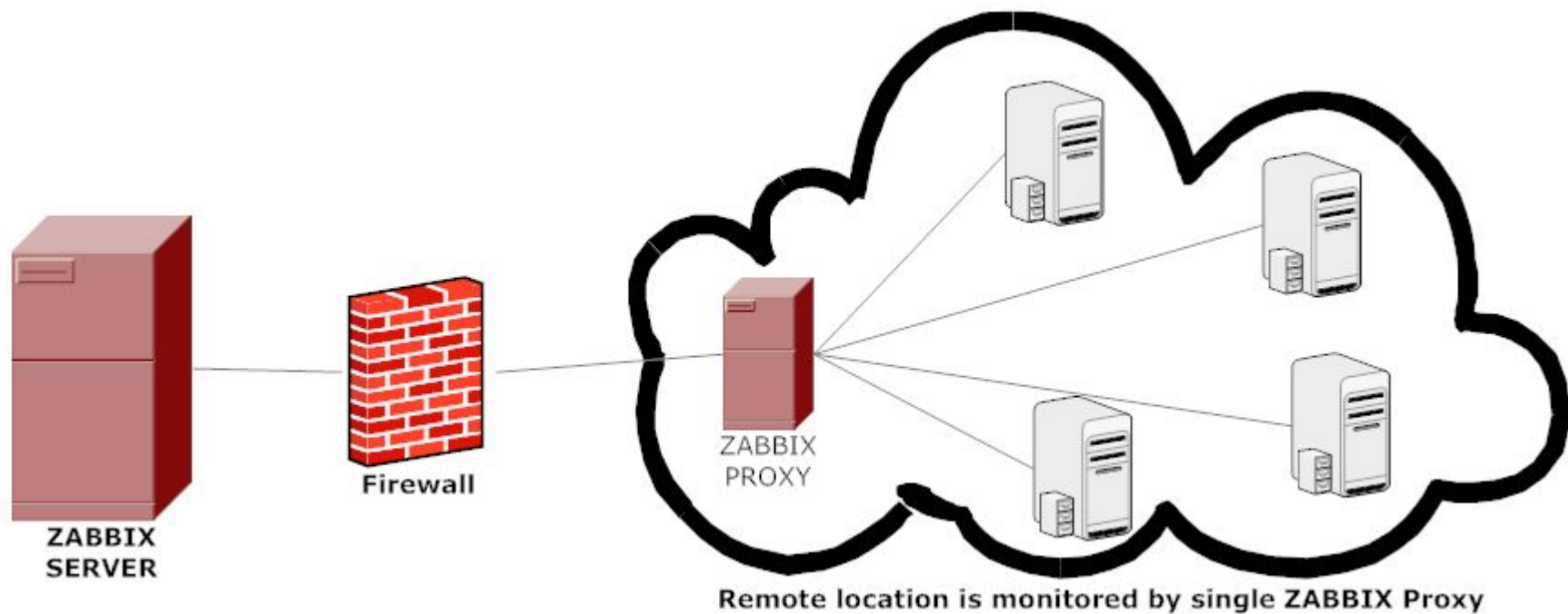
Distribuição personalizada baseada em FreeBSD, adaptada para firewall e roteador, gerenciado via interface web. Inclui uma longa lista de recursos relacionados e um sistema de pacotes que permite mais expansibilidade.



Criado por Alexei Vladishev, atualmente desenvolvido pela Zabbix SIA. Solução open source que monitora vários parâmetros de rede, servidores, nobreak, impressoras e mais uma lista imensa de dispositivos.

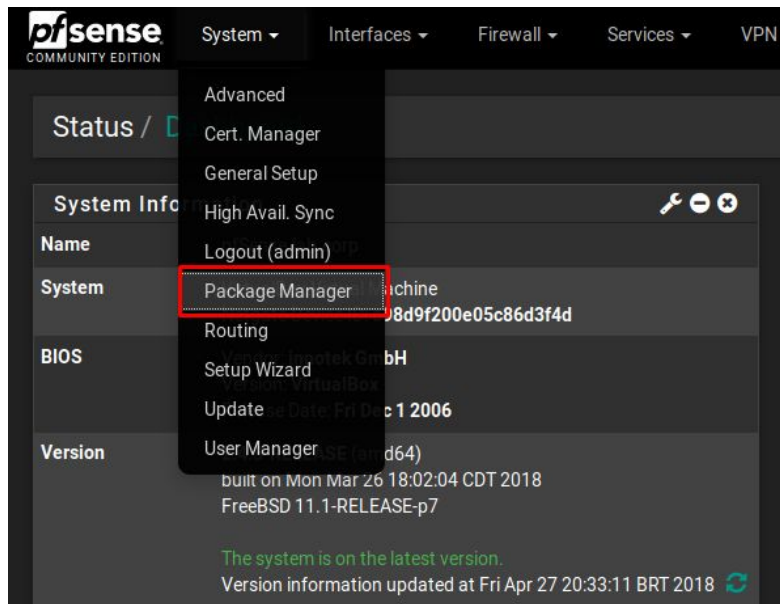
# Zabbix Proxy

É um processo que pode coletar dados de monitoramento de um ou mais dispositivos monitorados e envia as informações para o servidor Zabbix. Todos os dados coletados são armazenados localmente e depois transferidos para o servidor Zabbix ao qual o proxy pertence. O proxy do Zabbix requer um DB separado.



# Mãos à obra

Acesse o PfSense via web e clique em Packet Manager.



## Selezione Available Packages e busque por zabbix

The screenshot displays the pfSense web interface, specifically the Package Manager section. The top navigation bar includes the pfSense logo and various system management links. The breadcrumb trail indicates the current location: System / Package Manager / Available Packages. Below this, there are two tabs: 'Installed Packages' and 'Available Packages', with the latter being selected and highlighted by a red rectangle. The 'Search' section features a search term input field containing 'Zabbix', a dropdown menu set to 'Both', and 'Search' and 'Clear' buttons. A red arrow points to the 'Search' button. Below the search fields, a text prompt instructs the user to enter a search string or a regular expression.

pfSense  
COMMUNITY EDITION

System ▾ Interfaces ▾ Firewall ▾ Services ▾ VPN ▾ Status ▾ Diagnostics ▾ Help ▾

System / Package Manager / Available Packages

Installed Packages Available Packages

Search

Search term Zabbix Both Search Clear

Enter a search string or \*nix regular expression to search package names and descriptions.

## Após a busca, instale os seguintes pacotes: zabbix-agent34 e zabbix-proxy34

zabbix-  
proxy34

1.0.1

A Zabbix proxy can collect performance and availability data on behalf of the Zabbix server. This way, a proxy can take on itself some of the load of collecting data and offload the Zabbix server. Also, using a proxy is the easiest way of implementing centralized and distributed monitoring, when all agents and proxies report to one Zabbix server and all data is collected centrally. Zabbix is an enterprise-class open source distributed monitoring solution.

Package Dependencies:

 [zabbix34-proxy-3.4.5](#)


 Install

zabbix-  
agent34

1.0.1

Zabbix agent is deployed on a monitoring target to actively monitor local resources and applications (hard drives, memory, processor statistics etc). The agent gathers operational information locally and reports data to Zabbix server for further processing. In case of failures (such as a hard disk running full or a crashed service process), Zabbix server can actively alert the administrators of the particular machine that reported the failure. Zabbix is an enterprise-class open source distributed monitoring solution.

Package Dependencies:

 [zabbix34-agent-3.4.5](#)

 Install



# Confirme se ambos os pacotes foram instalados corretamente

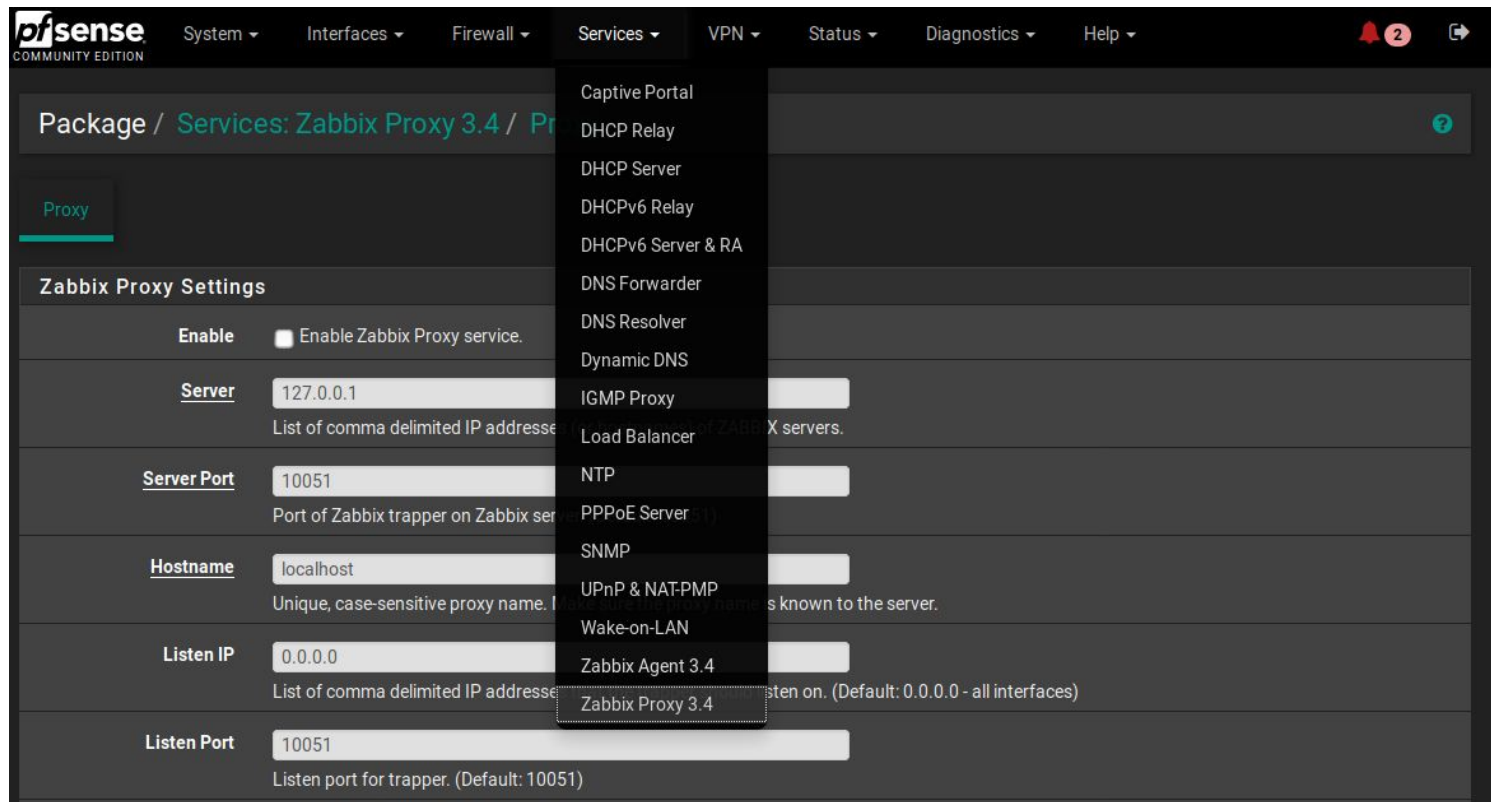
Installed Packages

Available Packages

Installed Packages

Name	Category	Version	Description	Actions
<div>✓</div> <div>zabbix-agent34</div>	net-mgmt	1.0.1	<div> <div> <p>Zabbix agent is deployed on a monitoring target to actively monitor local resources and applications (hard drives, memory, processor statistics etc). The agent gathers operational information locally and reports data to Zabbix server for further processing. In case of failures (such as a hard disk running full or a crashed service process), Zabbix server can actively alert the administrators of the particular machine that reported the failure. Zabbix is an enterprise-class open source distributed monitoring solution.</p> <p>Package Dependencies:</p> <div> <div>🔗</div> <div>zabbix34-agent-3.4.5</div> </div> </div> </div>	<div>🗑️ ↺</div> <div>ℹ️</div>
<div>✓</div> <div>zabbix-proxy34</div>	net-mgmt	1.0.1	<div> <div> <p>A Zabbix proxy can collect performance and availability data on behalf of the Zabbix server. This way, a proxy can take on itself some of the load of collecting data and offload the Zabbix server. Also, using a proxy is the easiest way of implementing centralized and distributed monitoring, when all agents and proxies report to one Zabbix server and all data is collected centrally. Zabbix is an enterprise-class open source distributed monitoring solution.</p> <p>Package Dependencies:</p> <div> <div>🔗</div> <div>zabbix34-proxy-3.4.5</div> </div> </div> </div>	<div>🗑️ ↺</div> <div>ℹ️</div>

## Após clique em Services -> Zabbix proxy 3.4



The screenshot shows the PfSense web interface. The top navigation bar includes the 'Services' menu, which is open, displaying a list of services. 'Zabbix Proxy 3.4' is highlighted in the list. The main content area shows the 'Zabbix Proxy Settings' page, which is partially obscured by the menu. The settings page includes fields for 'Enable', 'Server', 'Server Port', 'Hostname', 'Listen IP', and 'Listen Port'. The 'Enable' checkbox is unchecked. The 'Server' field contains '127.0.0.1'. The 'Server Port' field contains '10051'. The 'Hostname' field contains 'localhost'. The 'Listen IP' field contains '0.0.0.0'. The 'Listen Port' field contains '10051'.

**Services Menu:**

- Captive Portal
- DHCP Relay
- DHCP Server
- DHCPv6 Relay
- DHCPv6 Server & RA
- DNS Forwarder
- DNS Resolver
- Dynamic DNS
- IGMP Proxy
- Load Balancer
- NTP
- PPPoE Server
- SNMP
- UPnP & NAT-PMP
- Wake-on-LAN
- Zabbix Agent 3.4
- Zabbix Proxy 3.4**

**Zabbix Proxy Settings:**

- Enable:** ☐ Enable Zabbix Proxy service.
- Server:** 127.0.0.1  
List of comma delimited IP addresses of Zabbix servers.
- Server Port:** 10051  
Port of Zabbix trapper on Zabbix server.
- Hostname:** localhost  
Unique, case-sensitive proxy name. Make sure the proxy names are known to the server.
- Listen IP:** 0.0.0.0  
List of comma delimited IP addresses of interfaces to listen on. (Default: 0.0.0.0 - all interfaces)
- Listen Port:** 10051  
Listen port for trapper. (Default: 10051)

# Configure seu zabbix proxy

Zabbix Proxy Settings	
<b>Enable</b>	<input checked="" type="checkbox"/> Enable Zabbix Proxy service.
<b>Server</b>	<input type="text" value="200.200.200.1"/> List of comma delimited IP addresses (or hostnames) of ZABBIX servers.
<b>Server Port</b>	<input type="text" value="10051"/> Port of Zabbix trapper on Zabbix server. (Default: 10051)
<b>Hostname</b>	<input type="text" value="zbxproxy.lab.corp"/> Unique, case-sensitive proxy name. Make sure the proxy name is known to the server.
<b>Listen IP</b>	<input type="text" value="0.0.0.0"/> List of comma delimited IP addresses that the trapper should listen on. (Default: 0.0.0.0 - all interfaces)
<b>Listen Port</b>	<input type="text" value="10051"/> Listen port for trapper. (Default: 10051)
<b>Proxy Mode</b>	<input type="text" value="Active"/> Select Zabbix proxy mode (Default: Active)
<b>Config Frequency</b>	<input type="text" value="3600"/> How often the proxy retrieves configuration data from the Zabbix server in seconds. Ignored if the proxy runs in passive mode.
<b>Trapper Timeout</b>	<input type="text" value="300"/> Specifies how many seconds trapper may spend processing new data. (Default: 300) (Range: 1-300)
<b>Start Trappers</b>	<input type="text" value="5"/> Number of pre-forked instances of trappers. Trappers accept incoming connections from Zabbix sender and active agents. Default: 5 Range: 0-1000

Veja mais em [https://www.zabbix.com/documentation/3.4/pt/manual/appendix/config/zabbix\\_proxy](https://www.zabbix.com/documentation/3.4/pt/manual/appendix/config/zabbix_proxy)

## TLS-RELATED Parameters

TLS Connect

psk

How the agent should connect to server or proxy. Used for active checks.

Only one value can be specified:

**unencrypted** - connect without encryption

**psk** - connect using TLS and a pre-shared key

**cert** - connect using TLS and a certificate

TLS Accept

unencrypted

psk

cert

What incoming connections to accept.

Multiple values can be specified:

**unencrypted** - connect without encryption

**psk** - connect using TLS and a pre-shared key

**cert** - connect using TLS and a certificate

TLS CA

none

Top-level CA certificate for peer certificate verification.

TLS CA System



Use the CA certificate list from the operating system. This option overrides prior option.

TLS CRL

none

List of revoked certificates.

TLS Cert

none

Agent certificate.

TLS PSK Identity

psk004

Unique, case sensitive string used to identify the pre-shared key.

TLS PSK

d422406b37d351dabbda9f54ad6080e753906a93452a57498e0da9  
184adfad35

## SNMP Trap Monitoring

Start SNMP Trapper

Disabled

If enabled, SNMP trapper process is started.

SNMP Trapper File

/tmp/zabbix\_traps.tmp

Temporary file used for passing data from SNMP trap daemon to the proxy.  
Must be the same as in zabbix\_trap\_receiver.pl or SNMPTT configuration file.

## Advanced Features

Advanced Parameters

DataSenderFrequency=30

Advanced parameters. There are some rarely used parameters that sometimes need to be defined. Example: StartDiscoverers=10

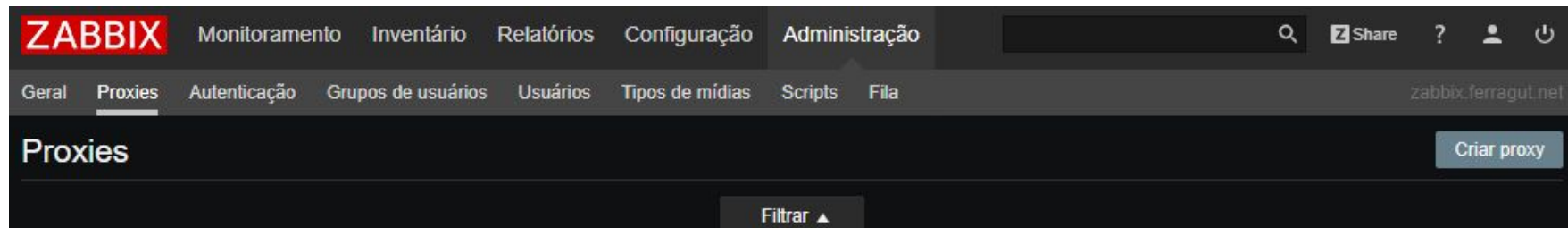


Save



Hide Advanced Options

Hora do Zabbix, abra seu zabbix, acesse Administração -> Proxies -> Cria proxy



Preencha o Nome do Proxy idêntico ao inserido no seu PfSense, e selecione o modo do proxy igual ao setado no PfSense

### Proxies

**Proxy** Criptografia

\* Nome do proxy

zbxproxy.lab.corp

Modo do proxy

Ativo

Passivo

Proxy address

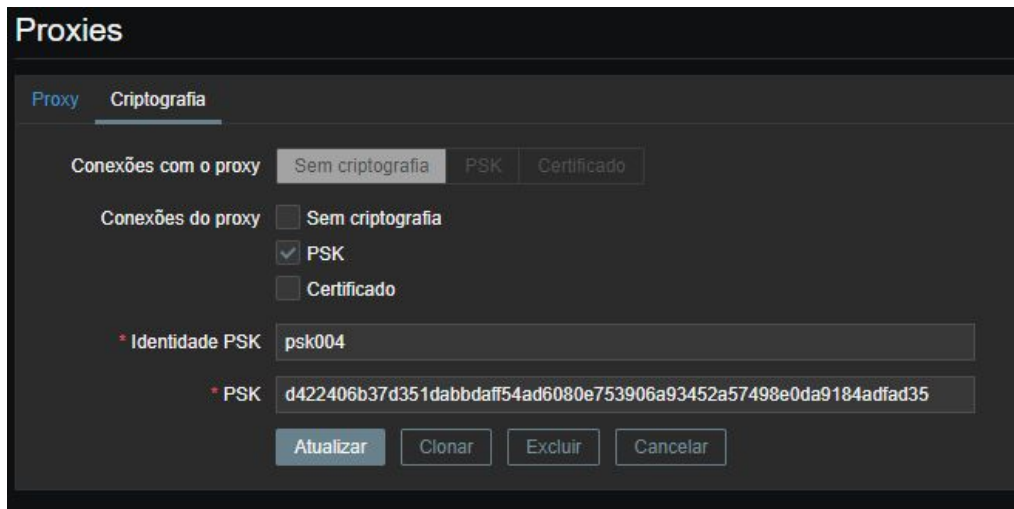
Descrição

Proxy para FLISol2018

Adicionar

Cancelar

Na aba criptografia, selecione o método escolhido em Conexões do Proxy e insira os dados conforme configurados no PfSense



The screenshot shows the 'Proxies' configuration window in pfSense, specifically the 'Criptografia' (Cryptography) tab. The interface is dark-themed. At the top, there are two tabs: 'Proxy' and 'Criptografia'. Below the tabs, there are three buttons: 'Sem criptografia', 'PSK', and 'Certificado'. The 'PSK' button is selected. Under the heading 'Conexões do proxy', there are three radio buttons: 'Sem criptografia', 'PSK' (which is checked), and 'Certificado'. Below these, there are two text input fields. The first is labeled '\* Identidade PSK' and contains the text 'psk004'. The second is labeled '\* PSK' and contains a long alphanumeric string: 'd422406b37d351dabbdaff54ad6080e753906a93452a57498e0da9184adfad35'. At the bottom of the form, there are four buttons: 'Atualizar', 'Clonar', 'Excluir', and 'Cancelar'.

Proxies

Proxy Criptografia

Conexões com o proxy Sem criptografia PSK Certificado

Conexões do proxy ☐ Sem criptografia ☒ PSK ☐ Certificado

\* Identidade PSK psk004

\* PSK d422406b37d351dabbdaff54ad6080e753906a93452a57498e0da9184adfad35

Atualizar Clonar Excluir Cancelar

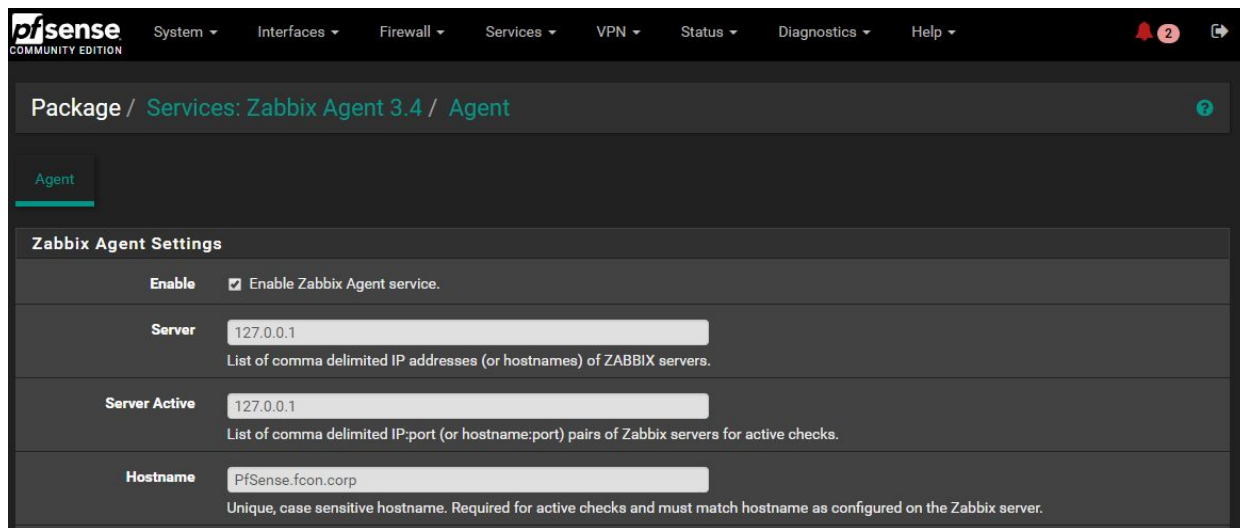


Confirme se existe a sincronização do proxy

<input type="checkbox"/>	zbxproxy.lab.corp	Ativo	PSK	6s	0	0	0
--------------------------	-------------------	-------	-----	----	---	---	---

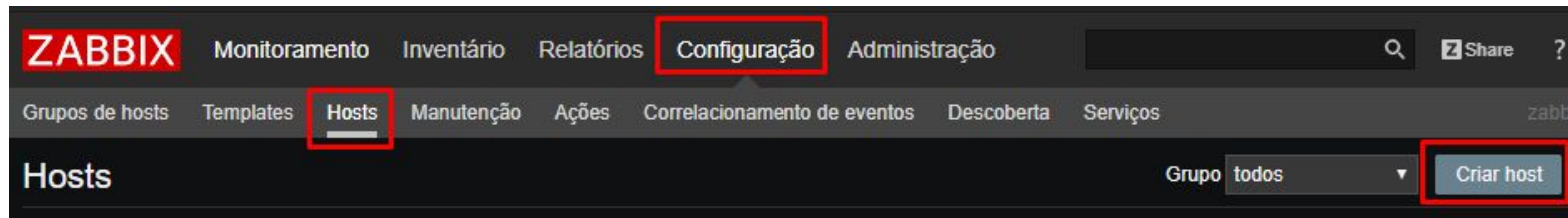


Agora iremos adicionar os hosts do proxy: configure seu zabbix agent, ou seu SNMP como se seu zabbix proxy fosse o zabbix server



The screenshot displays the pfSense web interface, specifically the 'Services: Zabbix Agent 3.4 / Agent' configuration page. The interface has a dark theme. At the top, there is a navigation bar with the pfSense logo and 'COMMUNITY EDITION' text, followed by menu items: System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, and Help. On the right of the navigation bar, there is a notification bell icon with the number '2' and a help icon. Below the navigation bar, the breadcrumb trail reads 'Package / Services: Zabbix Agent 3.4 / Agent'. A left sidebar contains a link labeled 'Agent'. The main content area is titled 'Zabbix Agent Settings' and contains four configuration sections: 1. 'Enable' with a checked checkbox and the text 'Enable Zabbix Agent service.' 2. 'Server' with a text input field containing '127.0.0.1' and a description: 'List of comma delimited IP addresses (or hostnames) of ZABBIX servers.' 3. 'Server Active' with a text input field containing '127.0.0.1' and a description: 'List of comma delimited IP:port (or hostname:port) pairs of Zabbix servers for active checks.' 4. 'Hostname' with a text input field containing 'PfSense.fcon.corp' and a description: 'Unique, case sensitive hostname. Required for active checks and must match hostname as configured on the Zabbix server.'

Volte para o zabbix e crie um novo host para monitoramento.



Faça a configuração do seu host como se seu server estivesse na mesma rede, ficando atento para selecionar o proxy onde se encontra o host

### Hosts

Host Templates IPMI Macros Inventário do host Criptografia

\* Nome do host

Nome visível

\* Grupos    
Informe aqui o argumento para pesquisa

\* At least one interface must exist.

Interfaces do agente	Endereço IP	Nome DNS	Conectado a	Porta	Padrão
<div><div></div><div>127.0.0.1</div></div> <div><a href="#">Adicionar</a></div>			<div><div>IP</div><div>DNS</div></div>	<div><div>10050</div></div>	<div><div><input checked="" type="radio"/></div>Remover</div>

Interfaces SNMP [Adicionar](#)

Interfaces JMX [Adicionar](#)






























Interfaces IPMI [Adicionar](#)

Descrição

Monitorado por proxy

Ativo ☒

Reinicie os serviços do zabbix\_proxy e zabbix\_agentd

Status / Services <span>?</span>			
Services			
Service	Description	Status	Actions
dhcpcd	DHCP Service	✓	    
dpinger	Gateway Monitoring Daemon	✓	    
ntpd	NTP clock sync	✓	    
sshd	Secure Shell Daemon	✓	 
syslogd	System Logger Daemon	✓	   
unbound	DNS Resolver	✓	   
zabbix_agentd	Zabbix Agent Host Monitor Daemon	✓	 
zabbix_proxy	Zabbix Proxy Collection Daemon	✓	 

# No zabbix server, verifique se a coleta de dados está funcionando.

Dashboard Incidentes Visão geral Web **Dados recentes** Triggers Gráficos Telas Mapas Descoberta Serviços zabbix.ferragut.net

## Dados recentes

Filtrar ▲

Grupos de hosts  Selecionar Nome

Hosts **PISense.lab.corp** ☒ Selecionar Exibir itens sem dados ☒

Selecionar

Aplicação  Selecionar

Aplicar Limpar

▼ <input type="checkbox"/> Host	Nome ▲	Última checagem	Último valor	Modificar
▼ <input type="checkbox"/> PISense.lab.corp	CPU (10 Itens)			
<input type="checkbox"/>	Context switches per second	28-04-2018 03:24:23	210 sps	<a href="#">Gráfico</a>
<input type="checkbox"/>	CPU idle time	28-04-2018 03:24:24	99.83 %	+0.14 % <a href="#">Gráfico</a>
<input type="checkbox"/>	CPU interrupt time	28-04-2018 03:24:25	0.02 %	<a href="#">Gráfico</a>
<input type="checkbox"/>	CPU nice time	28-04-2018 03:24:26	0.0063 %	-0.01 % <a href="#">Gráfico</a>
<input type="checkbox"/>	CPU system time	28-04-2018 03:24:27	0.12 %	-0.07 % <a href="#">Gráfico</a>
<input type="checkbox"/>	CPU user time	28-04-2018 03:24:28	0.02 %	-0.07 % <a href="#">Gráfico</a>
<input type="checkbox"/>	Interrupts per second	28-04-2018 03:24:19	20 ips	<a href="#">Gráfico</a>
<input type="checkbox"/>	Processor load (1 min average per core)	28-04-2018 03:24:21	0.04	-0.03 <a href="#">Gráfico</a>
<input type="checkbox"/>	Processor load (5 min average per core)	28-04-2018 03:24:22	0.06	<a href="#">Gráfico</a>
<input type="checkbox"/>	Processor load (15 min average per core)	28-04-2018 03:24:20	0.06	<a href="#">Gráfico</a>

# Agradecimentos

Quero agradecer meus pais por todo o apoio que recebi durante a vida, principalmente meu pai, que está na área de T.I. desde meados de 1980 e me serviu de inspiração. rs

Também quero agradecer pessoas que me ensinaram muito, Rodrigo Crepaldi, Juliano Sturza, Julio Bertoloti e Jorge Pretel.



# Obrigado!!!!

Dúvidas?



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