

# Usando Zabbix para Monitorar Clientes SNMPv3

## INTRODUÇÃO:

Começo esse artigo partindo do princípio que:

- Você já possui conhecimento sobre o SNMP;
- O SNMPv3 já está configurado no host a ser monitorado;
- Você conhece o suficiente de SNMPv3 para entender os comandos usados durante o artigo;
- Você já tem uma experiência prévia de criação de itens no Zabbix.

## OBJETIVO:

Demonstrar que o Zabbix pode ser usado para monitorar equipamento através do Protocolo SNMPv3.

## NÍVEL DO TUTORIAL:

Avançado.

## PRIMEIRO PASSO - TESTAR A LEITURA DOS PARÂMETRO PELO SERVIDOR ZABBIX:

Tráfego de Entrada da Interface 01:

```
# snmpget -v 3 -u USER_SNMP_HOST -n "" -l authNoPriv -a MD5 -A SENHA_USER_SNMP_HOST -x DES IP_HOST ifInOctets.1
IF-MIB::ifInOctets.1 = Counter32: 6074460
```

Tráfego de Saída da Interface 01:

```
# snmpget -v 3 -u USER_SNMP_HOST -n "" -l authNoPriv -a MD5 -A SENHA_USER_SNMP_HOST -x DES IP_HOST ifOutOctets.1
IF-MIB::ifOutOctets.1 = Counter32: 6074460
```

Tempo que o host está ligado (Uptime):

```
# snmpget -v 3 -u USER_SNMP_HOST -n "" -l authNoPriv -a MD5 -A SENHA_USER_SNMP_HOST -x DES IP_HOST sysUpTime.0
DISMAN-EVENT-MIB::sysUpTimeInstance = Timeticks: (11778) 0:01:57.78
```

## SEGUNDO PASSO - CRIAR O HOST NO ZABBIX:

Configuration // Hosts // Escolha o grupo e clique no botão "Create Host".

The screenshot shows the Zabbix web interface. At the top left is the ZABBIX logo. On the right, there are links for Help, Get support, Print, Profile, and Logout. Below the logo is a navigation menu with tabs for Monitoring, Inventory, Reports, Configuration (selected), and Administration. Under Configuration, there are sub-tabs for Host groups, Hosts (selected), Maintenance, Web, Actions, Screens, Maps, IT services, Discovery, and Export/Import. A search bar is visible on the right. The breadcrumb trail reads: History: Hosts >> Status of Zabbix >> Host groups >> Hosts >> Host groups. The main heading is 'CONFIGURATION OF HOSTS'. On the right, there is a dropdown menu for 'Hosts' and a 'Create Host' button. Below this, there is a 'HOSTS' section with a 'Group' dropdown menu set to 'Linux servers'. At the bottom left, it says 'Displaying 1 to 8 of 8 found'.

Alguns detalhes devem ser observados na figura abaixo:

**Zabbix agent port:** 161

**Status:** Not monitored

The screenshot shows the Zabbix web interface for configuring a host. The main configuration area includes the following fields and options:

- Name:** Host Deo
- In Groups:** Linux servers
- Other Groups:** Discovered Hosts, FreeBSD servers, Switches, Templates, Windows servers, Zabbix Servers
- New group:** (empty field)
- DNS name:** (empty field)
- IP address:** IP\_HOST
- Connect to:** IP address
- Zabbix agent port:** 161
- Monitored by proxy:** (no proxy)
- Status:** Not monitored
- Use IPMI:** (unchecked)

The 'TEMPLATES - Mozilla Firefox' window shows the following templates:

- Template\_pfSense
- Template\_SNMPv1\_Device
- Template\_SNMPv2\_Device
- Template\_Solaris

The status of the host is 'Not monitored'. The interface footer shows 'Zabbix 1.8.2 Copyright 2001-2010 by SIA Zabbix' and 'Connected as 'Admin''.

Observe também que não existem templates associados ao host, pois como podemos observar na janela de templates, não existe template para a versão 3 do protocolo SNMP.

O novo host aparece com status de "Not Monitored" e com todos os ícones apagados.

<input type="checkbox"/>	<a href="#">Host Deo</a>	<a href="#">Applications</a> (0)	<a href="#">Items</a> (0)	<a href="#">Triggers</a> (0)	<a href="#">Graphs</a> (0)	-	IP_HOST	161	-	<a href="#">Not monitored</a>	
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## TERCEIRO PASSO - CRIAR O(S) ITEM(S) NO ZABBIX:

Mude a configuração de "Hosts" para "Items" e clique no botão "Create Item".

## ITEMS

Displaying 1 to 2 of 2 found

Filter

Para criar o item é preciso saber o SNMP OID do objeto que será monitorado, para isso utilizaremos o comando snmptranslate:

```
# snmptranslate -On -IR ifInOctets.1  
.1.3.6.1.2.1.2.2.1.10.1
```

```
# snmptranslate -On -IR ifOutOctets.1  
.1.3.6.1.2.1.2.2.1.16.1
```

```
# snmptranslate -On -IR sysUpTime.0  
.1.3.6.1.2.1.1.3.0
```

Alguns detalhes devem ser observados na figura abaixo:

**Type:** SNMPv3 agent

**SNMP OID:** OID do objeto que será monitorado

**SNMPv3 security name:** USER\_SNMP\_HOST

**SNMPv3 security level:** O nível de segurança que estiver configurado no host

**SNMPv3 auth passphrase:** SENHA\_USER\_SNMP\_HOST

**SNMPv3 priv passphrase:** Se estiver usando AuthPriv

**SNMP port:** 161

**Key:** O nome que você quiser dar para identificar este objeto.

Os demais parâmetros são os normais que variam de acordo com cada tipo de objeto que estamos monitorando.

### Item 'Host Deo:Uptime' ?

Host	Host Deo <input type="text"/> <input type="button" value="Select"/>
Description	<input type="text" value="Uptime"/>
Type	<input type="text" value="SNMPv3 agent"/>
SNMP OID	<input type="text" value=".1.3.6.1.2.1.1.3.0"/>
SNMPv3 security name	<input type="text" value="USER_SNMP_HOST"/>
SNMPv3 security level	<input type="text" value="AuthNoPriv"/>
SNMPv3 auth passphrase	<input type="text" value="SENHA_USER_SNMP_HOST"/>
SNMPv3 priv passphrase	<input type="text"/>
SNMP port	<input type="text" value="161"/>
Key	<input type="text" value="uptime"/> <input type="button" value="Select"/>
Type of information	<input type="text" value="Numeric (unsigned)"/>
Data type	<input type="text" value="Decimal"/>
Units	<input type="text" value="uptime"/>
Use multiplier	<input type="text" value="Do not use"/>
Update interval (in sec)	<input type="text" value="300"/>
Flexible intervals (sec)	No flexible intervals
New flexible interval	Delay <input type="text" value="50"/> Period <input type="text" value="1-7,00:00-23:59"/> <input type="button" value="Add"/>
Keep history (in days)	<input type="text" value="90"/> <input type="button" value="Clear history"/>
Keep trends (in days)	<input type="text" value="365"/>
Status	<input type="text" value="Active"/>
Store value	<input type="text" value="As is"/>
Show value <a href="#">throw map</a>	<input type="text" value="As is"/>
New application	<input type="text"/>
Applications	<input type="text" value="-None-"/>

Group

Item Criado e funcional:

Monitoring | Inventory | Reports | **Configuration** | Administration

Host groups | **Hosts** | Maintenance | Web | Actions | Screens | Maps | IT services | Discovery | Export/Import | SEARCH:

History: Hosts » Configuration of items » Hosts » Configuration of items » Hosts

CONFIGURATION OF ITEMS Items

**ITEMS**

Displaying 1 to 1 of 1 found

Filter

**Hosts list**   Applications (0)   Triggers (0)   Graphs (1)   Host: Host Deo   DNS: -   IP: 143.106.84.126   Port: 161   Status: Monitored   Availability: Unknown

<input type="checkbox"/>	Log	Description ▲	Triggers	Key	Interval	History	Trends	Type	Status	Applications	Error
<input type="checkbox"/>		<a href="#">Uptime</a>	<a href="#">Triggers (0)</a>	uptime	300	90	365	SNMPv3 agent	<span style="color: green;">Active</span>	-	<input checked="" type="checkbox"/>

Activate selected

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## QUARTO PASSO - HABILITAR O HOST:

Mude a configuração de "Items" para "Hosts".

Selecione o Host, mude a opção de ação para "Active Selected" e clique no botão "Go".

Monitoring | Inventory | Reports | **Configuration** | Administration

Host groups | **Hosts** | Maintenance | Web | Actions | Screens | Maps | IT services | Discovery | Export/Import | SEARCH:

History: Hosts » Configuration of items » Hosts » Configuration of items » Hosts

**Details** Host status updated

CONFIGURATION OF HOSTS Hosts

**HOSTS** Group

Displaying 1 to 8 of 8 found

<input type="checkbox"/>	Name ▲	Applications	Items	Triggers	Graphs	DNS	IP	Port	Templates	Status	Availability
<input type="checkbox"/>	<a href="#">Host Deo</a>	<a href="#">Applications (0)</a>	<a href="#">Items (1)</a>	<a href="#">Triggers (0)</a>	<a href="#">Graphs (1)</a>	-	IP_HOST	161	-	<span style="color: green;">Monitored</span>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Mass update

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Host monitorado usando SNMPv3

## QUINTO PASSO - UTILIZAR O ITEM:

Agora que o item existe posso usá-lo como qualquer item dentro do Zabbix, pode-se gerar alertas, usar em triggers, criar gráficos, etc.

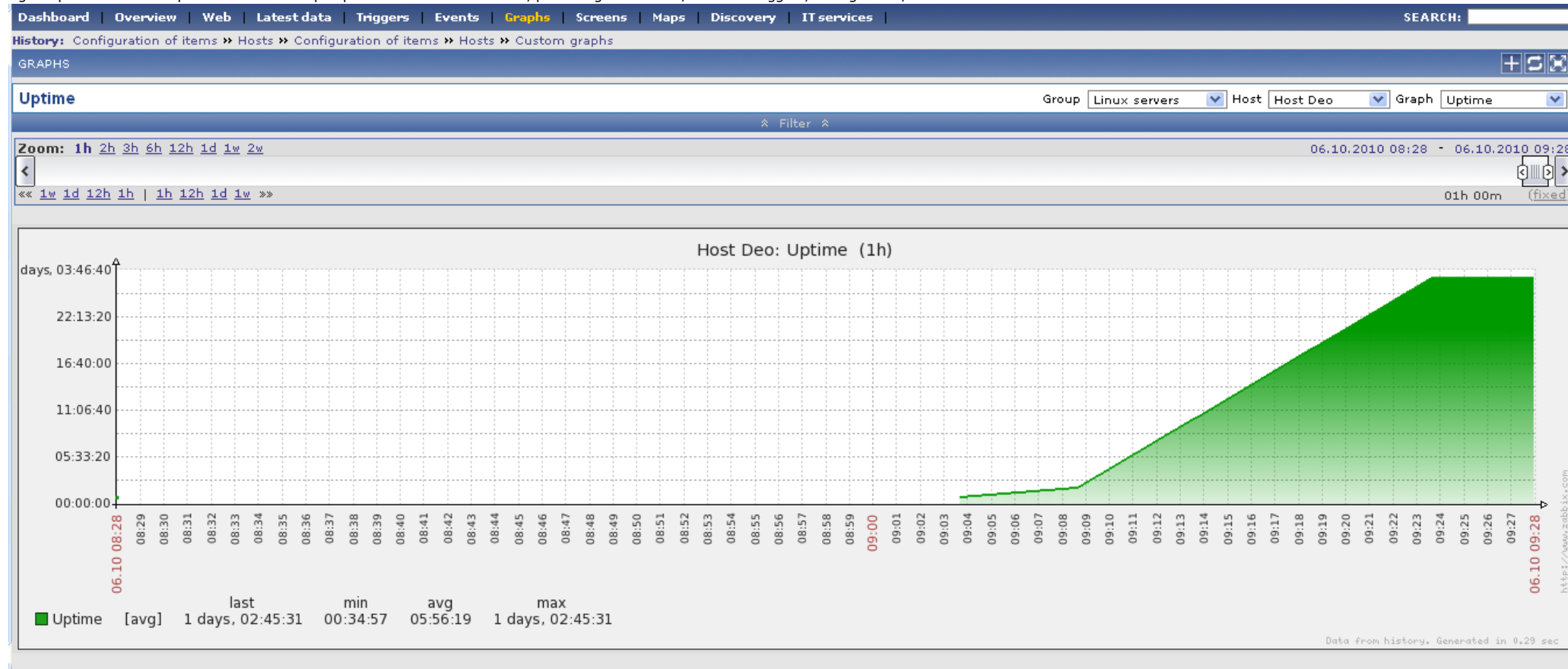


Gráfico gerado usando o item "uptime".

#### Referências:

[Manual do Zabbix](#)

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