

Zabbix 安装文档--VER 1.0

By 小伟

QQ: 141926620

技术交流: 142279493

技术博客: <http://nanwangting.blog.51cto.com/>

2012 年 10 月 22 日

目录

第 1 章	ZABBIX 对 LINUX 主机的监控	3
1.1	LINUX 对内存的监控	3
1.2	ZABBIX 对 LINUX 网卡的监控	4
1.3	ZABBIX 对 CPU 的监控	6

第1章 Zabbix 对 linux 主机的监控

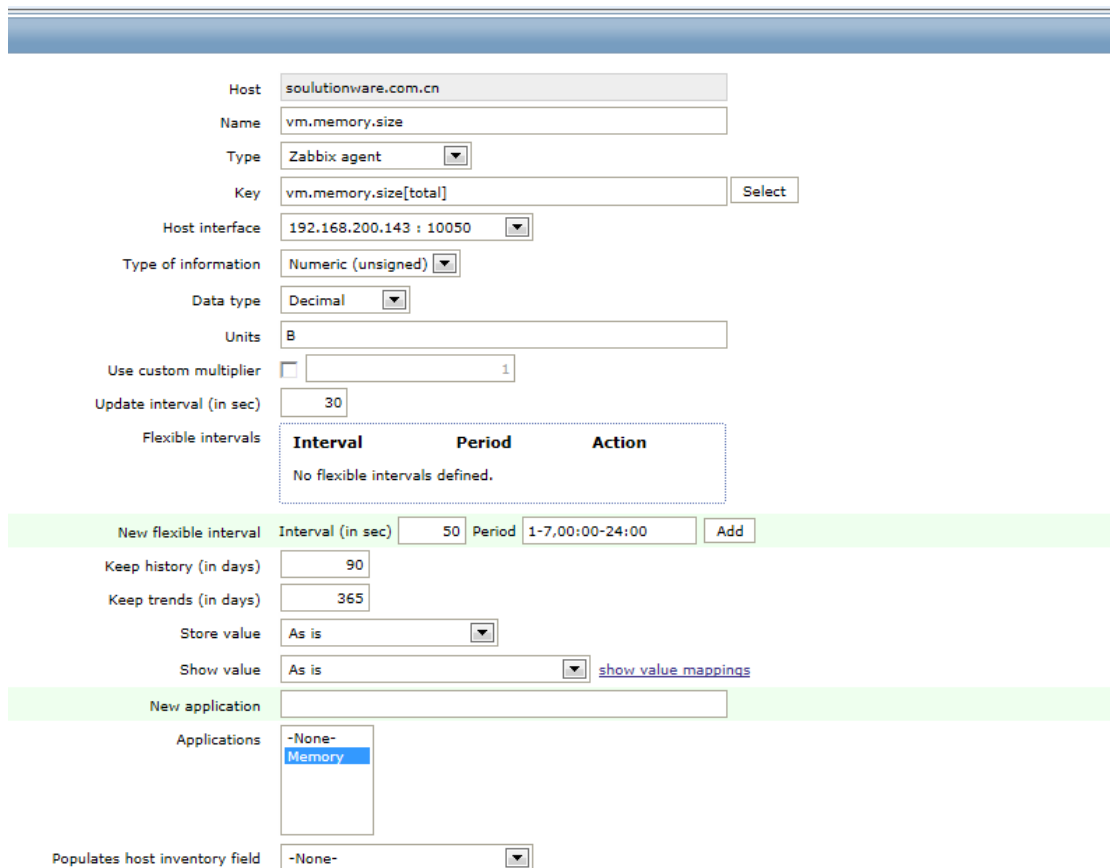
1.1 Linux 对内存的监控

Quick 章节中我们大概了解了怎么对台主机进行监控，主要步骤设计到添加主机，并且为主机添加监控项，这里主要为 item，然后在 item 的基础上对 item 进行绘图并且通过 screen 的方式把不同的监控图像汇总到一张 screen 上。通过对 quick 章节我们认识到 item 监控项在 zabbix 中是非常重要的，而 item 的监控是通过 key 来定义的，key 又分为系统预定义好的 key 和自定义的 key 组成，这一节，我们通过对 zabbix 预定义的内存 key 来了解一下 key 到底是怎么组成和怎么使用的。

Key	参数	类型	单位	举例
vm.memory.size[<mode>]	total (default), active,anon, buffers, cached, exec, file, free, inactive pinned, shared, wired, used, pused, available, pavailable	Numeric (unsigned) Decimal	B	vm.memory.size[total] vm.memory.size[total] vm.memory.size[total] vm.memory.size[total]

上图为所有与内存相关的 key 已经与之相对应的参数，单位，例子等相关信息，下面我将通过一个例子来展示怎么添加一个合适的内存 key 并且填写与之对应的单位，返回值等信息在 zabbix 添加 item 项时。

例 1：监控主机的总内存，剩余内存。



通过图表和截图我们可以很方便的看出来相关的对应关系。截图中的 **key** : **vm.memory.size[total]**中的对应图表中的 **key** **vm.memory.size[<mode>]**而中括号中的 **mode** 这对应图表中的参数，这里为 **total**，当然了大家也可以根据需求填写，比如监控内存以及使用的大小，这可以写成 **vm.memory.size[used]**。截图中的单位对应图表中的单位 **B**，等等对应关系很容易看出来，这里就不多说了。然后大家按照 **quick** 章节中的实例为 **item** 绘图然后加入到 **screen** 里就可以了。

1.2Zabbix 对 linux 网卡的监控

Linux 对网卡的监控的基本思路和监控其他 linux 项目没什么区别第一步添加 linux 主机，第二步为 linux 主机添加网卡相对应的 **item**，任何在 **item** 的基础上绘制 **graph** 然后把 **graph** 集中添加到一张 **screen** 上方便集中展示。下面的图表为监控网卡流量用到的相关 **key**。

Key	参数	类型	单位	举例
net.if.in[if,<mode>]	Bytes , packeterrors, dropped	Numeric (unsigned) Decimal	Bps	net.if.in[eth0,errors] net.if.in[eth0]
net.if.out[if,<mode>]	Bytes , packeterrors, dropped	Numeric (unsigned) Decimal	Bps	net.if.out[eth0,errors] net.if.out[eth0]
net.if.total[if,<mode>]	Bytes , packeterrors,	Numeric (unsigned)	Bps	net.if.total[eth0,errors] net.if.total[eth0]

	<i>dropped</i>	Decimal		
--	----------------	---------	--	--

这里需要主要添加 item 的时候数据存储类型 store value 要选择为 Delta(speed per second)

例 1：对 linux 主机 eth0 网卡进口流量的监控 item

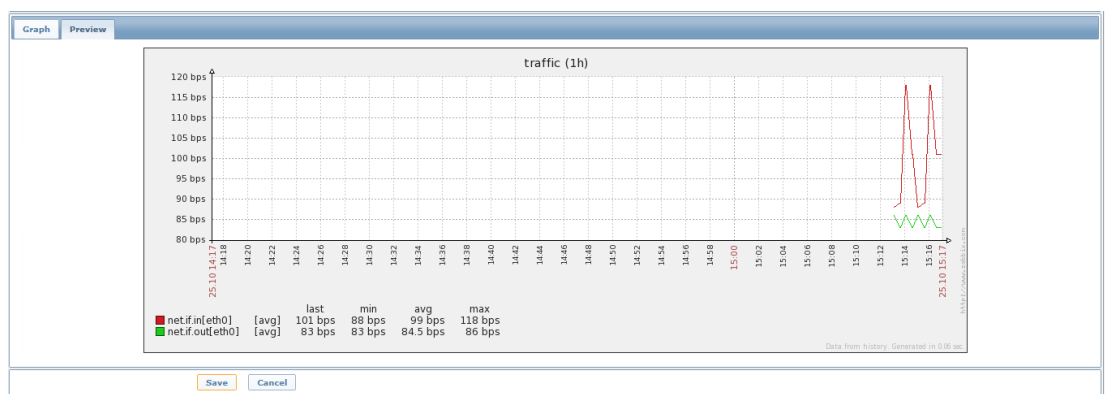
The screenshot shows the 'Item' configuration window in Zabbix. The 'Host' is 'soulutionware.com.cn'. The 'Name' is 'Decimal'. The 'Type' is 'Zabbix agent'. The 'Key' is 'Decimal'. The 'Host interface' is '192.168.200.143 : 10050'. The 'Type of information' is 'Numeric (unsigned)'. The 'Data type' is 'Decimal'. The 'Units' are 'bps'. The 'Update interval (in sec)' is '30'. The 'Store value' is set to 'Delta (speed per second)'. The 'Show value' is 'As is'. The 'Applications' list includes 'None' and 'Memory'. The 'Populates host inventory field' is '-None-'.

例 2：对 linux 主机 eth0 网卡出口流量的监控 item

The screenshot shows the 'Item' configuration window in Zabbix. The 'Host' is 'soulutionware.com.cn'. The 'Name' is 'net.if.out[eth0]'. The 'Type' is 'Zabbix agent'. The 'Key' is 'net.if.out[eth0]'. The 'Host interface' is '192.168.200.143 : 10050'. The 'Type of information' is 'Numeric (unsigned)'. The 'Data type' is 'Decimal'. The 'Units' are 'bps'. The 'Update interval (in sec)' is '30'. The 'Store value' is set to 'Delta (speed per second)'. The 'Show value' is 'As is'. The 'Applications' list includes 'None', 'Memory', and 'net.if.out[eth0]'. The 'Populates host inventory field' is '-None-'.

为 linux 主机 eth0 网卡的进出网卡绘图。

The screenshot shows the 'Graph' configuration window in Zabbix. The 'Name' is 'traffic'. The 'Width' is '900'. The 'Height' is '200'. The 'Graph type' is 'Normal'. The 'Show legend' is checked. The 'Show working time' is checked. The 'Show triggers' is checked. The 'Percentile line (left)' is unchecked. The 'Percentile line (right)' is unchecked. The 'Y axis MIN value' is 'Calculated'. The 'Y axis MAX value' is 'Calculated'. The 'Items' list includes '1: soulutionware.com.cn: net.if.in[eth0]' and '2: soulutionware.com.cn: net.if.out[eth0]'. The 'Function' for both items is 'avg'. The 'Draw style' is 'Line'. The 'Y axis side' is 'Left'. The 'Colour' for item 1 is 'CB0000' and for item 2 is '00CB00'. The 'Action' for both items is 'Remove'.



1.3 Zabbix 对 cpu 的监控

相关 key

Key	参数	类型	返回值	单位	举例
system.cpu.load[<cpu>,<mode>]	Cpu:all ,percpu Avg1,avg5,avg15	Numeric (float)		无	system.cpu.load[,avg5]
system.cpu.num[<type>]	Online,max	Numeric (unsigned) Decimal		无	system.cpu.num
system.cpu.switches		Numeric (float)		无	
system.cpu.util[<cpu>,<type>,<mode>]	Cpu:all,number Type:idle, nice, user,iowait,interrupt, softirq, steal Mode:avg1,av5,avg15	Numeric (float)		%	system.cpu.util[0,user,avg5]

例：linux 主机 cpu 的负载 item

The image shows the Zabbix Item configuration form for the key `system.cpu.load[avg5]`. The configuration includes the following details:

- Host:** soulutionware.com.cn
- Name:** system.cpu.load[avg5]
- Type:** Zabbix agent
- Key:** system.cpu.load[avg5]
- Host interface:** 192.168.200.143 : 10050
- Type of information:** Numeric (float)
- Units:** (empty)
- Use custom multiplier:** 1
- Update interval (in sec):** 30
- Flexible intervals:** No flexible intervals defined.
- New flexible interval:** Interval (in sec) 50, Period 1-7,00:00-24:00, Add
- Keep history (in days):** 90
- Keep trends (in days):** 365
- Store value:** As is
- Show value:** As is, show value mappings
- New application:** cpu_load
- Applications:** None, Memory, traffic
- Populates host inventory field:** -None-
- Description:** (empty)

例：linux 主机 cpu 利用率的 tiem

The screenshot shows the Zabbix configuration interface for creating a new item. The configuration is as follows:

- Host: solutionware.com.cn (Selected)
- Name: system.cpu.util[,user]
- Type: Zabbix agent (Selected)
- Key: system.cpu.util[,user] (Selected)
- Host interface: 192.168.200.143 : 10050 (Selected)
- Type of information: Numeric (float) (Selected)
- Units: %
- Use custom multiplier: ☐ (Multiplier: 1)
- Update interval (in sec): 30
- Flexible intervals: No flexible intervals defined.
- New flexible interval: Interval (in sec) 50, Period 1-7,00:00-24:00, Add
- Keep history (in days): 90
- Keep trends (in days): 365
- Store value: As is (Selected)
- Show value: As is (Selected) [show value mappings](#)
- New application: CPU (Selected)
- Applications:
 - None (Selected)
 - Memory
 - traffic
- Populates host inventory field: -None- (Selected)
- Description: (Empty text area)

为 cpu 绘图