Introduction

淘宝系统活动报告是一个监控工具，用于收集和汇总系统（CPU、load、IO）和应用信息（Nginx）

Tsar (Taobao System Activity Reporter) is a monitoring tool, which can be used to gather and summarize system information, e.g. CPU, load, IO, and application information, e.g. nginx, HAProxy, Squid, etc. The results can be stored at local disk or sent to Nagios.

Tsar can be easily extended by writing modules, which makes it a powerful and versatile reporting tool.

Module introduction: info 模块介绍

Installation

Tsar is available on GitHub, you can clone and install it as follows:

```
$ git clone git://github.com/kongjian/tsar.git
$ cd tsar
$ make
# make install
```

Or you can download the zip file and install it:

```
$ wget -O tsar.zip https://github.com/alibaba/tsar/archive/master.
$ unzip tsar.zip
$ cd tsar
$ make
# make install
```

After installation, you may see these files:

主配置文件

- `/etc/tsar/tsar.conf` , which is tsar's main configuration file;
- `/etc/cron.d/tsar` , is used to run tsar to collect information every minute; 定时任务：每分钟运行 tsar 来收集信息
- `/etc/logrotate.d/tsar` will rotate tsar's log files every month;
- `/usr/local/tsar/modules` is the directory where all module libraries

(*.so) are located;

Configuration

There is no output displayed after installation by default. Just run `tsar -l` to see if the real-time monitoring works, for instance:

```
[kongjian@tsar]$ tsar -l -i 1
Time              ---cpu-- ---mem-- ---tcp-- -----traffic---- --xv
Time                util     util   retran    pktin  pktout     ut
11/04/13-14:09:10   0.20    11.57     0.00     9.00    2.00     0.
11/04/13-14:09:11   0.20    11.57     0.00     4.00    2.00     0.
```

Usually, we configure Tsar by simply editing `/etc/tsar/tsar.conf` :

- To add a module, add a line like `mod_<yourmodname> on`
- To enable or disable a module, use `mod_<yourmodname> on/off`
- To specify parameters for a module, use `mod_<yourmodname> on parameter`
- `output_stdio_mod` is to set modules output to standard I/O
- `output_file_path` is to set history data file, (you should modify the logrotate script `/etc/logrotate.d/tsar` too)
- `output_interface` specifies tsar data output destination, which by default is a local file. See the Advanced section for more information.

Usage

- null :see default mods history data, `tsar`
- --modname :specify module to show, `tsar --cpu`
- -L/--list :list available moudule, `tsar -L`
- -l/--live :show real-time info, `tsar -l --cpu`
- -i/--interval :set interval for report, `tsar -i 1 --cpu`
- -s/--spec :specify module detail field, `tsar --cpu -s sys,util`
- -D/--detail :do not conver data to K/M/G, `tsar --mem -D`
- -m/--merge :merge multiply item to one, `tsar --io -m`
- -I/--item :show spec item data, `tsar --io -I sda`
- -d/--date :specify data, YYYYMMDD, or n means n days ago

- -C/--check :show the last collect data
- -h/--help :show help, `tsar -h`

Advanced

- Output to Nagios

To turn it on, just set output type `output_interface file,nagios` in the main configuration file.

You should also specify Nagios' IP address, port, and sending interval, e.g.:

```
####The IP address or the hostname running the NSCA daemon
server_addr nagios.server.com
####The port on which the daemon is listening - by default it is 5
server_port 8086
####The cycle (interval) of sending alerts to Nagios
cycle_time 300
```

As tsar uses Nagios' passive mode, so you should specify the nsca binary and its configuration file, e.g.:

```
####nsca client program
send_nsca_cmd /usr/bin/send_nsca
send_nsca_conf /home/a/conf/amon/send_nsca.conf
```

Then specify the module and fields to be checked. There are 4 threshold levels.

```
####tsar mod alert config file
####threshold servicename.key;w-min;w-max;c-min;cmax;
threshold cpu.util;50;60;70;80;
```

- Output to MySQL

To use this feature, just add output type `output_interface file,db` in tsar's configuration file.

Then specify which module(s) will be enabled:

```
output_db_mod mod_cpu,mod_mem,mod_traffic,mod_load,mod_tcp,mod_udp
```

Note that you should set the IP address (or hostname) and port where tsar2db listens, e.g.:

```
output_db_addr console2:56677
```

Tsar2db receives sql data and flush it to MySQL. You can find more information about tsar2db at https://github.com/alibaba/tsar2db.

Module development

Tsar is easily extended. Whenever you want information that is not collected by tsar yet, you can write a module.

First, install the tsardevel tool (`make tsardevel` will do this for you):

Then run `tsardevel <yourmodname>` , and you will get a directory named yourmodname, e.g.:

```
[kongjian@tsar]$ tsardevel test
build:make
install:make install
uninstall:make uninstall

[kongjian@tsar]$ ls test
Makefile  mod_test.c  mod_test.conf
```

You can modify the read_test_stats() and set_test_record() functions in test.c as you need. Then run `make;make install` to install your module and run `tsar --yourmodname` to see the output.

More

Homepage http://tsar.taobao.org

Any question, please feel free to contact me by kongjian@taobao.com