

## Nagios Plugin for Cacti 安装使用篇

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来源: cacti 中文论坛

### 前言:

Nagios Plugin for Cacti 简称 npc, 是 cacti 的一个插件, 这篇文章主要介绍如何在 cacti 中使用 npc 插件。

### 测试环境:

操作系统: rhel4u4 php4.4.4 mysql-4.1.22 httpd-2.2.4

npc 主页: <http://www.divagater.com/npc/>

npc 当前版本: NPC 0.1.1a

nagios 主页: <http://www.nagios.org>

nagios 当前版本: nagios-2.7

nagios 插件当前版本: nagios-plugins-1.4.6

fruity: 图形化配置 nagios 的工具, 需要 php5.x 版本才能运行

<http://fruity.sourceforge.net/>

<http://heanet.dl.sourceforge.net/sourceforge/fruity/>

[http://pear.php.net/get/HTML\\_TreeMenu-1.2.0.tgz](http://pear.php.net/get/HTML_TreeMenu-1.2.0.tgz)

<http://puzzle.dl.sourceforge.net/sourceforge/adodb/adodb471-1.tgz>

将 HTML\_TreeMenu-1.2.0.tgz 和 adodb471-1.tgz 直接解压复制到 fruity 下 分别改名为 HTML 和 adodb 其他不做修改

修改 fruity/includes 下的 config.ifg, 需要更改的地方有, 路径, mysql 信息

mysql 添加 fruity 数据库和 user,password.

这样, 就可以用 fruity 来进行配置了。

### 注意:

在 cacti 服务器上的 mysql 版本必须是 4.1 以上, 因为 npc 是以 mysql4.1 为基础进行开发的。

### 第一章: 安装 nagios

我们在 cacti 中使用 nagios, 首先我们要安装 nagios 环境, 安装过程如下:

```
# tar -xvzf nagios-2.7.tar.gz
```

```
# mkdir /usr/local/nagios
```

```
# useradd nagios -d /usr/local/nagios
```

```
# passwd nagios
```

```
# chmod 755 /usr/local/nagios
```

```
# grep "^User" /etc/httpd/conf/httpd.conf //查找 apache 的承托用户
```

我这里是 daemon。2.2.0 以前的 apache 版本可能会是 nobody

```
# /usr/sbin/groupadd nagcmd
```

```
# /usr/sbin/usermod -G nagcmd daemon-----这个地方就是前面的apache承托用户
```

```
# /usr/sbin/usermod -G nagcmd nagios
```

```
# cd nagios-2.7
```

```
#!/configure --prefix=/usr/local/nagios --with-gd-lib=/usr/local/lib --with-gd-inc=/usr/local/include --enable-event-broker
```

```
# make all
# make install
# make install-init 安装启动脚本到/etc/init.d/
# make install-commandmode
# make install-config 安装初始配置文件到/usr/local/nagios
```

nagios-plugins 的安装

```
tar -xvzf nagios-plugins-1.4.6.tar.gz
cd nagios-plugins-1.4.6
./configure --prefix=/usr/local/nagios-plugins
make all
```

```
make install
```

注意:

nagios-plugins 1.4.6 编译安装时出错修正:

Making install in po

```
make[1]: Entering directory `/opt/software/nagios/nagios-plugins-1.4.6/po'
/bin/sh @MKINSTALLDIRS@ /usr/local/nagios-plugins/share
/bin/sh: @MKINSTALLDIRS@: No such file or directory
make[1]: *** [install-data-yes] Error 127
make[1]: Leaving directory `/opt/software/nagios/nagios-plugins-1.4.6/po'
make: *** [install-recursive] Error 1
```

需要修改一下 po/Makefile 文件:

将

```
MKINSTALLDIRS = @MKINSTALLDIRS@
mkinstalldirs = $(SHELL) $(MKINSTALLDIRS)
```

替换为:

```
MKINSTALLDIRS = $(top_builddir)/../mkinstalldirs
mkinstalldirs = $(SHELL) $(MKINSTALLDIRS)
```

安装完成以后在/usr/local/nagios-plugins-plugins 会产生一个 libexec 的目录, 将该目录全部移动到/usr/local/nagios 目录下即可。 如下:

```
# mv /usr/local/nagios-plugins/libexec /usr/local/nagios
到此, 两个基本的 TAR 包安装完成
```

配置 apache 过程:

在 apache 的 httpd.conf 文件中加入如下字段:

```
ScriptAlias /nagios/cgi-bin/ /usr/local/nagios/sbin/
<Directory "/usr/local/nagios/sbin/">
AllowOverride AuthConfig
Options ExecCGI
Order allow,deny
Allow from all
</Directory>
```

```
Alias /nagios/ /usr/local/nagios/share/
<Directory "/usr/local/nagios/share">
Options None
AllowOverride AuthConfig
Order allow,deny
Allow from all
</Directory>
```

注意:

如果你的 apache 版本是 2.2.0, 那么你需要把以上这段加到  
<IfModule alias\_module>和 </IfModule> 之间。

配置页面访问权限:

在/usr/local/nagios/share 目录下

```
# cd /usr/local/nagios/share
```

```
# vi .htaccess
```

```
AuthName "Nagios Access"
AuthType Basic
AuthUserFile /usr/local/nagios/etc/.htpasswd
require valid-user
```

然后在/usr/local/nagios/sbin 编辑.htaccess

```
# vi .htaccess
```

```
AuthName "Nagios Access"
AuthType Basic
AuthUserFile /usr/local/nagios/etc/.htpasswd
require valid-user
```

```
# /usr/local/apache/bin/htpasswd -c /usr/local/nagios/etc/.htpasswd nagiosadmin
```

New password:

Re-type new password:

Adding password for user nagiosadmin

这个 apache 目录根据安装目录的不同而不同,用 htpasswd 命令生成用户名和密码以控制访问权限。

配置和启动 nagios 过程

```
# cd /usr/local/nagios/etc
```

把目录里的.cfg-sample 文件全部拷贝成.cfg

例如:

```
# cp nagios.cfg-sample nagios.cfg
```

修改 cgi.cfg, 把 use\_authentication=1 改为 use\_authentication=0,即不用验证.不然有一些页面不会显示。

修改后用如下命令检查配置文件是否正常:

```
# /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
```

Nagios 2.7

Copyright (c) 1999-2007 Ethan Galstad (<http://www.nagios.org>)

Last Modified: 01-19-2007

License: GPL

Reading configuration data...

Running pre-flight check on configuration data...

Checking services...

Checked 5 services.

Checking hosts...

Checked 1 hosts.

Checking host groups...

Checked 1 host groups.

Checking service groups...

Checked 0 service groups.

Checking contacts...

Checked 1 contacts.

Checking contact groups...

Checked 1 contact groups.

Checking service escalations...

Checked 0 service escalations.

Checking service dependencies...

Checked 0 service dependencies.

Checking host escalations...

Checked 0 host escalations.

Checking host dependencies...

Checked 0 host dependencies.

Checking commands...

Checked 22 commands.

Checking time periods...

Checked 4 time periods.

Checking extended host info definitions...

Checked 0 extended host info definitions.

Checking extended service info definitions...

Checked 0 extended service info definitions.

Checking for circular paths between hosts...

Checking for circular host and service dependencies...

Checking global event handlers...

Checking obsessive compulsive processor commands...

Checking misc settings...

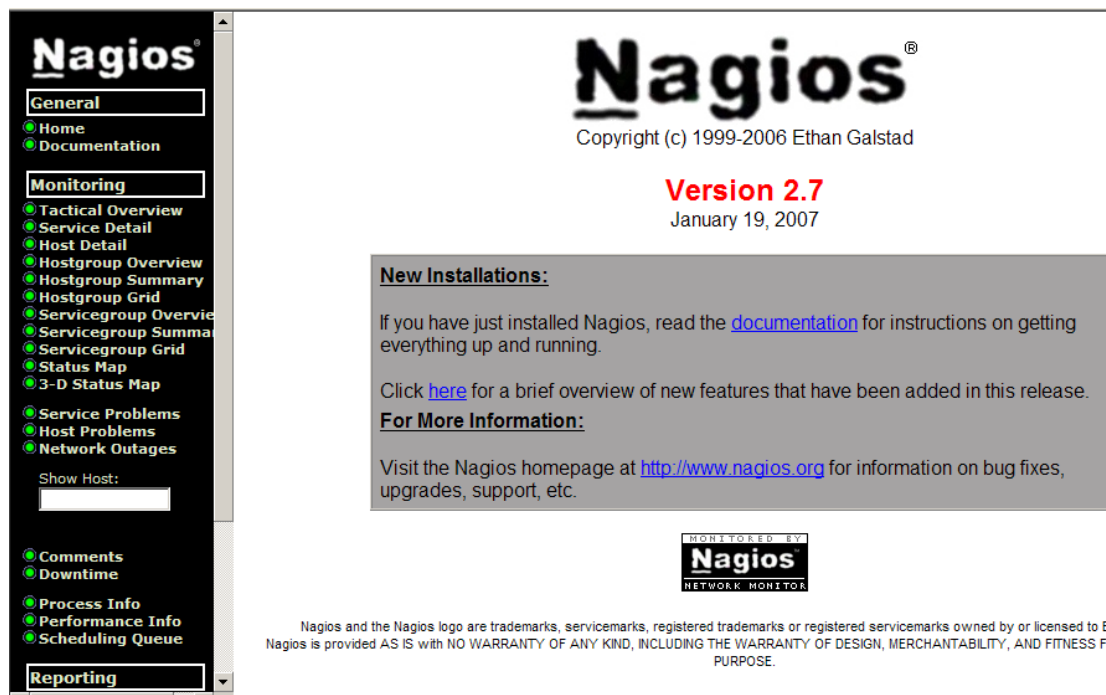
**Total Warnings: 0**

Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check

如上红色字标注，两个为 0 就是正常的，如果出错，那一定是你修改的配置文件有问题，请返回修改。

这时候你访问 <http://your IP/nagios/> 可以看到如下图



但点击其他按钮只能看到

Whoops!

Error: Could not read object configuration data!

Here are some things you should check in order to resolve this error:

Verify configuration options using the -v command-line option to check for errors.

Check the Nagios log file for messages relating to startup or status data errors.

Make sure you've compiled the main program and the CGIs to use the same object data storage options (i.e. default text file or template-based file).

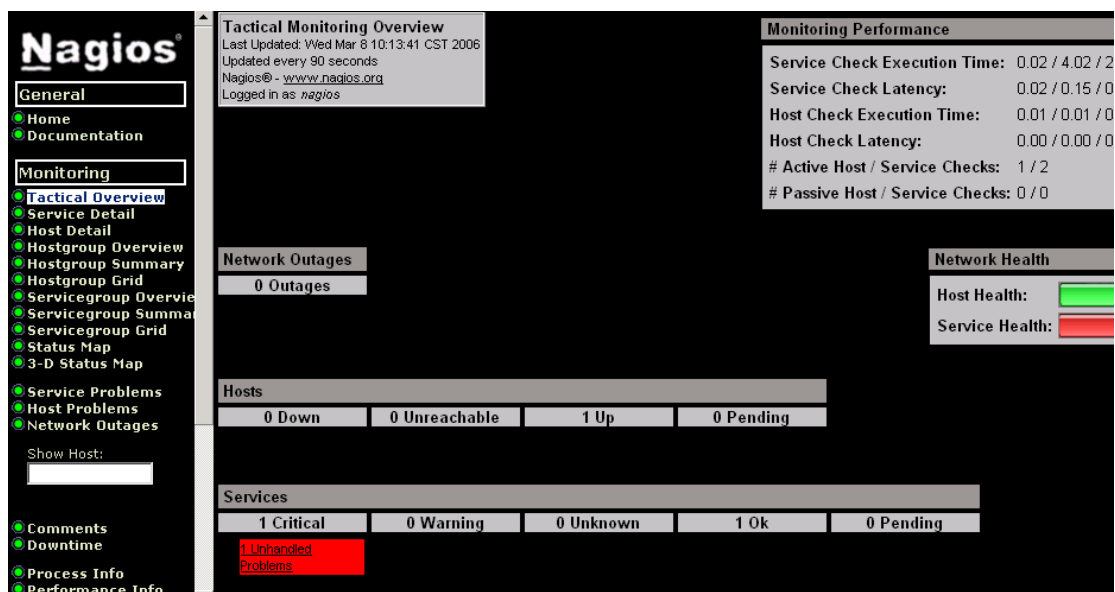
Make sure you read the documentation on installing, configuring and running Nagios thoroughly before continuing. If all else fails, try sending a message to one of the mailing lists. More information can be found at <http://www.nagios.org>.

提示，这是因为你还没有启动 nagios 后台进程，按如下命令启动 nagios

```
# /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
```

```
# /usr/local/etc/rc.d/nagios start
```

这个时候你返回刚才的 U R L，点击 **Tactical Overview**



证明你已经配置成功 nagios 了。使用我就不在这里讲了，网上有一些文章专门介绍。让我们开始进入 cacti 的世界。

## 第二章：npc 插件的安装

就和其他插件的安装一样

```
# tar xzvf npc-0.1.1a.tar.gz //这会出现一个 npc 目录
```

```
# mv npc <cacti install folder>/plugins/
```

```
# vi <cacti install folder>/plugins/npc/neb/insert.c
```

修改第 143 行

```
&mysql,"localhost","USERNAME","PASSWORD","DATABASE",3306,NULL,CLIENT_MULTI_STATEMENTS
```

把以上几个大写字母地方改成你自己实际情况，不会改的看我下面的例子

```
&mysql,"localhost","***","***","cactidb",3306,"/tmp/mysql.sock",0
```

否则 make 会出现如下错误

```
# make
gcc -g -O2 -Wall -o inserter.o inserter.c -shared -I../include -I/usr/include/mysql -lmysqlclient -fPIC
inserter.c: In function `nebmodule_init':
inserter.c:143: error: `CLIENT_MULTI_STATEMENTS' undeclared (first use in this function)
inserter.c:143: error: (Each undeclared identifier is reported only once
inserter.c:143: error: for each function it appears in.)
make: *** [all] Error 1
```

```
# cp <cacti install folder>/plugins/npc/neb/* <nagios source code>/modules/
```

```
# cd <nagios source code>/modules/
```

```
# make
```

这里做的主要是编译 inserter.o 文件，要注意的问题：

```
gcc -g -O2 -Wall -o inserter.o inserter.c -shared -I../include -I/usr/local/mysql/include/mysql -lmysqlclient -fPIC
/usr/bin/ld: cannot find -lmysqlclient
```

```
collect2: ld returned 1 exit status
```

```
make: *** [all] Error 1
```

这个错误是不能找到 libmysqlclient, 这个其实是 mysql 版本问题, 我们当前环境下没有能包含 mysql 早期版本的库, 就会出现这个问题, 好在 mysql 官方已经给我想到了解决方法, 你下载一个和你当前用的版本一致的 MySQL-shared-compat-\*\*\*.i386.rpm 包, 它就是原来解决这个问题。(\*\*\*是你的版本)

编译后会发现有个 inserter.o 文件

```
# cp insert.o /usr/local/nagios/modules/
```

如果没有 modules 文件夹, 你要自己建立一个。

```
# vi /usr/local/nagios/etc/nagios.cfg
```

设置如下

```
retain_state_information=0
event_broker_options=-1 and
broker_module=/usr/local/nagios/modules/inserter.o
```

原因作者写得很清楚:

NOTE: Setting retain\_state\_information=0 causes all hosts and services to go to a pending state until rechecked by Nagios. Without this setting the inserter module will never update any data in NPC. Its a minor inconvenience that I will try to fix in the inserter module.

```
# vi <cacti install folder>/include/config.php
```

加入 \$plugins[] = 'npc'; 到 \$plugins = array(); 下面, 完成后如下:

```
$plugins = array();
```

```
$plugins[] = 'thold';
```

```
$plugins[] = 'monitor';
```

```
$plugins[] = 'npc'; //这个需要你自己添加的, 如果不是很理解请参考我写的 插件安装
```

```
$plugins[] = 'reports';
```

```
$plugins[] = 'haloe';
```

```
$plugins[] = 'update';
```

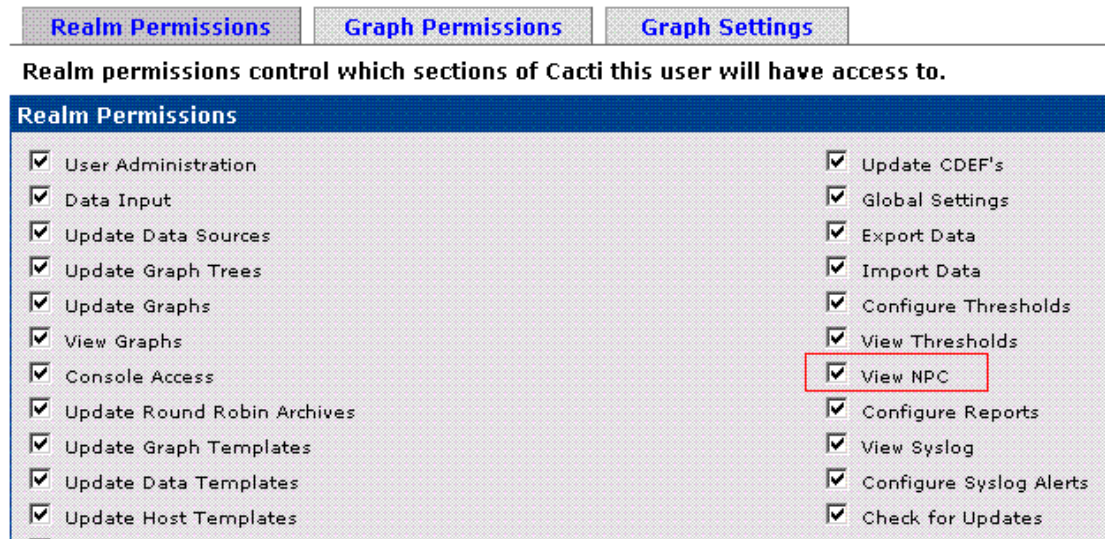
登陆你的 cacti

点击--Console--User Management--admin

向下拉看到

**Realm permissions control which sections of Cacti this user will have access to.**

找到 View NPC 副选框, 点上钩, 如下图, 为了看得方便我把它圈起来了。



这样，我们就可以看到如下



NPC 插件出现了!! 这个时候你还要检查你的 cactidb 中是否多了 npc 开头的数据库，如果没有，请重新登陆 cacti 界面。

我们点击 npc，就可以看到相应的情况了，如下图

Host Status Summary				
Down	Unreachable	Up	Pending	
0	0	1	0	

Service Status Summary				
Critical	Warning	Unknown	Ok	Pending
1	0	0	1	0

Monitoring Performance Statistics				
Item	min	avg	m	
Service Check Execution Time	0.021	2.02	4.	
Service Check Latency	0.065	0.13	0.	
Host Check Execution Time	0.007	0.007	0.	
Host Check Latency	0	0	0	

Hostgroup: Host Status				
Host Group	Down	Unreachable	Up	Pending
Linux Servers	0	0	1	0
[no group]	0	0	0	0

Hostgroup: Service Status				
Host Group	Critical	Warning	Unknown	Ok
Linux Servers	1	0	0	1

那么恭喜你，整合安装结束了，你想扩展什么，直接按原来的 nagios 方法进行就可以了，但不同的是 cacti 也可以提供相应的监控界面来帮助你整合资源。