安装zabbix监控及其相关组件

参考 ： http://www.cnblogs.com/tae44/p/4812190.html

http://www.jianshu.com/p/20e4c2a7dfbd

http://www.cnblogs.com/wangxiaoqiangs/p/5336210.html

http://www.ttlsa.com/zabbix/zabbix-monitor-ttlsa-server-10/

http://www.osyunwei.com/archives/7984.html

https://www.linode.com/docs/uptime/monitoring/monitoring-servers-with-zabbix

安装zabbix监控及其相关组件

环境CentOS6.6

mysql版本：percona-5.7.11 Percona Server

php版本：7.0.20

zabbix版本：3.2.6

nginx版本：nginx-1.12.0

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一、安装基础软件

--

1.1 编译相关

```
yum install wget  make cmake gcc gcc-c++ ncurses bison-devel  ncurses-devel perl -y
```

1.2 依赖相关

```
yum -y install curlcurl-devel net-snmp snmp net-snmp-devel libssh2-devel libaio curl-devel libxslt-devel libxslt-devel
pcre-devel pcre  openssl-devel
yum -y install ntpdate net-snmp net-snmp-devel libcurl-devel
```

--二、安装mysql

--

2.1 创建账号

```
groupadd -g 3306 mysql                          --创建mysql用户组
useradd -M -s  /sbin/nologin mysql -g mysql  -u 3306 --这里创建的mysql不能登录没有家目录
```

2.2 开始安装

```
cd /usr/local
cp -r /root/files/Percona-Server-5.7.11-4-Linux.x86_64.ssl101 .
ln -s Percona-Server-5.7.11-4-Linux.x86_64.ssl101 mysql
chown -R  mysql:mysql Percona-Server-5.7.11-4-Linux.x86_64.ssl101/
chown -R mysql:mysql mysql
-- pwd /usr/local/mysql
mkdir -p /mysqldata/{binlog,relaylog,slowlog,data}
chown -R mysql:mysql /mysqldata
-- 初始化
bin/mysqld --defaults-file=/etc/my.cnf  --initialize   --user=mysql --basedir=/usr/local/mysql --datadir=/mysqldata/data
bin/mysql_ssl_rsa_setup --defaults-file=/etc/my.cnf --user=mysql --basedir=/usr/local/mysql --datadir=/mysqldata/data
bin/mysqld_safe --defaults-file=/etc/my.cnf --user=mysql    &
cp support-files/mysql.server /etc/init.d/mysql
vim /etc/init.d/mysql
更改：basedir=/usr/local/mysql
            datadir=/mysqldata
ln -s /usr/local/mysql/bin/mysql  /usr/bin
或者
```

```
ln -fs /usr/local/mysql/bin/mysql  /usr/local/bin/mysql
```

2.3 添加开机启动

```
chkconfig --add mysql
chkcongig --level 235 mysql on
```

2.4 启动mysql

```
service mysql start
-- 更改密码
/usr/bin/mysqladmin -u root -h xiaoming.com password 'new-password'
Alternatively you can run:
/usr/bin/mysql_secure_installation
-- 创建zabbix数据库
    create database zabbix default utf8;
创建zabbix账号
create user 'zabbixrc'@'%' identified by 'zabbix';
grant all privileges on zabbix .* to 'zabbixrc'@'%';
```

2.5 配置文件

```
[mysqld]
########basic settings########
server-id = 215138
port = 3306
user = mysql
#bind_address = 127.0.0.1
socket=/mysqldata/mysql.sock
autocommit = 1
character_set_server=utf8mb4
skip_name_resolve = 1
max_connections = 800
max_connect_errors = 1000
datadir = /mysqldata/data
transaction_isolation = REPEATABLE-READ
explicit_defaults_for_timestamp = 1
join_buffer_size = 4194304
tmp_table_size = 67108864
tmpdir = /tmp
max_allowed_packet = 16777216
sql_mode =
"STRICT_TRANS_TABLES,NO_ENGINE_SUBSTITUTION,NO_ZERO_DATE,NO_ZERO_IN_DATE,ERROR_FOR_DIVISION_BY_ZERO,NO_AUTO_CREATE_USER"
interactive_timeout = 1800
wait_timeout = 1800
read_buffer_size = 4194304
read_rnd_buffer_size = 8388608
sort_buffer_size = 8388608
########log settings########
log_error = /mysqldata/error.log
slow_query_log = 1
slow_query_log_file = /mysqldata/slowlog/slow-query.log
#log_queries_not_using_indexes = 0
#log_slow_admin_statements = 1
#log_slow_slave_statements = 1
#log_throttle_queries_not_using_indexes = 0
expire_logs_days = 30
long_query_time = 1
min_examined_row_limit = 0
########replication settings########
master_info_repository = TABLE
relay_log_info_repository = TABLE
log_bin = /mysqldata/binlog/mysql-bin.index
sync_binlog = 1
```

```
gtid_mode = off
enforce_gtid_consistency = 0
log_slave_updates = off
skip_slave_start = on
binlog_format = row
relay_log = /mysqldata/relaylog/mysql-relay
relay_log_recovery = 1
binlog_gtid_simple_recovery = 1
#slave_skip_errors = ddl_exist_errors
########innodb settings########
innodb_page_size = 16384
innodb_buffer_pool_size = 2G
innodb_buffer_pool_instances = 8
innodb_buffer_pool_load_at_startup = 1
innodb_buffer_pool_dump_at_shutdown = 1
innodb_lru_scan_depth = 2000
innodb_lock_wait_timeout = 5
innodb_io_capacity = 4000
innodb_io_capacity_max = 8000
innodb_flush_method = O_DIRECT
innodb_file_format = Barracuda
innodb_file_format_max = Barracuda
innodb_log_group_home_dir = /mysqldata/data
innodb_undo_directory = /mysqldata/data
innodb_undo_logs = 128
innodb_undo_tablespaces = 3
innodb_flush_neighbors = 1
innodb_log_file_size = 512M
innodb_log_buffer_size = 16777216
innodb_purge_threads = 4
innodb_large_prefix = 1
innodb_thread_concurrency = 32
innodb_print_all_deadlocks = 1
innodb_strict_mode = 0
innodb_sort_buffer_size = 67108864
########semi sync replication settings########
#plugin_dir=/usr/local/mysql/lib/plugin
#plugin_load = "rpl_semi_sync_master=semisync_master.so;rpl_semi_sync_slave=semisync_slave.so"
#loose_rpl_semi_sync_master_enabled = 1
#loose_rpl_semi_sync_slave_enabled = 1
#loose_rpl_semi_sync_master_timeout = 5000

[mysqld-5.7]
innodb_buffer_pool_dump_pct = 40
innodb_page_cleaners = 4
innodb_undo_log_truncate = 1
innodb_max_undo_log_size = 512M
innodb_purge_rseg_truncate_frequency = 128
binlog_gtid_simple_recovery=1
log_timestamps=system
transaction_write_set_extraction=MURMUR32
show_compatibility_56=on

[mysql]
socket=/mysqldata/mysql.sock
no_auto_rehash
prompt = "\\R:\\m:\\s \\d> "
```

```
[mysqldump]
socket=/mysqldata/mysql.sock
```

三、安装php

3.1 获取源文件 php-7.0.20.tar.bz2

```
tar -jxf php-7.0.20.tar.bz2
cd php-7.0.20
```

3.2 开始编译

```
./configure  --prefix=/usr/local/php \
 --with-curl \
 --with-jpeg-dir=/usr/local/jpeg \
 --with-gd \
 --with-freetype-dir \
 --with-gettext \
 --with-iconv-dir \
 --with-kerberos \
 --with-libdir=lib64 \
 --with-libxml-dir \
 --with-mysqli \
 --with-openssl \
 --with-pcre-regex \
 --with-pdo-mysql \
 --with-pdo-sqlite \
 --with-pear \
 --with-png-dir \
 --with-xmlrpc \
 --with-xsl \
 --with-zlib \
 --enable-fpm \
 --enable-bcmath \
  --enable-calendar \
 --enable-libxml \
 --enable-inline-optimization \
 --enable-gd-native-ttf \
 --enable-mbregex \
 --enable-mbstring \
 --enable-opcache \
 --enable-pcntl \
 --enable-shmop \
 --enable-soap \
 --enable-sockets \
 --enable-sysvsem \
--enable-sysvshm \
 --enable-xml \
 --enable-zip \
 --disable-fileinfo
 make &&  make install
```

3.3 配置文件

```
cp php.ini-development /usr/local/php/lib/php.ini
cp /usr/local/php/etc/php-fpm.conf.default /usr/local/php/etc/php-fpm.conf
cp /usr/local/php/etc/php-fpm.d/www.conf.default /usr/local/php/etc/php-fpm.d/www.conf
cp -R ./sapi/fpm/php-fpm /etc/init.d/php-fpm
vim /usr/local/php/lib/php.ini
```

max_execution_time = 300

memory_limit =256M　　//最低要求为128M，如果需要频繁调用API，这里建议设置大一些，可以根据httpd进程的负载做适当调整

post_max_size = 16M

max_input_time = 300

date.timezone = PRC

session.auto_start = 0

mbstring.func_overload = 2 (应该改为1，否则后面会报错)

date.timezone = "Asia/Shanghai"

vim /usr/local/php/etc/php-fpm.conf

最后加上：include=/usr/local/php/etc/php-fpm.d/*.conf

groupadd www

useradd -M -s /sbin/nologin -g www php

vim /usr/local/php/etc/php-fpm.d/www.conf

user = php

group = www

3.4 设置开机启动

vim /etc/rc.local

加入一行 /usr/local/php/sbin/php-fpm　保存并退出，下次重启会生效。

启动： /usr/local/php/sbin/php-fpm

启动PHP失败 ：

[root@VerifV5Zbx01 php-7.0.20]# /usr/local/php/sbin/php-fpm

[11-Oct-2017 09:43:27] ERROR: unable to bind listening socket for address '127.0.0.1:9000': Address already in use (98)

[11-Oct-2017 09:43:27] ERROR: FPM initialization failed

[root@VerifV5Zbx01 php-7.0.20]#

原因 ：php-fpm已经启动了

/usr/local/php/bin

解决方法 ：

四、安装nginx

4.1 获取源文件 nginx-1.12.0.tar.gz

tar -xzf nginx-1.12.0.tar.gz

cd nginx-1.12.0

4.2 开始编译

./configure --prefix=/usr/local/nginx \

--with-http_ssl_module

make &&make install

4.3 验证是否安装正确

验证nginx配置文件是否正确

进入nginx安装目录sbin下，输入命令./nginx -t

看到如下显示nginx.conf syntax is ok

nginx.conf test is successful

说明配置文件正确!

4.4 修改配置文件

useradd -M -s /sbin/nologin -g www nginx

vim /etc/nginx/nginx.conf

#全局参数设置

user　nginx www';

worker_processes　1;

#error_log　logs/error.log;

#error_log　logs/error.log　notice;

```
        #error_log  logs/error.log  info;
        #pid        logs/nginx.pid;
        events {
            accept_mutex on;   #设置网路连接序列化，防止惊群现象发生，默认为on
            multi_accept on;  #设置一个进程是否同时接受多个网络连接，默认为off
            worker_connections  10240;
        }
        http {
            include       mime.types;
            default_type  application/octet-stream;
            #log_format  main  '$remote_addr - $remote_user [$time_local] "$request" '
            #                  '$status $body_bytes_sent "$http_referer" '
            #                  '"$http_user_agent" "$http_x_forwarded_for"';
            #access_log  logs/access.log  main;
                log_format myFormat '$remote_addr－$remote_user [$time_local] $request $status $body_bytes_sent $http_referer
$http_user_agent $http_x_forwarded_for'; #自定义格式
            sendfile        on;
            #tcp_nopush     on;
            #keepalive_timeout  0;
            keepalive_timeout  65;
            gzip  on;
            server {
                listen       88;
                server_name  www.gangyin.info;
                root /var/www;
                index index.html index.htm index.php;
                #charset koi8-r;
                #access_log  logs/host.access.log  main;
                location / {
                    root   /var/www;
                    index  index.html index.htm index.php ;
                    try_files $uri $uri/ /index.php$is_args$args;
                     # 3. 没有索引页时，罗列文件和子目录
                     autoindex on;
                     autoindex_exact_size on;
                     autoindex_localtime on;
                }
                #error_page  404              /404.html;
                # redirect server error pages to the static page /50x.html
                #
                error_page   500 502 503 504  /50x.html;
                location = /50x.html {
                    root   /var/www;
                }
                # proxy the PHP scripts to Apache listening on 127.0.0.1:80
                #
                #location ~ \.php$ {
                #    proxy_pass   http://127.0.0.1;
                #}

                # pass the PHP scripts to FastCGI server listening on 127.0.0.1:9000
                #
                location ~ \.php$ {
                    root           /var/www;
                    fastcgi_pass   127.0.0.1:9000;
                    fastcgi_index  index.php;
                    #fastcgi_param  SCRIPT_FILENAME  /scripts$fastcgi_script_name;
                    fastcgi_param SCRIPT_FILENAME $document_root/$fastcgi_script_name;
```

```
            include        fastcgi_params;
        #       try_files $uri =404;
         #       include fastcgi.conf;
        #       fastcgi_pass 127.0.0.1:9010;
        }
        # deny access to .htaccess files, if Apache's document root
        # concurs with nginx's one
        #
        #location ~ /\.ht {
        #    deny  all;
        #}
    }
     # another virtual host using mix of IP-, name-, and port-based configuration
    #
    #server {
    #    listen       8000;
    #    listen       somename:8080;
    #    server_name  somename  alias  another.alias;
    #    location / {
    #        root   html;
    #        index  index.html index.htm;
    #    }
    #}
    # HTTPS server
    #
    #server {
    #    listen       443 ssl;
    #    server_name  localhost;
    #    ssl_certificate      cert.pem;
    #    ssl_certificate_key  cert.key;
    #    ssl_session_cache    shared:SSL:1m;
    #    ssl_session_timeout  5m;
    #    ssl_ciphers  HIGH:!aNULL:!MD5;
    #    ssl_prefer_server_ciphers  on;
    #    location / {
    #        root   html;
    #        index  index.html index.htm;
    #    }
    #}
}
```

4.5 设置开机启动

vi /etc/rc.local

加入一行 /usr/local/nginx/sbin/nginx 保存并退出，下次重启会生效。

启动： /usr/local/nginx/sbin/nginx

五、安装zabbix

5.1 获取源文件 zabbix-3.2.6.tar.gz

```
tar -xzf zabbix-3.2.6.tar.gz
cd zabbix-3.2.6
```

5.2 开始编译

```
./configure --prefix=/usr/local/zabbix/ --enable-server --enable-agent --with-mysql=/usr/local/mysql/bin/mysql_config --with-net-snmp --with-libxml2 --with-net-snmp  --with-openipmi --with-unixodbc=[ARG]
```

报错

解决方法 ： ./configure --prefix=/usr/local/zabbix/ --enable-server --enable-agent --with-mysql --with-net-snmp --with-libxml2 --with-openipmi --with-unixodbc=[ARG]

make &&make install

5.4 验证是否安装成功

cd /usr/local/zabbix/sbin/

./zabbix_server -V

5.3 修改配置文件

1)、建用户

groupadd zabbix

useradd -g zabbix -s /sbin/nologin -M zabbix

#cd /root/files/zabbix-3.2.6/

#cp -rfp misc/init.d/fedora/core/* /etc/init.d/   */

2)、编辑一下启动脚本以适应自己的安装环境

修改服务器端启动文件：

#vi /etc/init.d/zabbix_server

将BASEDIR=/usr/local/替换为BASEDIR=/usr/local/zabbix（以上一步编译的位置为准)

修改客户器端启动文件：

#vi /etc/init.d/zabbix_agentd

将BASEDIR=/usr/local/替换为BASEDIR=/usr/local/zabbix（以上一步编译的位置为准)

3)、编辑zabbix_server配置文件(/usr/local/zabbix/etc/zabbix_server.conf）

修改zabbix server配置文件

#cd /usr/local/zabbix/etc

#cp zabbix_server.conf zabbix_server.conf.bak

#vim zabbix_server.conf

DBHost=localhost #数据库连接地址

DBName= zabbix   #zabbix使用的数据库名称

DBUser=zabbix   #zabbix数据库连接用户名

DBPassword=123456

DBPort=3306

LogFile=/var/log/zabbix/zabbix_server.log #日志存放路径设置

LogFileSize=10   #日志大小限制

##没有特殊需求配置到这里就OK了

StartPollers=30   #开启多线程数，一般不要超过30个

StartTrappers=20   #trapper线程数

StartPingers=10   #fping线程数

StartDiscoverers=120

MaxHousekeeperDelete=5000

CacheSize=1024M   #用来保存监控数据的缓存数，根据监控主机的数量适当调整

StartDBSyncers=8   #数据库同步时间

HistoryCacheSize=1024M

TrendCacheSize=128M   #总趋势缓存大小

HistoryTextCacheSize=512M

LogSlowQueries=1000

4)、添加zabbix服务对应端口：

#vi /etc/services

zabbix_agent   10050/tcp   # zabbix agent

zabbix_agent   10050/udp   # zabbix agent

zabbix_trapper 10051/tcp   # zabbix trapper

zabbix_trapper 10051/udp   # zabbix trapper

5)、zabbix.log目录创建与授权

#mkdir /var/log/zabbix

#chown zabbix:zabbix /var/log/zabbix

#chmod -R 775 /var/log/zabbix/

6)、服务启动与与配置验证

zabbix_server端验证：

#/etc/init.d/zabbix_server start

/etc/init.d/zabbix_server status

7)、添加开机启动服务

chkconfig --add zabbix_server

chkconfig --level 35 zabbix_server on

chkconfig --add zabbix_agentd

chkconfig --level 35 zabbix_agentd on

至此，程序配置完成

启动 zabbix_server：

/usr/local/zabbix-2.2.2/sbin/zabbix_server

5.4 导入数据

mysql -uroot -p

Enter password

mysql >create database zabbix character set utf8;

mysql >grant all privileges on zabbix.* to zabbix@localhost identified by 'gangyin126';

（此处host不能写成localhost，否则后面配置DB Connection，不在本地则会失败

Host应该配置成%）

mysql >flush privileges;

mysql >use zabbix

mysql >source /root/files/zabbix-3.2.6/database/mysql/schema.sql

mysql >source /root/files/zabbix-3.2.6/database/mysql/data.sql

mysql >source /root/files/zabbix-3.2.6/database/mysql/images.sql

验证数据库和表

mysql > use zabbix

mysql >select count(*) tables, table_schema from information_schema.tables where table_schema='zabbix' group by table_schema;

六、zabbix配置

6.1 客户端配置

1.下载zabbix客户端

wget http://downloads.sourceforge.net/project/zabbix/ZABBIX%20Latest%20Stable/3.2.6/zabbix-3.2.6.tar.gz

tar -zxvf zabbix-3.2.6.tar.gz

cd zabbix-3.2.6

./configure --prefix=/usr/local/zabbix-2.2.2/ --enable-agent

make && make install

2. 配置zabbix_agentd配置文件

vim /usr/local/zabbix/etc/zabbix_agentd.conf

Server=192.168.215.138

ServerActive=192.168.215.138

Hostname=Zabbix server

其中Server和ServerActive都指定zabbixserver的IP地址，不同的是，前者是被动后者是主动。也就是说Server这个配置是用来允许127.0.0.1这个ip来我这取数据。

3.其他主机安装客户端记得添加zabbix用户。

groupadd zabbix

useradd -g zabbix -s /sbin/nologin -M zabbix

6.2 复制编译目录下的php文件到www下

cd /root/files/zabbix-3.2.6/

mkdir -p /var/www/zabbix

```
cp -rfp frontends/php/* /var/www/zabbix/ -R
chown -R zabbix.mysql /var/www/zabbix
```

6.3 浏览 http://主机ip/zabbix，开始进入安装步骤

zabbix_server端：

```
iptables -nL
firewall-cmd --query-port=5666/tcp
firewall-cmd --query-port=80/tcp
firewall-cmd --permanent --add-port=80/tcp
firewall-cmd --reload
netstat -lnpt
```

图片上的IP改成172.16.0.1

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Paste_Image.png

Paste_Image.png

Paste_Image.png

这里出现权限报错，将配置文件下载下来保存到/opt/nginx/html/zabbix/conf/zabbix.conf.php文件中。如果手动写入配置文件之后如果还报错，可以忽略，将浏览器关闭并重新打开连接即可。登录账号admin，登录密码zabbix：

```
//手动写入配置172.16.0.1可改成127.0.0.1或localhost # vim /opt/nginx/html/zabbix/conf/zabbix.conf.php
<?php // Zabbix GUI configuration file. global $DB; $DB['TYPE']     = 'MYSQL'; $DB['SERVER']   = '172.16.0.1'; $DB['PORT']     =
'0'; $DB['DATABASE'] = 'zabbix'; $DB['USER']     = 'zabbix'; $DB['PASSWORD'] = '123456'; // Schema name. Used for IBM DB2 and
PostgreSQL. $DB['SCHEMA'] = ''; $ZBX_SERVER      = '172.16.0.1'; $ZBX_SERVER_PORT = '10051'; $ZBX_SERVER_NAME = '';
$IMAGE_FORMAT_DEFAULT = IMAGE_FORMAT_PNG; ?>
```

登录成功后显示如下

Paste_Image.png

7.开启172.16.0.1上的zabbix_agentd以监控zabbix_server本身（即172.16.0.1）

```
# service zabbix_agend start
```

http://172.16.0.1/zabbix打开

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--

六、监控数据

--

我的环境是 ： 192.168.40.122/zabbix