Zabbix: Monitor Linux rsyslog configured central log server is rechable with check_log_server_status.sh userparameter script

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On modern Linux OS servers on Redhat / CentOS / Fedora and Debian based distros log server service is usually running on the system such as rsyslog (rsyslogd) to make sure the logging from services is properly logged in separate logs under **/var/log.**

A very common practice on critical server machines in terms of data security, where logs produced by rsyslog daermon needs to be copied over network via TCP or UDP protocol immediately is to copy over the /var/log produced logs to another configured **central logging server.** Then later every piece of bit generated by rsyslogd could be overseen by a third party auditor person and useful for any investigation in case of logs integrity is required or at worse case if there is a suspicion that system in question is **hacked** by a malicious hax0r and logs have been "cleaned" up from any traces leading to the intruder (things usually done locally by hackers) or by any automated script exploit tools since yesr.

This ***doubled logging of system events to external log server*** ipmentioned is ***very common practice by companies to protect their log data*** and quite useful for logs to be recovered easily later on from the **central logging server** machine that could be also setup for example to use **rsyslogd** to receive logs from other Linux machines in circumstances where some log disappears just like that (things i've seen happen) for any strange reason or gets destroyed by the admins mistake locally on machine / or by any other mean such as filesystem gets damaged. a ***very common practice by companies to protect their log data***.

Monitor remote logging server is reachable with userparameter script

Assuming that you already have setup a logging from the ***server hostname A*** towards the ***Central***

logging server log storepool and everything works as expected the next logical step is to have at least some basic way to monitor remote logging server configured is still reachable all the time and respectively rsyslog **/var/log/*.*** logs gets properly produced on remote side for example with something like a **simple TCP remote server port check and reported in case of troubles in zabbix.**

To solve that simple task for company where I'm employed, I've developed below **check_log_server_status.sh**:

```
#!/bin/bash
# @@ for TCP @ for UDP
# check_log_server_status.sh Script to check if configured TCP / UDP logging server in /etc/rsyslog.conf is rechable
# report to zabbix
DELIMITER='@@';
GREP_PORT='5145';
CONNECT_TIMEOUT=5;

PORT=$(grep -Ei "*.* $DELIMITER.*:$GREP_PORT" /etc/rsyslog.conf|awk -F : '{ print $2 }'|sort -rn |uniq);

#for i in $(grep -Ei "*.* $DELIMITER.*:$GREP_PORT" /etc/rsyslog.conf |grep -v '\#'|awk -F"$DELIMITER" '{ print $2 }' | awk -F ':' '{ print $1 }'|sort -rn); do
HOST=$(grep -Ei "*.* $DELIMITER.*:$GREP_PORT" /etc/rsyslog.conf |grep -v '\#'|awk -F"$DELIMITER" '{ print $2 }' | awk -F ':' '{ print $1 }'|sort -rn)

# echo $PORT

if [[ ! -z $PORT ]] && [[ ! -z $HOST ]]; then
SSH_RETURN=$(/bin/ssh $HOST -p $PORT -o ConnectTimeout=$CONNECT_TIMEOUT 2>&1);
else
echo "PROBLEM Port $GREP_PORT not defined in /etc/rsyslog.conf";
fi

##echo SSH_RETURN $SSH_RETURN;
#exit 1;
if [[ $(echo $SSH_RETURN |grep -i 'Connection timed out during banner exchange' | wc -l) -eq '1' ]]; then
echo "rsyslogd $HOST:$PORT OK";
fi

if [[ $(echo $SSH_RETURN |grep -i 'Connection refused' | wc -l) -eq '1' ]]; then
echo "rsyslogd $HOST:$PORT PROBLEM";
```

```
fi

 #sleep 2;
#done
```

You can download a copy of the script check_log_server_status.sh here

Depending on the port the remote rsyslogd central logging server is using configure it in the script with respective port through the ***DELIMITER='@@', GREP_PORT='5145', CONNECT_TIMEOUT=5 values.***

The delimiter is setup as usually in **/etc/rsyslog.conf this the remote logging server for TCP IP is configured with @@ prefix to indicated TCP mode should be used.**

Below is example from /etc/rsyslog.conf of how the rsyslogd server is configured:

```
[root@Server-hostA /root]# grep -i @@ /etc/rsyslogd.conf
# central remote Log server IP / port
*.* @@10.10.10.1:5145
```

To use the script on a machine, where you have a properly configured **zabbix-agentd** service host **connected and reporting data to a zabbix-server monitoring server.**

1. Set up the script under /usr/local/bin/check_log_server_status.sh

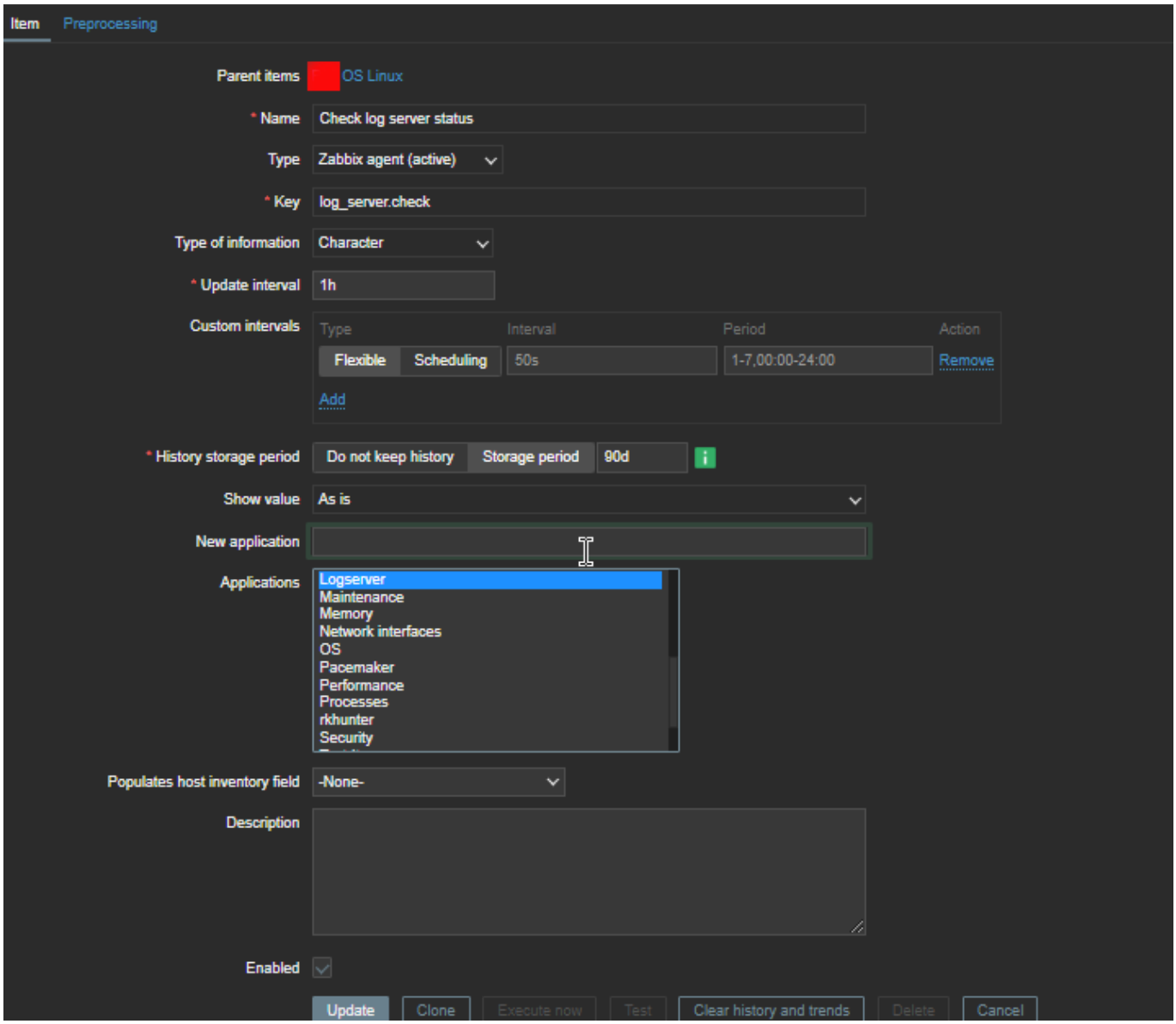
```
[root@Server-hostA /root ]# vim /usr/local/bin/check_log_server_status.sh
...

[root@Server-hostA /root ]# chmod +x /usr/local/bin/check_log_server_status.sh
```

2. Prepare userparameter_check_log_server.conf with log_server.check

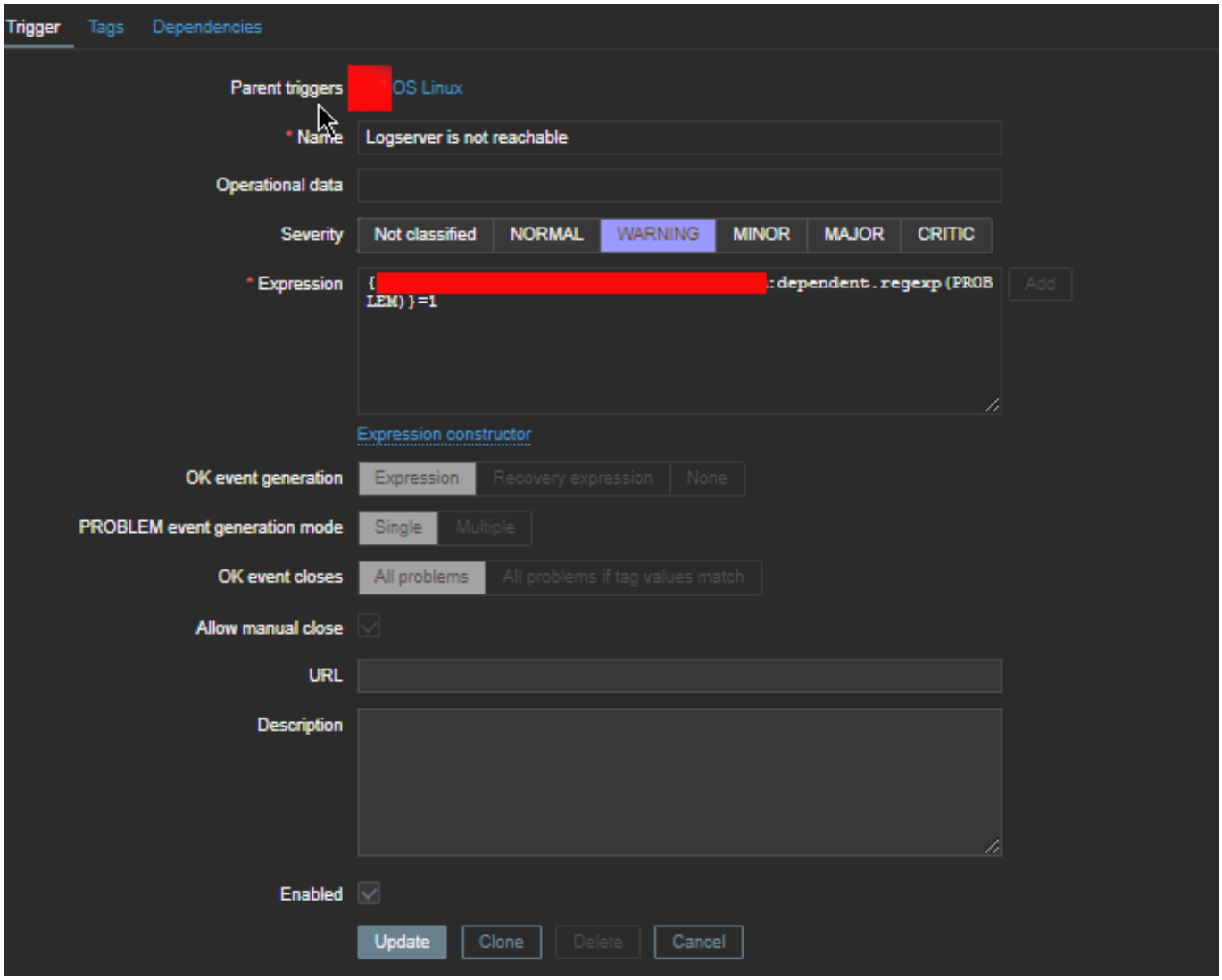
Item key

[root@Server-hostA zabbix_agentd.d]# **cat userparameter_check_log_server.conf**
UserParameter=log_server.check, /usr/local/bin/check_log_server_status.sh

3. Set in Zabbix some Item such as on below screenshot



4. Create a Zabbix trigger



The redded hided field in **Expression** field should be substituted with your actual hostname on which the monitor script will run.