Subject: Monitoring OpenVZ resources using munin
Posted by Jan Tomasek on Thu, 19 Jul 2007 12:37:00 GMT
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Hello,

I wanted to monitor resource of my OpenVZ systems using Munin. I took inspiration from wiki page:
http://wiki.openvz.org/Monitoring_openvz_resources_using_mun in
but I needed mixture of features from old and new version. Nice thing on old version is possibility to draw multiple resources into one graph.
Bad thing was speed.

I have rewritten old version to use /proc/bc/<VEID>/resources, and did some cleaning in code. Result is working nicely, you can see live output at http://munin.cesnet.cz/munin/OpenVZ/index.html.

I was thinking how to group some resources, not saying that my decision is best, but it works. I also prepared script ln-vebc which I run every hour from cron to create new links for new VE and delete links for old removed/stoped VE.

Both scripts are attached. If there is interest feel free put them on wiki, I just don't want to put there 3rd version of same.

Best regards
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```
#!/bin/bash

FILE=`mktemp /tmp/ln-vebc-XXXXXX`

cd /etc/munin/plugins

for resources in kmemsize \
    lockedpages_privvmpages_shmpages_physpages_vmguarpages_oomgu arpages \
    numproc \
    numtcpsock_numflock_numpty_numsiginfo_numothersock_numiptent \
   tcpsndbuf_tcprcvbuf_othersockbuf_dgramrcvbuf \
   dcachesize \
   numfile
do
  for VE in 0 `/usr/sbin/vzlist | sed "s/^ *//" |grep '^[0-9]' | cut -f 1 -d " "`
  do
    ln -sf /usr/local/share/munin/plugins/vebc_ "vebc_"$resources"_"$VE
```

```
    echo "vebc_"$resources"_"$VE >> $FILE
  done
done

# remove no longer deserved links (ie. links pointing to machines
# which were destroyed or stoped)

find -type l -name vebc_\* | sed "s/\.\///" | while read LN; do
    if grep ^$LN$ $FILE >/dev/null; then
 true
    else
 rm $LN
    fi
done

rm $FILE#!/bin/sh
#
# Munin's plugin to monitor OpenVZ bean counters.
#
# $Log$
# Revision 1.3  2007/07/19 12:57:00  Jan Tomasek <jan@tomasek.cz>
#   * rewrited to work with /proc/bc/<VEID>/resources instead of
#     /proc/user_beancounters, that simplified code and result
#     is also bit faster.
#   * added references to OpenVZ wiki
#
# Original revision taken from:
#    http://wiki.openvz.org/Monitoring_openvz_resources_using_mun in
#
#%# family=auto
#%# capabilities=autoconf suggest

VEID=`basename $0 | sed -e 's/^vebc_.*_//'`;
STATS=`basename $0 | sed -e 's/^vebc_//' -e 's/_[0-9]*$//' -e 's/_/ /g'`

if [ "$1" = "autoconf" ]; then
    if [ -r /proc/bc/0/resources ]; then
 echo yes
 exit 0
    else
 echo "no (/proc/bc/0/resources not found)"
 exit 1
    fi
fi

if [ "$1" = "suggest" ]; then
    if [ -r /proc/bc/0/resources ]; then
 cat /proc/bc/0/resources |
```

```
 while read str; do
     vals=($str)
     echo ${vals[0]}
 done

 exit 0
    else
 exit 1
    fi
fi

if [ ! -f /proc/bc/$VEID/resources ]; then
    exit 0;
fi

if [ "$1" = "config" ]; then
    #echo "graph_order down up"
    echo "graph_title VE$VEID: $STATS"
    echo "graph_vlabel bean counters"
    echo "graph_category VE$VEID"
    # Note on URLs. General graph info is by munin version 1.2.5
    # accepted even with HTML code. But for value.info it escapes URL,
    # I expect that authors of munin will note that in future and put
    # escaping even for graph.info.
    echo "graph_info VE bean counters info. Documentation of the OpenVZ resource management
is located at <a href=\"http://wiki.openvz.org/UBC\">http://wiki.openvz.org/UBC</a>."

    cat /proc/bc/$VEID/resources | while read name value top warn max stuff ; do
 for statname in $STATS; do
     if [ "$name" == "$statname" ]; then
  URL="http://wiki.openvz.org/$name"
  if [ "$warn" == "0" ]; then
      warn=$max
  fi
  echo $name.label $name
  echo $name.warning $warn
  echo $name.critical $max
  echo $name.info Description of this resource is located at $URL
     fi
 done
    done
fi;

cat /proc/bc/$VEID/resources | while read name value stuff ; do
    for statname in $STATS; do
 if [ "$name" == "$statname" ]; then
     echo $name".value "$value;
 fi
```

done
done