Monitoring Guide

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This document outlines usage of Nagios to monitor the health of the Bruce replication system. A familiarity with administering Nagios is presumed of the reader.

Monitoring for the Bruce daemon

The check_procs Nagios plugin is used to monitor for one (and only one) Bruce daemon running on a server. The check_procs plugin is included with the "Official Nagios Plugins", and is likely already installed on a running Nagios system.

The steps to monitor for a Bruce daemon on the same host as Nagios:

- Setup 'check_bruce_daemon' command.

```
# 'check_bruce_daemon' command definition
define command {
       command_name     check_bruce_daemon
       command_line     $USER1$/check_procs
-w 1:1 -c 1:1 -a com.netblue.bruce.Main
}
```

- Setup a service that will check for the replication daemon

```
# Define a service that will check for the
replication daemon

define service {
       use
local-service           ; service template
to user
       host_name
localhost
       service_description
bruce daemon
       check_command
check_bruce_daemon
}
```

Monitoring for a database

In this example, we are monitoring for the presence of a bruce_config database. The distribution included check_pgsql plugin is used:

- Setup check_pgserver command

```
# 'check_pgserver' command definition
define command {
       command_name     check_pgserver
       command_line     $USER1$/check_pgsql
-H $HOSTADDRESS$ -P $ARG1$ -d $ARG2$
}
```

- and set up a service to monitor for the database

```
# Define a service to monitor for the
bruce_config postgresql server and database

define service {
       use
local-service           ; service template
to use
       host_name
localhost
       service_description
bruce_config DB
;
port database name
       check_command
check_pgserver!5432!bruce_config
}
```

Monitoring for replication lag

The custom check_bruce_lag plugin is used in this monitor. To create this plugin, change directories to the Nagios plugins directory (often either /usr/lib/nagios/plugins or /usr/local/nagios/libexec), and execute this script:

```
cat >check_bruce_lag <<EOF
#!/bin/bash

export HOST=$1
export TYPE=$2 # 'MASTER' or 'SLAVE'
export CLUSTER=$3
export PORT=$4
export DB=$5
declare -i warn crit lag
```

```
warn=$6
crit=$7

lag_rc=-1
if [ "$TYPE" == "MASTER" ] ; then
    lag=`psql -t -h $HOST -c "select
round(extract(epoch from now()) -
extract(epoch from update_time)) from
bruce.snapshotlog where current_xaction =
(select max(current_xaction) from
bruce.snapshotlog)" -p $PORT $DB`
    lag_rc=$?
fi
if [ "$TYPE" == "SLAVE" ] ; then
    lag=`psql -t -h $HOST -c "select
round(extract(epoch from now()) -
extract(epoch from update_time)) from
bruce.slavesnapshotstatus where clusterid =
$CLUSTER" -p $PORT $DB`
    lag_rc=$?
fi

if [ "$lag_rc" != "0" ] ; then
   printf "UNKNOWN error $lag_rc\n"
   exit 3
fi

if (($lag>=$crit))
then
    printf "CRIT Bruce Replication Lag
%ds\n" $lag
```

```
    exit 2
fi

if (($lag>=$warn))
then
    printf "WARN Bruce Replication Lag
%ds\n" $lag
    exit 1
fi

printf "OK Bruce Replication Lag %ds\n" $lag
exit 0
```

```
EOF
chmod a+x check_bruce_lag
```

- Setup a command for monitoring

```
# 'check_bruce_lag' command definition
define command {
       command_name     check_bruce_lag
       command_line
$USER1$/check_bruce_lag $HOSTADDRESS$ $ARG1$
$ARG2$ $ARG3$ $ARG4$ 60 300
}
```

- Service to monitor a MASTER database

```
# Define a service to monitor for snapshot
lag on the bruce_master database

define service {
       use
local-service           ; service template
to use
       host_name
localhost
       service_description
bruce_master lag
;
clusterid
;
type   | port database name
       check_command
check_bruce_lag!MASTER!1!5432!bruce_master
}
```

- Service to monitor a SLAVE database

```
# Define a service to monitor for snapshot
lag on the bruce_slave_02 database

define service {
       use
local-service           ; service template
to use
       host_name
localhost
       service_description
bruce_slave_02 lag
;
clusterid
;
type  | port database name
       check_command
check_bruce_lag!SLAVE!1!5432!bruce_slave_02
}
```