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1. 实验: 集群组件服务故障诊断处理 Ganglia 安装与配置

1.1. 实验目的

完成本实验，您应该能够：

- 掌握安装 Ganglia 的步骤
- 掌握 Ganglia 监控端安装
- 掌握监控 HBase 组件信息
- 掌握监控 Hive 组件信息
- 掌握监控 Flume 组件信息
- 掌握监控 kafka 组件信息

1.2. 实验要求

- 熟悉安装 ganglia 的步骤
- 熟悉 Linux 操作系统命令
- 熟悉 hadoop 组件基本安装

1.3. 实验环境

本实验所需之主要资源环境如表 1-1 所示。

表 1-1 资源环境

服务器集群	三个以上节点，机器最低配置：双核 CPU、8GB 内存、100G 硬盘
运行环境	CentOS 7.4
用户名/密码	root/password hadoop/password
服务和组件	服务和组件根据实验需求安装 Ganglia 3.7.2

1.4. 实验过程

1.4.1. 实验任务一：安装 ganglia 所需依赖

1.4.1.1. 步骤一：关闭 selinux（子节点也要）

```
[root@master ~]# setenforce 0
```

1.4.1.2. 步骤二：安装依赖包（子节点也要）

这步要保证全部依赖安装完成，不然后面会出问题。

```
[root@master ~]# yum -y install gcc glibc glibc-common rrdtool rrdtool-devel  
l apr apr-devel expat expat-devel pcre pcre-devel dejavu-lgc-sans-mono-fonts
```

```
dejavu-sans-mono-fonts zlib zlib-devel libconfuse libconfuse-devel
```

1.4.2. 实验任务二：监控端安装 gmetad,gmond,ganglia-web,nginx,php

1.4.2.1. 步骤一：监控端安装 gmond 及 gmeta

将下载后的 ganglia-3.7.2.tar.gz 放至 /root 目录下，然后执行以下操作

```
[root@master ~]# tar -zxvf /opt/software/ganglia-3.7.2.tar.gz
[root@master ~]# mv ganglia-3.7.2 /usr/local/src/ganglia
[root@master ~]# cd /usr/local/src/ganglia
[root@master ganglia]# ./configure --prefix=/usr/local/src/ganglia_make -
-with-gmetad --enable-gexec
[root@master ganglia]# make && make install
```

1.4.2.2. 步骤二：安装 nginx

```
[root@master ~]# yum install nginx -y
[root@master ~]# chkconfig nginx on
```

启动时有可能出现 80 端口冲突导致无法启动 nginx 服务，解决方法：查看哪个服务占用了 80 端口

```
[root@master ~]# netstat -ntlp
```

关闭占用 80 端口的服务

```
[root@master ~]# systemctl stop httpd.service
```

启动 nginx

```
[root@master ~]# systemctl start nginx
```

1.4.2.3. 步骤三：安装 php

```
[root@master ~]# yum --enablerepo=remi,remi-php55 install php-fpm php-com
mon php-devel php-mysqlnd php-mbstring php-mcrypt
[root@master ~]# chkconfig php-fpm on
[root@master ~]# systemctl start php-fpm
```

1.4.2.4. 步骤四：配置 nginx 代理访问 php

```
[root@master ~]# vim /etc/nginx/nginx.conf

## server 处增加 location 配置块：

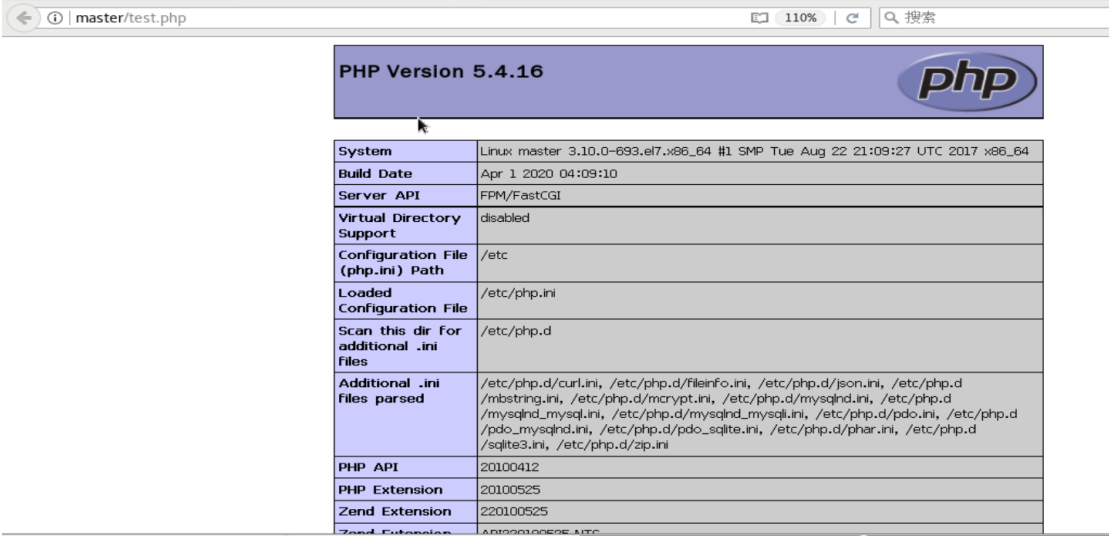
location ~ \.php$ {
    root          /var/www;
    fastcgi_pass  127.0.0.1:9000;
    fastcgi_index  index.php;
    fastcgi_param  SCRIPT_FILENAME  $document_root/$fastcgi_script_na
me;
    include       fastcgi_params;
}

##重启 nginx
[root@master ~]# systemctl restart nginx
```

1.4.2.5. w 步骤五：测试 PHP+Nginx

```
[root@master ~]# mkdir /var/www
[root@master ~]# cd /var/www
[root@master www]# vim test.php
<?php
phpinfo();
?>
```

访问：master/test.php，出现如下界面即为调试成功



System	Linux master 3.10.0-693.el7.x86_64 #1 SMP Tue Aug 22 21:09:27 UTC 2017 x86_64
Build Date	Apr 1 2020 04:09:10
Server API	FPM/FastCGI
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc
Loaded Configuration File	/etc/php.ini
Scan this dir for additional .ini files	/etc/php.d
Additional .ini files parsed	/etc/php.d/curl.ini, /etc/php.d/fileinfo.ini, /etc/php.d/json.ini, /etc/php.d/mbstring.ini, /etc/php.d/mcrypt.ini, /etc/php.d/mysqli.ini, /etc/php.d/mysqli_mysql.ini, /etc/php.d/mysqli_mysql.ini, /etc/php.d/pdo.ini, /etc/php.d/pdo_mysql.ini, /etc/php.d/pdo_sqlite.ini, /etc/php.d/phar.ini, /etc/php.d/sqlite3.ini, /etc/php.d/zip.ini
PHP API	20100412
PHP Extension	20100525
Zend Extension	220100525
Zend Extensions	AP020100525, etc.

1.4.2.6. 步骤六：配置 gmeta

```
[root@master www]# cd
[root@master ~]# mkdir -p /var/lib/ganglia/rrds
[root@master ~]# chown nobody:nobody /var/lib/ganglia/rrds
[root@master ~]# cd /usr/local/src/ganglia
[root@master ganglia]# cp ./gmetad/gmetad.init /etc/init.d/gmetad
```

修改 gmetad，具体值通过 “find / -name 'gmetad' -print” 查

```
[root@master ganglia]# vim /etc/init.d/gmetad
GMETAD=/usr/local/src/ganglia_make/sbin/gmetad
```

修改 gmetad.conf 配置文件

如果文件不存在：cp ./gmetad/gmetad.conf /usr/local/src/ganglia_make/etc

```
[root@master ganglia]# vim /usr/local/src/ganglia_make/etc/gmetad.conf
#需要在原文档的 data_source 前加个#注释掉
data_source "my grid" master
xml_port 8651
interactive_port 8652
rrd_rootdir "/var/lib/ganglia/rrds"
case_sensitive_hostnames 0
[root@master ganglia]# chkconfig --add gmetad
[root@master ganglia]# mkdir -p /usr/local/src/ganglia_make/var/run/
[root@master ganglia]# cd /usr/local/src/ganglia_make/var/run/
```

新建 gmetad.pid 文件

```
[root@master run]# vim gmetad.pid
[root@master run]# service gmetad restart
```

可以通过日志 `tail -f /var/log/messages` 查看启动情况

1.4.2.7. 步骤七：配置 gmond

```
[root@master run]# cd /usr/local/src/ganglia
[root@master ganglia]# cp ./gmond/gmond.init /etc/init.d/gmond
[root@master ganglia]# ./gmond/gmond -t > /usr/local/src/ganglia_make/etc/gmond.conf
```

修改 gmond 配置

```
[root@master ganglia]# vim /etc/init.d/gmond
GMOND=/usr/local/src/ganglia_make/sbin/gmond
```

修改 gmond.conf 配置

```
[root@master ganglia]# vim /usr/local/src/ganglia_make/etc/gmond.conf
cluster {
    name = "my grid" #要与 gmated.conf 中 data_source 的名称相同
    owner = "nobody"
    latlong = "unspecified"
    url = "unspecified"
}

##配置网络 (多播, 单播)
udp_send_channel {
    #bind_hostname = yes # Highly recommended, soon to be default.
    # This option tells gmond to use a source address
    # that resolves to the machine's hostname. Without
    # this, the metrics may appear to come from any
    # interface and the DNS names associated with
    # those IPs will be used to create the RRDs.

    mcast_join = master
    port = 8649
    ttl = 1
}

udp_rcv_channel {
    #mcast_join = 239.2.11.71
    port = 8649
    #bind = 239.2.11.71
    retry_bind = true
    # Size of the UDP buffer. If you are handling lots of metrics you real
ly
    # should bump it up to e.g. 10MB or even higher.
    # buffer = 10485760
}

tcp_accept_channel {
    port = 8649
    # If you want to gzip XML output
    gzip_output = no
}
```

重启 gmond

```
[root@master ganglia]# service gmond restart
```

1.4.2.8. 步骤八：安装 Ganglia Web

```
[root@master ~]# tar -zxvf /opt/software/ganglia-web-3.7.2.tar.gz -C /usr/local/src/
[root@master ~]# cd /usr/local/src/ganglia-web-3.7.2
[root@master ganglia-web-3.7.2]# vim Makefile
GDESTDIR = /var/www/ganglia
APACHE_USER = apache # 与 /etc/php-fpm.d/www.conf 中user保持一致
[root@master ganglia-web-3.7.2]# make install
```

1.4.2.9. 步骤九：配置 nginx 访问 ganglia

Nginx 新增 ganglia 文件目录访问配置

```
[root@master ganglia-web-3.7.2]# vim /etc/nginx/nginx.conf
location /ganglia {
    root    /var/www;
    index  index.html index.htm index.php;
}
[root@master ganglia-web-3.7.2]# cd /var/www
[root@master www]# chown -R apache:apache ganglia/
[root@master www]# mkdir /var/www/ganglia/dwoo/compiled
[root@master www]# mkdir /var/www/ganglia/dwoo/cache
[root@master www]# chmod 777 /var/www/ganglia/dwoo/compiled
[root@master www]# chmod 777 /var/www/ganglia/dwoo/cache
```

1.4.2.10. 步骤十一：配置 Ganglia Web

```
[root@master www]# cd /var/www/ganglia
[root@master ganglia]# cp conf_default.php conf.php
[root@master ganglia]# vim conf.php
conf.php 中有些默认配置和以上设置不一样的需要进行修改：
=====
$conf['gweb_root'] = "/var/www/ganglia";
$conf['gweb_confdir'] = "/var/www/ganglia";

include_once $conf['gweb_root'] . "/version.php";

#
# 'readonly': No authentication is required. All users may view all resources. No edits are allowed.
# 'enabled': Guest users may view public clusters. Login is required to make changes.
#           An administrator must configure an authentication scheme and ACL rules.
# 'disabled': Guest users may perform any actions, including edits. No authentication is required.
$conf['auth_system'] = 'readonly';

#
# The name of the directory in "./templates" which contains the
# templates that you want to use. Templates are like a skin for the
# site that can alter its look and feel.
#
$conf['template_name'] = "default";
```

```
#
# If you installed gmetad in a directory other than the default
# make sure you change it here.
#

# Where gmetad stores the rrd archives.
$conf['gmetad_root'] = "/var/lib/ganglia";
$conf['rrds'] = "${conf['gmetad_root']}/rrds";

# Where Dwoo (PHP templating engine) store compiled templates
$conf['dwoo_compiled_dir'] = "${conf['gweb_confdir']}/dwoo/compiled"; ##
如果不存在可以手动创建并注意权限
$conf['dwoo_cache_dir'] = "${conf['gweb_confdir']}/dwoo/cache";

# Where to store web-based configuration
$conf['views_dir'] = $conf['gweb_confdir'] . '/conf';
$conf['conf_dir'] = $conf['gweb_confdir'] . '/conf';

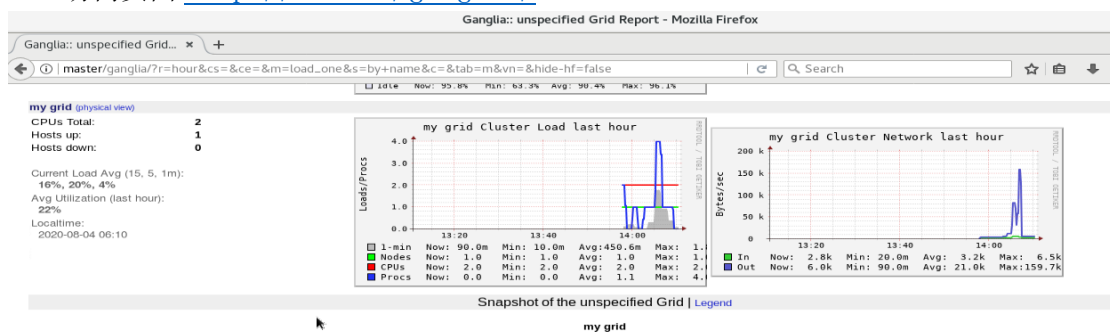
# Where to find filter configuration files, if not set filtering
# will be disabled
$conf['filter_dir'] = "${conf['gweb_confdir']}/filters";

# Leave this alone if rrdtool is installed in $conf['gmetad_root'],
# otherwise, change it if it is installed elsewhere (like /usr/bin)
$conf['rrdtool'] = "/bin/rrdtool"; ##通过命令 which rrdtool 查看
```

1.4.2.11. 步骤十二：重启服务并查看结果

```
[root@master ganglia]# cd
[root@master ~]# service gmond start
[root@master ~]# service gmetad start
[root@master ~]# systemctl restart php-fpm
[root@master ~]# systemctl restart nginx
```

访问页面 <http://master/ganglia/>



1.4.3. 实验任务三：被监控端安装 gmond

```
[root@slave1 ~]# yum -y install ganglia-gmond
[root@slave2 ~]# yum -y install ganglia-gmond
Master 复制配置文件进被监控机器
[root@master ~]# scp /usr/local/src/ganglia_make/etc/gmond.conf slave1:/etc/ganglia/
[root@master ~]# scp /usr/local/src/ganglia_make/etc/gmond.conf slave2:/etc/ganglia/
```

```
c/ganglia/
[root@slave1 ~]# service gmond start
[root@slave2 ~]# service gmond start
```

至此，ganglia 安装完成

1.4.4. 实验任务四：Ganglia 监控 hbase

1.4.4.1. 步骤一：修改 ganglia-monitor 的配置文件，每台机器上都进行如下配置

```
[root@master ~]# vim /usr/local/src/ganglia_make/etc/gmond.conf
[root@slave1 ~]# vim /etc/ganglia/gmond.conf
[root@slave2 ~]# vim /etc/ganglia/gmond.conf
#修改
cluster {
    name = "hbase"
    owner = "nobody"
    latlong = "unspecified"
    url = "unspecified"
}
```

1.4.4.2. 步骤二：Ganglia 主节点配置

```
[root@master ~]# vim /usr/local/src/ganglia_make/etc/gmetad.conf
#需要在原文档的 data_source 前加上#注释掉
data_source "hbase" 3 master:8649 slave1:8649 slave2:8649
```

1.4.4.3. 步骤三：在所有的 hbase 节点中均配置 hadoop-metrics2-hbase.properties

注意：这个也一定先将配置文件中没有是 # 开头的配置文件全部加上 # 将其注释掉，这点很重要！然后再在文件最后添加如下内容

```
[root@master ~]# vim /usr/local/src/hbase/conf/hadoop-metrics2-hbase.properties
[root@slave1 ~]# vim /usr/local/src/hbase/conf/hadoop-metrics2-hbase.properties
[root@slave2 ~]# vim /usr/local/src/hbase/conf/hadoop-metrics2-hbase.properties

*.sink.ganglia.class=org.apache.hadoop.metrics2.sink.ganglia.GangliaSink31
*.sink.ganglia.period=10
hbase.sink.ganglia.period=10
hbase.sink.ganglia.servers=master:8649

hbase.class=org.apache.hadoop.metrics2.sink.ganglia.GangliaSink31
hbase.period=10
hbase.servers==master:8649

jvm.class=org.apache.hadoop.metrics2.sink.ganglia.GangliaSink31
jvm.period=10
jvm.servers==master:8649

rpc.class=org.apache.hadoop.metrics2.sink.ganglia.GangliaSink31
rpc.period=10
```



```
rpc.servers==master:8649
```

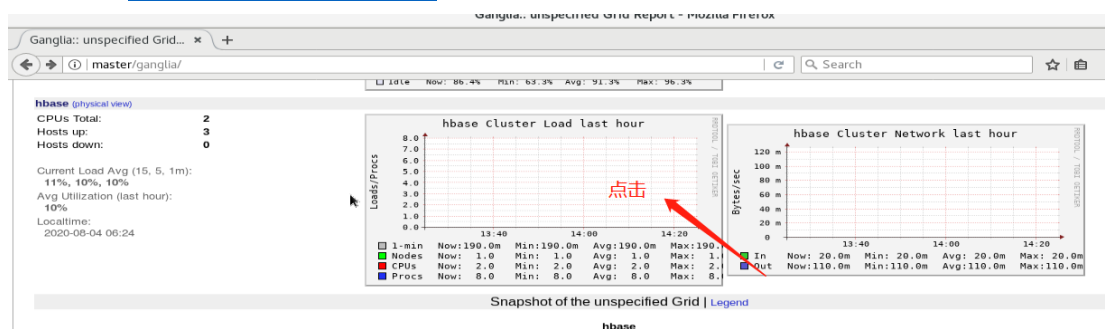
1.4.4.4. 步骤四：重启 hbase

```
[root@master ~]# su - hadoop
[hadoop@master ~]# cd /usr/local/src/hbase/bin
[hadoop@master bin]$ ./stop-hbase.sh
[hadoop@master bin]$ ./start-hbase.sh
[hadoop@master bin]$ su root
```

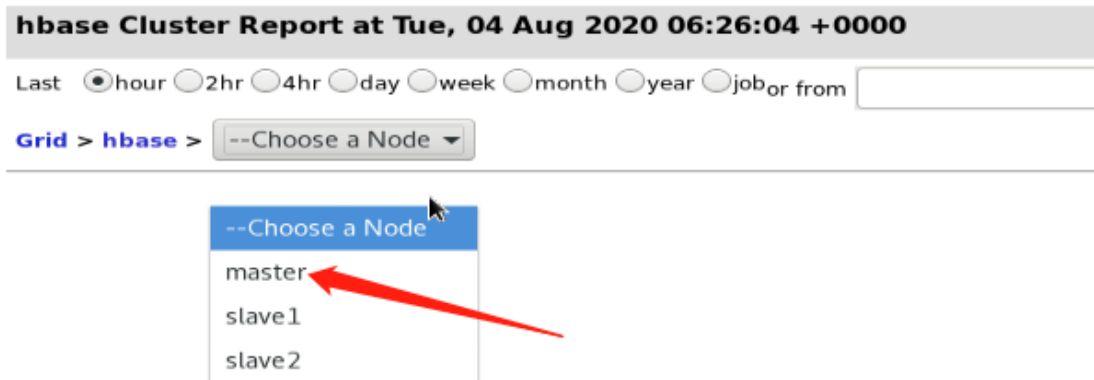
1.4.4.5. 步骤五：重启所有服务

```
[root@slave1 ~]# service gmond restart
[root@slave2 ~]# service gmond restart
[root@master bin]# service gmond restart
[root@master bin]# service gmetad restart
[root@master bin]# service nginx restart
```

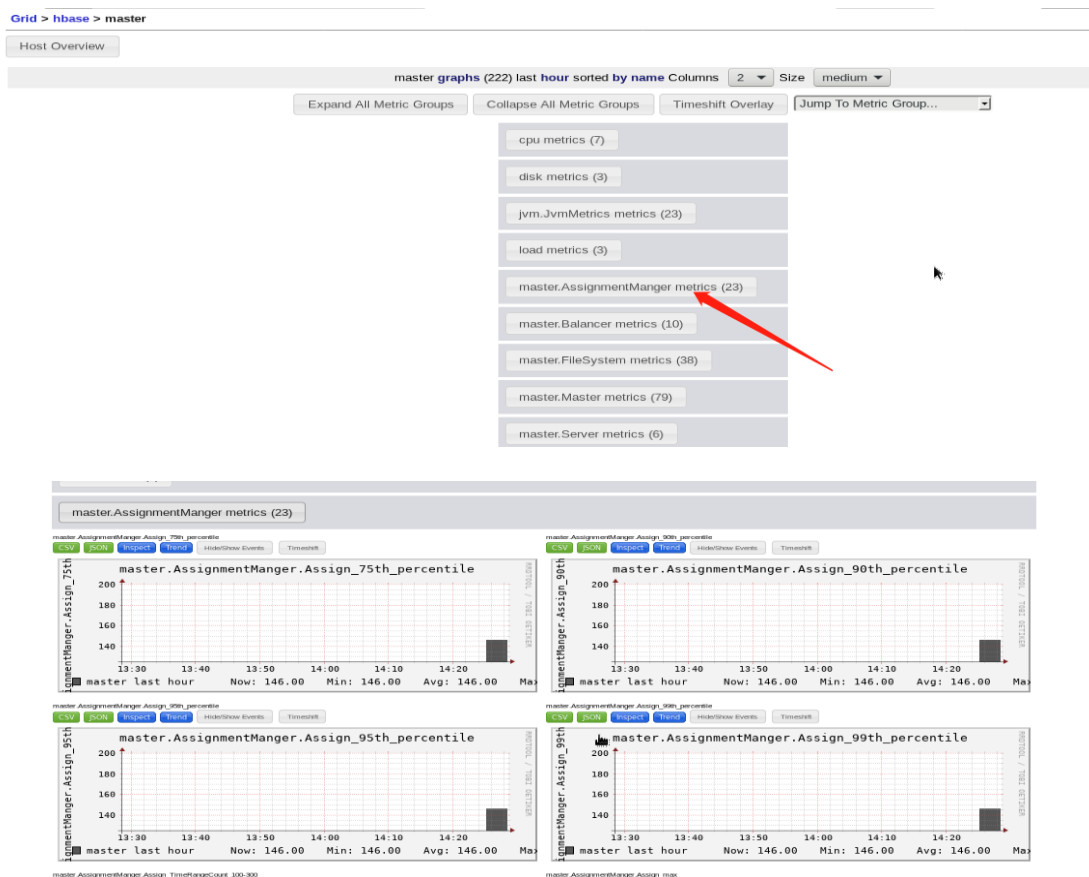
访问页面 <http://master/ganglia/> 查看各机器节点信息



选择不同的节点查看信息



点击即可看到对应的图表



1.4.5. 实验任务五：Ganglia 监控 hadoop 集群

1.4.5.1. 步骤一：修改 ganglia-monitor 的配置文件，每台机器上都进行如下配置

```
[root@master ~]# vim /usr/local/src/ganglia_make/etc/gmond.conf
[root@slave1 ~]# vim /etc/ganglia/gmond.conf
[root@slave2 ~]# vim /etc/ganglia/gmond.conf
#将对应的配置项修改为以下,大括号中的配置要一模一样
cluster {
    name = "hadoop"
    owner = "nobody"
    latlong = "unspecified"
    url = "unspecified"
}

udp_send_channel {
    #the host who gather this cluster's monitoring data and send these data to
    o gmetad node
    host = master
    port = 8649
}

udp_rcv_channel {
    port = 8649
}

tcp_accept_channel {
```

```
port = 8649
}
```

1.4.5.2. 步骤二：主节点配置

```
[root@master ~]# vim /usr/local/src/ganglia_make/etc/gmetad.conf
#需要在原文档的 data_source 前加上#注释掉
data_source "hadoop" 3 master:8649 slave1:8649 slave2:8649
```

1.4.5.3. 步骤三：修改 Hadoop 的配置文件/etc/hadoop/hadoop-metrics2.properties， 根据文件中的说明，修改三处：

```
[root@master ~]# vim /usr/local/src/hadoop/etc/hadoop/hadoop-metrics2.properties
#将文档原有的配置注释掉，添加以下配置
namenode.sink.ganglia.servers=master:8649
resourcemanager.sink.ganglia.servers=master:8649
mrappmaster.sink.ganglia.servers=master:8649
jobhistoryserver.sink.ganglia.servers=master:8649
*.sink.ganglia.class=org.apache.hadoop.metrics2.sink.ganglia.GangliaSink3
1
*.sink.ganglia.period=10
*.sink.ganglia.supportsparse=true
*.sink.ganglia.slope=jvm.metrics.gcCount=zero,jvm.metrics.memHeapUsedM=bo
th
*.sink.ganglia.dmax=jvm.metrics.threadsBlocked=70,jvm.metrics.memHeapUsed
M=40

[root@slave1 ~]# vim /usr/local/src/hadoop/etc/hadoop/hadoop-metrics2.properties
[root@slave2 ~]# vim /usr/local/src/hadoop/etc/hadoop/hadoop-metrics2.properties
#将文档原有的配置注释掉，添加以下配置
datanode.sink.ganglia.servers=master:8649
nodemanager.sink.ganglia.servers=master:8649
*.sink.ganglia.class=org.apache.hadoop.metrics2.sink.ganglia.GangliaSink3
1
*.sink.ganglia.period=10
*.sink.ganglia.supportsparse=true
*.sink.ganglia.slope=jvm.metrics.gcCount=zero,jvm.metrics.memHeapUsedM=bo
th
*.sink.ganglia.dmax=jvm.metrics.threadsBlocked=70,jvm.metrics.memHeapUsed
M=4
```

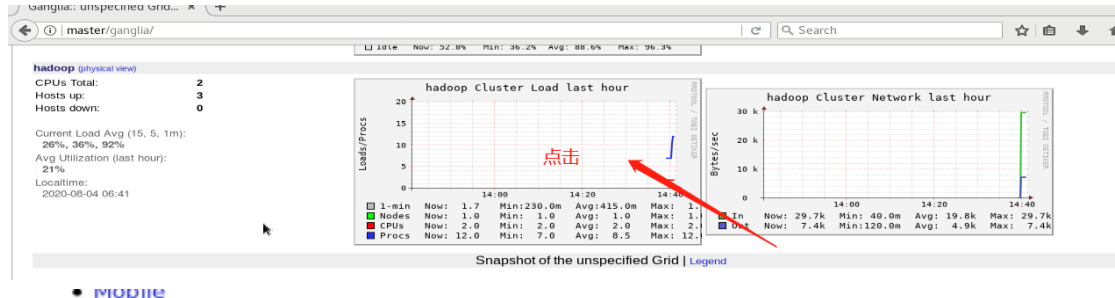
1.4.5.4. 步骤四：重启所有服务

```
[root@slave1 ~]# systemctl stop firewalld
[root@slave2 ~]# systemctl stop firewalld
[root@master ~]# systemctl stop firewalld
[root@slave1 ~]# service gmond restart
[root@slave2 ~]# service gmond restart
[root@master ~]# service gmond restart
[root@master ~]# service gmetad restart
[root@master ~]# service nginx restart
```

1.4.5.5. 步骤五：重启 hadoop

```
[root@master ~]# su hadoop
[hadoop@master sbin]$ cd /usr/local/src/hadoop/sbin/
[hadoop@master sbin]$ ./stop-all.sh
[hadoop@master sbin]$ ./start-all.sh
```

访问页面 <http://master/ganglia/> 查看各机器节点信息



hadoop Cluster Report at Tue, 04 Aug 2020 06:41:40 +0000

Last ☒ hour ☐ 2hr ☐ 4hr ☐ day ☐ week ☐ month ☐ year ☐ job or from

Grid > hadoop >

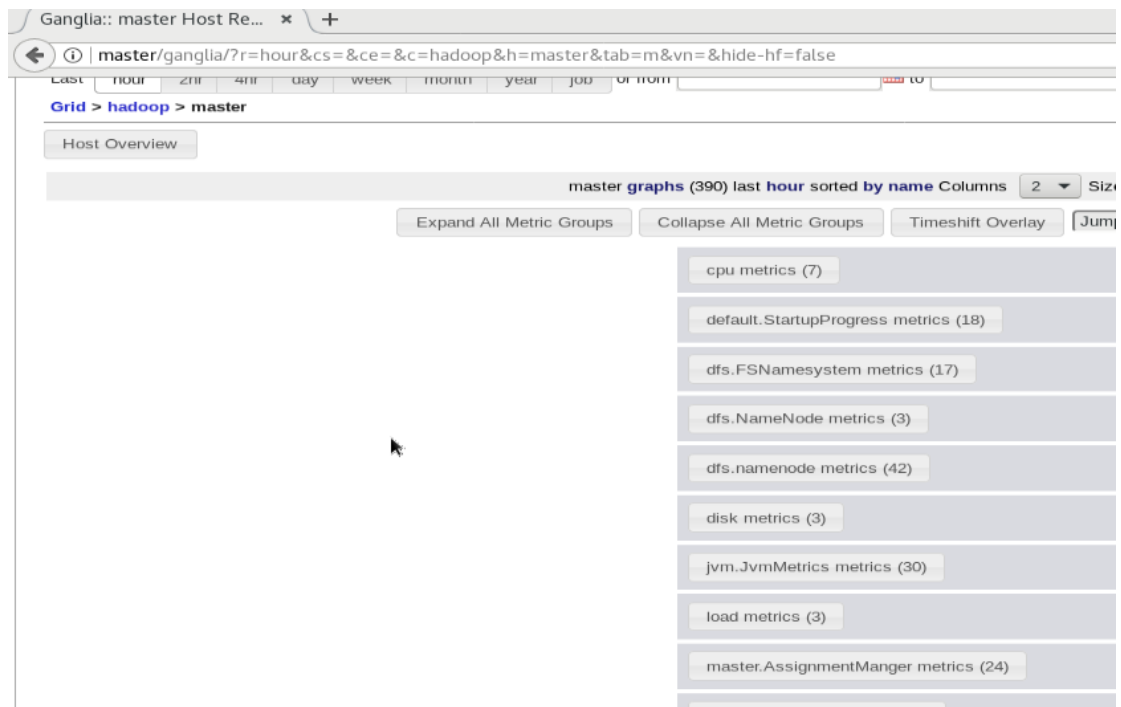
--Choose a Node

--Choose a Node

master

slave1

slave2





1.4.6. 实验任务六：Ganglia 监控 flume

1.4.6.1. 步骤一：主节点配置

```
[root@master ~]# vim /usr/local/src/ganglia_make/etc/gmetad.conf
#原文档的 data_source 需要注释掉
data_source "flume" master
```

1.4.6.2. 步骤二：主节点修改 ganglia-monitor 的配置文件

```
[root@master ~]# vim /usr/local/src/ganglia_make/etc/gmond.conf
cluster {
    name = "flume"
    owner = "nobody"
    latlong = "unspecified"
    url = "unspecified"
}
```

1.4.6.3. 步骤三：重启服务

```
[root@master ~]# service gmond restart
[root@master ~]# service gmetad restart
[root@master ~]# service nginx restart
```

1.4.6.4. 步骤四：配置 flume

```
#hadoop 用户下新建 netcat-conf.properties 配置文件
[root@master ~]# su - hadoop
[hadoop@master ~]$ cd /usr/local/src/flume
[hadoop@master flume]$ vim conf/netcat-conf.properties
a1.sources = r1
a1.channels = c1
a1.sinks = k1
a1.sources.r1.type = netcat
a1.sources.r1.bind = localhost
a1.sources.r1.port = 4444
a1.sources.r1.channels = c1
a1.sinks.k1.type = logger
a1.sinks.k1.channel = c1
a1.channels.c1.type = memory
a1.channels.c1.capacity = 100
a1.channels.c1.transactionCapacity = 100
```

1.4.6.5. 步骤五：修改/安装目录flume/conf 目录下的 flume-env.sh 配置：

```
[hadoop@master flume]$ vim conf/flume-env.sh
export JAVA_OPTS="-Dflume.monitoring.type=ganglia -Dflume.monitoring.host
s=master:8649 -Xms100m -Xmx200m -Dcom.sun.management.jmxremote"
```

1.4.6.6. 步骤六：启动 flume

```
[hadoop@master flume]# ./bin/flume-ng agent --conf conf/ --name a1 --conf-f
ile conf/netcat-conf.properties -Dflume.root.logger==INFO,console
```

1.4.6.7. 步骤七：在 Flume 监听页面观察接收数据情况：

#打开一个新终端

```
[hadoop@master flume]$ telnet localhost 4444
```

访问页面 <http://master/ganglia/> 查看各机器节点信息

• Mobile

flume Cluster Report at Tue, 04 Aug 2020 06:50:13 +0000

Last ☒ hour ☐ 2hr ☐ 4hr ☐ day ☐ week ☐ month ☐ year ☐ job or from to

Grid > flume > --Choose a Node

- Choose a Node
- master
- slave1
- slave2



1.4.7. 实验任务七：Ganglia 监控 kafka

1.4.7.1. 步骤一：将 jar 包导入 kafka 的 lib 目录

```
[root@master target]# cp /opt/software/kafka-ganglia-2.0.2.jar /usr/local/
src/kafka/libs/
[root@master target]# scp /opt/software/kafka-ganglia-2.0.2.jar slave1:/us
r/local/src/kafka/libs/
[root@master target]# scp /opt/software/kafka-ganglia-2.0.2.jar slave2:/us
r/local/src/kafka/libs/
[root@master ~]# cp /opt/software/metrics-ganglia-2.1.3.jar /usr/local/src
/kafka/libs/
[root@master ~]# scp /opt/software/metrics-ganglia-2.1.3.jar slave1:/usr/l
ocal/src/kafka/libs/
[root@master ~]# scp /opt/software/metrics-ganglia-2.1.3.jar slave2:/usr/l
```

```
ocal/src/kafka/libs/
```

1.4.7.2. 步骤二：修改 kafka 配置

```
[root@master ~]# vim /usr/local/src/kafka/config/server.properties
[root@slave1 ~]# vim /usr/local/src/kafka/config/server.properties
[root@slave2 ~]# vim /usr/local/src/kafka/config/server.properties
#添加如下配置
kafka.metrics.reporters=com.criteo.kafka.KafkaGangliaMetricsReporter
kafka.ganglia.metrics.reporter.enabled=true
```

1.4.7.3. 步骤三：启动 kafka

```
[root@master ~]# chown -R hadoop:hadoop /tmp/kafka-logs
[root@slave1 ~]# chown -R hadoop:hadoop /tmp/kafka-logs
[root@slave2 ~]# chown -R hadoop:hadoop /tmp/kafka-logs
[root@master ~]# su hadoop
[root@slave1 ~]# su hadoop
[root@slave2 ~]# su hadoop
[hadoop@master ~]# cd /usr/local/src/kafka
[hadoop@slave1 ~]# cd /usr/local/src/kafka
[hadoop@slave2 ~]# cd /usr/local/src/kafka
[hadoop@master kafka]# bin/kafka-server-start.sh config/server.properties
[hadoop@slave1 kafka]# bin/kafka-server-start.sh config/server.properties
[hadoop@slave2 kafka]# bin/kafka-server-start.sh config/server.properties
```

若出现错误提示：

```
Java Hotspot(TM) 64-Bit Server VM warning: INFO: os::commit_memory(0x0000000000c5330000, 986513408, 0) failed; error='Cannot allocate memory' (errno=12)
```

```
#
```

```
# There is insufficient memory for the Java Runtime Environment to continue.
```

```
# Native memory allocation (malloc) failed to allocate 986513408 bytes for committing reserved memory.
```

```
# An error report file with more information is saved as:
```

```
# hs_err_pid5535.log
```

解决办法：

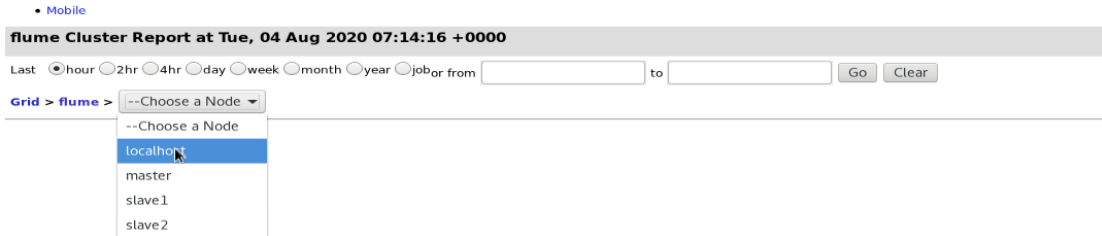
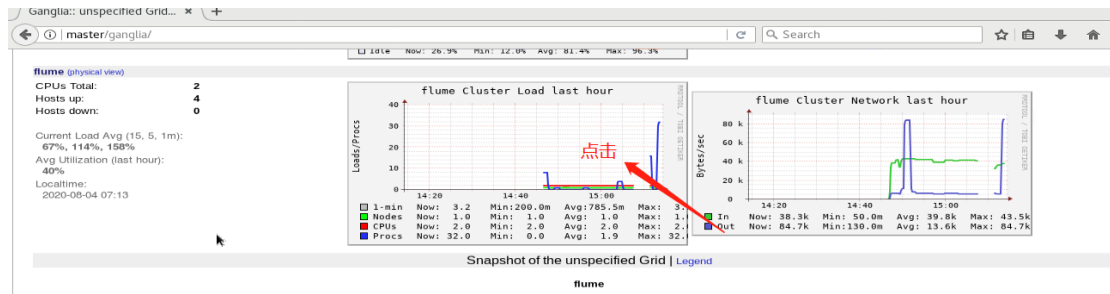
将 bin/kafka-server-start.sh 的

```
export KAFKA_HEAP_OPTS="-Xmx1G -Xms1G"
```

修改为

```
export KAFKA_HEAP_OPTS="-Xmx256M -Xms128M"
```

访问页面 <http://master/ganglia/> 查看各机器节点信息



59) last hour sorted by name Columns 2 Size

Collapse All Metric Groups Timeshift Overlay

- kafka_gauge metrics (72)
- kafka_histo metrics (3250)
- kafka_jvm metrics (22)
- kafka_metered metrics (505)
- kafka_timer metrics (110)

