Flume17 Ganglia

Ganglia 的安装与部署

- **安装 httpd 服务与 php**

```
[atguigu@hadoop102 flume]$ sudo yum -y install httpd php
```

- **安装其他依赖**

```
[atguigu@hadoop102 flume]$ sudo yum -y install rrdtool
perl-rrdtool rrdtool-devel
[atguigu@hadoop102 flume]$ sudo yum -y install apr-devel
```

- **安装 ganglia**

```
[atguigu@hadoop102 flume]$ sudo rpm -Uvh
http://dl.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8
.noarch.rpm
[atguigu@hadoop102 flume]$ sudo yum -y install ganglia-gmetad
[atguigu@hadoop102 flume]$ sudo yum -y install ganglia-web
[atguigu@hadoop102 flume]$ sudo yum install -y ganglia-gmond
```

- **修改配置文件**/etc/httpd/conf.d/ganglia.conf

```
[atguigu@hadoop102 flume]$ sudo vim
/etc/httpd/conf.d/ganglia.conf
```

修改为如下的配置：

```
# Ganglia monitoring system php web frontend
Alias /ganglia /usr/share/ganglia
<Location /ganglia>
 Order deny,allow
 Deny from all
 Allow from all  #这里
 # Allow from 127.0.0.1
 # Allow from ::1
 # Allow from .example.com
</Location>
```

- **修改配置文件**/etc/ganglia/gmetad.conf

```
[atguigu@hadoop102 flume]$ sudo vim /etc/ganglia/gmetad.conf
```

修改为：

```
data_source "hadoop102" 192.168.1.102
```

- **修改配置文件**/etc/ganglia/gmond.conf

```
[atguigu@hadoop102 flume]$ sudo vim /etc/ganglia/gmond.conf
```

修改为：

```
cluster {
 name = "hadoop102"  #这里
 owner = "unspecified"
 latlong = "unspecified"
 url = "unspecified"
}
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 = 239.2.11.71  #这里
host = 192.168.1.102  #这里
 port = 8649
 ttl = 1
}
udp_recv_channel {
 # mcast_join = 239.2.11.71 #这里
 port = 8649
 bind = 192.168.1.102  #这里
 retry_bind = true
 # Size of the UDP buffer. If you are handling lots of metrics you really
 # should bump it up to e.g. 10MB or even higher.
 # buffer = 10485760
}
```

- **修改配置文件**/etc/selinux/config

```
[atguigu@hadoop102 flume]$ sudo vim /etc/selinux/config
```

修改为：

```
# This file controls the state of SELinux on the system.
# SELINUX= can take one of these three values:
# enforcing - SELinux security policy is enforced.
# permissive - SELinux prints warnings instead of enforcing.
# disabled - No SELinux policy is loaded.
SELINUX=disabled  #这里
# SELINUXTYPE= can take one of these two values:
# targeted - Targeted processes are protected,
# mls - Multi Level Security protection.
SELINUXTYPE=targeted
```

尖叫提示：selinux 本次生效关闭必须重启，如果此时不想重启，可以临时生效之：

```
[atguigu@hadoop102 flume]$ sudo setenforce 0
```

- **启动 ganglia**

```
[atguigu@hadoop102 flume]$ sudo service httpd start
[atguigu@hadoop102 flume]$ sudo service gmetad start
[atguigu@hadoop102 flume]$ sudo service gmond start
```

- **打开网页浏览 ganglia 页面**

  http://192.168.1.102/ganglia

  尖叫提示：如果完成以上操作依然出现权限不足错误，请修改/var/lib/ganglia 目录的权限：

```
[atguigu@hadoop102 flume]$ sudo chmod \-R 777 /var/lib/ganglia
```

操作 Flume 测试监控

- **修改/opt/module/flume/conf目录下的 flume-env.sh配置：**

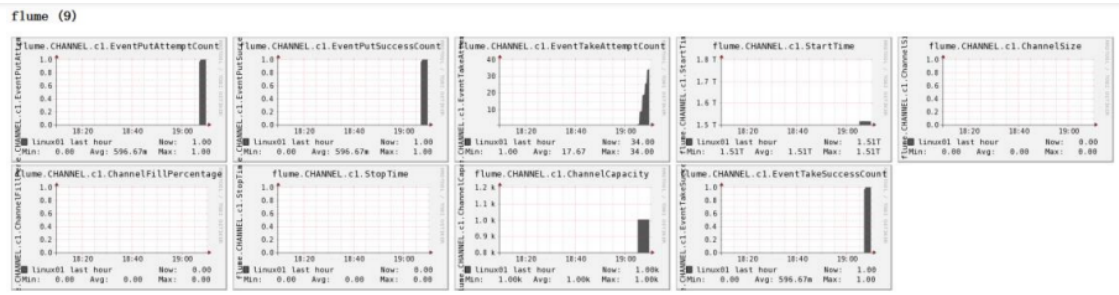
```
JAVA_OPTS="-Dflume.monitoring.type=ganglia
-Dflume.monitoring.hosts=192.168.1.102:8649
-Xms100m
-Xmx200m"
```

- **启动 Flume 任务**

```
[atguigu@hadoop102 flume]$ bin/flume-ng agent \
--conf conf/ \
--name a1 \
--conf-file job/flume-telnet-logger.conf \ -Dflume.root.logger==INFO,console
\ -Dflume.monitoring.type=ganglia \ -
Dflume.monitoring.hosts=192.168.1.102:8649
```

- **发送数据观察 ganglia 监测图**

```
[atguigu@hadoop102 flume]$ telnet localhost 44444
```



图例说明：

字段（图表名称）	字段含义
EventPutAttemptCount	source 尝试写入 channel 的事件总数量
EventPutSuccessCount	成功写入 channel 且提交的事件总数量
EventTakeAttemptCount	sink 尝试从 channel 拉取事件的总数量。这不意味着每次事件都被返回，因为 sink 拉取的时候 channel 可能没有任何数据。
EventTakeSuccessCount	sink 成功读取的事件的总数量
StartTime	channel 启动的时间（毫秒）
StopTime	channel 停止的时间（毫秒）
ChannelSize	目前 channel 中事件的总数量
ChannelFillPercentage	channel 占用百分比
ChannelCapacity	channel 的容量