Flume13 聚合组

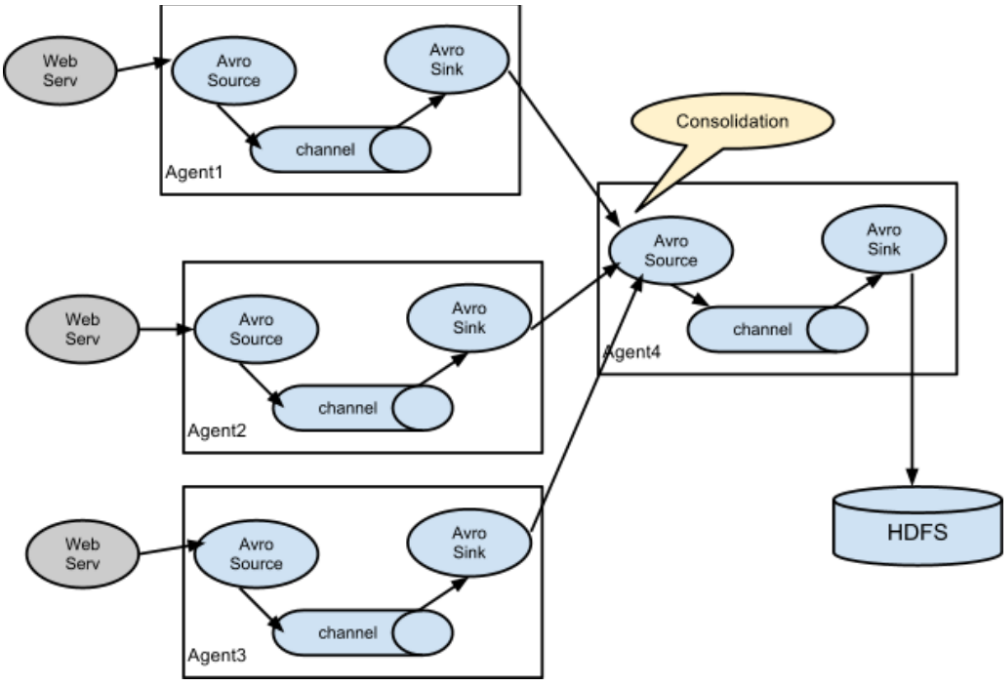
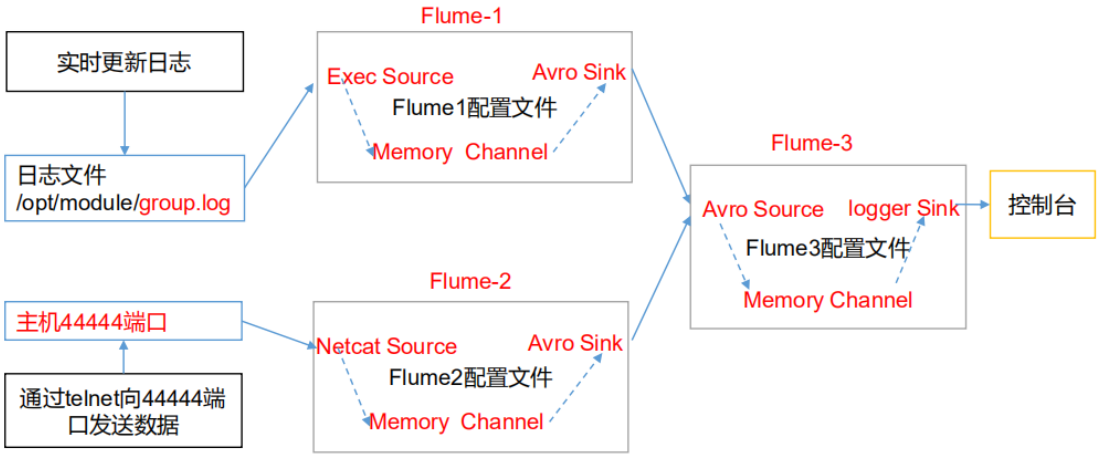


图 7-4 多 Flume 汇总数据到单 Flume

1） 案例需求：

```
hadoop103 上的 Flume-1 监控文件/opt/module/group.log，
hadoop102 上的 Flume-2 监控某一个端口的数据流，
Flume-1 与 Flume-2 将数据发送给 hadoop104 上的 Flume-3，Flume-3 将最终数据打印到控制台。
```

2）需求分析：



实现步骤

- 准备工作

  分发 Flume

```
[atguigu@hadoop102 module]$ xsync flume
```

在hadoop102、hadoop103以及hadoop104的/opt/module/flume/job目录下创建一个group3文件夹。

```
[atguigu@hadoop102 job]$ mkdir group3
[atguigu@hadoop103 job]$ mkdir group3
[atguigu@hadoop104 job]$ mkdir group3
```

- 创建 flume1-logger-flume.conf

  配置 Source 用于监控 hive.log 文件，配置 Sink 输出数据到下一级 Flume。 在 hadoop103 上创建配置文件并打开

  ```
  [atguigu@hadoop103 group3]$ touch flume1-logger-flume.conf
  [atguigu@hadoop103 group3]$ vim flume1-logger-flume.conf
  ```

  添加如下内容：

  ```
  # Name the components on this agent
  a1.sources = r1
  a1.sinks = k1
  a1.channels = c1
  # Describe/configure the source
  a1.sources.r1.type = exec
  a1.sources.r1.command = tail -F /opt/module/group.log
  a1.sources.r1.shell = /bin/bash -c
  # Describe the sink
  a1.sinks.k1.type = avro
  a1.sinks.k1.hostname = hadoop104
  a1.sinks.k1.port = 4141
  # Describe the channel
  a1.channels.c1.type = memory
  a1.channels.c1.capacity = 1000
  a1.channels.c1.transactionCapacity = 100
  # Bind the source and sink to the channel
  a1.sources.r1.channels = c1
  a1.sinks.k1.channel = c1
  ```

- 创建 flume2-netcat-flume.conf

  配置 Source 监控端口 44444 数据流，配置 Sink 数据到下一级 Flume： 在 hadoop102 上创建配置文件并打开

  ```
  [atguigu@hadoop102 group3]$ touch flume2-netcat-flume.conf
  [atguigu@hadoop102 group3]$ vim flume2-netcat-flume.conf
  ```

  添加如下内容：

  ```
  # Name the components on this agent
  a2.sources = r1
  a2.sinks = k1
  a2.channels = c1
  # Describe/configure the source
  a2.sources.r1.type = netcat
  ```

```
a2.sources.r1.bind = hadoop102
a2.sources.r1.port = 44444
# Describe the sink
a2.sinks.k1.type = avro
a2.sinks.k1.hostname = hadoop104
a2.sinks.k1.port = 4141
# Use a channel which buffers events in memory
a2.channels.c1.type = memory
a2.channels.c1.capacity = 1000
a2.channels.c1.transactionCapacity = 100
# Bind the source and sink to the channel
a2.sources.r1.channels = c1
a2.sinks.k1.channel = c1
```

- 创建 flume3-flume-logger.conf

  配置 source 用于接收 flume1 与 flume2 发送过来的数据流，最终合并后 sink 到控制台。 在 hadoop104 上创建配置文件并打开

  ```
  [atguigu@hadoop104 group3]$ touch flume3-flume-logger.conf
  [atguigu@hadoop104 group3]$ vim flume3-flume-logger.conf
  ```

  添加如下内容：

  ```
  # Name the components on this agent
  a3.sources = r1
  a3.sinks = k1
  a3.channels = c1
  # Describe/configure the source
  a3.sources.r1.type = avro
  a3.sources.r1.bind = hadoop104
  a3.sources.r1.port = 4141
  # Describe the sink
  # Describe the sink
  a3.sinks.k1.type = logger
  # Describe the channel
  a3.channels.c1.type = memory
  a3.channels.c1.capacity = 1000
  a3.channels.c1.transactionCapacity = 100
  # Bind the source and sink to the channel
  a3.sources.r1.channels = c1
  a3.sinks.k1.channel = c1
  ```

- 执行配置文件
  分别开启对应配置文件： flume3-flume-logger.conf， flume2-netcat-flume.conf，flume1-logger-flume.conf。

  ```
  [atguigu@hadoop104 flume]$ bin/flume-ng agent --conf conf/ --name
  a3 --conf-file job/group3/flume3-flume-logger.conf
  -Dflume.root.logger=INFO,console
  [atguigu@hadoop102 flume]$ bin/flume-ng agent --conf conf/ --name
  a2 --conf-file job/group3/flume2-netcat-flume.conf
  [atguigu@hadoop103 flume]$ bin/flume-ng agent --conf conf/ --name
  a1 --conf-file job/group3/flume1-logger-flume.conf
  ```

- 在 hadoop103 上向/opt/module 目录下的 group.log 追加内容

```
[atguigu@hadoop103 module]$ echo 'hello' > group.log
```

- 检查 hadoop104 上数据检查 hadoop104 上数据

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

- 检查 hadoop104 上数据

```
2018-06-12 10:28:44,097 (SinkRunner-PollingRunner-DefaultSinkProcessor) [INFO - org.apache.flume.sink.LoggerSink
.process(LoggerSink.java:95)] Event: { headers:{} body: 68 65 6C 6C 6F                                   hello }
2018-06-12 10:28:48,479 (SinkRunner-PollingRunner-DefaultSinkProcessor) [INFO - org.apache.flume.sink.LoggerSink
.process(LoggerSink.java:95)] Event: { headers:{} body: 68 65 6C 6C 6F                                   hello }
```