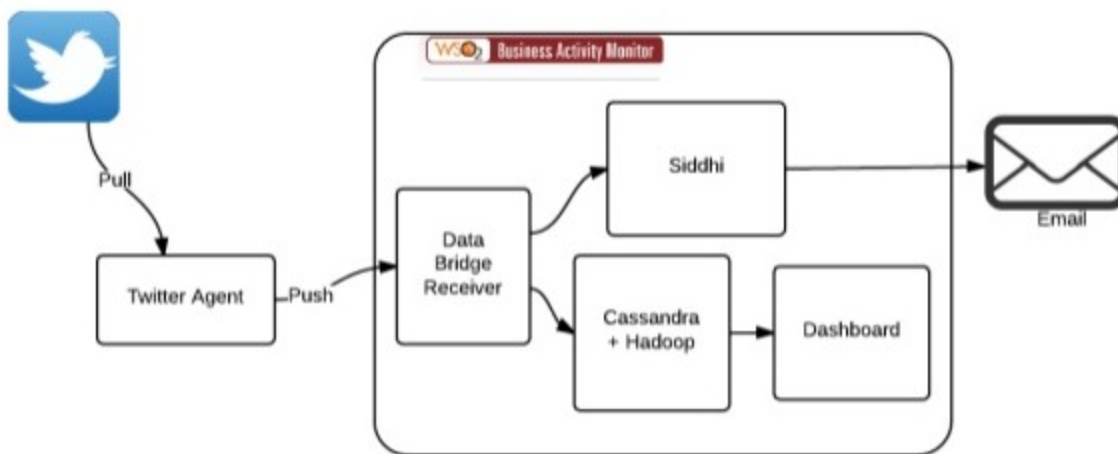


Social-Stream-Analytic-Twitter Use Case

Objective:

- ❑ Identify trends on #Cloud Twitter tag over time
- ❑ Identify public interest on cloud market leaders based on the #Cloud twitter tag
- ❑ Compare interesting trends
- ❑ Notify via email when interesting tweet is posted.

Solution Architecture:



Prerequisite

Clone repository from github <https://github.com/wso2-dev/wso2-marketing-demos>

Steps

Follow these steps to run the sample:

1. Unzip BAM 2.4.1.zip.
2. Copy the folders in the CEP_Artefacts.zip to the folders of <BAM_HOME>/repository/deployment/server/

3. Open the file
 <BAM_HOME>/repository/deployment/server/eventformatters/EmailRetweetEventFormatter.xml and replace "xxx@wso2.com" with your email address.
4. Configure the Mail transport in <BAM_HOME>/repository/conf/axis2/axis2_client.xml


```

      <transportSender name="mailto">
        <class="org.apache.axis2.transport.mail.MailTransportSender">
          <parameter name="mail.smtp.from">email-address</parameter>
          <parameter name="mail.smtp.user">user-name</parameter>
          <parameter name="mail.smtp.password">password</parameter>
          <parameter name="mail.smtp.host">smtp.gmail.com</parameter>

          <parameter name="mail.smtp.port">587</parameter>
          <parameter name="mail.smtp.starttls.enable">true</parameter>
          <parameter name="mail.smtp.auth">true</parameter>
        </transportSender>
      
```
5. Start BAM Server.
6. Add new Event streams as defined below using the admin console.

```

{
  "name": "twitter_data_stream",
  "version": "1.0.0",
  "nickName": "Twitter_Data_Stream",
  "description": "Stream of twitter data",
  "payloadData": [
    {
      "name": "createdAt",
      "type": "LONG"
    },
    {
      "name": "user",
      "type": "STRING"
    },
    {
      "name": "tweet",
      "type": "STRING"
    }
  ]
}

```

```

"name": "reTweetStream",
"version": "1.0.0",
"nickName": "",
"description": "Event stream for re tweets on cloud",
"payloadData": [
  {

```

```

        "name": "createdAt",
        "type": "LONG"
      },
      {
        "name": "user",
        "type": "STRING"
      },
      {
        "name": "tweet",
        "type": "STRING"
      }
    ]
  }
}

```

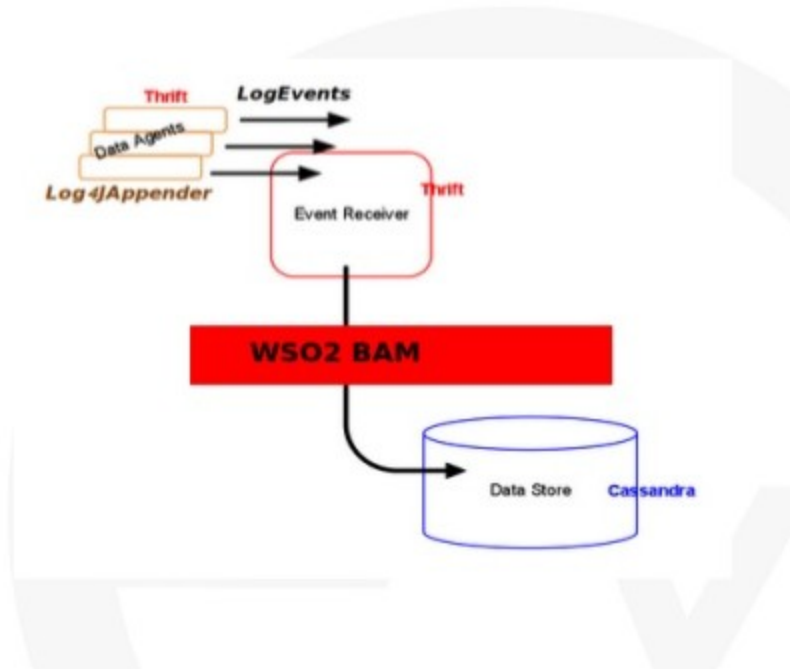
7. Deploy the Social_Stream_Analysis.tbox toolbox.
8. Build the client using maven clean install -D.maven.skip.test.true.
9. Update the script run_demo.sh with the target directory path for file
TwitterAgent-1.0-SNAPSHOT-jar-with-dependencies.jar and the BAM_Home path
10. Execute script run_demo.sh to publish Twitter stream data.
11. View the Social Stream Dashboard from the View Portal UI menu (Gadgets->View Portal).

Log Analysis

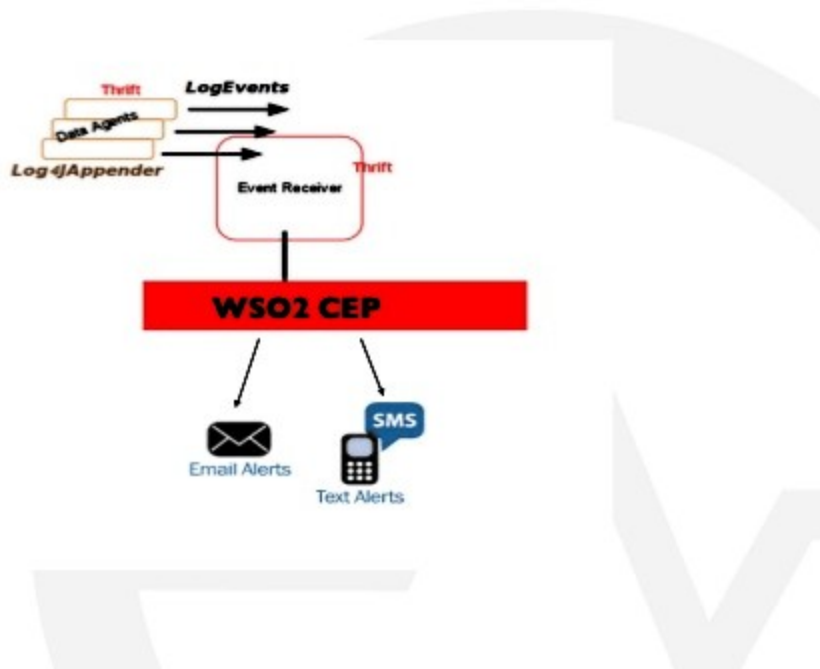
Objectives

- ☐ Real-time mail notification when a server exception occurs
- ☐ Create a customizable dashboard using the WSO2 Gadget Server.

Log Event Publishing



Event Stream and Alerting



http-log-analyzer

1. Back up and replace the file access.log in <BAM_HOME>/samples/httpd-logs/resources/ with the downloaded file *epa-http.txt* file from <http://ita.ee.lbl.gov/html/contrib/EPA-HTTP.html> by renaming the epa-http.txt as access.log
2. Start the BAM server.
3. Deploy the modified HTTPD_Logs.tbox.
4. Navigate to <BAM_HOME>/samples/httpd-logs and run the sample to publish log events. Once the hive scripts are executed, all summarized data will be available in the h2 database.
5. Generate gadgets as described below.

WSO2 Gadget Portal

1. Navigate to the Gadget Gen tool (Tools -> Gadget Gen Tool).
2. Create the following data source:
jdbc url:jdbc:h2:repository/database/samples/BAM_STATS_DB;AUTO_SERVER=TRUE
Driver Class Name:org.h2.Driver
username/password:wso2carbon/wso2carbon.
3. The required view can be generated by using an SQL query as follows over 300 views

Select * from HOSTSUMMARY where requestcount > 300;
Note: Its possible to Use H2 Browser to view tables.
<http://ec2-54-88-105-238.compute-1.amazonaws.com:8082>
url:jdbc url:jdbc:h2:repository/database/samples/BAM_STATS_DB;AUTO_SERVER=TRUE
4. Create a table/bar graph.
5. Provide a title and filename (.xml).
6. Copy the created URL and click on “go to dashboard”
7. Add a new tab.
8. Add a new gadget tab
9. Paste the URL to the text area “Add Gadget URL”.

System-log-analyzer

This sample explains how you can do the LogEvent analytics in real time as well as through batch processing using WSO2 BAM+CEP

1. Add the mysql connector JAR to <BAM_HOME>/repository/component/libs.
2. Download and extract CEP artifacts and add them to the <BAM_HOME>/repository/component/deployment folder.
3. Start BAM 2.4.1.

4. Add the LogEvent appender to the root logger in:
 <AS_Home>/repository/conf/log4j.properties
 rootLogger=INFO, CARBON_CONSOLE, CARBON_LOGFILE, CARBON_MEMORY, **LOGEVENT**
5. Start WSO2 Application Server 5.2.1.
 The LogEvent will be published to BAM.
6. View the event in BAM UI(Manage -> Event Processor -> Event UI) .
7. Rename the existing stream definition to reflect the current date. e.g.,
 "log.0.AS.2014.07.08",
8. Add an Exception event stream:


```

      "name": "ExceptionStream",
      "version": "1.0.0",
      "nickName": "",
      "description": "Exception Streams",
      "payloadData": [
        {
          "name": "message",
          "type": "STRING"
        },
        {
          "name": "stacktrace",
          "type": "STRING"
        },
        {
          "name": "serverName",
          "type": "STRING"
        }
      ]
      }
      
```
9. Create an error, e.g., create an Invalid data source (Configure->Data Sources-> Add Data Source) on WSO2 Application Server such that an exception log will be generated. An email will be generated with the message, stacktrace, and server name information.

Sources:

1. <http://wso2.com/library/webinars/2014/02/big-brother-for-enterprises-logs-analysis-use-cases/>
2. <http://wso2.com/library/webinars/2014/02/big-brother-for-enterprises-social-stream-analysis/>