DataBot TODO

* DataBot does not exit after just one execution. Investigate the state of the threads and figure out who keeps it running. This is after making the stream consumer threads daemons. To replicate: run a data collection sweep with “sampling.interval: 0”.
* Add a “max executions” configuration element. The internal machinery is already implemented.
* Investigate projects/events-agent and consolidate with DataBot, if possible. Get rid of events-agent.
* Consolidate all CSV support in events-api and events-core and fix the current defect that breaks output for “test.domain:service=Mock,something=somethingelse/TestAttribute” field. The comma and the “.” should be enclosed in quotes. Then go to below:
* Connect to the local JBoss over JMX from databot, and get correct CSV output.
* **Configuration File Classpath Extensions**
  + **Environment Variable Support in configuration file classpaths.** Currently the wrapper script does not resolve environment variables.
  + **Eliminate Redundant Classpath Elements.** Currently the wrapper script will add to classpath a JAR every time it sees is, even if it seen it before. Filter out the JARs that already exist.
* **Sensitivity to $JBOSS\_HOME.** If using JBoss controllers as metric sources, databot is sensitive to the value of JBOSS\_HOME. Investigate why is that and fix.
* (..) **-f malfunctions**. -f should also send the results to stdout and avoid creating the CSV file. Currently it does not.
* **Reduce JBoss CLI client console verbosity**. Currently the JBoss CLI client sends this to stdout. Make it not to, or at least to send it to file only:  
    
  WARN: can't find jboss-cli.xml. Using default configuration values.

INFO xnio: XNIO Version 3.0.16.GA-redhat-1

INFO nio: XNIO NIO Implementation Version 3.0.16.GA-redhat-1

INFO remoting: JBoss Remoting version 3.3.9.Final-redhat-1

* Restore JBoss CLI functionality and test to work end to end.
* JMX
* Test JMX with:  
    
  databot -f -v -c ./databot.yml  
    
  with ~/tmp/databot.yml
* **Logging Configuration.** Logging should be configurable from the .yaml file. I should be able to specify at least the location of the log file and the verbosity, even if all the details can still be specified in $DATABOT\_HOME/lib/log4j.xml
* Find the best way to express JBoss metrics

sources:

remote-jboss:

host: 172.1.2.3

port: 9999

username: jmx

password: jmx123!

local-jboss:

metrics:

- PhysicalMemoryTotal

- test:

source: remote-jboss

definition: /something/something:count

* Longs do not display correctly because the field is interpreted as Map. Fix that.
* It should be able to replace all individual JBoss JARs with just one jboss-cli-\*.jar.
* Extract JBoss support from “events” and create a new “events-jboss” module.

\* Some OS metrics can be obtained from the JVM:

<pre>

conf:

- include:

domain: java.lang

bean:

- java.lang:type=OperatingSystem

- java.lang:type=Threading

attribute:

OpenFileDescriptorCount:

alias: jmx.OpenFileDescriptorCount

metric\_type: counter

MaxFileDescriptorCount:

alias: jmx.MaxFileDescriptorCount

metric\_type: counter

TotalStartedThreadCount:

alias: jmx.TotalStartedThreadCount

metric\_type: counter

PeakThreadCount:

alias: jmx.PeakThreadCount

metric\_type: counter

</pre>

\* 10/15/16 Does not work with JDG 7:

<pre>

@Timer-0 07:14:05,153 WARN [DataCollectionTimerTask] failed to collect data: org.jboss.as.cli.CommandContextFactory.newCommandContext(Ljava/lang/String;ILjava/lang/String;[CZZI)Lorg/jboss/as/cli/CommandContext;

</pre>

\* 10/04/16 os-stats failed to gather correct CPU consumption data from top. It seems to read a constant value. Troubleshoot and fix. Possibly calculate the values the same way top does, by reading from /proc files.

\* Explore using [[iftop]] to gather up/down bandwidth usage for each host:port pair.

\* '''JDG testing'''

\*\* Network bandwidth statistics, integrate <tt>iftop</tt>.

\*\* Access to MBeans. Paul's e-mail ''The mbean of the transport for the bridge channel exposes the attributes: num\_bytes\_sent and num\_bytes\_received''.

\* For four CLI metrics (2 for one instance and 2 for another, I get 4 cli.xml warnings. Normally I should get only 2 because I should share the clients.

<pre>

[fsgapp@ln001xsjdg0003 etc]$ WARN: can't find jboss-cli.xml. Using default configuration values.

@Timer-0 17:28:55,620 INFO [xnio] XNIO Version 3.0.14.GA-redhat-1

@Timer-0 17:28:55,623 INFO [nio] XNIO NIO Implementation Version 3.0.14.GA-redhat-1

@Timer-0 17:28:55,634 INFO [remoting] JBoss Remoting version 3.3.5.Final-redhat-1

WARN: can't find jboss-cli.xml. Using default configuration values.

WARN: can't find jboss-cli.xml. Using default configuration values.

WARN: can't find jboss-cli.xml. Using default configuration values.

</pre>

\* Fix logging, get rid of:

<pre>

NOMBP2:tmp ovidiu$ @Timer-0 18:37:22,052 INFO [xnio] XNIO Version 3.0.15.GA-redhat-1

@Timer-0 18:37:22,058 INFO [nio] XNIO NIO Implementation Version 3.0.15.GA-redhat-1

@Timer-0 18:37:22,080 INFO [remoting] JBoss Remoting version 3.3.7.Final-redhat-1

</pre>

\* Disconnect the JBossCliMetricSource instances on os-stats shutdown.

\* <span id="n3jHG32">'''Support for password externalization'''. Then update [[Os-stats\_Metric\_Reference#JBoss\_CLI\_Metrics]] with details.</span>

\* Warn if the collection time takes so long that it interferes with sampling interval length. Tests.

\* Implement <tt>os-stats --help metrics</tt> that introspects and displays the list of built-in metrics.

\* Current OSBase.execute() implementation is naive, implement it correctly.

\* Integrate the functionality and get rid of https://github.com/NovaOrdis/shell-tools/blob/master/jboss-os-memory-stats.sh