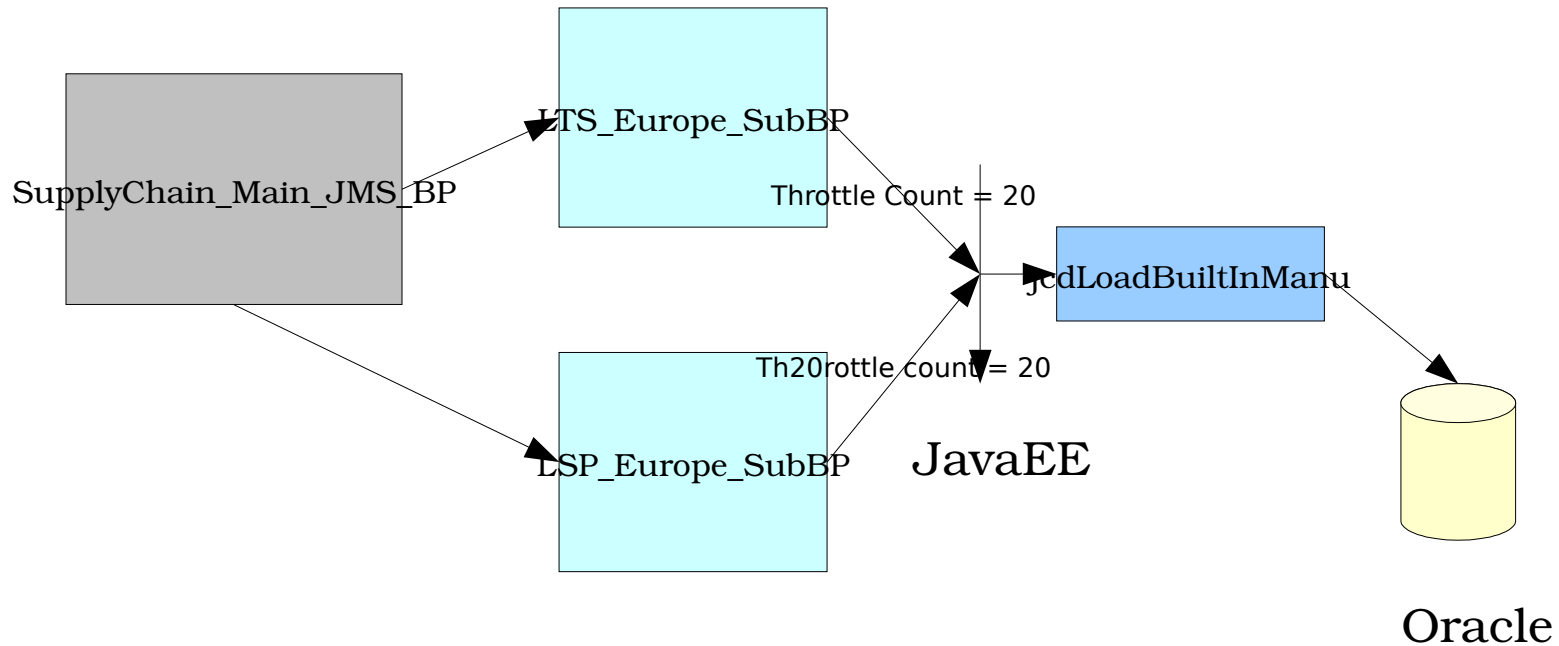Pfizer EAP Project SetUp

Pfizer EAP consists following elemnets:

1.JavaCaps JCD Project: prjPfizerSupplyChainEAP_CAPS.zip
2.BPEL project: prjPfizerSupplyChainEAP_BPEL_JMS_2/
3.Composite App : prjPfizerSupplyChainEAP_JMS2_CompApp/

The flow is shown below:

LTS_Europe_SubBP

SupplyChain_Main_JMS_BP

Throttle Count = 20

jcdLoadBuiltInManu

Th20rottle count = 20

LSP_Europe_SubBP

JavaEE

Oracle

SupplyChain_Main_JMS_BP makes oneway invokes to 2 sub bp: LTS_Europe_SubBP ,
LSP_Europe_SubBP in sequence. The 2 sub bp each makes req-rep invokes to a jcd
(jcdLoadBuiltInManu) through JBIBridge every 5 second. jcdLoadBuiltInManu polls the
oracle db to find out the status of the record, if the record does not exist, it
inserts a new record to db, if the status is "LTS Sent By AI to Destination" (if

called by LTS_Europe_SubBP) or "LSP Sent By AI to Destination" (if called by LSP_Europe_SubBP), it will mark the specific sub bp complete and move to the next step in SupplyChain_Main_JMS_BP. Both sub bp to JCD link has throttle count = 20 specified

The objectives of the testing are:
1. Ensure when memory is low and scalability is kicked off, all the instances run end2end. i.e. When status is changed to "LTS Sent By AI to Destination", all LTS sub bp instances are completed and the same number of instances of LSP sub bp are created; when status is changed to " LSP Sent By AI to Destination", all LSP sub bp instances are completed, all SupplyChain_Main instances are completed too.
2. The same holds for crashing/reboot appserver at any time of the test, recovered instances are run end2end.

Set up Steps:
1. Import prjPfizerSupplyChainEAP_CAPS.zip
2. Make sure prjPfizerSupplyChainEAP_JMS2_CompApp add prjPfizerSupplyChainEAP_BPEL_JMS_2 as jbi module and prjPfizerSupplyChainEAP_CAPS as caps module, make sure the 2 links to jcdLoadBuiltInManu have throttling count = 20 specified and retry count = 5 specified
3. Create pfizer db: execute create_pfizer_tables.sql
4. Tune oracle db : set parameter processes = 500, shared_pool_size=400M
5. Change domain.xml to show FINE logging on specific classes and change Scalability threshold property :
    ```
    <property
    name="com.sun.jbi.engine.bpel.core.bpel.engine.impl.ScalabilityManager"
    value="FINE"/>
    <property
    name="com.sun.jbi.engine.bpel.core.bpel.engine.impl.BPITForThrottling"
    ```

```
value="FINE"/>
        <jvm-options>-
Dcom.sun.jbi.bpelse.scalability.upperMemoryThreshold=0.20</jvm-options>
        <jvm-options>-
Dcom.sun.jbi.bpelse.scalability.lowerMemoryThreshold=0.10</jvm-options>
```

6. Extract JMSFeeder.tar, and open it as NB project, run JMSFeeder, make sure the
   input : JMSQueueIn, output: JMSQueueOut, the input file is : EAPJMSIn.xml,
   input msg property has: load_id = 1(Auto increment)
7. Build and Deploy prjPfizerSupplyChainEAP_JMS2_CompApp
8. Send a few msgs using JMSFeeder, makes sure end2end by checking pfizer db:

ai_load_tracker_EAP should have created the same number of records as the number of
msgs sent

ai_load_tracker_Update should have added one record every 5 second for each load_id

Do update ai_load_tracker_EAP.interface_status = 'LTS Sent By AI to Destination'
will complete all LTS sub bp, and create same number of LSP sub bp instances, the
same time inserted same number of records into ai_load_tracker_EAP with
interface_type='LSP'.
update ai_load_tracker_EAP.interface_status = 'LSP Sent By AI to Destination' where
ai_load_tracker_EAP.interface_type='LSP' will complete all instances including the
main instances.
Verify the instance status using bpel monitor tool.

Load Test:
  1. Do load test sending 300 msgs and let it run for half an hour and do the same
     end2end as 8.
Crash Test:
  1. Stop and restart app server at any stage of the Load Test and verify the

instances (main bp, LTS bp, LSP bp), test if they all run end2end.
TroubleShooting Q/A

1. How do I know the instance id of a particular load_id?
   A: The Bps are annotated with traces with load_id, so look into server.log, you
   will see the traces telling the load id as body and instance id in the header
2. How do I know what instances are stuck and where they are stuck?
   A: Check ai_load_tracker_Update table, if a particular load_id is not
   increasing the number of records and the load_id from ai_load_tracker_EAP shows
   its interface_status is 'InComplete', this means this instance is stuck. Then
   use 'c instanceId="XXX"' command of bpel monitor tool commandline (or GUI
   http://wiki.open-esb.java.net/attach/BPELMonitor/JBpelMonitor.zip) to check
   which activity is still STARTED
3. How do I know passivation and activation on instances?
   A: Passivation and Activation are enabled on the logging setting above and if
   you set up the Scalability threshold properties as above, you should see
   passivation and activation traces.