ADEPTIA

Adeptia Services

Guidelines to setup Kernel and Webrunner on distributed systems

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Introduction

Adeptia Server is designed with J2EE architecture. There are two components that make up Adeptia Server, Kernel and WebRunner. The Kernel and Web Runner run on separate JVMs.

Kernel

Kernel is the run-time server application component of Adeptia Server that is responsible for initiating, executing, managing and disposing various BPM, Enterprise Application Integration, Data Transformation processes. For each the processes, the kernel is responsible for initiating, managing and disposing the process flows based on various triggers, occurrence of events and manual process execution The kernel also send user notification using the notification services, logs process flow logs, activity logs, manages intermediate data, manages services threads, handles connection pooling, implements a security model based on the standard JAAS security model etc.

Web runner

Web runner is a jetty web server (http://www.mortbay.org) an open-source, standards-based, full-featured web server and a servlet container implemented entirely in Java packaged as part of Adeptia Server. Webrunner provides web interface for developers and business user to interact with Adeptia Server.

The default installation of Adeptia Suite configures Adeptia Services i.e. Kernel and Webrunner on single system; however we can enable kernel and Webrunner to work on distributed systems.

This document describes the guidelines to configure your Adeptia services on different machines or environments.

Target Audience

The document is intended for the users who want to configure and execute Adeptia kernel and webrunner on different environment.

Pre-Requisites

1. Ensure you have full access to both the servers (machines).
2. Ensure both the servers are on network and they can communicate to each other.
3. The installation and configuration may require server restart.
4. You should have pre-downloaded Adeptia Suite on both the servers to start the installation.
5. It is mandatory to install similar version of Adeptia Suite on both the servers (machines).

Configure Adeptia Service on different systems

This is a two steps process:-

1. Installation of Adeptia Suite on both servers
2. Configure Kernel and Webrunner on both servers

Installation of Adeptia Suite on both servers

There will be two servers Primary Server(On which Kernel will run) and Secondary server(On which Webrunner will run).

Fresh Installation Adeptia on Primary Server:
   a) For fresh installation of Adeptia Suite. Please refer **Adeptia Installation Guide** for details.
   (*http://www.adeptia.com/products/download/Adeptia_Suite_Installation_Guide_Ver5_3.pdf*)
   b) You can select the type of database that you want to use for log/backend purpose during installation. By selecting "Custom Install set" instead of selecting "Express Install set".

Fresh Installation Adeptia on Secondary Server:

1. Install Adeptia Suite on both servers. Please refer **Adeptia Installation Guide** for details.
(*http://www.adeptia.com/products/download/Adeptia_Suite_Installation_Guide_Ver5_3.pdf*)

2. If you are using some external Database(other than HSQLDB) then select "Custom Install set" instead of selecting "Express Install set" during Installation. Point to the same log/backend database used in Primary Server.

3. Select the Database and Select the Radio button of Use existing tables instead of Create new while setting up log/embedded Database.

Configure Kernel and Webrunner on both servers

Follow the below defined steps to run the AdeptiaSuite Kernel and Webrunner on the different machines.

1. Goto Secondary Server(machine) on which you want to run the webrunner and open "AdeptiaSuite-5.3\AdeptiaServer\ServerKernel\etc".

2. Open server-configure.properties file.

3. Search for "abpm.node.name" property and replace the highlighted by the IP of the Primary Server(machine).

```xml
<Property
    comment="Enable Adeptia Server Log database Connection Pool"
    dynamic="no" hide="true" name="abpm.websphere.logDB.connection.pool">no</Property>
<Property
    comment="Enable Adeptia Server Archival Log database Connection Pool"
    dynamic="no" hide="true" name="abpm.websphere.archival.logDB.connection.pool">no</Property>
</Category>
<Category name="Kernel Settings">
    <Property comment="Cluster Node Name" dynamic="no" name="abpm.node.name">localhost</Property>
    <Property comment="Cluster Node Port" dynamic="no" name="abpm.node.port">21000</Property>
    <Property comment="Repository Address" dynamic="no" name="abpm.repository.address">localhost://indigo.core:service=repository</Property>
    <Property comment="Server Repository Path" dynamic="no" name="abpm.repository.root">web/repository</Property>
    <Property comment="Enable Kernel output to a file" dynamic="no" name="abpm.kernelout.file.enable">true</Property>
    <Property comment="Kernel output file location" dynamic="no" name="abpm.kernelout.file.location">logs/applicationlogs</Property>
    <Property comment="Kernel output file maximum size(in MB)"
        dynamic="no" name="abpm.kernelout.file.maxSize">20</Property>
</Category>
<Category hide="true" name="Embedded Database Settings">
    <Property comment="Database names comma separated" dynamic="no" name="abpm.embedded.db.names">indigo,logs</Property>
    <Property comment="Database port" dynamic="no" name="abpm.embedded.indigo.port">2476</Property>
    <Property comment="Database Server memory configuration"
        dynamic="no" name="abpm.embedded.indigo.memory">-Xms128M -Xmx512M -Xrs</Property>
```

4. If you have used embedded log database on Primary Server(machine), Search for "log4j.appender.jdbc.url " property and replace the highlighted by the IP of the Primary server(machine).

```
        log4j.appender.console.layout" >  </Property>
    <Property
        comment="Log4j Console Layout Conversion Pattern"
        dynamic="no" hide="true" name="log4j.appender.console.layout.ConversionPattern">
        %d %-5p [%t] %5c %3x %l - %m%n  </Property>
</SubGroup>
<SubGroup name="Database Appender">
    <Property comment="Log4j JDBC Appender" dynamic="no" name="log4j.appender.jdbc">org.apache.log4j.jdbcplus.JDBCAppender</Property>
    <Property comment="JDBC URL" dynamic="no" name="log4j.appender.jdbc.url">jdbc:hsqldb:hsql://127.0.0.1:2477</Property>
    <Property comment="JDBC Driver Class" dynamic="no" name="log4j.appender.jdbc.dbclass">org.hsqldb.jdbcDriver</Property>
    <Property comment="JDBC User Name" dynamic="no" name="log4j.appender.jdbc.username">sa</Property>
    <Property comment="JDBC Password" dynamic="no"
        encrypt="y" name="log4j.appender.jdbc.password">I99KL/1B3Ss=</Property>
    <Property comment="Log Database Type" dynamic="no" name="abpm.logs.dbType">HSQL</Property>
    <Property comment="Log4j JDBC Appender Connector"
        dynamic="no" name="log4j.appender.jdbc.connector">com.adeptia.indigo.logging.DbcpPoolConnectionHandler</Property>
    <Property comment="JDBC SqlHandler Class" dynamic="no"
        hide="true" name="log4j.appender.jdbc.sqlhandler">
        com.adeptia.indigo.logging.SqlHandler  </Property>
    <Property comment="Log4j JDBC Pattern Layout"
        dynamic="no" hide="true" name="log4j.appender.jdbc.layout">
```

5. If you have used embedded backend database on Primary Server(machine), Search for "abpm.jdo.url" property and replace the highlighted by the IP of the Primary server(machine).

```
<Group name="Encoding" >
    <Property
        comment="Character set encoding to be used to parse the data."
        dynamic="yes" name="abpm.characterSetEncoding">ISO-8859-1</Property>
</Group>
<Group hide="true" name="Database Configuration">
    <Property comment="JDO Database Driver Url" dynamic="no" name="abpm.jdo.driver">org.hsqldb.jdbcDriver</Property>
    <Property comment="JDO Database Connection Url" dynamic="no" name="abpm.jdo.url">jdbc:hsqldb:hsql://127.0.0.1:2476</Property>
    <Property comment="JDO Database UserName" dynamic="no" name="abpm.jdo.username">sa</Property>
    <Property comment="JDO Database Password" dynamic="no"
        encrypt="y" name="abpm.jdo.password">I99KL/1B3Ss=</Property>
    <Property comment="JDO Mapping File" dynamic="no"
        hide="true" name="abpm.jdo.mapping.file">
        mapping.xml    </Property>
    <Property comment="JDO Database Name" dynamic="no" name="abpm.jdo.database.name">    indigo    </Property>
    <Property comment="JDO Database Engine Name" dynamic="no" name="abpm.jdo.engine.name">hsql</Property>
    <Property comment="Backend Database Type" dynamic="no" name="abpm.backend.dbType">HSQL</Property>
</Group>
<Group name="Logging">
```

6. Save server.configure-properties file.

7. Stop Adeptia services on both the servers.

8. Start Kernel(on Primary server) and Webrunner (on Secondary Server).