**NGE Workspace Setup**

**WAS 85 Components**

Below are the NGE components that runs on IBM WAS 8.5 server.

* NGE UI
* eStart UI
* NGE Batch
* NGE Internal Service
* NGE Account Service
* NGE Producer Service
* NGE User Service
* NGE Reservation Helper Service

**Pre-requisites:**

* NGE share path access.
* LASS access to install & run software’s.
* Access to GitHub and NGE source code repositories.

**Softwares Needed:**

* IBM RAD 8.5.5 🡪 Install via launchpad
  + Installation Steps 🡪 <https://www.ibm.com/support/knowledgecenter/SSRTLW_8.5.5/com.ibm.rad.install.doc/topics/t_install_product.html>
  + Path 🡪 \\livpvnasci01\share\eStart Support Team\Next Generation eStart\NGE Development Program 2014-2017\Gate 2\Softwares\RAD 855\_01262016\RAD\_SETUP
  + License Jar 🡪 \\livpvnasci01\share\eStart Support Team\Next Generation eStart\NGE Development Program 2014-2017\Gate 2\Softwares\RAD 855\_01262016
* IBM WAS 8.5.5.3 🡪 Install via Installation Manager (repository.config)
  + Installation Steps 🡪 <https://www.ibm.com/support/pages/installing-websphere-855-installation-manager>
  + Path 🡪 \\livpvnasci01\share\eStart Support Team\Next Generation eStart\NGE Development Program 2014-2017\Gate 2\Softwares\WAS 8.5.5
  + Fixpack 🡪 \\livpvnasci01\share\eStart Support Team\Next Generation eStart\NGE Development Program 2014-2017\Gate 2\Softwares\WAS 8.5.5 fix pack 3\WAS8.5.5.3\8.5.5-WS-WAS-FP0000003-part1
* JRE for WAS 1.7.1 🡪 Install via Installation Manager (repository.config)
  + Installation Steps 🡪 Similar as WAS installation via IBM installation manager.
  + Path 🡪 \\livpvnasci01\share\eStart Support Team\Next Generation eStart\NGE Development Program 2014-2017\Gate 2\Softwares\WAS 8.5.5 fix pack 3\JDK7.1.1.0\7.1.1.0-WS-IBMWASJAVA-part1

**Source Code:**

<https://github.aig.net/commercial-it-common/uw-next-generation-estart-local-workspace-3593>

**Database drivers:**



**Steps:**

* Install (Run as Admin) all the aforementioned software’s on C:/> drive in the order mentioned.
* Once the RAD installation is successful, ensure to create a workspace on C:/> drive.
* Import the Java web project along with corresponding EAR project into RAD IDE.
  + Import 🡪 General 🡪 Existing Projects into Workspace.
* Set the Java version as ‘1.7’ under Project Facets.
* Create a new WebSphere application server v8.5.
  + Point the installed JRE as runtime environment.
  + Create a new profile.
  + Add the EAR.
* Execute below commands in CMD prompt (RAD should be closed)

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| --- |
| cd C:\Program Files (x86)\IBM\WebSphere\AppServer\bin (path may differ)  managesdk.bat -enableProfileAll -sdkName 1.7.1\_64  managesdk.bat -setCommandDefault -sdkName 1.7.1\_64  managesdk.bat -setNewProfileDefault -sdkName 1.7.1\_64 |

* Add ‘Server Runtime’ library to the project.
  + Project 🡪 Java Build Path 🡪 Libraries
* Restore the CAR file ‘Local\_Workspace\_2020’ (available within the EAR).
  + Server (stopped state) 🡪 Server Configuration 🡪 Restore
* Start the server and open admin console (Administration 🡪 Run Administrative Console) and navigate to JDBC providers (Resources 🡪 JDBC) and change the class path of all the providers (DB2, Oracle & SQL) as the location of the database drivers in the local machine (preferably C:/> drive).
* Ensure there are no compile time errors before proceeding with any enhancement or debugging.

\*\* Note – If any help or clarification is needed, reach out to NGE Team.

**Operational Decision Manager**

Below are the different rules that has been configured on the Rule Engine.

* NGE Blocking Rules
* NGE Supersede Rules
* NGE Exclusion Rules
* NGE Underwriting Locking Rules

**Pre-requisites:**

* NGE share path access.
* LASS access to install & run software’s.
* Access to GitHub and NGE source code repositories.

**Softwares Needed:**

* IBM ODM Rule Designer 8.7 🡪 Install via launchpad
  + Installation Steps 🡪 <https://www.ibm.com/support/knowledgecenter/SSQP76_8.7.0/com.ibm.odm.distrib.install/topics/con_inst_using_launchpad.html>
  + Path 🡪 \\livpvnasci01\share\eStart Support Team\Next Generation eStart\NGE Development Program 2014-2017\Gate 2\Softwares\ODM-NonProd-Win7-Enterprise

**Source Code:**

<https://github.aig.net/commercial-it-common/uw-next-generation-estart-local-workspace-3593>

**Steps:**

* Install (Run as Admin) all the aforementioned software on C:/> drive.
* Once the Rule Designer installation is successful, ensure to create a workspace on C:/> drive.
* Import the Rule project along with corresponding Java project into ODM IDE.
  + Import 🡪 General 🡪 Existing Projects into Workspace.

\*\* Note – If any help or clarification is needed, reach out to NGE Team.

**Mule Services**

Below are the NGE & Coexistence Mule packages that runs on the Mulesoft platform.

|  |  |  |
| --- | --- | --- |
| **Artifact Name** | **Mule GitHub Repo** | **Remarks** |
| NGE mulesoft domain | hip1-nge-domain | Default package required for all mule components. |
| Coexistence layer shared java library | nge-us-legacy-coexistutil (jar) | XML & MF (common) java logic reside here. |
| Legacy submission utility web service | nge-us-legacy-submissionutil | Coexistutil JAR will be added in POM file. |
| Submission web service | nge-us-submission | Consumes SubmissionUtil as service. Validations and Transformations are handled here. Invokes Internal Service. |
| XML Emulation Gateway | nge-us-xmlemulationgateway | XML entry point of Mule services. Calls different XML services. |
| Submission Status service | nge-us-submissionstatus | Consumes SubmissionStatusUtil as service. Validations and Transformations are handled here. Invokes Submission Status Process for specific methods. Invokes Internal Service for specific methods. |
| Legacy submission status util service | nge-us-legacy-submissionstatusutil | Coexistutil JAR will be added in POM file. |
| Submission status BPEL Process | nge-us-submissionstatus-process | Like BPEL Orchestration; calls multiple internal services in order. Invokes Internal Service for specific methods. |
| Account Service | nge-us-account | Pass through component. Invokes Account Service. |
| Diary Service | nge-us-diary | Pass through component. Invokes Internal Service. |
| Producer Service | nge-us-producer | Pass through component. Invokes Producer Service. |
| Reservation Helper Service | nge-us-reservationhelper | Pass through component. Invokes Reservation Helper Service. |
| User Service | nge-us-user | Pass through component. Invokes User Service. |
| MF Emulation Gateway | nge-us-mfemulation | MF entrypoint of Mule services. Invokes mainframe as service. Mainframeutil JAR will be added in POM file. |
| Mainframe Services | nge-us-mainframe | Consumes MainframeUtil as service. Validations and Transformations are handled here. Mainframeutil JAR will be added in POM file. |
| MF Emulation Util | nge-us-legacy-mainframeutil (jar) | MF specific transformation & validation logics reside here. |
| Submission Data Service | nge-us-submissiondata | Pass through component. Invokes Submission Product & Transaction Data Service. |
| Submission Management Service | nge-us-submissionmanagement | Pass through component. Invokes Submission Product & Transaction Management Service. |

**Pre-requisites:**

* NGE share path access.
* LASS access to install & run software’s.
* Access to GitHub and NGE source code repositories.

**Softwares Needed:**

* Mulesoft Anypoint Studio 6.4.2 🡪 No installation

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* Apache Maven 3.5.4 🡪 No installation

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**Source Code:**

<https://github.aig.net/commercial-it-integration>

**Steps:**

* Download all the aforementioned software’s on C:/> drive.
* Add the jdk path in AnypointStudio.ini (available inside the software package)

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| -vm  C:\Sakthi\jdk1.8.0\_131\bin (path may differ) |

* Ensure to create a workspace on C:/> drive.
* Validate whether proper JRE is being referred in the workspace. If not, point to the JRE location.
  + Window 🡪Preferences🡪Installed JREs
  + JRE Home 🡪 C:\Sakthi\jdk1.8.0\_131 (path may differ)
  + JRE Name 🡪 jdk1.8.0\_131
* Set the maven installation directory and test maven configuration. It should be successful.
  + Window 🡪Preferences🡪Maven
  + H:\Softwares\apache-maven-3.5.4 (path may differ)
* Import the Mule project into Anypoint Studio IDE via pom.xml.
  + Download the packages from GitHub.
  + Import 🡪 Anypoint Studio 🡪 Maven-based Mule Project from pom.xml.
  + Locate the pom.xml corresponding to the project being imported and finish.
  + Import of hip1-nge-domain project is mandatory for the other projects to work.
* Add below as system environmental variables.
  + My Computer 🡪 Properties 🡪 Advanced System Settings 🡪 Advanced 🡪 Environment Variables

|  |
| --- |
| M2\_HOME=Location of maven in local drive (E.g. H:\Softwares\apache-maven-3.5.4)  M2=%M2\_HOME%\bin  MAVEN\_OPTS=-Xms256m -Xmx512m  PATH=%M2% |

* If the project has any compilation issue with maven, update the project dependencies.
  + Project 🡪 Mule 🡪 Update Project Dependencies
* Keep the settings.xml file in below locations.
  + M2 folder 🡪 C:\Users\sseshach\.m2 (Run 🡪 .m2)
  + Maven conf folder 🡪 H:\Softwares\apache-maven-3.5.4\conf (path may differ)

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* Keep the conf files in below location.
  + Mule conf folder 🡪 H:\Softwares\AnypointStudio\plugins\org.mule.tooling.server.3.9.0.ee\_6.4.2.201712051241\mule\conf (path may differ and tooling plugin may have different number)

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* Create a folder in C:/> drive and keep the keyfile.properties file.
  + KeyFile folder 🡪 C:\Sakthi\Mule\KeyFile (path may differ)

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* Keep the Jackson libraries in below location.
  + Mule lib\boot folder 🡪 H:\Softwares\AnypointStudio\plugins\org.mule.tooling.server.3.9.0.ee\_6.4.2.201712051241\mule\lib\boot (path may differ and tooling plugin may have different number)

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* To test specific Mule projects that has been setup locally while the rest of the services point development environment, update the URLs in app-config-dev.properties (local property file contains the local endpoints)
  + E.g., http://localhost:31000/XMLEmulationGatewayWeb/sca/XMLEmulationServiceExp
* To run the project, follow below steps.
  + Project 🡪 Run As 🡪 Mule Application with Maven (configure)
  + Under Maven Settings Tab 🡪 -DskipTests=true
  + Under Argument Tab 🡪 VM arguments 🡪 -XX:PermSize=128M -XX:MaxPermSize=256M -DskipTests -Dmule.env=dev -Dmule.propertiesFolder=C:/Sakthi/Mule/KeyFile
  + In the aforementioned command, env points the environment and properties folder points the KeyFile folder created earlier.
  + Run the defined configuration.