

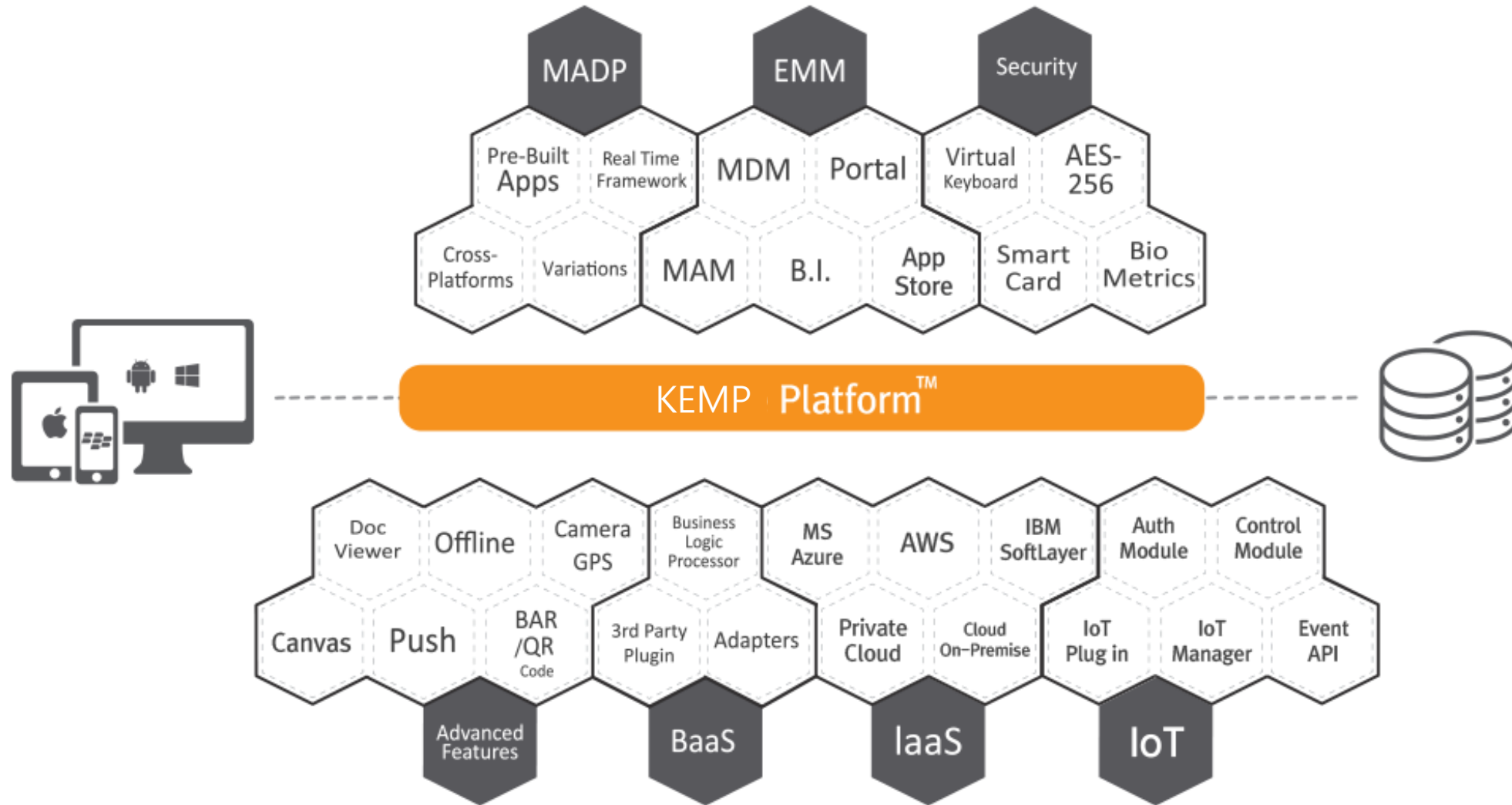
KEMP Manual for Partners

Local Engine Setting (Java) - Windows

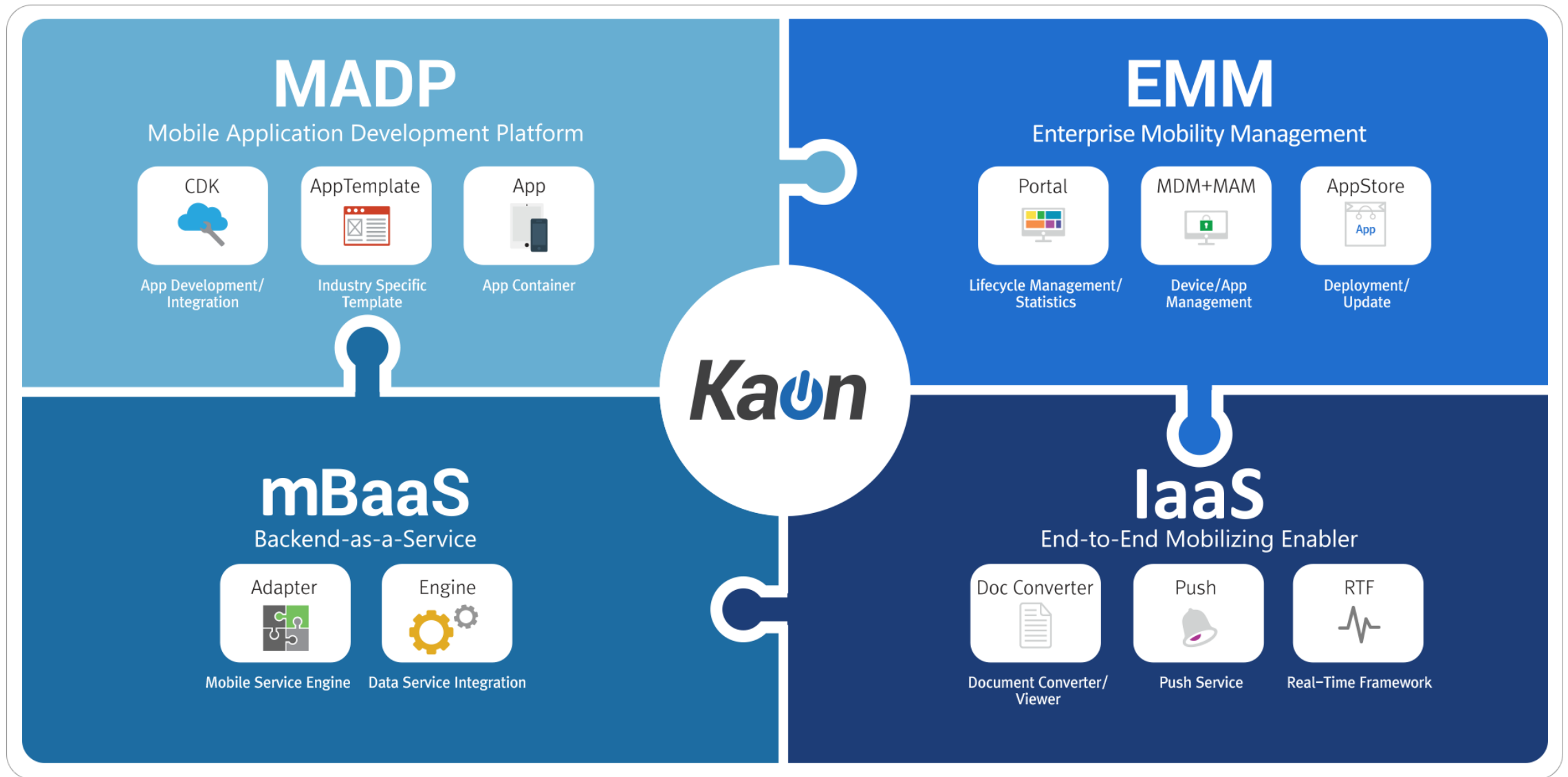
KEMP Platform



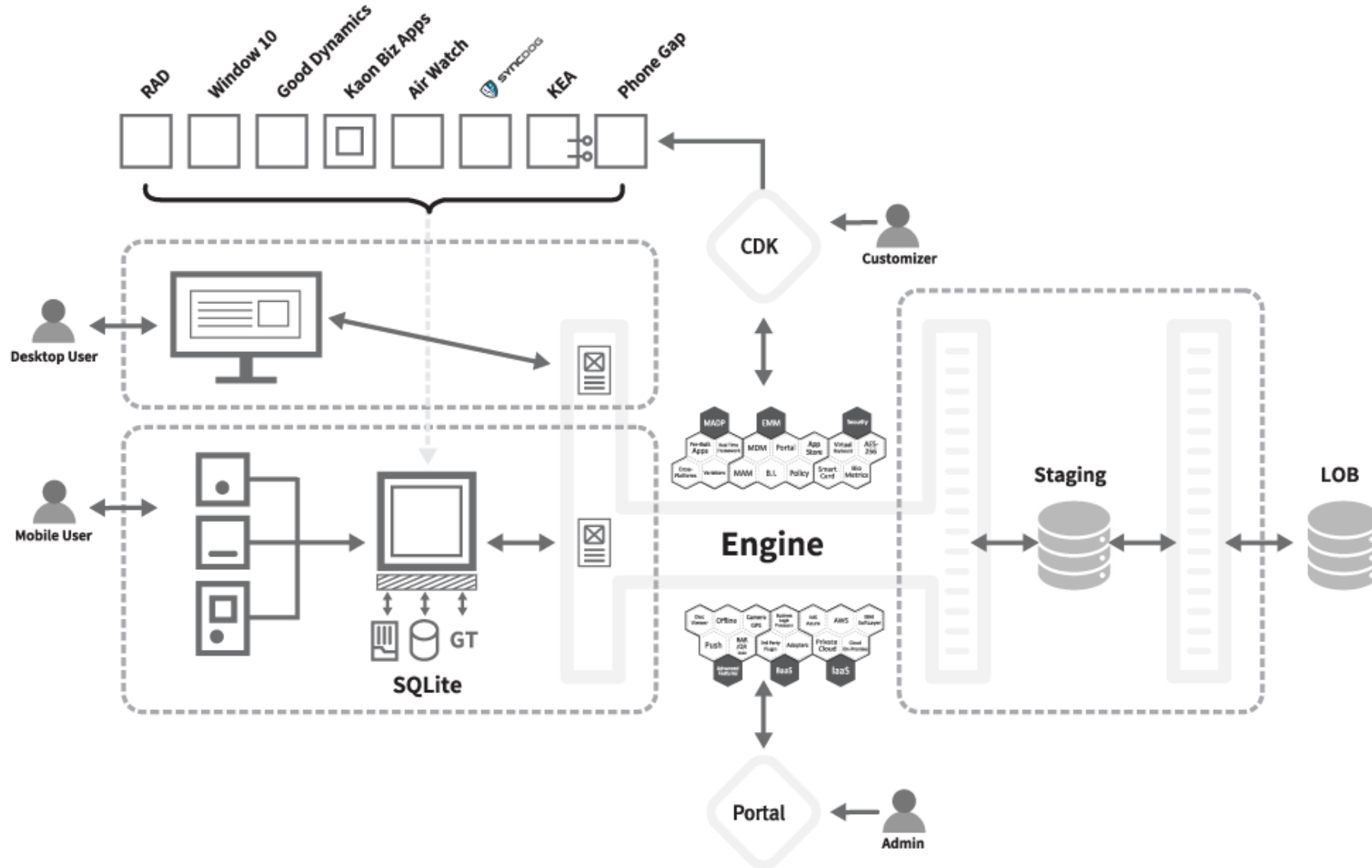
KEMP Platform



KEMP Platform



KEMP Platform



KEMP Platform 특징점



One-Stop, Truly End-to-End Solution

- 모바일 앱 개발/관리의 전 과정에 필요한 기능을 제공
- 모바일 앱 서비스의 효율적인 관리 시스템 제공
- 기업이 요구하는 보안 수준을 만족



모바일 앱 개발/연동



보안



관리



서비스



배포



Configure-to-Build, No Development

- 산업 특화된 템플릿 기반의 모바일 앱 개발환경을 제공 (100+여개 특화 산업 템플릿 보유)
- 산업 특화된 Pre-Built 모바일 앱을 제공함으로써 개발 기간을 단축
- 다양한 3rd-Party UI/UX 프레임워크 연동하여서 개발 가능



제조



물류



교통



건설



교육



공공



복지



Cross-Platform, Deployment Options

- 다양한 OS/디바이스 사이즈별 모바일 앱을 한번에 배포 가능
- Hybrid 플랫폼 기반으로 손쉬운 서비스 업데이트/배포 진행
- 유연한 배포 환경 제공 (구축형/ 클라우드)



Android



iOS



Windows



Cloud



On-Premise



Modernize Existing Systems

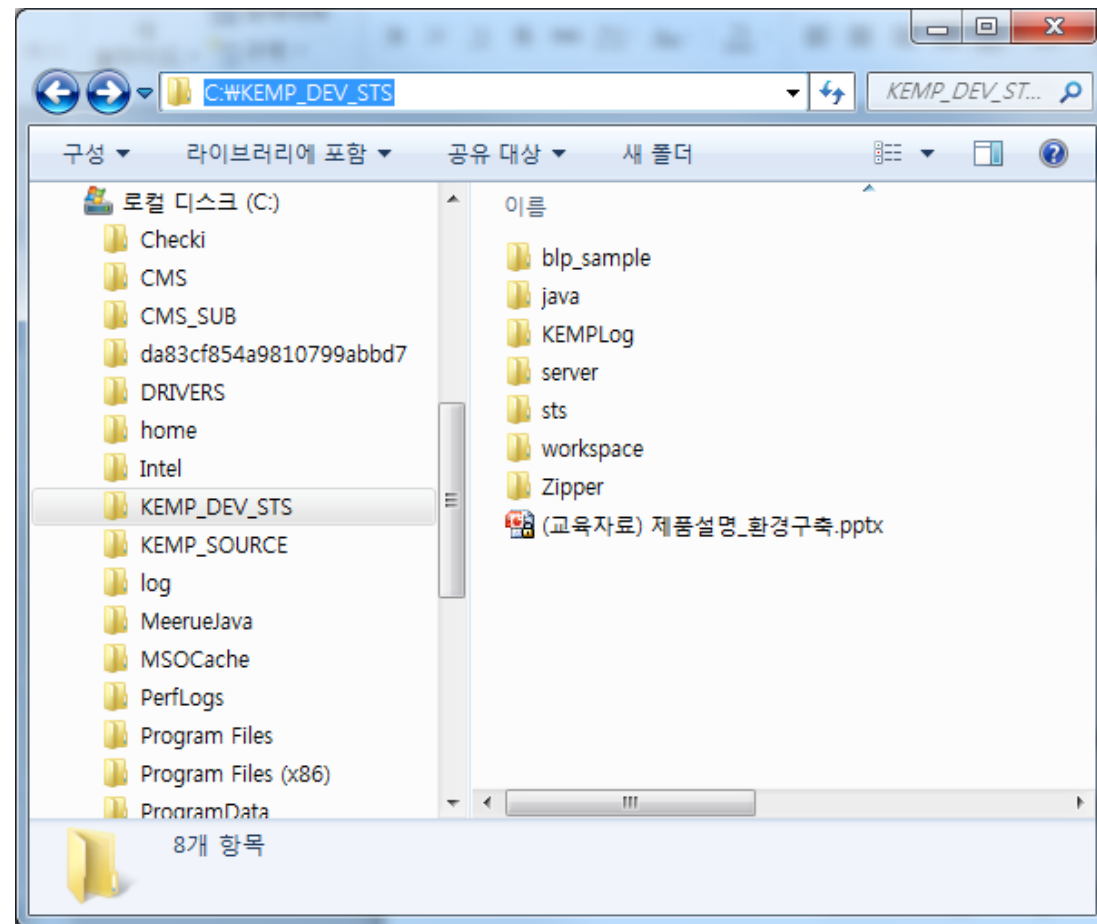
- 기업에서 현재 제공하는 다양한 기간제 시스템 어댑터를 지원
- 플랫폼 기반에서 신규/기존 어댑터의 추가/변경/업데이트 용이



Local Engine Setting (Java) - Windows

Local Engine Setting (Java)

- KEMP_DEV_STS.zip파일을 다운로드 하여 C:\W아래에 압축을 푼다.
(폴더 위치가 바뀔경우 설정파일의 재설정이 필요함)
- C:\WKEMP_DEV_STS이하의 폴더 구성을 확인한다.
 - C:\WKEMP_DEV_STS
 - workspace : Engine, Adapter모듈이 있는 폴더
 - java : JDK 1.7 설치 폴더
 - KEMPLog : Engine, Adapter로그 파일 출력 폴더
 - server : Tomcat 7 설치 폴더
 - sts : STS설치 폴더
 - Zipper : Service App에 대한 zip, unzip
 - blp_sample : Business Logic Process Sample
 - 교육자료



Local Engine Setting (Java)

- 아래의 설정 파일을 자신의 환경에 맞게 변경한다.
 - C:\WKEMP_DEV_STSW\workspace\Engine\src\meerue\properties\
 - common.properties : Engine이 구동되는 기본 설정을 하는 파일

Properties key	Value	Sample
tempFilePath	파일 업로드 기능에서 업로드 파일의 임시저장폴더	C:\WKEMP_DEV_STSW\workspace\Engine\src\main\webapp\Content\Engine\TemplImages
tempFileURI	파일 업로드 기능에서 업로드 파일의 임시URI	http://localhost:8080/Content/Engine/TemplImages/
uploadFilePath	파일 업로드 기능에서 업로드 파일의 저장폴더	C:\WKEMP_DEV_STSW\workspace\Engine\src\main\webapp\Content\Engine\UploadImages
uploadFileURI	파일 업로드 기능에서 업로드 파일의 URI	http://localhost:8080/Content/Engine/UploadImages/
thumbnailWidth	파일 업로드 기능에서 업로드 파일의 썸네일 가로사이즈	200 (픽셀)
thumbnailHeight	파일 업로드 기능에서 업로드 파일의 썸네일 세로사이즈	400 (픽셀)
isDev	true : 개발모드이며 Portal에서 APP의 업데이트가 없음 (default) dalse: 운영모드이며 Portal에서 APP의 업데이트가 있음	true / false
devMode	core : Eclipse에서 Engine등의 Core개발 시 app : Eclipse에서 Service App의 개발 시 (default) product : Tomcat에 배포 후 운영 시	core / app / product
adapterHttpMode	true : Engine에서 adapter 호출 시, HTTP 통신 방식 false: Engine에서 adapter 호출 시, Class Method 호출 방식 (default)	true / false
sftpHost	sftp이용 시 host정보	ip address
sftpPort	sftp이용 시 port정보	port number
sftpId	sftp이용 시 id정보	id
sftpPw	sftp이용 시 pw정보	password

Local Engine Setting (Java)

- 아래의 설정 파일을 자신의 환경에 맞게 변경한다.
 - C:\WKEMP_DEV_STS\workspace\Engine\src\meerue\properties\
 - path.properties : Engine이 구동되는 path를 설정하는 파일

Properties key	Value	Sample	비고
baseUrl	Engine이 설치된 Local Path	C:\WKEMP_DEV_STS\workspace\Engine	
basePath	Local Engine 주소	http://localhost:8080	
portalUrl	연동할 portal주소	http://localhost:8080	
adapterOne	1번째 Adapter주소	http://localhost:8080/adapter	* common.propertie > adapterHttpMode의 값이 > false인 경우 사용하지 않음
adapterTwo	2번째 Adapter주소	http://localhost:8080/adapter	
adapterThree	3번째 Adapter주소	http://localhost:8080/adapter	
adapterFour	4번째 Adapter주소	http://localhost:8080/adapter	
adapterFive	5번째 Adapter주소	http://localhost:8080/adapter	

Local Engine Setting (Java)

- 아래의 설정 파일을 자신의 환경에 맞게 변경한다.
 - C:\WKEMP_DEV_STSW\workspace\Engine\src\meerue\properties\context.properties : **Engine이 연결되는 DB설정** (Portal DB와 동일한 DB를 설정)

Properties key	Value	Sample
Globals.OsType	운영체제의 OS 종류	WINDOWS
Globals.DbType	접속할 DataBase 종류	mssql
Globals.UserName	DB접속 유저 ID	userId
Globals.Password	DB접속 유저 PW	password
Globals.DriverClassName	접속할 DataBase 종류에 따른 class 문자열	com.microsoft.sqlserver.jdbc.SQLServerDriver
Globals.Url	Database connection 문자열	jdbc:sqlserver://ip:port;database=databasename;selectMethod=cursor

- C:\WKEMP_DEV_STSW\workspace\Engine\src\log4j.xml : log포맷, log파일위치 등 log에 대한 설정을 하는 파일
 - log4j.xml : log포맷, log파일위치 등 log에 대한 설정을 하는 파일

Local Engine Setting (Java)

- 아래의 설정 파일을 자신의 환경에 맞게 변경한다.
 - C:\WKEMP_DEV_STSW\workspace\Engine\src\meerue\properties\
 - context.properties : **Adapter이 연결되는 DB설정** (MyBatisAdapter 사용시 설정 정보 – ConnectionMeta에 접두사 기술)
 - MSSQL 접속 정보

Properties key	Value	Sample
MSSQL.DbType	접속할 DataBase 종류	mssql
MSSQL.UserName	DB접속 유저 ID	userId
MSSQL.Password	DB접속 유저 PW	password
MSSQL.DriverClassName	접속할 DataBase 종류에 따른 class 문자열	com.microsoft.sqlserver.jdbc.SQLServerDriver
MSSQL.Url	Database connection 문자열	jdbc:sqlserver://ip:port;database=databasename;selectMethod=cursor

- Oracle 접속 정보

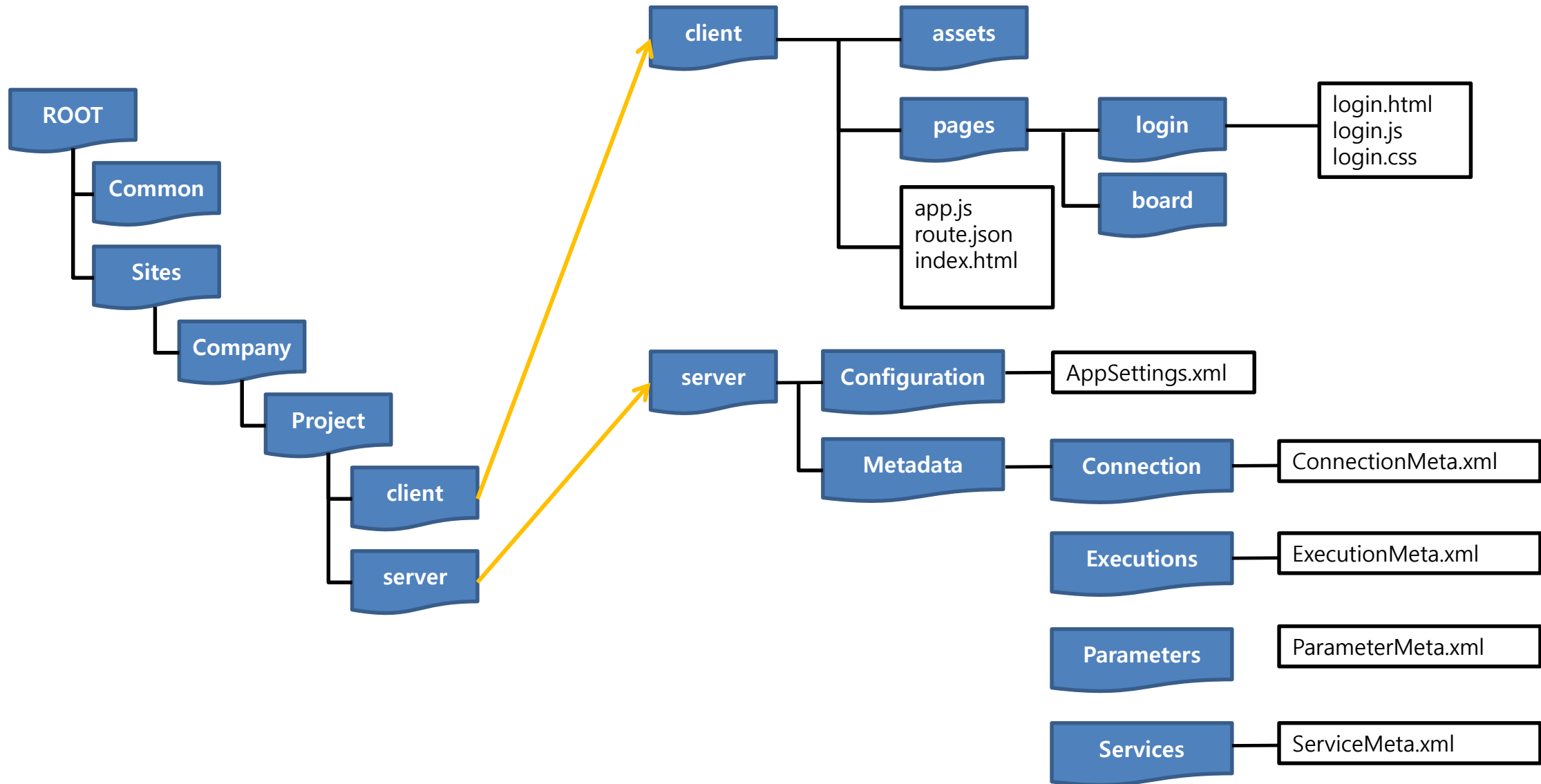
Properties key	Value	Sample
ORACLEFC.DbType	접속할 DataBase 종류	oracle
ORACLEFC.UserName	DB접속 유저 ID	userId
ORACLEFC.Password	DB접속 유저 PW	password
ORACLEFC.DriverClassName	접속할 DataBase 종류에 따른 class 문자열	oracle.jdbc.driver.OracleDriver
ORACLEFC.Url	Database connection 문자열	jdbc:oracle:thin:@ip:port:serviceid(SID)

* oracle 접속 설정은 4개까지 가능 하며 접두사로 구분하여 작성

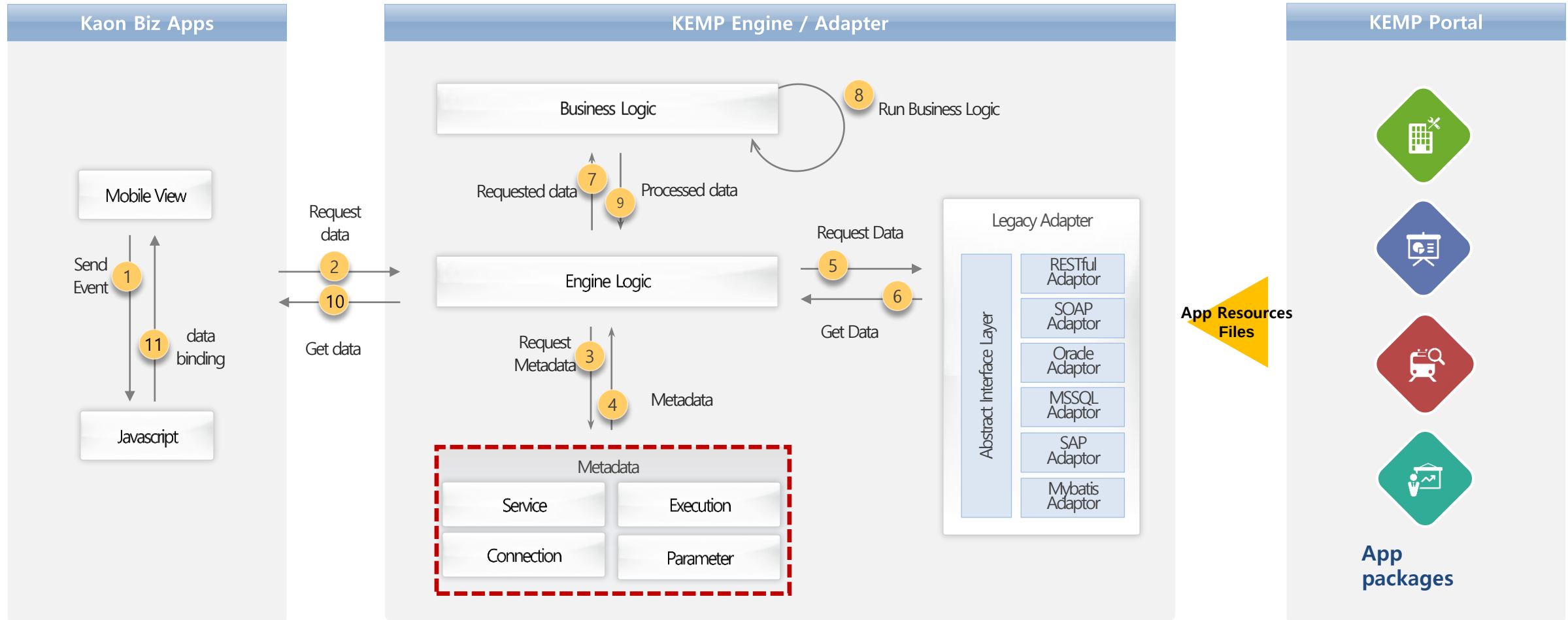
- 접두사 종류 : ORACLE**FC** , ORACLE**SC** , ORACLE**TC** , ORACLE**RC**

Engine / Adapter Information

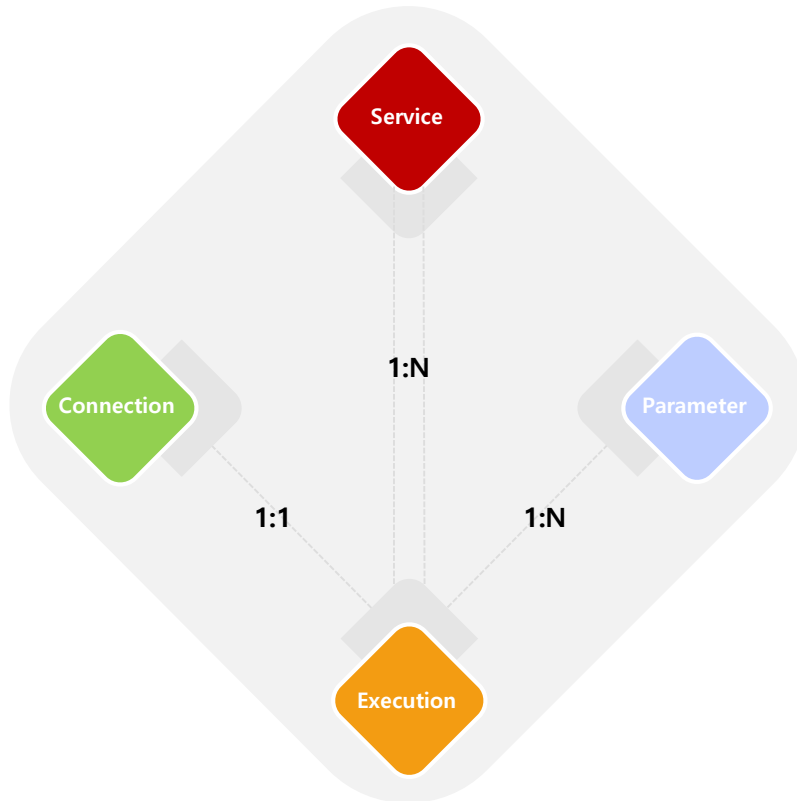
Forder Structure



Engine / Adapter Process



1. Metadata



Service

- ✓ Provides data to Business Logic Layer using multiple Executions
- ✓ Runs multiple Executions to get data.
- ✓ The interface between Kaon biz Apps and KEMP Engine

Execution

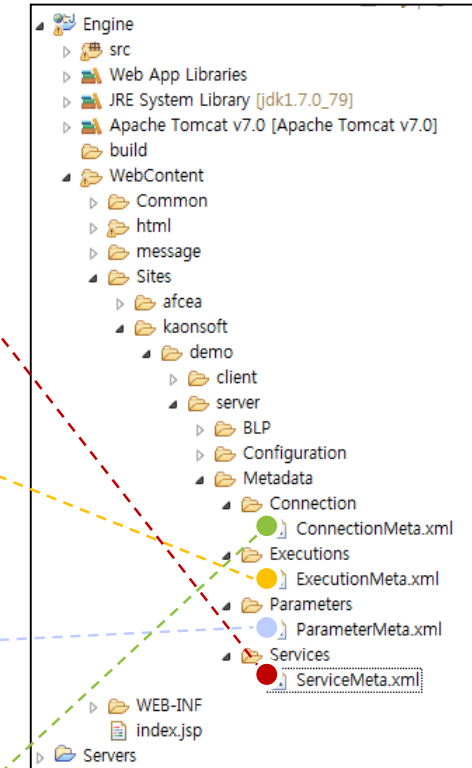
- ✓ Provides Query to Extract data from legacy system
- ✓ Runs Query with Parameters and Connection

Parameter

- ✓ Provides value to be used in Execution's Query

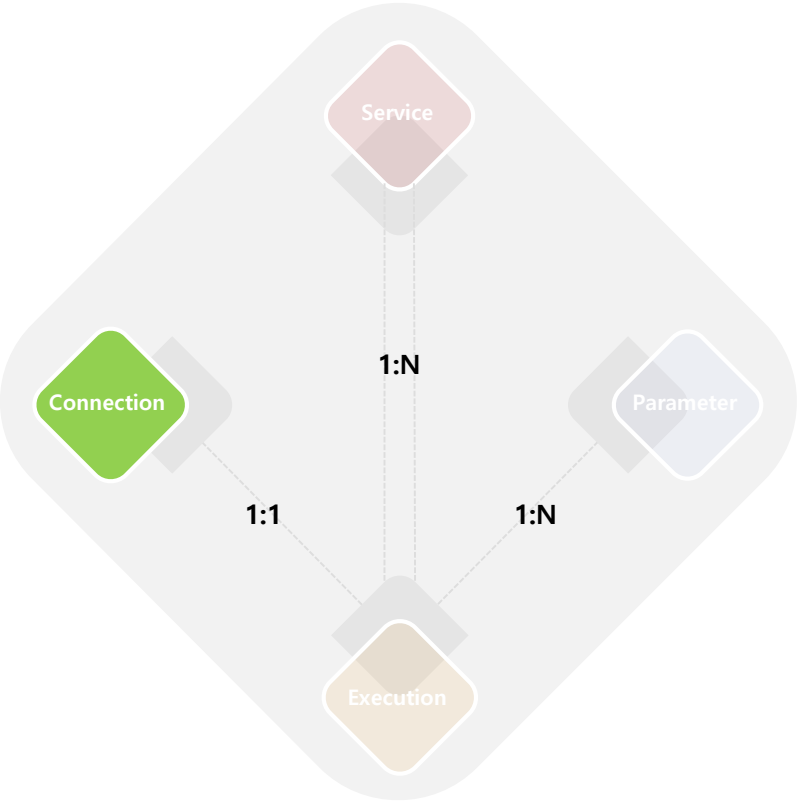
Connection

- ✓ Provides Execution with access information to legacy system



Metadata is a **standard** for **sync** with **legacy system**.

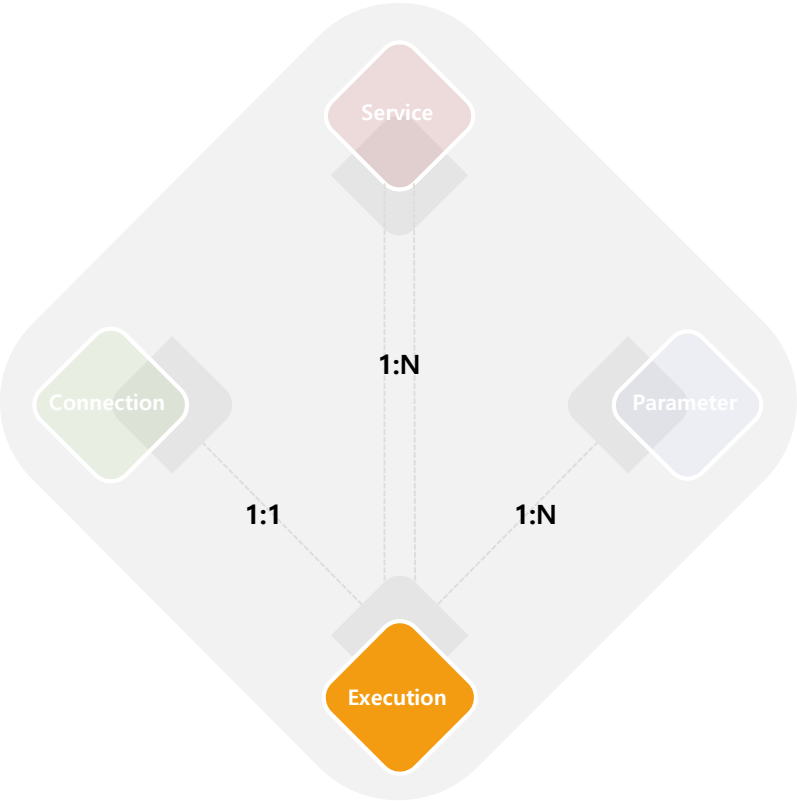
1.1 Connection



Name	Type	Description	Remarks
ID	Attribute	Unique String	e.g. CMS_ORACLE_CON
Enable	Attribute	Enable	
ProviderName	Element	Legacy system type	SAP, Oracle, MS-SQL, Webservice
ConnectionString	Element	Connection String	String with contains the access information
Encrypt	Element	Encryption	This must be selected when Connection String is encrypted and saved
IsCommon	Element	Use common or not	This must be selected when on ID is used to sync with legacy system
IsReadOnly	Attribute	Read only	
RegBy	Element	Registrant	
RegDate	Element	Registration date	
ModBy	Element	Final editor	
ModDate	Element	Final Modification Date	

Connection Metadata has **access information** to legacy system.

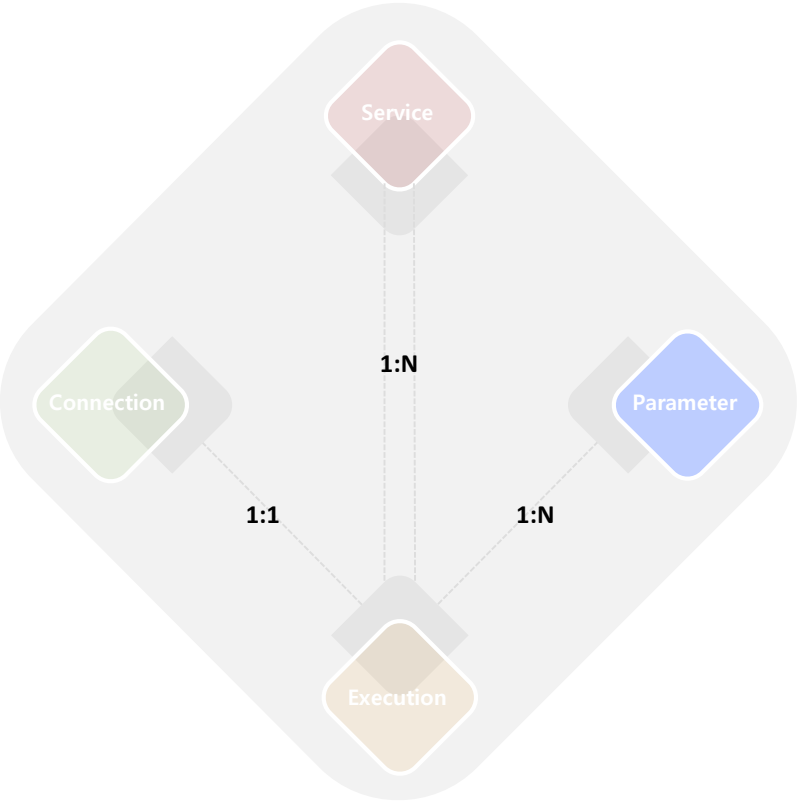
1.2 Execution



Name	Type	Description	Remarks
ID	Attribute	Unique String	e.g. CMS_001_EXECUTION
Enable	Attribute	Enable	
ConnectionID	Element	Connection's ID	The Connection's Unique ID
CommandType	Element	Command Type	e.g. Text, StoredProcedure
QueryType	Element	QueryType	Select, Save, Scalar
Query	Element	Query	Query, Stored Procedure name, SAP RFC name
ExecutionDataType	Element	Execution Data Type	- Type of data provided by legacy system - DataSet, XML, Scalar, JSON
AuthenticationType	Element	Authentication Type	- Legacy system's authentication type - Default type is Windows
UseCaching	Element	Use caching	Whether to save resulting data or not
CachingTimeoutMin	Element	Caching timeout(min)	Time to save resulting data from legacy system
UseStub	Element	Use Stub data	Whether to use temporary data during development
StubFile	Element	Stub file name	File name which saves temporary data
IsReadOnly	Attribute	Read only	
RegBy	Element	Registrant	
RegDate	Element	Registration date	
ModBy	Element	Final editor	
ModDate	Element	Final Modification Date	

Execution Metadata has **Query** to extract data from legacy system

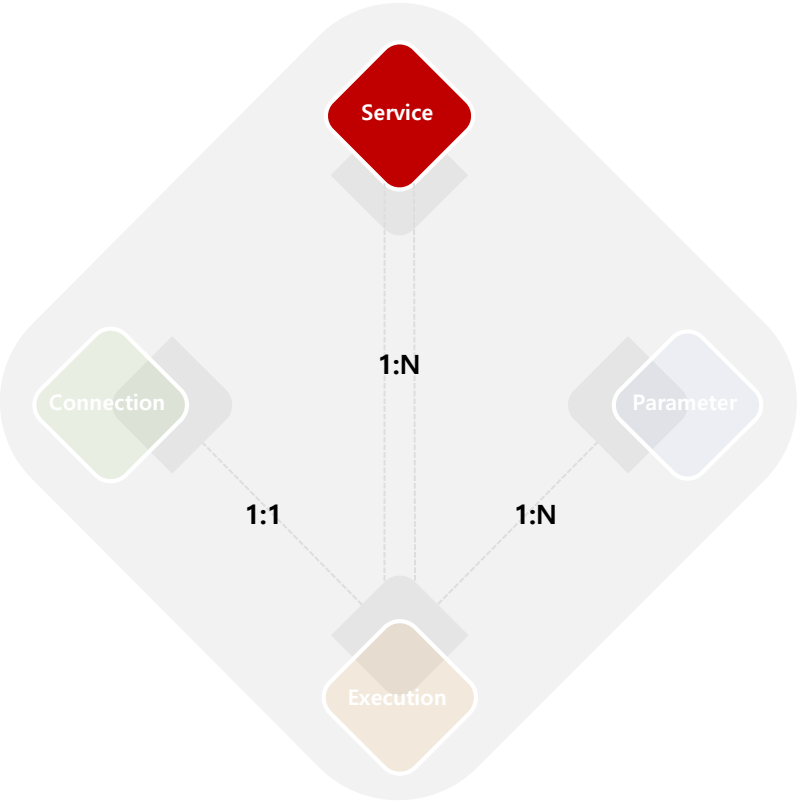
1.3 Parameter



Name	Type	Description	Remarks
ID	Attribute	Unique String	e.g. CMS_001_PRAMETER
Enable	Attribute	Enable	
ExecutionID	Element	Execution reference Key	
Value	Element	Default Value	
DataType	Element	Data Type	e.g. Int, String
DataLength	Element	Data length	
Direction	Element	Parameter's direction	In general, use Input only
IsReadOnly	Attribute	Read only	
RegBy	Element	Registrant	
RegDate	Element	Registration date	
ModBy	Element	Final editor	
ModDate	Element	Final Modification Date	

Parameter Metadata has Value to be used in Execution's Query

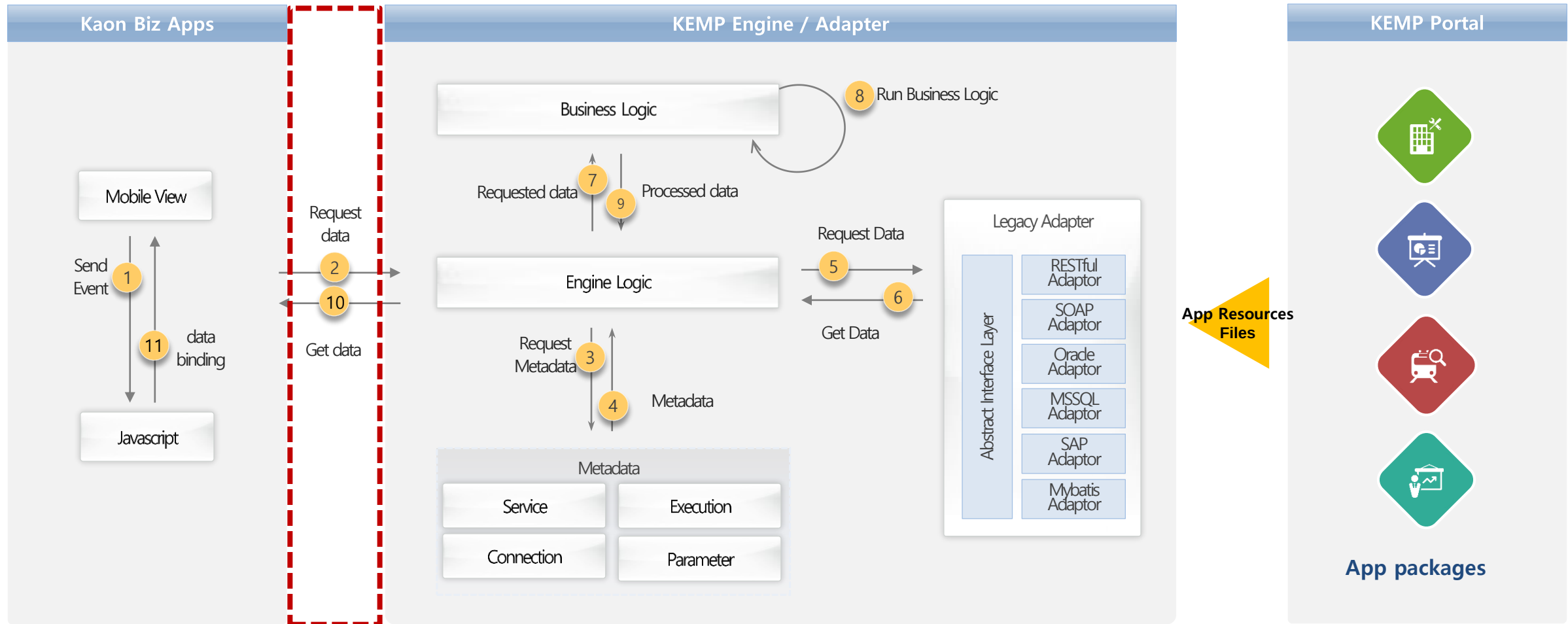
1.4 Service



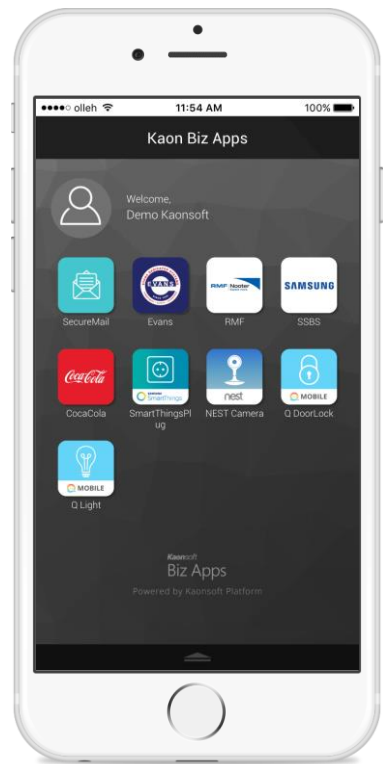
Name	Type	Description	Remarks
ID	Attribute	Unique String	e.g. CMS_001_SERVICE
Enable	Attribute	Enable	
Executions	Element	Execution's ID	The Execution's Unique ID
BLPType	Element	BLP Type	ByPass, PostExecuteDotNet
BLPFile	Element	BLP file name	e.g. MEERUE.BLPExecutor.dll
Namespace	Element	namespace	e.g. MEERUE.BLPExecutor
ClassName	Element	Class name	
IsReadOnly	Attribute	Read only	
RegBy	Element	Registrant	
RegDate	Element	Registration date	
ModBy	Element	Final editor	
ModDate	Element	Final Modification Date	

Service Metadata defines a **Interface** between client and server.
(Service = a Interface to do something)

2. Interface Specification



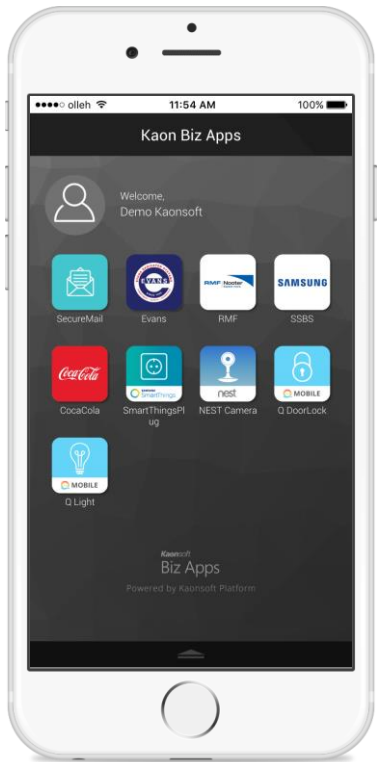
2.1 Request Standard



Name	Remarks
Company Name	e.g. Brite_System
Project Name	- A project name of CDK - E.g. ESS
API function	Functions provided by the KEMP Engine - InquireData : request data
Service ID	When you send the service ID for request, the connected Metadata's Execution is used to get data from legacy system.

E.g. <http://www.kaonsoft.com/Sites/company/project/client/InquireData/GetListData>

2.2 Response Standard



JSON format value

Name	Remarks
Result	Whether the request is done successfully or not
Value	Data from legacy system



Response format Example	
List	Detailed Description
<pre>{ "Result": "ok", "Value": { "Data0": [{ "BrdID": 330, "Title": "Title6", "LastEditUID": "demo", "LastEditDT": "2014-09-18T18:18:42.717" }, { "BrdID": 294, "Title": "Title5", "LastEditUID": "demo3", "LastEditDT": "2014-06-10T16:19:01.23" }, { "BrdID": 264, "Title": "Title3", "LastEditUID": "demo1", "LastEditDT": "2014-11-12T19:29:52.263" }], "Data1": [{ "TOTAL": 3 }] } }</pre>	<pre>{ "Result": "ok", "Value": { "Data0": [{ "BrdID": 330, "Title": "Title6", "Content": "Content6", "BrdCatelID": 1, "UseYN": true, "Remark": null, "RegDT": "2014-09-18T18:18:42.717", "LastEditDT": "2014-09-18T18:18:42.717", "RegUserID": "demo", "LastEditUID": "demo", "Vcnt": 0 }] } }</pre>

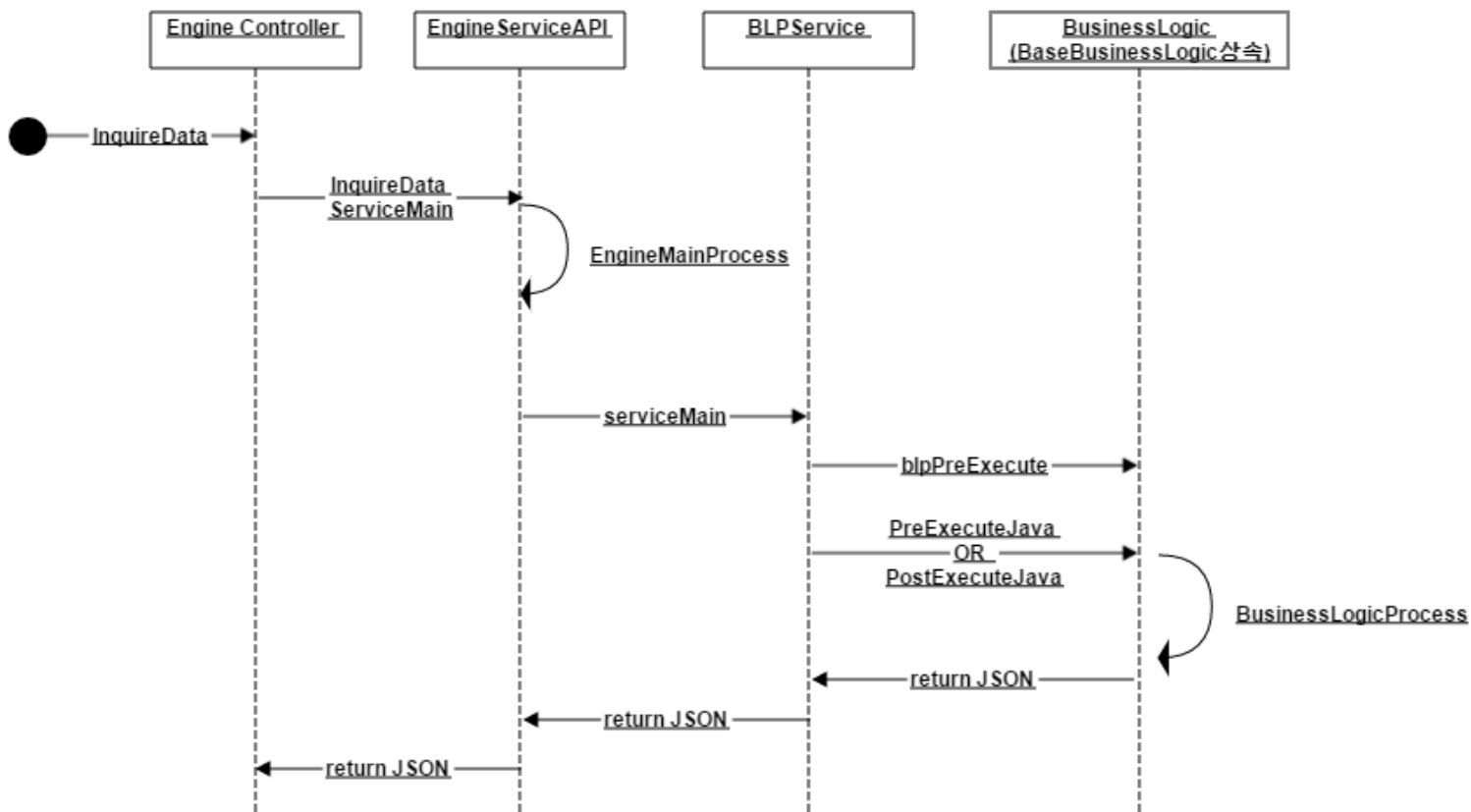
Business Logic Process (BLP) 개발

3. Business Logic Process (BLP) 개발

1. Overview

업무 프로세스상에 기업의 레거시에서 취득한 Data의 가공 또는 레거시 연동전에 화면에서 입력된 Data의 가공이 필요할 경우 Platform의 환경에 맞게 C#과 Java의 코딩으로 비즈니스 로직의 구현이 가능.

(Sample은 Java의 BLP를 기준으로 작성)



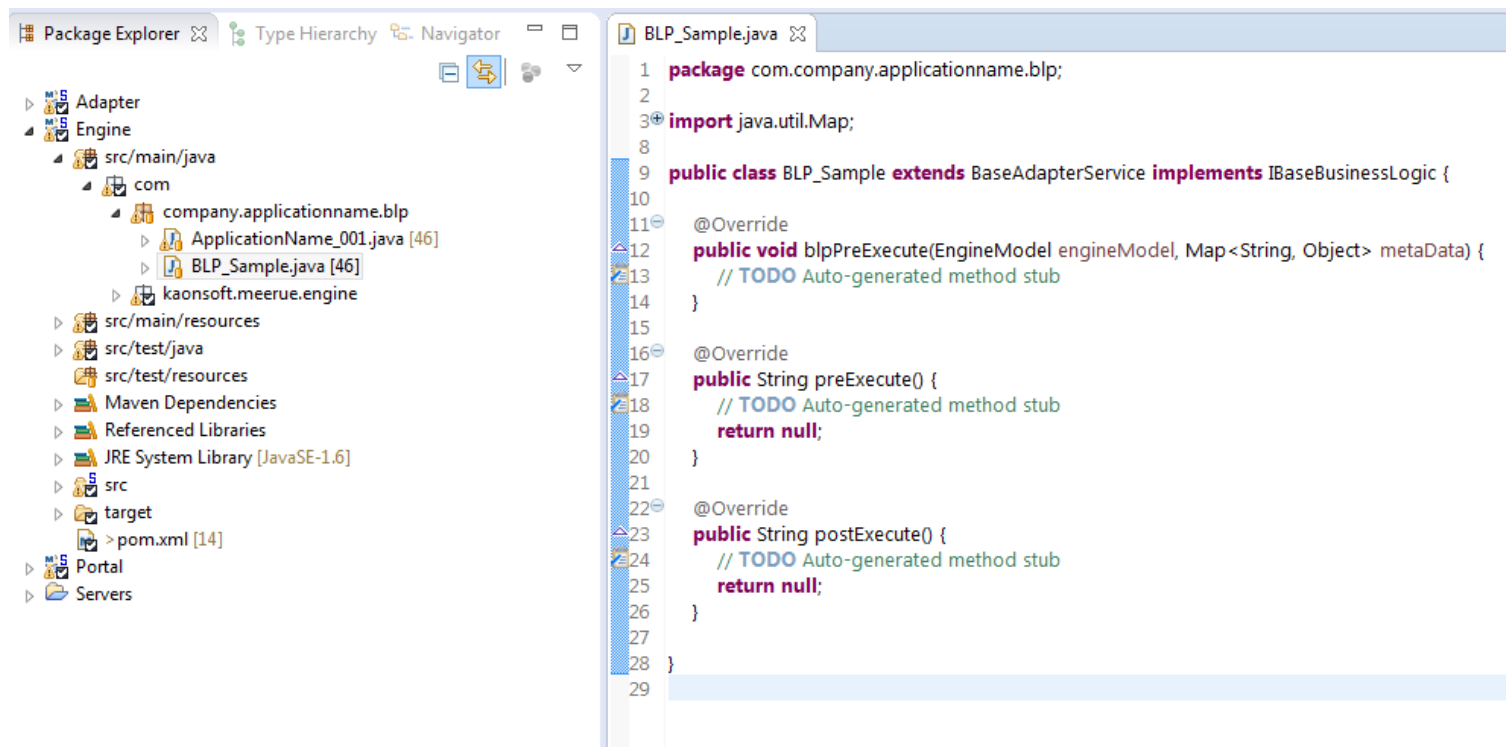
<To do>

1. IBaseBusinessLogic을 상속한 각 앱의 BusinessLogic Class를 생성
2. blpPreExecute, preExecute메서드 또는 postExecute메서드를 Override하여 각 서비스의 비즈니스 로직을 기술한다.
 - blpPreExecute : 취득한 Data를 BusinessLogic에 설정
 - preExecute : 레거시 연동 전 실행되는 비즈니스 로직 기술
 - postExecute : 레거시 연동 후 실행되는 비즈니스 로직 기술
 - preExecute, postExecute는
MetaData의 정의에 따라 하나의 함수가 실행
3. 하나의 앱에 필요한 모든 서비스 메서드를 개발 완료
4. 작성한 BusinessLogic을 jar파일로 생성
5. 지정 위치에 jar파일을 위치 후 엔진 기동, 확인

3. Business Logic Process

2. 구현방법

- BaseAdapterService, IBaseBusinessLogic을 상속받은 BusinessLogic Class를 생성한후 blpPreExecute, preExecute 또는 postExecute를 Override한다.



The screenshot shows an IDE interface. On the left, the Package Explorer displays a project structure with packages like Adapter, Engine, and src/main/java. The file BLP_Sample.java is selected. On the right, the code editor shows the following Java code:

```
1 package com.company.applicationname.blp;
2
3 import java.util.Map;
4
5
6
7
8
9 public class BLP_Sample extends BaseAdapterService implements IBaseBusinessLogic {
10
11     @Override
12     public void blpPreExecute(EngineModel engineModel, Map<String, Object> metaData) {
13         // TODO Auto-generated method stub
14     }
15
16     @Override
17     public String preExecute() {
18         // TODO Auto-generated method stub
19         return null;
20     }
21
22     @Override
23     public String postExecute() {
24         // TODO Auto-generated method stub
25         return null;
26     }
27
28 }
29
```

- 작성한 Class는 executionID.jar파일로 export후 App_Data/Project Name/Application Name/BLP/Java아래에 위치한다.

3. Business Logic Process

3. Metadata Service 생성

Business Logic을
사용할 경우 이하의
4가지 항목을 설정한다.

이름	유형	내용	비고
...	...	...	
BLPType	Element	BLP 유형	PostExecuteJava, PreExecuteJava를 설정
BLPFile	Element	BLP 파일	Business Logic을 작성한 executionID.jar파일명을 설정(개발시는 .class를 설정)
Namespace	Element	패키지 명	Business Logic의 package명을 설정
ClassName	Element	BLP Class 명	Business Logic의 class명(executionID)을 설정
....			

EX)

```
<?xml version="1.0" encoding="utf-8"?>
<MetaCollection xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <Collections>
    <ServiceMeta ID="ServiceID" Enable="true" IsReadOnly="true">
      <RegBy>1</RegBy>
      <RegDate>2014-11-27T18:08:50.9041912+09:00</RegDate>
      <ModBy>1</ModBy>
      <ModDate>2014-11-27T18:08:50.9041912+09:00</ModDate>
      <Executions>
        <ExecutionID>ExecID</ExecutionID>
      </Executions>
      <BLPType>PostExecuteJava</BLPType>
      <BLPFile>executionID.jar</BLPFile>
      <BLPTimeoutMin>9</BLPTimeoutMin>
      <Namespace>com.Project Name.service</Namespace>
      <ClassName>executionID</ClassName>
      <PageName>PageName</PageName>
      <PageTitle>Title</PageTitle>
      <ReturnType>Json</ReturnType>
      <RTFTime>1</RTFTime>
      <RTFType>Data</RTFType>
      <RTFAddress>http://localhost</RTFAddress>
      <RTFCustomer>RTFCustomer</RTFCustomer>
      <RTFServiceID>RTF01</RTFServiceID>
    </ServiceMeta>
  </Collections>
</MetaCollection>
```

Adapter Info

4.1 Adapter Connection Setting Values

1. Metadata Connection Setting values

> ex : /Connection/connecitonMeta.xml

Adapter 종류	VALUE
Mssql Adapter	<ProviderName>MEERUE.Mssql</ProviderName>
	<ConnectionString>Data Source=127.0.0.1,3118;Initial Catalog=TESTDB;User ID=test;Password=password;</ConnectionString>
Oracle Adapter	<ProviderName>MEERUE.Oracle</ProviderName>
	<ConnectionString>Data Source=127.0.0.1:9090/xe;User ID=TESTDB;Password=password</ConnectionString>
SAP Adapter	<ProviderName>MEERUE.SAP</ProviderName>
	<ConnectionString>SystemId=SR1;AppServerHost=www.kaonsoft.com;SystemNumber=00;Client=910;Username=TEST;Password=password;Language=EN;Erpconnectlickey=trial;RunStubMode=false</ConnectionString>
Restfull Adapter	<ProviderName>MEERUE.Webservice</ProviderName>
	<ConnectionString>Scheme=http;domain=www.kaonsoft.com:9290/nportal;port=;id=;pw=;</ConnectionString>
MyBatis Mssql Adapter	<ProviderName>MEERUE.MyBatis.Mssql</ProviderName>
	<ConnectionString>MSSQL</ConnectionString>
MyBatis Oracle Adapter	<ProviderName>MEERUE.MyBatis.Oracle</ProviderName>
	<ConnectionString>ORACLERC</ConnectionString>

4.2.1 Adapter Executions Setting Values

1. Metadata Executions Setting values

> ex : /Executions/excutionMeta.xml

- **ProviderName** : MEERUE.Oracle / MEERUE.Mssql 선택 시, Executions 설정 정보

Adapter Executions	Value	설명
ConnectionID	Connection Meta ID	
CommandType	Text	[Query] 에 SQL 작성
	StoredProcedure	[Query] 에 프로시저 이름 작성 (mssql인 경우 사용, oracle인 경우, mybatis adapter 사용)
QueryType	Select	검색
	Save	등록/수정/삭제
Query	[CommandType] 이 [Text] 인 경우, SQL 작성	
	[CommandType] 이 [StoredProcedure] 인 경우, 프로시저 이름 작성	
ExecutionDataType	[Json], [XML], [Scalar], [DataSet]	검색 결과 반환 형태

4.2.2 Adapter Excutions Setting Values

1. Metadata Excutions Setting values

> ex : /Excutions/excutionMeta.xml

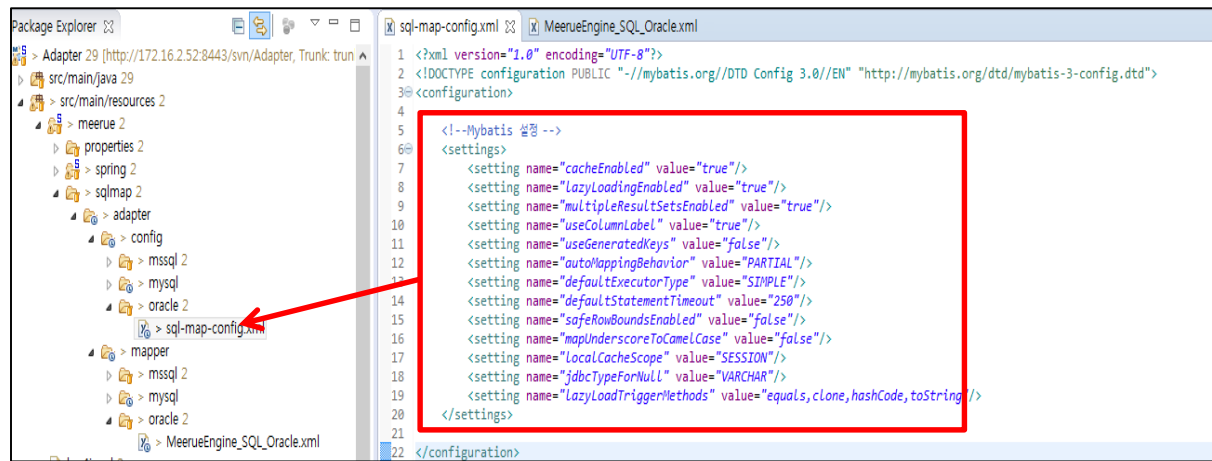
- **ProviderName** : MEERUE.**MyBatis**.Oracle / MEERUE.**MyBatis**.Mssql 선택 시, Excutions 설정 정보

Adapter Excutions	Value	설명
ConnectionID	Connection Meta ID	
CommandType	Query	SQL Xml mapper 작성 (select, update, insert, delete)
	StoredProcedure	SQL(프로시저) Xml mapper 작성 (select, update, insert, delete)
QueryType	SelectList	검색 (복수 검색)
	SelectOne	검색 (1건 검색)
	Insert	등록
	Update	수정
	Delete	삭제
Query	Xml mapper 의 ID	
ExecutionDataType	[Json], [XML], [Scalar], [DataSet]	검색 결과 반환 형태

4.2.2-1 MyBatis mapper 설정

1. Sql map config 설정

- mapper config 파일 위치(mapper 파일 정의)
: /meerue/sqlmap/adapter/config/oracle/sql-map-config.xml
 - mapper 파일 위치
: /meerue/sqlmap/adapter/mapper/oracle/mapper.xml
- > ex : 우측 그림과 같이 작성



2. Mapper 작성

- > ex : 아래와 우측 그림과 같이 작성
- select / insert / update / delete / procedure
 - resultMap / parameterMap

```
<parameterMap class="map" id="activityMap">
  <parameter property="i_ID" jdbcType="INTEGER" javaType="java.lang.String" mode="IN"/>
  <parameter property="adminId" jdbcType="VARCHAR" javaType="java.lang.String" mode="OUT"/>
  <parameter property="parameter" jdbcType="VARCHAR" javaType="java.lang.String" mode="OUT"/>
</parameterMap>

<procedure id="activityProcedure" parameterMap="activityMap">
  <![CDATA[
    {call PRO_T_N_ADMIN_ACTIVITY(?,?,?)}
  ]]>
</procedure>
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE mapper PUBLIC "-//mybatis.org//DTD Mapper 3.0//EN" "http://mybatis.org/dtd/mybatis-3-mapper.dtd">
<mapper namespace="Admin">
  <resultMap id="testMap" type="java.util.HashMap">
    <result property="USER_ID" column="USER_ID" />
    <result property="USERNAME" column="USERNAME" />
    <result property="CREATED_BY" column="CREATED_BY" />
  </resultMap>
  <select id="test" parameterType="java.util.HashMap" resultMap="testMap">
    SELECT * FROM DBUSER
  </select>
</mapper>
```

4.3.1 Oracle Adapter sample

```
1 /* dashboard Controller */
2 app.controller('dataListController', ['$scope', '$rootScope', 'dataService', function ($scope, $rootScope, dataService) {
3
4     $scope.first = 0;
5     $scope.last = 10;
6     var fnRTEvent = function(result, message){
7         $scope.eventList = angular.copy(message.Data0);
8         console.log($scope.eventList.length);
9         console.log($scope.eventList);
10    };
11
12    $scope.fnOnClick = function (item){
13
14        if($scope.first == '') $scope.first = 0;
15        if($scope.last == '') $scope.last = 10;
16
17        var config = {"first":$scope.first,"last":$scope.last};
18        $scope.fnCallAjaxFactory('Get_RTEVENT', config, fnRTEvent, $scope.fnCommonAjaxFail, true);
19    };
20
21
22 }]);
```

Script : ajax call
Call : Get_RTENT
Parameter : first=0, last=10

ExecutionMeta
SQL select

```
2<?xml version="1.0" encoding="utf-8"?>
3<MetaCollection xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
4  <Collections>
5    <ExecutionMeta ID="Get_RTEVENT" Enable="true" IsReadOnly="false">
6      <RegBy>admin</RegBy>
7      <RegDate>2016-11-07T12:00:00</RegDate>
8      <ModBy>admin</ModBy>
9      <ModDate>2016-11-07T12:00:00</ModDate>
10     <Title />
11     <ConnectionID>MEERUE_NHIS_ORACLE_CON</ConnectionID>
12     <CommandType>Text</CommandType>
13     <QueryType>Select</QueryType>
14     <Query><![CDATA[
15       SELECT * FROM (
16         SELECT ROWNUM rm, tmp.* FROM (
17           select * from RTEVENT ORDER BY MYID DESC
18         ) tmp
19       ) WHERE rm BETWEEN $first$ AND $last$
20     ]]></Query>
21     <AuthenticationType>Windows</AuthenticationType>
22     <ExecutionDataType>Json</ExecutionDataType>
23     <Namespace />
24     <UseCaching>false</UseCaching>
25     <CachingTimeoutMin>0</CachingTimeoutMin>
26     <UseStub>false</UseStub>
27     <StubFile>.stb</StubFile>
28     <Description />
29   </ExecutionMeta>
30 </Collections>
31 </MetaCollection>
```

```
1<?xml version="1.0" encoding="utf-8"?>
2<MetaCollection xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
3  <Collections>
4    <ServiceMeta ID="Get_RTEVENT" Enable="true" IsReadOnly="false">
5      <RegBy>admin</RegBy>
6      <RegDate>2016-11-07T12:00:00</RegDate>
7      <ModBy>admin</ModBy>
8      <ModDate>2016-11-07T12:00:00</ModDate>
9      <Title />
10     <ExecutionID>Get_RTEVENT</ExecutionID>
11     <ExecutionType>Text</ExecutionType>
12     <BLPFile></BLPFile>
13     <BLPTimeoutMin>0</BLPTimeoutMin>
14     <Namespace></Namespace>
15     <ClassName></ClassName>
16     <RTFType>None</RTFType>
17     <RTFAddress />
18     <RTFCustomer />
19     <RTFServiceID />
20     <PageName>mam</PageName>
21     <PageTitle>mam</PageTitle>
22     <RTFTime>0</RTFTime>
23     <ReturnTypeInfo>DataSet</ReturnTypeInfo>
24   </ServiceMeta>
25 </Collections>
26 </MetaCollection>
```

ServiceMeta
ID : Get_RTEVENT

```
1<?xml version="1.0" encoding="utf-8"?>
2<MetaCollection xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
3  <Collections>
4    <ParameterMeta ID="first" Enable="true" IsReadOnly="false">
5      <RegBy>admin</RegBy>
6      <RegDate>2014-12-01T12:00:00</RegDate>
7      <ModBy>admin</ModBy>
8      <ModDate>2014-12-01T12:00:00</ModDate>
9      <Title />
10     <ExecutionID>Get_RTEVENT</ExecutionID>
11     <Value xsi:type="xsd:string">0</Value>
12     <DataType>STRING</DataType>
13     <DataLength>0</DataLength>
14     <Direction>Input</Direction>
15   </ParameterMeta>
16
17   <ParameterMeta ID="last" Enable="true" IsReadOnly="false">
18     <RegBy>admin</RegBy>
19     <RegDate>2014-12-01T12:00:00</RegDate>
20     <ModBy>admin</ModBy>
21     <ModDate>2014-12-01T12:00:00</ModDate>
22     <Title />
23     <ExecutionID>Get_RTEVENT</ExecutionID>
24     <Value xsi:type="xsd:string">10</Value>
25     <DataType>STRING</DataType>
26     <DataLength>0</DataLength>
27     <Direction>Input</Direction>
28   </ParameterMeta>
29 </Collections>
30 </MetaCollection>
```

ParameterMeta
ID : first, last

```
1<?xml version="1.0" encoding="utf-8"?>
2<MetaCollection xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
3  <Collections>
4    <ConnectionMeta ID="MEERUE_NHIS_ORACLE_CON" Enable="true" IsReadOnly="false">
5      <RegBy> />
6      <RegDate>2016-11-07T12:00:00.0000000+09:00</RegDate>
7      <ModBy> />
8      <ModDate>2016-11-07T12:00:00.0000000+09:00</ModDate>
9      <Title />
10     <ProviderName>MEERUE.Oracle</ProviderName>
11     <ConnectionString>Data Source=localhost:9090/xs;User ID=user;Password=password;</ConnectionString>
12     <Encrypt>false</Encrypt>
13     <IsCommon>true</IsCommon>
14   </ConnectionMeta>
15 </Collections>
16 </MetaCollection>
```

ConnectMeta
DB connection Info

4.3.2 Mybatis Adapter sample

The image shows a screenshot of an IDE with several files open. The left sidebar shows a project structure with a folder named 'properties' containing 'common.properties', 'context.properties', and 'path.properties'. The main editor displays the content of 'MPMConnection.xml', which is a Mybatis configuration file. The file contains two connection configurations: one for MSSQL and one for ORACLEFC. The ORACLEFC configuration is highlighted with a red box. To the right of the IDE, there are three blue boxes with text explaining the configuration. The first box is titled 'Engine Connection Info' and points to the MSSQL configuration. The second box is titled 'Adapter Connection Info' and lists the database types supported by the Mybatis Adapter: MSSQL, ORACLEFC, ORACLESC, ORACLETC, and ORACLERC. The third box is titled 'ConnectionMeta' and shows the values for the 'ProviderName' and 'ConnectionString' attributes, which are also highlighted with a red box in the XML file.

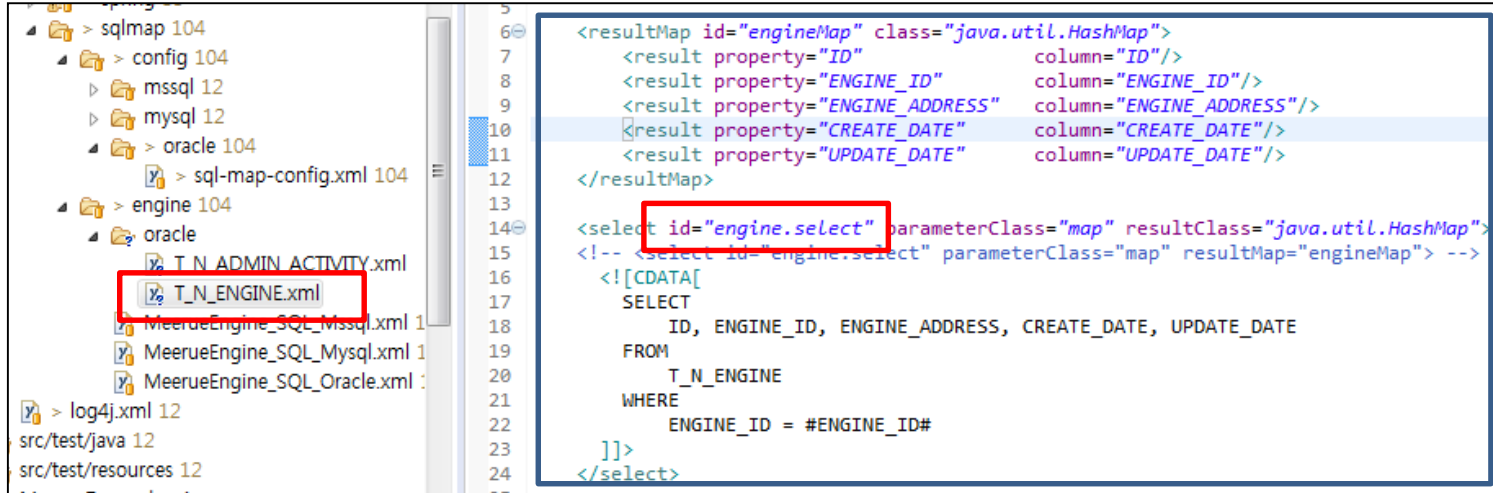
Engine Connection Info

Adapter Connection Info

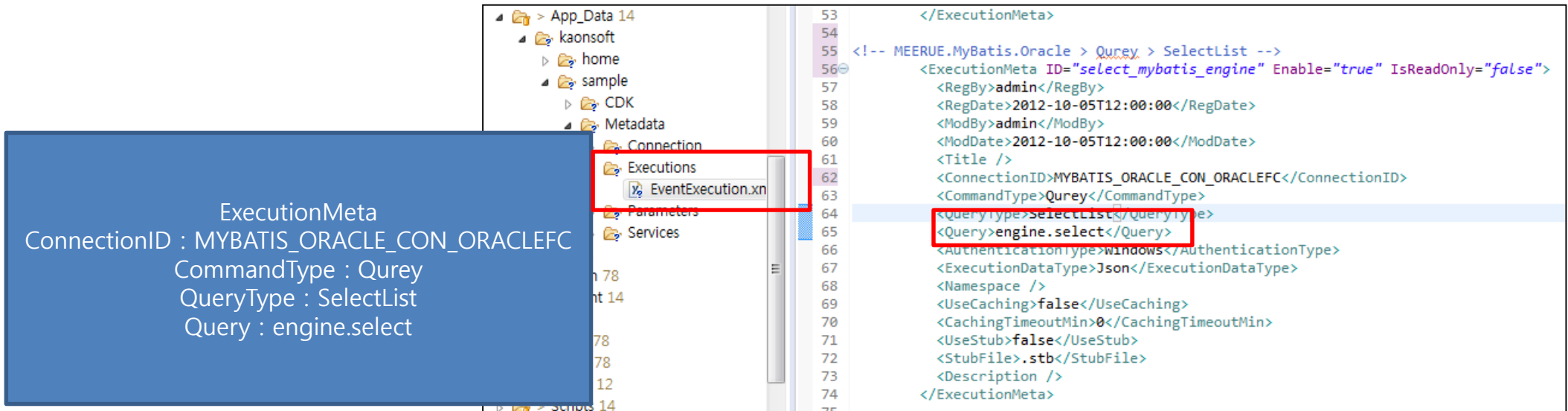
- * Use Mybatis Adapter
- MSSQL
- ORACLEFC
- ORACLESC
- ORACLETC
- ORACLERC

ConnectionMeta
ProviderName : MEERUE.MyBatis.Oracle
ConnectionString : ORACLEFC

4.3.2 Mybatis Adapter sample



Mapper Info
Mapper ID 와 ExecutionMeta의 Query 와 매핑
Select 결과 값은 resultMap 의 property 와 매핑



ExecutionMeta
ConnectionID : MYBATIS_ORACLE_CON_ORACLEFC
CommandType : Query
QueryType : SelectList
Query : engine.select

4.3.2 Mybatis Adapter sample

Script : ajax call

Call : select_mybatis_engine

Parameter : ENGINE_ID=localhost

```
config = {"ENGINE_ID" : 'localhost'};  
$scope.fnCallAjaxFactory('select_mybatis_engine', config, engineSelect, $scope.fnCommonAjaxFail, true);
```

ExecutionMeta
SQL select

```
<!-- MEERUE.MvBatis.Oracle > Qurey > SelectList -->  
<ExecutionMeta ID="select_mybatis_engine" Enable="true" IsReadOnly="false">  
  <RegBy>admin</RegBy>  
  <RegDate>2012-10-05T12:00:00</RegDate>  
  <ModBy>admin</ModBy>  
  <ModDate>2012-10-05T12:00:00</ModDate>  
  <Title>/>  
  <ConnectionID>MYBATIS_ORACLE_CON_ORACLEFC</ConnectionID>  
  <CommandType>Query</CommandType>  
  <QueryType>SelectList2</QueryType>  
  <Query>engine.select</Query>  
  <AuthenticationType>Windows</AuthenticationType>  
  <ExecutionDataType>Json</ExecutionDataType>  
  <Namespace>/>  
  <UseCaching>false</UseCaching>  
  <CachingTimeoutMin>0</CachingTimeoutMin>  
  <UseStub>false</UseStub>
```

Mapper

```
<resultMap id="engineMap" class="java.util.HashMap">  
  <result property="ID" column="ID"/>  
  <result property="ENGINE_ID" column="ENGINE_ID"/>  
  <result property="ENGINE_ADDRESS" column="ENGINE_ADDRESS"/>  
  <result property="CREATE_DATE" column="CREATE_DATE"/>  
  <result property="UPDATE_DATE" column="UPDATE_DATE"/>  
</resultMap>  
  
<select id="engine.select" parameterClass="map" resultClass="java.util.HashMap">  
  <select id="engine.select" parameterClass="map" resultMap="engineMap"> -->  
    <SQL>  
      SELECT  
        ID, ENGINE_ID, ENGINE_ADDRESS, CREATE_DATE, UPDATE_DATE  
      FROM  
        T_N_ENGINE  
      WHERE  
        ENGINE_ID = #ENGINE_ID#  
    </SQL>  
  </select>
```

ServiceMeta

ID : select_mybatis_engine

```
<!-- MEERUE.MyBatis.Oracle > Qurey > SelectList -->  
<ServiceMeta ID="select_mybatis_engine" Enable="true" IsReadOnly="false">  
  <RegBy>admin</RegBy>  
  <RegDate>2016-11-07T12:00:00</RegDate>  
  <ModBy>admin</ModBy>  
  <ModDate>2016-11-07T12:00:00</ModDate>  
  <Executions>  
    <ExecutionID>select_mybatis_engine</ExecutionID>  
  </Executions>  
  <BLPType>Bypass</BLPType>  
  <BLPFile></BLPFile>  
  <BLPTimeoutMin>0</BLPTimeoutMin>  
  <Namespace>/</Namespace>  
  <ClassName></ClassName>  
  <RTFType>None</RTFType>  
  <RTFAddress>/>  
  <RTFFAddress>/>  
</ServiceMeta>  
  
<!-- MEERUE.MyBatis.Oracle > Qurey > SelectList -->  
<ParameterMeta IsReadOnly="false" Enable="true" ID="ENGINE_ID">  
  <RegBy>admin</RegBy>  
  <RegDate>2014-12-01T12:00:00</RegDate>  
  <ModBy>admin</ModBy>  
  <ModDate>2014-12-01T12:00:00</ModDate>  
  <ExecutionID>select_mybatis_engine</ExecutionID>  
  <Value xsi:type="xsd:string">0</Value>  
  <DataType>STRING</DataType>  
  <DataLength>0</DataLength>  
  <Direction>Input</Direction>  
</ParameterMeta>
```

ParameterMeta

ID : ENGINE_ID

ConnectMeta

DB connection Info

```
<ConnectionMeta ID="MYBATIS_ORACLE_CON_ORACLEFC" Enable="true">  
  <RegBy>admin</RegBy>  
  <RegDate>2012-10-04T12:00:00</RegDate>  
  <ModBy>demo</ModBy>  
  <ModDate>2013-11-11T14:59:31</ModDate>  
  <ProviderName>MEERUE.MyBatis.Oracle</ProviderName>  
  <ConnectionString>ORACLEFC</ConnectionString>  
  <Encrypt>false</Encrypt>  
</ConnectionMeta>
```

DEMO & DOC

5.1 DEMO

1. DB connect (mssql adapter use)

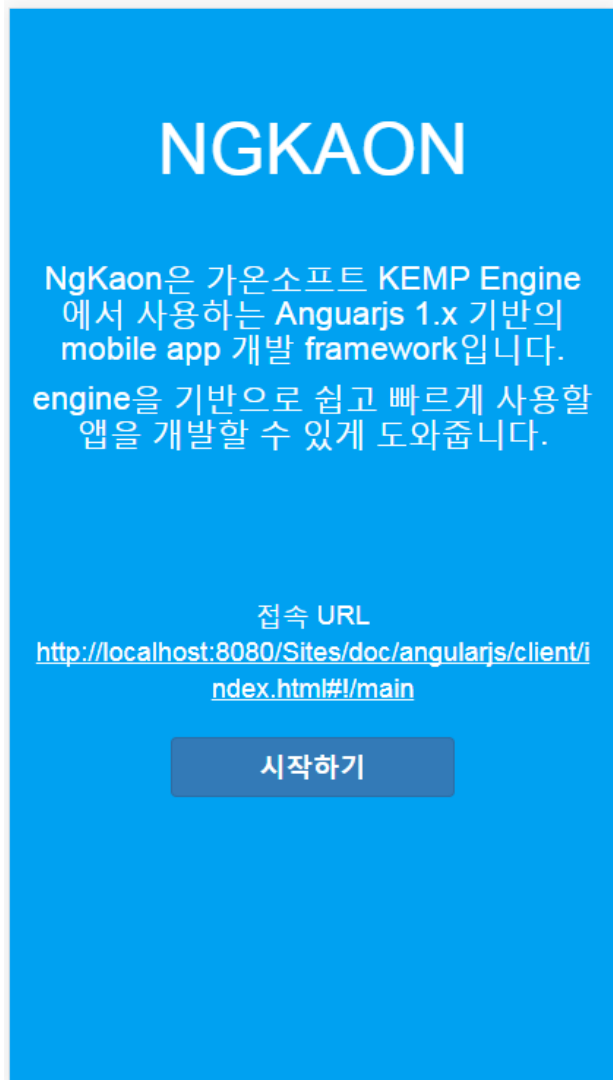
- URL : http://localhost:8080/Sites/kaonsoft/demo/client/index.html#!/tpl_BasicCRUD01
- DB crud sample

2. Rest connect (rest adapter use)

- URL : <http://localhost:8080/Sites/kaonsoft/restful/client/index.html>

5.2 DOC

- URL : <http://localhost:8080/Sites/doc/angularjs/client/index.html>



Q&A



Thank You

For inquiries, please contact info@kaonsoft.com