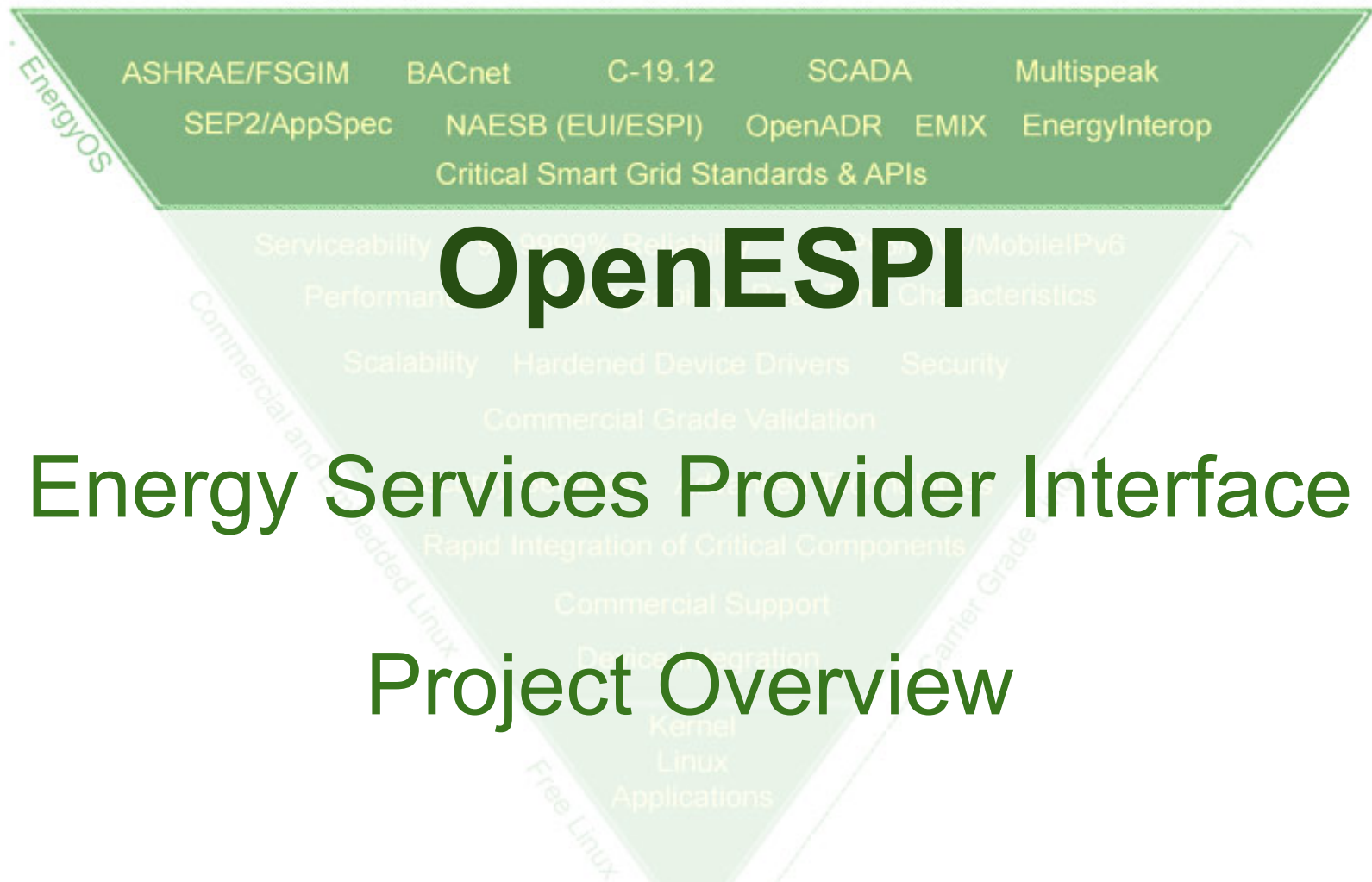


# EnergyOS



Energy Services Provider Interface

Project Overview

OpenESPI Team

Oct 2011

# General ESPI Elements

## Actors:

- Consumer
- Data Custodian
- EnergyServiceProvider

## InformationElements:

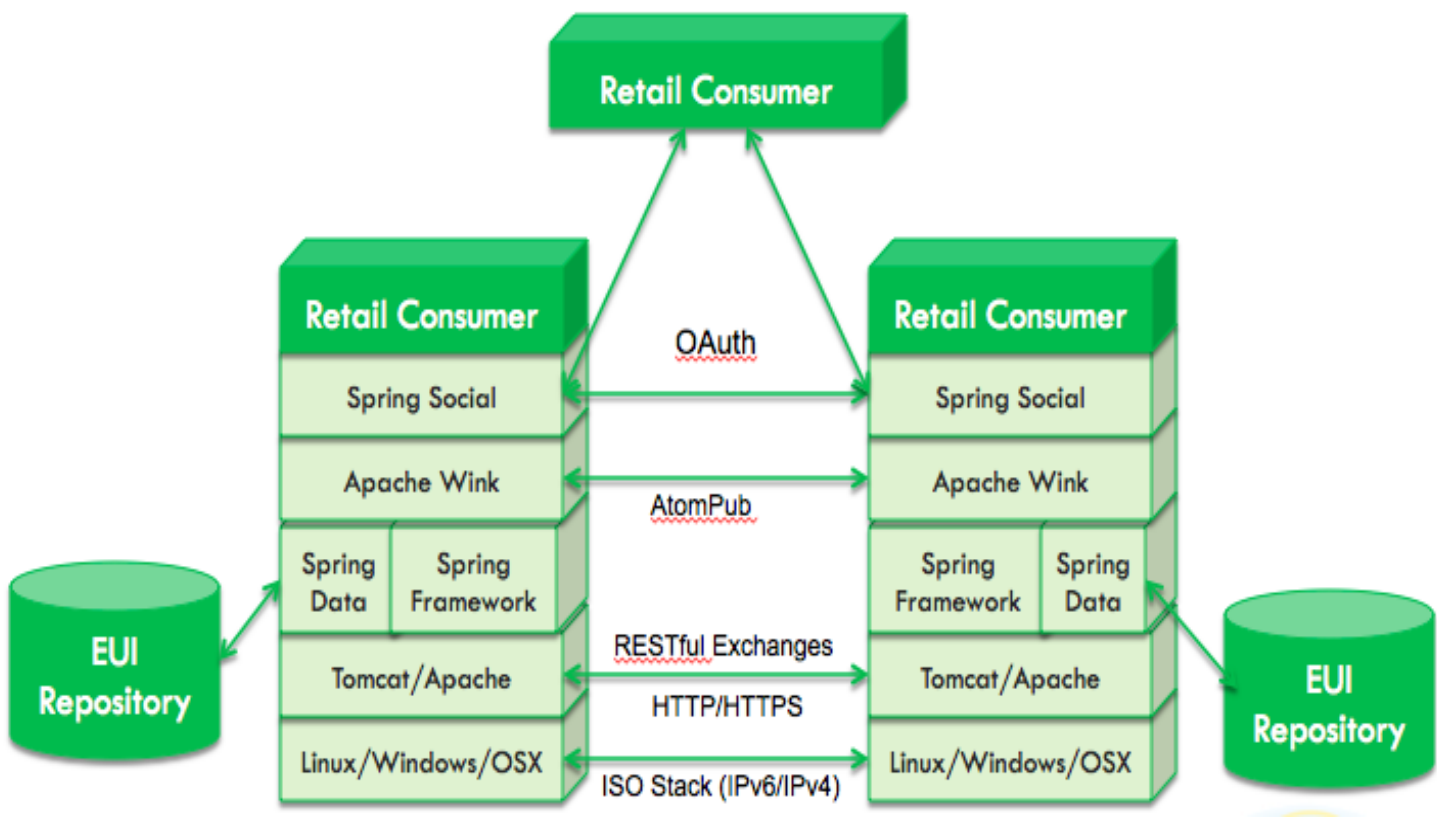
- Representations
- EUI Data Repository

## UseCases/Sequences

- Scenario Automations
- OAuth/AtomPub Patterns
- Orchestration and Deploy

## Frameworks:

- Spring Model/View/Contrc
- Spring Social (OAuth)
- Apache Wink (AtomPub)



## Development Platform:

- Eclipse Projects
- Ubuntu VM
- Java Builds
- C++ Builds

## Testing Plans:

- JUnit + Spring Testing Framework
- Selenium Automations
- WireShark Patterns

# Project Summary

Name: OpenESPI

URLs: [www.OpenESPI.org](http://www.OpenESPI.org)  
[www.EnergyOS.org/OpenESPI](http://www.EnergyOS.org/OpenESPI)

WIKI: <https://github.com/energyos/OpenESPI/wiki>

LIST: [http://groups.google.com/group/energyos\\_espi/topics](http://groups.google.com/group/energyos_espi/topics)

Feeds: [Discussions](#) - [Development](#) - [Calendar](#) - [Wiki](#)

Project Plan: <Under Construction: See Calendar on Homepage>

Service Portal: <http://www.openespi/portal> <-- Preliminary

## Status (Oct 2011)

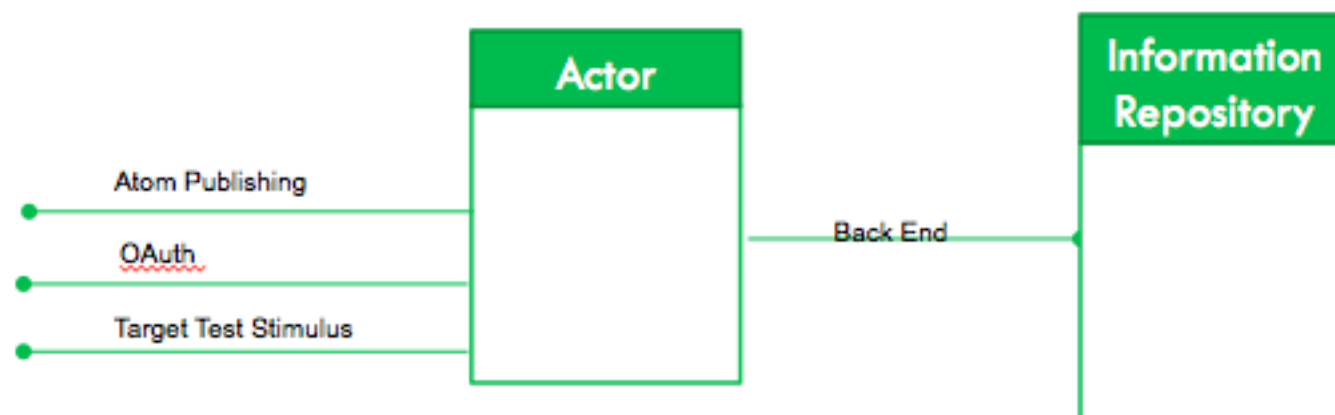
- EnterpriseArchitect -> Eclipse Bridge Established
- Initial Java and C++ Code Generation
- Development Gaps Analyzed
- Java Framework and Architecture Established
- GIT Repository Master Java Published
- WIKI Project Initiated
- WWW PagesPublished

*Energy  
Services  
Provider  
Interface*

*EnergyOS*

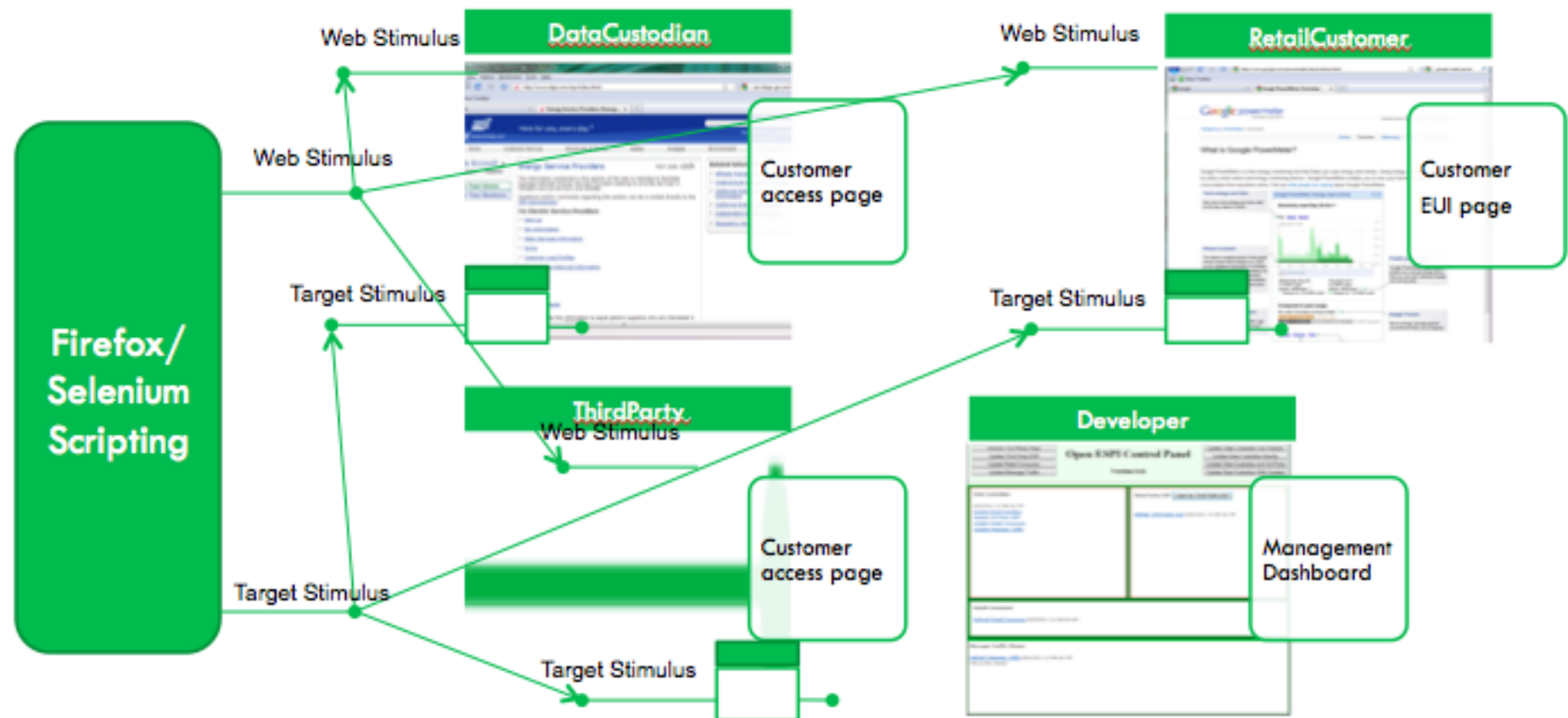
# Possible Component Model

Three SW Components – DataCustodian, ThirdParty, RetailCustomer

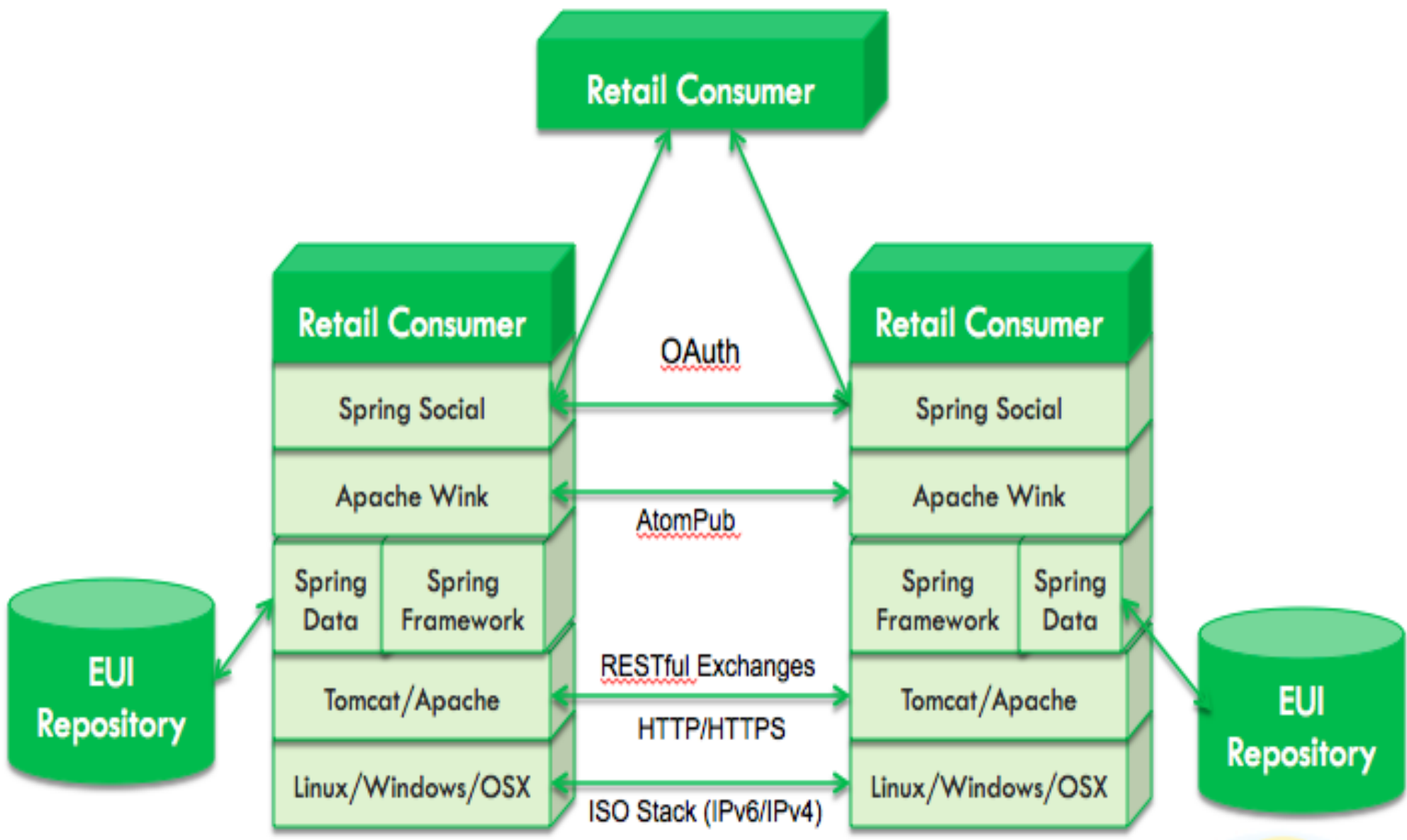


Shared Information Model

# Test environment



# ESPI Deployment Elements



# Views of the Development Environment

**DataCustodians**

**Metadata**

Id: urn:org:energyos:espi:dataCustodians Updated: 12/10/2011  
Author: admin

**Links**

Rel	Link	Type
alternate	<a href="http://localhost:7080/ThirdParty/rest/dataCustodians?alt=application%2Fjson">dataCustodians?alt=application%2Fjson</a>	application/json
alternate	<a href="http://localhost:7080/ThirdParty/rest/dataCustodians?alt=text%2Fcsv">dataCustodians?alt=text%2Fcsv</a>	text/csv
alternate	<a href="http://localhost:7080/ThirdParty/rest/dataCustodians?alt=text%2Fhtml">dataCustodians?alt=text%2Fhtml</a>	text/html
self	<a href="http://localhost:7080/ThirdParty/rest/dataCustodians">dataCustodians</a>	
alternate	<a href="http://localhost:7080/ThirdParty/rest/dataCustodians?alt=application%2Fatom%2Bxml">dataCustodians?alt=application%2Fatom%2Bxml</a>	application/atom+xml
search	<a href="http://localhost:7080/ThirdParty/rest/dataCustodians?alt=application%2Fopensearchdescription%2Bxml">dataCustodians?alt=application%2Fopensearchdescription%2Bxml</a>	application/opensearchdescription+xml

**Data Custodian Provider 2**

An Example Data Custodian 2

Id: urn:thirdpartys:dataCustodian:2 Updated:  
Published: 01/01/1970  
Author: DataCustodian2 Admin

Rel	Link	Type
alternate	<a href="http://localhost:7080/ThirdParty/rest/dataCustodians?alt=application%2Fjson">dataCustodians?alt=application%2Fjson</a>	application/json

**Service Document**

[View Service Document in XML format](#)

**Data Custodians**

DataCustodians: <http://localhost:7080/ThirdParty/rest/dataCustodians?alt=text/html>

**Interval Readings**

IntervalReadings: <http://localhost:7080/ThirdParty/rest/intervalReadings?alt=text/html>

**Meter Readings**

MeterReadings: <http://localhost:7080/ThirdParty/rest/meterReadings?alt=text/html>

**Retail Customers**

RetailCustomers: <http://localhost:7080/ThirdParty/rest/retailCustomers?alt=text/html>

**Third Parties**

ThirdPartys: <http://localhost:7080/ThirdParty/rest/thirdPartys?alt=text/html>

**Usage Points**

**Service Document**

[View Service Document in XML format](#)

**Interval Readings**

IntervalReadings: <http://localhost:8080/DataCustodian/rest/intervalReadings?alt=text/html>

**Meter Readings**

MeterReadings: <http://localhost:8080/DataCustodian/rest/meterReadings?alt=text/html>

**Retail Customers**

RetailCustomers: <http://localhost:8080/DataCustodian/rest/retailCustomers?alt=text/html>

**Third Parties**

ThirdPartys: <http://localhost:8080/DataCustodian/rest/thirdPartys?alt=text/html>

**Usage Points**

UsagePoints: <http://localhost:8080/DataCustodian/rest/usagePoints?alt=text/html>

**energyos / OpenESPI**

The Open Source Energy Services Provider Interface Project — [Read more](http://www.openespi.org)  
<http://www.openespi.org>

Clone in Mac ZIP SSH HTTP Git Read-Only git@github.com:energyos/OpenESPI.git Read+Write access

**Files** Commits Branches Tags Downloads Current branch: master

Cleaned out the "target/" entries and added/updated .metadata and artif...  
energyos authored 1 day ago commit e8b6f1db01

**OpenESPI /**

name	age	message	history
.metadata/	1 day ago	Cleaned out the "target/" entries and added/updat... [energyos]	
artifacts/	1 day ago	Cleaned out the "target/" entries and added/updat... [energyos]	
documents/	2 days ago	cleaned the ~ file from documents [energyos]	
java/	1 day ago	Cleaned out the "target/" entries and added/updat... [energyos]	
README.md	2 days ago	Changed README to Markdown (README.md) [energyos]	

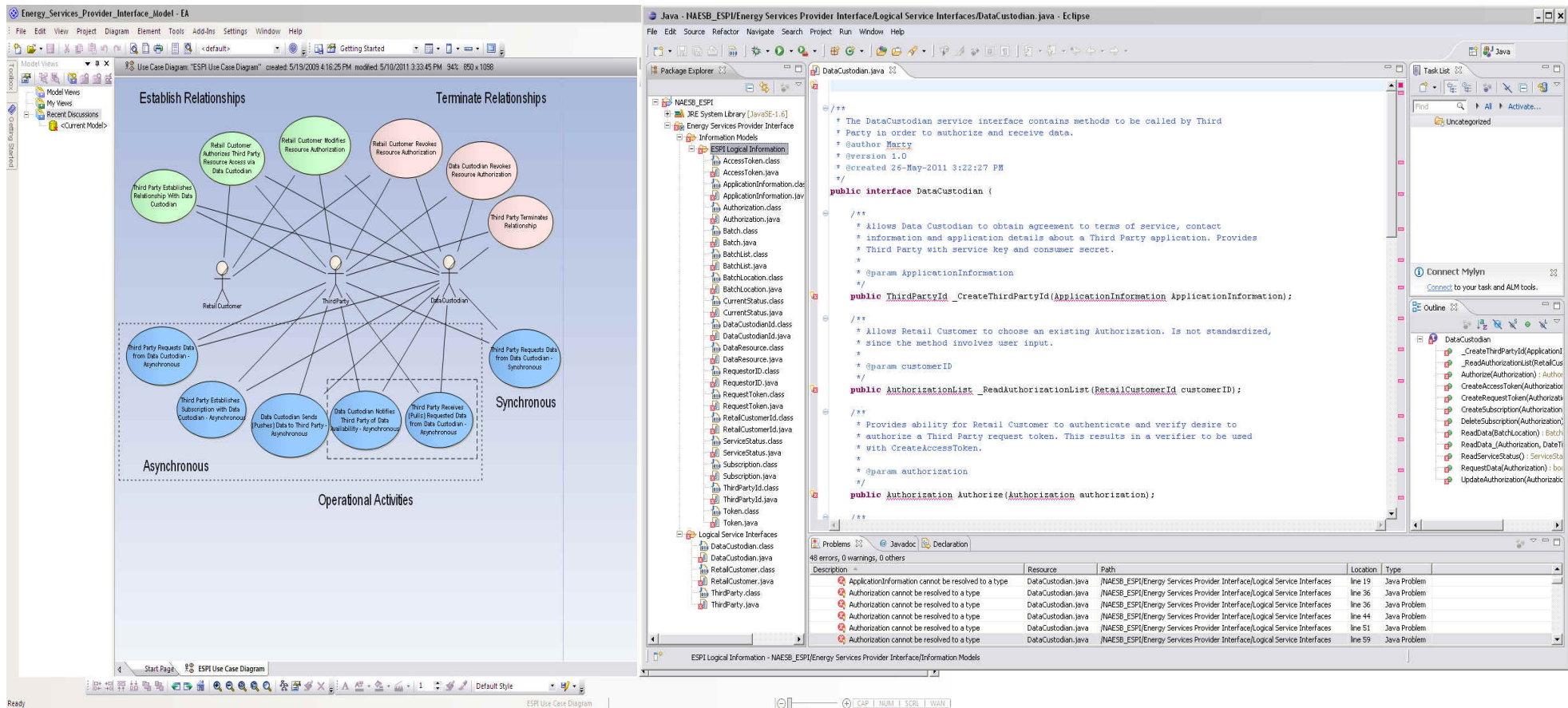


# Development Strategy - Start from EA Model

UML Model  
- From SDO -  
- Abstract -  
Incomplete from  
Development POV

Extend UML Model  
- Activity Diagrams -  
- Sequence Diagrams -  
- State Diagrams -  
- Component Diagrams -

Enterprise Architect  
Eclipse Add-In





# Development Strategy - Develop/Deploy in Eclipse

