



Web API : Entering Listings and Enforcing MLS Business Rules

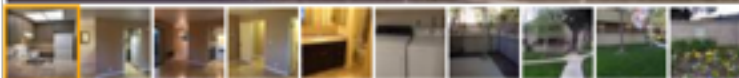
Ashish Antal

Director of Engineering, MLSListings, Inc.

Date – Wed, April 19 2016

I LOVE CRAIGSLIST

★ \$2147483647 / 1br - 64848ft² - Open House Saturday & S



Buy

Sell

Rent

Advice

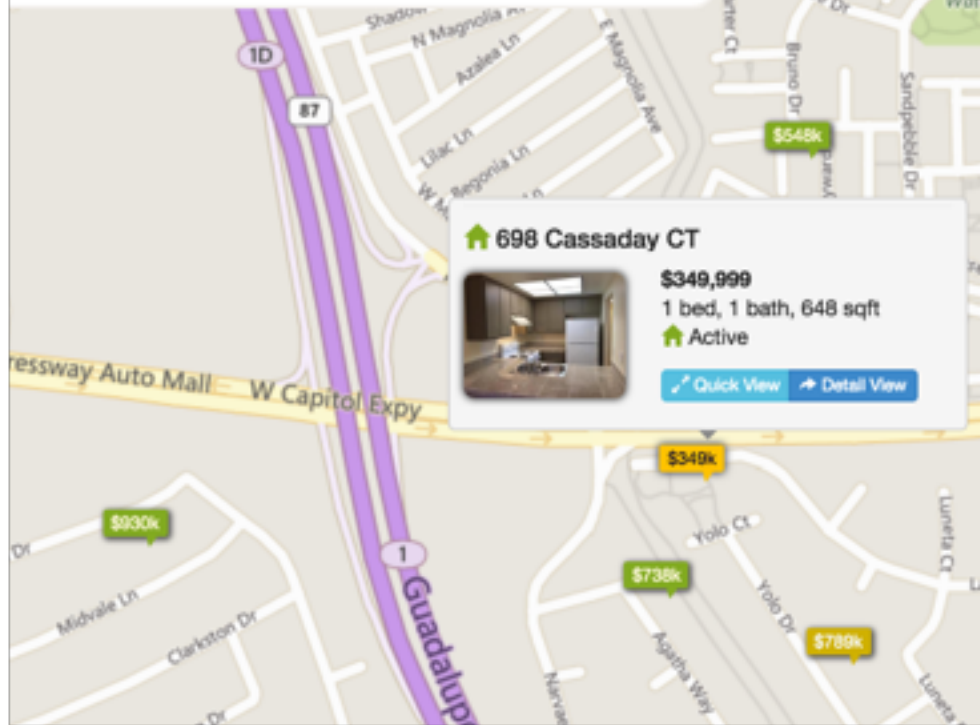
Meet an Agent

Map Search

M

Search map by address, city, zip code or state

World • United States • CA • Santa Clara Co. • San Jose • South San Jose



🏠 698 Cassaday CT

\$349,999

1 bed, 1 bath, 648 sqft

🏠 Active



🔍 Quick View

➔ Detail View

About Us

Located in the heart of Silicon Valley, our internal teams of Engineers, IT Professionals, and Product Managers are complemented by Professional Services staff who provide strategic business planning and implementation



Silicon Valley

Listing Management Application

Rigorously Tested

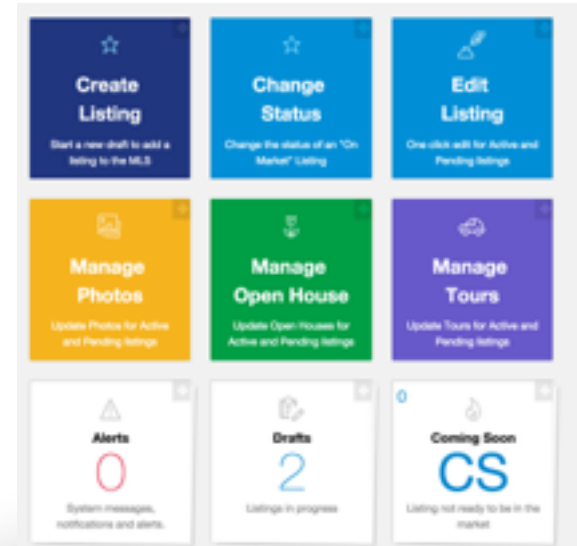
Developed in a user-centric environment, Thousands of new listings entered and published

Secure and Integrated

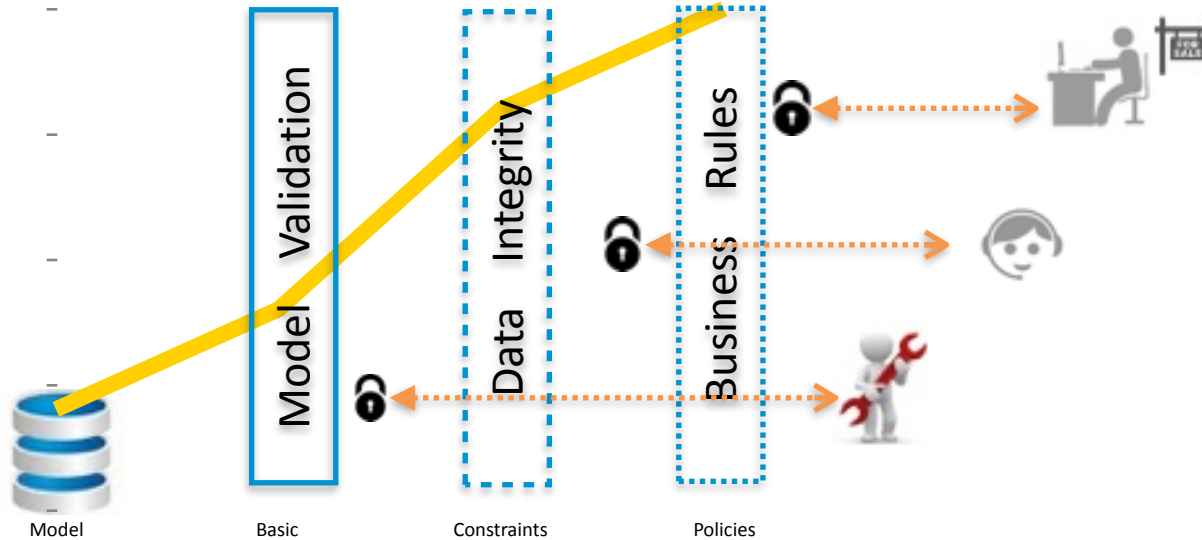
SAML based SSO connectivity, OAuth based secured backend to allow read/write operations

Built To Scale

Extended metadata and resources to handle nation wide listings, Dynamic Rule Engine to enforce data entry constraints, Read/Write access via RESTFull API



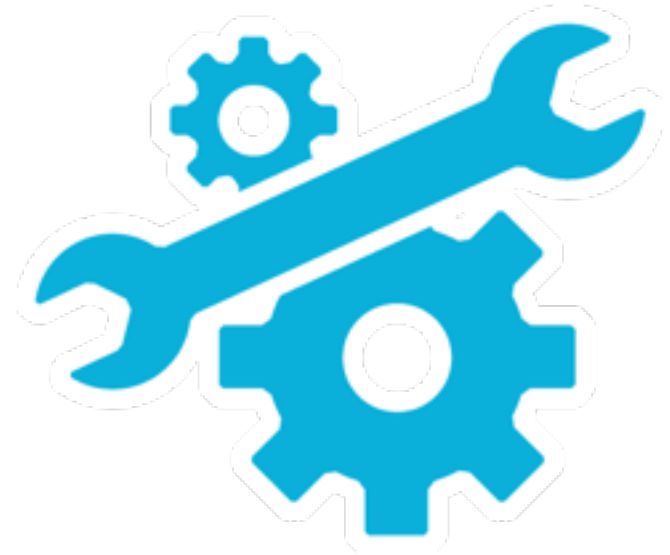
The Players



- Admin
 - Bypasses agent rules
- Support
 - Impersonate and assist subscribers
 - Must comply with all rules
- Assistant
 - Impersonates and assist agents
 - Must comply with all rules
- Agent
 - Must comply with all rules

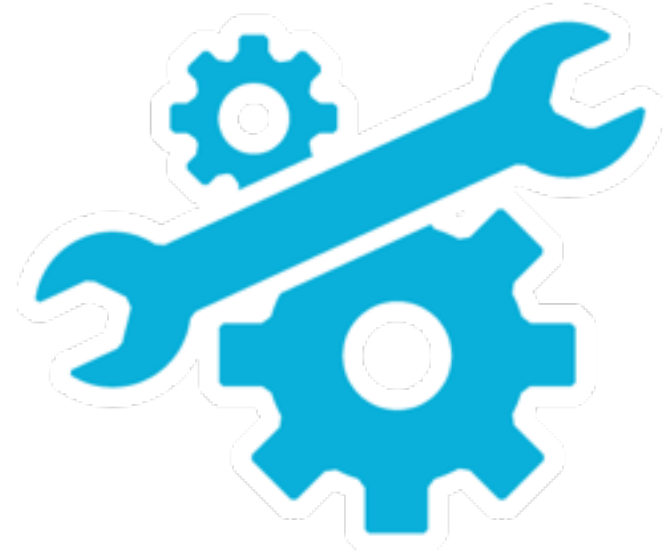
The Rule Engine

- Rules
 - Basic, Workflow and Business
- Context
 - Resource, Class and Data
- User
 - Agent, Staff and Admin



Rule Types

- **Basic**
 - Type, Length, Range etc.
 - Data Dictionary Rules Apply
- **Workflow**
 - Active, Pending, Withdrawn
 - Workflow Rules Apply
- **Policy**
 - Coming Soon, Off Market, Duplicate
 - Business Rules Apply

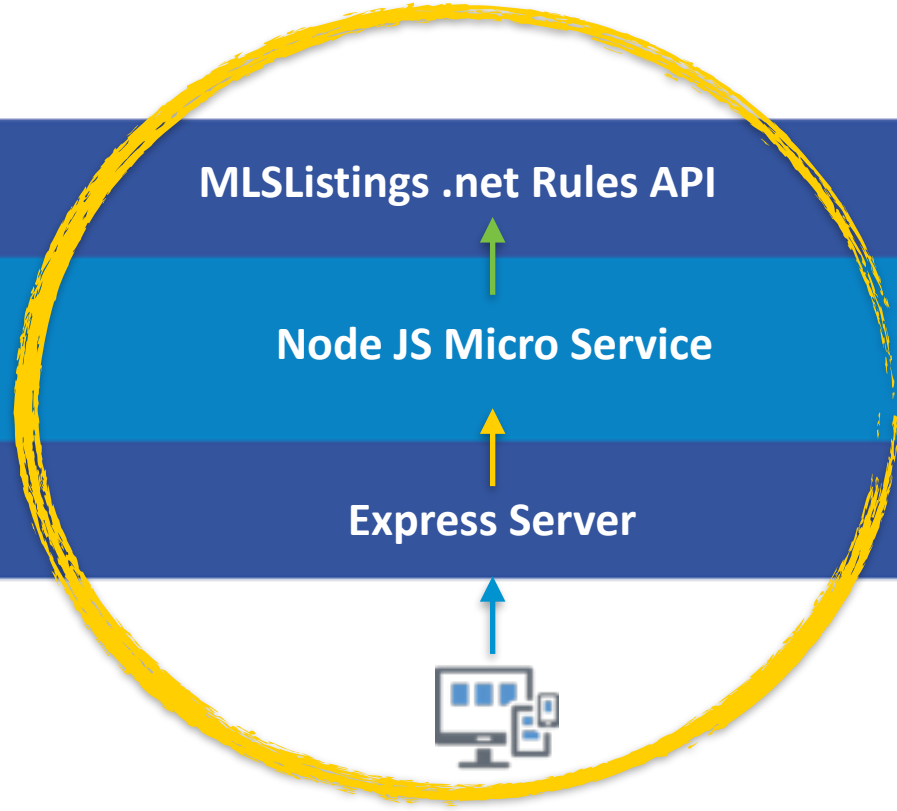


Rule Context

- **Resource**
 - Property, Open House, Tour
- **Class**
 - Residential, Commercial, Lease
- **Status**
 - Active, Pending, Withdrawn
- **Claims**
 - Admin, Agent, Assistant

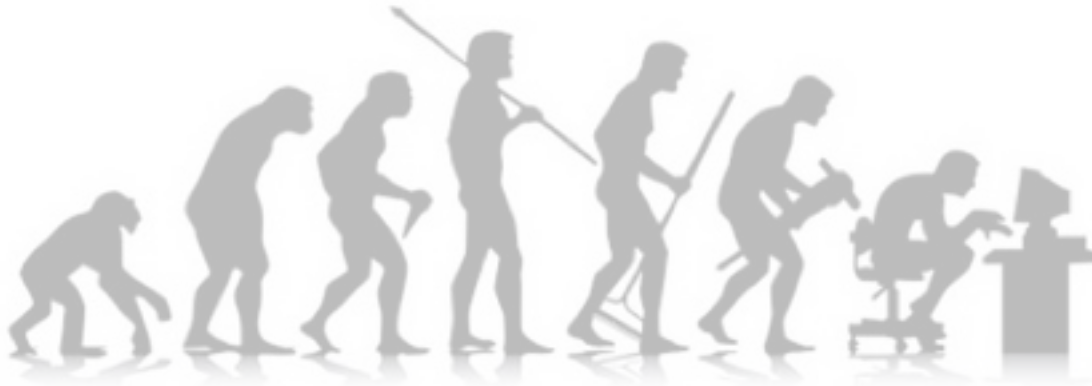


Demo

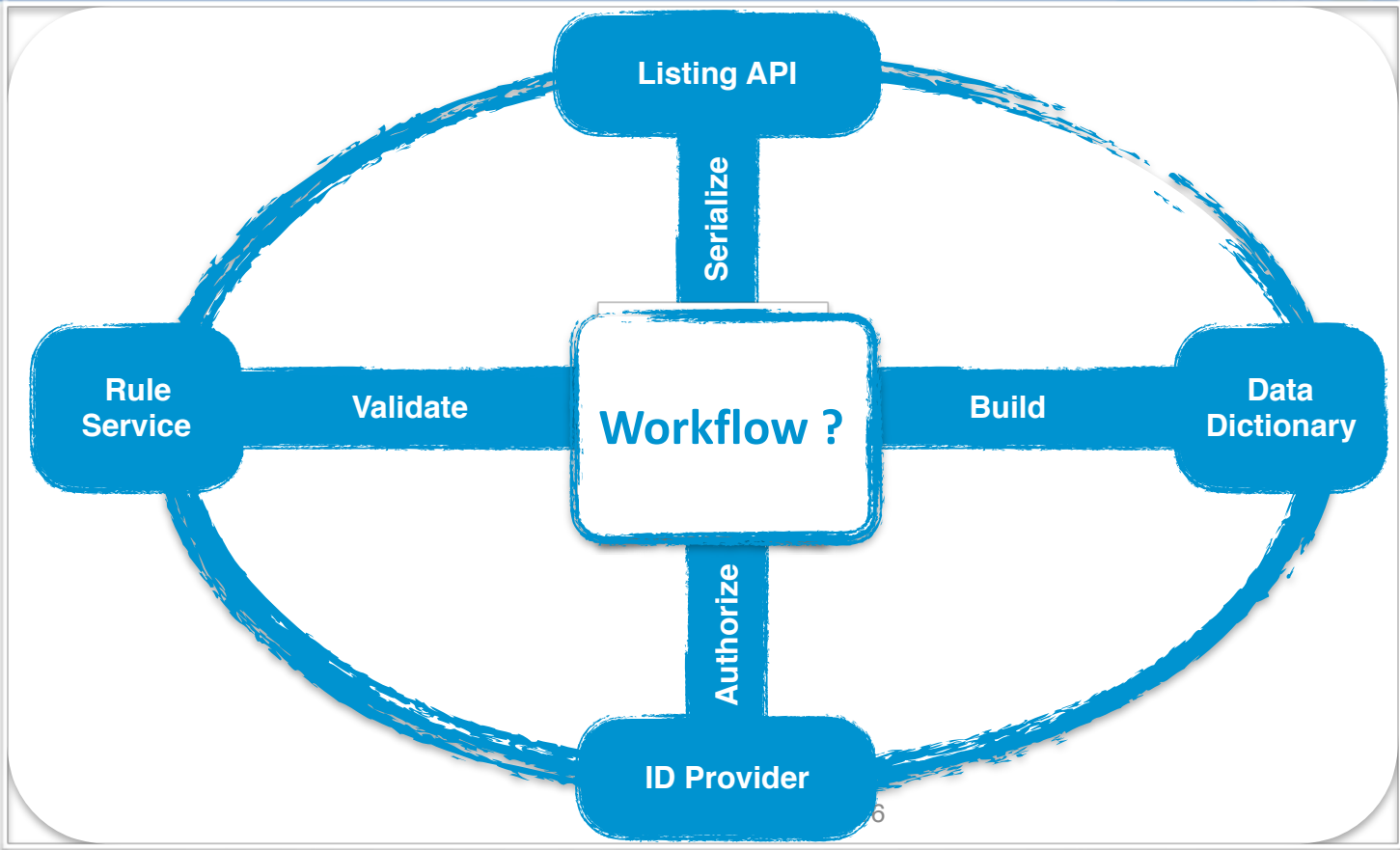


Standards Are Evolving

- OData Transport for input and distribution
- Open ID for claim based authorization
- Data Dictionary for model definition



API Based Listing System



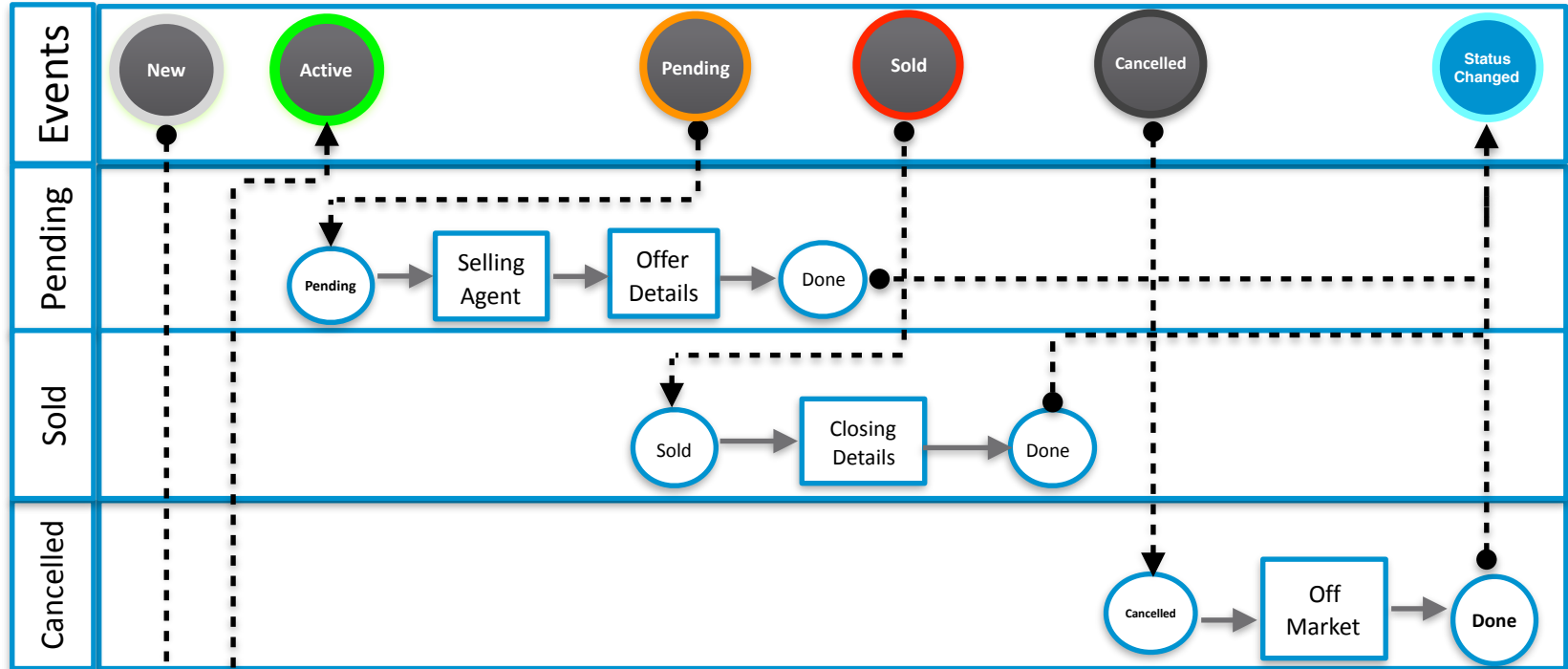
Standard for defining and communicating the decision making process

- **Business Process Modeling and Notation (BPMN)**
BPMN standard defines how the process definition is displayed on the screen.
- **XML Process Definition Language (XPDL)**
How you store and interchange those process definitions is where XPDL comes in.

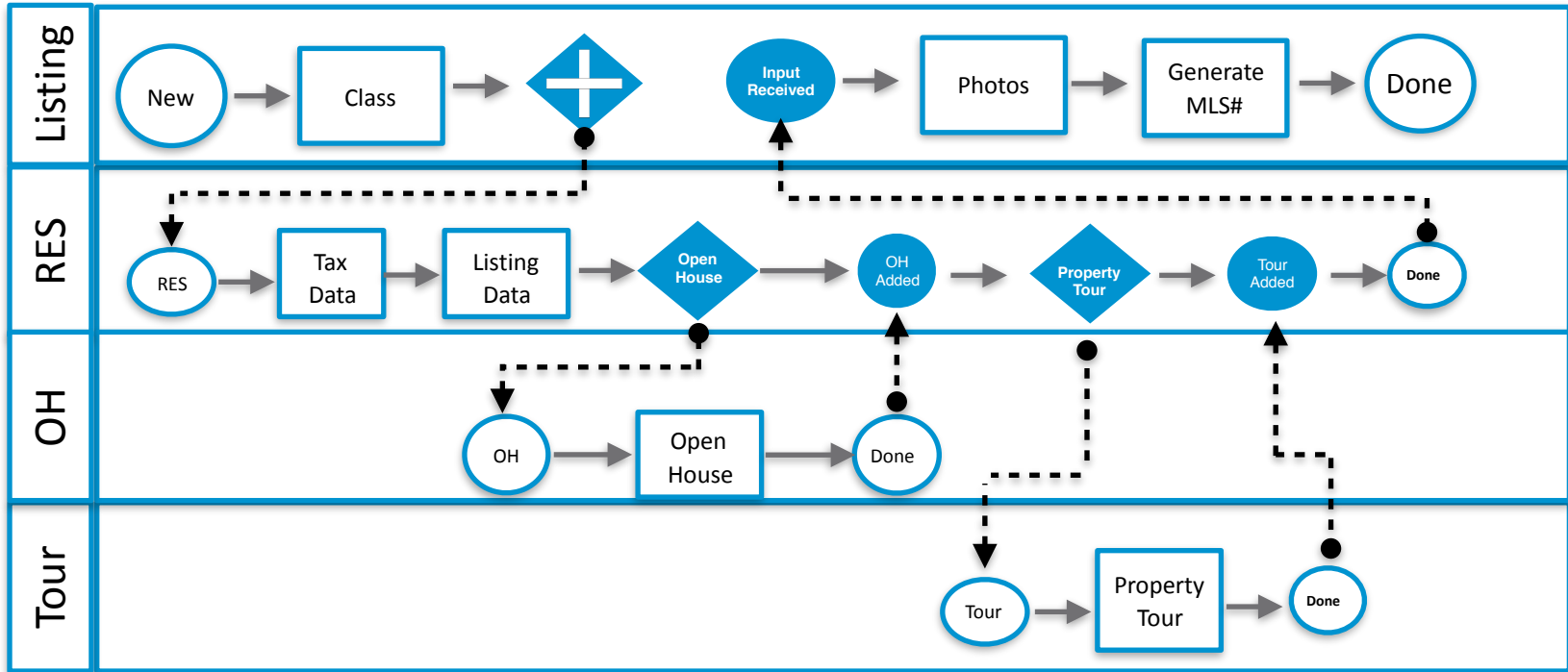
“With XPDL, a product can write out a process definition with full fidelity, and another product can read it in and reproduce the same diagram that was sent”

Workflow Management Coalition

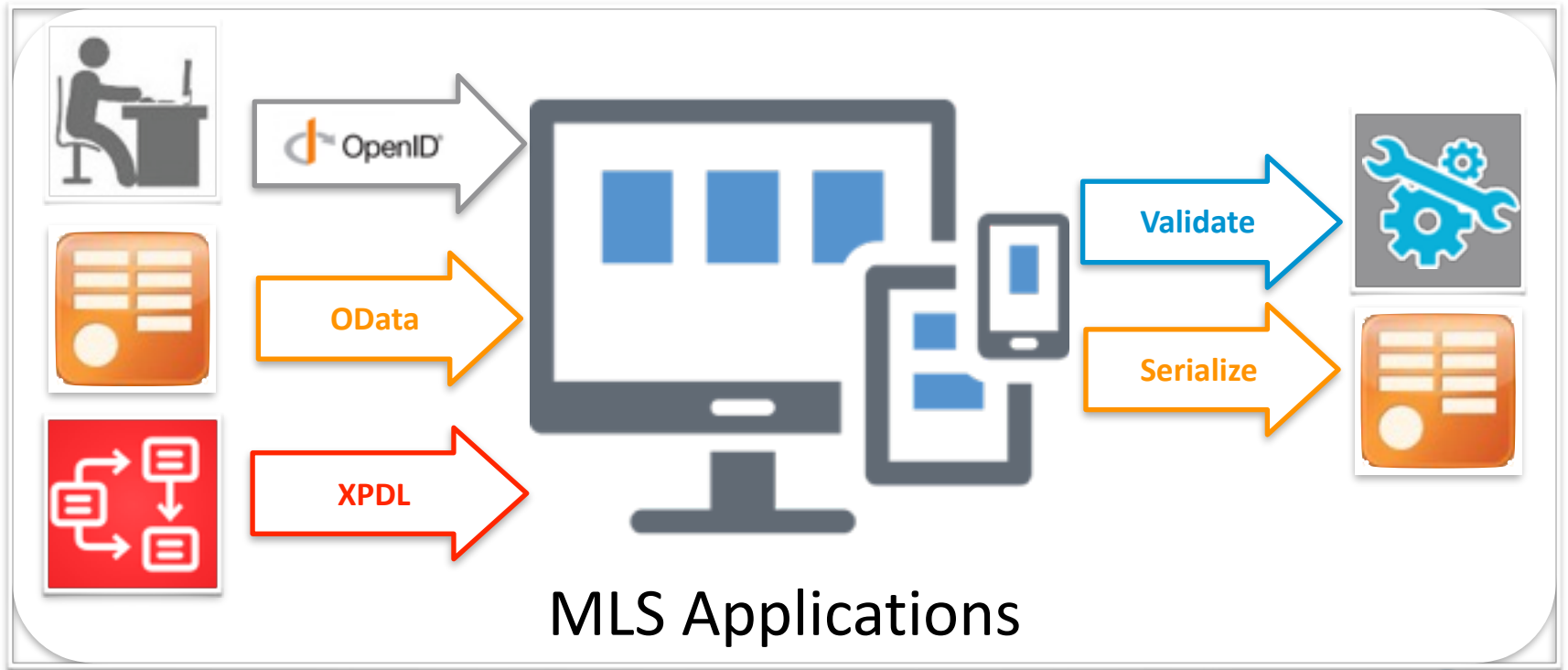
Decisions



Workflow



The Right API



The Right Standard



