Web API: Entering Listings and Enforcing MLS Business Rules

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I LOVE CRAIGSLIST
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.
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  - Active, Pending, Withdrawn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  - Active, Pending, Withdrawn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

MLSListings .net Rules API

Node JS Micro Service

Express Server
Standards Are Evolving

• OData Transport for input and distribution
• Open ID for claim based authorization
• Data Dictionary for model definition
API Based Listing System

Workflow ?

- Listing API
- Rule Service
- Validate
- Authorize
- Build
- ID Provider
- Data Dictionary
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
The Right API

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The Right Standard

RESO TRANSPORT STANDARD