

# OpenInnovationFramework

*Just another WordPress site*

## Its About the Interface

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## Openness Happens at the Application Programming Interface

Let's face it, the openness of open government is something that happens at the interface between the inside and the outside. Today, that boundary line exists primarily in domains comprised of systems, networks, services and apps. Therefore, the Application Programming Interface (API) is a key strategic method and mechanism of openness. From interoperability, to transparency to participation and beyond – what an API can do will increasingly define what can be done at all. The Open Innovation Framework provides the most value when participating organizations can reliably access and provide a simple, actionable and scalable common set of APIs.

## Why We Cooperate on Interfaces:

The face of open government, like the face of a person, is a key aspect of identity representing the way it actually presents itself to the outside world. You can think of the interface point as the point exposing what you can see and how to interact. Moving toward common approaches for interface specifications is an important for making progress on broader interoperability across widely distributed, scalable and heterogeneous apps, services. Given the idiosyncratic approaches to the provision of interfaces today, it is especially important to expect only the lightest touch when it comes to common, unified specifications.

## How OpenInnovationFramework.Org Enables the Vision

The OpenInnovationFramework.Org website can provide a lightweight listing of:

- Organizations participating in an OpenCompact agreement on common core APIs
- Common core API's each participating organization currently supports
- Participating organizations apps & services that implement the common core APIs

- The key REST endpoints for each participating organization

While interstate compacts are generally heavyweight and require congressional approval, there are many bottom-up and agile ways that cities collaborate from the [Climate Protection Agreement](#) and [Education Compacts](#) to coordination of on the [New Urban Mechanics](#) civic innovation movement. Coordination, cooperation and collaboration on a common approach to and use of a few core API's is a natural and needed next step.

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## Pre-Launch Notes:

The types of information to be shared requires further input and depends upon the interests and needs of participating members of OpenInnovationFramework. The basic information to be shared could include the typical What (what is this interface for, what does it assume, what does require, etc), How (how does this interface express itself as a service? how can an external app or service connect with and make calls to this interface, how can this interface integrate with other systems, etc). It is critical to describe the manner for acquiring data about where (geo, location, etc) when (time or date based data for a moment or the duration of a period), who (individual, organizational, device, code and other identity information, etc) and other key actions commonly desired at interface points.

## Background Examples of Current Practices:

- **The API Commons** (Common place to publish and share API specifications in any format and simple approach to licensing APIs for others to reuse and remix with Creative Commons licenses)
- **The ReferralCandy API** (Model is based on commission, not software license)
- **Federal Register API** (Astonishingly terrific – the standard for agency API pages)
- **White House API standards**: (Yeah... the White House... wow)

## Spotlight: SOA Reference Model Technical Committee

A very high quality, coherent, complete vision for the description of web based services was released late last year (by way of update) by the OASIS “SOA Reference Model” Technical Committee. The technical specification, called “[Reference Architecture Foundation for Service Oriented Architecture, Version 1.0](#)” and includes actionable approaches for description of the following:

*4.1 Service Description Model 4.1.1 The Model for Service Description 4.1.1.1 Elements Common to General Description 4.1.1.1.1 Provenance 4.1.1.1.2 Keywords and Classification Terms 4.1.1.1.3*

*Associated Annotations 4.1.1.2 Assigning Values to  
Description Instances 4.1.1.3 Model Elements  
Specific to Service Description 4.1.1.3.1 Service  
Interface Description 4.1.1.3.2 Service Reachability  
4.1.1.3.3 Service Functionality 4.1.1.3.4 Service  
Policies, Metrics, and Compliance Records 4.1.2 Use  
of Service Description 4.1.2.1 Service Description in  
support of Service Interaction 4.1.2.2 Description  
and Invoking Actions Against a Service 4.1.2.3 The  
Question of Multiple Business Functions 4.1.2.4  
Service Description, Execution Context, and Service  
Interaction*

## 4.2 Service Visibility Model

### 4.2.1 Visibility to Business

## 4.3 Interacting with Services Model

## 4.4 Policies and Contracts Model

## 5 Ownership in a SOA Ecosystem View

### 5.1 Governance Model

### 5.3 Management Model

### 5.4 SOA Testing Model

## 6 Conformance

## Spotlight: ProgrammableWeb.com

While the above OASIS SOA Reference Architecture and models deliver in coherence and completeness, they lack in simplicity and quick actionability at a small, agile and informal level of collaboration. The following example illustrates how an Interface and API can be specified and shared in a standard manner. This example, from [programmableweb.com](http://www.programmableweb.com), demonstrates a “listings” approach through an interface “directory” of profile pages. The site, though not focused on government, includes an impressive 168 government Filtered only for REST Interfaces and API’s returning JSON formatted data (the most relevant resources for OpenInnovationFramework projects) the following link returns an impressive link-list of 169 different government Interface and API specification profiles:

[http://www.programmableweb.com/apis/directory/1?](http://www.programmableweb.com/apis/directory/1?apicat=Government&protocol=REST&format=JSON&sort=date)

[apicat=Government&protocol=REST&format=JSON&sort=date](http://www.programmableweb.com/apis/directory/1?apicat=Government&protocol=REST&format=JSON&sort=date) The example below is the [programmableweb.com](http://www.programmableweb.com) profile page for the US Postal Service interface and API

### US Postal Service: Highlights Summary

Package shipping and postage

#### Category

Shipping

#### Tags

shipping, government

#### Protocols

REST

#### Data Formats

XML

#### API home

<https://www.usps.com/business/webtools.htm>

Each directory page includes several tabs to additional related pages for a) Mashups b) How-To c) Developers and d) Comments. By way of example, the USPS Mashups directory page include the following information:

NAME	DESCRIPTION
<a href="#">AuctionSound</a>	AuctionSound was created for eBay Trading Assistants to manage all aspects of the consignment business from customer management, listing, auction templates, image hosting, shipping and financial reporting all from one interface.
<a href="#">Automagical.ly</a>	Automagical.ly is a free service that monitors stuff you're interested in and notifies you when things happen.
<a href="#">Billing Software Download</a>	Offers billing software for creating or modifying invoice reports and provides IE password recovery. Uses the US Postal Service API.
<a href="#">iabol</a>	iabol is a web-based multi-carrier shipping software solution. eCommerce integrations include eBay, Amazon, Netsuite and Magento. The iabol Sync Tool allows for data to be pulled into iabol from almost any application. iabol allows for order management, single or batch label creation to manifesting. iabol is a multi user, multi location solution that is managed from one application. Support for over 50 carriers worldwide. Ship Anytime, Anywhere!
<a href="#">MoreMap</a>	MoreMap is a Google Maps Mashup which allows users to track packages, find radio stations, local banks, movie theaters with up to the minute show times, track earthquakes, view interesting places, save places, and get directions.
<a href="#">MyNeighborhood.Com</a>	MyNeighborhood.Com is a spacially aware social networking tool that focuses on delivering georelevant content to neighborhoods in the United States.
<a href="#">PackageMapping.com</a>	Track your packages with Google Maps and RSS feeds! Track UPS, FedEx, USPS, and DHL. PackageMapping.com really works and is free to the public. See where your package is as it makes its way across

the map. Check it out and bookmark it!

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#### PackageTrack

PackageTrack provides twitter notification and google mapping for USPS, UPS, and FedEx packages.

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#### PackMapr

USPS, UPS, and FedEx package mapping Internet tool. Also offers RSS subscription to individual package progress and average speed between each point on a package's path.

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#### ShipStation

ShipStation is a web-based shipping solution that streamlines the order fulfillment process for online retailers. With real-time integrations into popular marketplaces including Amazon, eBay, Sears, and Etsy, and shopping carts like Magento, Volusion, Shopify, and Big Commerce, ShipStation handles everything from order import and batch label creation to customer communication. Advanced customization features such as Automation Rules and Product Profiles allow ShipStation to fit businesses with any number of users or locations. As a cloud-based software solution, ShipStation is compatible on both Mac and PCs through any web browser – from anywhere!

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#### Social Interest

Social Interest is a system for connecting families with a range of publicly funded health and human service programs in California. Communities can use it to screen people for programs such as Medi-Cal, Healthy Families, local health insurance programs.

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#### Solid Commerce

Solid Commerce helps online retailers maximize their profits across multiple channels by mashing-up eBay, Amazon, Overstock, FedEx, USPS, Froogle and others.

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#### TrackThis

Track packages over email, SMS, Facebook or Twitter. TrackThis monitors your packages and when the move sends you a message with the new location and ETA. TrackThis supports FedEx, UPS, USPS, DHL and other tracking codes.

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#### USPS Tracking

Track USPS shipments with Google Maps. Get package details

instantly.

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Each directory page also includes the following Interface Specification information: **Specifications**  
Functionality Client Install Required **Signup and Licensing** Signup Requirements Developer Key  
Required Account Required Commercial Licensing Provider Non-Commercial Lic. Data Licensing Usage  
Fees Program Fees Certification Program Usage Limits Terms of Service **Security** Authentication Model  
SSL Support Read-only Without Login **Support** Vendor API Kits Community API Kits API Blog Site Blog API  
Forum Developer Support Console URL

## More Approaches to Interface Specification:

**Cloud Infrastructure Management Interface (CIMI) Model** and REST Interface over HTTP (see especially Section 5.4 Cloud Entry Point) **ISO/IEC 20000-1:2011 Part 1: Service management system requirements** (also see Part II **Wikipedia's List of web service specifications** (note, these are for ws\* not REST, but informative regarding the types of and approaches to interface specification)