



# Data Standardization

## Selection of International Efforts

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# Open Data Standards

Types:

- Structure standards
- Semantic standards
- Terminology / data format standards

# International Data Standardization Efforts

**GeoThink** <http://www.geothink.ca/opendatastandards/>

**Center for Government Excellence, John Hopkins Univ.**

<https://govex.jhu.edu>

**GovEx Lab:** <http://labs.centerforgov.org/open-data/civic-data-standards/>

**Open311:** <http://www.open311.org>

More:

<http://federation.data.gov/>

<http://next.openspending.org>

<https://www.waterpointdata.org/about-wpdx-standard>

<https://openreferral.org/>

<http://standard.open-contracting.org/>

<http://hxlstandard.org/>

# *A collaborative model and open standard for civic issue tracking*

## Learn More

Open311 provides open communication with public services and local government.

## Show Support

Pledge support for the implementation of Open311 in your city or service.

## Help Develop

Help us develop Open311 apps and refine the spec to ensure wider interoperability.

## From the Blog

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### Highlights from the Open311 Ecosystem

Open311 first began with an API for Washington D.C.'s 311 system, but it really became a community when the leadership of San Francisco and the support of organizations like OpenPlans, Code for America, and even the White House brought many cities, companies, and organizations together into a productive collaboration. Now it's a rich ecosystem of cities, technology platforms, and forward thinking initiatives around the world that are building common infrastructure for people to better engage with their government and get connected to their community. Technical development and discussion around Open311 has continued on the [mailing list](#), on [GitHub](#), and in many other venues, but a lot of news about this burgeoning ecosystem has gone unnoticed. What follows is a long overdue collection of highlights that haven't received enough attention.

#### Introductions & Explanations

With the talk about Open311 as an open standard or as common infrastructure, it can be hard for

the uninitiated to understand what Open311 really is, especially if they're not familiar with a traditional government contact center or having a standard phone number. Is Open311 a product? Nope. Is it a piece of software? An app? A service? Sort of. As a technical standard, it's a protocol

## Open311 GeoReport API

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[View the GeoReport v2 API Specification](#)

## Open311 Inquiry API

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[View the Inquiry v1 API Draft](#)

# Open 311 Member Cities

## complying with the GeoReport v2 Standard

[http://wiki.open311.org/GeoReport\\_v2/Servers/](http://wiki.open311.org/GeoReport_v2/Servers/)










Name	Country	API Discovery	API Key Request	Documentation	Production URL Example	Test URL Example	Gov Domain
Ottawa, ON	CAN				Production /services.xml	Test /services.xml	✗
Toronto, ON	CAN				Production /services.xml	Test /services.xml	✓
Gießen, Deutschland	DEU				Production /services.xml		✓
Bonn, Deutschland	DEU				Production /services.xml		✓
Rostock, Deutschland	DEU				Production /services.xml	Test /services.xml	✓
Brühl, Deutschland	DEU				Production /services.xml		✓
Annaberg-Buchholz, Deutschland	DEU				Production /services.xml		✓
Siegburg, Deutschland	DEU				Production /services.xml		✓
Köln / Cologne, Deutschland	DEU				Production /services.xml	Test /services.xml	✓
Helsinki, Suomi	FIN				Production /services.xml		✓
Turku, Suomi	FIN				Production /services.xml	Test /services.xml	✓
Lamía, Elláda	GRC				Production /services.xml		✓
Greenwich, Britain	GBR				Production /services.xml	Test /services.xml	✓
Baltimore, MD	USA				Production /services.xml	Test /services.xml	✓
Bloomington, IN	USA				Production /services.xml	Test /services.xml	✓

Boston, MA	USA				Production /services.xml	Test /services.xml	✓
Brookline, MA	USA				Production /services.xml		✓
Chicago, IL	USA				Production /services.xml	Test /services.xml	✓
Columbus, IN	USA				Production /services.xml		✓
Grand Rapids, MI	USA				Production /services.xml		✗
Peoria, IL	USA				Production /services.xml		✓
San Francisco, CA	USA				Production /services.xml	Test /services.xml	✓
Washington D.C.	USA				Production /services.xml		✓

### Other Endpoints in Development

Name	Country	API Discovery	API Key Request	Documentation	Production URL Example	Test URL Example	Gov Domain
Quebec, QC	CAN				Production /services.xml	Test /services.xml	✓
Surrey, BC	CAN				Production /services.xml		✓
Zürich, Schweiz	CHE				Production /services.xml		✓
Zaragoza, España	ESP				Production /services.xml		✓
Lisboa, Portugal	PRT				Production /services.xml	Test /services.xml	✓
Philadelphia, PA	USA				Production /services.xml	Test /services.xml	✗

# Descriptor Standardization

-  Open License
-  Transferable to Other Jurisdictions
-  Stakeholder Participation
-  Extensions
-  Consensus-Based Governance
-  Human Readable
-  Requires Up-To-Date Data
-  Machine Readable
-  Takes into Account Associated Metadata for the Dataset

# IV. Next Generation: To-Be-Defined Data Standards Compliance in EU Projects and other Grants

Challenge: The EU has been funding series of projects to develop data standards

Goal: Generate high-quality comparable data landscape

# V. Future Generation: Data-Markets for high-quality data

Challenge: Generate widely (internationally?) accepted standards and platforms that work like a data market

Goal: Generate visibility and ROI for high-quality data sets that comply with widely accepted and applied standards, ideally international level

Examples: Research can yield a return from data sets they generated; Businesses can sell data i.e. from production, machine parks, IoT, ... and generate additional income, new business models will emerge, some share of the earnings of businesses will come from selling HQ data sets





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