



OPEN GOVERNMENT DATA INITIATIVE OPEN INNOVATION AND THE CLOUD

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Agenda

- ◆ What is Open Data?
- ◆ Open Data around the World
- ◆ Examples of Open Innovation
- ◆ Open Government and The Cloud
- ◆ Q&A

Open Data - Applications

- ◆ Developed by Public
 - ◆ 'Community' developers
 - ◆ Local citizens
- ◆ Often called 'Mash-Ups'
 - ◆ Typically utilize GIS mapping
 - ◆ Often use GPS and mobile
- ◆ Often utilize 'crowdsourcing'
- ◆ Open data protocols
 - ◆ E.g. KML, XML, RSS
- ◆ Often 'free', OSS and 'open' toolsets...
 - ◆ PHP, MySQL, MediaWiki, Python etc.



The screenshot shows the FixMyStreet website interface. At the top, there is a navigation bar with the FixMyStreet logo on the left, and links for "Report a problem" and "Your reports" on the right. Below the navigation bar, the main heading reads "Report, view, or discuss local problems" with a subtext "(like graffiti, fly tipping, broken paving slabs, or street lighting)". A search bar prompts the user to "Enter a nearby GB postcode, or street name and area:". Below the search bar, there are two columns of information. The left column, titled "How to report a problem", lists four steps: 1. Enter a nearby GB postcode, or street name and area; 2. Locate the problem on a map of the area; 3. Enter details of the problem; 4. We send it to the council on your behalf. The right column, titled "Photos of recent reports", shows two small images of street problems. Below these columns, there is a section titled "FixMyStreet updates" with three statistics: 966 reports in past week, 1,750 fixed in past month, and 156,373 updates on reports. At the bottom right, there is a section titled "Recently reported problem" with a list of links: Dangerous Junction, Traffic Lights delaying traffic without, Grass verges/trees, Litter/leaves, and Litter/leaves.



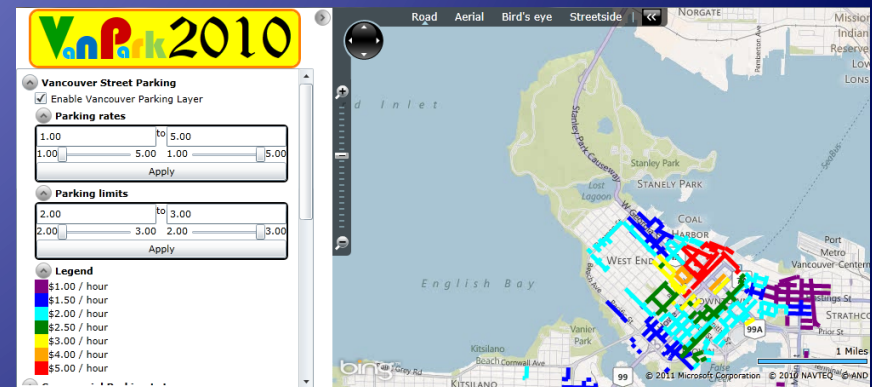
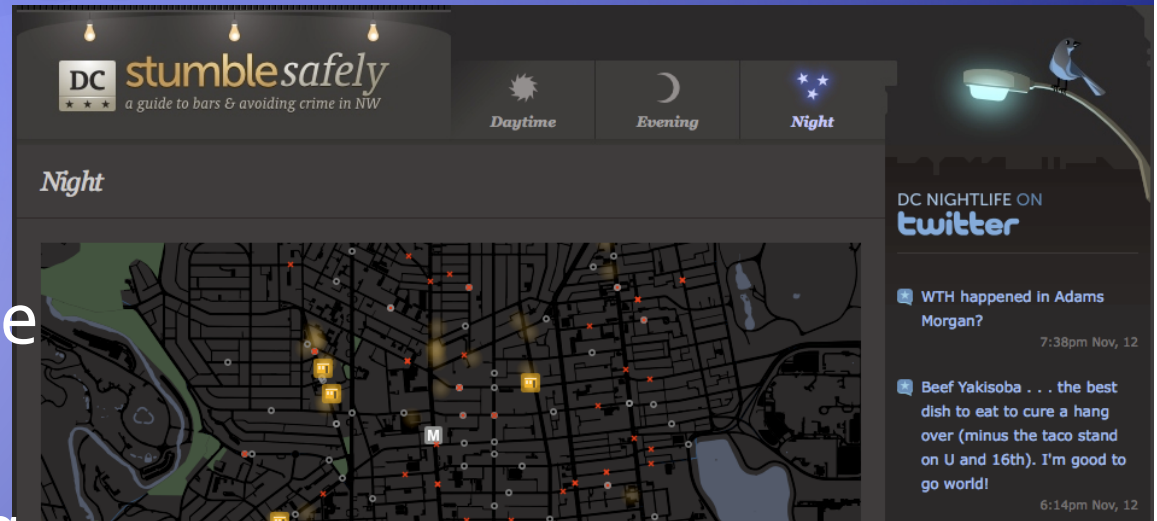
Apps for Democracy

<http://www.appsfordemocracy.org>

“The first edition of Apps for Democracy yielded 47 web, iPhone and Facebook apps in 30 days - a \$2,300,000 value to Washington DC at a cost of \$50,000”

Open Data Apps - Mobile

- ◆ Data on the go
- ◆ Timeliness
- ◆ Location relevance
- ◆ Mobility
- ◆ Social Networking
- ◆ Washington DC - Stumble Safely
- ◆ Vancouver Parking 2010
 - ◆ Parking mashup for 2010 Winter Olympics





Open Data and The Cloud

- ◆ Cloud inherently 'open' – supports open toolsets
- ◆ Device independence
- ◆ Minimal infrastructure impact
- ◆ Low entry cost
- ◆ Fast 'time-to-market'
- ◆ Scalable – based on demand



*Graphic courtesy techlabs.com

Windows Azure Platform



Developer Experience

Use existing skills and tools.



Tools for Windows Azure

Windows Azure
Command-line Tool for



Windows Azure
SDKs



http://

oData

XML

AtomPub

REST

RSS

Web Services

AppFabric SDKs



Runtimes &
Services



python



java



Windows Azure™



Microsoft SQL Azure™



Open Government Data Initiative

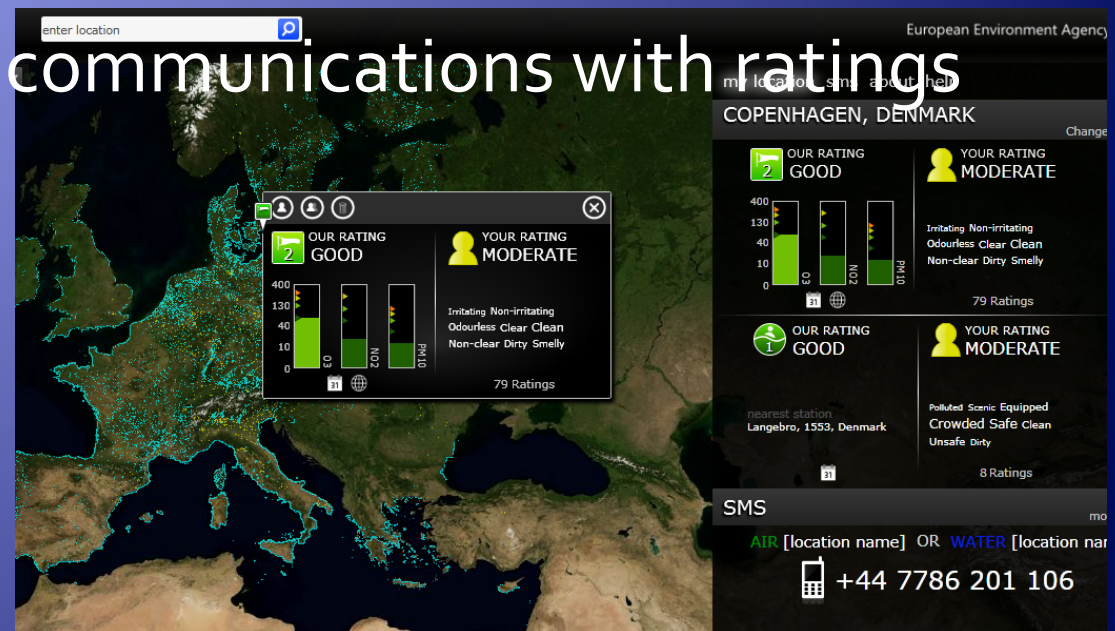


- ◆ Open Government Data Initiative (OGDI)
- ◆ Cloud Computing Application
 - ◆ Runs on Windows Azure
- ◆ OGDI Data Site - <http://ogdisdk.cloudapp.net/>
- ◆ Open Application
 - ◆ OGDI Source code is free, open source and customizable with 'Starter Kit' via www.codeplex.com
 - ◆ Can be used to publish data on the Internet in a Web-friendly format with easy-to-use, open API's.
 - ◆ API's can be accessed from Silverlight, Flash, JavaScript, PHP, Python, Ruby, mapping web sites, etc.
- ◆ Windows Azure Services Platform - will carry storage and transaction charges depending on usage



EU Eye on Earth

- ◆ <http://www.eyeonearth.eu/>
- ◆ Global observatory for environmental factors
 - ◆ Air and Water Quality
- ◆ Combines Gov statistics with public feedback
- ◆ Interactive, 2-way communications with ratings
- ◆ V3 with OpenAPI





City of San Francisco – Open311

- ◆ [San Francisco 311](#)
- ◆ Allows citizens to report and track non-emergency incidents
- ◆ Combines mapping with Cloud

The screenshot displays the Open311 web application. On the left is a sidebar with the following elements:

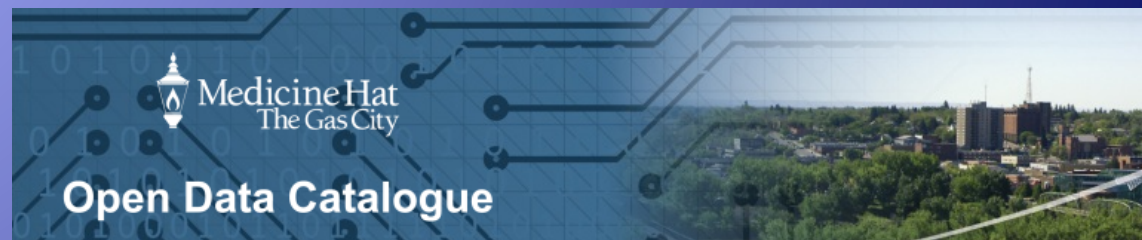
- City and County of **San Francisco** 311
- Powered by Windows Azure
- Search
- Enter a Service Request Number
- Table with columns: Request #, Address, Parcel ID
- Legend
 - Service Request (triangle icon)
 - Closed (green circle icon)
 - Open (orange circle icon)
 - Enable Hot Spot (checkbox)
 - Sensitivity: slider
 - Status: Open (dropdown menu)
- Print
- About HeyGov!

The main area is a map of San Francisco with a 'Request Service' overlay that says 'Drag the pushpin to a location on the map'. The map is populated with numerous orange pushpin markers representing service requests. The map includes labels for 'Golden Gate Strait', 'Golden Gate Bridge', 'Marina Green', 'Fort Mason', 'Lincoln Park', 'Crissy Field', 'Presidio of San Francisco', 'Marina District', 'Cow Hollow', 'Pac Heights', 'Financial District', and 'South Beach'. Map providers 'bing', 'mapdotnet', and 'HeyGov' are visible at the bottom.



Medicine Hat – Open Data Catalog

- ◆ Utilizes OGD/ Azure
- ◆ Property Assessments
- ◆ Elections
- ◆ Buildings
- ◆ Very small scale



Medicine Hat Open Data Catalogue

The City of Medicine Hat Open Data catalogue increases the accessibility of public data managed by the City. As part of an initiative to improve the accessibility, transparency, and accountability of City government, this catalogue provides access to City managed data sets in machine-readable formats.

Datasets can be filtered by date, keyword or category using the controls below. Select the categories you would like to see, or fill in the date or keywords and press filter. When no category is selected, all categories will be displayed.

Datasets can also be queried and downloaded using a REST api, for details on this see the [Developer Guide](#).

By downloading or accessing this data, you are agreeing to be bound by the City's [Terms of Use](#) and [Legal Disclaimer](#).

The catalogue is currently in *Community Preview*. As a result, it may be unavailable for extended periods and may contain errors. URLs and the structure of the site may change without warning.



datadotgc.ca

- ◆ CDN Federal open government data
- ◆ OGDIAzure data storage
- ◆ Drupal front-end
- ◆ CKAN

data dot gc.ca
a citizen-led beta for government data

[Home](#) [About](#) [Data](#) [FAQ](#) [Feedback](#) [How to Get Involved](#) [Liberate a Data Set](#)

Who's Sharing?

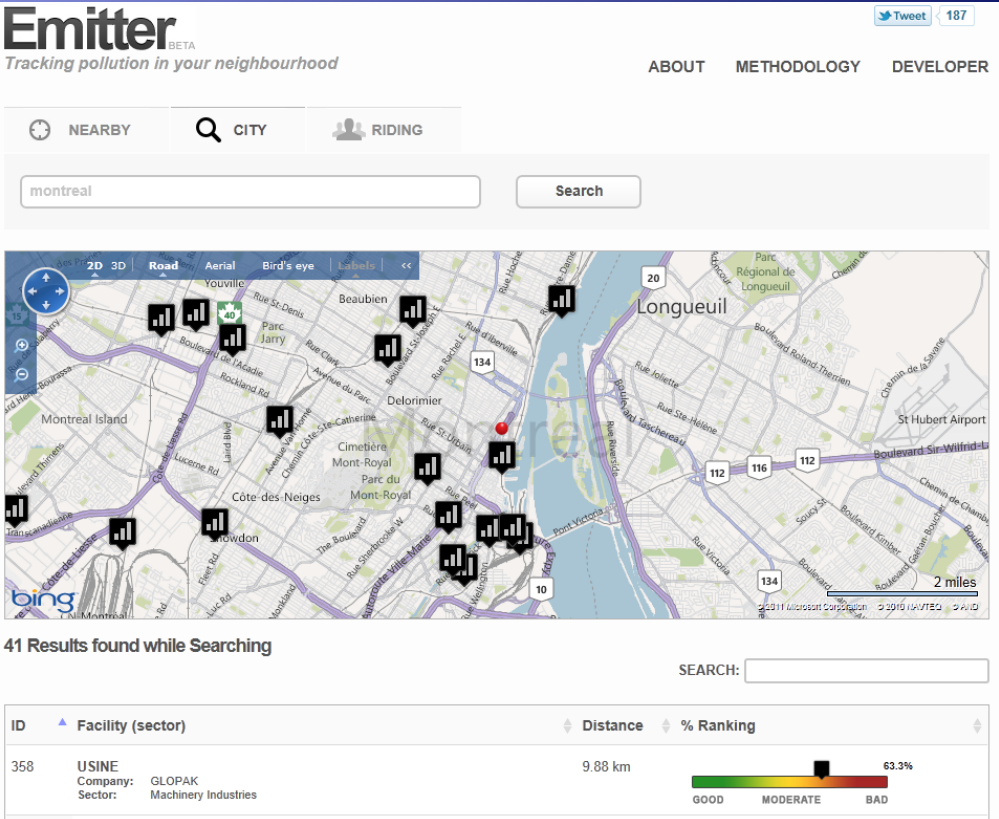
Natural Resources (222)	
Environment Canada (15)	
Statistics Canada (5)	
Health Canada (3)	
Treasury Board Secretariat (1)	
Agriculture and Agri-Food (1)	
Western Economic Diversification (0)	
Privy Council Office (0)	
Public Safety (0)	
Public Works (0)	
Transport Canada (0)	
National Defence (0)	
Veterans Affairs (0)	

About this Site

Unlike the United States ([data.gov](#)) ([data.gov.uk](#)), Canada has no open data. Canadians paid for the data gathered about our country, our government. Free access to it could improve our economy and enhance our democratic goal, this website is a citizen-led effort to gather data and help share data that has been liberated. [Read more...](#)

Emitter

- ◆ Tracks Pollution sources in local neighbourhood
- ◆ OGD/ Azure data storage
- ◆ Drupal front-end
- ◆ Open Source on Github



Emitter BETA
Tracking pollution in your neighbourhood

ABOUT METHODOLOGY DEVELOPER

NEARBY CITY RIDING

montreal Search

41 Results found while Searching

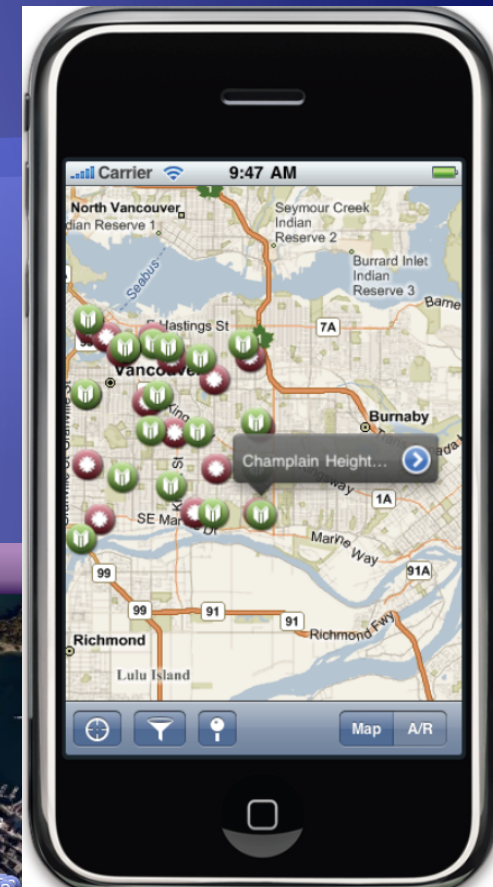
ID	Facility (sector)	Distance	% Ranking
358	USINE Company: GLOPAK Sector: Machinery Industries	9.88 km	63.3%

SEARCH:

GOOD MODERATE BAD

Vancouver - VanGuide

- ◆ Incorporates Cloud, mapping, social networking, iPhone, WP7
- ◆ ODAF
Open Source
on Codeplex





Vancouver – Taxicity Game

NAVIGATION ▾

your city. *TaxiCity* **fare game.**

CENTRE FOR DIGITAL MEDIA
MASTERS OF DIGITAL MEDIA PROGRAM | GREAT NORTHERN WAY CAMPUS

bing

CITY OF VANCOUVER

Microsoft®

We are a team of graduate students at the Centre for Digital Media in Vancouver, BC, working with Microsoft Canada to create a Silverlight game engine that creates a driving game using Open Data and the Bing Maps API.

In the spirit of open source, this website chronicles our development process with the hope that others can learn from our experiences. Please click the button to the right to test out our game.

PLAY THE GAME

Source Files

The Making Of *TaxiCity*
Your City. Fare Game.

CENTRE FOR DIGITAL MEDIA
Microsoft
bing
CITY OF VANCOUVER

Open Data & Game Environments



Benefits of Open Data and Cloud

- ◆ Inherent support for open standards
- ◆ Ability to share/reuse code
- ◆ Minimal infrastructure investment
- ◆ Low-cost of data storage
- ◆ Highly *scalable* based on datasets+usage
 - ◆ Popularity drives transactions
- ◆ Avoids 'silos' of data catalogs
- ◆ One app can be used by multiple jurisdictions
 - ◆ E.g. <http://emitter.ca>, Open311



Driving Innovation

- ◆ Join Government + Citizens + Developers
 - ◆ Opportunities for innovative new apps and services
 - ◆ Possibilities to monetize – for EE and EU
- ◆ Exploit Cloud Computing
 - ◆ Do it better, faster, sexier than the rest!
- ◆ Free or Not Free? – Do BOTH!
- ◆ Ensure you have *scalable* infrastructure
 - ◆ Government + Commercial data (SLA)
 - ◆ E.g. weather, environment, traffic, transport



5 Stars of Open Data*

* **Star** for putting data on the Web at all, with an open license. E.g. Zip files and PDFs get 1 star.

** **Stars** if it's machine-readable e.g. Excel.

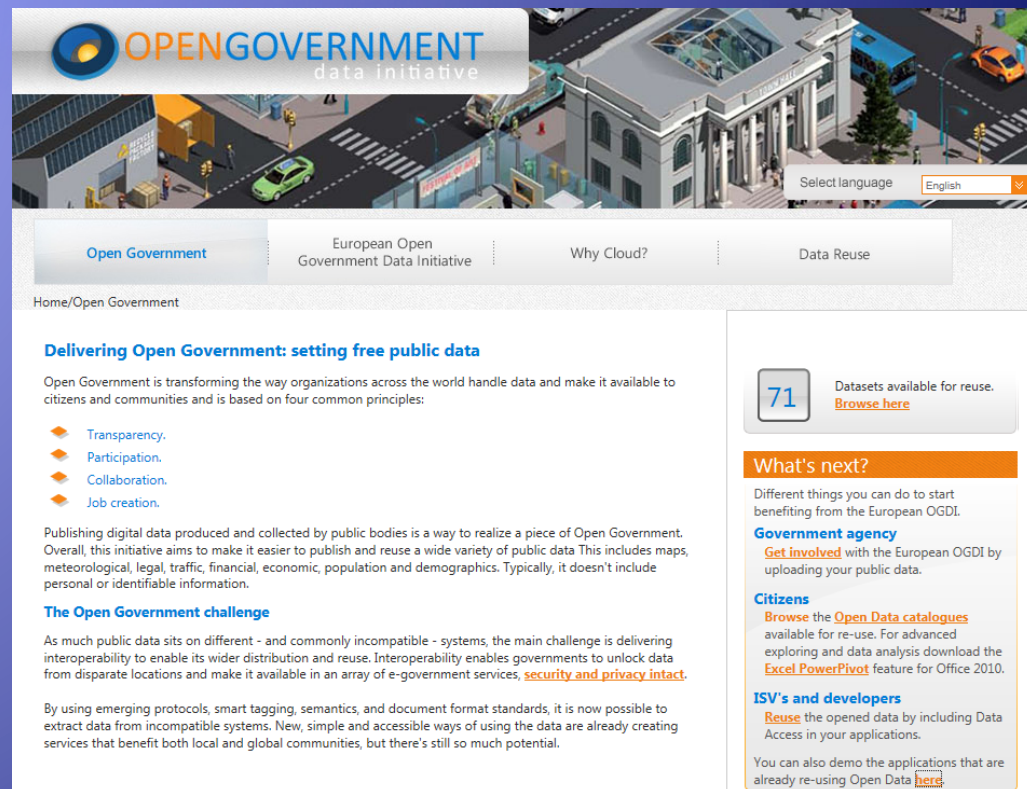
*** **Stars** for machine-readable, non-proprietary formats e.g. CSV or XML.

**** **Stars** if the data uses URL for identification.

***** **Stars** when data is linked to other data for context.

Open Data in EU

- ◆ <http://govdata.eu>
- ◆ 70+ datasets
- ◆ Dozen application demos



OPEN GOVERNMENT
data initiative

Select language: English

Open Government | European Open Government Data Initiative | Why Cloud? | Data Reuse

Home/Open Government

Delivering Open Government: setting free public data

Open Government is transforming the way organizations across the world handle data and make it available to citizens and communities and is based on four common principles:

- ◆ Transparency.
- ◆ Participation.
- ◆ Collaboration.
- ◆ Job creation.

Publishing digital data produced and collected by public bodies is a way to realize a piece of Open Government. Overall, this initiative aims to make it easier to publish and reuse a wide variety of public data. This includes maps, meteorological, legal, traffic, financial, economic, population and demographics. Typically, it doesn't include personal or identifiable information.

The Open Government challenge

As much public data sits on different - and commonly incompatible - systems, the main challenge is delivering interoperability to enable its wider distribution and reuse. Interoperability enables governments to unlock data from disparate locations and make it available in an array of e-government services, [security and privacy intact](#).

By using emerging protocols, smart tagging, semantics, and document format standards, it is now possible to extract data from incompatible systems. New, simple and accessible ways of using the data are already creating services that benefit both local and global communities, but there's still so much potential.

71 Datasets available for reuse. [Browse here](#)

What's next?

Different things you can do to start benefiting from the European OGD.

Government agency

[Get involved](#) with the European OGD by uploading your public data.

Citizens

[Browse the Open Data catalogues](#) available for re-use. For advanced exploring and data analysis download the [Excel PowerPivot](#) feature for Office 2010.

ISV's and developers

[Reuse](#) the opened data by including Data Access in your applications.

You can also demo the applications that are already re-using Open Data [here](#).



Open Data Resources

- ◆ OGD Interactive SDK – <http://ogdisdk.cloudapp.net>
- ◆ OGD on Codeplex – <http://ogdi.codeplex.com>
- ◆ VanGuide on Codeplex – <http://vanguide.codeplex.com>
- ◆ Open Data Application Framework – <http://odaf.codeplex.com>
- ◆ VanGuide and ODAF on YouTube - <http://www.youtube.com/watch?v=bZUHVQT24ls>
- ◆ OpenIntel on Codeplex – <http://oi.codeplex.com>
- ◆ Emitter on Github – <http://github.com/redbit/emitter>
- ◆ Port 25 – <http://port25.technet.com>



Q&A