

Managing Cyber-Security in a Smart City

Jon Walton, November 2012
City of San Francisco, Chief Information Officer
Jon.walton@sfgov.org



San Francisco's Threat Landscape

- Highly technical constituency
- Proud Leader in Open Government and Open Data
- Shrinking budgets and staff reductions
- Increased demands for new technologies
- Highly mobile workforce
- Hacktivism and Structured Attacks
- CCSF has averaged 100,000 malware hits on our Intrusion Protection Systems everyday since January 1, 2012
- October 2012 CCSF Departments reported 6 major email phishing scams



Smart and Secure City

- Balancing act between collecting data and keeping personally identifiable information (PII) secure
- Adopting leading edge technologies and concepts requires careful management of:
 - **People**
 - Manage staff and set clear expectations
 - **Process**
 - Define clear policies and create a culture of governance
 - **Technology**
 - Be thoughtful of technologies selected
 - **Security**
 - Maintain a culture that is Security Aware and considers security at every phase
 - Security should be a business enabler



Open Data

- CCSF has released 200+ datasets and shared 100+ applications
- Cloud based Socrata platform allows data from many sources and share data in different formats
- Three-step process to ensure sensitive data is not disclosed publicly:
 1. Reviewed by Department heads
 2. Reviewed by Chief Data Coordinator
 3. Reviewed by City Attorney

“Data sets that contain personally identifiable information or represent potential breaches to security or privacy should be flagged for potential exclusion from DataSF”

Examples:

- Crime Data is released with no identifiable information
- DPW datasets do not release such as critical infrastructure or exact location of manholes

CRIMEMAPPING™
Building Safer Communities.com

The screenshot displays a map of San Francisco with a high density of colorful crime markers (including icons for sexual assault, drug use, and other offenses). A pop-up window provides details for a specific incident:

- SC SEX CRIMES**
- [Zoom here](#)
- Case Number:** 123030184
- Date:** 10/29/2012 1:13 AM
- Location:** PINE ST & MASON ST
- Description:** Call For Service: SEXUAL ASSAULT
- [San Francisco Police Links](#)
- [How close am I to this location?](#)



“Cloud First Policy”

- City-wide adoption of virtualization
- Requires every application, server and storage system to be “cloud-ready”
- Consolidating 20 data centers and server rooms
- \$2mil in cost savings
- Provides resiliency and increases Disaster Recovery capabilities
- Streamlined management of cloud environments increases security and availability
- Cloud solution providers are rigorously reviewed for meeting City’s Security Requirements including:
 - SAS 70 Audit Report Review
 - FIPS 140-2 and FISMA Compliance
 - Meets Security recommended Cloud Security Alliance
 - HIPPA Compliant
 - Provide 5 Government Sector references



- Virtual server protection
- Cloud integration capabilities
- Increased Security

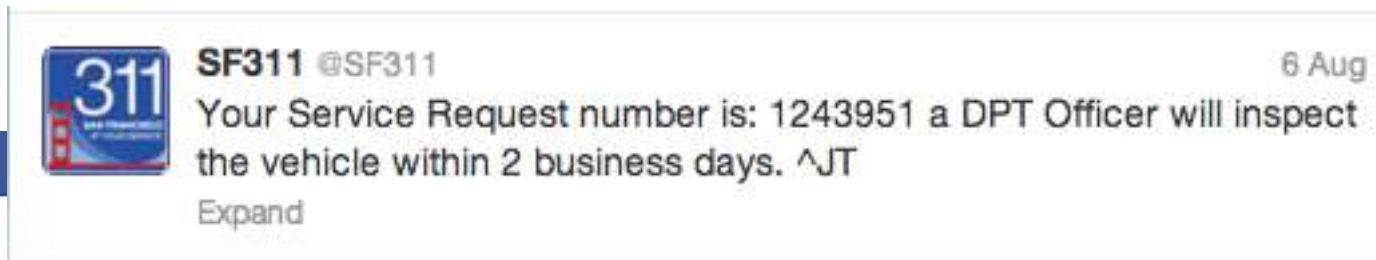


Open311 API

A Collaborative Model and Open Standard for Civic Issue Tracking

- Report and Track non-emergency issues in public spaces
 - Potholes, vandalism, garbage, etc
- Asynchronous, many-to-many issue tracking vs. 311 Call Center
 - Enhances engagement and collaboration with citizenry
- Worked with cities, nonprofits and developers from across US to create interoperable international standard
- 30 cities use Open311

facebook

A screenshot of a Facebook post from the account SF311 (@SF311). The post is dated 6 Aug and contains the text: "Your Service Request number is: 1243951 a DPT Officer will inspect the vehicle within 2 business days. ^JT". Below the text is an "Expand" link. The post includes a small profile picture of the 311 logo.

SF Service Requests

Log In with Facebook

Cancel

“You will be given the option to share your Facebook profile with the City & County of San Francisco. We will use your name and email to allow you to submit requests more quickly. You can choose not to provide access to the application and submit requests anonymously. Remember, you control what information you share through your profile. “

