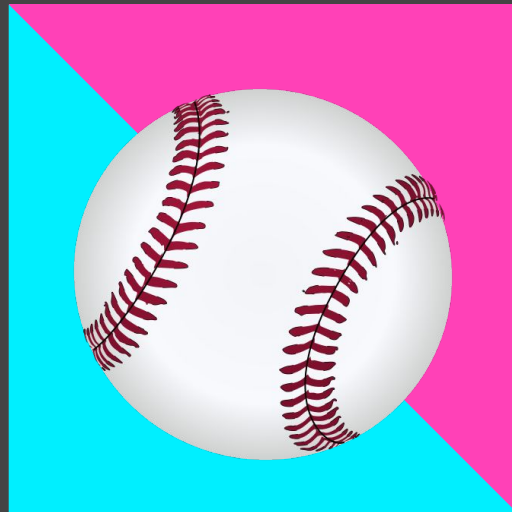
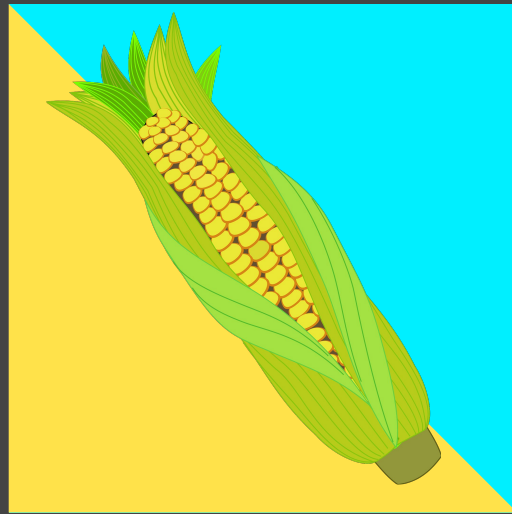



“If you build  
it, they will  
come.”

- Field of Dreams





# Single vs. Multi Purpose Apps: Where, When, and Why?

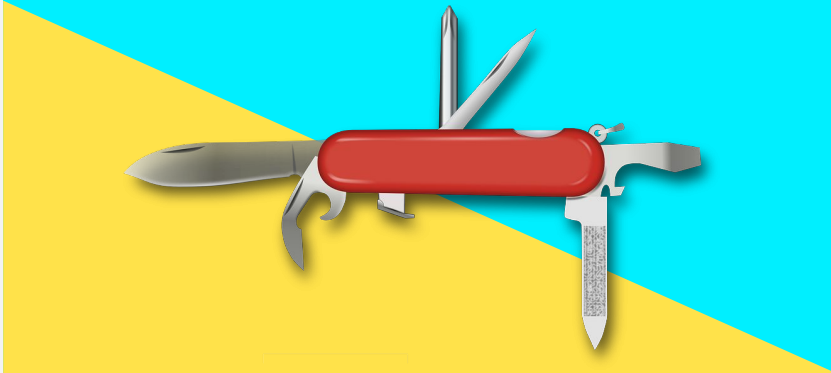
**Brian Pont**

Technology Expert Team Lead, Safe Software

“Does this mean the demise of the do-it-all single GIS web mapping application containing all organizational data sets?”



## Multi Purpose App



## Single Purpose App





# Case Studies

 **Iowa DOT:**

**Utilizing APIs**

 **Sterling Geo:**

100:1 Project

 **Cal Earthquake Authority:**

Real Time Earthquake Reports



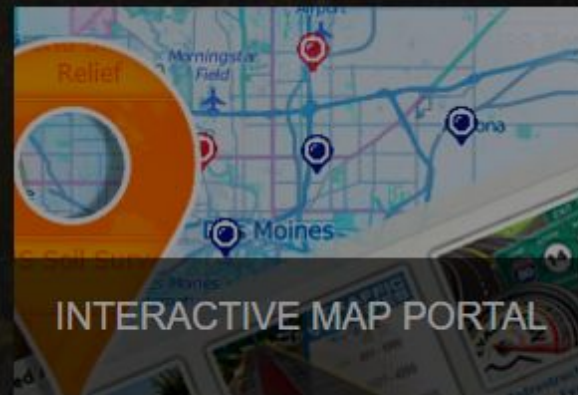
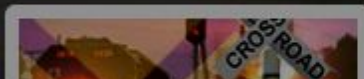
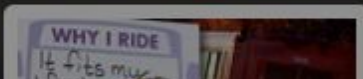
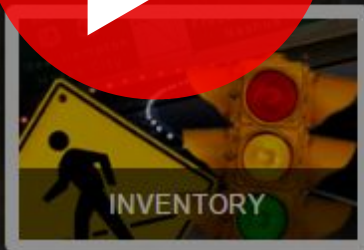
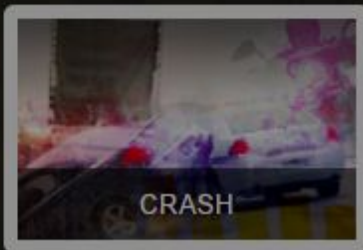
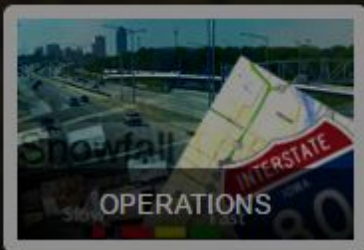
Search for open data



Sign In

MY ACTIVITY

## EXPLORE OPEN DATA



GEOSPATIAL HOME

IOWA DOT

[OPEN DATA USERS GUIDE](#)

All data is licensed under a [CC ATTRIBUTION-](#)

# Iowa DOT Multi-Purpose App

Iowa DOT:

# Preparing Data for APIs



Flexibility



Security



Stability



Ease of Adoption

# Iowa DOT Examples

- 1) Equipping TMC Operators with Layers of Information
- 2) Providing an Iowa Flood Information System (IFIS) Feed
- 3) Performing Waze Integration





**App User:**

Traffic Management Center (TMC), Public

**Information:**

CCTV, DMS

**Result:**

Insightful data, Public Map Mashups





**App User:**  
TMC, Public

**Information:**  
Depth of Water Under  
Bridges

**Results:**  
Public Awareness,  
Opportunity for new  
Applications

# Performing Waze Integration

## Steps:



Load public XML Data from Waze



Filter for specific location/events



Validate the Data



Send Automated Alerts via Email



Store in a Database for Future



# Case Studies



**Iowa DOT:**

Utilizing APIs



**Sterling Geo:**

100:1 Project



**Cal Earthquake Authority:**

Real Time Earthquake Reports





# SPACE

In space, no one can hear  
your chicken scream.



# Get Information Not Data



# App: Automated Vegetation Health Monitoring



SWINDON GREENGREY SMART M.APP

LAND COVER:  
BLUNSDON AND HIGHWORTH  
WARD

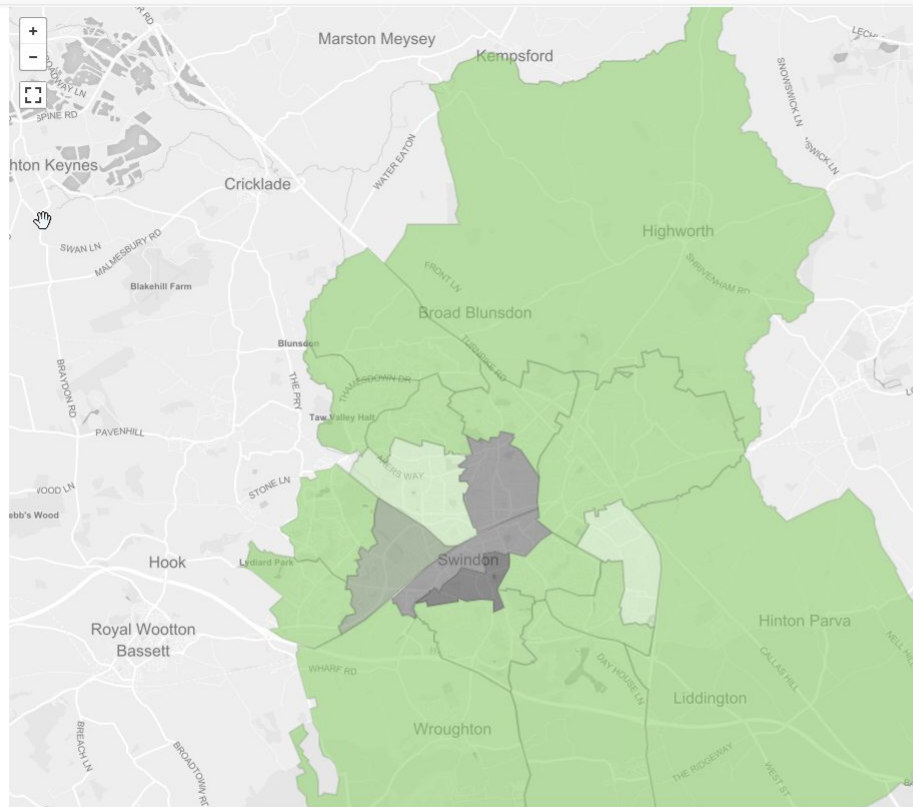


HIGHCHARTS.COM

LAND COVER:  
BLUNSDON AND HIGHWORTH  
WARD

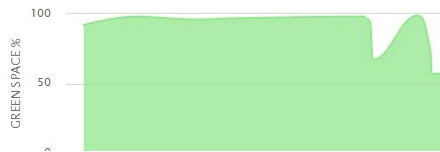


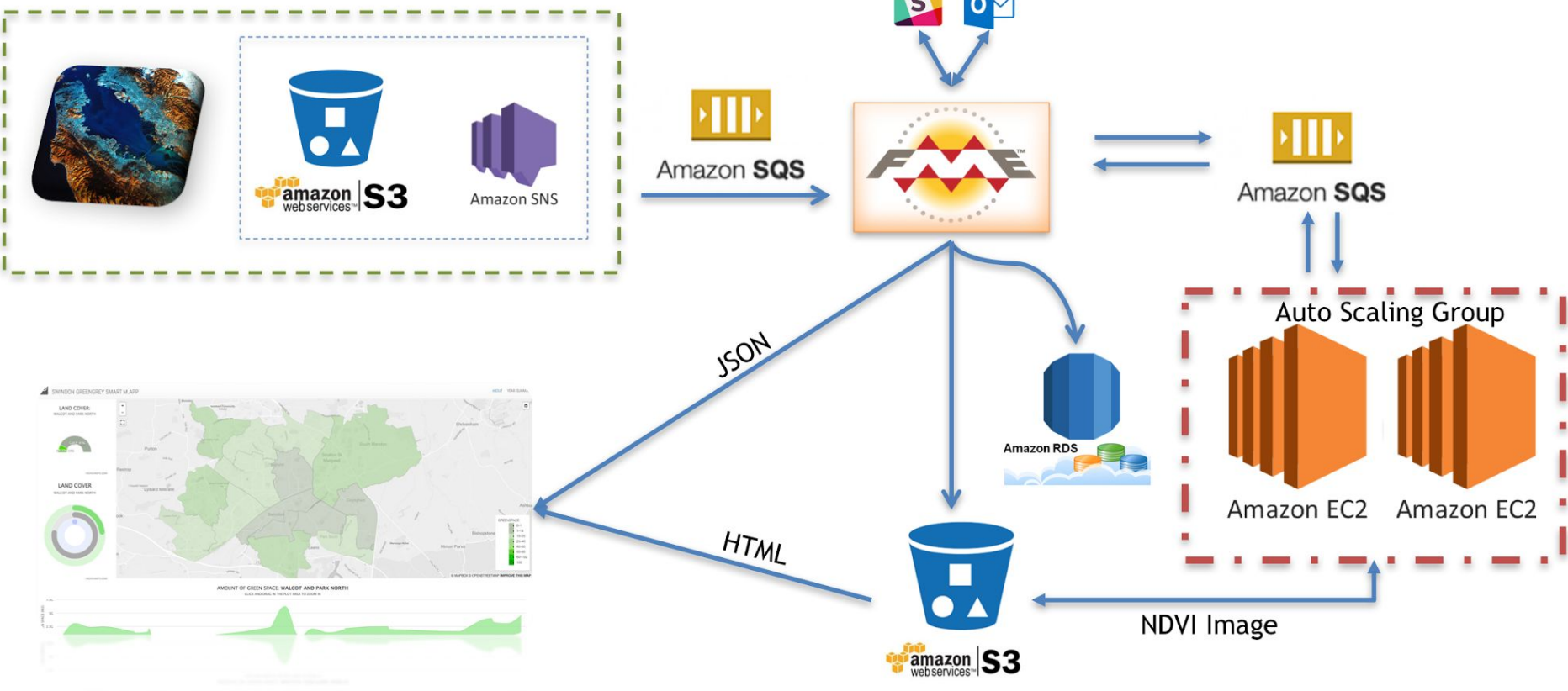
HIGHCHARTS.COM



AMOUNT OF GREEN SPACE: BLUNSDON AND HIGHWORTH WARD

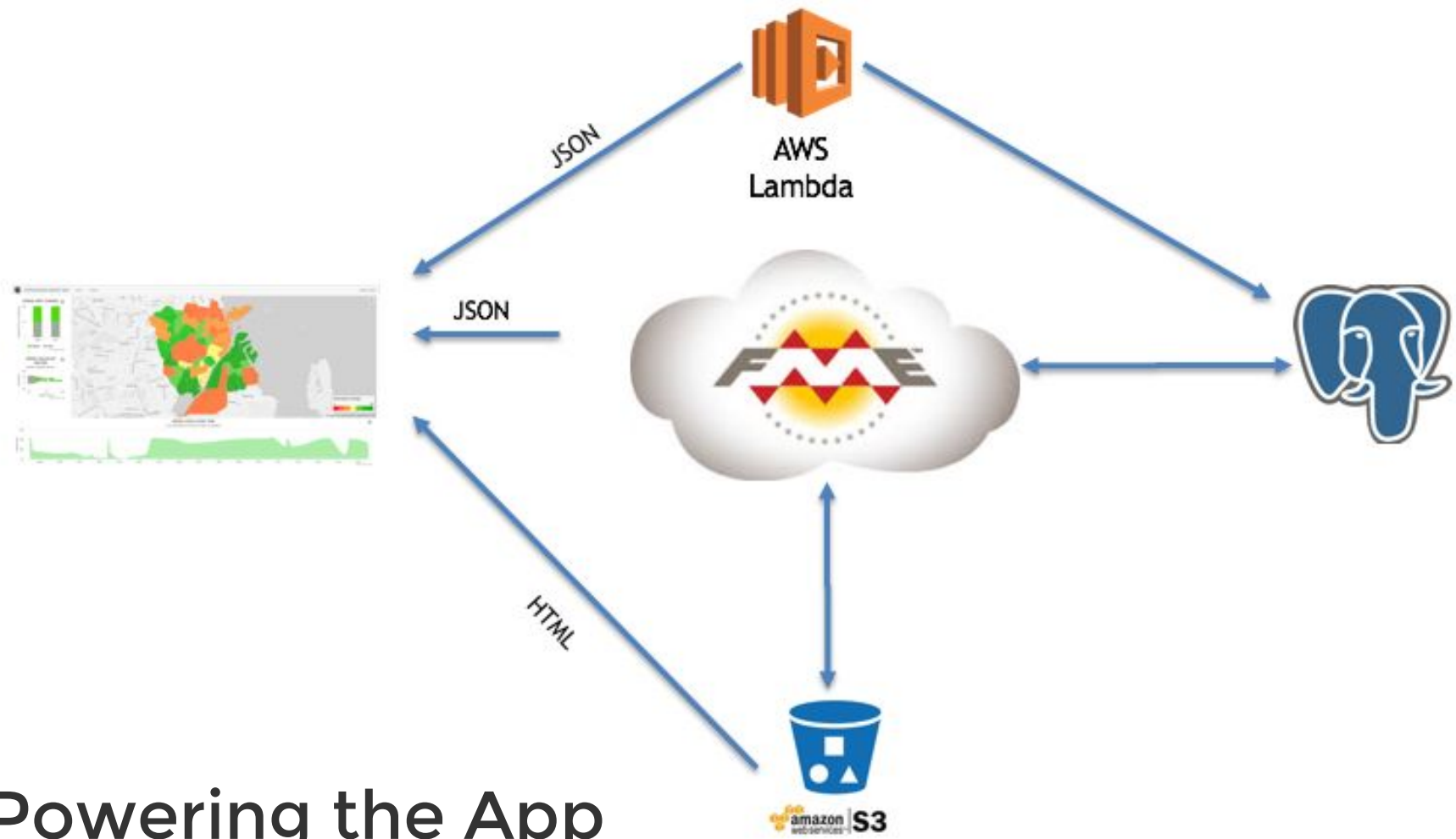
PINCH THE CHART TO ZOOM IN





# Converting Imagery into Information



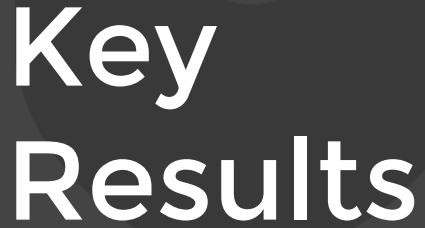


# Powering the App

# Other Use Cases

- Flagging and Cross-Referencing Building Development Status
- Burn Report Accuracy Verification





# Key Results

## Green Grey App

- New **information**, not just **data**
- **No** technical knowledge needed for Users

### 1: 100 Project

- **One** set of data -- **many** uses
- **No** major IT infrastructure changes
- **Engagement** for agencies to consider Earth Observation Monitoring

# Case Studies

 Iowa DOT:

Utilizing APIs

 Sterling Geo:

100:1 Project

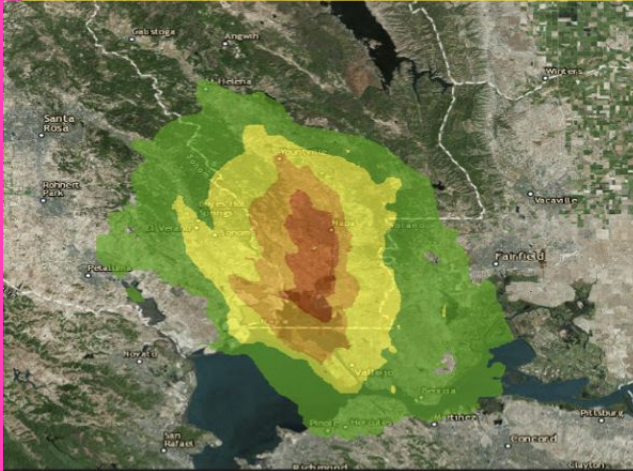
 **Cal Earthquake Authority:**

**Real Time Earthquake Reports**





# California Earthquake Authority



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy	
PEAK ACC. (%)	<0.05	0.3	2.8	6.2	12	22	40	75	>139
PEAK VEL. (cm/s)	<0.02	0.1	1.4	4.7	9.6	20	41	86	>178
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Scale based upon Worden et al. (2012)



Real-Time Earthquake Reports

# The Need for a Reporting App

**AUTOMATE ALL THE THINGS**



**EARTHQUAKE REPORTS** LAST 10 DAYS



# Information Flow



**TRIGGER**

USGS notification  
email to Gmail  
account

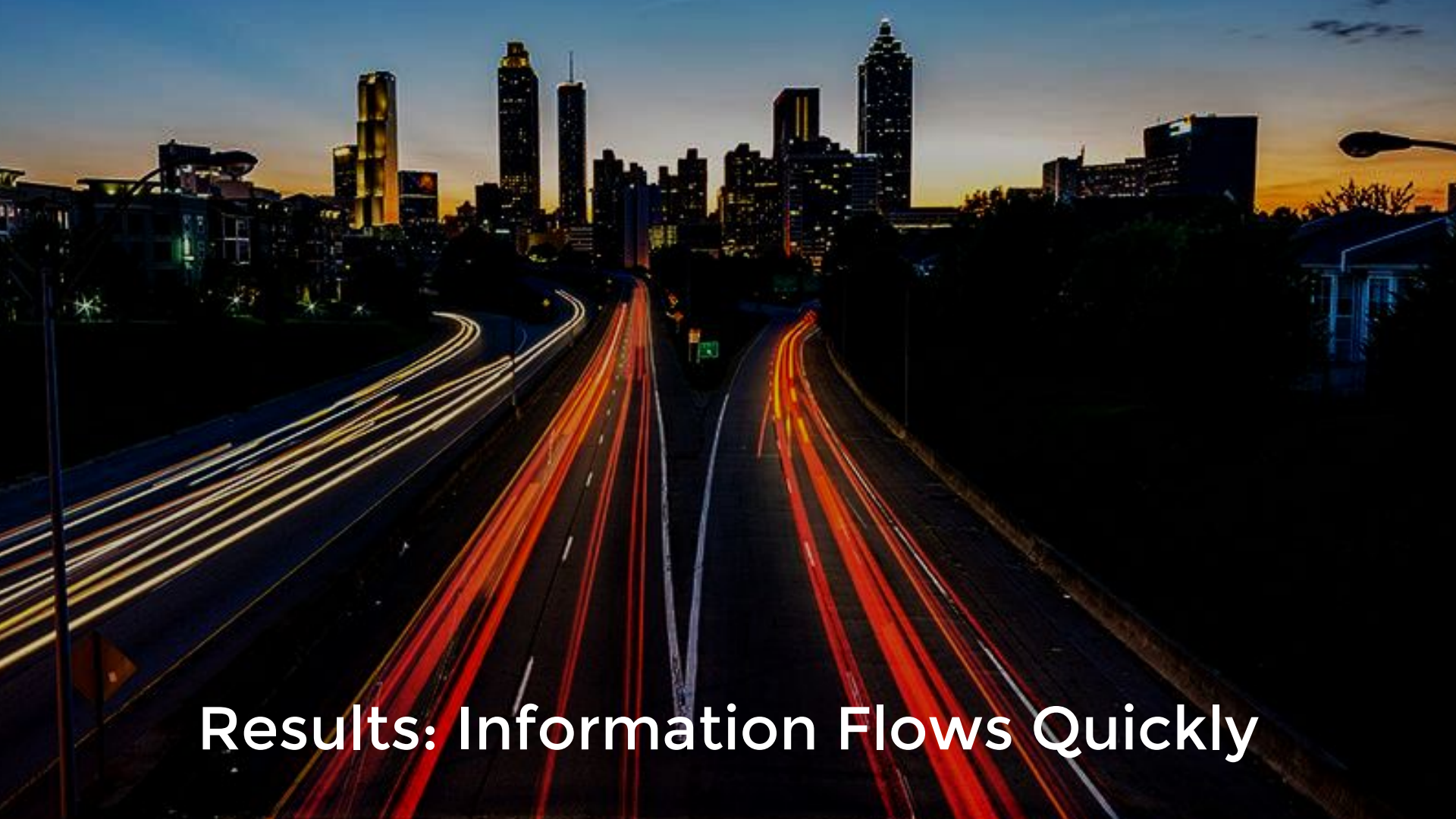


**EVENT**



**SEND EMAIL**




With Excel  
attachment



**Results: Information Flows Quickly**



# Case Studies

-  **Iowa DOT:** Utilizing APIs
-  **Sterling Geo:** 100:1 Project
-  **Cal Earthquake Authority:** Real Time Earthquake Reports





“Does this mean the **Increasing Usage** of the do-it-all single GIS web mapping application containing all organizational data sets?”





# What apps will you build?

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Safe Software, FME Technical Experts Team Lead