Getting the Most Value From Your City's Technology Investment

League of California Cities Annual Conference
September 15, 2017

Introductions

• Moderator
  • James Lewis, City Manager, Pismo Beach

• Panelists
  • Tim Williamsen, IT Manager, City of Petaluma
  • Bryon Horn, CIO, City of Fresno
  • Gaurav Garg, CIO, City of Santa Clara
What We’ll Be Discussing

- The Value Proposition of IT
- Cloud & Hosted Computing
- Cyber Security
- Mobile Apps & Citizen Engagement
- Records Retention & Discovery
- Geographic Information Systems (GIS)
- Smart Cities & IoT

Format

- Brief Discussions (5-6 min per topic)
  - Issues
  - Best Practices
  - Take Aways
- Multiple Speakers
- Q and A
  - In Person
  - Send questions via Twitter to #CityITQuestions
The Value Proposition

Why YOU really need to care…
• Enhanced efficiency through technology lowers staffing costs/needs
• Reclaims physical space
• Empowers/engages the citizenry
• Access builds trust
• Motivates and retains employees
Cloud & Hosted Computing

What is “cloud computing,” after all?
Cloud & Hosted Computing

What Are the Issues?
- Features - On premise and cloud
- Best mix of cloud and/or in-house services
- Risk of depts. jumping without total picture
- Data not in agency’s control
- Advantage – updates, hardware maintenance

Cloud & Hosted Computing

Best Practices
- Look at both on premise and cloud with RFPs
- Data migration, interfaces are still critical
- Security still necessary, as are local network components, internet access
- Require performance standards
- Return of data – contingency
Cloud & Hosted Computing

Take Aways

• Strategy on Cloud & On Premise options
• Start where it makes sense - cost, features, etc.
• IT - infrastructure still important and needed
• Data security still needed
• Partnership IT/business units!
• Major players - *Microsoft, IBM, Amazon, Google*

One survey says
Sample - Petaluma
What do you have today?

Cloud-hosted
• ActiveNet (recreation)
• Granicus (meetings)
• Bill pay and credit cards
• Training
• Risk management
• Benefits management
• Office 365
• Citizen request

Premise-based
• City financials
• Utility billing
• Permitting
• Telephone system and voicemail
• GIS
• Document management
• Asset management

Cyber Security
What Issues

• IT wants (is required) to protect agency assets – privacy, data, employees
• Policies comply with Fed, State, local regs.
• PRA – storage, retention, disclosure
• External threats – 40% (hacking, ransomware)
• Internal threats – 60% (human errors, disgruntled)
• Constantly evolving landscape – spam only since 2006, ransomware recently

Best Practices

• Security is a BUSINESS responsibility, not IT’s
• Security is not optional – Fed. and State regulations, as well as internal and external threats
• Due diligence
• Designate an IT Security Officer
• Contract for penetration testing
• Adhere to NIST/CJIS/PCI/HIPAA
• Security standards & guidelines
• Staff testing on vulnerabilities, phishing attempts
Take Aways

- With technology comes security issues
- Cyber security is a program, not an event
- Newer moves toward mobility and Internet of Things (IoT) cause more complications

Mobile Apps, City Operations Engaging a Community

One City’s Story
Introduction

Launched to the Public June 2015

- FresGo – “Fresno on the Go”

Mission:
- Enhance community engagement
- Provide a mechanism for transparency
- Gain a better understanding of Citizen requests
- Driven by the City Manager
- Mobile application
- Citizen facing
- Mobile reporting
- Web reporting

Features

- Service order system
- See recent requests
- Push notifications
- Service schedules
- Links to other websites
  - FlyFresno
  - District Locators – Police, Council
- Frequently Asked Questions
  - Police, City, App
- City Announcements
Process

Service request received, logged and routed to proper department and appropriate action is taken/initiated

Reporting

Departments are receiving useful data
- Track incoming request from a single repository
- Track/monitor overdue requests
- Identifying issues/resource shortages
- Track/audit service levels
- Identify trends, seasonal issues, opportunities, etc.

Reports distributed weekly to departments
- All open service orders by month
- All open service requests by status
- Overdue service orders by month
- Average service levels
Top 3 Reported Issues (May 2015 – Dec 2016)

**Data Snapshot**

Request Types (From 5/13/2015 to 12/13/2016 2:38PM)

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<tr>
<th>Request Types</th>
<th>Total Submitted</th>
<th>Total Completed</th>
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Total: 87475 84051 3424 96.09
# Service Level Review

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<th>Request Type</th>
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<td>Code Violations on Private Property Average</td>
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<td>Concrete - Sidewalk and Curbs/Gutters Average</td>
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<td>Graffiti Average</td>
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<td>Illegal Dumping/Litter Average</td>
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<td>Missed Pickup Average</td>
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<td>Parks and Recreation Average</td>
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<td>Pothole Average</td>
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<td>Water Survey and Services Average</td>
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</tbody>
</table>

## Heat Maps

### Downtown All Service Request Heat Map – May 2015 to Dec 2016

- **3701 Requests**
- **Top 3 Requests**
  - Graffiti: **2690** SRs
  - Traffic Signal: **128** SRs
  - SRs (Could be due to construction)
  - Illegal Dumping/Litter: **121** SRs

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[Image of Heat Map]
Data Impacts: Possible Illegal Dumping offenders
How many Illegal Dumping SRs reported in Council District 5

Customer Engagement

5 – Service exceeded expectations (57%)
4 – Service was about average (11.3%)
3 – About what I expected (6%)
2 – The request was resolved but not to my expectations (5.6%)
1 – The request has not been resolved (20.1%)
Initiative Efforts

AD Task Force
- Customer service
- Workflow team
- User enhancement
- Overdue analysis

Getting the Word Out
- Several appearances at community events
- Being noticed on NextDoor
- Advertising on newscasts

Take Aways

Has been a great tool for the citizen
- Can see what’s going on in the City
- Can check on status of service order
- Can give feedback on level of service
- Community feedback on the effort has been positive

Great tool for Operations
- Shows our service levels
- Helps with ensuring proper resources
- Ensures that resources are being dispatched in the right places
- Gives us an eye on the community and insight into our City’s needs
- We have seen an improvement in operations
Take Aways

- Quick fixes
- Can fix issues that need immediate assistance
- Paradigm/culture shift
- Needs to be driven by City Manager!
- Culture shift needed by employees

Records Retention & Discovery
IT & Legal Issues

Technology & Law becoming more prevalent
SB272 – Electronic Catalogue
SB649 – Telecommunications Facilities
SB345 – Searchable Policies on Websites
AB241 – State and Local Breach Laws
AB1034 – Interruption of Communications
AB1638 – Privacy Issues
SB804 – Modernization of Storage of Public Records

Records Retention

Records Retention
• Policies vary
• Email biggest concern
Email - What to consider
• Inbox, Sent Folder, Deleted Folder (Trash), Sub Folders
• Policies – 30 days, 60 days, 90 days, 120 days, forever!
• Averages:
  All - about 65 days
  Inbox - about 70 days
  Sent - about 75 days
  Deleted - about 63 days
• Email should not be a Document Management System
• Policy should be consistently followed
• IT input is essential to ensure that goal can be achieved
Records Tools

Management of Records

• Retention Tools/applications
  Microsoft, Symantec, ProofPoint, Barracuda
• eDiscovery Tools/applications
  Symantec e-Discovery, Clearwell, Exterro Commvault
• Presentation/Web Tools
  LaserFiche
• Many tools based on your application/need

Case Study/Example

Case Study Fresno

• eMail Policy: Keep everything forever
• Archiving Software: Symantec Enterprise Vault
• eDiscovery Software: Symantec eDiscovery & Clearwell
• Approximately 900 PRAs First Half 2017

Staff

• Two Attorneys
• One IT Staff Member
Search Example

- Recent Search with 39 Search Terms Produced 4,942,829 records!
- Some common terms:
  - Optim* = Approximately 1.6 million records
  - WSCA = Approximately 29,00 records
  - FAN = Approximately 1.4 million records
Fresno’s Policy Pros & Cons

Pros
• Rich in history
  – Paid for itself
• Vault is pure
  –Sent, received, deleted, redacted
• Can produce in Court

Cons
• Hundreds of thousands of records
• Time consuming
• Resource intensive

Recommendations
• Consult with attorneys on what’s defensible
• Consult with IT on what’s retainable
  – tools and software
• Set a policy based on Best Practices
• Be consistent with the use & enforcement of that policy
Enterprise GIS

Why Enterprise GIS

- City services are associated with location (mostly addresses)
- When you know where everything is, you can correlate, visualize & understand how it interacts with everything else
- Use GIS to model the City, play various scenarios, and make informed decisions
Enterprise GIS Objectives

- Unlock the value of all data
  - Organize the City’s data by location
  - Transform to information
- Increase operational effectiveness
  - Map and describe assets and infrastructure
  - Streamline business processes & automation
  - Make it available to staff, decision makers, and public
- Enable communication, coordination, engagement, and transparency

Renewing Infrastructure

- What are the assets?
- Where are the assets?
- What condition are they in?
- How much does it cost?
  Capital, ongoing and replacement

Smarter, faster, data-driven decision making
Story Maps
Communicate and Engage

Common Operational Picture
Geospatial Open Data Portal

- map.santaclaraca.gov/data – launched May 2016
- Open Data Geospatial Portal for public access to authoritative data
- 17 currently and growing machine readable GIS datasets
- Self service up-to-date open data available
- City staff not spending any time fulfilling GIS data requests anymore
- Furthers transparency and engagement

Award-winning GIS

- Special Achievement in GIS Award, Esri, Summer 2015
- Recognized at White House Smart Cities Initiative, Sept 2015
- Praised by federal agencies during the Super Bowl 50 operations
- Featured on CNN and other media
- CAPIO Award of Merit for e-Government Services, May 2016
City of Santa Clara
Enterprise GIS
The journey is the destination!
Gaurav Garg, CIO
Esri Senior Executive Summit
San Diego, June 26, 2016

Smart Cities & IoT
A Smart City is one that effectively connects information, technology, and the Internet of Things to city services and people with the goal of improving the quality of life and strengthening the community.

Applications: Intelligent lighting, car-sharing, real time parking
Enabling technologies: IoT, sensors, drones, self driving vehicles, GIS, analytics, open data
Smart Cities

Smart Santa Clara: City Place

- 239 acres
- 9.2 M sq ft
- 5.7 M sq office; 1.1 M sq retail
- 700 hotel rooms
- 1,360 residential units
- 96 acres parks & open space
Smart Cities

What Issues?
- Response to quality of life, sustainability, traffic congestion, climate change, safety and security, energy, aging infrastructure, healthcare, pollution
- Technology moving faster than the urban planning process. Where to Start?

Best Practices
- Holistic formula with interoperability between uses and collaboration across city operations for citizen centric outcomes
- Engage in public-private partnerships

Smart Cities

Take Aways
- Change is hard. Top down priority and stakeholder engagement
- Balance broader smart city view in phased manner with opportunistic/pragmatic view with small executable projects
- Cybersecurity!
Wrap-Up

• There is a Value Proposition to IT!
• As Council Members, funding, policy and therefore innovation starts with and must be supported by you!
• Provided You Opportunity to Reflect and Questions to Ask; Any Others?
Municipal Information Systems Association of California

Purpose:

• Further the understanding of beneficial impact of management information systems in municipal and special District organizations.
• Serve as an advisory body to the League of California Cities and the Government Technology Conference.
• Strive for increased utilization of management information systems.

Municipal Information Systems Association of California

• Seek the personal development and enrichment of its members by promoting and conducting conferences and seminars.
• Promote more effective and efficient municipal government through increased cooperation with other MIS professionals.

Goals:

• MISAC strives to promote leadership, education, and access to resources for local agency technology professionals in order to enhance local government services and effectiveness via its Four Pillars: education, member resources, relationships, and advocacy.
MISAC Conference

2017 MISAC Annual Conference
IT’s a Team Sport
* * * * * * *
October 1-4, 2017
* * * * * * *
Hyatt Regency Hotel
Monterey, CA

Register at misac.org

THANK YOU!

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