Making the Most of Your City’s Technology
League of California Cities Annual Conference
October 6, 2016

What We’ll Be Discussing

- Topic Areas
  - Cloud Computing
  - Citizen Engagement
  - Cyber Security
  - Infrastructure & Storage
  - Mobile Applications
  - Smart Cities

Why You Should Care About IT

- IT can be an enormous strategic tool
- Leverages your human capital/effectiveness
- Enhances Citizen Engagement
- IT averages 2 - 2.5% of overall budget...
- IT averages 3.5 - 4.5% of General Fund...
- ... And that does not include Capital

- How to ensure IT value?
- How to use IT strategically?
What We’ll Be Discussing

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

Our Panel

- Moderator: Jim Lewis, City Manager, City of Pismo Beach and President-elect, City Manager’s Department
- Speakers:
  - Brian Moura, Senior Advisor, Finance and Management, Regional Government Services
  - Michael Allen, Information Systems Manager, Visalia
  - Gaurav Garg, Chief Information Officer, Santa Clara

Making the Most Cloud & Hosted Computing

- What Are the Issues?
  - Features Between Server Based and SaaS Software
  - Best mix of cloud and/or in-house services?
  - Desktop OS & Software with Cloud Features & Storage
  - Best Practices
  - Look at both Server Based and Software As A Service when issuing RFPs (Cost, Features, Implementation)
  - Require performance standards, SLA regardless of path
  - Return data (former) & data conversion (new vendor)
Making the Most Cloud & Hosted Computing

- Take Aways
  - Strategy on Cloud & Hosted Software options
  - Start where it makes sense (cost, features, etc.)
  - IT Infrastructure still important and needed

What Do You Have Today? Cloud & Hosted Computing

<table>
<thead>
<tr>
<th>Cloud/Hosted Software as a Service (SaaS)</th>
<th>Server-Based (SB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Springforce Financial Services</td>
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<tr>
<td>Casework</td>
<td>Prolificasignals, Workforce365</td>
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<td>IT Infrastructure</td>
<td>Cloud Plan Document Management</td>
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<td>Vendor Management</td>
<td>Basic Helpdesk</td>
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<td>Active Net P2P &amp; Services Registration</td>
<td>Aviatrix</td>
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<td>Security</td>
<td>Server-Side Management</td>
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<tr>
<td>Exchange</td>
<td>Small</td>
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<td>Note: IBS</td>
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<tr>
<td>Computers</td>
<td>SBC - System Management</td>
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<tr>
<td>WiFi</td>
<td>IT/Network - ISN/Office Users</td>
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<td>Printers</td>
<td>IT/Network - ISN/Office Users</td>
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<td>SharePoint</td>
<td>IT/Network - ISN/Office Users</td>
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<tr>
<td>Disaster Recovery</td>
<td>IT/Network - ISN/Office Users</td>
</tr>
</tbody>
</table>

Cost Comparison Tool (Tyler) Cloud & Hosted Computing
Making the Most
Citizen Engagement

- What Issues?
  - Reaching out (Developments, Parks, General Plan)
  - Technology can help (social media, web, video, mobiles)
  - Getting participation, comments & solutions
- Best Practices
  - Being “multichannel” - one approach isn’t enough
  - Communications Mgr + Dept Staff + IT Team approach
  - Ask for input regularly and on meaningful topics

Making the Most
Citizen Engagement

- Take Aways
  - Having an engagement plan or strategy
  - Enable staff to enable and engage citizens
  - Increased awareness of City proposals and projects
Mind Mixer (Carlsbad)
Citizen Engagement

What do you think about converting Lincoln St. between Girkin Ave. and Carlsbad Blvd. into a pedestrian plaza?

Survey Monkey Follow-Up
Citizen Engagement

Another non-issue: What rating do we give the City of execution?

Textizen & Construction Qs
Citizen Engagement

Curious about what’s happening at 135 HAMILTON?
Test YES to give feedback or get updates.
(650) 542-7118
QUESTIONS
#CityITQuestions

Making the Most
Cyber Security

- What Issues?
  - Privacy
  - Policies
  - PRA
  - External threats - 40%
  - Internal threats - 60%

Making the Most
Cyber Security

- Best Practices
  - Security is a BUSINESS responsibility, not IT’s
  - Security is not optional (systems and staff)
  - Designate an IT Security Officer
  - Contract for penetration testing
  - Adhere to NIST/CJIS security standards & guidelines
  - Staff testing on vulnerabilities, phishing attempts

- Take Aways
  - With technology comes security issues
  - Cyber security is a program, not an event
Making the Most
Infrastructure & Storage

What Issues?
- Technology requires infrastructure
- Why are we always buying storage?
- Cloud storage versus in-house storage
- Backup and recovery of stored data
- Retention policies (voice, email, video, social media, electronic plans)

Making the Most
Infrastructure & Storage

Best Practices
- Robust infrastructure platform for ALL types of technology
- Virtualization of servers and storage
- Data deduplication - eliminate redundant data
- Fast, redundant storage pools for database
- Cheaper, flexible storage for images and video
- Cloud storage is very viable in some applications

Take Aways
- Mix of storage mediums depends on usage and retention policies
- Put policies in place

Making the Most
Infrastructure & Storage
Making the Most
Infrastructure & Storage
Hybrid Cloud - Internet cloud-based AND City cloud-based

QUESTIONS
#CityITQuestions

Making the Most
Mobile Applications

- What Issues?
  - There’s an app for that (transit, graffiti reporting)
  - Lots of “free” apps (tip of the iceberg)
- Best Practices
  - Free isn’t cheap. Be selective in mobile applications, standardize on a few
  - Back-end integration & work flow ensures staff responsiveness (what is under the water)
Making the Most Mobile Applications

- Take Aways
  - Enable staff to enable citizens
  - Know your application portfolio. Your business applications are the heart of your digital/mobile strategy
  - SMAC - Social Mobile Analytics Cloud

Business Applications

<table>
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<tr>
<th>Application Name</th>
<th>Dept.</th>
<th>Imp</th>
<th>Summary</th>
<th>Status</th>
<th>TIME</th>
<th>Security Status</th>
<th>In Progress</th>
<th>Current Year Type</th>
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<tbody>
<tr>
<td>CAD - CalCOP Police</td>
<td>1</td>
<td>Green</td>
<td>Tolerate</td>
<td>Green</td>
<td>Green</td>
<td>Yes</td>
<td>Yes</td>
<td>Cloud</td>
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<tr>
<td>CAD - Premier CAD Police</td>
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<td>Migrate</td>
<td>Red</td>
<td>Red</td>
<td>Yes</td>
<td>Yes</td>
<td>COTS</td>
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<tr>
<td>EMSystems - EMResource Police</td>
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<tr>
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<td>Green</td>
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<td>COTS</td>
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<td>NICE Systems Police</td>
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<td>COTS</td>
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<tr>
<td>Viper - 911 Police</td>
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<td>Invest</td>
<td>Green</td>
<td>Green</td>
<td>COTS</td>
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</table>

Business Value

- Tolerate 90 - 62%
- Invest 27 - 19%
- Eliminate 1 - 1%
- Migrate 26 - 18%

65 apps eliminated
30 new Apps
8 apps to cloud
7 mobile Apps
110 apps upgraded

Making the Most Mobile Applications
Making the Most
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

Making the Most
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!

Making the Most
Smart Cities

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

Common Operational Picture (COP) at Levi’s Stadium

Smart Santa Clara: City Place

- 239 acres
- 9.2 M sq ft
- 5.7 M of office
- 1.3 M of retail
- 700 hotel rooms
- 1,360 residential units
- 96 acres parks & open space
 QUESTIONS
#CityITQuestions

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

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

2016 MISAC Annual Conference
Securing IT’s Future: Today
October 9-12, 2016
MANCHESTER GRAND HYATT, SAN DIEGO

Register at misac.org

THANK YOU!