

CITY OF CALGARY  
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# IT Risk Report to Audit Committee

May 21, 2015  
AC2015-0438



myCity/it | 403-268-8008

*Onward!* Exceeding our customer's expectations by providing outstanding, on-time, business technology solutions.



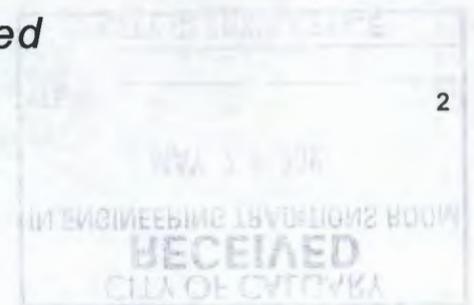
2015-0438

## Key risks for IT

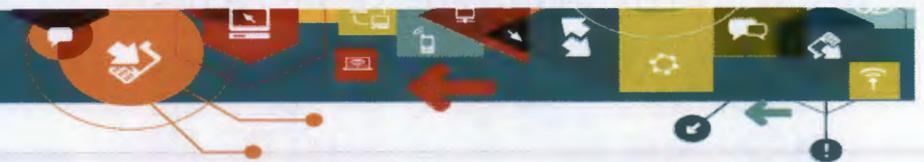
- Business resiliency/continuity
- Electronic information management
- Cyber security
- Business & enterprise systems & associated controls
- Performance/reliability of vendors and 3<sup>rd</sup> party service providers (impacting critical City systems, e.g., 911 dispatch, etc)



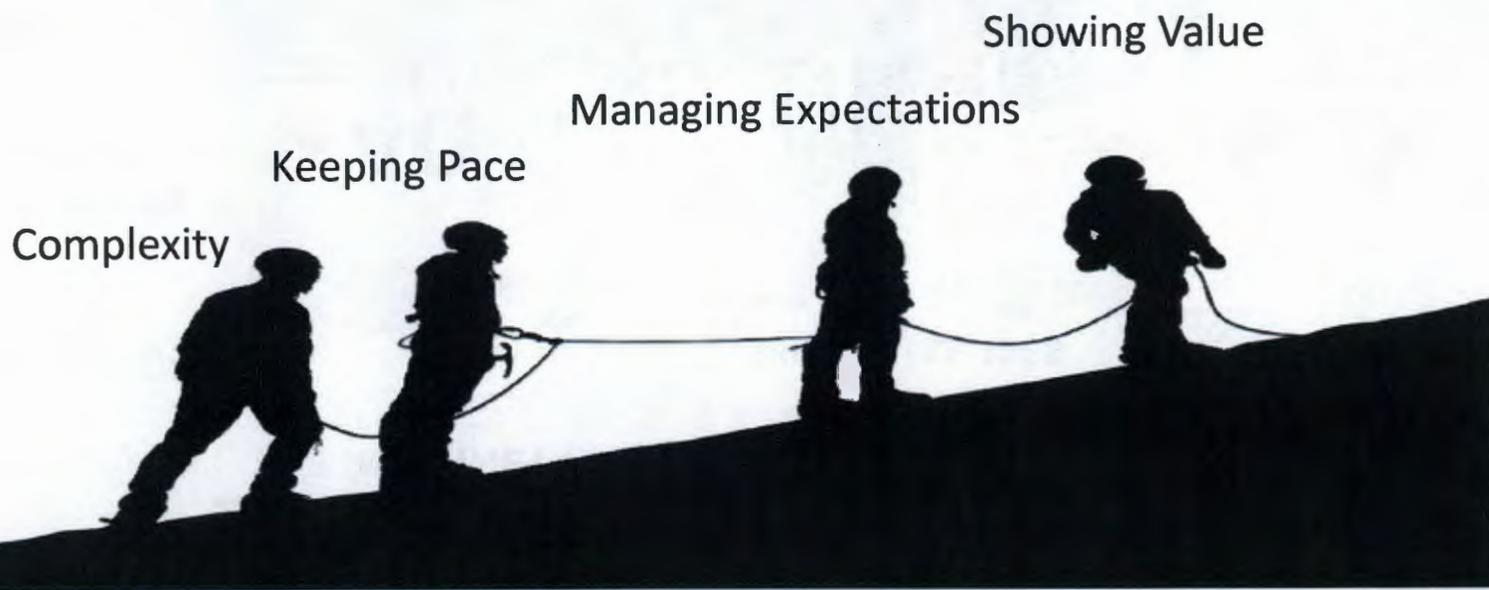
*Action Plan: IT strives to balance business needs in a fast-paced environment with adequate security and controls.*



# Challenges



*Balancing Service delivery demands with prioritized risk mitigations while building for the future.*

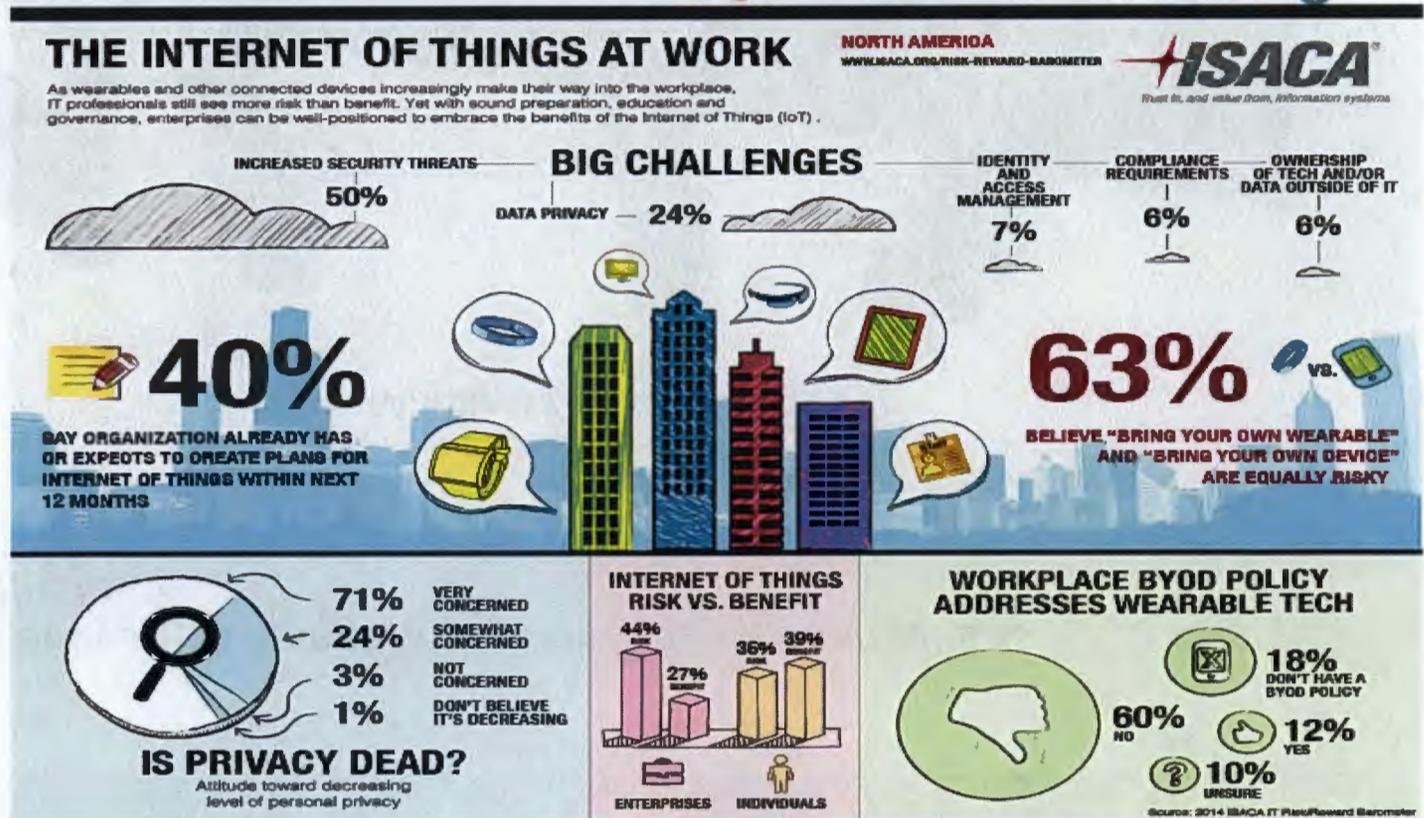


# Trends – adapting to change

Connecting things to things...

creates enormous amounts of data

but what data matters?



Source ISACA: November 2014

## Agile workforce

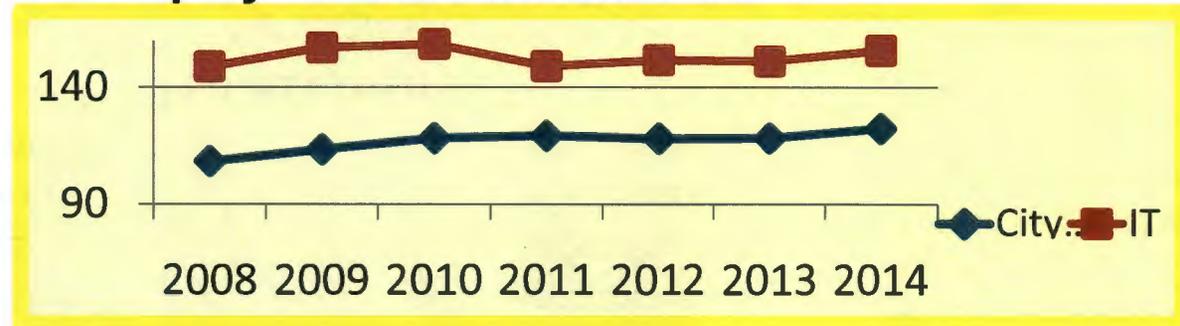
### Challenges

- Retirements
- Staff movements
- Aging workforce

### Opportunities

- Current economic conditions
- Outreach to postsecondary programs
- Training & development
- Cross functional practices

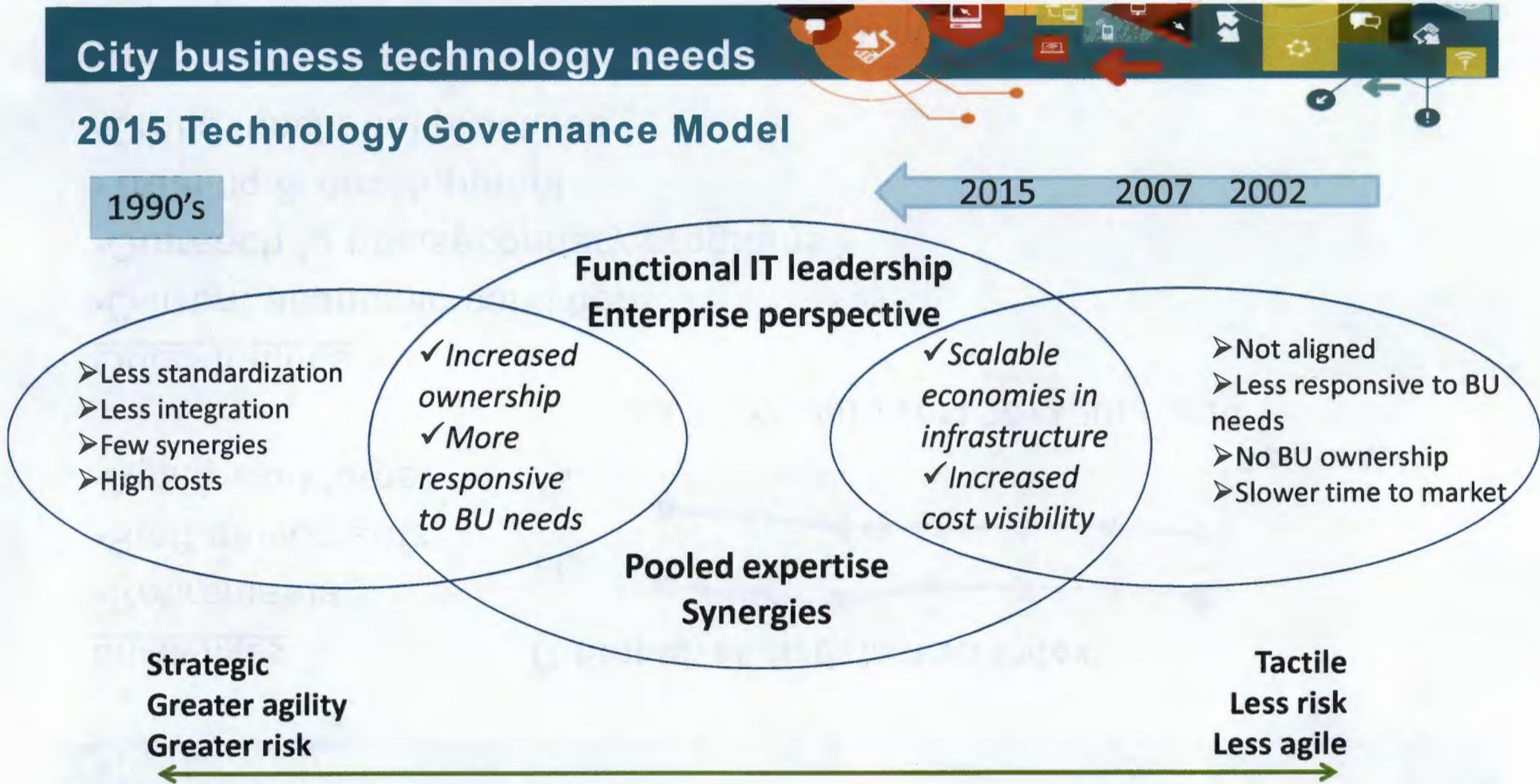
### IT Employee Satisfaction Index



*Balancing the demands of today with the needs of tomorrow*

# City business technology needs

## 2015 Technology Governance Model



# Integrated Risk Management

A decorative banner at the top of the slide features a dark teal background with various colorful icons and arrows. The icons include a laptop, a smartphone, a Wi-Fi symbol, a gear, and a document. Arrows in red, green, and blue point in different directions, suggesting a flow or process.

➤ ZBR

➤ Code of Conduct

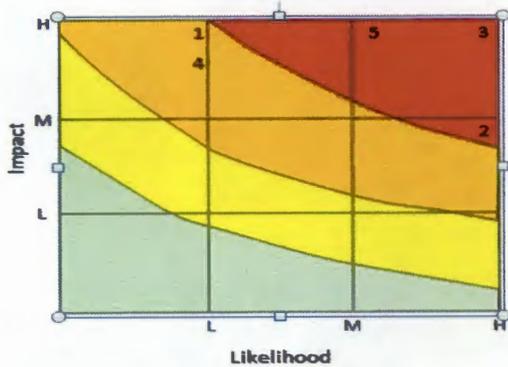
➤ Benchmarking:

- OMBI
- industry benchmarks

*Balancing internal business relationships with corporate  
infrastructure service demands*



# Q1 2015 IT Risk Register



Risk	Likelihood Impact *	Mitigating Strategy
1. Natural or catastrophic event to The City's technology systems, network, data centres and applications.	L-H	<ul style="list-style-type: none"> <li>• Improve technology infrastructure resiliency such as duplicating single points of failure</li> <li>• Continual review of business continuity and crisis management procedures</li> <li>• Continue conducting regular vulnerability assessments</li> </ul>
2. Electronic Information Management (Corporate records is currently held in various formats and in various locations across the organization. These corporate records need to be protected and managed).	H-M	<ul style="list-style-type: none"> <li>• Together with City Clerks, IT will implement best practices by educating and encouraging business units to move their records into corporate business tools (e.g. automated disposition reduces legal risk and is auditable).</li> </ul>
3. Cyber security (Willful attack on public infrastructure, public safety, transportation, water treatment, etc.).	H-H	<ul style="list-style-type: none"> <li>• Managed in partnership with Law and Corporate Security.</li> <li>• Continuous monitoring and research, along with expert security assessments conducted on a regular basis; enables IT, Law and Corporate Security to identify and harden points of vulnerability to new and evolving threats.</li> </ul>
4. Failures in business and enterprise systems and systems controls (e.g. 911, email, GIS, PeopleSoft financial and payroll, etc)	L-H	<ul style="list-style-type: none"> <li>• Resilient system design. Appropriate vendor service and support level agreements.</li> <li>• Manual back-up procedures in place.</li> </ul>
5. Failure/interruption of third party services/providers impact Fire, Public Safety (PSC),and Cloud services (periodic minor interruptions)	M-H	<ul style="list-style-type: none"> <li>• Continuous monitoring and maturing of Cloud-based services and protocols. Defining and optimization of the enterprise platform to take advantage of emerging technologies.</li> </ul>

\* Likelihood and Impact ratings are based on IT's Risk Registry rating.

AC2015-043