Technology Update & Trends In Government

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State & Local Government

Gartner

Executive Agenda For Technology 2015

"My business and its IT organization are being engulfed by a torrent of digital opportunities. We cannot respond in a timely fashion, and this threatens the success of the business and the credibility of the IT organization."

70%

Of Executives will change their technology and sourcing relationships in the next 2 to 3 years

46%

Need to work with new categories of partners, e.g.:

Mobility Cloud Digital
Big Data Analytics Social

We must reconcile the increasingly nonlinear world with the linear mindsets, practices and institutions of our work

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The Technology Revolution Drives the Nexus & Digitization

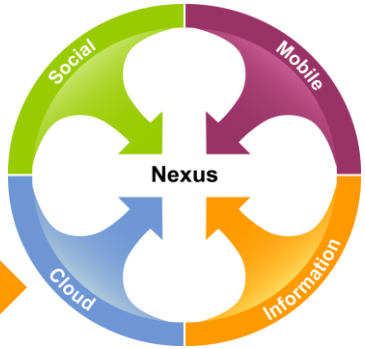
PC Era

The computer gets personal

Web Era

Engaged self-determination becomes practical

Digitization



80s → 90s → 2000s

Client Server & GUIs

Access to data without programmers

Nexus Era

Combined forces transform life, work, and play

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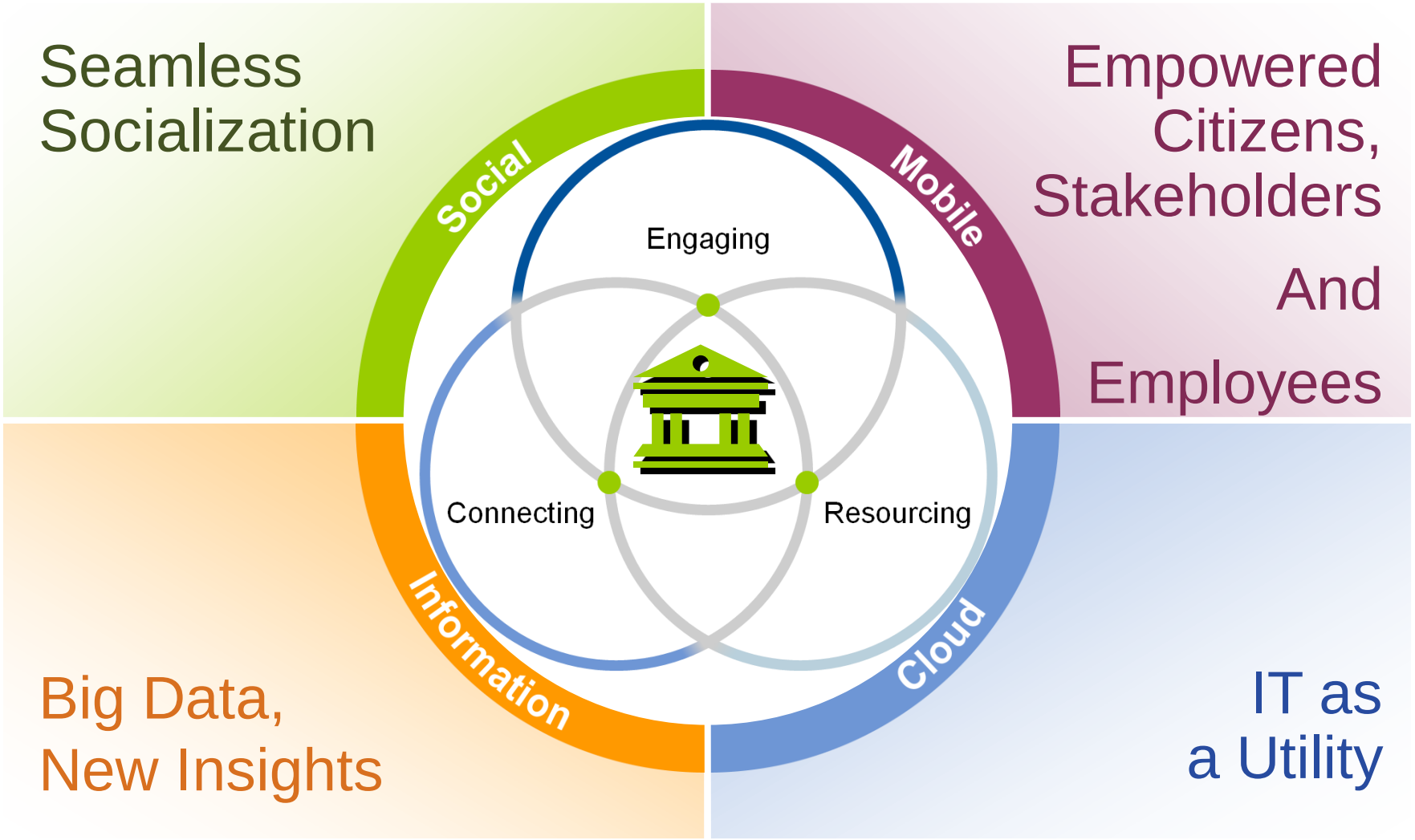
The Nexus of Forces



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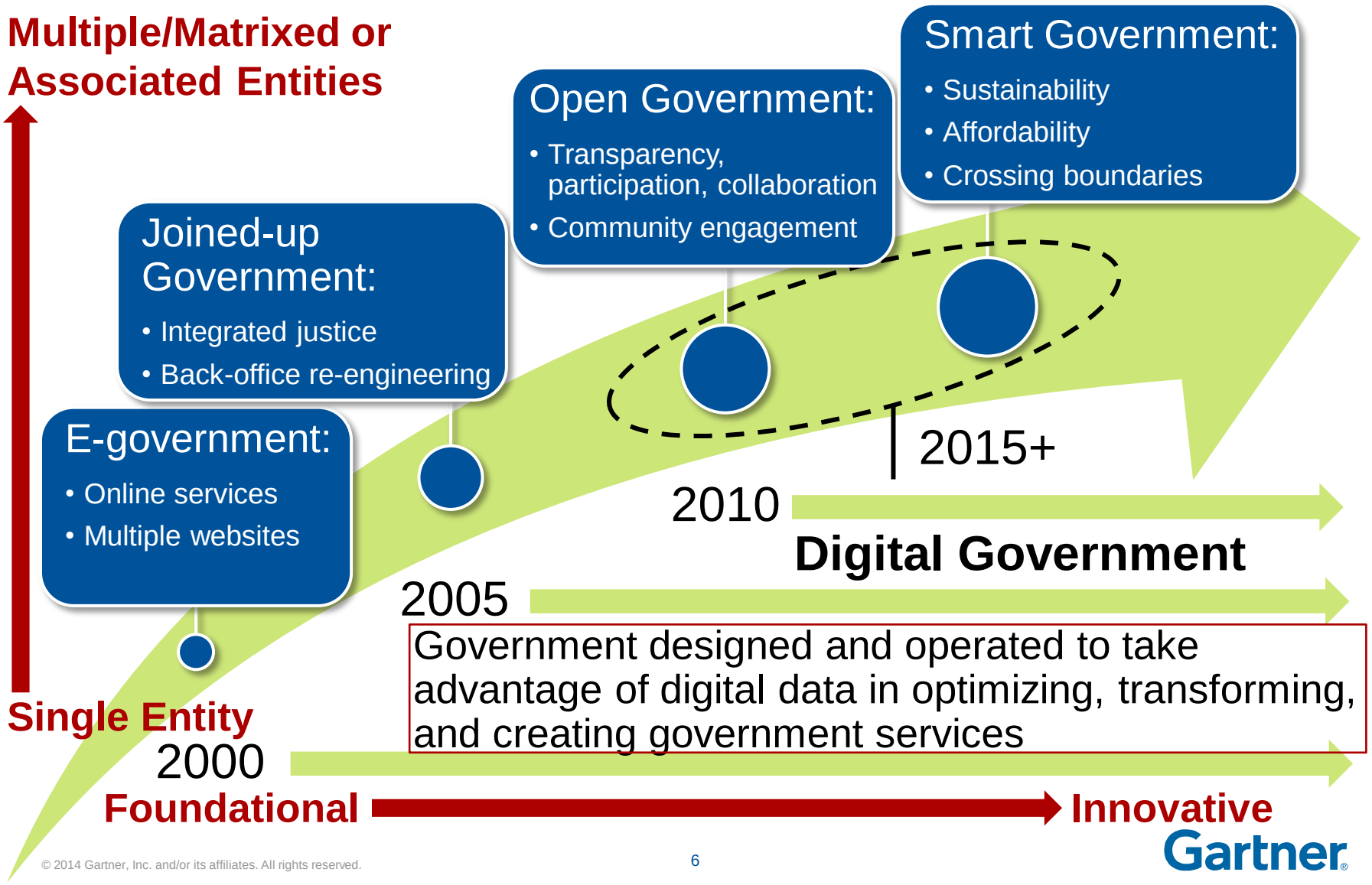
Key Issues

1. What are the trends in government?
2. What are leading organizations doing?
3. How is the government undertaking investments in technology?

The Opportunity Is Immense For Digital Government



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CIOs' top technology priorities in 2014 continue to bridge old and new worlds

Ranking Based on How Many CIOs Cited Each as a Top-Three New Spending Priority for 2014

	BI/Analytics	1
▶	Infrastructure and Data Center	2
	Mobile	3
▶	ERP	4
▶	Cloud	5
▶	Networking, Voice and Data Comms.	6
	Digitalization/Digital Marketing	7
▶	Security	8
▶	Industry-Specific Applications	9
	CRM	10
▶	Legacy Modernization	11
	Collaboration	12

n = 2,339

Note: Excerpt from "Taming the Digital Dragon: The 2014 CIO Agenda" (G261080).

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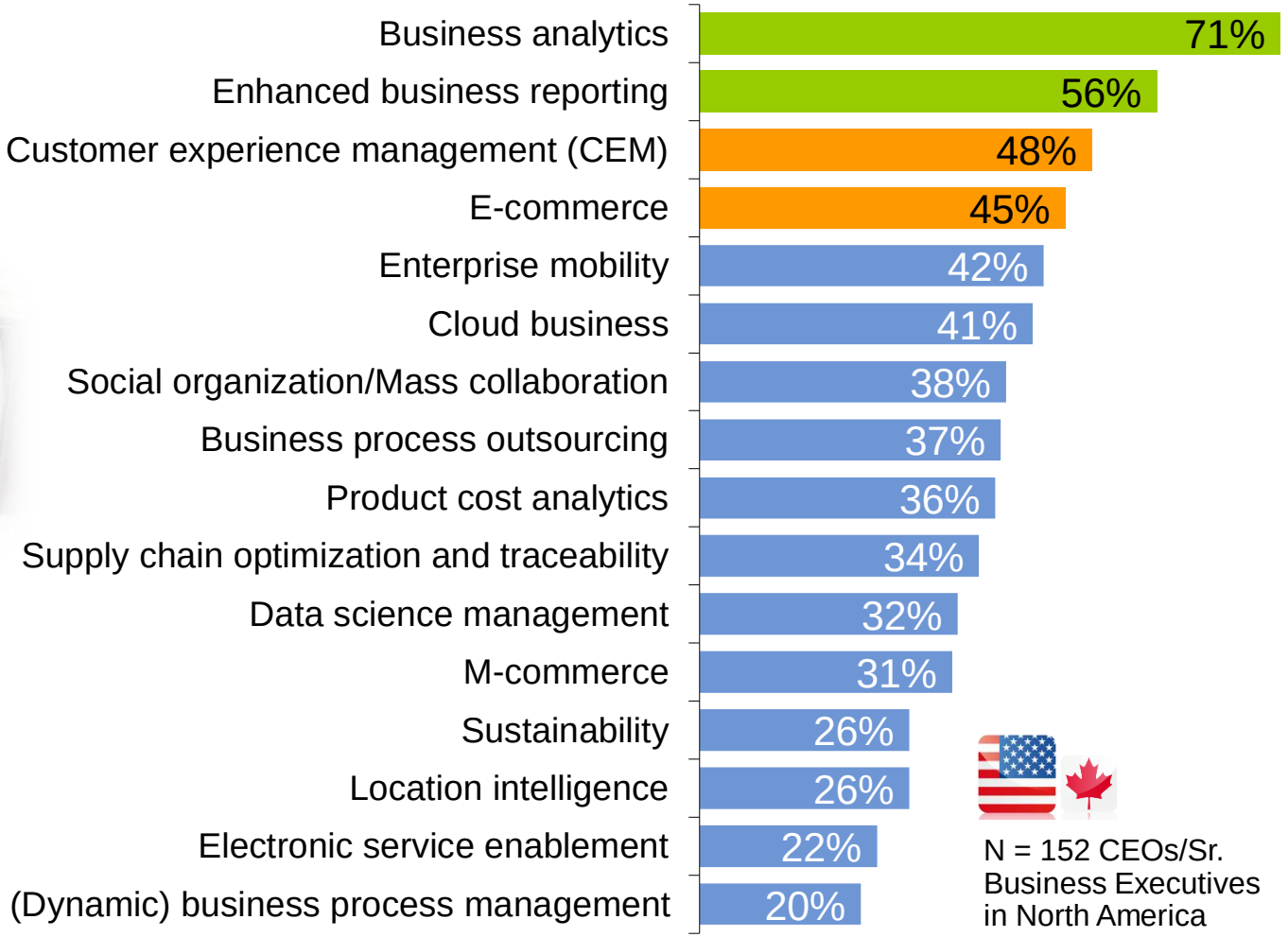
CEO's speak: Top Business-improving Technology Investments Now Focus on Data and Customers



N = 152 CEOs/Sr. Business Executives in North America

"Which of the following technology-enabled capabilities will be an important area of investment to improve your business over the next five years?"

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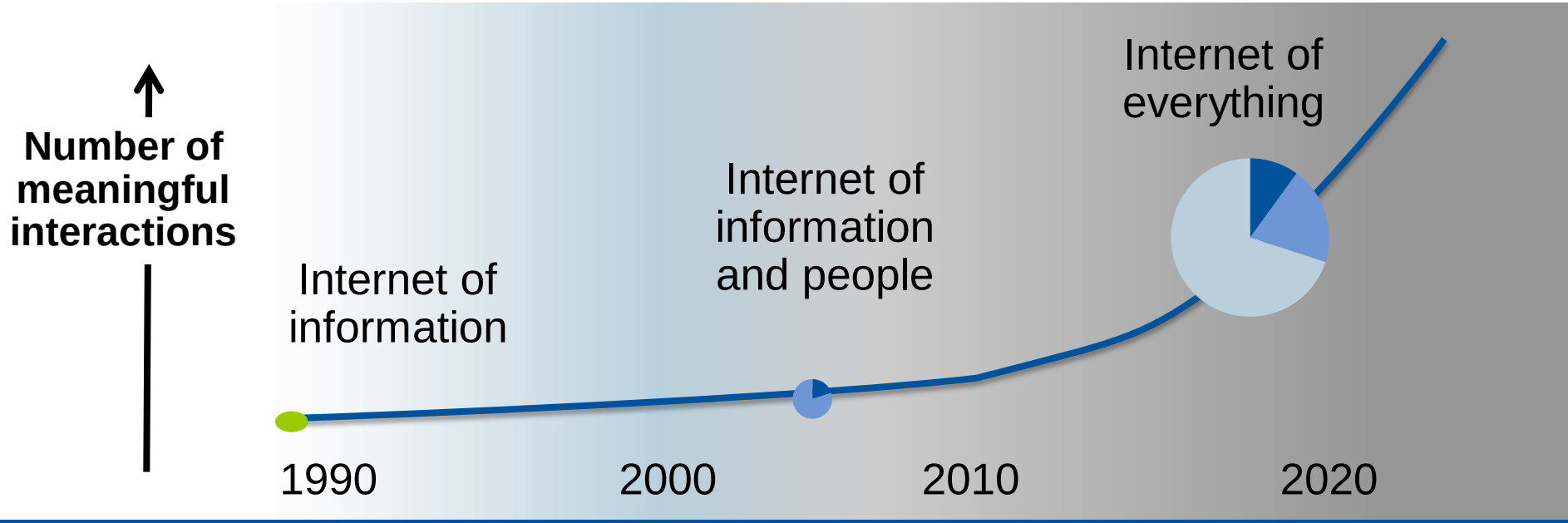
The Expanding Frontier of the Internet Drives an Information Explosion



Key milestones	>50% of Internet connections are things	Things create more traffic than information and people
Number of permanently Internet-connected devices	>15 billion	> 30 billion
Number of intermittently Internet-connected devices	>50 billion	> 200 billion
Volume of traffic from things	Minority	Majority

By 2018, more than 30% of local government agencies will depend on data supplied by the IoT to support at least 50% of their mission-critical programs.

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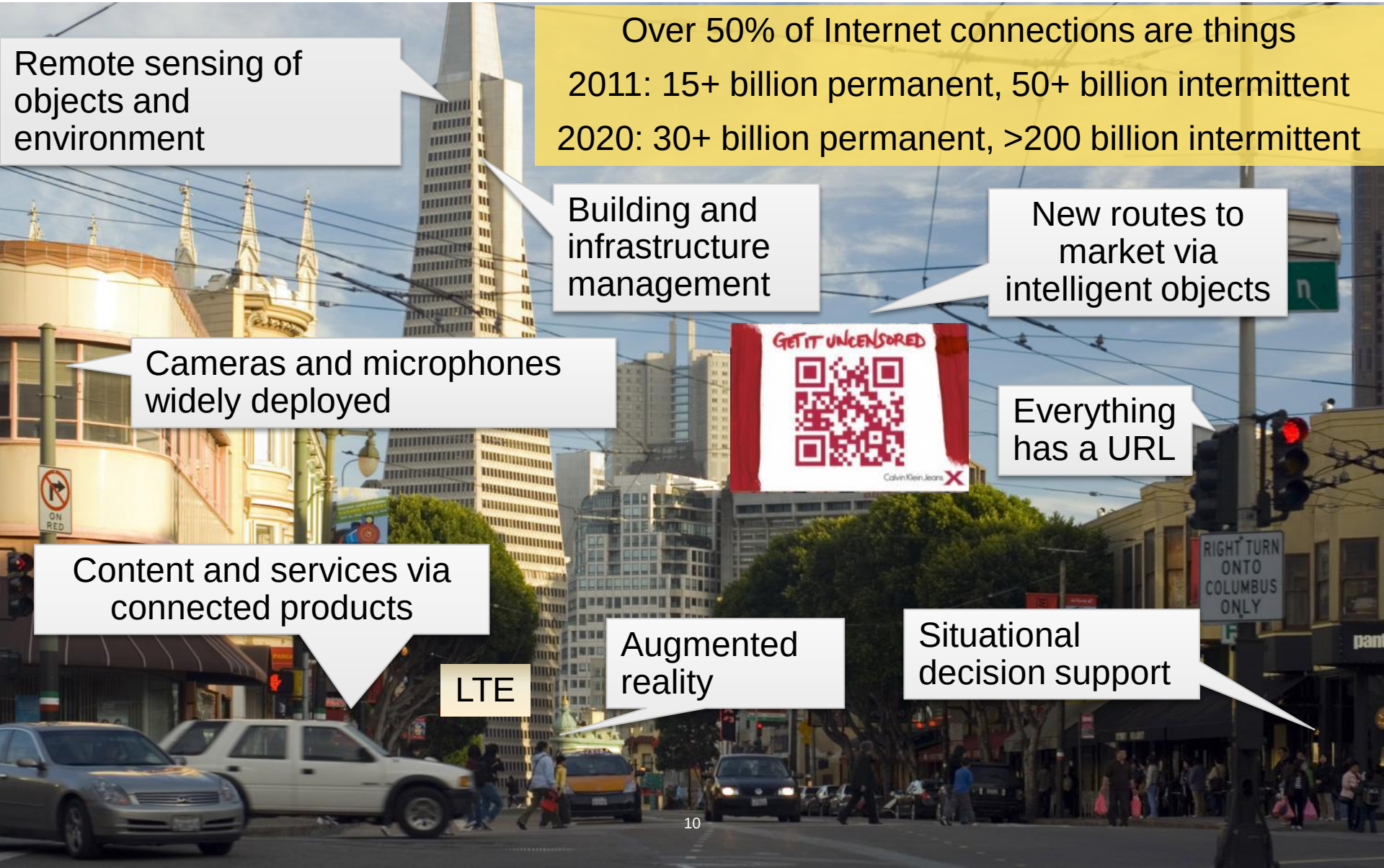
The Internet of Things Leads to the Internet of Everything



New Outcomes From Digital Civic Moments Enabled by the Internet of Things

The Internet of Things Is Already Here:

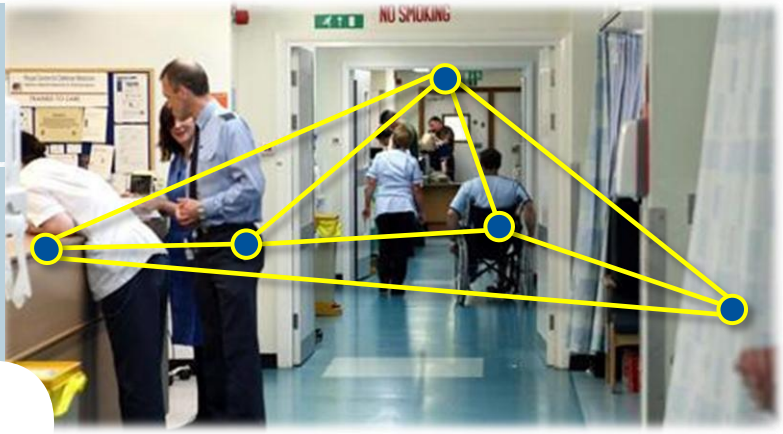
- Connections 2020: >230 billion permanent and intermittent
- Dropping costs: Audio, video, Wi-Fi

Connected Devices Everywhere:

- Cameras and microphones widely deployed
- Remote sensing of objects and environment
- Building and infrastructure management

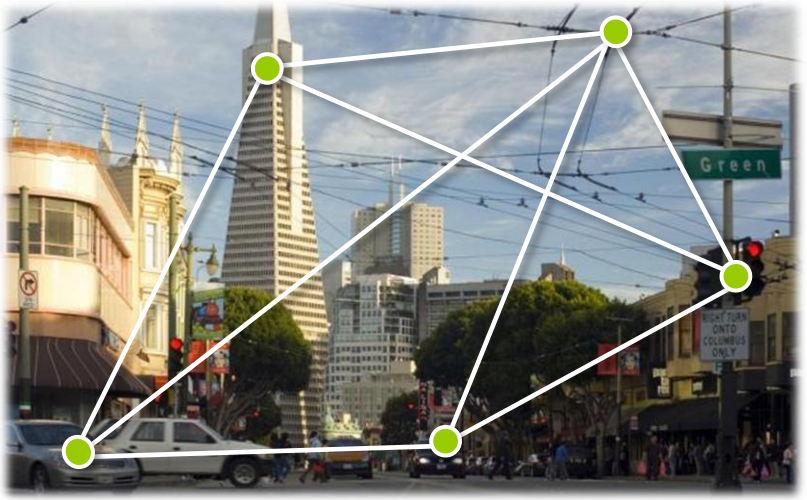
More and More Applications:

- Crime detection and prevention
- Public services via connected products



Digital Public Health Clinics

Intelligent Emergency Response

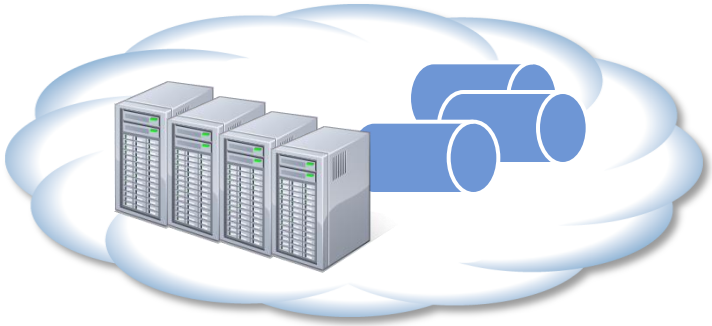


Smart Cities

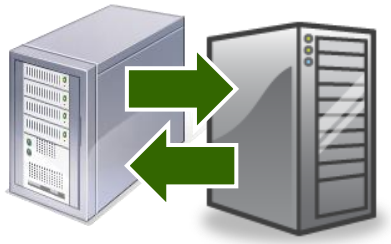
Big Data ... Fast Data … All Data

Documents and Content

RFID, Meters and Other OT



Cloud Computing and Cloud Data



Social Computing

Mobile and Communications

Internal Applications, Email, More

Can easily overwhelm in-house resources

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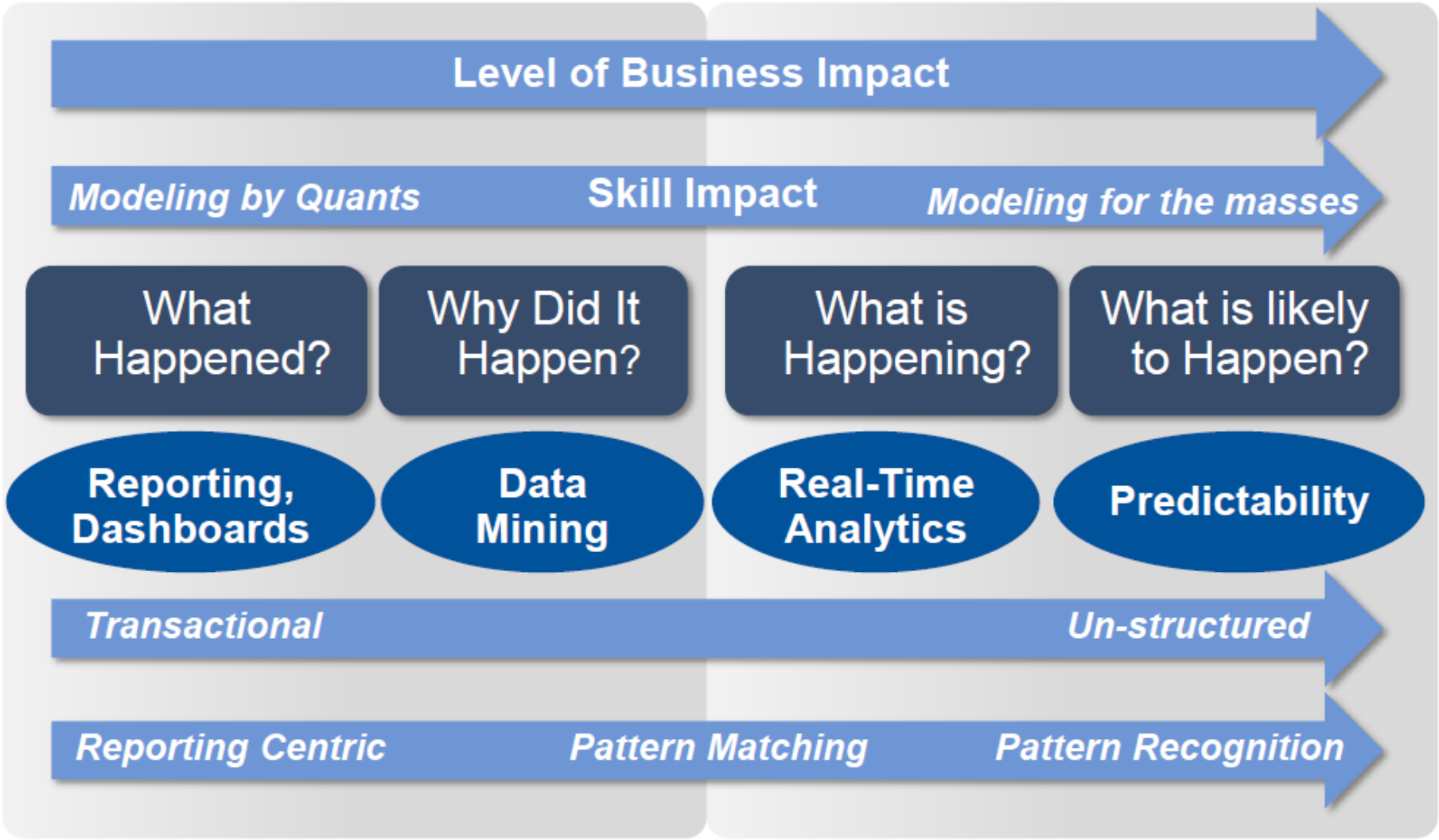
Where do we begin?
The Intelligence Continuum



Source: Pattern-Based Strategy: Getting Value from Big Data

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The Need for Mobility Government To Consumer

Digital citizens use mobile devices to access digital services provided by digital businesses.

Digital citizens have high expectations of their digital experience, the extent of services available and the effectiveness of the digital services.

- According to the Pew Internet Project's research related to mobile technology, as of January 2014:
  - 90% of American adults have a cell phone
  - 58% of American adults have a smartphone
  - 42% of American adults own a tablet computer
- According to ComScore, as of Jan '13, mobile devices are accountable for 40% of the time spent on the Internet
- According to Email Analytics, as of Jan '14, 49% of email is opened on a mobile device

➡ **People want to use mobile devices to access government services.**

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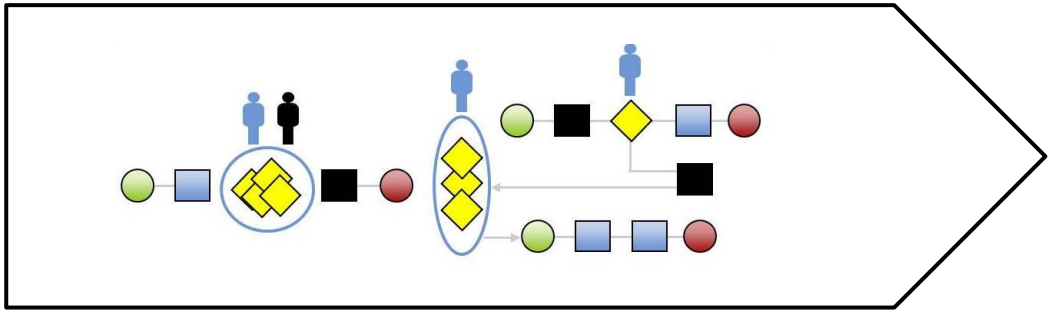
Opportunities for Value and Benefits From Cloud Computing

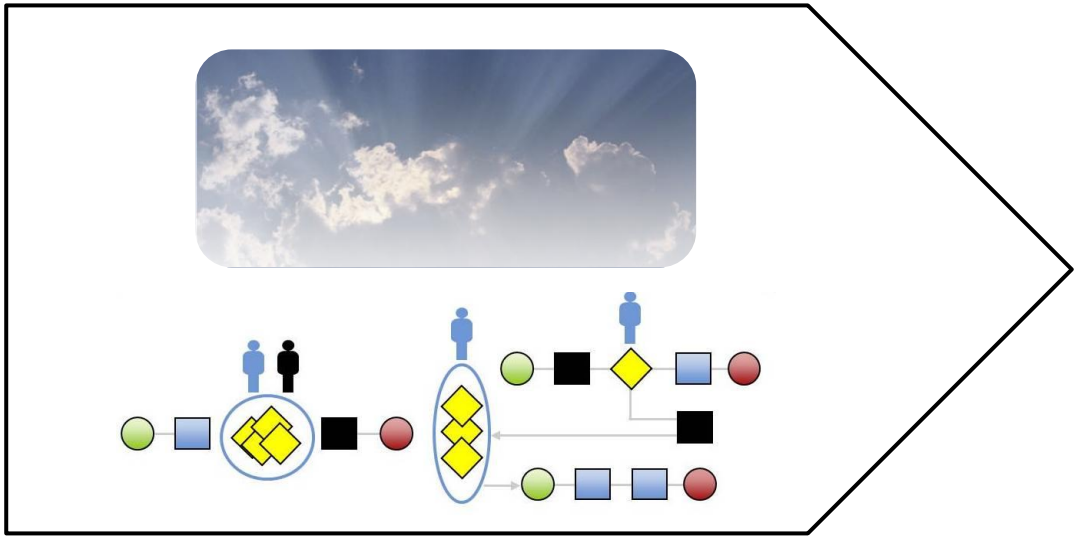
 Agility	How can we use the cloud to make change easier, quicker or more effective?
 Cost	How can we reduce operating or startup and spend more effectively?
 Reduce Complexity	How can we reduce complexity and shift work off our shoulders?
 Focus	How can we focus more on what we need to do and not on what we don't?
 Leverage	How can we leverage the knowledge and skills of others?
 Innovation	How can we do things that were hard or impossible to do before?

But Don't Get Distracted by Cloud Computing

Moving your business processes to the cloud is not the goal.



*Using cloud to **optimize business outcomes is the goal.***



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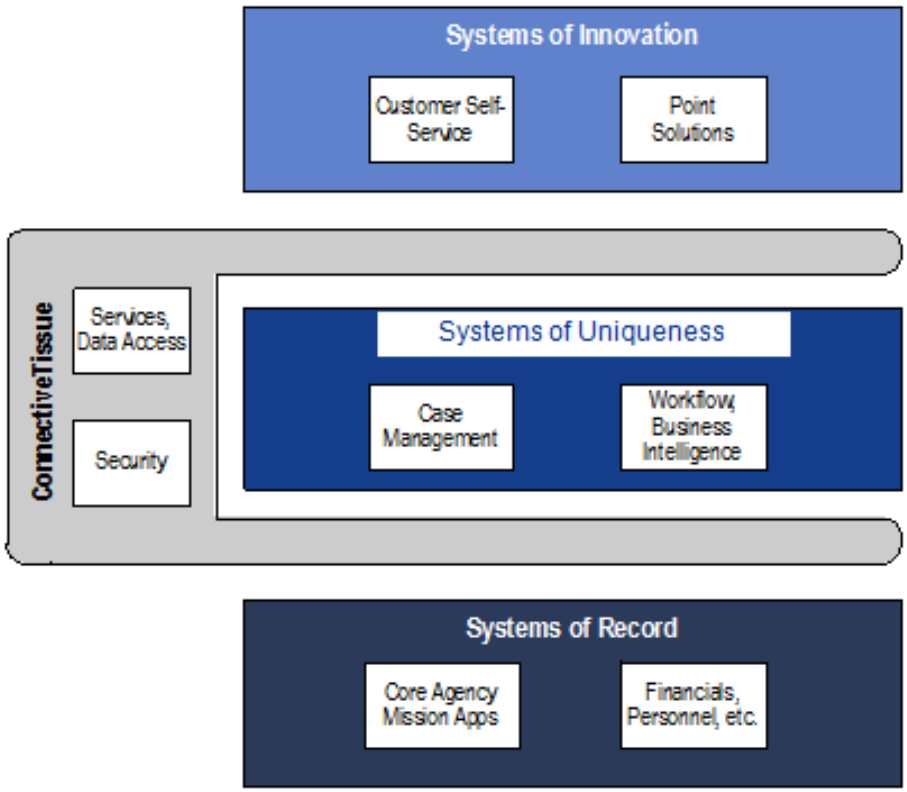
Government & Pacing The Digital Change

Pace Layering To Establish Different Rates of Change



Systems of Innovation

- Emerging business requirements
- Built on an ad hoc basis
- Short life cycle (6 months - 3 years)
- Potentially consumer-grade technologies

Systems of Uniqueness

- Unique organization processes
- Specific capabilities
- Medium life cycle (3-8 years)
- Frequent reconfiguration

Systems of Record

- Established applications
- Core transactional processing
- Master data
- Common industry processes
- Long life cycle (10-20 years)
- Rate of change is low

Rate of Change

6 mos – 3 yrs

3 yrs – 8 yrs

10 yrs – 20 yrs

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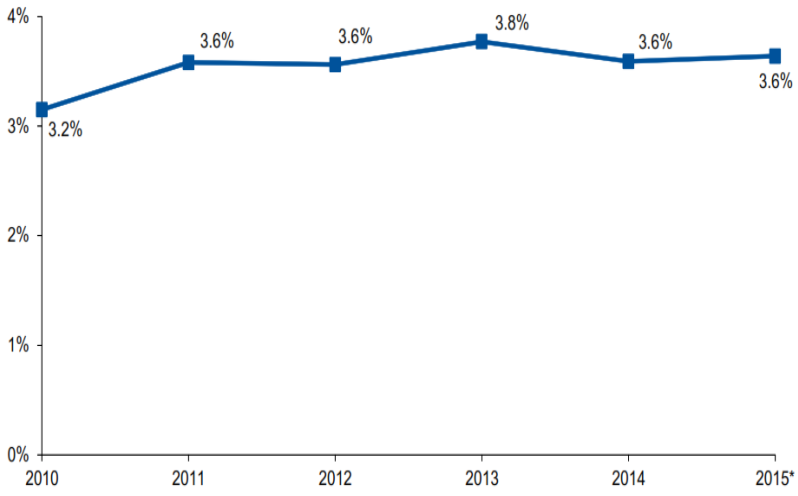
Government IT Spend

IT As A % Of Operating Expense Keeps Pace

IT Capital Expenditures On The Rise

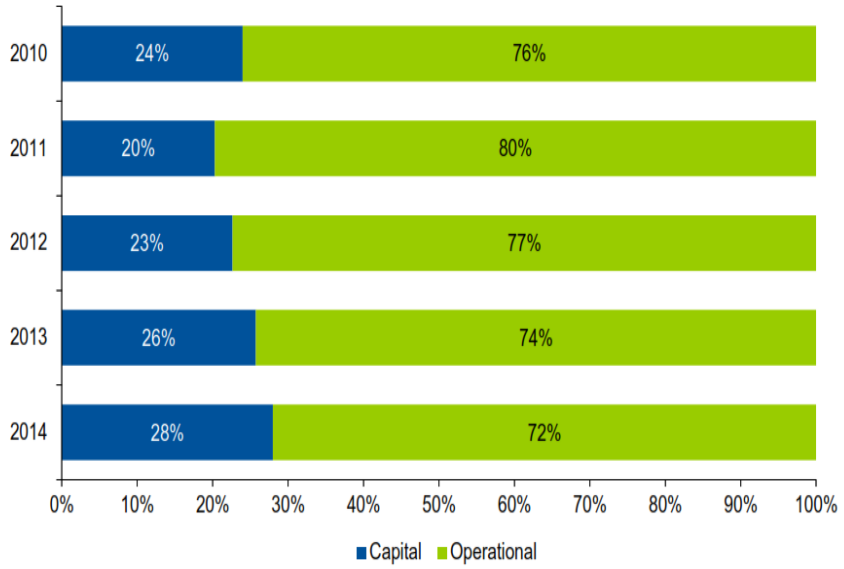
Figure 3. Government – State and Local: IT Spending as a Percent of Operational Expense



*Note: The value for 2015 is a projected figure, and is based upon projected 2015 IT budgets provided by Gartner clients.

Source: Gartner IT Key Metrics Data (December 2014)

Figure 7. Government – State and Local: IT Operational vs. Capital Spending



Source: Gartner IT Key Metrics Data (December 2014)

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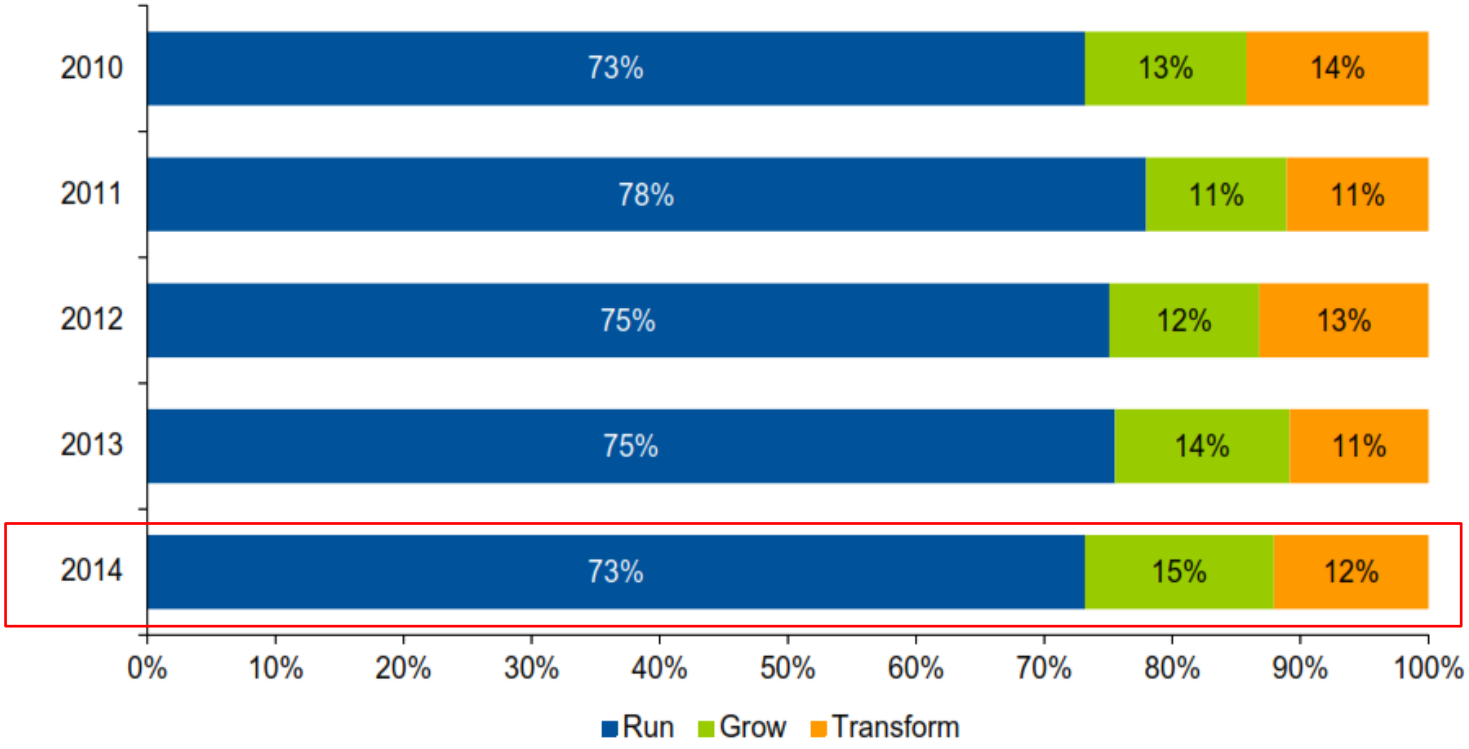
Government Spend on Grow & Transform

Figure 8. Government — State and Local: IT Spending to Run, Grow and Transform the Business



Source: Gartner IT Key Metrics Data (December 2014)

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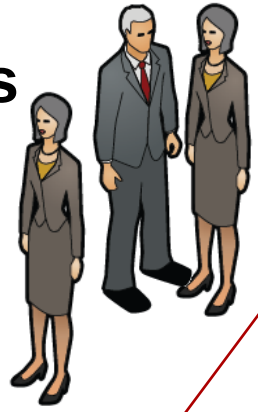
Government Challenge: IT Backlog Slows Delivery of Critical Business Capabilities

Business Leaders



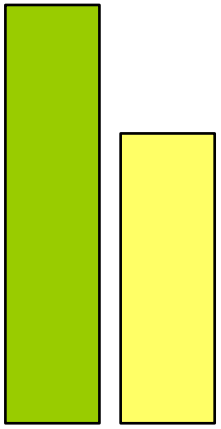
"We need it now!"

Apps/IT Leader

"We have an 18 month backlog!"

Equilibrium?

Governance?



Business Demand

Supply, Capacity, Budget

CFO

"Spend Less on IT!"

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Closing Thoughts

- Government and industry alike will experience significant change in the digital revolution
- Government is particularly challenged given aging policy, workforce and infrastructure issues
- Digital government contemplates new technology delivery models that explore multi-sourcing, dynamic and hybrid delivery of services that are relevant, timely and business-aligned

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