The Third Era of Enterprise IT

Exploring the "Nexus of Forces", "Quiet Crisis", and Gartner's 2014 CIO Agenda

Phil Baughn

Gartner Executive Programs

This presentation, including any supporting materials, is owned by Gartner, Inc. and/or its affiliates and is for the sole use of the intended Gartner audience or other authorized recipients. This presentation may contain information that is confidential, proprietary or otherwise legally protected, and it may not be further copied, distributed or publicly displayed without the express written permission of Gartner, Inc. or its affiliates.
© 2013 Gartner, Inc. and/or its affiliates. All rights reserved.

Gartner

The Nexus of Forces (The New Era)

This is a phenomenon that has progressed in stages:

- **Stage 1 (Circa 1982) — The PC Era**: The introduction of PCs enabled users to focus on personal productivity tasks and automated many simple business activities. **The age of user empowerment was born, and consumerization began**. Users were able to make their own decisions about what software and processes they would follow with these new devices.

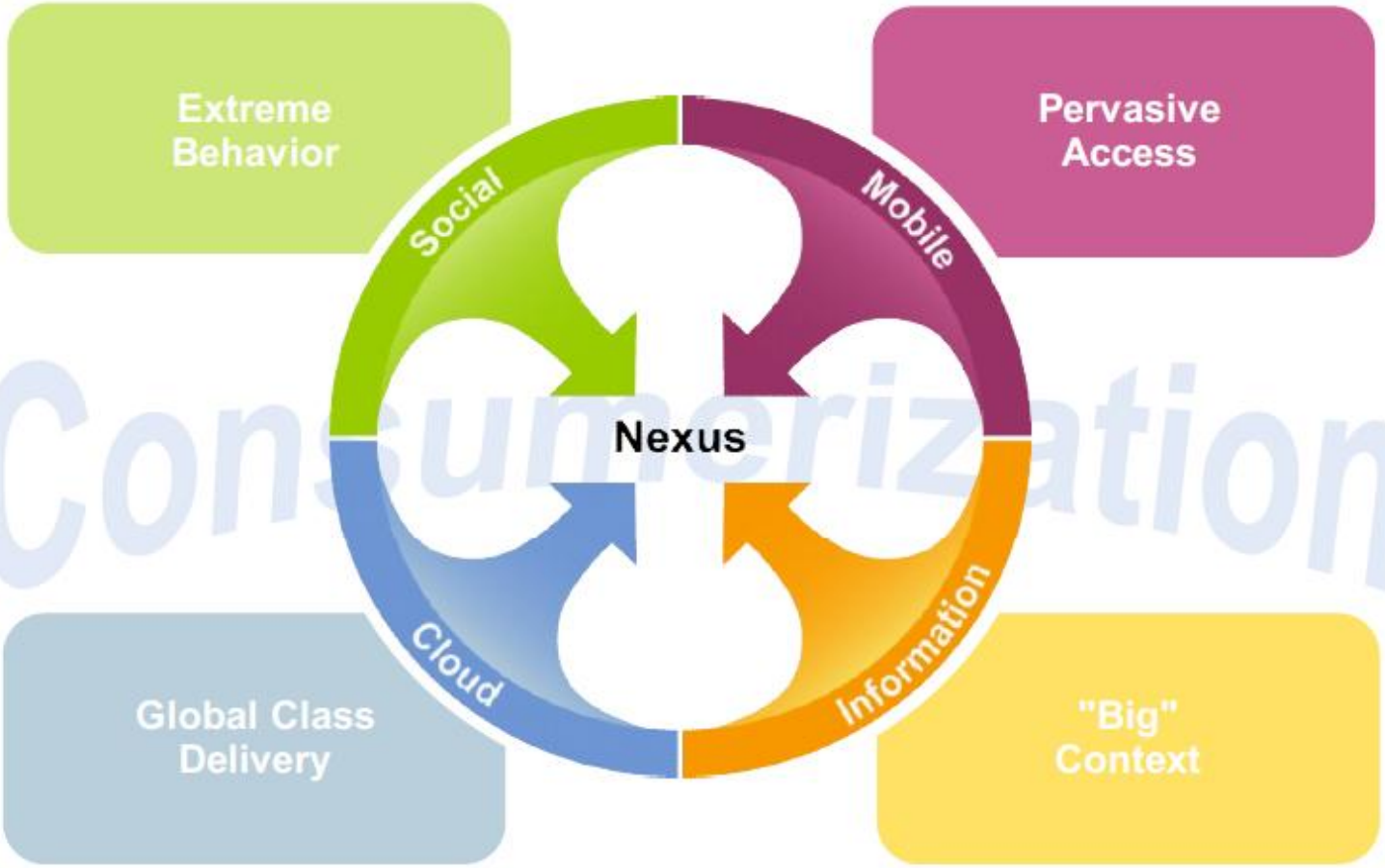
Eventually, PC forums, sharing circles and even use of personally owned software changed the way business users chose to work.

- **Stage 2 (Circa 1993) — The Web Era**: The Internet and World Wide Web **allowed users to begin to share information outside the walls of the enterprise, and to shape new strategies for reaching customers and partners**. E-commerce and e-business were born, and they have transformed what it means to be a modern business. IT must react to maintain proper security, performance and governance.

- **Stage 3 (Circa 2011) — The Nexus Era**: Now comes the Nexus of Forces. The combination of cloud, social, mobile and information pushes us into an era where entire business flows are **digitized**, where **relationships have a digital incarnation**, and where **new models of business and consumer interaction are emerging**.

Gartner

The Nexus of Forces



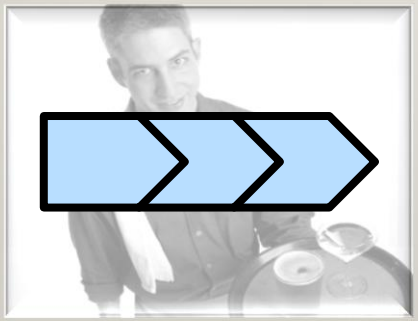
The nexus is the point at which two or more of four major IT forces converge to create new patterns of outcomes in technology use, business reality, market dynamics and changes to the lives of people.

IT and business are integrally related.

Gartner

We Are Entering a Third Era of Enterprise IT

We are here

	IT Craftsmanship	IT Industrialization	Digitalization
			
Focus	Technology	Processes	Business Models
Capabilities	Programming, system management	IT management, service management	Digital leadership
Engagement	Isolated, disengaged internally and externally	Treat colleagues as customers, unengaged with external customers	Treat colleagues as partners, engage external customers
Outputs & Outcomes	Sporadic automation and innovation, frequent issues	Services & solutions, efficiency & effectiveness	Digital business innovation, new types of value

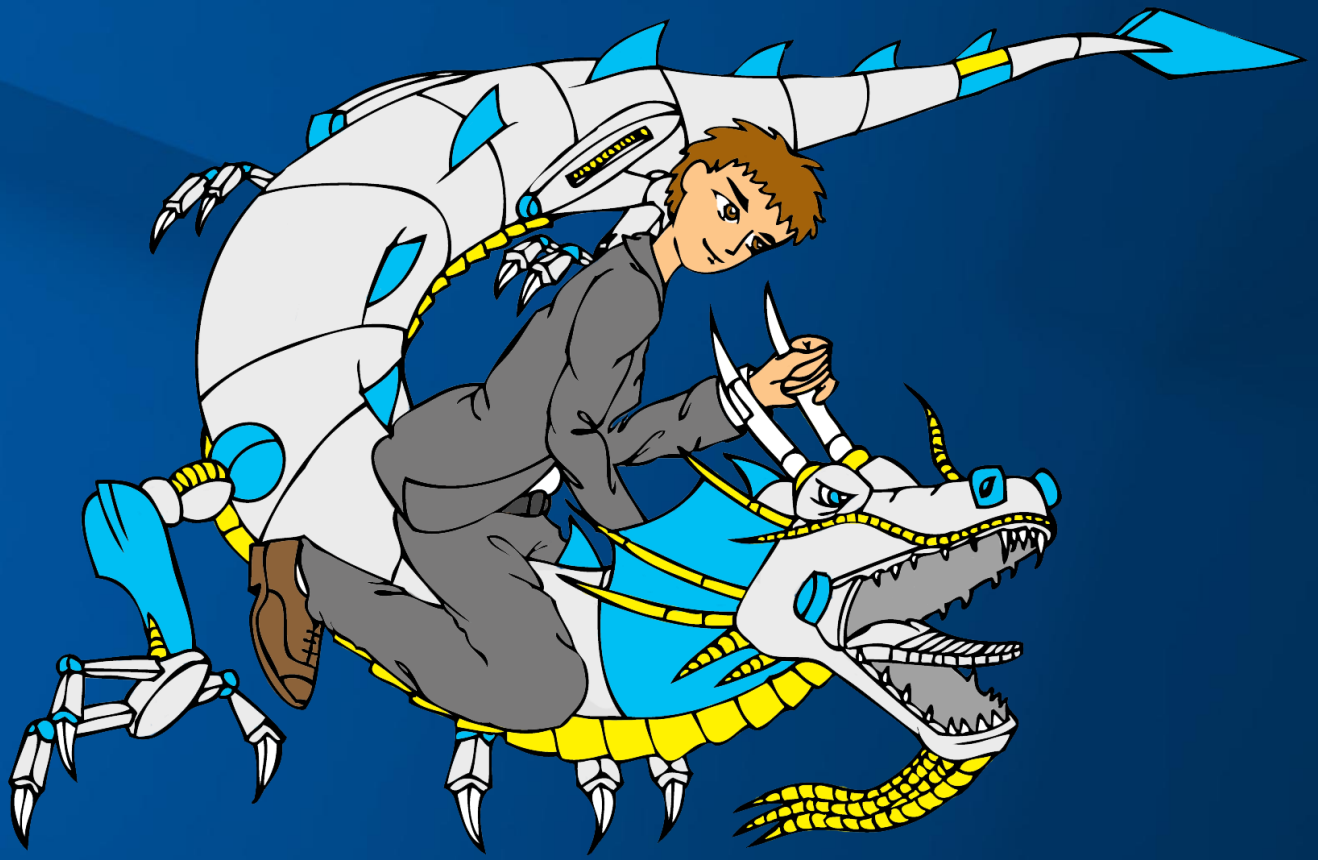
What Is Digital Business in the Government Context?

Government business services that are created using digital assets and capabilities, involves digital products/services/citizen experiences, and/or is conducted through digital channels and communities.

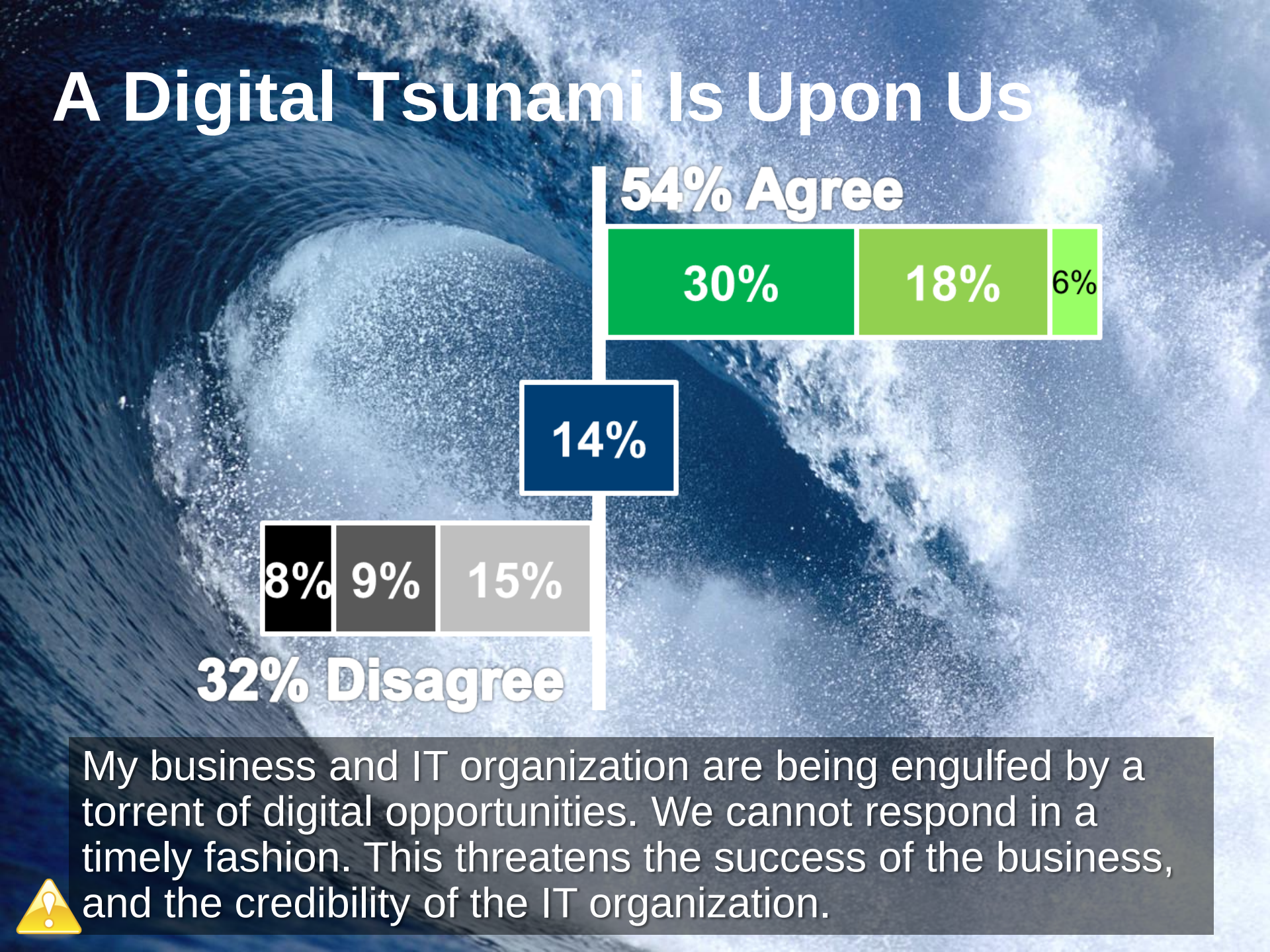
Top 10 Government Technology Trends	Social	Mobile	Information	Cloud
1. Personal Mobile Workplace	✓	✓		
2. Mobile Citizen Engagement	✓	✓		
3. Big Data and Actionable Analytics			✓	✓
4. Cost-effective Open Data	✓		✓	
5. Citizen-managed Data	✓	✓	✓	✓
6. Hybrid IT and Cloud		✓		✓
7. Internet of Things		✓	✓	✓
8. Cross-domain Interoperability			✓	✓
9. BPM for Case Management			✓	✓
10. Gamification for Engagement	✓	✓		

Gartner

2014 CIO Agenda
Taming The Digital Dragon



A Digital Tsunami Is Upon Us



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

Rebuilding the Core

"The IT organization has the right skills and capabilities in place to meet upcoming challenges."

"There is a growing disconnect between our increasingly nonlinear world and the linear mindsets, practices and institutions that we deploy in our work."

John Hagel, co-chairman, Deloitte Center for the Edge

The Entire World Is Digital Now

"There will be seven billion smartphones in everybody's hands in the next five years. Now, everybody is a digital customer, so doing things digitally is no longer a niche play. Doing things digitally is how the entire world communicates."

Angela Ahrendts
Burberry
Source: businessoffashion.com Sep 2013

#GartnerSYM

© 2013 Gartner, Inc. and/or its affiliates. All rights reserved.

Gartner SYMPOSIUM ITXPO 2013

Must Go Faster

Digital is now up to 35% of P&G's ad spending in the U.S. It goes up and down, 25% to 35%. We have some businesses and brands where digital is incredibly effective, and we're doing more. We have other brands that are on the learning curve. They've got to get up the learning curve faster.

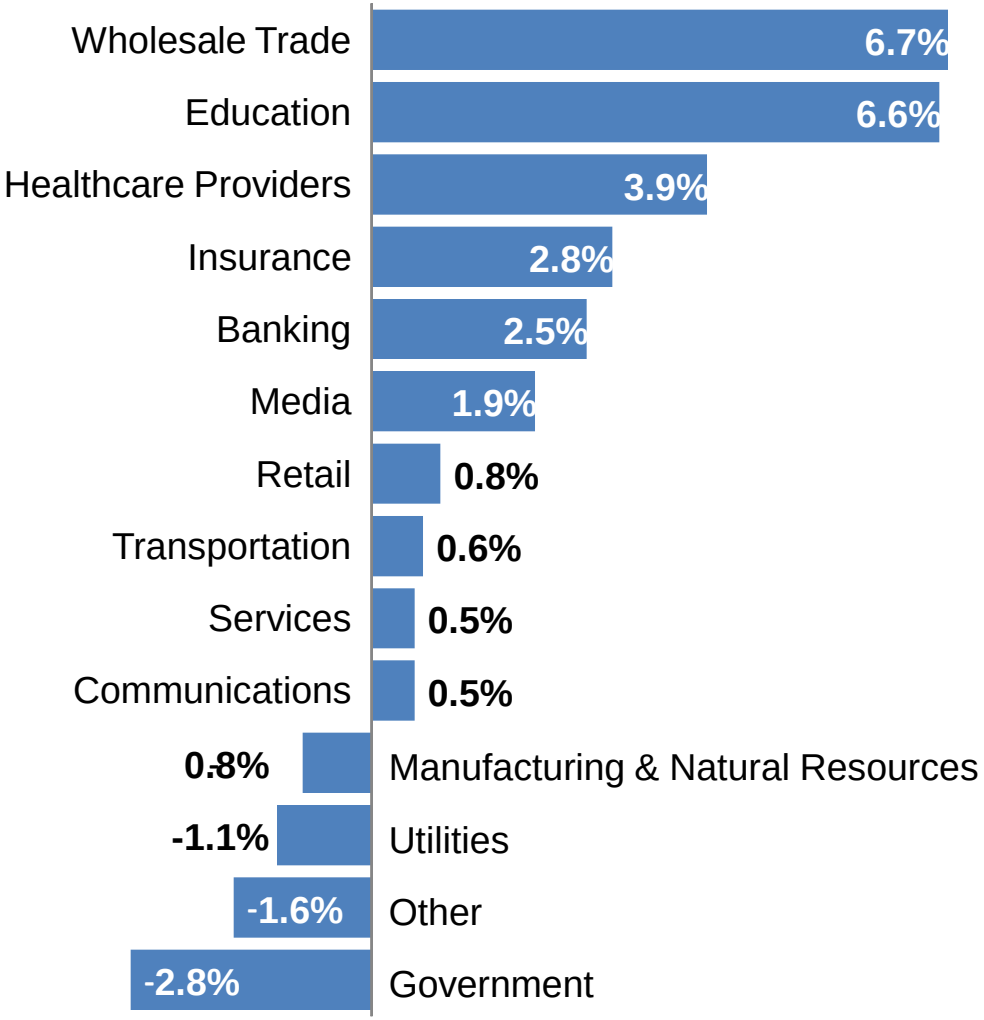
A.G. Lafley
P&G
source: P&G quarterly update Jun 2013

© 2013 Gartner, Inc. and/or its affiliates. All rights reserved.

The “Quiet Crisis”

Gartner

Expected Budget Changes by Industry



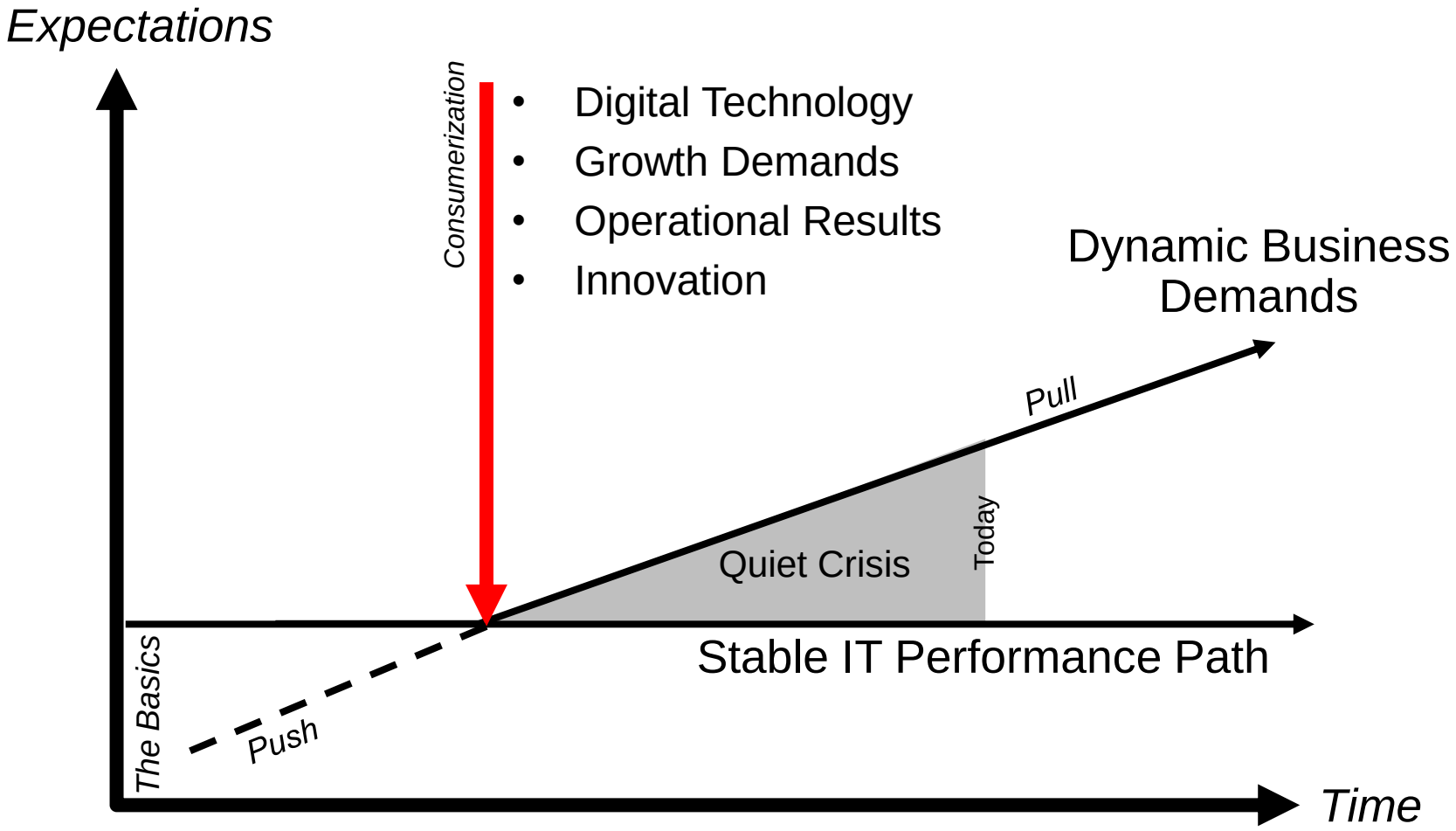
Gartner

Gartner's Latest IT Key Metrics Data
- Cross Industry

- The 2013 Cross Industry average IT spending as a percent of revenue is 3.3%, down from 3.5% in 2012.
- The 2013 Cross Industry average IT spending as a percent of operating expense is 4.3%, down from 4.4% in 2012.
- The 2013 Cross Industry average IT spending per employee is $12,696, down from $13,197 in 2012.

Gartner

The Quiet IT Crisis



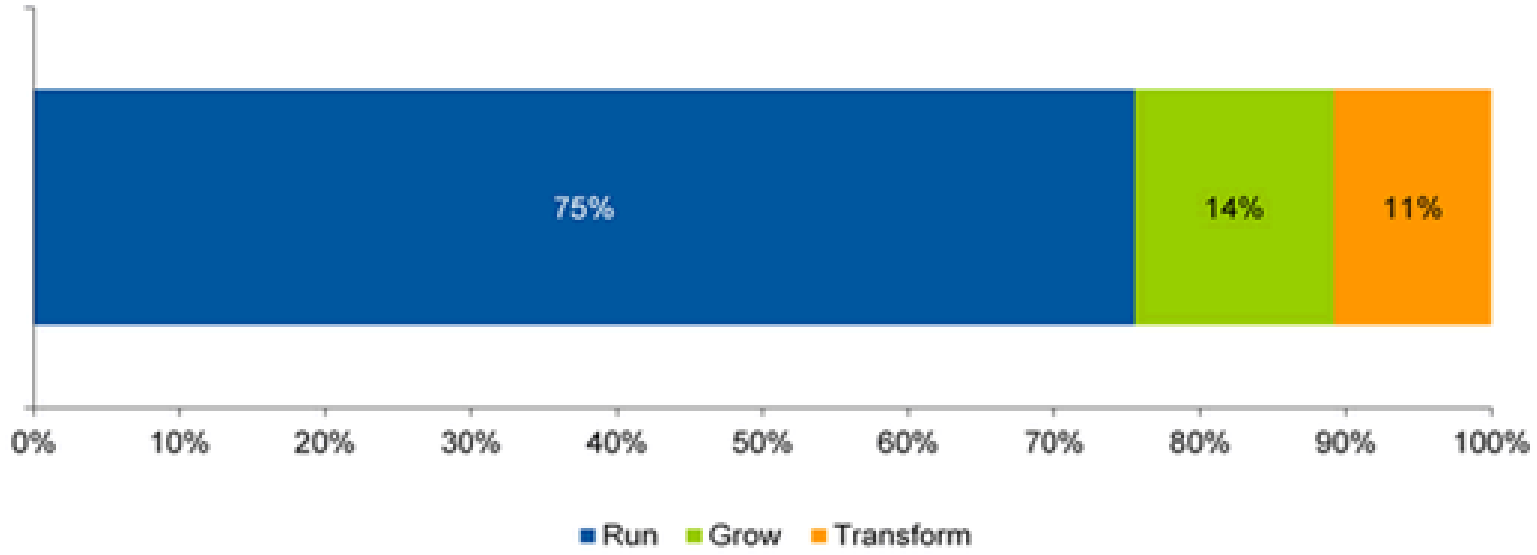
Customer, consumer, and constituent expectations are changing; and at a rate which will sweep us along, ready or not, willing or not.

Gartner

Gartner's Latest IT Key Metrics Data

Run, Grow, Transform…

Figure 6. Government — State and Local: IT Spending to Run, Grow and Transform the Business

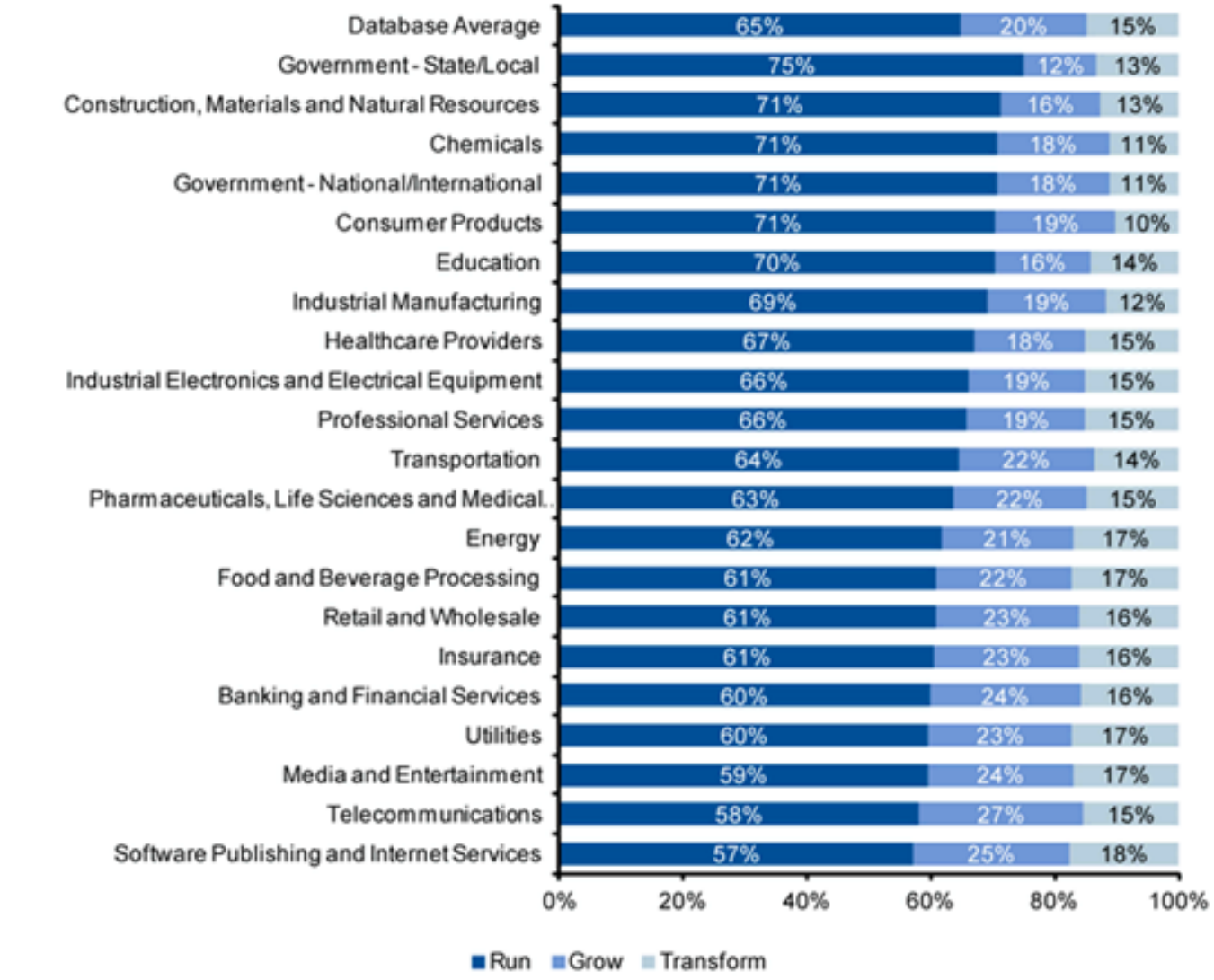


Source: Gartner IT Key Metrics Data (December 2013)

Gartner

Gartner's 2012 IT Key Metrics Data
- *Cross Industry*

Figure 25. IT Spending to Run, Grow and Transform the Business, by Industry, 2012



Gartner

Run, Grow, Transform…

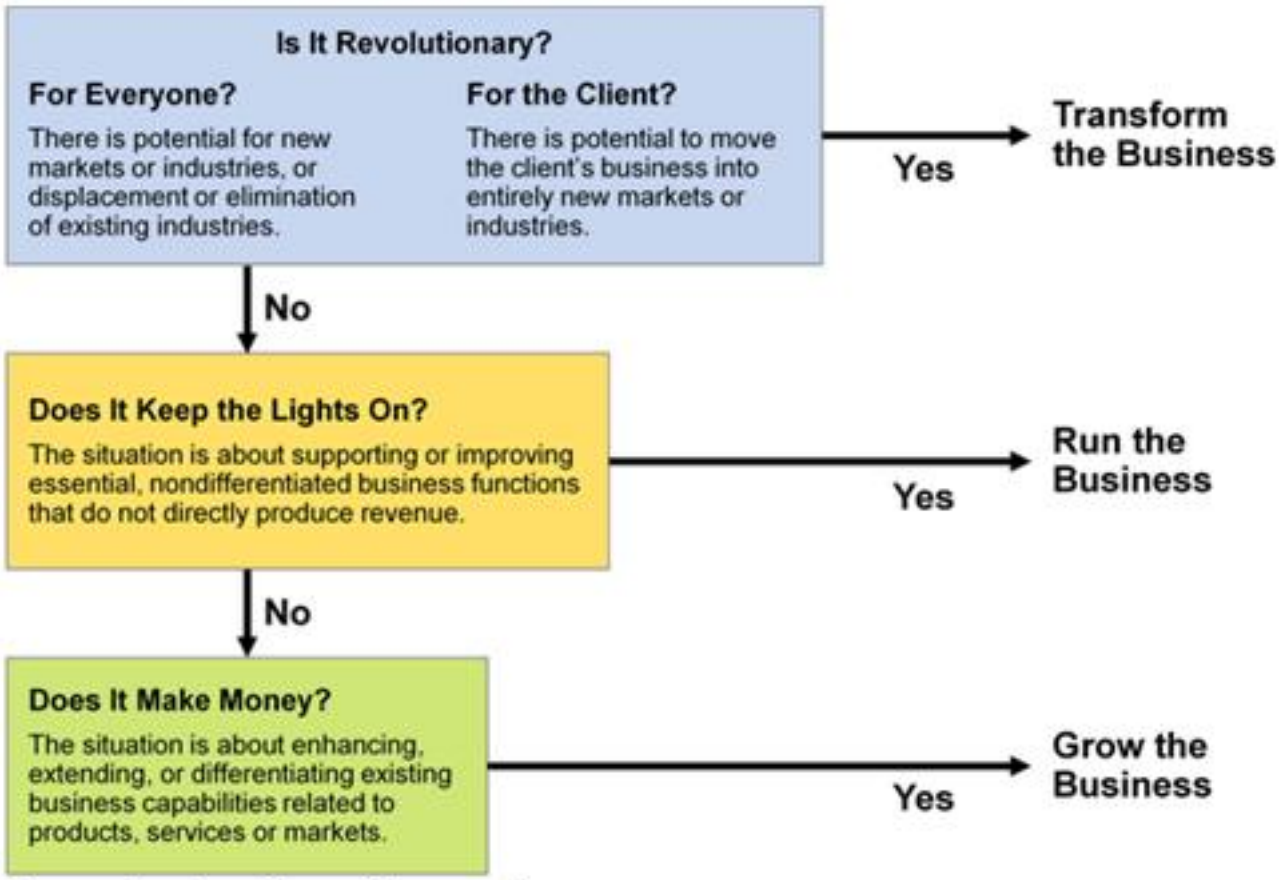
- **Run the business:** This is an indicator of how much of the IT resource is consumed and focused on the continuing operation of the business. It includes all nondiscretionary expenses as part of the run-the-business cost.
- **Grow the business:** This is an indicator of how much of the IT resource is consumed and focused on developing and enhancing IT systems in support of business growth (typically organic growth). Discretionary investments are more likely to be included in the grow-the-business or transform-the-business cost.
- **Transform the business:** This is an indicator of how much of the IT resource is consumed and focused on implementing technology systems that enable the enterprise to enact new business models. This is very much a "venture" category and would be represented by activities such as a brick-and-mortar retailer moving to online shopping, a traditional bank offering online banking (or moving into offering insurance services), or a commercial airline offering new freight services.

Gartner®

Gartner's Latest IT Key Metrics Data

Run, Grow, Transform…

Figure 7. Business Value Category Decision Tree



Source: Gartner (December 2013)

Gartner

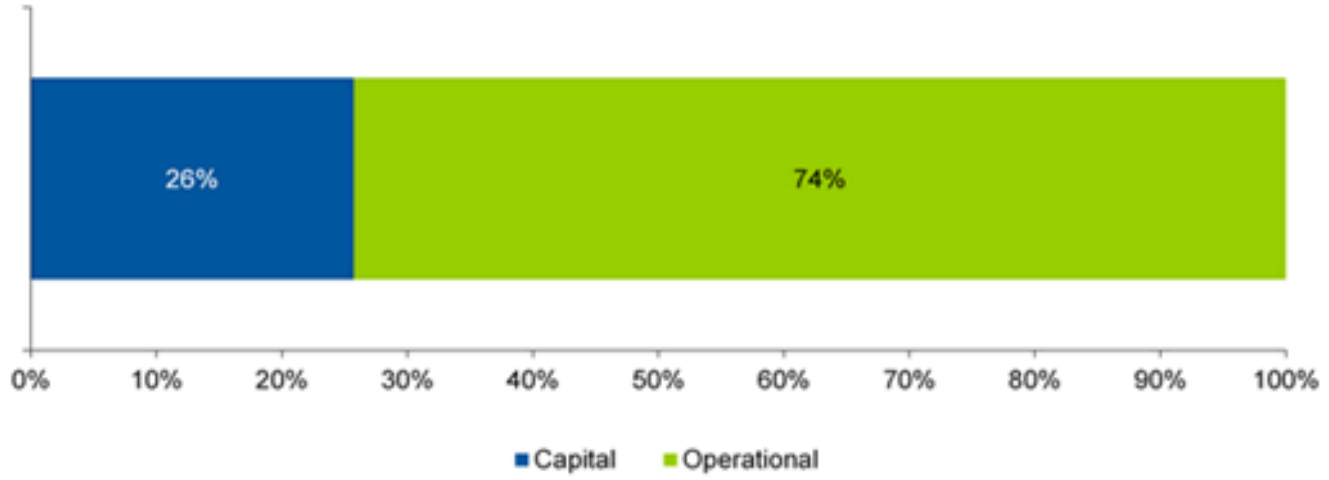
Gartner's Latest IT Key Metrics Data

Table 5. Government — State and Local: IT FTEs as a Percent of Employees: by Operating Budget Scale

<$250M in Operating Budget	$250M- $500M in Operating Budget	$500M- $1B in Operating Budget	$1B- $10B in Operating Budget	$10B+ in Operating Budget
5.5%	3.8%	4.4%	3.3%	2.0%

Source: Gartner IT Key Metrics Data (December 2013)

Figure 5. Government — State and Local: IT Operational vs. Capital Spending

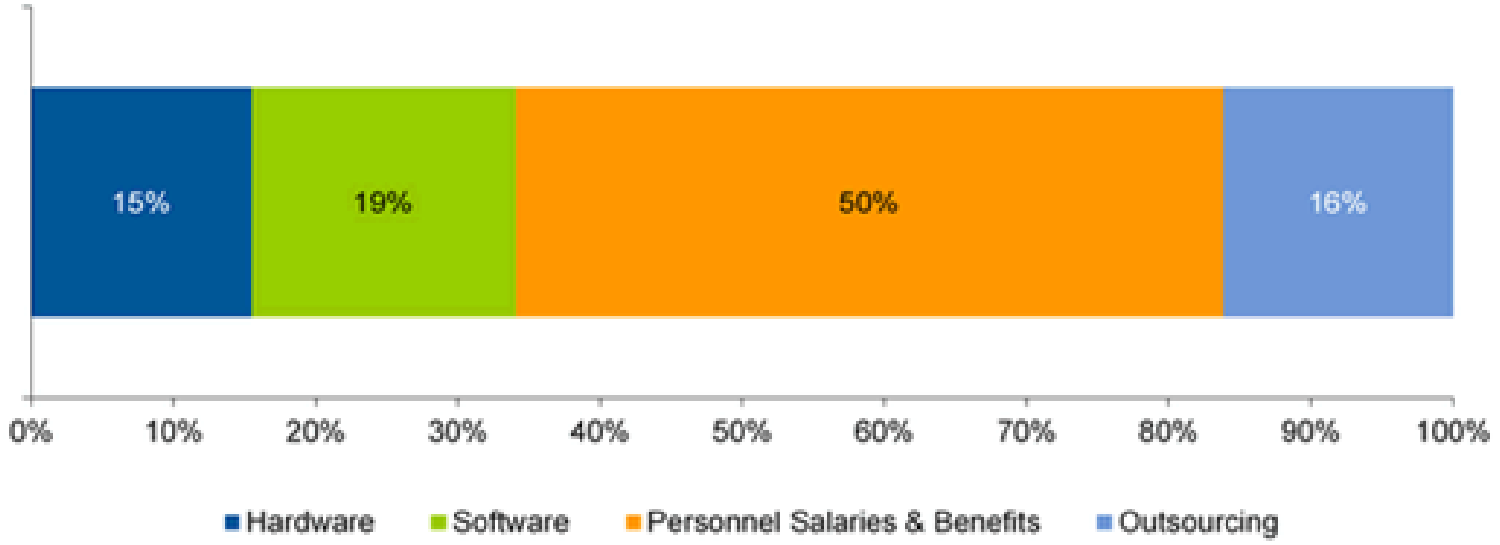


Source: Gartner IT Key Metrics Data (December 2013)

Gartner

Gartner's Latest IT Key Metrics Data

Figure 8. Government — State and Local: Distribution of IT Spending on Hardware, Software, Personnel, Outsourcing

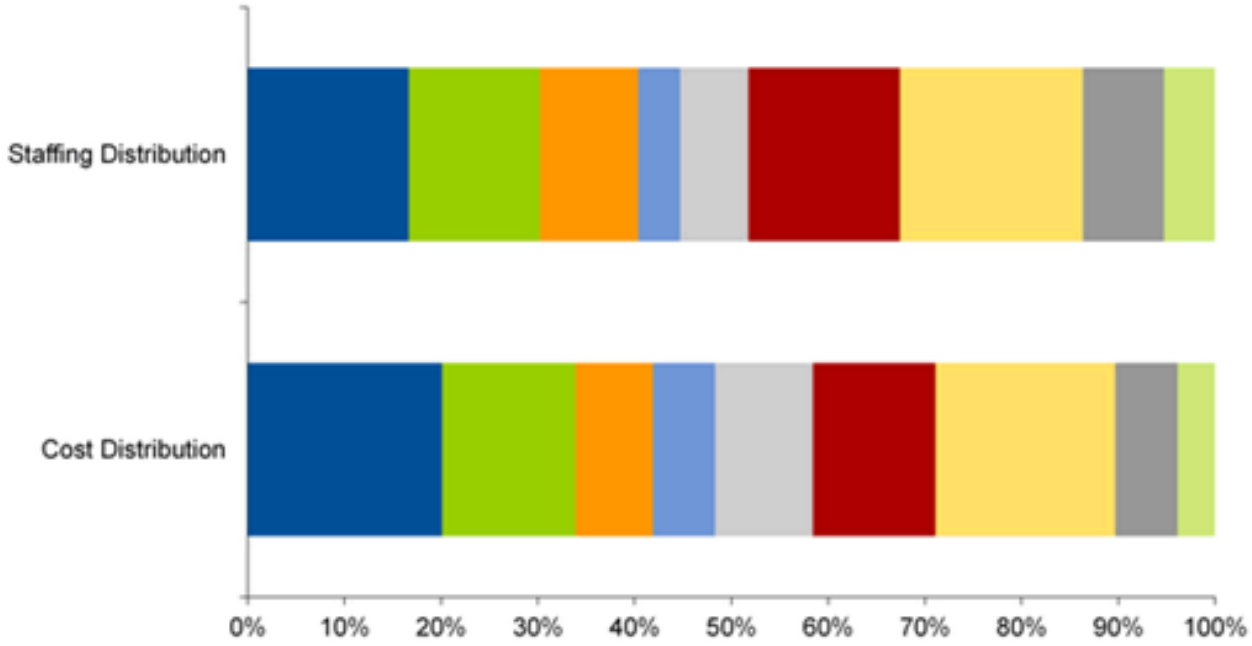


Source: Gartner IT Key Metrics Data (December 2013)

Gartner

Gartner's Latest IT Key Metrics Data

Figure 10. Government — State and Local: Distribution of IT Cost and Staffing by IT Functional Area



	Cost Distribution	Staffing Distribution
Data Center	20%	17%
End-User Computing	14%	14%
IT Service Desk	8%	10%
Voice Network	6%	4%
Data Network	10%	7%
Application Development	13%	16%
Application Support	19%	19%
IT Management	6%	8%
Finance & Administration	4%	5%

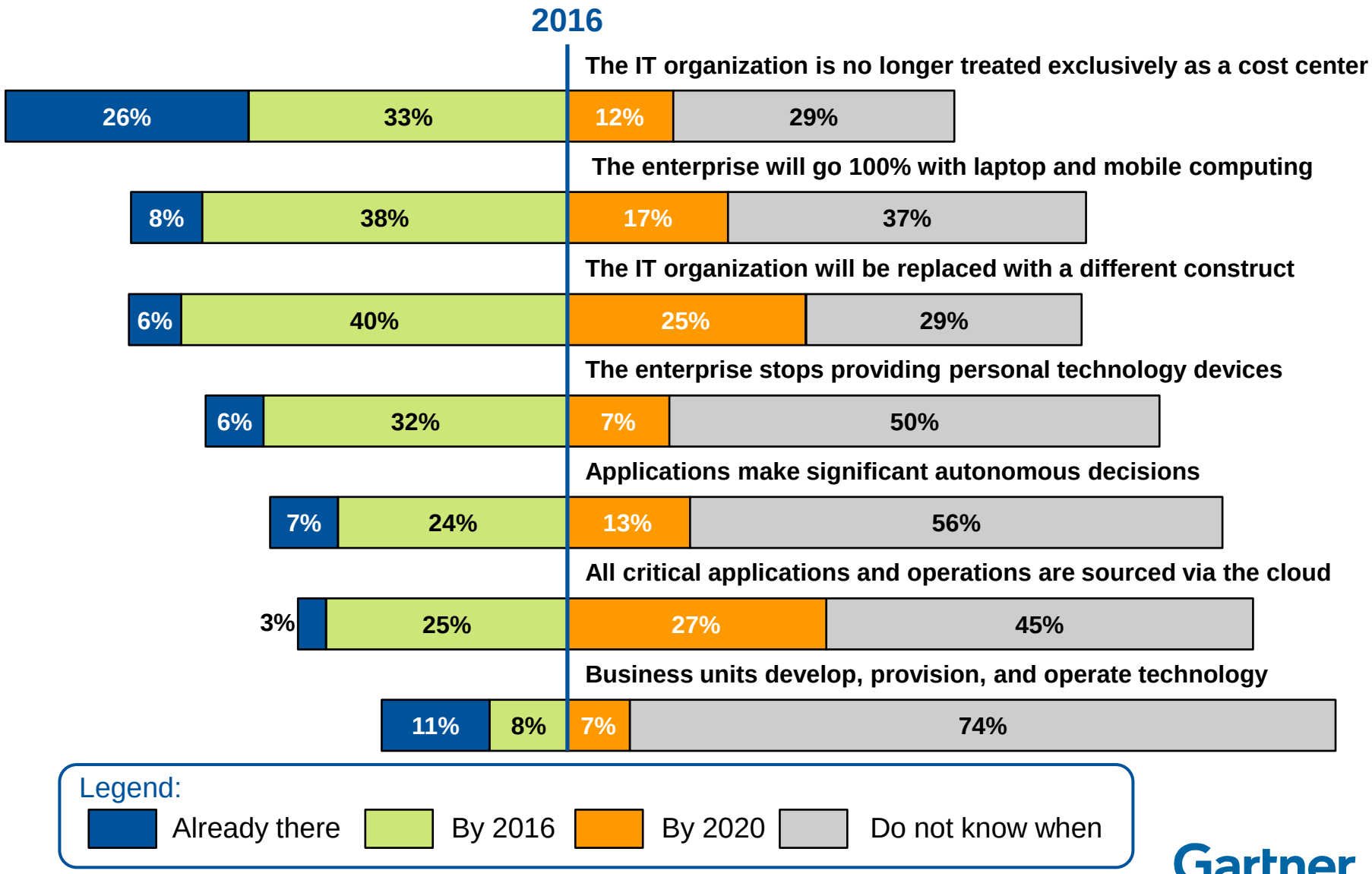
Gartner

More of…

Gartner's 2013 Survey & the 2014 CIO Agenda

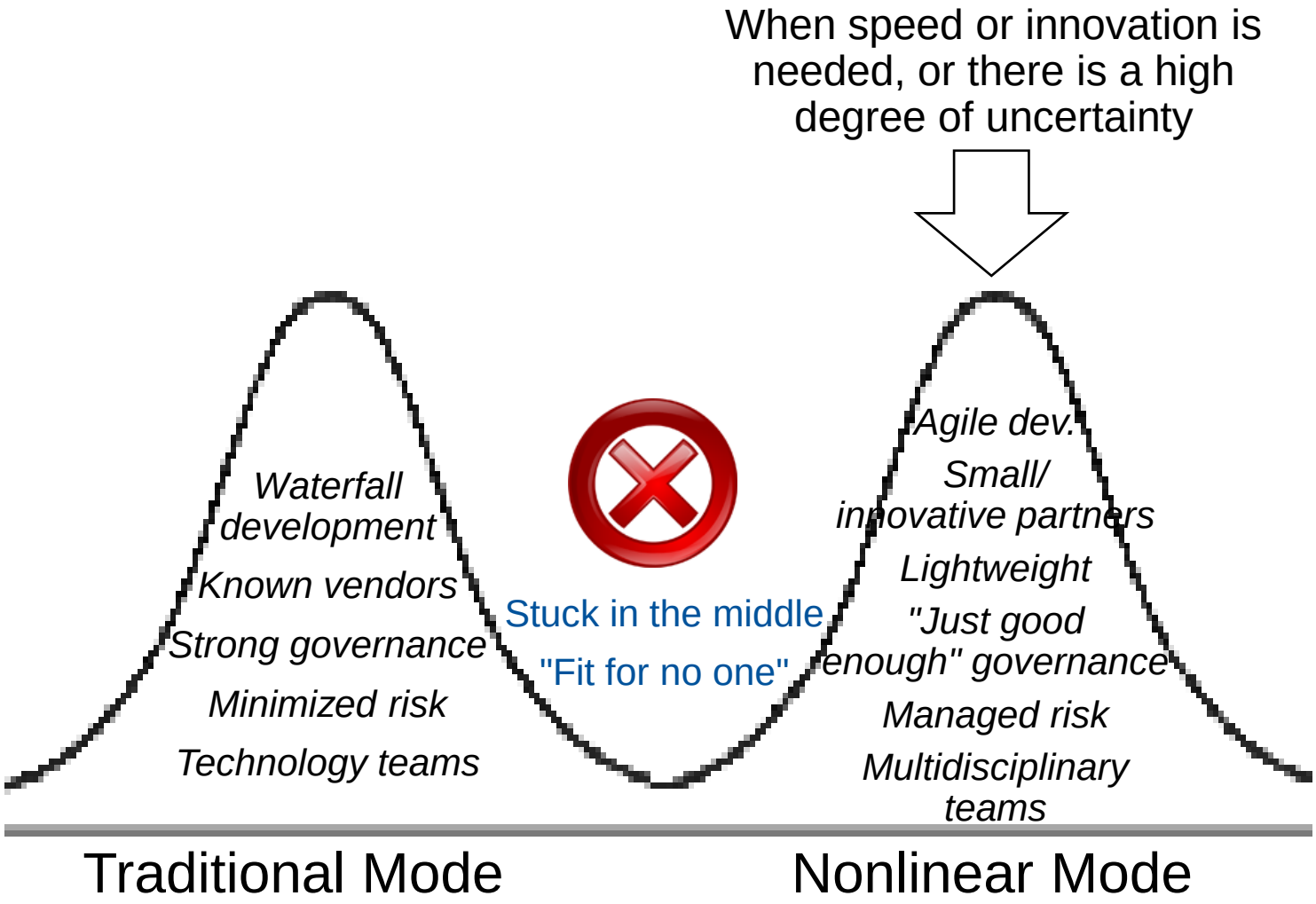
Gartner

CIOs Everywhere Anticipate Significant Change Over the Next Three Years



Gartner

Bimodal IT Offers a Way to Get Unstuck



"The reality is that you do have to operate at two speeds, and some of that you do by creating dedicated teams for each. Focusing on the big systems, making them run smooth, while at the same time having disrupters to innovate, together with marketing and the customer, exploiting digital."
Willem Eelman, global CIO, Unilever

Mythbuster: Nonlinear need not be limited to where speed is needed, for experiments, or for non-mission-critical initiatives.

Two Speed IT Organizations are Thriving

Gartner

Technology Priorities Represent Two Complementary Goals

Exploit the New

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

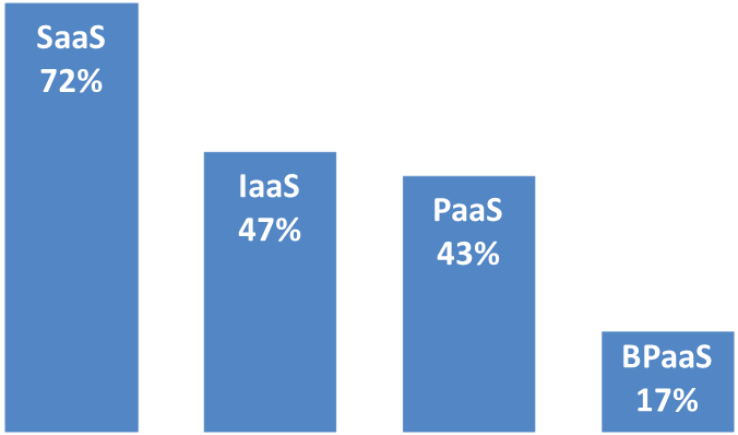
BI/ANALYTICS	1
INFRASTRUCTURE & DATACENTER	2
MOBILE	3
ERP	4
CLOUD	5
NETWORKING, VOICE AND DATA COMMS	6
DIGITALIZATION/DIGITAL MKTG	7
SECURITY	8
INDUSTRY SPECIFIC APPLICATIONS	9
CUSTOMER RELATIONSHIP MANAGEMENT	10
LEGACY MODERNIZATION	11
COLLABORATION	12

Renovate the Core

Gartner

Public Cloud Is Being Deployed to Support Agility

25% Have made significant cloud investments



Main Reason

Payback

"Potential benefits of cloud include cost savings and other capabilities, such as agility, innovation and time to market. It is often the latter that is the real impetus. These benefits are often less quantifiable, but are more and more commonly cited as the true drivers and value of cloud."

David Mitchell Smith, Gartner Fellow

Resourcing: 2013 Top 10 Government CIO Strategic Priorities

CIO IT Strategies	Ranking of Strategic Priorities Government CIOs Selected as One of Their Top Three in 2013.		
Ranking	***2013***	**2012**	**2011**
Improving IT management and governance	1	1	2
Improving IT organization and workforce	2	9	*
Delivering business solutions	3	2	*
Implementing mobility solutions	4	*	*
Consolidating IT operations and resources	5	5	4
Improving data management	6	7	7
Reducing the cost of IT	7	3	3
Improving IT security	8	6	8
Developing or managing a flexible infrastructure	9	7	1
Improving IT network and communications	10	*	*

* Either not a survey option or among Top 10 that year

Gartner

Engaging: 2013 Top 10 Government CIO Business Strategies

Business Strategies	Ranking of Business Strategies Government CIOs Selected as One of Their Top Three in 2013.		
Ranking	***2013***	**2012**	**2011**
Delivering operational results	1	1	*
Improving IT applications and infrastructure	2	*	*
Reducing enterprise costs	3	2	1
Attracting and retaining customers	4	5	4
Implementing enterprise strategy	5	*	*
Attracting and retaining the workforce	6	7	10
Increasing enterprise growth	7	9	7
Improving business processes	8	*	2
Increasing management controls	9	*	9
Implementing mobility solutions	10	*	*

* Either not a survey option or among Top 10 that year

Gartner

Connecting: 2013 Government CIO Top 10 Technologies

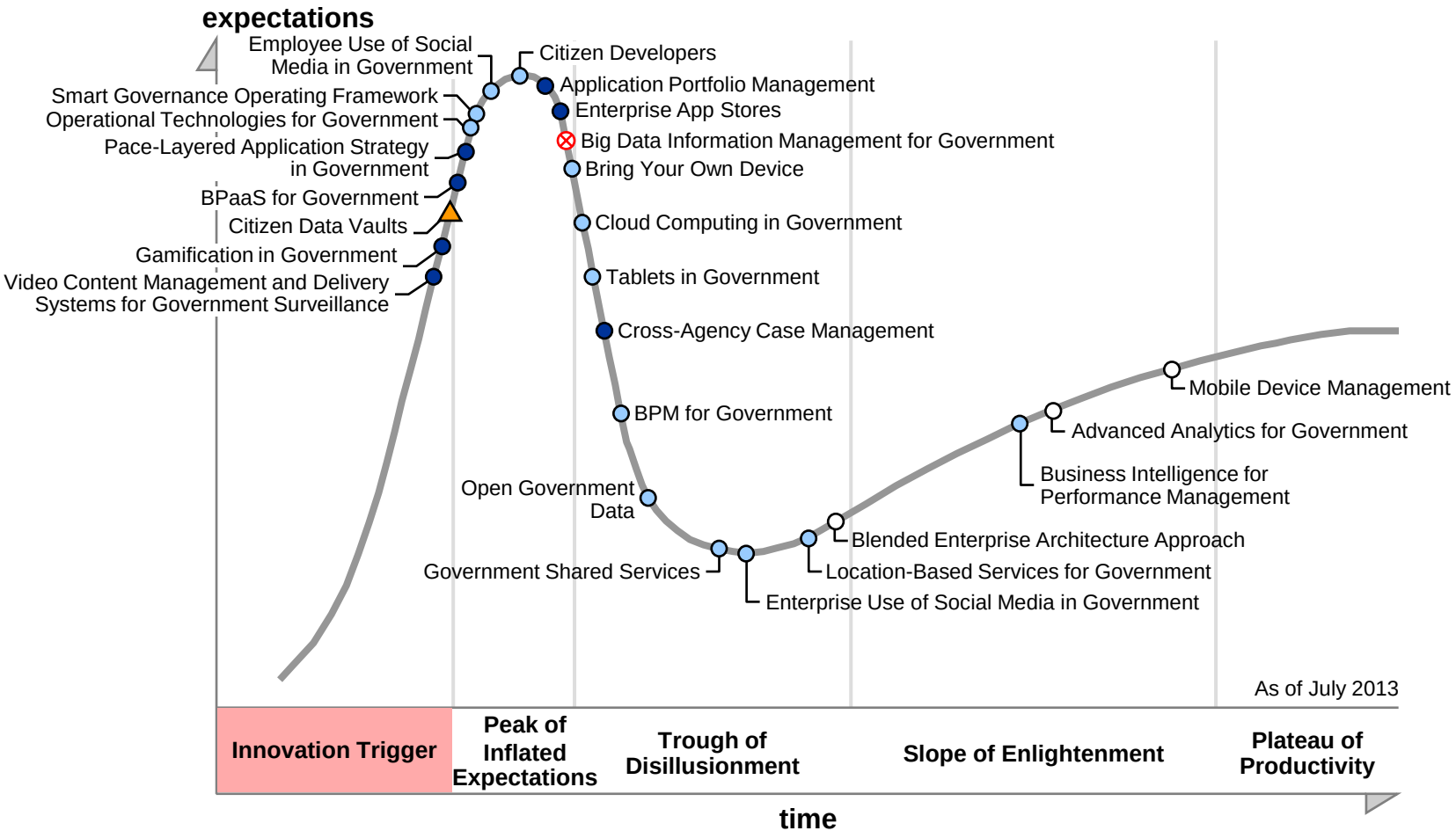
CIO Technologies	Ranking of Technology Priorities Government CIOs Selected as One of Their Top Three in 2013.		
Ranking	***2013***	**2012**	**2011**
Analytics and business intelligence	1	5	10
Legacy modernization	2	7	*
IT management	3	4	5
Collaboration technologies (workflow)	4	8	7
Mobile devices	5	1	*
Mobile workforce applications	6	*	*
Mobile technologies	*	1	3
Security technologies	7	6	8
Cloud computing (SaaS, IaaS, PaaS)	8	2	1
Virtualization — desktop	9	*	2
Service oriented architecture	10	*	*

* Either not a survey option or among Top 10 that year

Gartner

Government CIOs Have the Tools to Drive Innovation … for Now

Hype Cycle for Smart Government, 2013



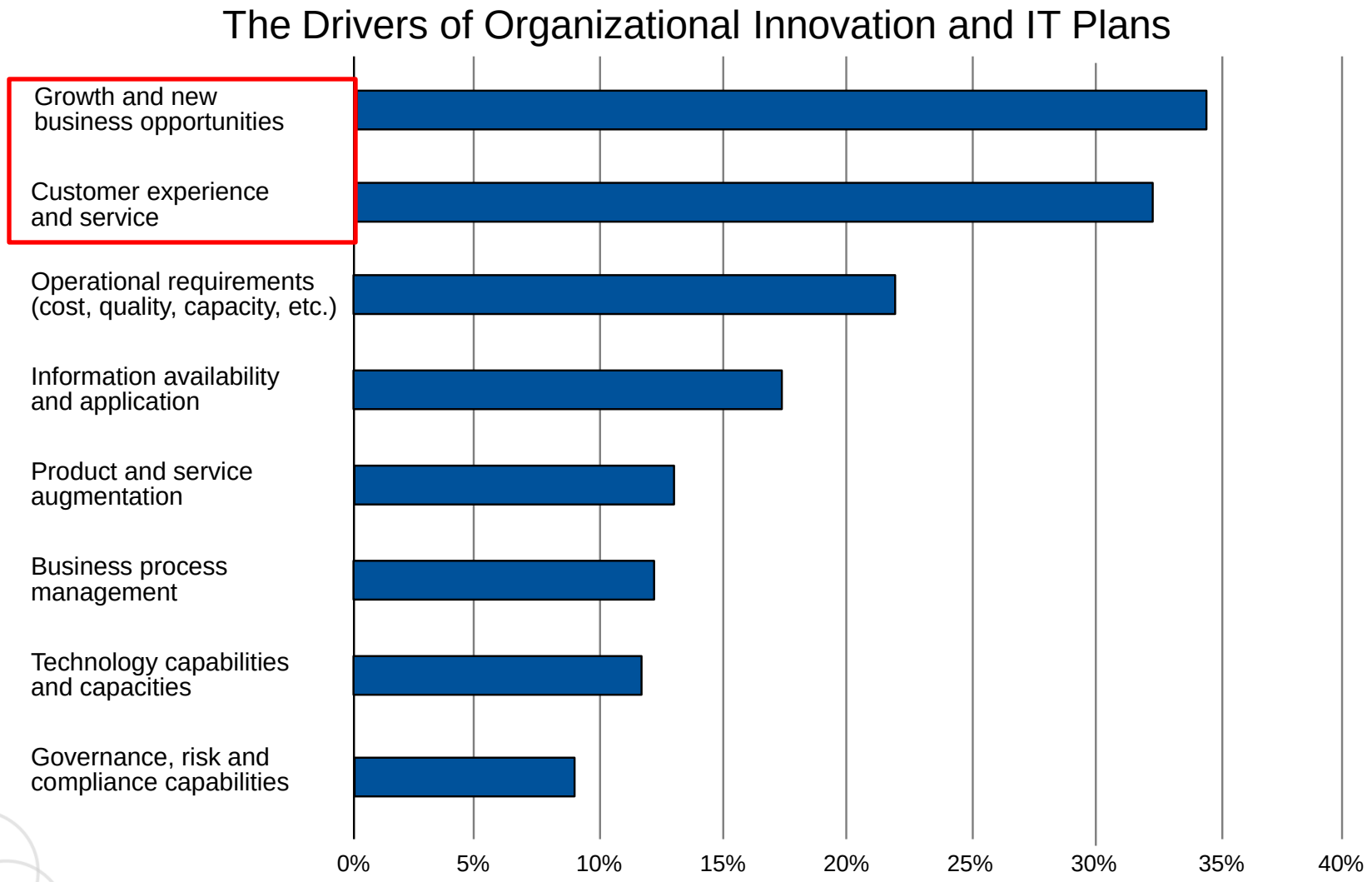
Plateau will be reached in:

○ less than 2 years ● 2 to 5 years ● 5 to 10 years ▲ more than 10 years ⊗ obsolete before plateau

From: Hype Cycle for Smart Government, 2013, 22 July 2013 (G00249302)

Gartner

Transforming Services With a Focus on Improving Citizen Experience



Engaging
Connecting
Resourcing
Gartner

Recommendations

- ✓ **Overhaul** your IT portfolio to prioritize digital innovations that quickly deliver value to government programs.
- ✓ **Build** capacity in mobile, cloud, social and information technologies to engage citizens, connect agencies and sustainably resource government.
- ✓ **Develop** workforce expertise in intelligent business process management (iBPM), lean and advanced analytics.
- ✓ **Establish** a cost-neutral "technology innovation fund" with savings generated from IT-enabled efficiencies to finance innovation in the digital enterprise.

Gartner®

Gartner's Latest IT Key Metrics Data

- The 2013 State and Local Government vertical industry average IT spending as a percent of operating expense is 3.8%, up from 3.6% in 2012.

Table 3. Government — State and Local: IT Spending as a Percent of Operational Expense: by Operating Budget Scale

<$250M in Operating Budget	$250M- $500M in Operating Budget	$500M- $1B in Operating Budget	$1B- $10B in Operating Budget	$10B+ in Operating Budget
5.1%	4.5%	2.9%	2.2%	2.1%

Source: Gartner IT Key Metrics Data (December 2013)

- The 2013 State and Local Government vertical industry average IT spending per employee is $8,581, up from $7,060 in 2012.

Table 4. Government — State and Local: IT Spending per Employee: by Operating Budget Scale

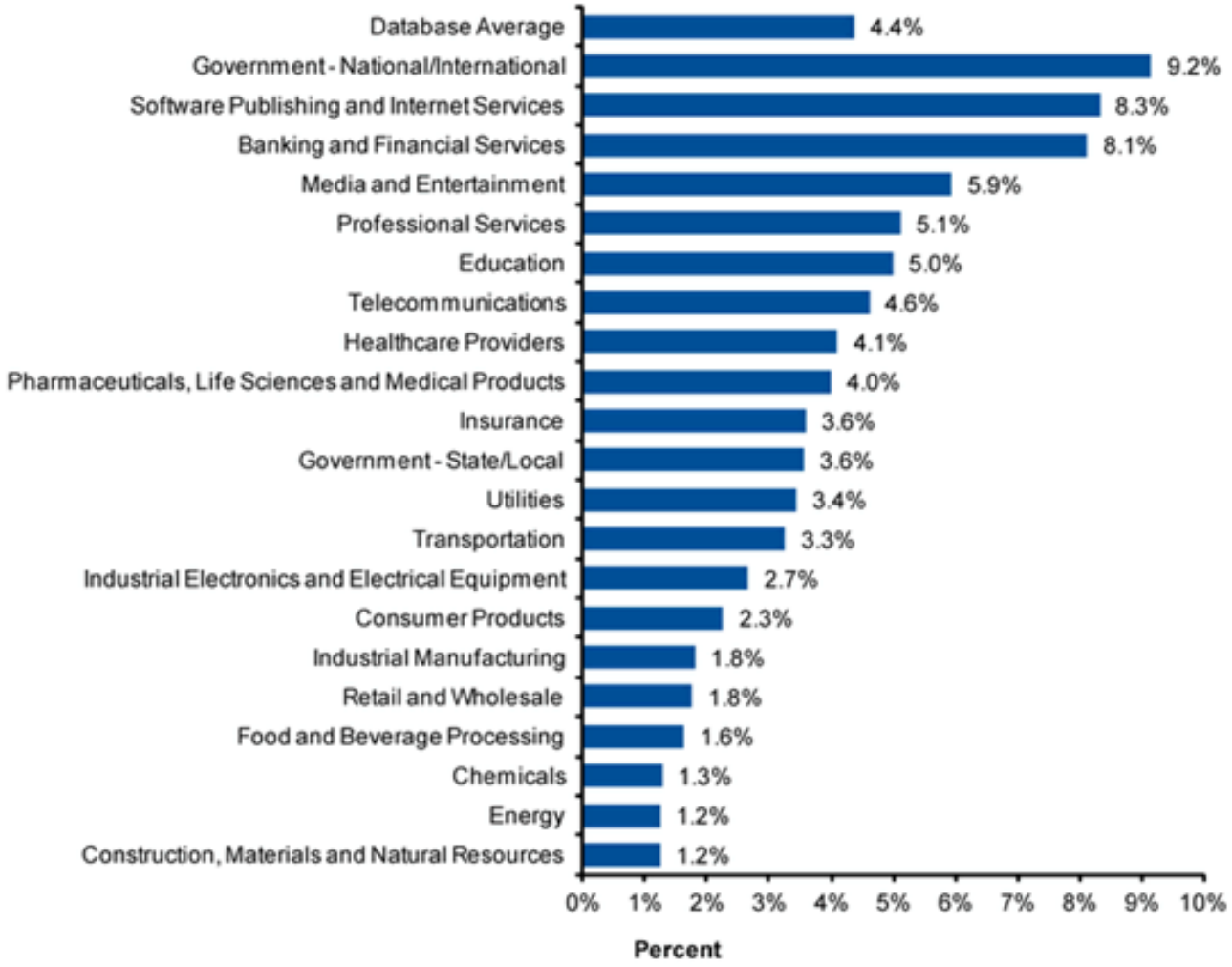
<$250M in Operating Budget	$250M- $500M in Operating Budget	$500M- $1B in Operating Budget	$1B- $10B in Operating Budget	$10B+ in Operating Budget
$10,770	$8,980	$7,887	$6,060	$7,663

Source: Gartner IT Key Metrics Data (December 2013)

Gartner

Gartner's 2012 IT Key Metrics Data
- *Cross Industry*

Figure 6. IT Spending as a Percent of Operating Expense, by Industry, 2012



Gartner

Recommended Gartner Research, Government

- **Government CIO Agenda 2013: 'Do Better With the Same'**
  Rick Howard (G00252023)
- **Hype Cycle for Smart Government, 2013**
  Rick Howard, Andrea Di Maio (G00249302)
- **Digital Government Must Be Both Inward- and Outward-Looking**
  Andrea Di Maio (G00251887)
- **Digital Government Is Both Different From E-Government and More of the Same**
  Andrea Di Maio (G00252158)
- **Winning the Budget Battle**
  Jerry Mechling (G00230914)

Gartner

Recommended Gartner Research

Overall/Digital:

- "Hunting and Harvesting in a Digital World: The 2013 CIO Agenda," Mark P. McDonald, Dave Aron (G00248536)
- "Let's Get Digital: A Template for Digital Business Strategy," Dave Aron, Lee Weldon (G00257724)
- "The Gartner Travel Guide to the First Digital Decade," Lee Weldon, Jeffrey R. Cole, Mark P. McDonald, Stephanie Woerner (G00255443)
- "CEO and Senior Executive Survey 2013: As Uncertainty Recedes, the Digital Future Emerges," Mark Raskino, Jorge Lopez (G00247308)

Digital Leadership:

- "CEOs and CIOs Must Co-Design the C-Suite for Digital Leadership," Mark Raskino, Dave Aron, Patrick Meehan, Jennifer S. Beck (G00258536)
- "Does Your Business Need a Chief Digital Officer?" Dave Aron (G00238298)
- "Toolkit: Chief Digital Officer Job Description," Dave Aron, Diane Berry, Lily Mok (G00249735)
- "Early Trends in Recruiting Chief Digital Officers," Ken McGee (G00258352)
- "The Three Types of Digital Business Leader," Dave Aron, Laura McLellan, Yvonne Genovese (G00251979)

Renovate the Core:

- "Develop a Strategic Road Map for Postmodern ERP in 2013 and Beyond," Alexander Drobik, Nigel Rayner (G00252735)
- "Hybrid Cloud Is Driving the Shift From Control to Coordination," Daryl C. Plummer, David Mitchell Smith (G00252934)
- "Use Web-Scale IT to Make Enterprise IT Competitive With the Cloud," Cameron Haight, Daryl C. Plummer (G00250754)
- "Approaching cloud services strategically helps Banco Bilbao Vizcaya Argentaria simplify platforms and processes while enhancing productivity," Dave Aron, Mark P. McDonald (G00231037)
- "The Art of Innovating by Partnering With Small Companies," Dave Aron, Nick Jones (G00239799)

Bimodal Capability:

- "Innovate Like a Startup: The CIO's Front Office Toolkit," Leigh McMullen, Richard Hunter, Jeffrey R. Cole (G00254272)
- "Toolkit: Pace-Layered Application Strategy Starter Presentation," Bill Swanton (G00249808)

Gartner

Additional Survey & Cross Industry Information

Gartner

The CIO Golden Rules for Approaching Public Cloud

I. Whatever your plans, test public cloud quickly and safely to dispel myths; also, elevate executives' and the IT staff's understanding, as well as the internal dialogue.

II. Manage internal and external expectations and concerns: Focus on issues and concerns around performance, control and innovation.

III. Understand and communicate your primary goal: Is it innovation, agility, cost or something else?

IV. Consider public cloud for multiple uses: long-term cost-effective agile capacity, interim capacity during periods of change, and as a tool to test.

V. Plan for a hybrid architecture based on economics, performance/agility needs and regulatory/security/privacy considerations.

VI. Don't get stuck with websites only; don't discount mission-critical systems on the public cloud out of hand.

VII. Ensure that you have the right partner: Focus on reliability, configurability, granularity of pricing and availability of tools.

VIII. Retain the ability to exit a cloud partnership — gracefully — with your data intact.

"Digital is different, and I think that less than a quarter of my team is ready and able to make the transition."
Anonymous CIO

The CIO Golden Rules for Working With Smaller Partners

I. Build a competency center around working with smaller companies; recognize that it is much more than a procurement exercise.

II. Consider a broad range of partners: startups, incubators, universities, crowdsourcing, local SMBs, citizen development.

III. Design the relationship for win-win: Don't try to push smaller companies into accepting the minimum price/maximum delivery — they might say yes because they want to work with you, but it might kill them.

IV. Keep the legals light and focused on intellectual property. Don't focus on the liabilities if they fail.

V. Expect to put a project management/delivery wrapper around small partners — let them focus on and bring what they are good at.

VI. Think about the partner's cash flow as well as its profit; you may need to adapt your payment processes (lower latency, higher frequency).

VII. Develop the ability to do quick, lightweight audits of potential small partners. (Neither you nor they can afford to do slow, heavy ones.) Focus on the people and their capabilities.

VIII. Make every effort not to constrain partners in terms of methodology, tools or approach. Focus on the outputs.

IX. Don't try to lock small partners into working only with you. Manage intellectual property issues in conventional ways.

The CIO Golden Rules for Building a Bimodal IT Organization

I. Be clear and create principles of what goes into conventional IT, and what goes into nonlinear. Default criteria: need for speed, need to innovate, high levels of uncertainty.

II. Design all components to form a consistent nonlinear environment: structure, staffing, sourcing, governance, metrics, tools.

III. Apply lightweight architectural governance to ensure that nonlinear mode initiatives don't make a mess, but governance shouldn't be too heavy/slow.

IV. Provide sufficient focus on the ability to refactor/industrialize nonlinear mode into conventional mode IT, and to unleash conventional systems into the nonlinear world when the need arises.

V. Consider skills and cultural aptitude (e.g., neophilia, tolerance for risk/uncertainty) in staffing the nonlinear mode organization.

VI. Be brave about the need for new people/skills/culture in nonlinear; don't set yourself up for failure with the wrong people.

VII. *Don't* use placement in the nonlinear mode organization as a reward for your best staff; they may not be a cultural fit.

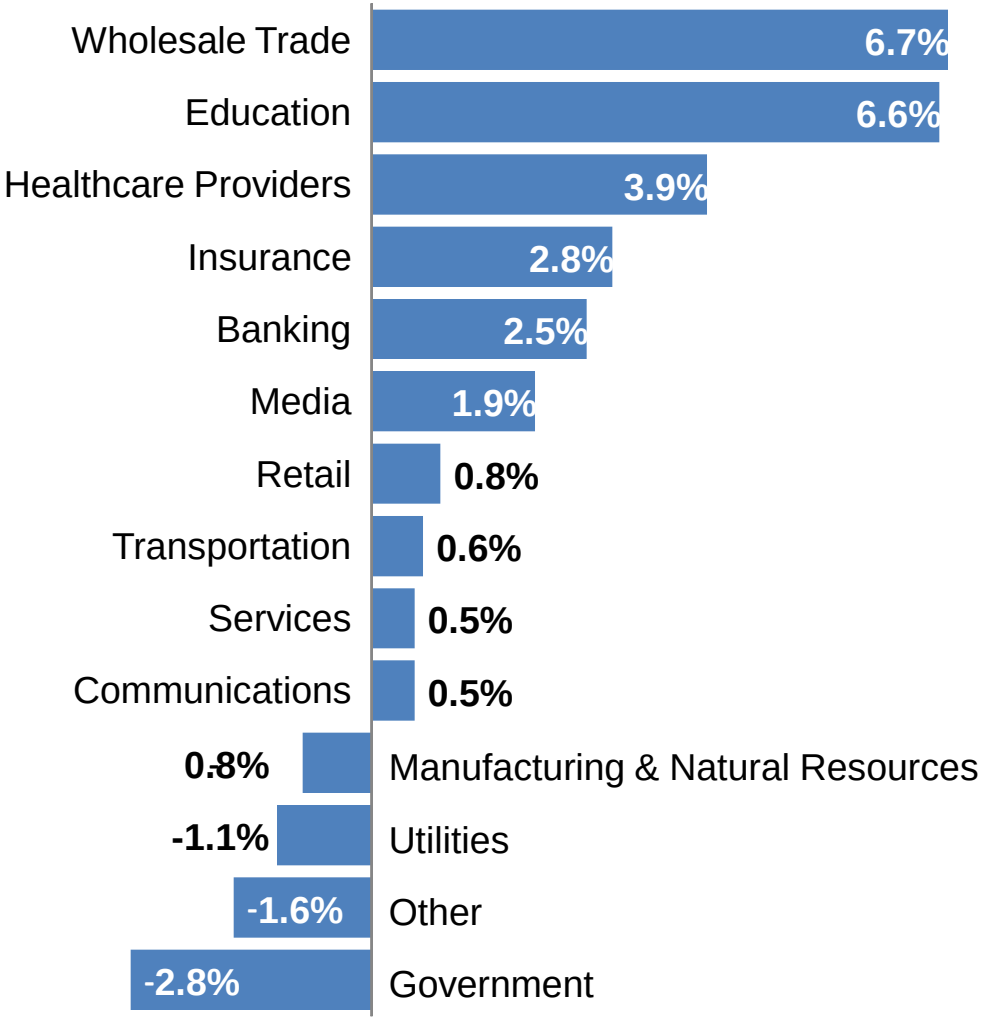
VIII. Manage communications so that conventional and nonlinear mode IT are seen as important and exciting places to work.

IX. Manage the cultural distance of the nonlinear mode team from the core of the company — not too near, not too far.

Gartner's Latest IT Key Metrics Data
- Cross Industry

Gartner

Expected Budget Changes by Industry



Gartner

Gartner's Latest IT Key Metrics Data
- Cross Industry

- The 2013 Cross Industry average IT spending as a percent of revenue is 3.3%, down from 3.5% in 2012.
- The 2013 Cross Industry average IT spending as a percent of operating expense is 4.3%, down from 4.4% in 2012.
- The 2013 Cross Industry average IT spending per employee is $12,696, down from $13,197 in 2012.

Gartner

Gartner's Latest IT Key Metrics Data
- *Cross Industry*

Table 3. Cross Industry: IT Spending as a Percent of Revenue: by Revenue Scale

<$250M in Revenue	$250M- $500M in Revenue	$500M- $1B in Revenue	$1B- $10B in Revenue	$10B+ in Revenue
4.9%	3.5%	3.4%	2.8%	2.3%
Global 2000 /S&P Range		2.8%		
Fortune 500 Range			2.7%	
Dow Range				2.3%

Source: Gartner IT Key Metrics Data (December 2013)

Gartner

Gartner's Latest IT Key Metrics Data
- *Cross Industry*

Table 4. Cross Industry: IT Spending as a Percent of Operational Expense: by Revenue Scale

<$250M in Revenue	$250M- $500M in Revenue	$500M- $1B in Revenue	$1B- $10B in Revenue	$10B+ in Revenue
6.2%	4.8%	4.5%	3.5%	3.4%
Global 2000 /S&P Range		3.7%		
Fortune 500 Range			3.5%	
Dow Range				3.4%

Source: Gartner IT Key Metrics Data (December 2013)

Gartner

Gartner's Latest IT Key Metrics Data - *Cross Industry*

Table 5. Cross Industry: IT Spending per Employee: by Revenue Scale

<$250M in Revenue	$250M- $500M in Revenue	$500M- $1B in Revenue	$1B- $10B in Revenue	$10B+ in Revenue
$11,600	$11,864	$11,424	$13,310	$15,006
Global 2000 /S&P Range		$13,207		
Fortune 500 Range			$13,707	
Dow Range				$15,006

Source: Gartner IT Key Metrics Data (December 2013)

Gartner

Gartner's Latest IT Key Metrics Data - *Cross Industry*

Table 6. Cross Industry: IT FTEs as a Percent of Employees: by Revenue Scale

<$250M in Revenue	$250M- $500M in Revenue	$500M- $1B in Revenue	$1B- $10B in Revenue	$10B+ in Revenue
5.6%	4.9%	4.8%	4.9%	4.4%
Global 2000 /S&P Range		4.8%		
Fortune 500 Range			4.8%	
Dow Range				4.4%

Source: Gartner IT Key Metrics Data (December 2013)

Gartner

Gartner's Latest IT Key Metrics Data - *Cross Industry*

Table 7. Cross Industry: Revenue per Employee: by Revenue Scale

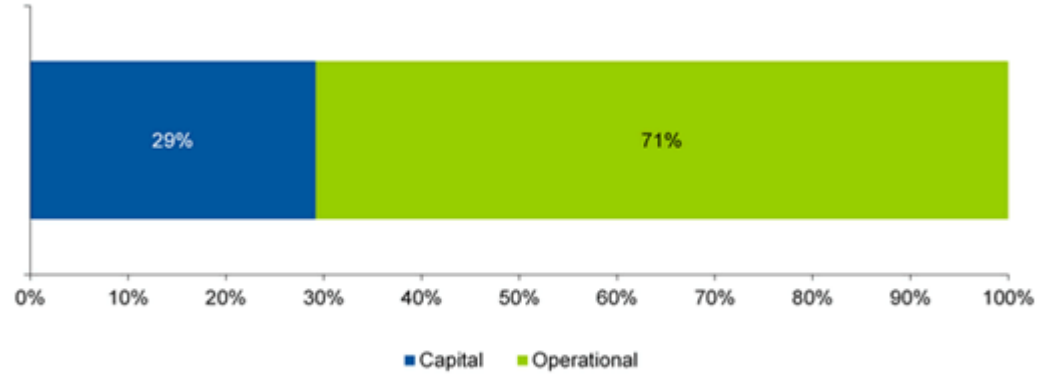
<$250M in Revenue	$250M- $500M in Revenue	$500M- $1B in Revenue	$1B- $10B in Revenue	$10B+ in Revenue
$260,662	$404,064	$408,269	$591,759	$956,853
Global 2000 /S&P Range		$675,369		
Fortune 500 Range			$700,638	
Dow Range				$956,853

Source: Gartner IT Key Metrics Data (December 2013)

Gartner

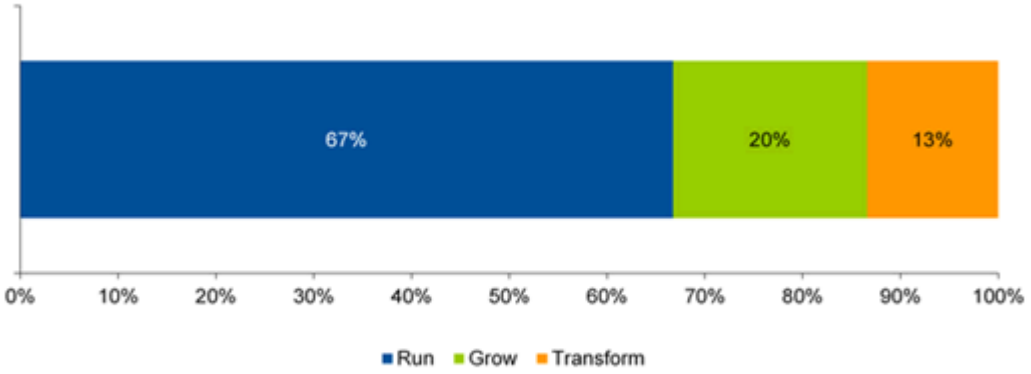
Gartner's Latest IT Key Metrics Data
- *Cross Industry*

Figure 10. Cross Industry: IT Operational vs. Capital Spending



Source: Gartner IT Key Metrics Data (December 2013)

Figure 11. Cross Industry: IT Spending to Run, Grow and Transform the Business

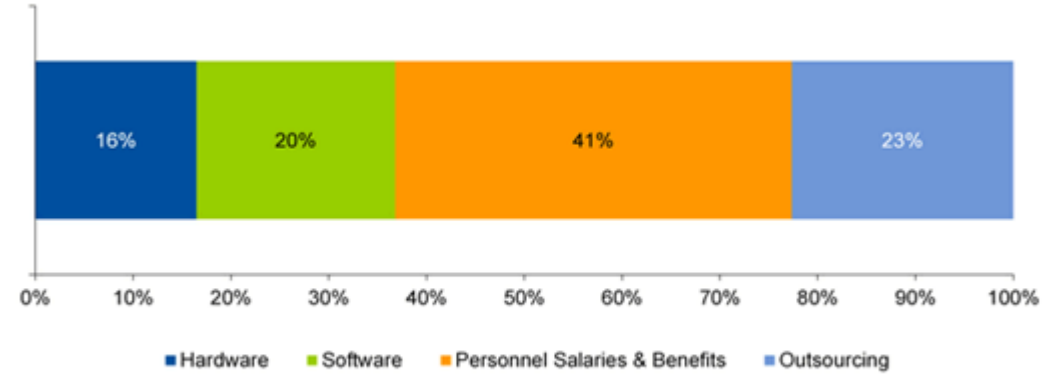


Source: Gartner IT Key Metrics Data (December 2013)

Gartner

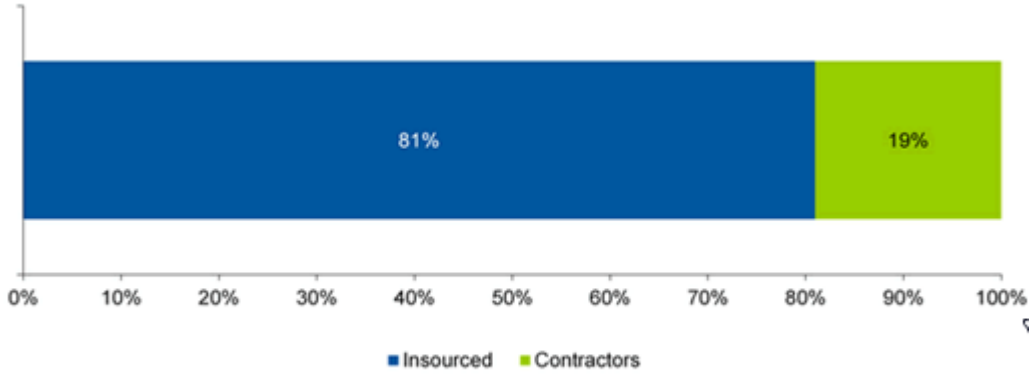
Gartner's Latest IT Key Metrics Data
- *Cross Industry*

Figure 13. Cross Industry: Distribution of IT Spending on Hardware, Software, Personnel, Outsourcing



Source: Gartner IT Key Metrics Data (December 2013)

Figure 14. Cross Industry: Distribution of IT FTEs: Insourced vs. Contractor

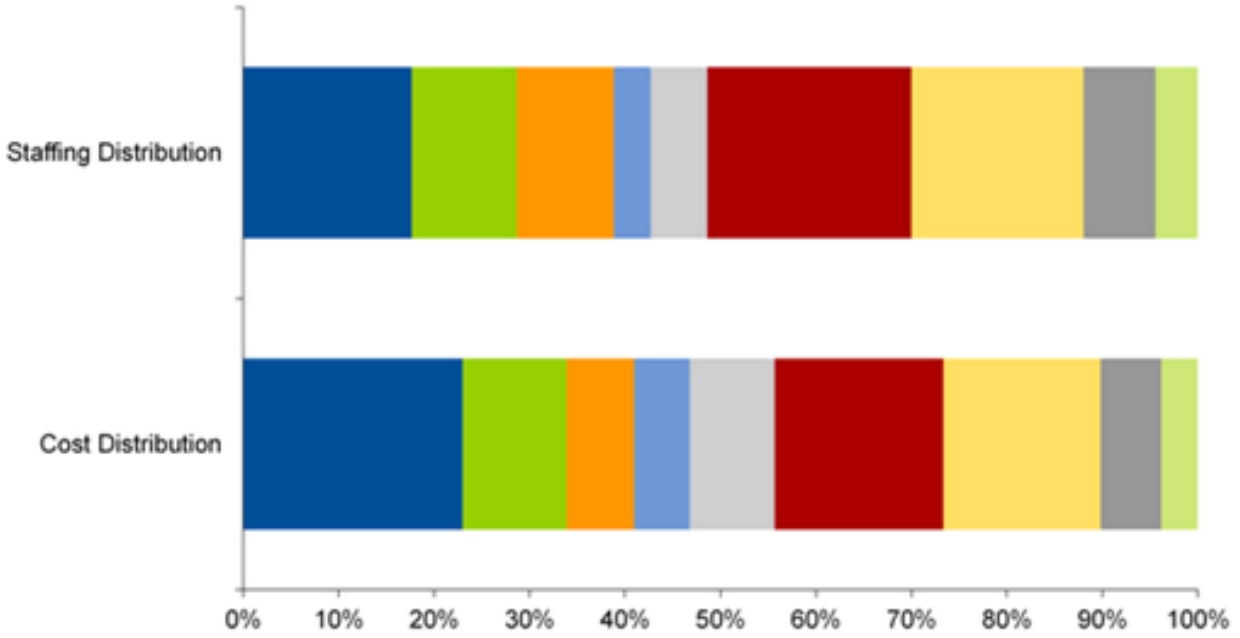


Source: Gartner IT Key Metrics Data (December 2013)

Gartner

Gartner's Latest IT Key Metrics Data
- *Cross Industry*

Figure 15. Cross Industry: Distribution of IT Cost and Staffing by IT Functional Area



	Cost Distribution	Staffing Distribution
Data Center	23%	18%
End-User Computing	11%	11%
IT Service Desk	7%	10%
Voice Network	6%	4%
Data Network	9%	6%
Application Development	18%	21%
Application Support	16%	18%
IT Management	6%	8%
Finance & Administration	4%	4%

Gartner

Gartner's 2012 IT Key Metrics Data
- *Cross Industry*

Figure 32. IT FTEs as a Percent of Employees, by Industry, 2012

Gartner