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.
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.**
We Are Entering a Third Era of Enterprise IT

Focus

Capabilities

Engagement

Outputs & Outcomes

We are here

IT Craftsmanship

Technology

Programming, system management

Isolated, disengaged internally and externally

Sporadic automation and innovation, frequent issues

IT Industrialization

Processes

IT management, service management

Treat colleagues as customers, unengaged with external customers

Services & solutions, efficiency & effectiveness

Digitalization

Business Models

Digital leadership

Treat colleagues as partners, engage external customers

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.

<table>
<thead>
<tr>
<th>Top 10 Government Technology Trends</th>
<th>Social</th>
<th>Mobile</th>
<th>Information</th>
<th>Cloud</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Personal Mobile Workplace</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Mobile Citizen Engagement</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Big Data and Actionable Analytics</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4. Cost-effective Open Data</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5. Citizen-managed Data</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6. Hybrid IT and Cloud</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>7. Internet of Things</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8. Cross-domain Interoperability</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>9. BPM for Case Management</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>10. Gamification for Engagement</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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.
"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 IT organization has the right skills and capabilities in place to meet upcoming challenges."
"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
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
The “Quiet Crisis”
Expected Budget Changes by Industry

- Wholesale Trade: 6.7%
- Education: 6.6%
- Healthcare Providers: 3.9%
- Insurance: 2.8%
- Banking: 2.5%
- Media: 1.9%
- Retail: 0.8%
- Transportation: 0.6%
- Services: 0.5%
- Communications: 0.5%
- Manufacturing & Natural Resources: 0.8%
- Utilities: -1.1%
- Other: -1.6%
- Government: -2.8%
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.
Customer, consumer, and constituent expectations are changing; and at a rate which will sweep us along, ready or not, willing or not.
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’s 2012 IT Key Metrics Data - Cross Industry

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

- Database Average: 65% Run, 20% Grow, 15% Transform
- Government - State/Local: 75% Run, 12% Grow, 13% Transform
- Construction, Materials and Natural Resources: 71% Run, 16% Grow, 13% Transform
- Chemicals: 71% Run, 18% Grow, 11% Transform
- Government - National/International: 71% Run, 18% Grow, 11% Transform
- Consumer Products: 71% Run, 19% Grow, 10% Transform
- Education: 70% Run, 16% Grow, 14% Transform
- Industrial Manufacturing: 69% Run, 19% Grow, 12% Transform
- Healthcare Providers: 67% Run, 18% Grow, 15% Transform
- Industrial Electronics and Electrical Equipment: 66% Run, 19% Grow, 15% Transform
- Professional Services: 66% Run, 19% Grow, 15% Transform
- Transportation: 64% Run, 22% Grow, 14% Transform
- Pharmaceuticals, Life Sciences and Medical: 63% Run, 22% Grow, 15% Transform
- Energy: 62% Run, 21% Grow, 17% Transform
- Food and Beverage Processing: 61% Run, 22% Grow, 17% Transform
- Retail and Wholesale: 61% Run, 23% Grow, 16% Transform
- Insurance: 61% Run, 23% Grow, 16% Transform
- Banking and Financial Services: 60% Run, 24% Grow, 16% Transform
- Utilities: 60% Run, 23% Grow, 17% Transform
- Media and Entertainment: 59% Run, 24% Grow, 17% Transform
- Telecommunications: 58% Run, 27% Grow, 15% Transform
- Software Publishing and Internet Services: 57% Run, 25% Grow, 18% Transform
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’s Latest IT Key Metrics Data

Run, Grow, Transform...

Figure 7. Business Value Category Decision Tree

- **Is It Revolutionary?**
  - For Everyone?
    - There is potential for new markets or industries, or displacement or elimination of existing industries.
  - For the Client?
    - There is potential to move the client’s business into entirely new markets or industries.

- If No, proceed to **Does It Keep the Lights On?**
  - The situation is about supporting or improving essential, nondifferentiated business functions that do not directly produce revenue.

- If No, proceed to **Does It Make Money?**
  - The situation is about enhancing, extending, or differentiating existing business capabilities related to products, services or markets.

- If Yes, proceed to **Run the Business**

- If Yes, proceed to **Grow the Business**

- If Yes, proceed to **Transform the Business**

Source: Gartner (December 2013)
Gartner’s Latest IT Key Metrics Data

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

<table>
<thead>
<tr>
<th>Operating Budget</th>
<th>&lt;$250M</th>
<th>$250M- $500M</th>
<th>$500M-$1B</th>
<th>$1B-$10B</th>
<th>$10B+</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5%</td>
<td>3.8%</td>
<td>4.4%</td>
<td>3.3%</td>
<td>2.0%</td>
<td></td>
</tr>
</tbody>
</table>

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

Source: Gartner IT Key Metrics Data (December 2013)
Gartner’s Latest IT Key Metrics Data

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

<table>
<thead>
<tr>
<th>Cost Distribution</th>
<th>Staffing Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Center</td>
<td>20%</td>
</tr>
<tr>
<td>End-User Computing</td>
<td>14%</td>
</tr>
<tr>
<td>IT Service Desk</td>
<td>8%</td>
</tr>
<tr>
<td>Voice Network</td>
<td>6%</td>
</tr>
<tr>
<td>Data Network</td>
<td>10%</td>
</tr>
<tr>
<td>Application Development</td>
<td>13%</td>
</tr>
<tr>
<td>Application Support</td>
<td>19%</td>
</tr>
<tr>
<td>IT Management</td>
<td>6%</td>
</tr>
<tr>
<td>Finance &amp; Administration</td>
<td>4%</td>
</tr>
</tbody>
</table>
More of...

Gartner’s 2013 Survey & the 2014 CIO Agenda
<table>
<thead>
<tr>
<th>Change in IT Organization</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>The IT organization is no longer treated exclusively as a cost center</td>
<td>26%</td>
</tr>
<tr>
<td>The enterprise will go 100% with laptop and mobile computing</td>
<td>8%</td>
</tr>
<tr>
<td>The IT organization will be replaced with a different construct</td>
<td>6%</td>
</tr>
<tr>
<td>The enterprise stops providing personal technology devices</td>
<td>6%</td>
</tr>
<tr>
<td>Applications make significant autonomous decisions</td>
<td>7%</td>
</tr>
<tr>
<td>All critical applications and operations are sourced via the cloud</td>
<td>7%</td>
</tr>
<tr>
<td>Business units develop, provision, and operate technology</td>
<td>11%</td>
</tr>
</tbody>
</table>

Legend:
- **Already there**
- **By 2016**
- **By 2020**
- **Do not know when**

Source: Gartner
Bimodal IT Offers a Way to Get Unstuck

When speed or innovation is needed, or there is a high degree of uncertainty

Traditional Mode
- Waterfall development
- Known vendors
- Strong governance
- Minimized risk
- Technology teams

Nonlinear Mode
- Agile dev.
- Small/innovative partners
- Lightweight
- "Just good enough" governance
- Managed risk
- Multidisciplinary teams

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

"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
Two Speed IT Organizations are Thriving

45% of enterprises have begun the journey

Only 19% have the fast/agile skills they need
Technology Priorities Represent Two Complementary Goals

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

<table>
<thead>
<tr>
<th>Technology Priority</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI/ANALYTICS</td>
<td>1</td>
</tr>
<tr>
<td>INFRASTRUCTURE &amp; DATACENTER</td>
<td>2</td>
</tr>
<tr>
<td>MOBILE</td>
<td>3</td>
</tr>
<tr>
<td>ERP</td>
<td>4</td>
</tr>
<tr>
<td>CLOUD</td>
<td>5</td>
</tr>
<tr>
<td>NETWORKING, VOICE AND DATA COMMS</td>
<td>6</td>
</tr>
<tr>
<td>DIGITALIZATION/DIGITAL MKTG</td>
<td>7</td>
</tr>
<tr>
<td>SECURITY</td>
<td>8</td>
</tr>
<tr>
<td>INDUSTRY SPECIFIC APPLICATIONS</td>
<td>9</td>
</tr>
<tr>
<td>CUSTOMER RELATIONSHIP MANAGEMENT</td>
<td>10</td>
</tr>
<tr>
<td>LEGACY MODERNIZATION</td>
<td>11</td>
</tr>
<tr>
<td>COLLABORATION</td>
<td>12</td>
</tr>
</tbody>
</table>

Exploit the New

Renovate the Core
"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

<table>
<thead>
<tr>
<th>CIO IT Strategies</th>
<th>Ranking</th>
<th>2013</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving IT management and governance</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Improving IT organization and workforce</td>
<td>2</td>
<td>9</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Delivering business solutions</td>
<td>3</td>
<td>2</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Implementing mobility solutions</td>
<td>4</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Consolidating IT operations and resources</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Improving data management</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Reducing the cost of IT</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Improving IT security</td>
<td>8</td>
<td>6</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Developing or managing a flexible infrastructure</td>
<td>9</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Improving IT network and communications</td>
<td>10</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

* Either not a survey option or among Top 10 that year
## Engaging: 2013 Top 10 Government CIO Business Strategies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivering operational results</td>
<td></td>
<td>1</td>
<td>1</td>
<td>*</td>
</tr>
<tr>
<td>Improving IT applications and infrastructure</td>
<td></td>
<td>2</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Reducing enterprise costs</td>
<td></td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Attracting and retaining customers</td>
<td></td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Implementing enterprise strategy</td>
<td></td>
<td>5</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Attracting and retaining the workforce</td>
<td></td>
<td>6</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Increasing enterprise growth</td>
<td></td>
<td>7</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Improving business processes</td>
<td></td>
<td>8</td>
<td>*</td>
<td>2</td>
</tr>
<tr>
<td>Increasing management controls</td>
<td></td>
<td>9</td>
<td>*</td>
<td>9</td>
</tr>
<tr>
<td>Implementing mobility solutions</td>
<td></td>
<td>10</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

* Either not a survey option or among Top 10 that year
## 2013 Government CIO Top 10 Technologies

<table>
<thead>
<tr>
<th>CIO Technologies</th>
<th>Ranking of Technology Priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Analytics and business intelligence</td>
<td>1</td>
</tr>
<tr>
<td>Legacy modernization</td>
<td>2</td>
</tr>
<tr>
<td>IT management</td>
<td>3</td>
</tr>
<tr>
<td>Collaboration technologies (workflow)</td>
<td>4</td>
</tr>
<tr>
<td>Mobile devices</td>
<td>5</td>
</tr>
<tr>
<td>Mobile workforce applications</td>
<td>6</td>
</tr>
<tr>
<td>Mobile technologies</td>
<td>*</td>
</tr>
<tr>
<td>Security technologies</td>
<td>7</td>
</tr>
<tr>
<td>Cloud computing (SaaS, IaaS, PaaS)</td>
<td>8</td>
</tr>
<tr>
<td>Virtualization — desktop</td>
<td>9</td>
</tr>
<tr>
<td>Service oriented architecture</td>
<td>10</td>
</tr>
</tbody>
</table>

* Either not a survey option or among Top 10 that year
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)
Transforming Services With a Focus on Improving Citizen Experience

The Drivers of Organizational Innovation and IT Plans

- Growth and new business opportunities
- Customer experience and service
- Operational requirements (cost, quality, capacity, etc.)
- Information availability and application
- Product and service augmentation
- Business process management
- Technology capabilities and capacities
- Governance, risk and compliance capabilities

Percent of Respondents Ranking the item #1 or #2
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’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>
<thead>
<tr>
<th></th>
<th>&lt;$250M in Operating Budget</th>
<th>$250M-$500M in Operating Budget</th>
<th>$500M-$1B in Operating Budget</th>
<th>$1B-$10B in Operating Budget</th>
<th>$10B+ in Operating Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>5.1%</td>
<td>4.5%</td>
<td>2.9%</td>
<td>2.2%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

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>
<thead>
<tr>
<th></th>
<th>&lt;$250M in Operating Budget</th>
<th>$250M-$500M in Operating Budget</th>
<th>$500M-$1B in Operating Budget</th>
<th>$1B-$10B in Operating Budget</th>
<th>$10B+ in Operating Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>$10,770</td>
<td>$8,980</td>
<td>$7,887</td>
<td>$6,060</td>
<td>$7,663</td>
</tr>
</tbody>
</table>

Source: Gartner IT Key Metrics Data (December 2013)
Gartner’s 2012 IT Key Metrics Data - Cross Industry

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

- Database Average
- Government - National/International
- Software Publishing and Internet Services
- Banking and Financial Services
- Media and Entertainment
- Professional Services
- Education
- Telecommunications
- Healthcare Providers
- Pharmaceuticals, Life Sciences and Medical Products
- Insurance
- Government - State/Local
- Utilities
- Transportation
- Industrial Electronics and Electrical Equipment
- Consumer Products
- Industrial Manufacturing
- Retail and Wholesale
- Food and Beverage Processing
- Chemicals
- Energy
- Construction, Materials and Natural Resources

Percent

0% 1% 2% 3% 4% 5% 6% 7% 8% 9% 10%
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)

For more information, stop by Gartner Research Zone.
Recommended Gartner Research

Overall/Digital:
- "Hunting and Harvesting in a Digital World: The 2013 CIO Agenda," Mark P. McDonald, Dave Aron (G00248536)
- "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)
Additional Survey & Cross Industry Information
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
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.
Expected Budget Changes by Industry

- Wholesale Trade: 6.7%
- Education: 6.6%
- Healthcare Providers: 3.9%
- Insurance: 2.8%
- Banking: 2.5%
- Media: 1.9%
- Retail: 0.8%
- Transportation: 0.6%
- Services: 0.5%
- Communications: 0.5%
- Manufacturing & Natural Resources: 0.8%
- Utilities: -1.1%
- Other: -1.6%
- Government: -2.8%
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’s Latest IT Key Metrics Data - Cross Industry

<table>
<thead>
<tr>
<th>Revenue Range</th>
<th>&lt;$250M in Revenue</th>
<th>$250M- $500M in Revenue</th>
<th>$500M- $1B in Revenue</th>
<th>$1B- $10B in Revenue</th>
<th>$10B+ in Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.9%</td>
<td>3.5%</td>
<td>3.4%</td>
<td>2.8%</td>
<td>2.3%</td>
</tr>
<tr>
<td><strong>Global 2000/S&amp;P Range</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.8%</td>
</tr>
<tr>
<td><strong>Fortune 500 Range</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Dow Range</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Source: Gartner IT Key Metrics Data (December 2013)
## Gartner’s Latest IT Key Metrics Data - Cross Industry

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

<table>
<thead>
<tr>
<th>Revenue Scale</th>
<th>&lt;$250M in Revenue</th>
<th>$250M-$500M in Revenue</th>
<th>$500M-$1B in Revenue</th>
<th>$1B-$10B in Revenue</th>
<th>$10B+ in Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.2%</td>
<td>4.8%</td>
<td>4.5%</td>
<td>3.5%</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

**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’s Latest IT Key Metrics Data - Cross Industry

<table>
<thead>
<tr>
<th>Revenue Range</th>
<th>&lt;$250M in Revenue</th>
<th>$250M- $500M in Revenue</th>
<th>$500M- $1B in Revenue</th>
<th>$1B- $10B in Revenue</th>
<th>$10B+ in Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>$11,600</td>
<td>$11,864</td>
<td>$11,424</td>
<td>$13,310</td>
<td>$15,006</td>
<td></td>
</tr>
<tr>
<td>Global 2000 /S&amp;P Range</td>
<td></td>
<td></td>
<td>$13,207</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fortune 500 Range</td>
<td></td>
<td></td>
<td></td>
<td>$13,707</td>
<td></td>
</tr>
<tr>
<td>Dow Range</td>
<td></td>
<td></td>
<td></td>
<td>$15,006</td>
<td></td>
</tr>
</tbody>
</table>

Source: Gartner IT Key Metrics Data (December 2013)
## Gartner’s Latest IT Key Metrics Data

- **Cross Industry**

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

<table>
<thead>
<tr>
<th>Revenue Range</th>
<th>&lt;$250M in Revenue</th>
<th>$250M- $500M in Revenue</th>
<th>$500M- $1B in Revenue</th>
<th>$1B- $10B in Revenue</th>
<th>$10B+ in Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5.6%</strong></td>
<td>4.9%</td>
<td>4.8%</td>
<td>4.9%</td>
<td>4.4%</td>
<td></td>
</tr>
</tbody>
</table>

**Global 2000 /S&P Range**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4.8%</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Fortune 500 Range**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4.8%</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Dow Range**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>4.4%</strong></td>
</tr>
</tbody>
</table>

Source: Gartner IT Key Metrics Data (December 2013)
### Gartner’s Latest IT Key Metrics Data - Cross Industry

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

<table>
<thead>
<tr>
<th>Revenue Scale</th>
<th>$&lt;250M in Revenue</th>
<th>$250M- $500M in Revenue</th>
<th>$500M- $1B in Revenue</th>
<th>$1B- $10B in Revenue</th>
<th>$10B+ in Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$260,662</td>
<td>$404,064</td>
<td>$408,269</td>
<td>$591,759</td>
<td>$956,853</td>
</tr>
</tbody>
</table>

**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’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’s Latest IT Key Metrics Data

- Cross Industry

Source: Gartner IT Key Metrics Data (December 2013)
Gartner’s Latest IT Key Metrics Data
- Cross Industry

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

<table>
<thead>
<tr>
<th>Cost Distribution</th>
<th>Staffing Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Center</td>
<td>23%</td>
</tr>
<tr>
<td>End-User Computing</td>
<td>11%</td>
</tr>
<tr>
<td>IT Service Desk</td>
<td>7%</td>
</tr>
<tr>
<td>Voice Network</td>
<td>6%</td>
</tr>
<tr>
<td>Data Network</td>
<td>9%</td>
</tr>
<tr>
<td>Application Development</td>
<td>18%</td>
</tr>
<tr>
<td>Application Support</td>
<td>16%</td>
</tr>
<tr>
<td>IT Management</td>
<td>6%</td>
</tr>
<tr>
<td>Finance &amp; Administration</td>
<td>4%</td>
</tr>
</tbody>
</table>

&emsp;18%&emsp;11%&emsp;10%&emsp;4%&emsp;6%&emsp;21%&emsp;18%&emsp;8%&emsp;4%
Gartner’s 2012 IT Key Metrics Data - Cross Industry

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