

## Robert Stroud, CGEIT, CRISC

— Vice President, Strategy & Innovation



- Governance, Cloud Computing & Service Manageme
   Evangelist
- 15+ years Banking Industry
- IT Governance
  - Immediate Past International Vice President ISACA/ITGI
  - Member ISACA Strategic Advisory Council
  - Chair ISACA World Congress Insights 2011 & 2012
  - Former Chair COBIT Steering Committee
- Author, Public speaker and Industry Geek!









- Cloud computing, virtualization of everything, iPads, iPods, Android devices, Cyber attacks, security, change is hitting us from all directions. Technology advances and challenges alone are not the only change on the horizon. The new "digital natives" generation is hitting the workforce and are being joined by increasing compliance requirements and what about the exponentially growing demand for automation! One fact is true, life in our professional is becoming increasingly complex as will the role of governance. Our businesses are demanding innovation, agility, deliver now and at reduced cost and don't you dare talk in TLA's or FLA's, business language only spoken here.
- Don't worry, help is at hand. Robert Stroud, immediate past ISACA International Board Member and the Cloud Computing, Governance and Service Management evangelist at CA Technologies will take the cover off his crystal ball and predict what is around the corner in 2012 and beyond and where the future for governance is. Robert will share his thoughts on how these trends will impact you in your role. More importantly Robert will share with you how can you prepare for and leverage the technology advances to add value to your organization, all in a soundly governed and managed environment.



# Business models are demanding technology innovation and changing business models











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Money = Markets = Economy = Company News = Media = Cars = Managing Your Money = Real Estate = S

■ GET A QUOTE: Enter symbol(s) or Keywords



DJIA 13,996.18 ▲ +77.96 ■ NASDAQ 2,717.48 ▲ +17.99

### Airlines stretched so thin that one piece out of place throws them off

Updated 126d ago | Comments 🗐 20 | Recommend 🗘 32

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By Dan Reed, USA TODAY

Charlie Miller could be a poster child for nightmarish air travel during the winter now drawing to a close.

A hospital consultant from Barneveld, N.Y., Miller got caught in the Dec. 20 blizzard that closed Denver International Airport for more than two days. Told by his carrier, Continental Airlines, that it would be Christmas night before it could get him home, Miller eventually set out on his own.

Enlarge

By Will Powers, AP

Passengers sleep in a Denver concourse Dec. 21 after a blizzard left the airport snowbound.

CABIN FEVER: Events conspire to keep fliers trapped at airports

PLANE TALK: Today in the Sky with Ben Mutzabaugh

He managed to get home late on Christmas Eve. But to do it, he had to sleep two nights at the airport, check in at two high-

priced hotels, pay \$150 for an 8-mile cab ride in Denver, buy a first-class ticket on United, fly to Los Angeles, then connect through Philadelphia. His total extra cost: \$3,000.



## "the baby"





## iPad





## No Need for IT Folks!



— "I hired a graduate and I didn't tell IT!"



### U.S. ARMY MARKETPLACE

Products

mv/Marketplace

۰

o

o

2

5

Search the Marketplace





Application Development 0

Calendar and Scheduling

Archiving and Discovery

**Customer Management** 

Document Management

GesSpatial Solutions

Preductivity

Social Networking 2

Training and Management 9

Workflow

## myMarketplace

Create and manage

Take Me to myMarketplace



#### HIGHEST RANKED



Casualty Assistance Program Training and Management

Casualty Assistance

LSK Pashto Medical

New Soldier Handbook

RECENTLY ADDED: All Marketplace Categories 1

iMuster are in



Muster allows users to create a profile to share ideas. events, and interests within their networks,

v1.0. 33:2 M8 · 117 Promotions in the last 48 hours



#### Versatile Mission Pack

The VMP provides situational awareness and improved communication between boots-on-the-ground soldiers. v12, 23.5 MB - 101 Promotions in the last 48 hours

RECENTLY ADDED



123

1176.3

Muster Social Networking AFC. Inc.

1231

Muster

Metric Converter 345











































































Trailguru



Stitcher Radio







WordPress Source: http://theotherblog.com/wp-content/uploads/2008/09/ip



Stanza







# Smartphone app that helps doctors detect cancer

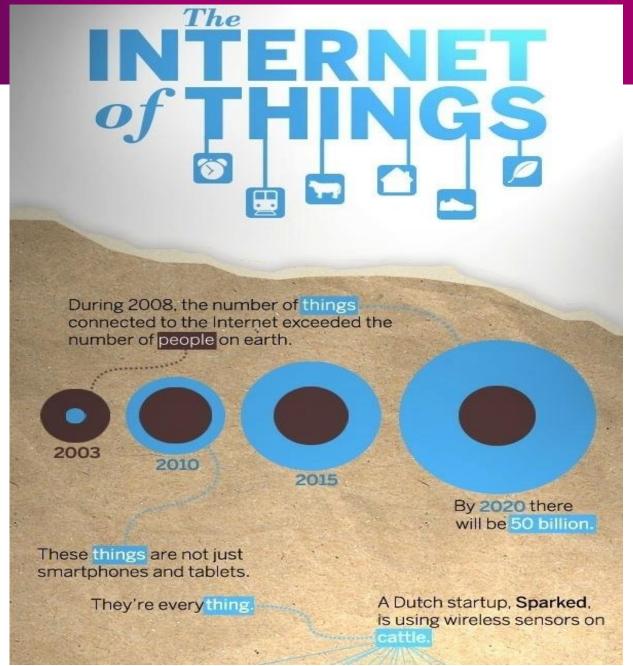
 If you hate going to the doctor, you'll be thrilled to hear that app developer
 Skin Scan wants to help you replace that initial visit to the dermatologist.



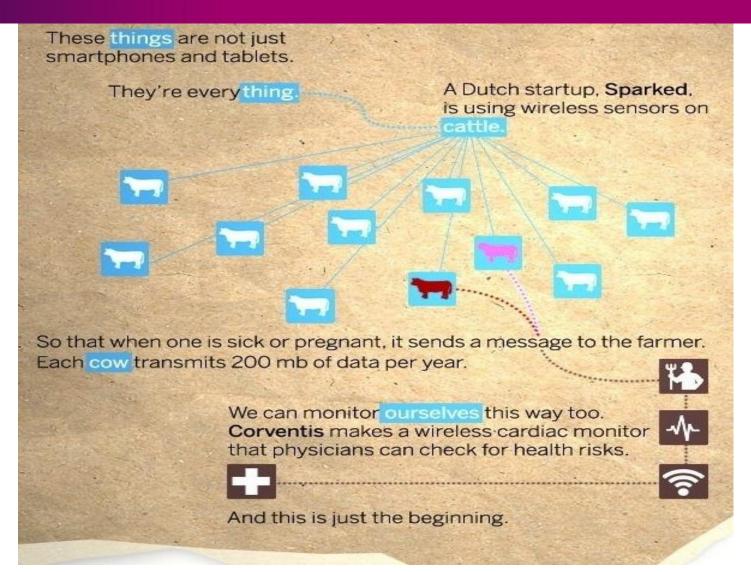
The Romania-based company behind <u>Skin Scan: Your Pocket</u>
<u>Scan Technology for Skin Cancer Prevention was recently</u>
<u>awarded €50,000 from Seedmoney to continue work on its</u>
<u>algorithm-based diagnostic app. For my money — the sale</u>
<u>price of \$4.99, for now</u>



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Source: http://blogs.cisco.com/wp-content/uploads/internet of things infographic 3final.jpg



# Internet of things will have 24 billion devices by 2020

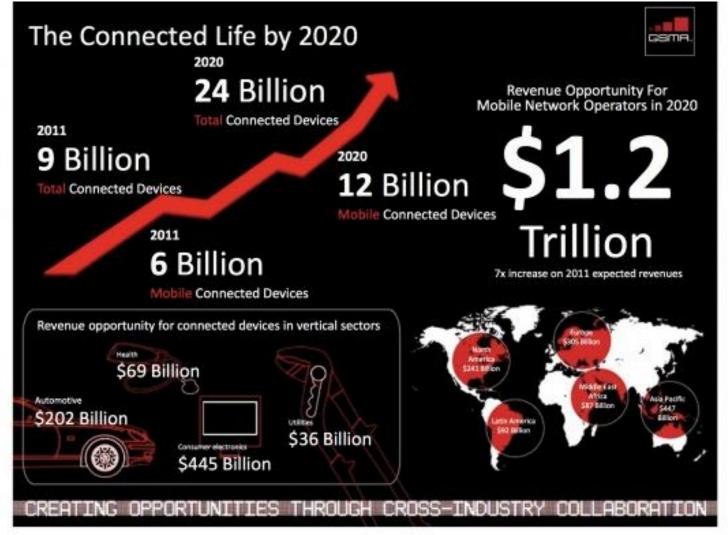
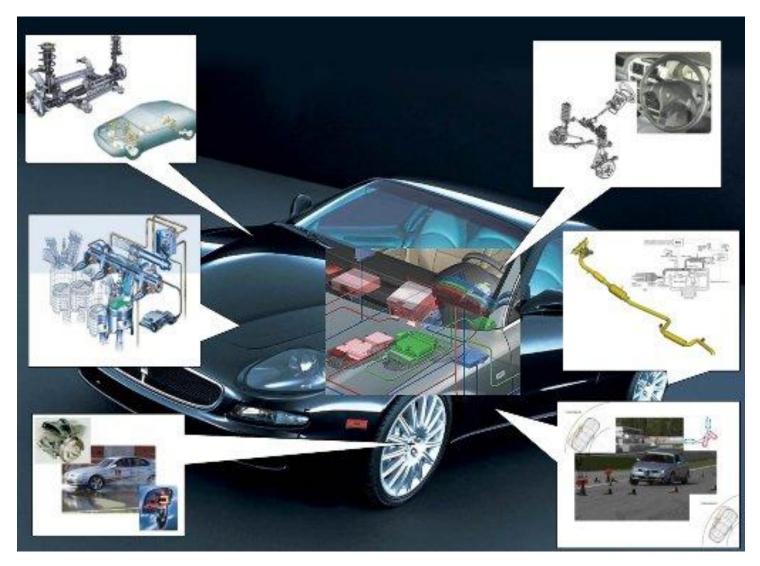


Diagram Source: http://gigaom.com/cloud/internet-of-things-will-have-24-billion-devices-by-2020/

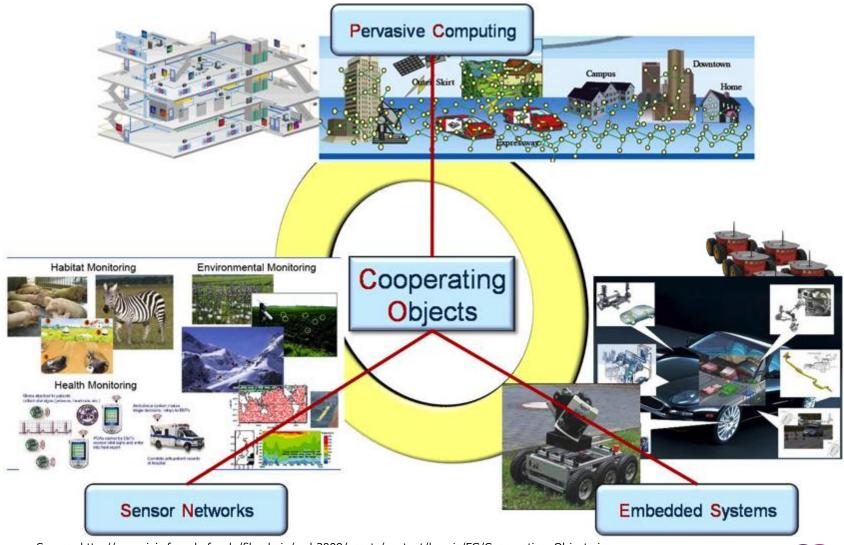


## **Embedded Systems**





## **Cooperating Objects**



Source: http://www.iais.fraunhofer.de/fileadmin/web2009/assets/content/keyvis/FG/Cooperating\_Objects.jpg



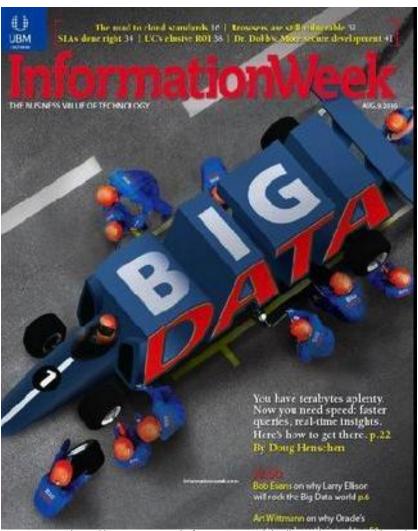




## Geolocation



## **Big Data**

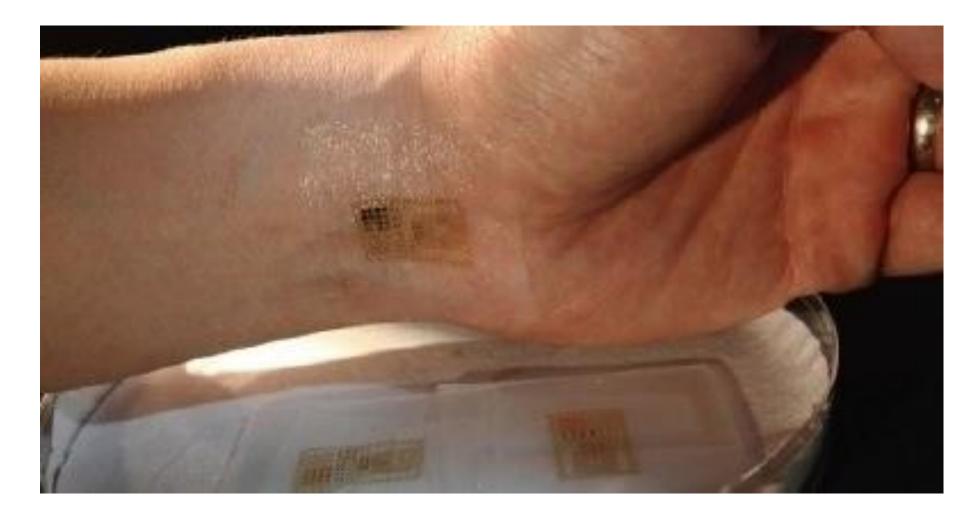


- \$600 to buy a disk drive that would store all the worlds music
- Price is rapidly being driven down per gigabyte
- 40% projected global data generated vs. 5% growth in global IT spend
- 5 billion mobile phones in 2010
- Growing at 65% CAGR
- 80% unstructured data
- More than 168 Million emails

Source: http://i.cmpnet.com/informationweek/galleries/automated/480/Intro-Slide full.JPG



## **Ethical Issues**





## "Cybercrime"



No one joins the dots like the Financial Review. Visit afr.com/subscribe

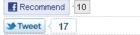
#### Technology



#### Cybercrime hits Aussies for \$4.6b a year – more than burglary, assault combined

September 8, 2011

## You're the only person reading this



Join the conversation

now. Tell your friends

66 We are all playing little birdrelated games on [smartphones]. We put funny stickers on the back of them. They don't seem like serious devices that need security but boy they really are.

Top Technology articles

Cybercrime is soaring, already costs Australians more than burglary, and will only increase as more people conduct their daily lives through relatively insecure and easily lost smartphones and other mobile devices, a specialist on cybercrime says.

Marian Merritt, internet safety advocate with computer security company Norton, said a new global study showed 69 per cent of adults around the world experienced cybercrime in their lifetime, much more than previously thought because this type of crime mostly wasn't reported.

"Ten per cent of us have already experienced mobile device related cybercrime. That's cybercrime on our [mobile] phones, tablets and other devices we carry with us as we go about our business," she said.

"It's only going to get bigger because we are all doing more and more with our mobile devices," she said.

Cybercrime on mobile devices has produced a new word:



#### Blogs YOUR TURN: ONE GAMER'S ...

66 Ryan "ryvman" Crawford delves into the memory bank and ... 🤊



Posted in: Screen Play Date: Sep 19, 2011, 7:10AM Comments 7

Featured advertisers



## "Cyber Terrorism"







- creates new uproar
- 3. Are Netflix's best days behind
- 4. Google adds Visa, Amex, Discover cards to Wallet
- 5. Facebook, Time Warner launch anti-bullying app
- \* More Breaking Hews Technology articles

#### Story Tools

Share on Facebook

Email this story

stop those attacks."

Mueller was the third high-ranking federal official in as many days to urge private industry cyber warriors to join forces with the US government to battle spies, terrorists and crooks plaguing the Internet.

"As you well know, a cyberattack could have the same impact as a well-placed bomb," Mueller said.

"In the past ten years, Al-Qaeda's online presence has become as potent as its in-world presence."

Al-Qaeda uses for the Internet range from recruiting and inciting





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## **Opinion matters!**

- Smashed guitarYouTube song United is listening now
  - Last year, while he was flying
     from Nova Scotia to Nebraska
     on United Airlines, somebody
     broke his \$3,500 guitar.



- But Carroll and his band, Sons of Maxwell, have told their tale with rhythm, harmony, rhyme, not to mention some wicked humor, and their four-minute, 37-second complaint, "United Breaks Guitars," above, is racking up views on YouTube.
- The Times newspaper reported that within 4 days of the video being posted online, United Airline's stock price fell 10%, costing stockholders about \$180 million in value
- More information at <a href="http://www.davecarrollmusic.com/">http://www.davecarrollmusic.com/</a>



### The death of email!

## facebook.

Facebook has more than 600 million active users 30 billion pieces of content on Facebook every month



Twitter has 200 million users, generating 65 million tweets a day



LinkedIn has more than 100 million registered users, spanning more than 200 countries "Social media has played a crucial role in the unrest in Egypt, with many of the protests organized through Facebook."

— BBC News

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## **Changing communication**





facebook.



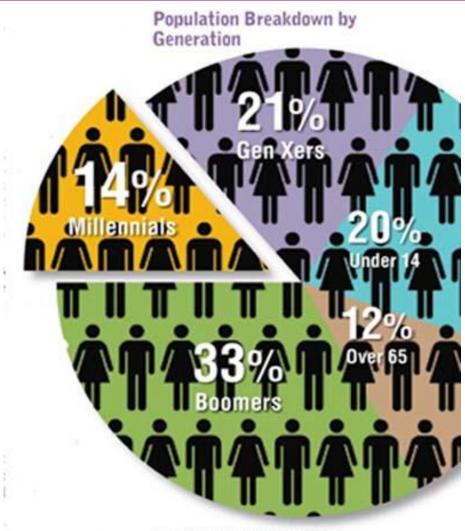
twitter

You cannot ignore social media!

## **Generational differences**







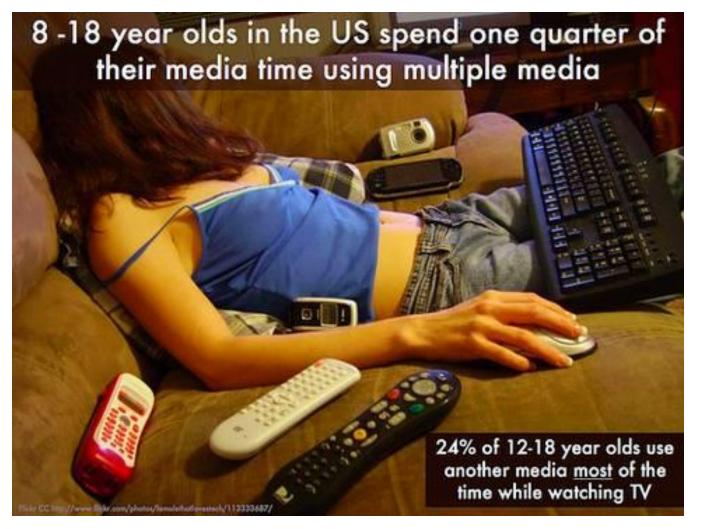
Source: Population Division, U.S. Census Bureau. Data released May 2007.

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## **Multiple Generations**



Source: http://www.masternewmedia.org/images/US-media-consumption-234915975\_ffe3e4f6b7-o.jpg



## **Generation Motives**

	<b>Boomers</b> (1946-64)	<b>Gen X</b> (1965-80)	Millennials (1981-95+)
Key Values/ Motivations	<ul><li>Power</li><li>Money</li><li>Status</li></ul>	<ul><li>Independence</li><li>Resilience</li><li>Flexibility</li></ul>	<ul><li>Teamwork</li><li>Technology</li><li>Entertainment</li></ul>



## **Generation Recruiting**

	<b>Boomers</b> (1946-64)	<b>Gen X</b> (1965-80)	Millennials (1981-95+)
Key Values/ Motivations	Power Money Status	Independence Resilience Flexibility	Teamwork Technology Entertainment
Recruitment/ Socialization Keys	Explain Org Mission Recognize desire to get quickly assimilated	Straight-talk about negatives Have their peers present/involved	Rapid, hands-on orientation Encourage them figure what's next in the company

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## **Managing the Generations**

	<b>Boomers</b> (1946-64)	<b>Gen X</b> (1965-80)	Millennials (1981-95+)
Key Values/ Motivations	Power Money Status	Independence Resilience Flexibility	Teamwork Technology Entertainment
Recruitment/ Socialization Keys	Explain Org.'s Mission Recognize desire to get quickly assimilated	<ul><li>Straight-talk about negatives</li><li>Have their peers present/involved</li></ul>	Rapid, hands-on orientation Encourage them figure what's next in the company
Management Approaches	Link pay & performance Focus on fairness and equity	Help them build their skills Help them feel they work "with" you not "for" you	Structured, but supportive work environment Use of "reverse" mentoring



## **Generation "Z"**

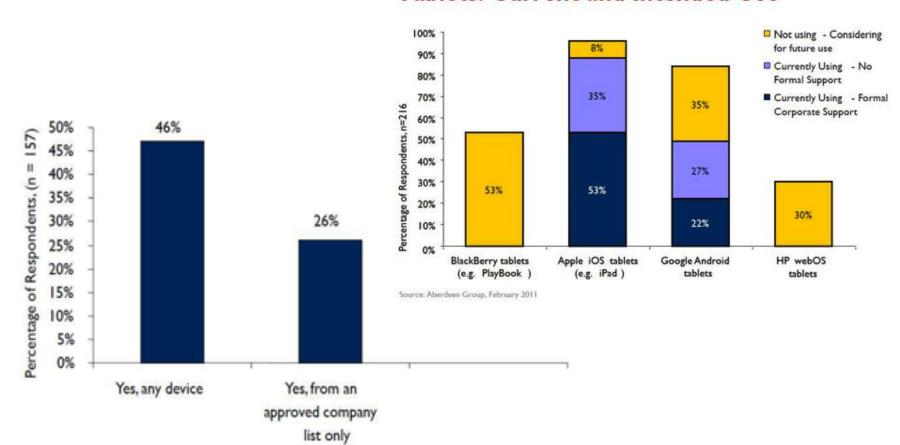




# 75% of Enterprises Have 'Bring Your Own Device' Policies

#### **Employee Owned Devices**

#### **Tablets: Current and Intended Use**



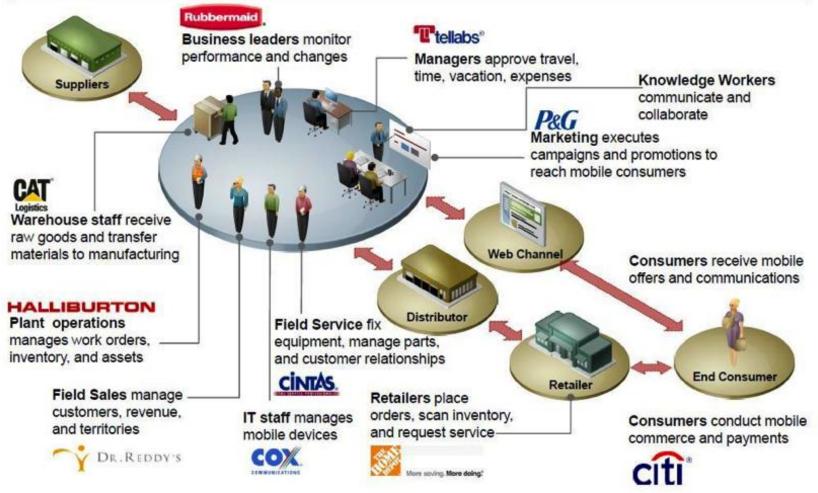
Source: http://www.zdnet.com/blog/sybase/75-of-enterprises-have-bring-your-own-device-policies-what-that-means-charts/1025-bring-your-own-device-policies-what-policies-what-policies-what-policies-what-policies-what-policies-what-policies-what-policies-what-policies-what-pol



## **Mobility accelerating business**

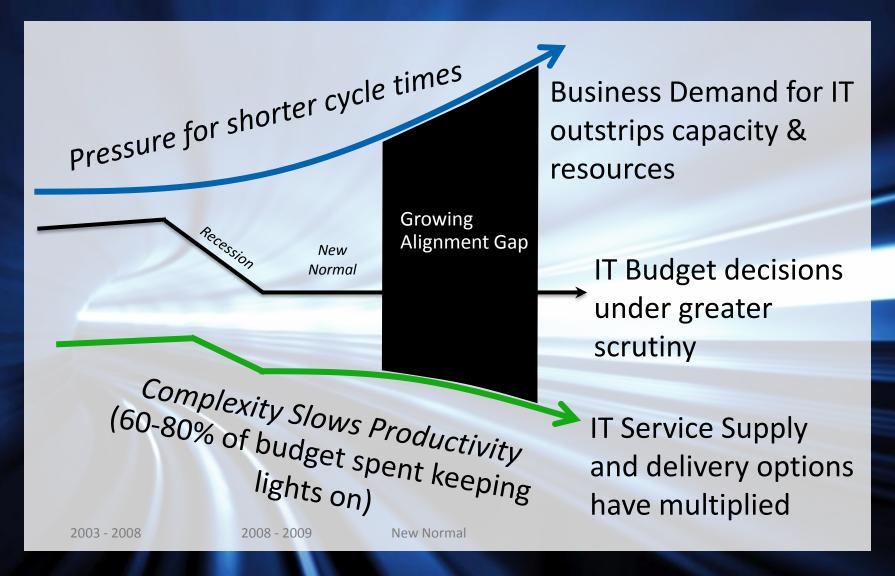
#### **Mobility Accelerates Business**

Source: http://www.zdnet.com/blog/sybase/75-of-enterprises-have-bring-your-own-device-policies-what-that-means-charts/1025

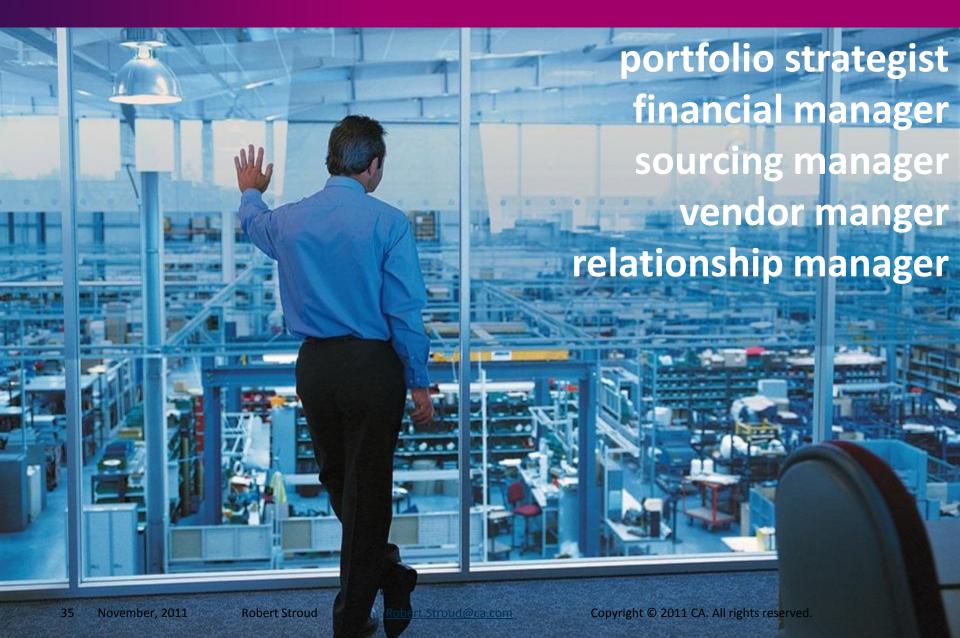




## CIOs are living with the "new norm"



## CIO's role is changing as the IT ecosystem evolves



# Changing dimensions of the "new norm"

### **CEO Priorities**

Grow through innovation
Drive growth and
competitive differentiation
through innovation?

# Attract and retain new customers

Grow market share through a positive corporate image?

Maintain cost efficiencies Continued cash and profit generation?



## **CIO Challenges**

Increase speed and agility
Find new ways to serve business
delivering services faster and cost
effectively?



### Mitigate risk

Resolve risk and security issues transparently for your business?



#### **Deliver Value**

Embrace innovation for competitive differentiation *and* deliver value at appropriate costs?



## **Changing role of the CIO**

It is happening. IT is being delivered to and consumed within the enterprise without IT's knowledge.

The cycle started with outsourcing and has rapidly accelerated with the advent of cloud computing.

When speaking to an employee at a large financial organization last year, he told me that part of the business was no longer.

Relying on an internal IT to provision and deliver technology

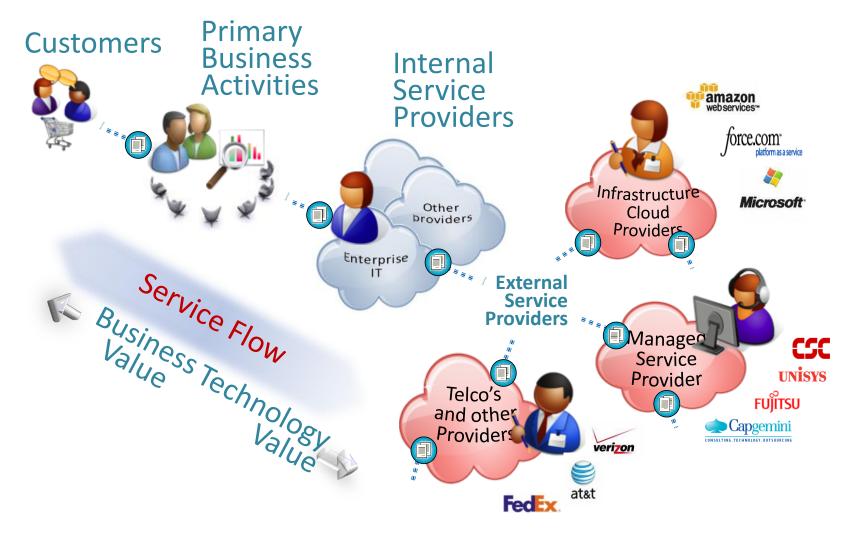


#### **Changing role of the CIO (Continued)**

- It is happening. IT is being delivered to and consumed within the enterprise without IT's knowledge. The cycle started with outsourcing and has rapidly accelerated with the advent of cloud computing.
- When speaking to an employee at a large financial organization last year, he told me that part of the business was no longer relying on an internal IT to provision and deliver technology. In many organizations, technologies like social, mobile, cloud, direct outsourcing contracts and video are being leveraged to bypass the IT function. Consumers of technology today are extremely "tech-savvy" and expect information in real time, personalized user experiences and access to mobile applications.
- Data center functions are being outsourced for cost efficiencies and to enhance time to value.
- Is this the end for the CIO, and Information Technology, or simply another page in the evolution of IT enabled business service? I spoke to the CIO of another organization in the finance industry recently and his reaction to these industry changes has been to leverage the potential risks and compliance requirements to "shut the door" to all uses of cloud and outsourcing. Ultimately he found out it is happening behind their backs.
- The "cloud computing revolution" is a continuation of the evolution of computing. The reality is that the CIO and IT will need to make the concession that total control, perceived or real, will be lost and their role will transform.
- Forward thinking organizations and CIO's have leveraged this transformation to commence a transformation of their own as they look to become
  part of the innovation process and accept the role of the aggregator of services aka a service broker. This involves the acceptance of the
  disruptive technologies that fuel the business, partnering closely with the business to drive growth and customer engagement and implementing a
  new management paradigm.
- The changing management paradigm IT will provide value through effective management of the portfolio, sound financial management and
  effective sourcing and management of the vendors delivering the capabilities all with the view of not only sustaining, but also delivering rapid
  innovation.
- As technology sourcing and consumption moves beyond the CIO, the role of effective management must be the primary way in which the CIO will provide the appropriate level of centralized coordination. That said, the CIO will remain responsible for the orchestrating technology sourcing and managing the supply but at the same time facilitating the delivery of innovation. To do this the CIO's focus will shift to empowering employee's and customers to solve problems and IT will need to focus on relationships with the business and function as a trusted advisor to assist them in solving business problems. In short, IT will need to ensure that employee's become one of the primary sources of innovation and blockbuster ideas to gain competitive advantage.
- It is clear that IT is at the beginning of a major transition and change is inevitable, how will your organization deal with this?



#### Manufacturer to aggregator





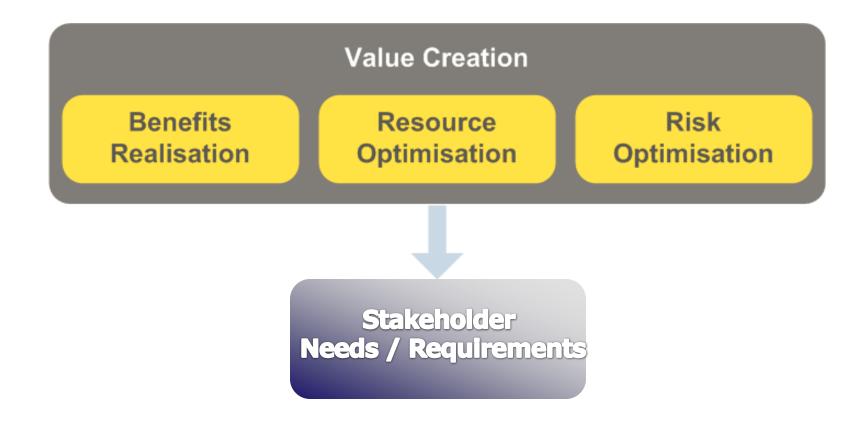
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# The empowered CIO – will manage to business value and risk appetite

- Portfolio Management
  - Demand, Investment, resource, capacity & risk management
- Financial Management
  - Cost, chargeback/showback, budgeting & planning
- Relationship Management
  - Performance, benchmarking, contract, vendor & supplier decisions & management
- Governance
  - Security, Risk and effective management processes will be critical to ensure business value



## Governance Objectives in the "new norm"



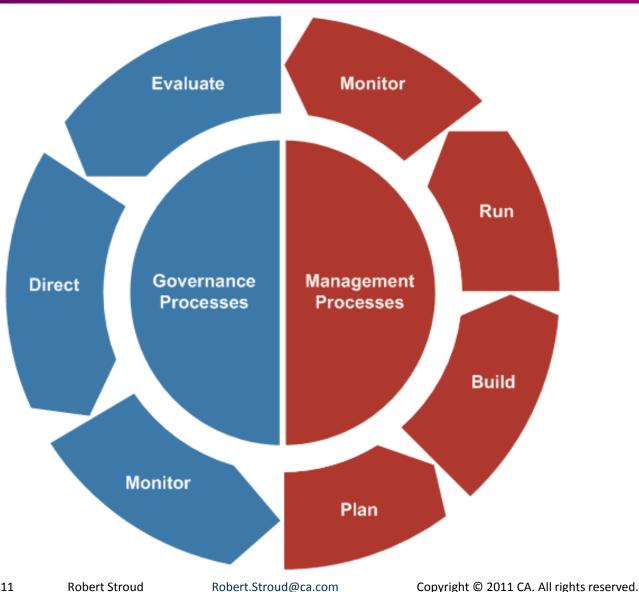


## COBIT®5 supporting the "new norm"

- Practical guidance with consideration of all, unique stakeholders
- Non-technical overarching framework
- -Clear distinction between governance and management
- Scope addressing management and governance of information
- -Clear migration guidance from prior versions
- Process model updates addressing innovation and emerging technologies
- Addressing governance enablers such as behavior, skills and decision making

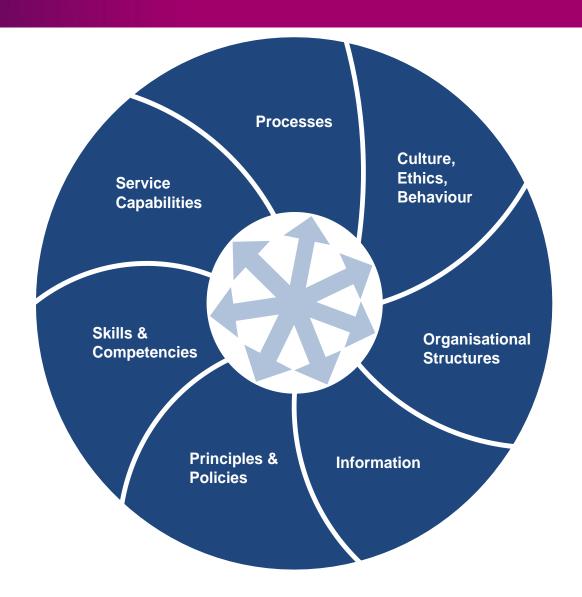


## **Governance and Management Processes**





#### **Governance Enablers**





#### **COBIT® 5 Benefits**

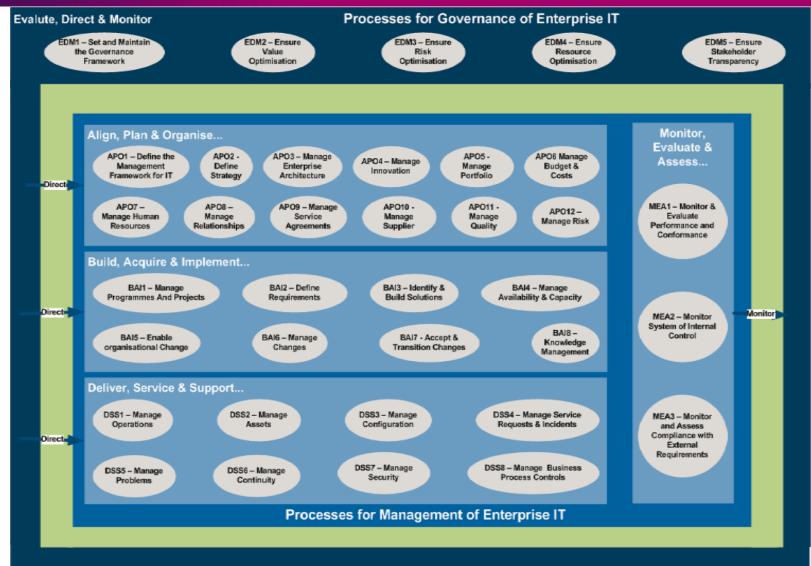
- Increased value creation through effective governance and management of enterprise information and technology assets
- Increased business user satisfaction with IT engagement and services—IT seen as a key enabler.
- Increased compliance with relevant laws, regulations and policies
- IT function becomes more business focused
- Increases the COBIT® 5 users' contribution to the enterprise

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Value and Risk integrated



#### **COBIT®5 Process Model - Draft**



## **COBIT®5 Major changes**

- Consolidation of frameworks
  - Adjustment of domains and processes
    - 4 to 5 domains
    - 34 to 36 IT Processes
  - Assessment process changed to focus on Capability using ISO 15504
  - Alignment with major frameworks and standards



## COBIT® 4.1 updates

- COBIT Enterprise Certification
- COBIT Assessment Model using COBIT 4.1



#### Recommendations

- Business and Technology is evolving at a rate we cannot comprehend and the role of IT is transforming
- IT will fundamentally change with IT becoming a Service Broker, aggregating services and managing the business relationship
- Governance, Risk Management becomes a value creator and security is critical
- Agile, Dynamic Just Enough!
- Transform from "Technology Oriented" to "Business and Technology Oriented"
- Reorganize your toolbox, keep up-to-date & enrich with appropriate new tools
- Communicate!



## thank you

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