

EMERGING IT TRENDS AND THEIR IMPLICATIONS TO THE AUDIT PROFESSION



Trust in, and value from, information systems

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ISACA International Past President 2012-2103

Global Finance Director

The Dow Chemical Company

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GREGORY T. GROCHOLSKI, CISA

- ISACA International President 2012-13
- The Dow Chemical Company
 - 30 years (USA and Belgium)
 - Finance and IT career – (in Audit 11 of 30 years)
 - Chief Audit Executive (2010-13)
 - Currently: Global Business Finance Director of Venture Capital, New Business Development, Licensing and Joint Ventures
- Active in assurance profession:
 - ISACA (various committees/BofD/speaker)
 - IIA Audit Executive Center
 - Audit Executive Association
 - Finance Executives International
 - National Association of Corporate Directors
- Married (28+yrs, 2 sons, 1.5 grandchildren)

Humble

Courage

Knowledge

Tenacity

Humble

Learn

Courage

Earn

Knowledge

Give

Tenacity

Humble

Learn

Courage

Earn

YOU!

Knowledge

Give

Tenacity

*True knowledge exists in
knowing that you know nothing*

- Socrates

I did not know:¹

- the cost of a gigabyte of data storage would decrease over time
 - 1981 \$437,500 to 2010 \$0.05**
- the IPAD2 is faster today than anything that existed prior to 1994*
- a Dell Latitude PC priced at \$2,000 today is faster than anything made prior to 2002, including the Compaq Wildfire server at \$1.25MM.*
- 50 million tweets per day*
- 20 hours of video uploaded to YouTube every minute*
-(two more items)...*

1) Source: Various internet searches

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- Crete residents - world record – largest Greek salad – 12 tons (in 2010)*
- Greece – largest Sirtaki dance – world record – 5614 people (2012)*

1) Source: Various internet searches

What's on the minds of the CAEs?

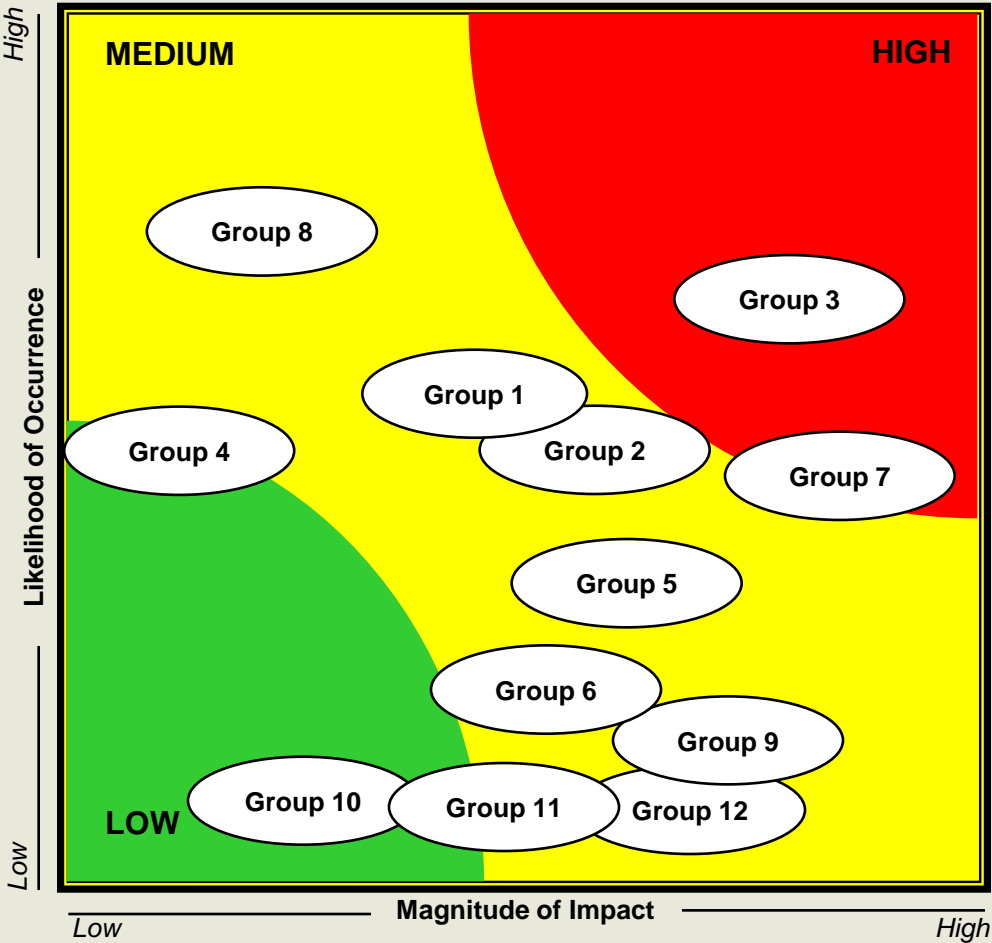








Continuous Risk Universe Assessment - Heat Map



Audit Plan Approach:

- Determine a plan to address the risks based on risk severity guidelines:
- **H High Risk** – Audit or review every year
 - **M Medium Risk** – Audit or review every 2 years
 - **L Low Risk** – Audit or review every 3+ years as needed

*Why are CAEs
skeptical and concerned?*

Volatility
Uncertainty
Complexity
Ambiguity
Speed

INDUSTRY TRENDS



73% of workers will be mobile by 2012



62% of IT organizations will have flat or reduced budgets



By 2015, 40% of the enterprise security controls will be virtualized, up from less than 5% in 2010



63% of companies are using, or implementing SaaS solutions



There are still over 4,000 (approx) new rules/regulations issued each year by the US government



Cube Runner



Cubes Lite



DizzyBeeFree



DownTime



Dual Level



Eventful



Evernote



ezimba



Facebook



Google Mobile App



GuitarToolkit



Hee Button



iFooty



iPint



Labyrinth Lite Edition



Last.fm



LinkedIn



Locly



MarketingProfs



MiGhtyDocs



Mocha Telnet Lite



myLite Flashlight an...



NeoReader



NetNewsWire



Puzzloop Free



Rain Stick



Relax



Remote



reMovem (free)



Scribble



Shazam



Speed



Stanza



Stitcher Radio



Super Monkey Ball



Talking Portuguese P...



TimeValue Basic



TouchClock



Trailguru



TubeStatus



Twitterrific



Twittervision



VoiceNotes



Wikipanion



WordPress

INTERNET 24 BILLION DEVICES BY 2020

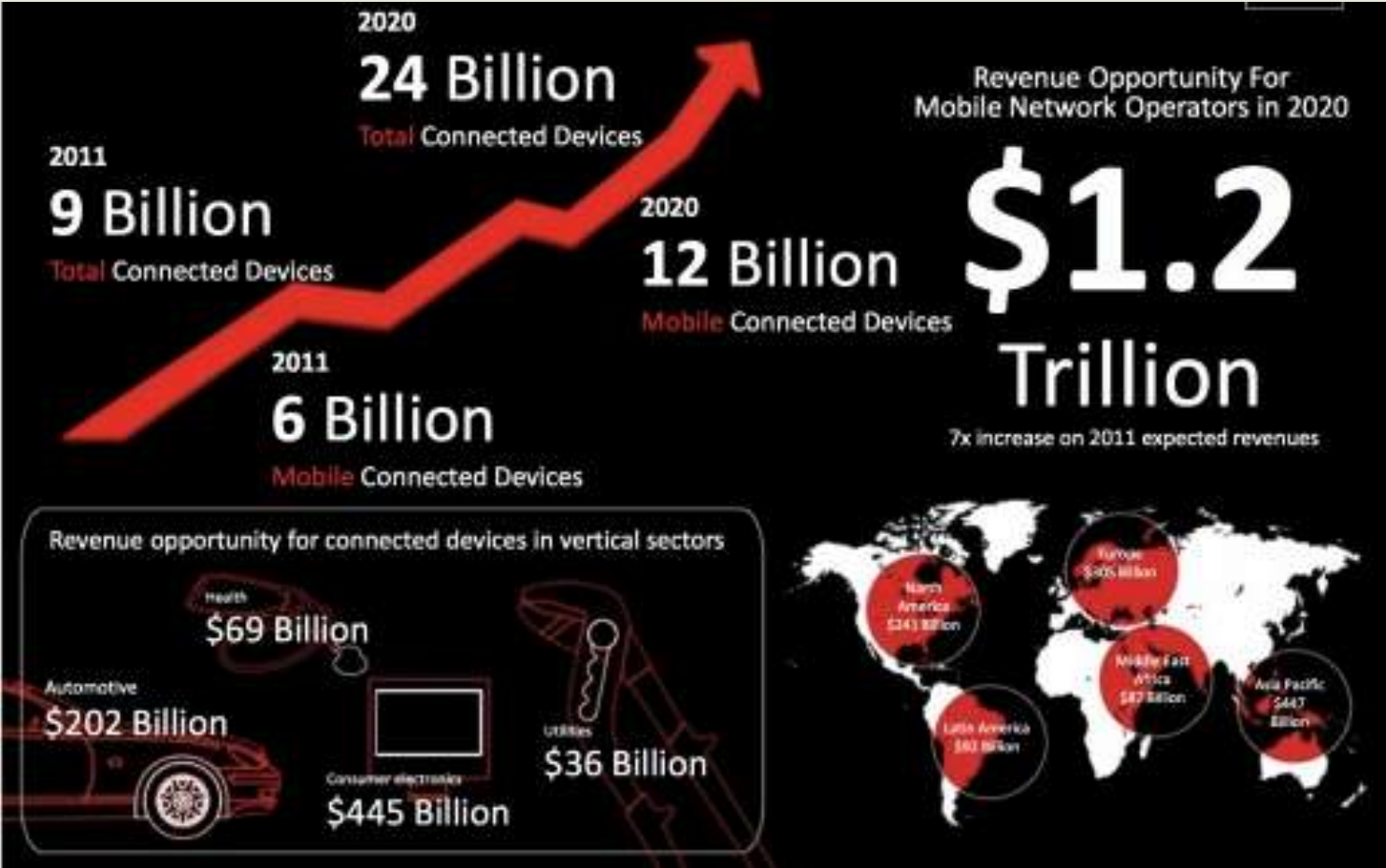


Diagram Source: <http://gigaom.com/cloud/internet-of-things-will-have-24-billion-devices-by-2020/>

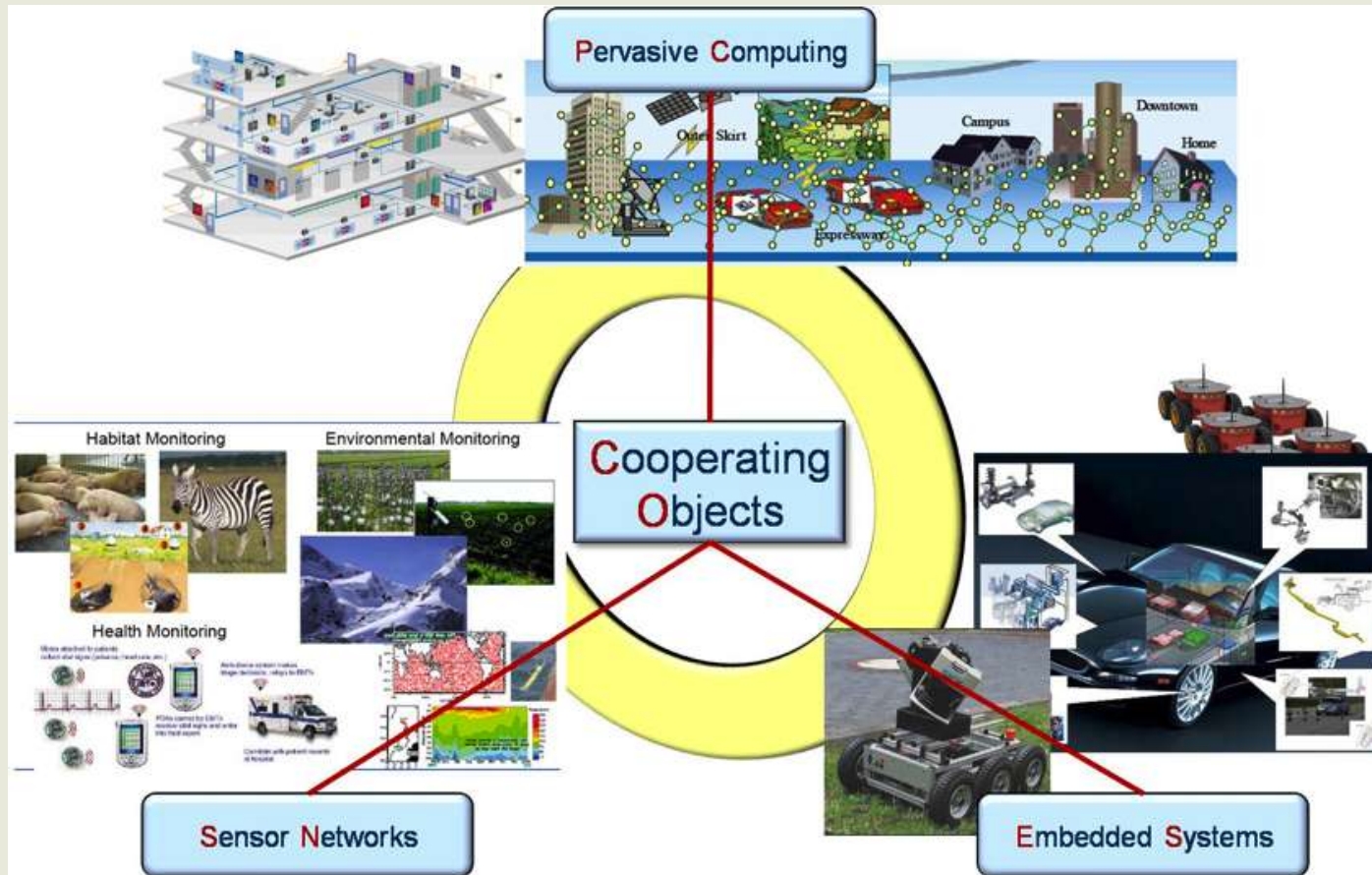
KEEPING PACE?

- **October 16, 2013**
- **Information Security Risks Continue to Evolve and Intensify**
- **The findings of a large global survey suggest most companies' data protection strategies are the wrong risks.** An extensive global survey by PricewaterhouseCoopers LLP (PwC) and CIO companies have substantially increased their information security spending and its growing. The survey report estimates that the root cause of this apparent contradiction is that information security risks continue to evolve and intensify, and business' security strategies — network perimeter historically —
are not keeping pace.

BIG DATA / DATA MINING

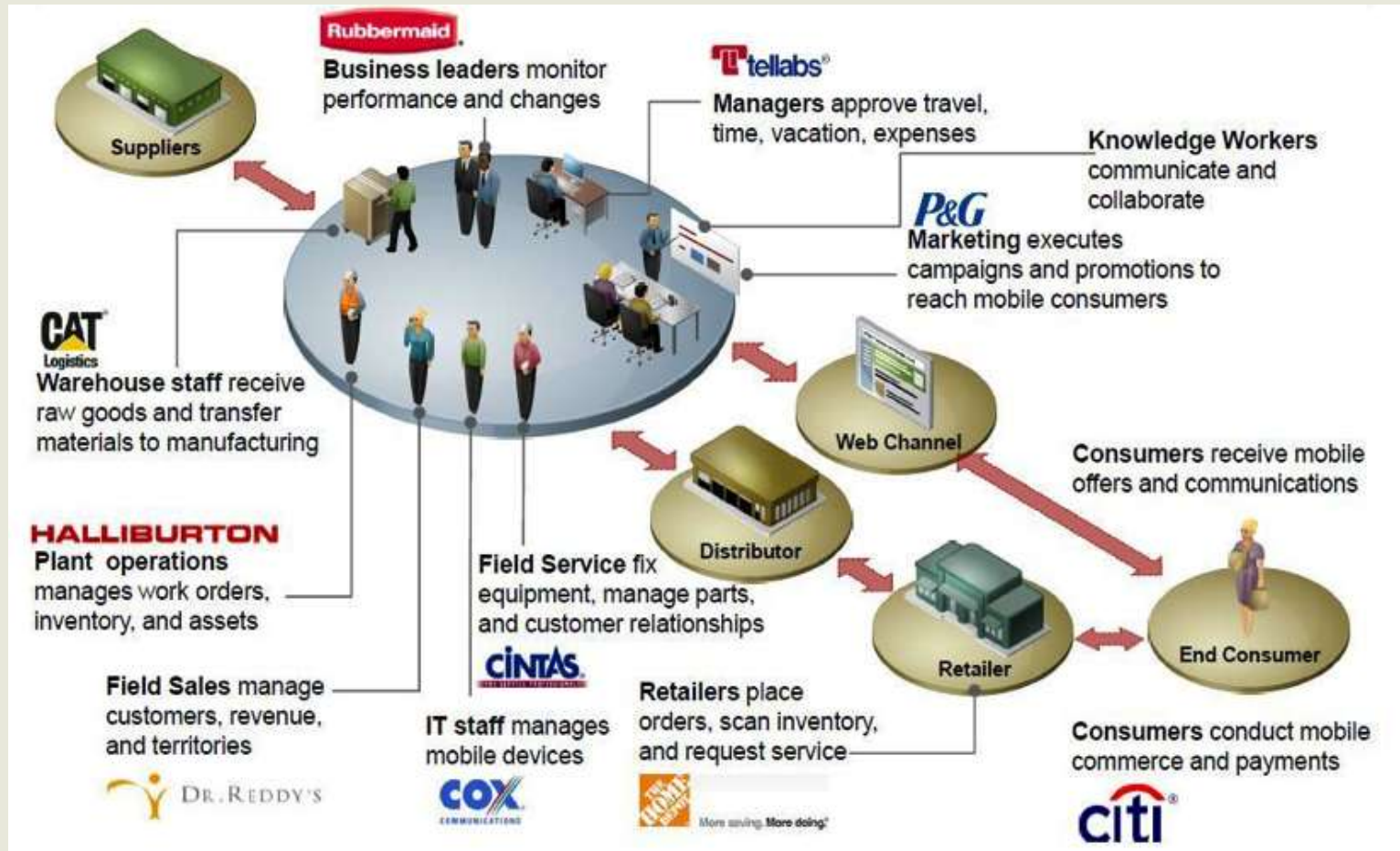
- More data in 1 day in 2011 than between 1995 to 2000
- A child today can access more information than a physician 15 years ago
- US \$600 to buy a disk drive that would store all the world's music
- Search for users going to cloud service providers such as Dropbox (file sharing)

COOPERATION OF THINGS

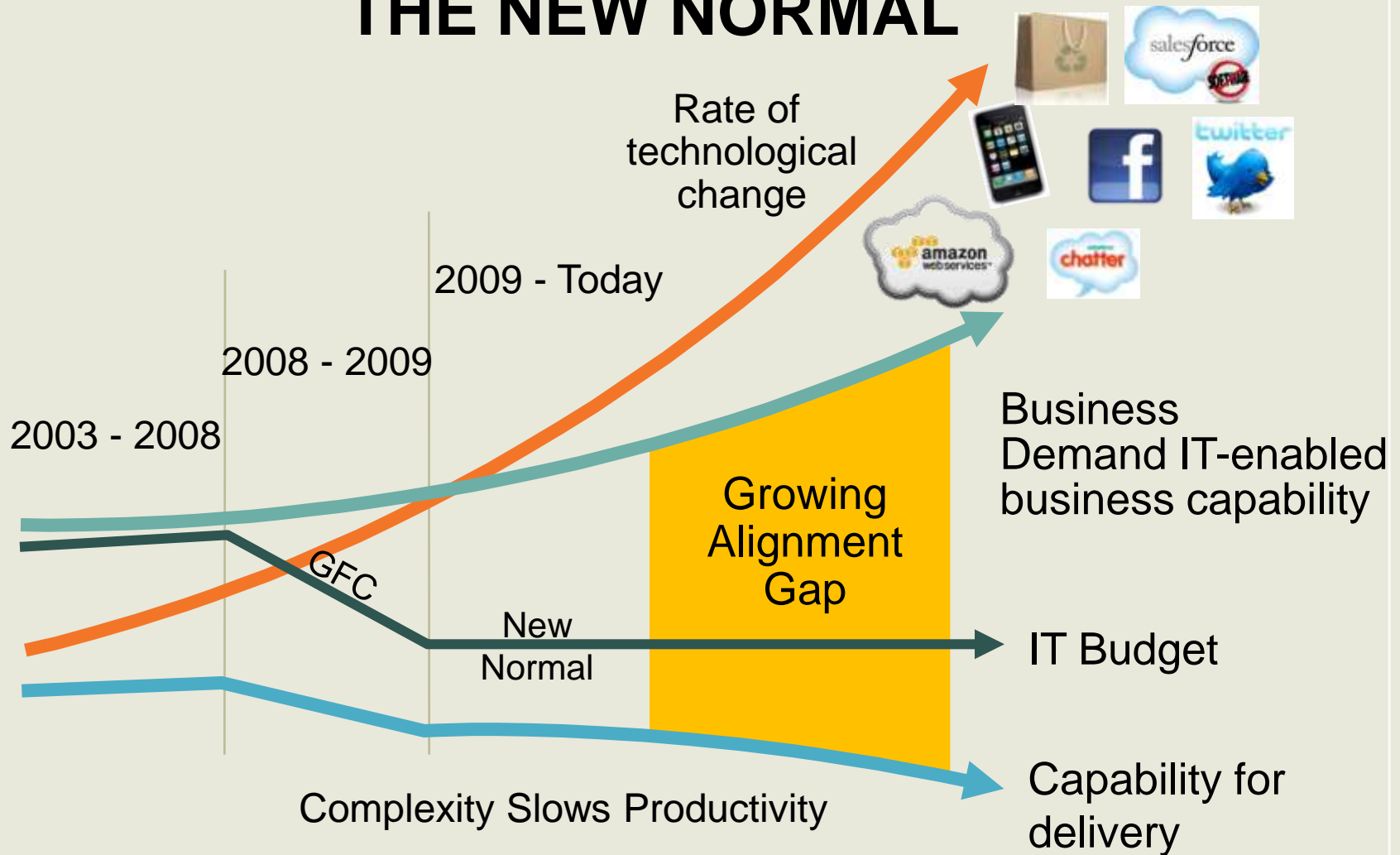


Source: http://www.iais.fraunhofer.de/fileadmin/web2009/assets/content/keyvis/FG/Cooperating_Objects.jpg

MOBILITY ACCELERATING BUSINESS



THE NEW NORMAL



February 2012 Robert Stroud

Robert.Stroud@ca.com

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WWW.ISACA.ORG

WE CANNOT CONTROL IT ANY LONGER

- 2016 - 40% of enterprises will make proof of independent security testing a precondition for using any type of cloud service.
- End of 2016 - more than 50% of global 1000 companies will have stored customer-sensitive data in the public cloud

HOW MANY CONTROLS ARE ENOUGH?



CONTROL IS IMPORTANT, ESPECIALLY WHEN YOU DON'T HAVE IT!



I do know:

- CAE's rank IT risks consistently among top concern / risk categories

- Data mining, Data Analytics
- Social Media (brand, disclosure regs, rumors)
- Cloud Computing / Outsourced Services (where's the data)
- Mobile applications
- Cyber attacks

- Pace of change
- Skill Gap

RECOMMENDATIONS

- LEARN – Keep pace with knowledge
 - Technology is evolving at a rate we cannot comprehend, but it is here to serve the business/organization.
- COLLABORATE – Talk to peers, engage in issue specific discussion to solve problems.
- IMPLEMENT - Agile, Dynamic – Just Enough
- COMMUNICATE - Effective communication is your best weapon.
- Excellent resources are available from ISACA - make sure your staff know about them.
 - Get engaged - Get involved

RECOMMENDATIONS

- Aristotle – *You will never do anything in this world without courage. It is the greatest quality of the mind next to honor.*

RECOMMENDATIONS

- *Aristotle – You will never do anything in this world without courage. It is the greatest quality of the mind next to honor.*
- *Grocholski - I wish you the courage to keep learning, earning and giving.....in the best interest of society, your country, your organizations, the profession (audit, assurance, security, risk, governance) and for yourselves. Lastly, I wish your tenacity outlives you!*

Q & A SESSION

