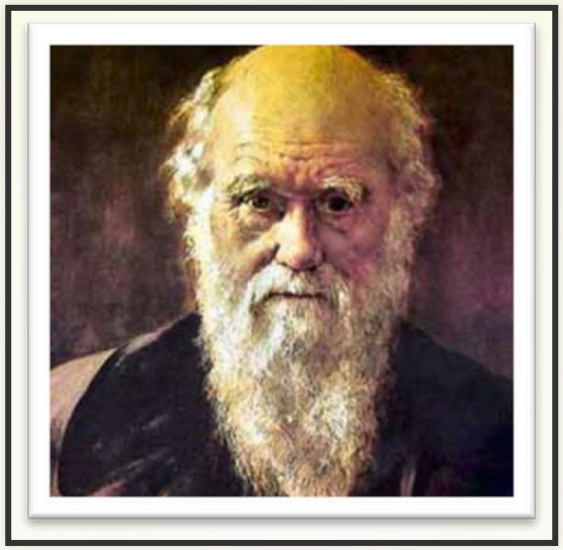
'NEXUS OF FORCES'

Heads up!

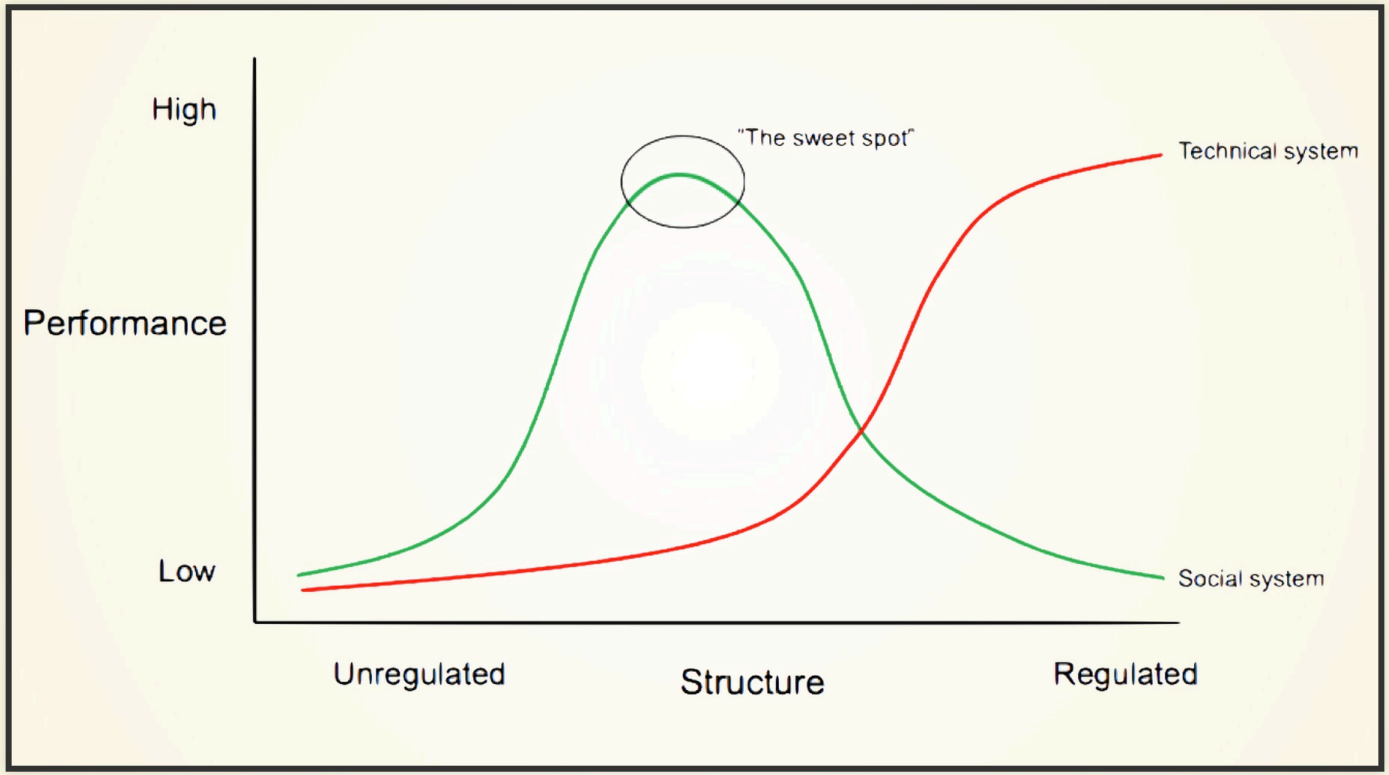
CADEC 2014, Peter Larsson



"It is not the strongest of the species that survive, nor the most intelligent. It is the one that is most adaptable to change"

- Charles Darwin, 19th century

THE ART OF SURFING THE EDGE OF CHAOS



Source: Kathleen M. Eisenhardt, Stanford University

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(Equilibrium === Death)
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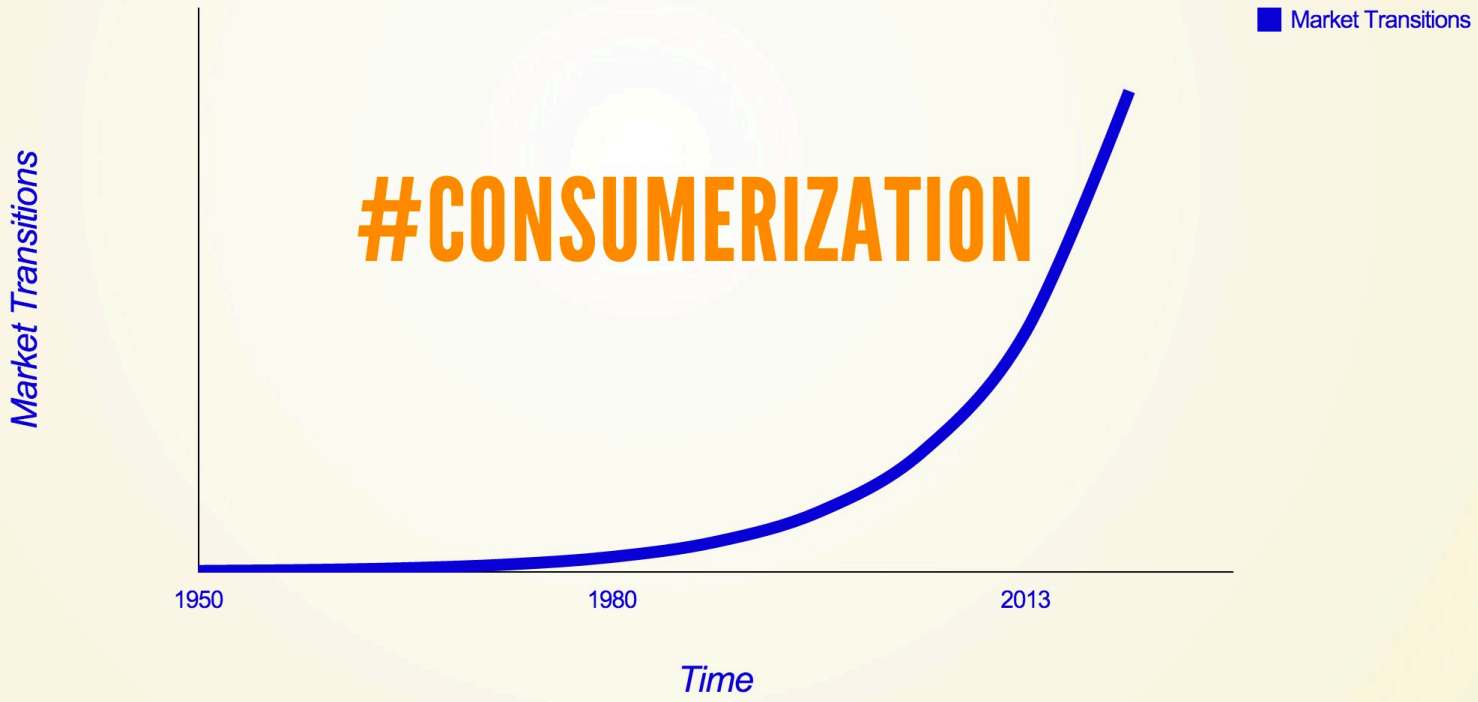
EDGE OF CHAOS

DISRUPTIVE CHANGE

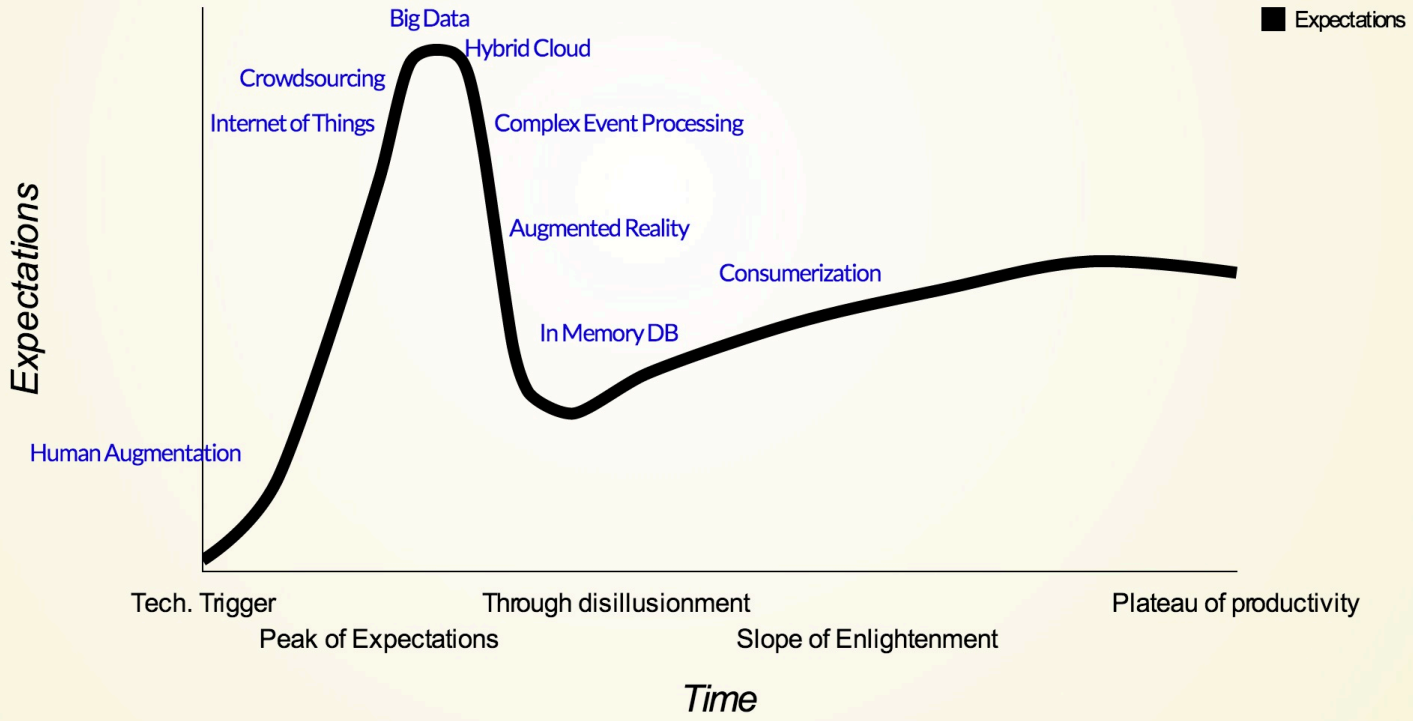
Mean time between surprises (MTBS)



SNOOP DOGG AND TUPAC, LIVE 2012

AMAZON PRIME AIR

CANONICAL HYPE CURVE



Source: Gartner, Inc

INTERNET OF THINGS

Google Glass

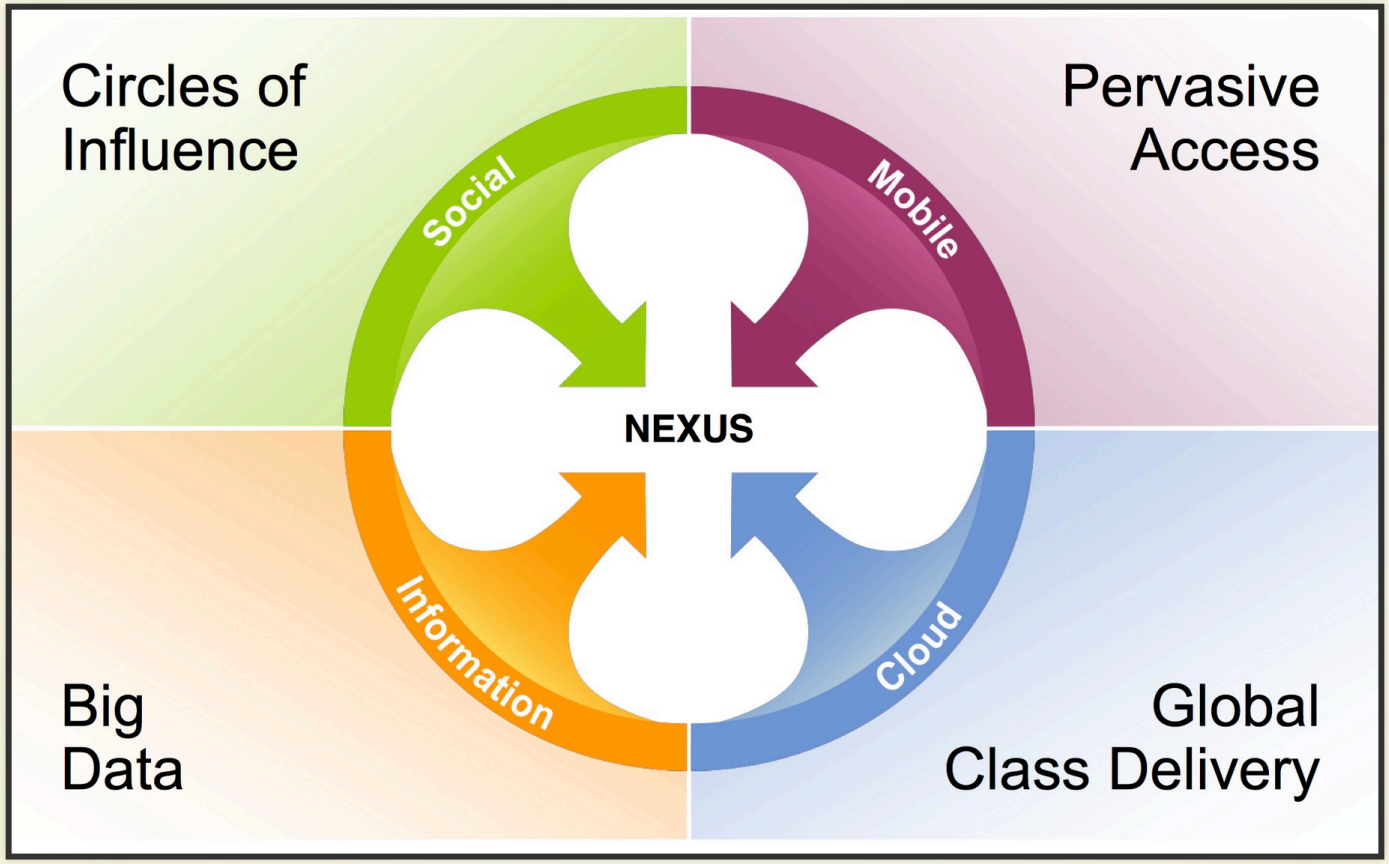
Google Car

Pebble Watch

Amazon Prime Air

'NEXUS OF FORCES'

Imperative for all Enterprise Architectures



Source: Gartner, Inc

Pervasive Access

FIRST!

MOBILE FIRST!

- Mobile is the application platform
- Time to forget the monolithic 3 tier application architecture
  - Applications must deal with several kinds of devices and data sources
  - Applications must integrate with public cloud services as well as private enterprise services
- Contemporary applications are reactive
  - Responsive, event-driven, resilient, scalable
  - Embrace emerging technology

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The Reactive Manifesto - http://www.reactivemanifesto.org
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Circles of Influence

ENGAGEMENT!

SOCIAL ENGAGES PEOPLE!

- Consumer driven ecosystem of modern computing
- We are consumers at work and not just enterprise "users"
- Social links people to their work and each other in new and unexpected ways

CONTEXT!

Big
Data

BIG DATA CREATES CONTEXT!

*“"Big data" are high-**volume**, high-**velocity** and high-**variety** information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision making.”*

Source: The Importance of 'Big Data': A Definition, Mark Beyer, Douglas Laney

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- What's going on?
- What should I do?

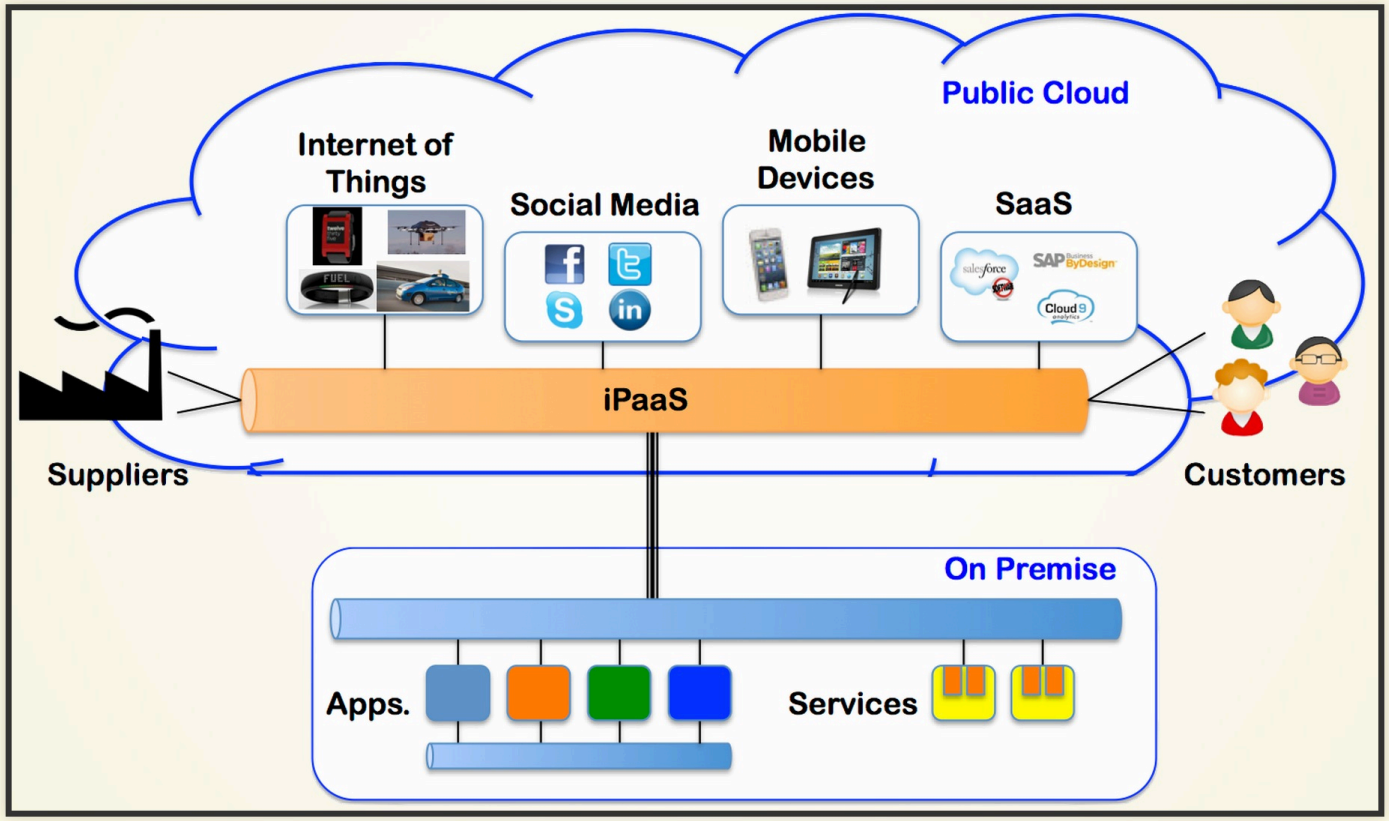
BIG DATA - ARCHITECTURE

- Use High performance data movement infrastructure when appropriate
  - More than 10.000 persistent messages per second or 20MB of data per second and instance
  - Latency < 0.1µs in-memory, < 10µs in-cluster, < 50µs in-lan
  - Parallel and in-memory computing to manage high volumes
  - Event driven asynchronous patterns to manage high velocity data streams
- Stateless applications supporting parallelization and cloud deployment
- Multiple data models, large scale data federation

ENABLE!

Global
Class Delivery

CLOUD ENABLES!



API Exposure & Economy

REQUIRED PLATFORM FEATURES

- Business Process Management Suite
- Business Rules Management Suite
- Complex Event Processing
- Active Analysis
- Data Integration Tooling

- Enterprise Service Bus
- In-memory Data Grids

LEAD OR FOLLOW

...OR GET OUT OF THE WAY!

STUDY ALL OPPORTUNITIES THROUGH THE NEXUS LENS

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