

# STRATEGIES FOR SERVICE DELIVERY IN THE CLOUD



Andy Brauer  
Chief Technology Officer  
Business Connexion



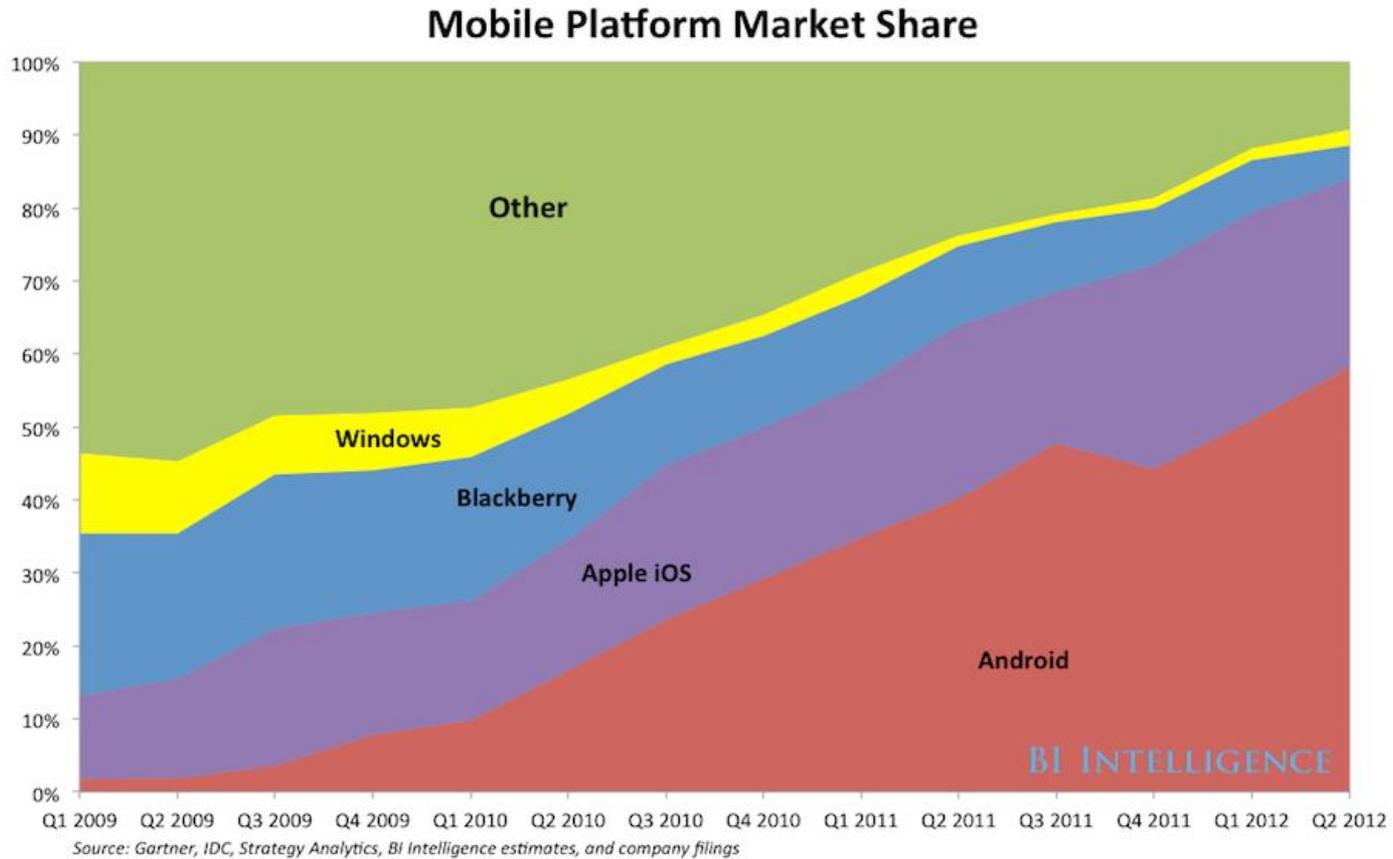
# Agenda

Markets  
Models  
Trends  
Money  
Tools  
Mindsets



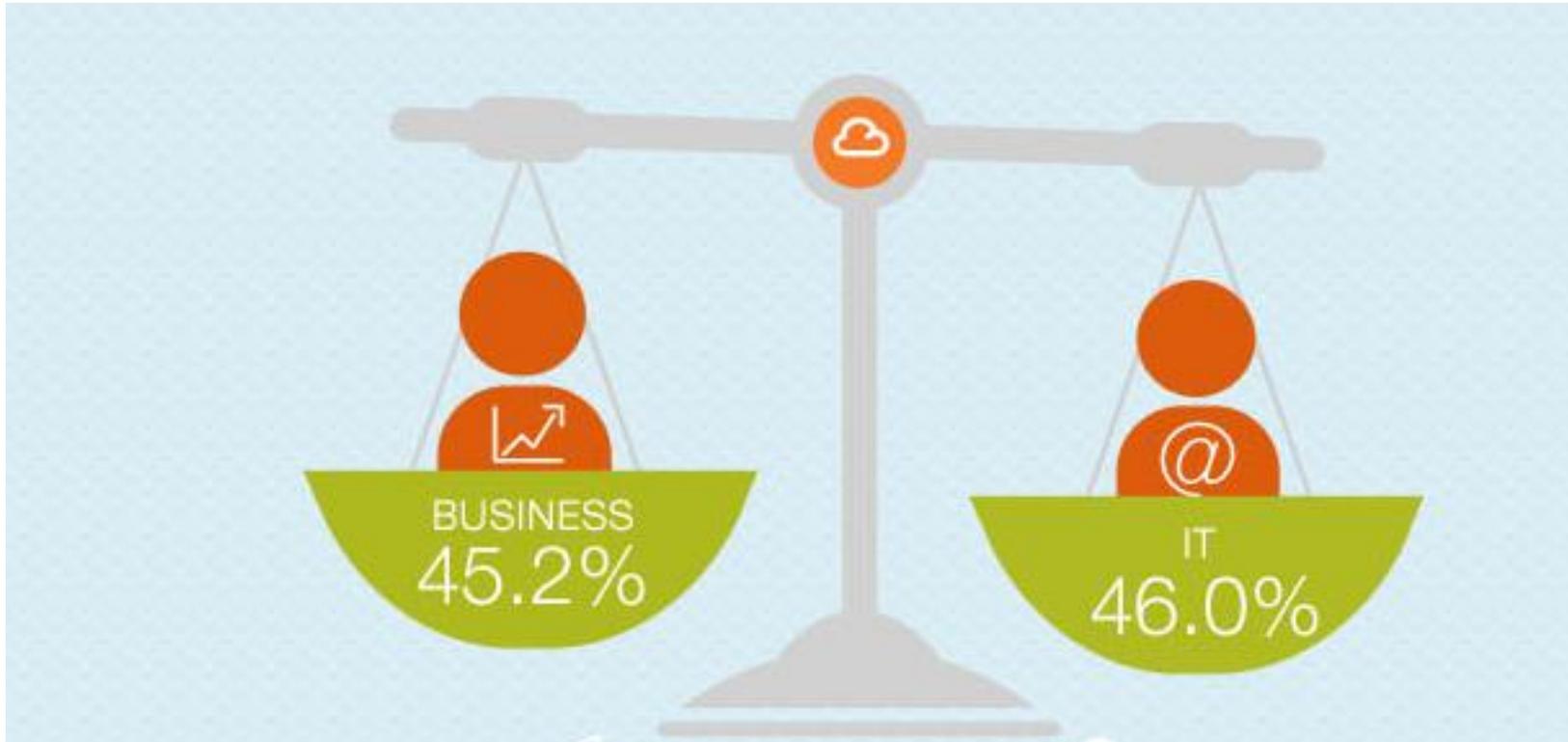
**Hyper Connectivity creating a situation of Hyper-Competition can result in a market characterized by Hyper-choice for the consumer**

# Markets



# The Tipping Point

## Who makes the decision to use or move to the Cloud



# Cloud Maturity



# Market Acceptance

prefer off-premise and partner-hosted private Cloud solutions

40% 

prefer on-premise private Cloud solutions

26% 

prefer a public Cloud approach

19% 



Working with multiple Cloud vendors



88%

of companies say it's the economic climate that is driving them towards the Cloud.



Only 56%

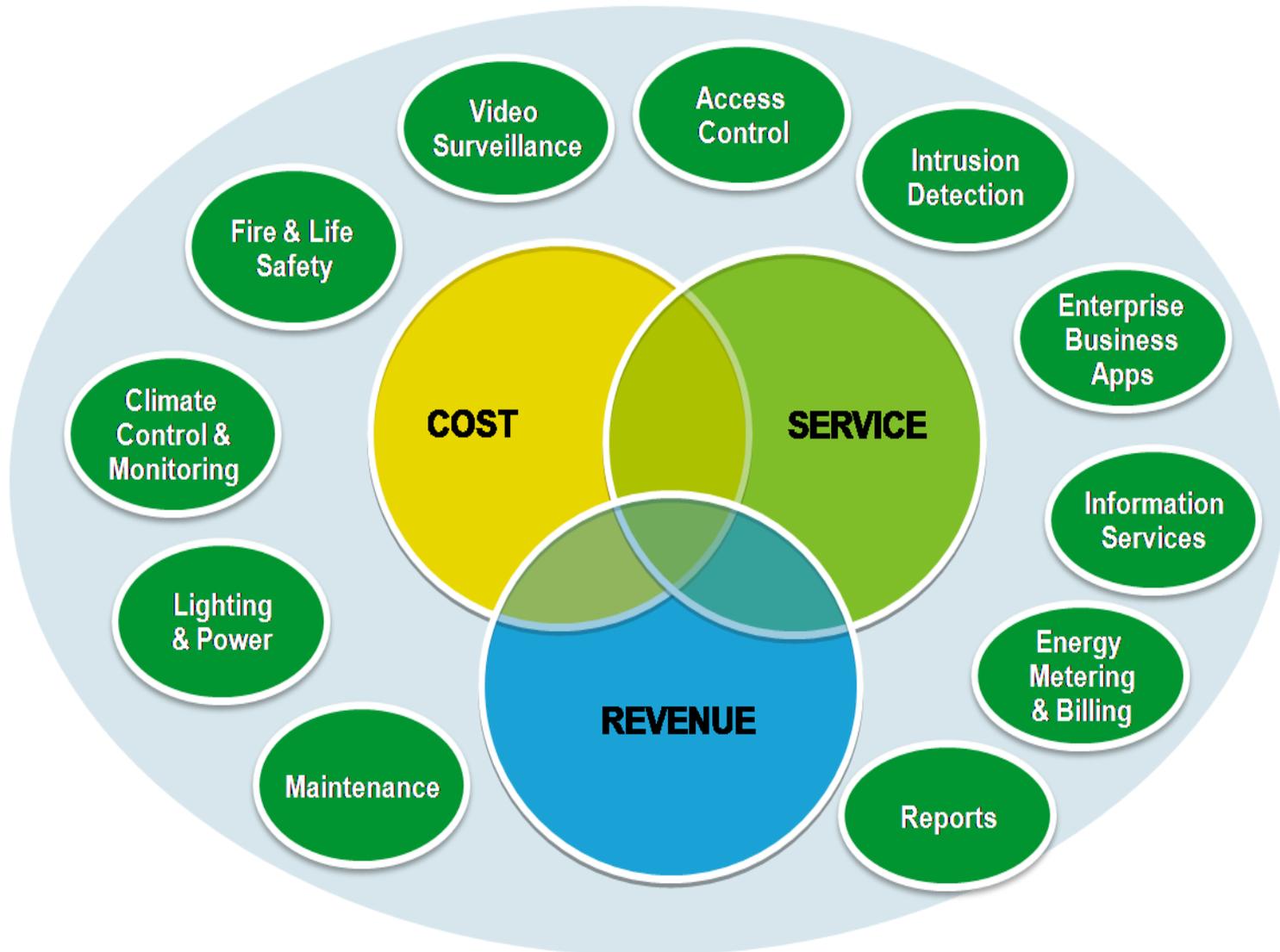
of organizations trust the Cloud with their data.

**Business  
Connexion**

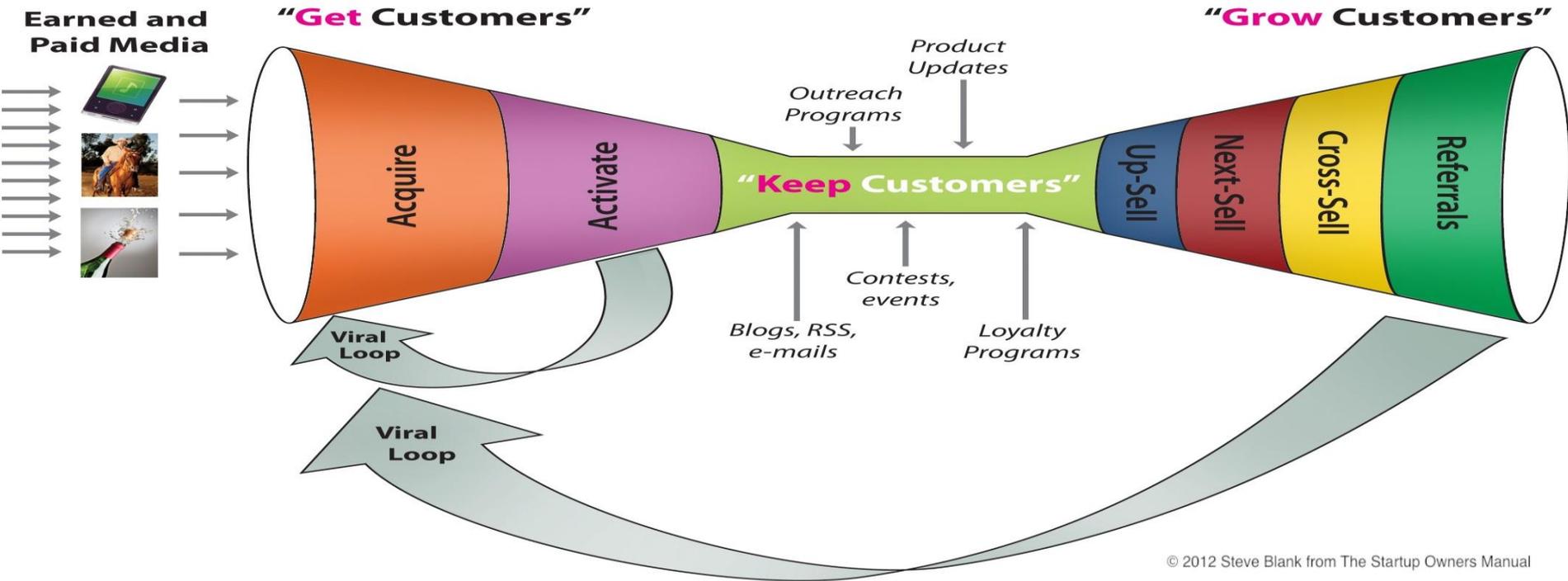
*Connective Intelligence™*



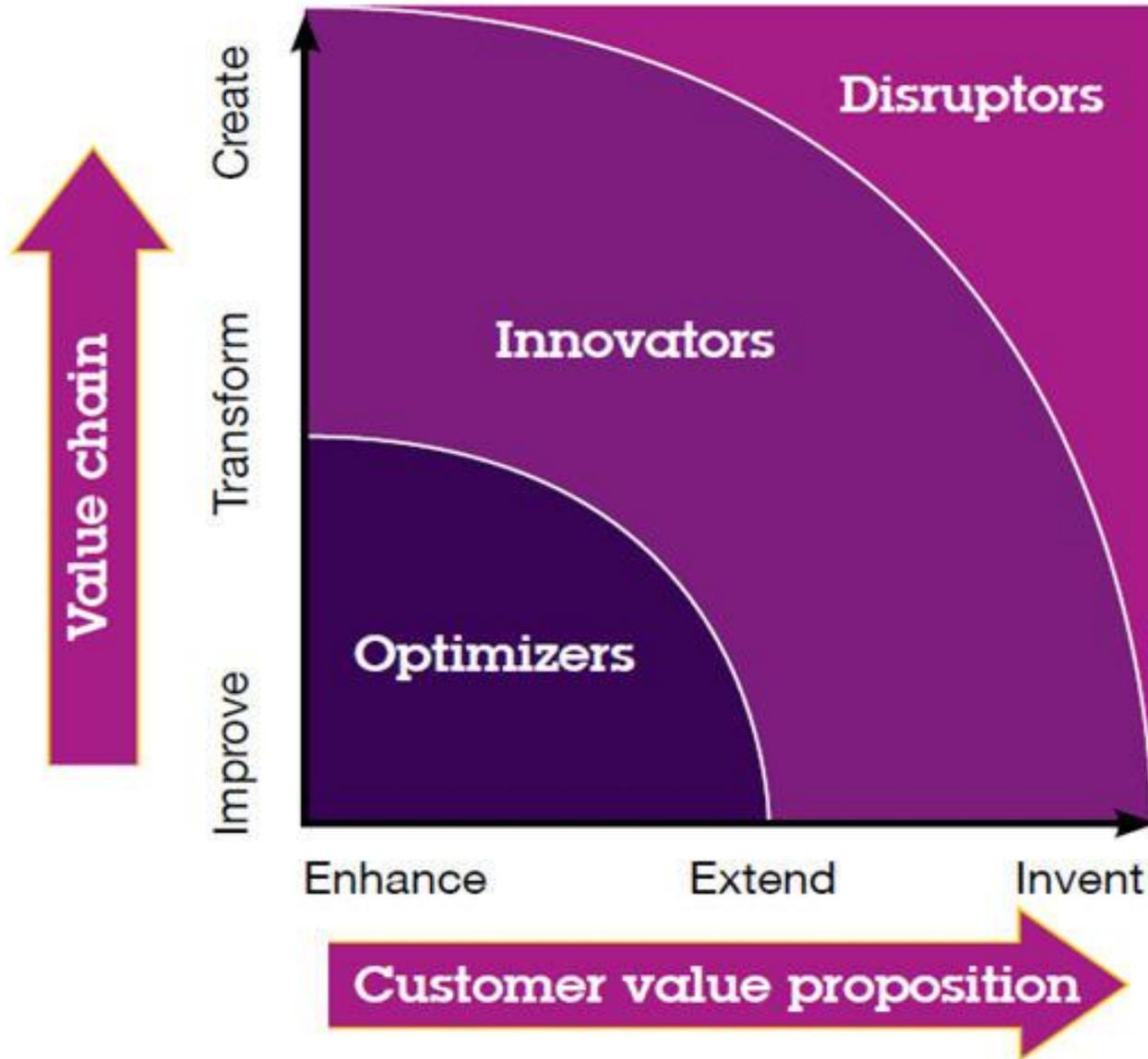
# Key Drivers for IP Convergence



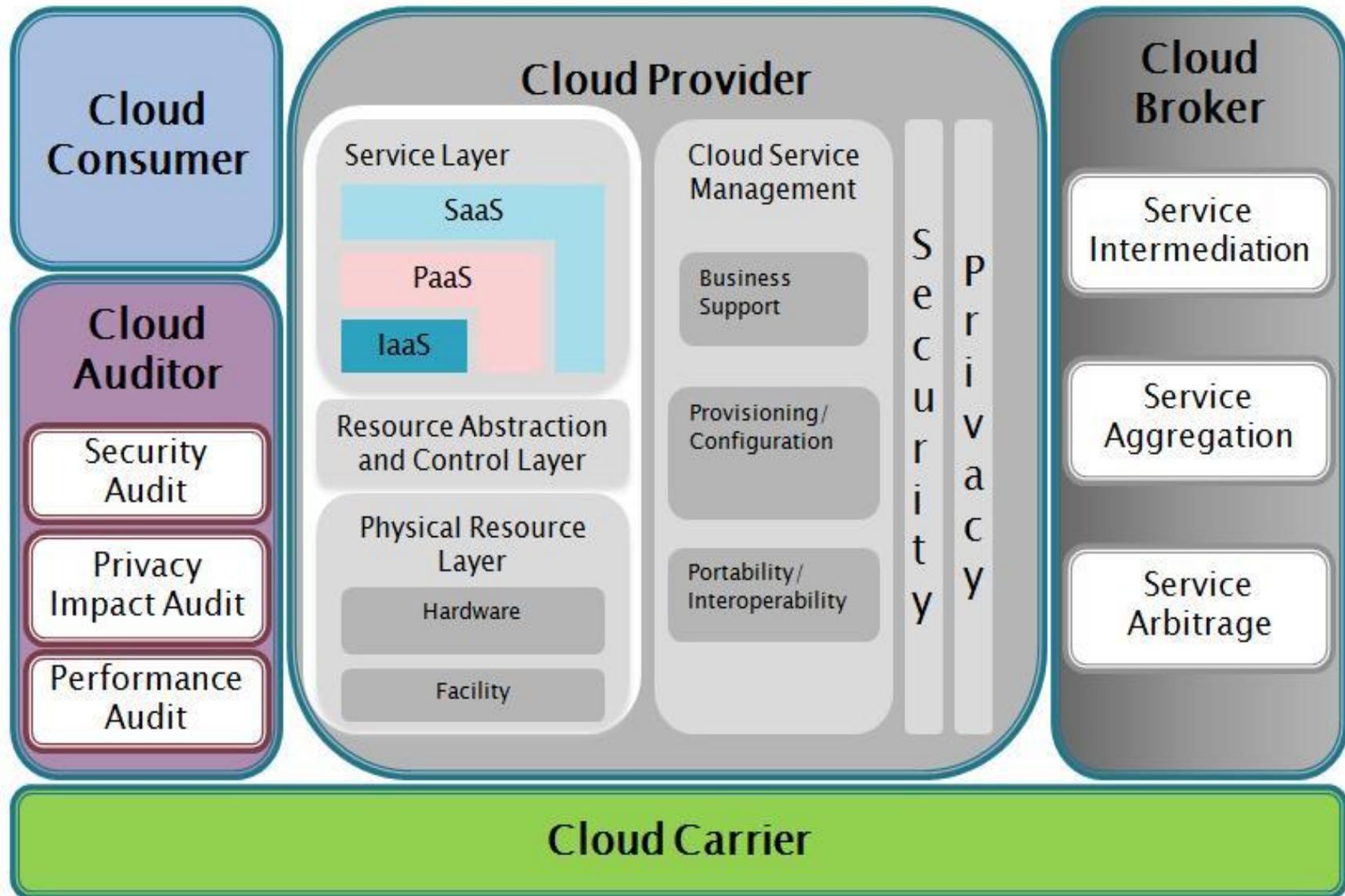
# Models



# Cloud Enablement Framework



# NIST Reference Architecture

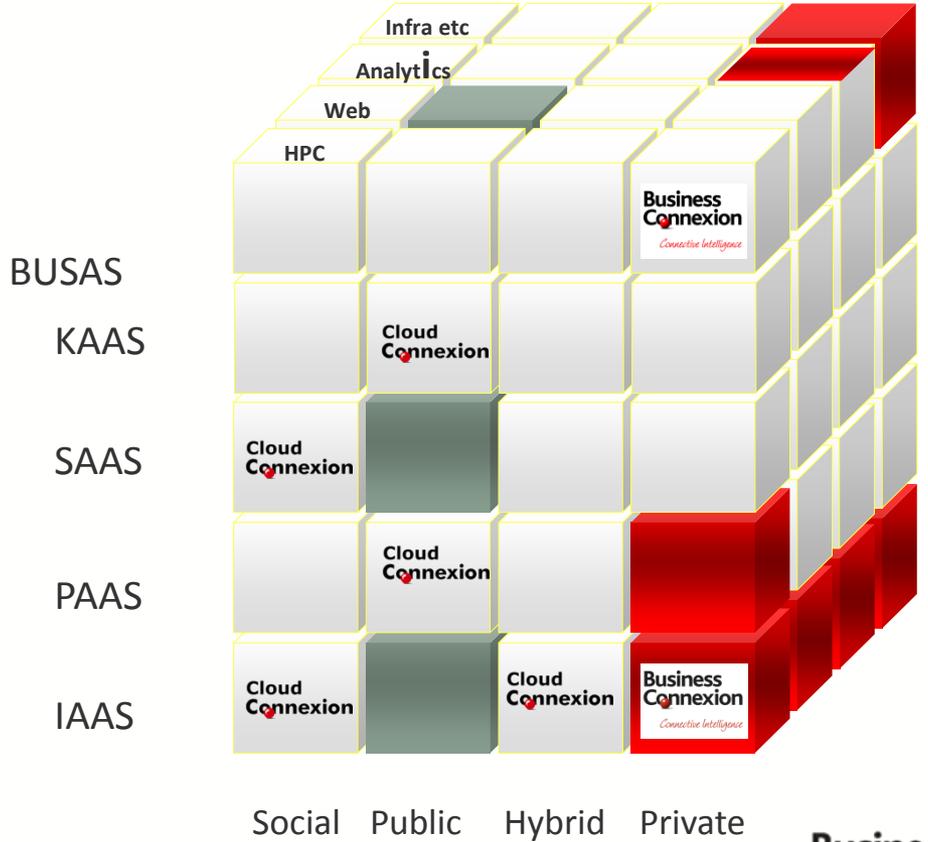


# Cloud Models

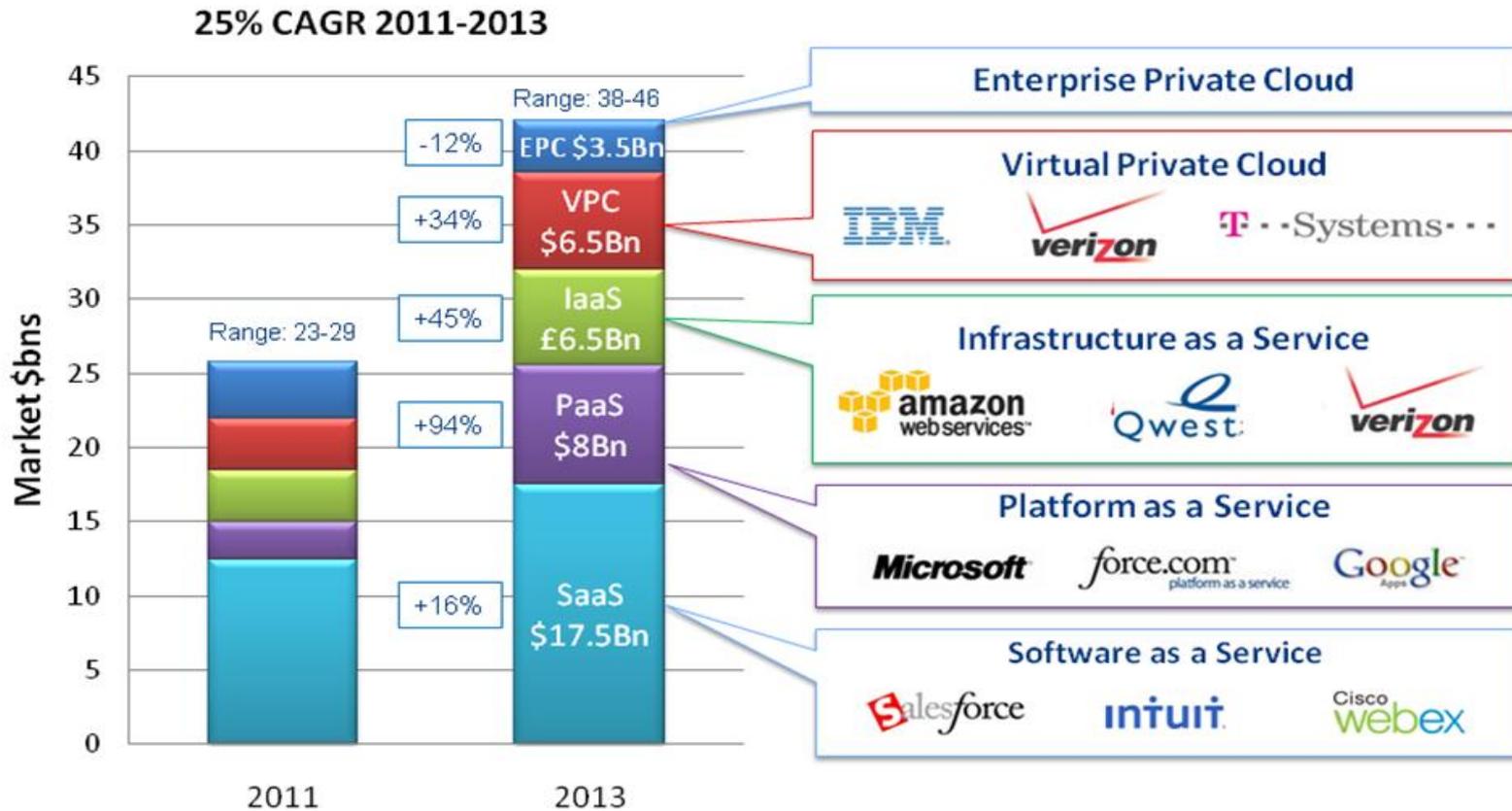
eDaas = everything Digital as a Service

- Private Cloud
- Public Cloud
- Social Cloud
- Hybrid Cloud
- Media Cloud
- Industrial Cloud
- Instrumentation cloud
- Personal Cloud
- Government Cloud
- Space Cloud
- Network Cloud
- Service Cloud
- Aggregator Cloud
- Military Cloud
- Forensic Cloud
- Hacker Cloud
- Financial Cloud

Sky Clouds



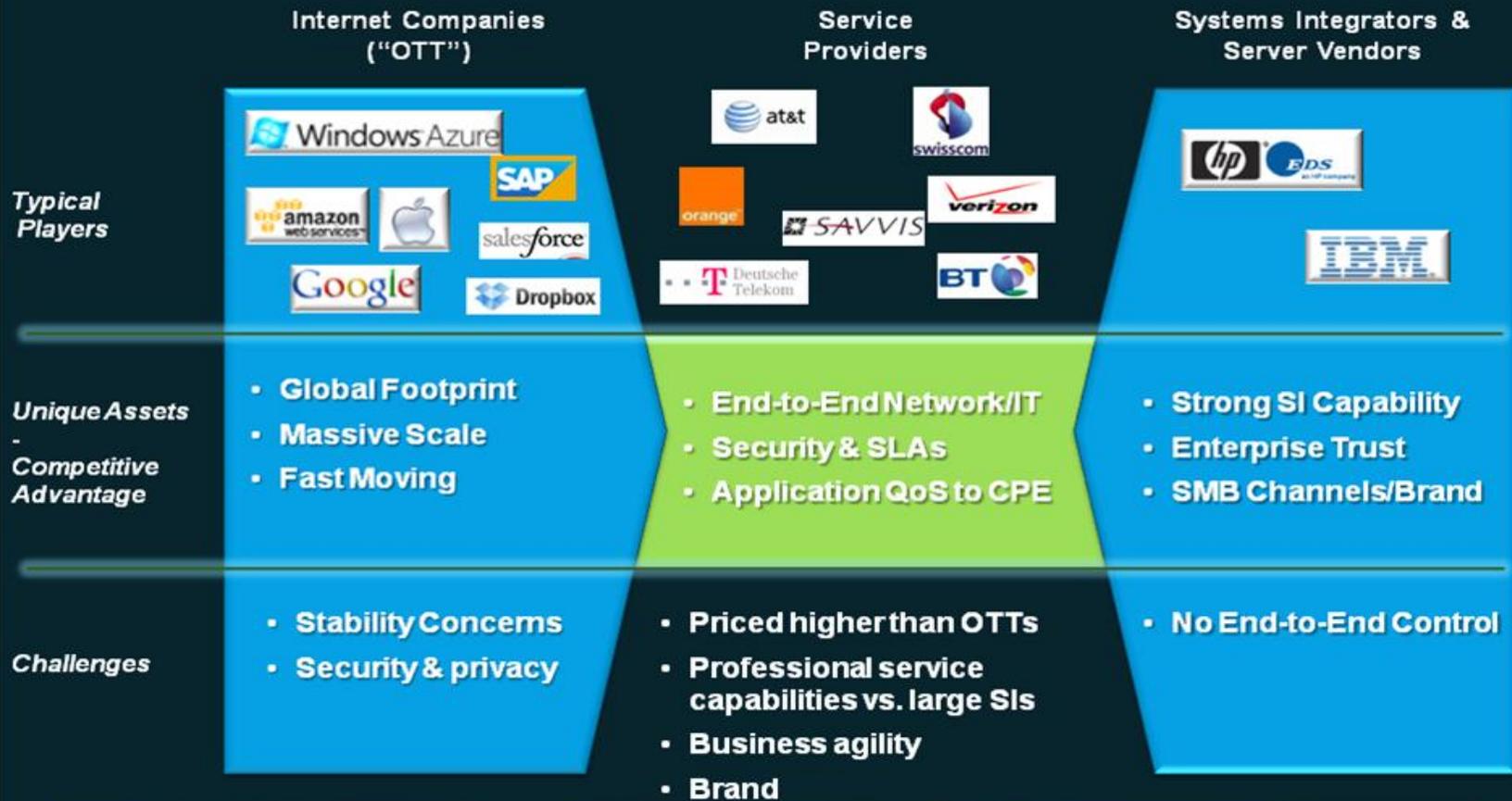
# Cloud services: market forecast and current players



Source: Bain Analysis, Forrester, IDC, Gartner, William Blair & Co.



# Telco Positioning – Differentiating with Converged Network-IT Cloud services



# Trends

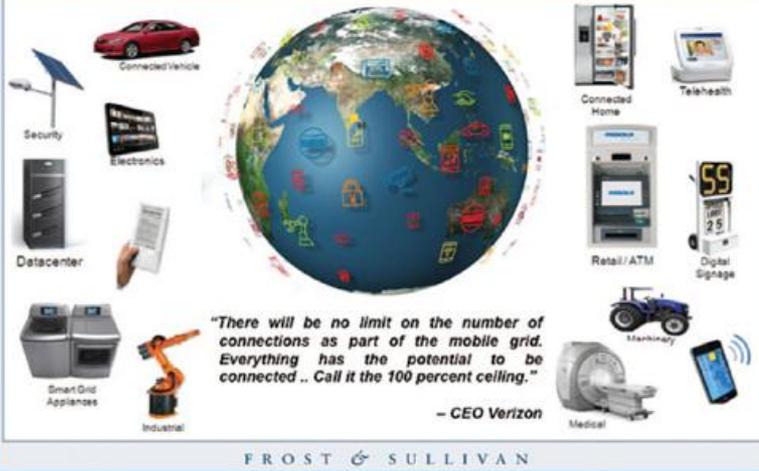


# Hyper Connected World

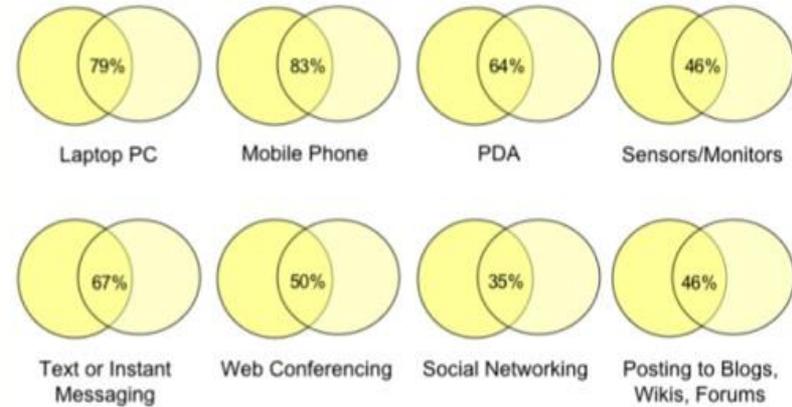


# Hyper Connectivity

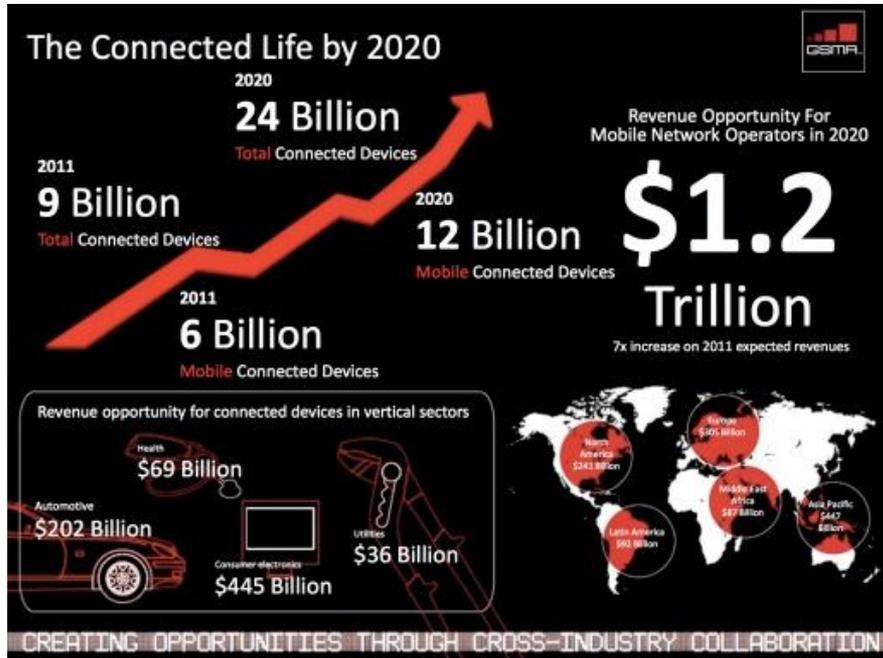
## Hyper Connectivity: 50 Billion Connected Devices in 2020



## The Blurring Personal and Business Boundary Percent Hyperconnected Both For Business and Personal Use



# Hyper Connectivity



## Hyper-Connected Home: Real World Example My Home

### Computing Devices



### Gaming/Streaming Devices



### Mobile Devices



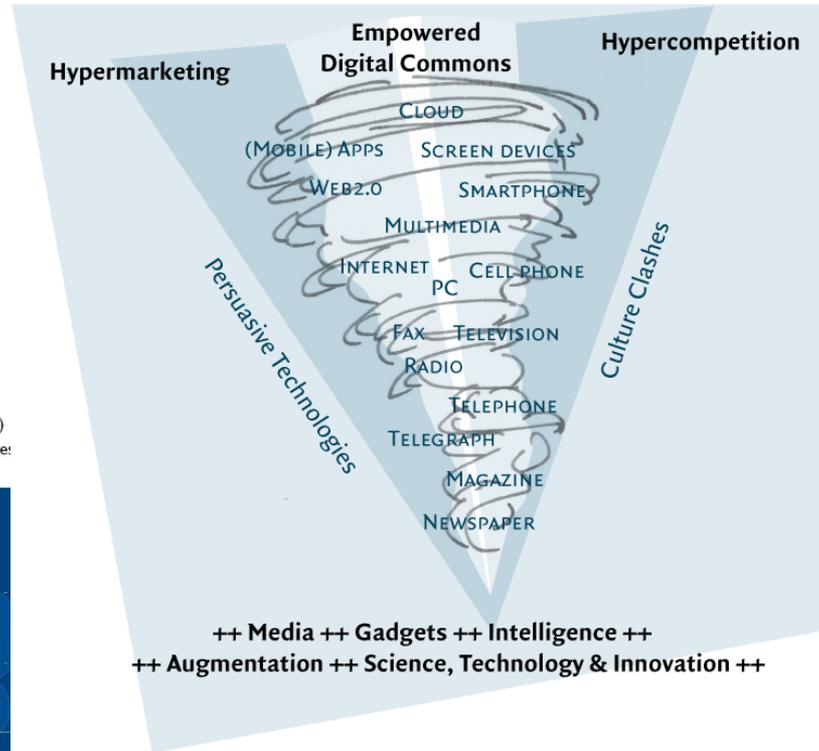
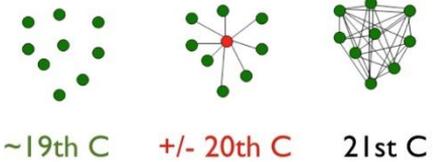
### Common Applications



# Hyper Competition

## Work

Artisans - Hierarchies - Networks



### Why hyper competition?

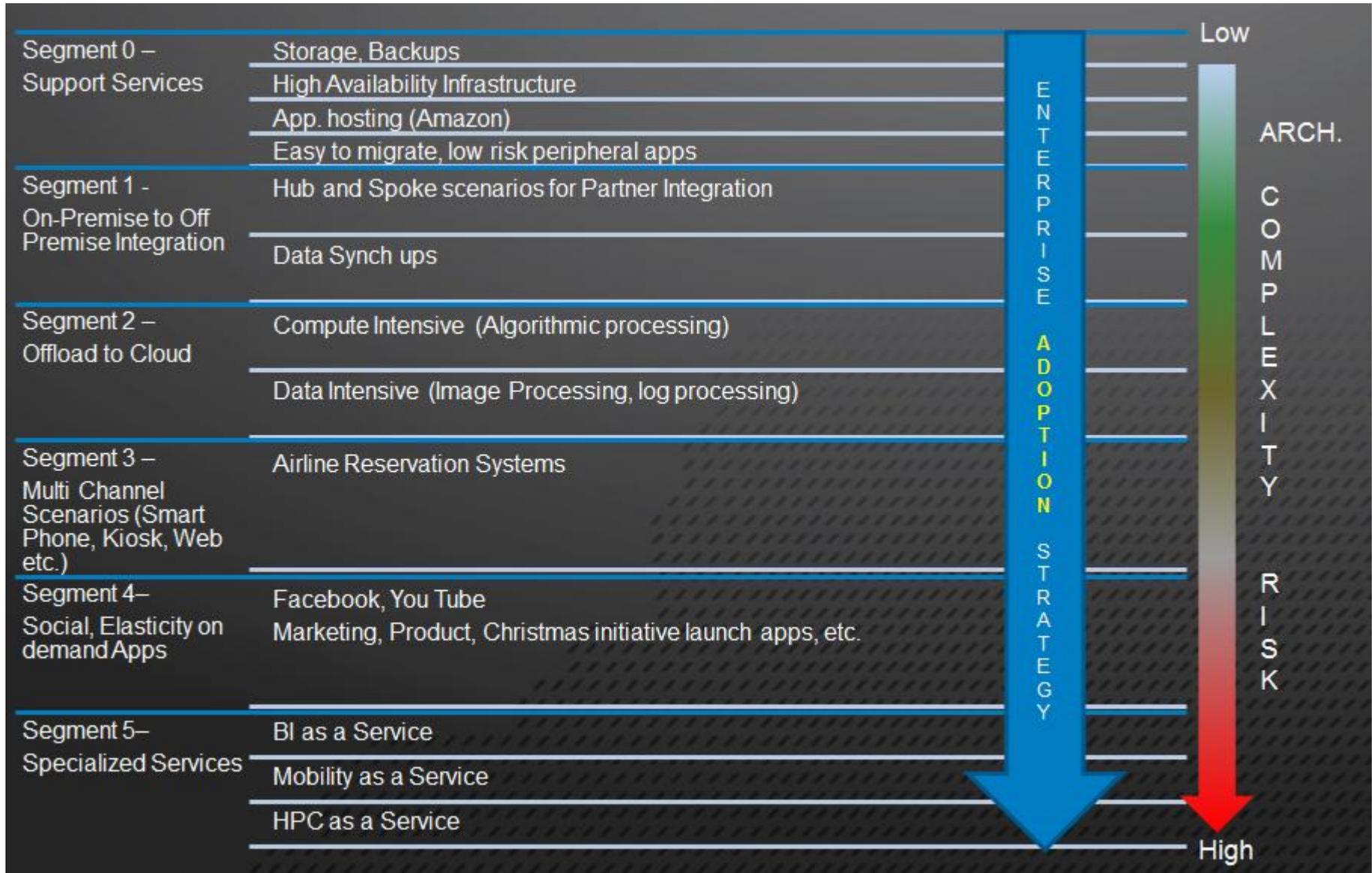
- Globalisation – less trade barriers and efficient transport (e.g. containers)
- Speed of hyper connected communication and the pace of modern business
- Disruptive Technologies



# Cloud Job Titles

- The number one position is a Cloud Architect
- Cloud Software Engineer
- Cloud Sales Executive
- Cloud Engineer
- Cloud Developer
- Cloud Systems Administrator
- Cloud Consultant
- Cloud Systems Engineer
- Cloud Network Engineer
- Cloud Product Manager
- DevOps Team Leader

# •Specialized Services is still the most profitable model



# •Clouds Convergence

## Upstream Customers



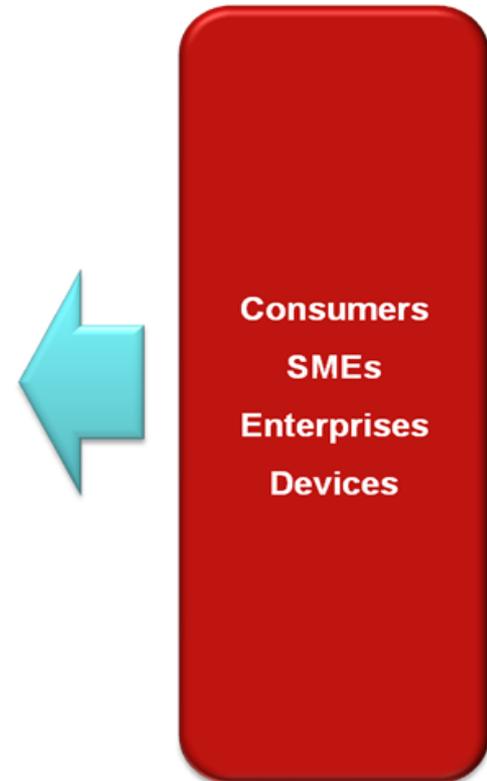
Current focus



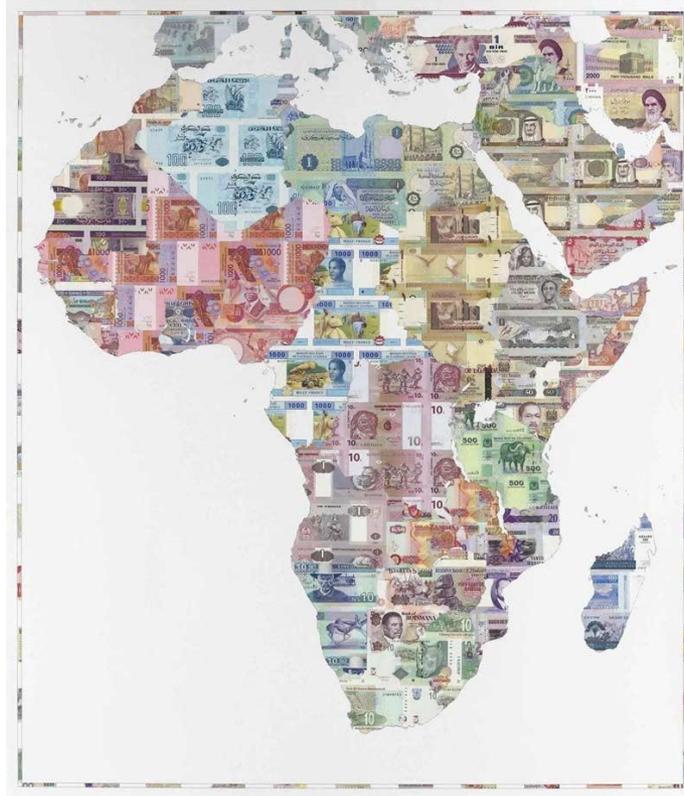
Additional focus



## Downstream Customers

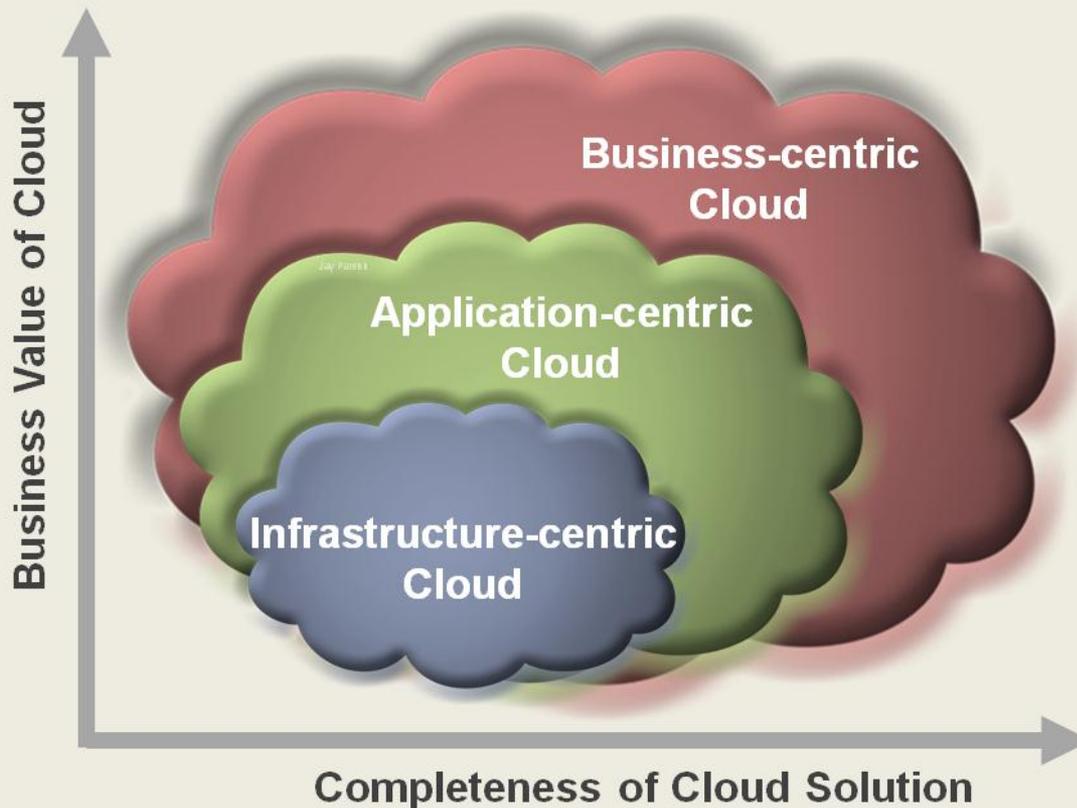


# Money



- **The More Business Centric the more likely**
- **to profit from a sustained business**

## Value-Based Cloud Maturity Model



### **Business-centric Cloud**

Directly supports critical business processes, business transactions, business services and activities

### **Application-centric Cloud**

Drives application automations and optimizations. Provides software and platform services

### **Infrastructure-centric Cloud**

Provides infrastructure and virtualization services

# The 6 areas have different operational and financial models: need different metrics

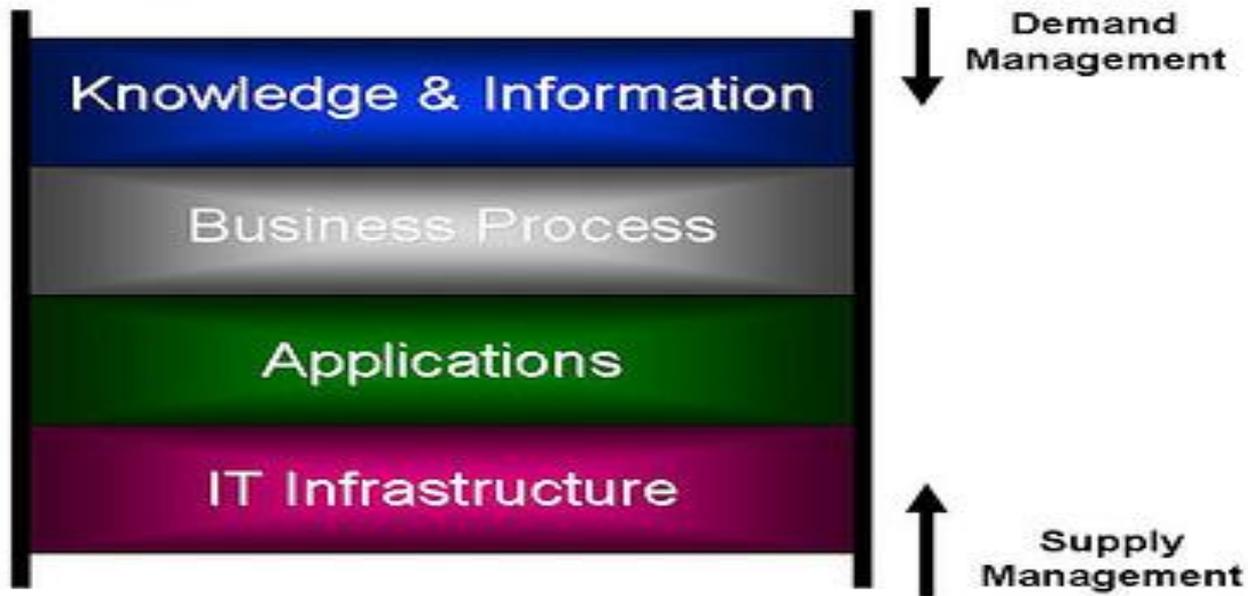
|   | Invested Capital (IC) | Sales | Sales/IC | EBITDA % | EBITDA | Free Cash Flow | CROIC % |
|---|-----------------------|-------|----------|----------|--------|----------------|---------|
| <b>Core services</b>                    | \$1,000               | \$500 | 0.5      | 45%      | \$225  | \$64           | 6.4%    |
| <b>Vertical industry solutions (SI)</b> | \$500                 | \$350 | 0.7      | 30%      | \$105  | \$26           | 5.2%    |
| <b>Infrastructure services</b>          | \$500                 | \$350 | 0.7      | 30%      | \$105  | \$26           | 5.2%    |
| <b>Embedded communications</b>          | \$200                 | \$200 | 1.0      | 28%      | \$55   | \$21           | 10.3%   |
| <b>Third-party business enablers</b>    | \$100                 | \$200 | 2.0      | 15%      | \$30   | \$12           | 12.3%   |
| <b>Own brand OTT services</b>           | \$25                  | \$35  | 1.4      | 20%      | \$7    | \$3            | 10.7%   |



## Generic and Vertical opportunities

|             | RESEARCH AND EDUCATION   | FINANCE  | HEALTHCARE  | GOVERNMENT  | MEDIA   | WHOLESALE  |
|-------------|--|--|---|---|---|--|
| GENERIC     | Cloud Computing, SaaS, LAN-to-LAN, Disaster Recovery / Business Continuity, Video Conferencing, Internet Access, Data Center/IT Infrastructure Consolidation, Virtualization, Business Process Automation (BI, ERP, CRM, etc.) |  |   |   |   |  |
| BY VERTICAL | Distance Learning<br><br>VOD<br><br>Research Collaboration And Networks  | Trading And Market Info<br><br>Financial Simulation And Complex Modeling<br><br>Imaging And Video Apps | Tele-medicine<br><br>Electronic Medical Records<br><br>Medical Imaging (PACS) | Connectivity Between Federal And Local Institutions<br><br>Emergency Services<br><br>Video Hearings And Bookings<br><br>Remote Training | Streaming Video Archiving<br><br>Production, Post And Distribution<br><br>Social Networking | VoIP<br><br>Content Distribution Networks (CDN)<br><br>Wireless Backhaul |

**We are in a Demand world now it has shifted from a supply world the balance of Supply and Demand is now more critical than ever**



# Tools

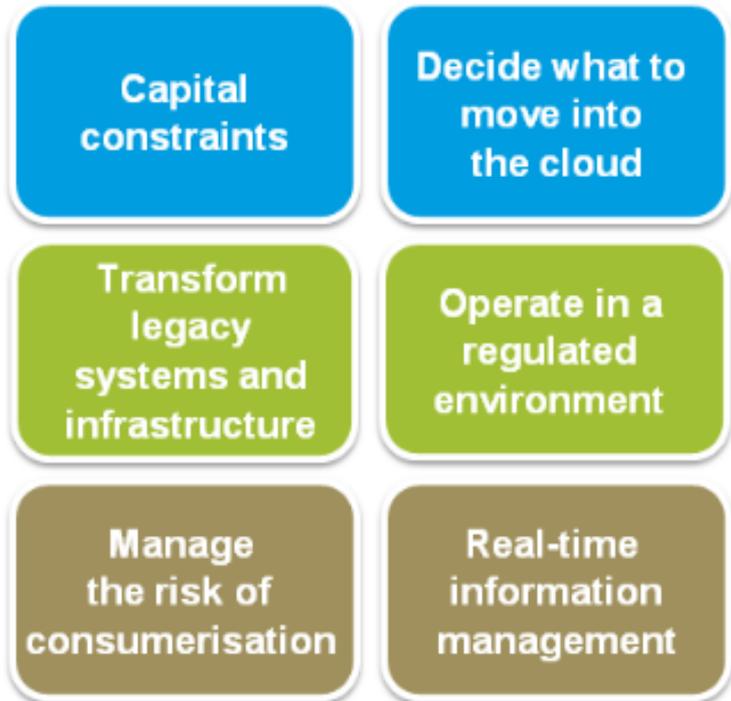


# The challenges our customers are facing

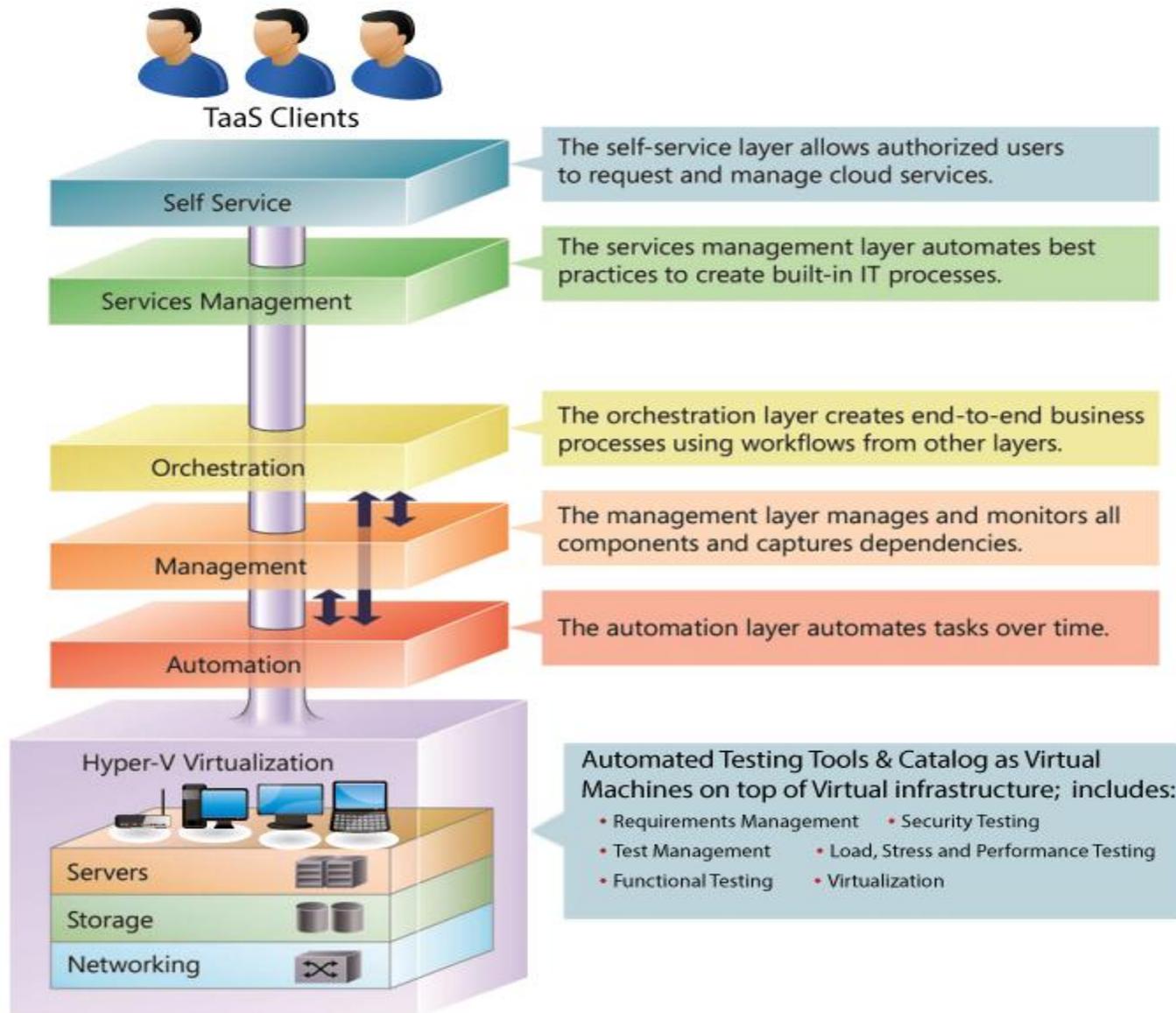
## Market discontinuity

Data Sovereignty    Latency    Privacy  
Mobility    **Cloud**    Green  
Consumerisation  
**As-a-Service**  
Role of CIO    Role of IT  
Security  
Proximity  
Risk    Big Data    Sustainability

## The pressure on IT is growing



# •Self Service and underlying tools which ensure Client Experience is key



# Cloud Bursts Thunderstorms and Floods Cloud is Here

## END USER APPLICATIONS

### Software-as-a-Service

| CRM  | Marketing Demand Generation   | Human Resources   | Finance & Accounting   | Content Management   | Vertical  |
|--|---|---|--|--|---|
| RightNow, salesforce.com, SUGARCRM, NETSUITE, liveops, Q Assistly, satisfaction, ORACLE, zendesk, InsideView, MarketTools, xactly, PARATURE, Microsoft, LIVEPERSON   | ELOQUA, KENSHOO, Marin, unbounce, iContact, Bronto, Silverpop, CampaignMonitor, contactgy, MailChimp, VerticalResponse, SurveyMonkey, Marketo, Infusionsoft, ExactTarget, responsys | Cornerstone, LinkedIn, workday, SuccessFactors, HALOGEN, saba, bamboohr, echospan, SAP, Taleo, upm, tribehr, REXELION, upm, Ultimate Software, BULLHORN, EPICOR | Cencur, NETSUITE, ARIDA, Intacct, workday, intuit, Expensify, RECURLY, Chargeify, statpro, expensecloud, BILL.com, SOOQSU, coupa, ZUORA, Adaptive Planning, Oyster ERP   | box, SharePoint, WordPress, Dropbox, watchdox, yousevoit, Drupal, Altrisco, DocuSign, sendthisfile, backupify, Scribd, bitcasa, WIX, slideshare, CARBONITE, CloudApp, mozy, SugarSync, EchoSign                                  | MINDBODY, MEDIANALYTICS, edifinance, DealerTrack, goldstar, CoreCloud, REALPAGE, navicure, DEALER.COM, clo, Veeva, PointClickCare, OPower, SERVICE MAX, oppolo, superderivatives, KINNSER, Ethinote, WebPT, activeNETWORK   |
| Enterprise Social Media  | Marketing Analytics   | Retail & E-Commerce   | Collaboration  | Business Intelligence  | IT  |
| yammer, hootsuite, chatter, gigya, radian6, jive, coTweet, Zuberance, @SOCIALCAST, janrain, Lithium, facebook, ELOQUA, involver, YouTube, hearkey social, BUDDYIMEDIA, twitter, vitrue, WILDFIRE, EVERNOTE | convertro, COVARIO, Google Analytics, VOCUS, GinzaMetrics, searchmetrics, Keybroker, HubSpot, BRIGHT EDGE, SIMULMEDIA, SEOmoz, CLIC-TALE, wordstream, OMNITURE                      | ERPLY, shopify, ONESTOP, DELIVERYAGENT, RSi, PowerReviews, Bazaarvoice, Magento, VeriSign, WIX, yodle, volusion   | Atlassian, skype, Google Apps, FORTNITE, Office 365, LogMeIn, 37signals, Teamviewer, box, moxie, PODIO, clarizen, Teambox, Adobe, RingCentral, GFI, GoToMeeting, DeskAway, asana, huddle, Cisco, webex, liquid, Zimbra, PERIMETER, COLLABNET | SAP Business Objects, BI OnDemand, birst, ENDECA, RPX, HIGH5, bime, ZEPHERUS, GoodData, EdgeSpring, visier, mixpanel, Cloud9, LATTICE ENGINES, kognitio, pivotlink, Datasphere, Rosslyn Analytics, pentaho, SUMIRALL, SpatialKey | ReqDynamics, New Relic, DynamicOps, okta, symtize, Symplified, abicavo, apptio, Zerto, keynote, standingcloud, CloudLock, service now, SCALEXTREME, snapLogic, ALERTLOGIC, veeam, MuleSoft, kapow, Acronis, SOASTA, Boomr, cloudkick, enan, splunk, AppAssure, AFFIBO, loglogic, catchpoint |

## DEVELOPERS

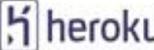
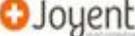
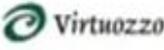
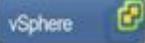
### Platform-as-a-Service

|  |   |   |
|--|---|---|
| heroku, Parse, Expect Labs, MarkLogic, JULY, force.com, OrImp, CloudPassage, vaultive, xeround, LONGVIEW, Skytap, SendGrid | CLoud FOUNDRY: bladeLogic, cloudshore, CLOUDFLARE, piston, Cloudify IDE, PERIMETER, PCloud, BROADSOFT, aster data, infochimps, CloudBees, RIGHT SCALE | twilio, windows Azure, RALLY, AppAssure, catchpoint |
|--|---|---|

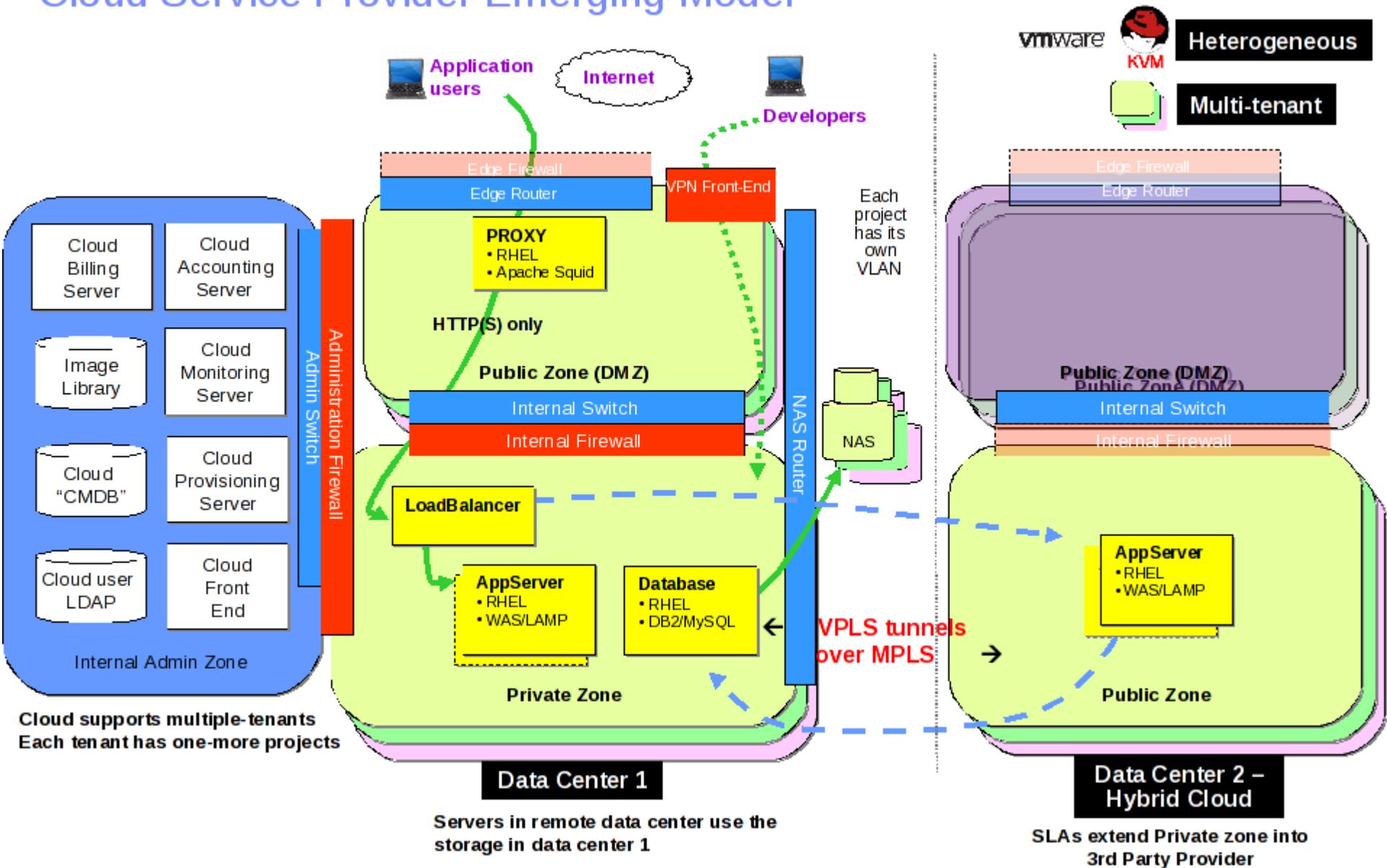
### Infrastructure-as-a-Service

|  |
|--|
| IBM, amazon.com, rackspace, bluest, redhat, EUCALYPTUS, nimbula, GOGRID, Parallels, terremark, citrix, VERTICA, hp, vmware, ORACLE, Joyent |
|--|

# •Cloud Tech Spectrum

|                              |   |
|------------------------------|---|
| Cloud Marketplace            |     ...  |
| Cloud Broker Platform        |   ...  |
| Cloud Management             |        ...   |
| SaaS                         |     ...  |
| PaaS                         |     ...   |
| IaaS                         |       ...  |
| Cloud Platform               |         ...  |
| Virtualization Software/Mgmt |          ... |
| Hardware                     |     ...  |

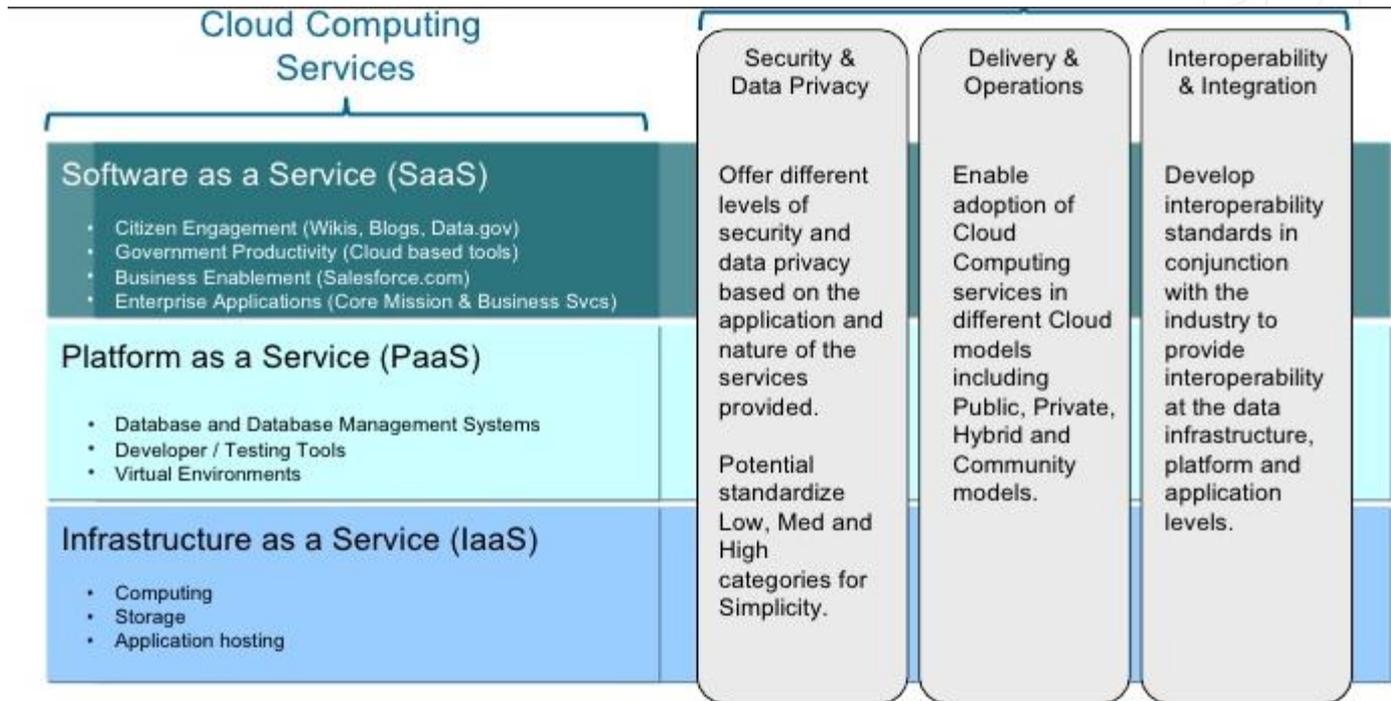
# Cloud Service Provider Emerging Model







# Cloud means Service Delivery



**Cloud means Web Where ever you are**  
**Self Service Real Time**  
**it is a peer to peer mesh**

Username

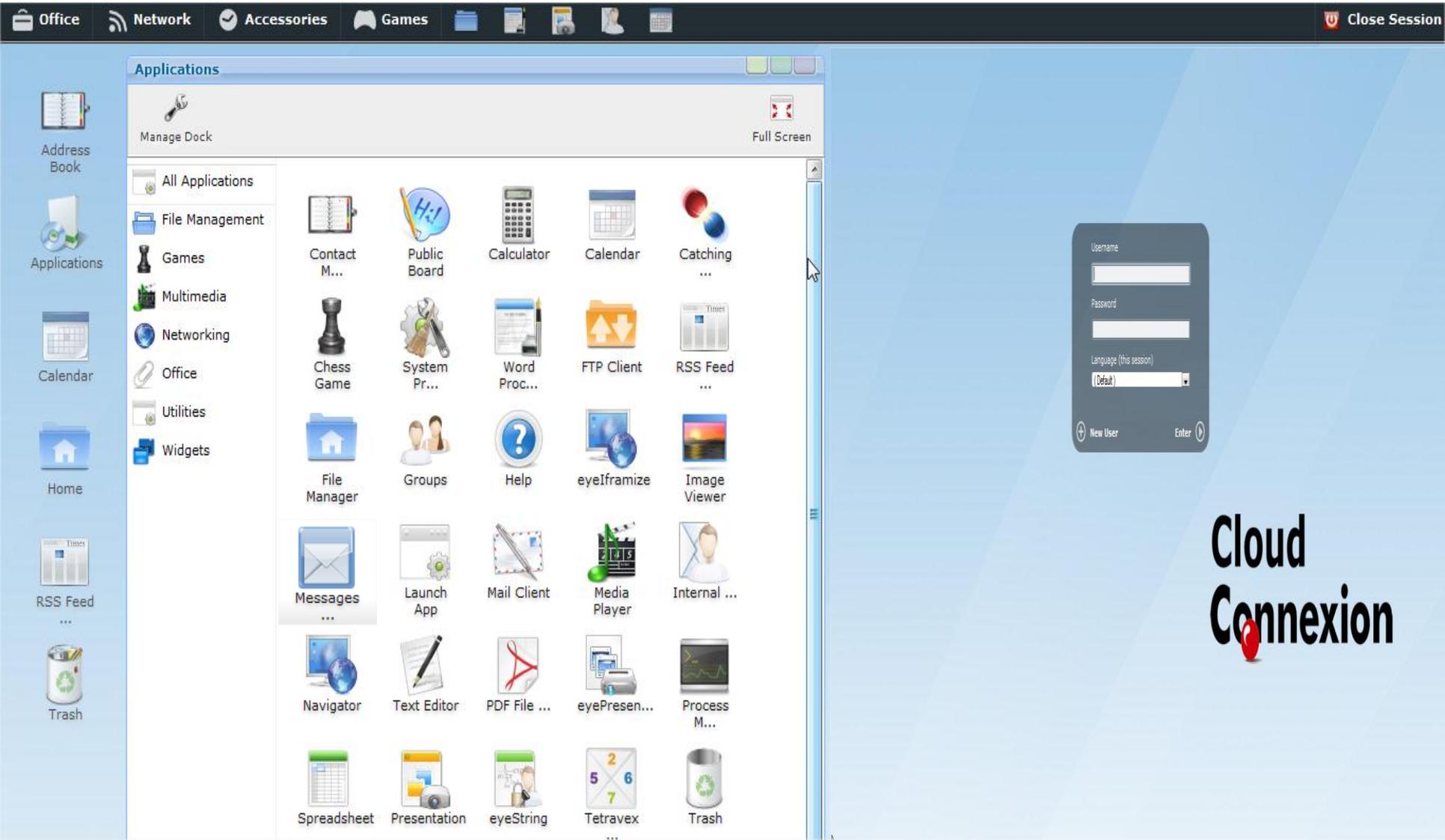
Password

Language (this session)

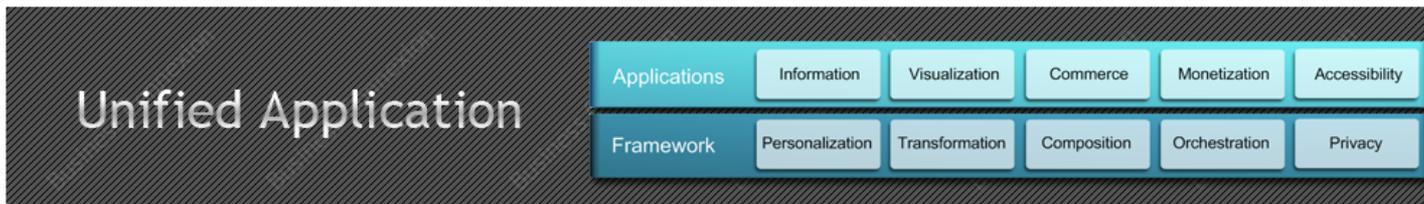
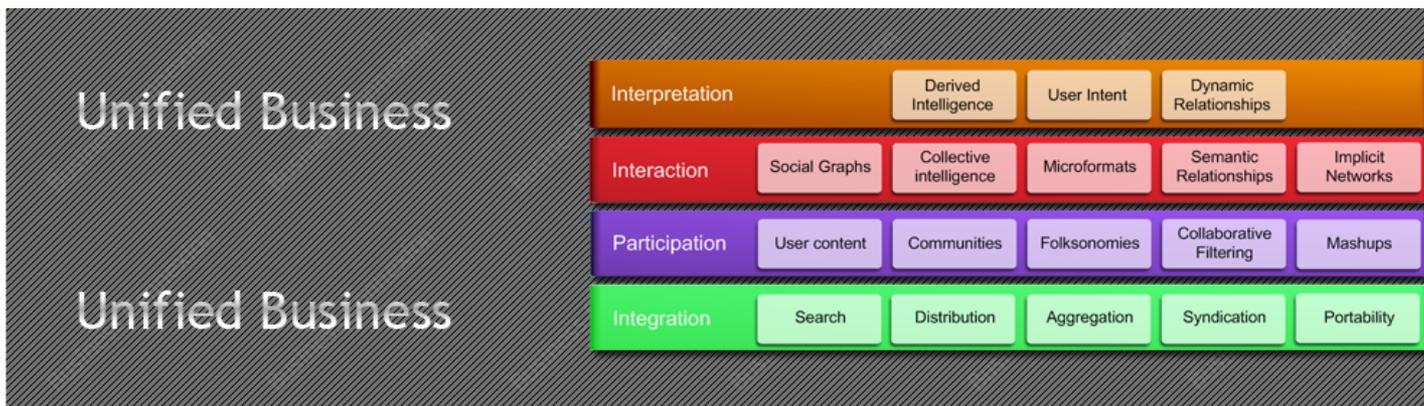
+ New User      Enter ▶

**Cloud  
Connexion**

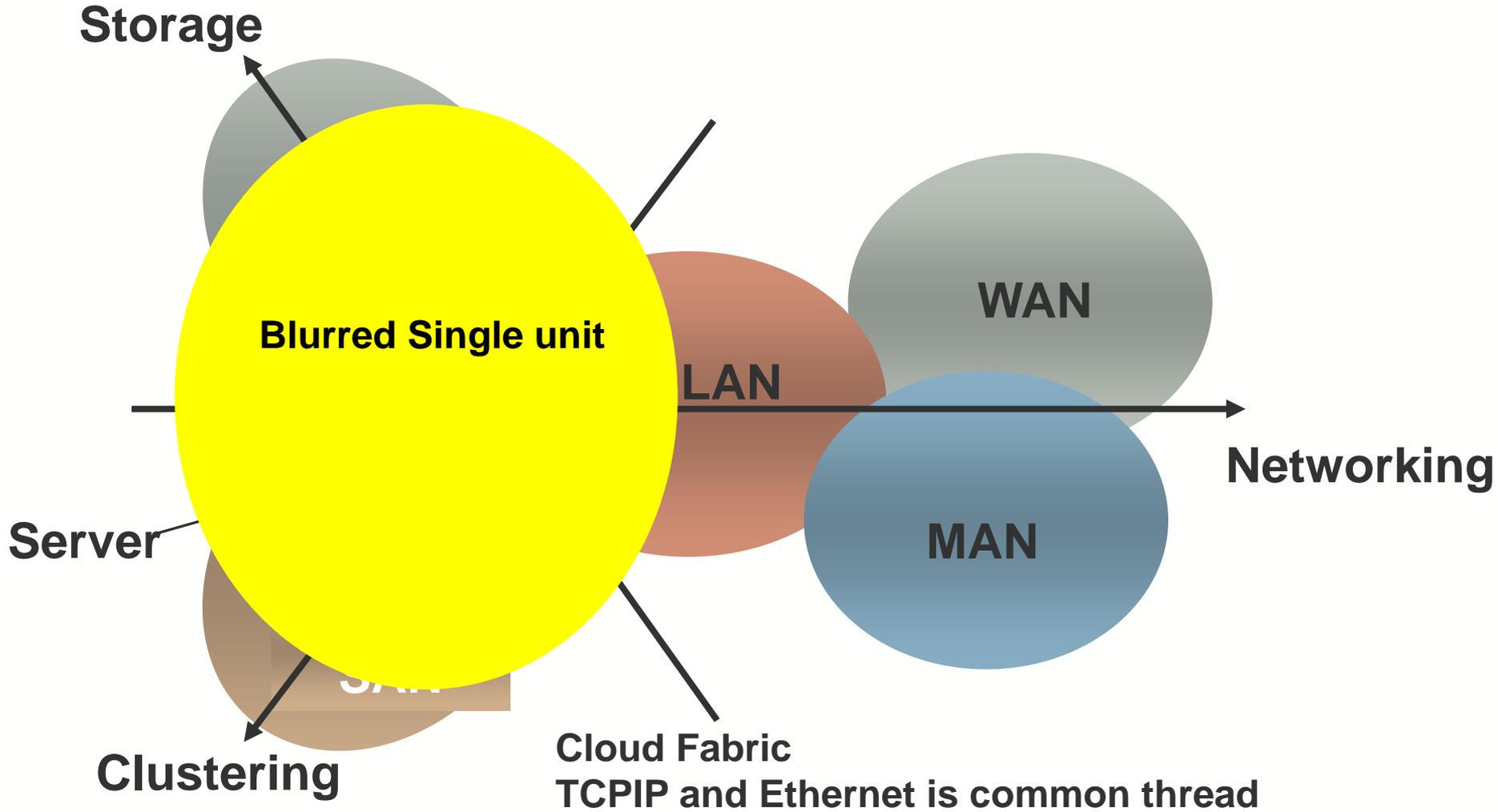
# So if it is in the Browser it is on your laptop mobile tv and iPad



# 3 Distinct levels of Cloud Change



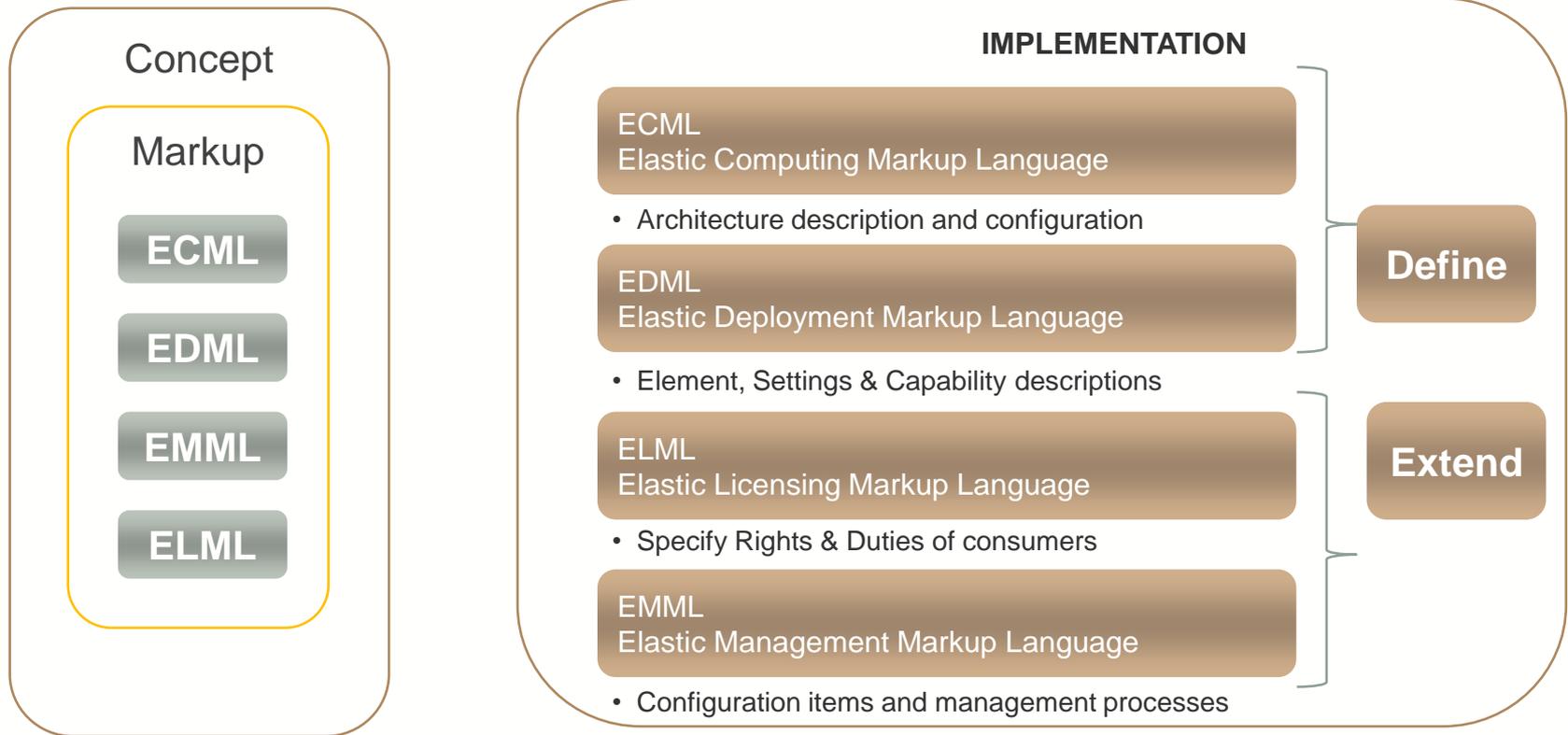
# Unified Infrastructure





# Unified Applications

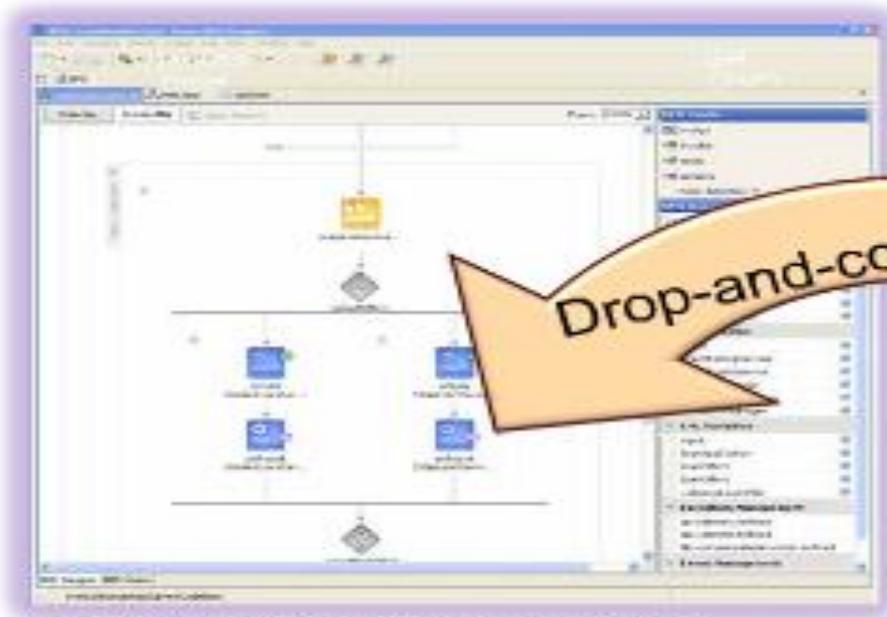
Modular, layered, open-world, “connective tissue”



Interoperable via XML Markup

## Hyperlinked Cloud Markup Languages

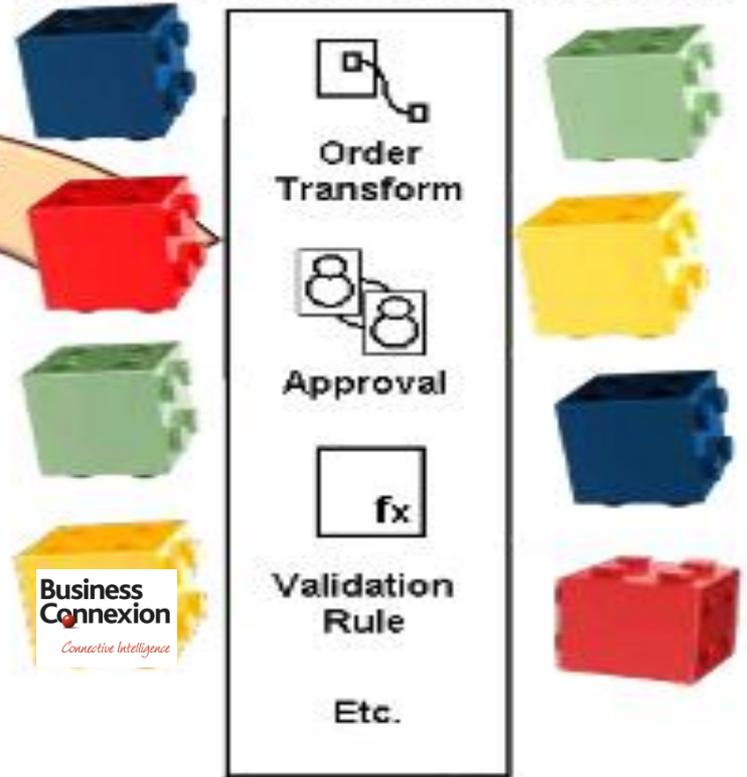
# Unified Applications

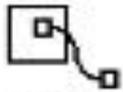
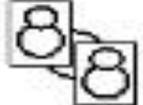
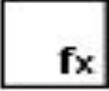


Composite Applications



Library of re-usable BPEL Fragments

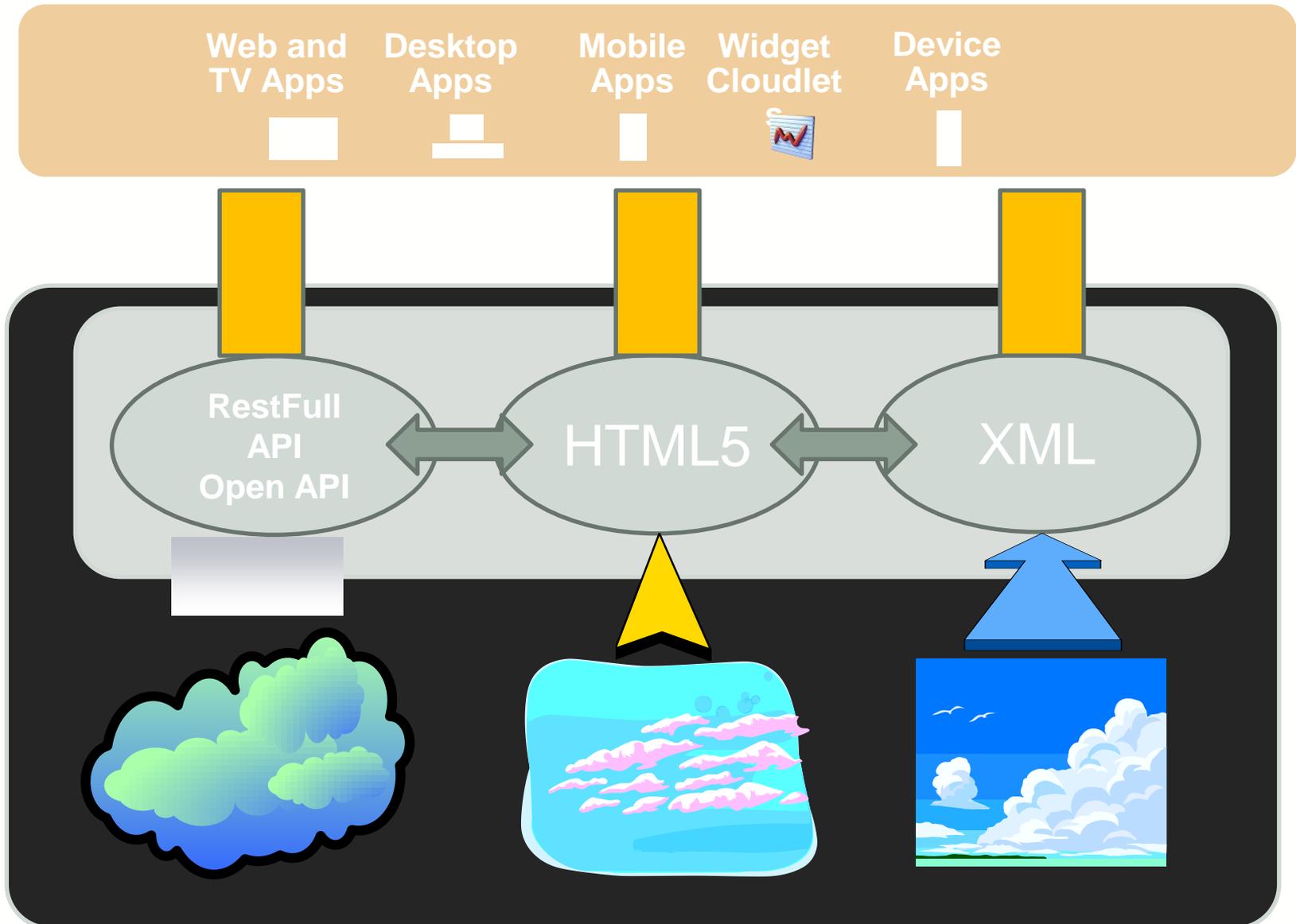


-   
Order Transform
-   
Approval
-   
Validation Rule
- Etc.



Web Based Composite Apps  
The Unified Applications

# Unified Applications



# Unified Business

## Business Event Processing

Every 20 years a new  
disruptive innovation  
changes the way we  
do IT

Sense and  
Respond to  
Actionable  
situation

1970s

1990s

2010s

**Event Driven  
Paradigm**

Holistic (context oriented)  
event processing

**Process Driven Paradigm**

Orchestration (process oriented) of human  
and system tasks

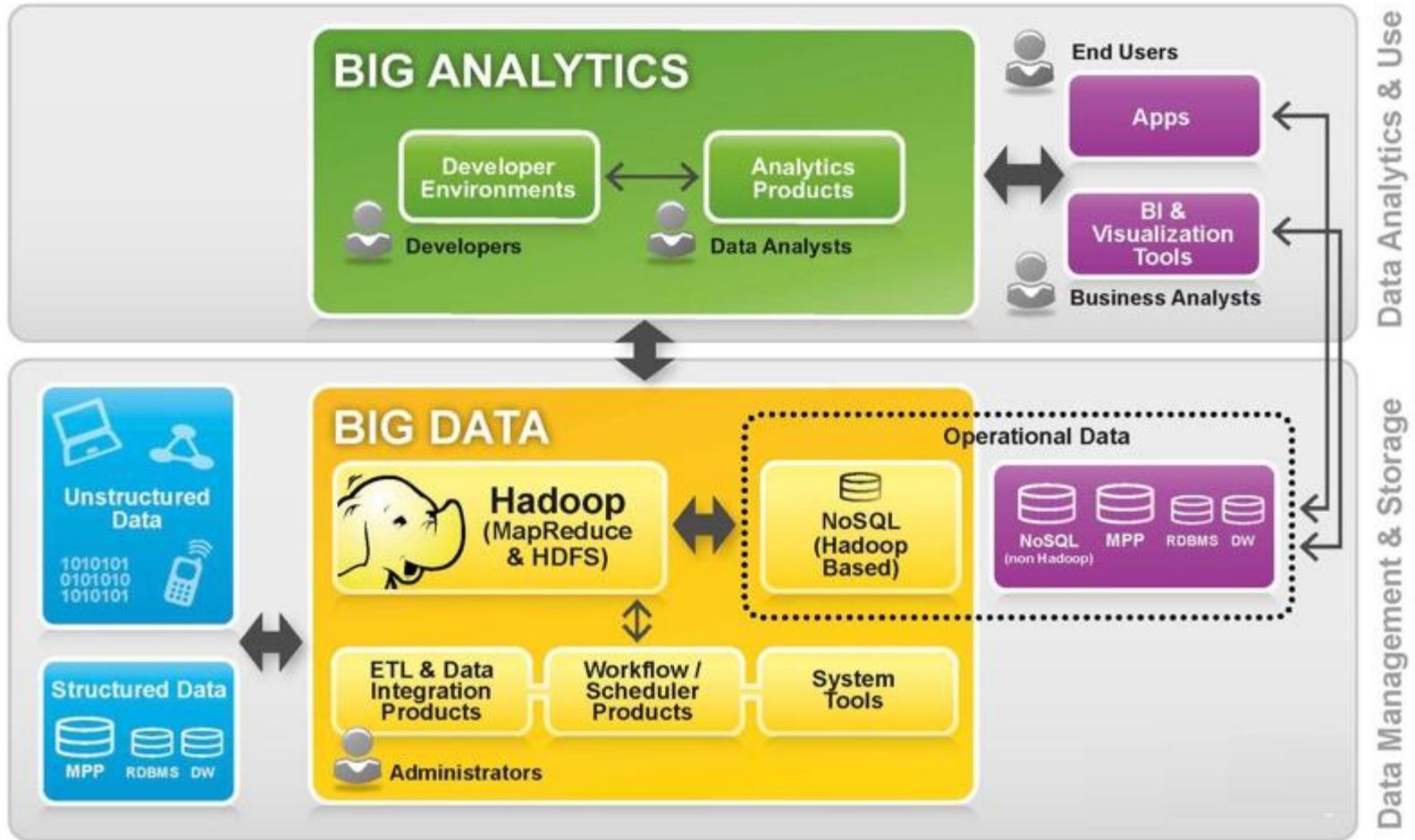
**Transaction Driven Paradigm**

Discrete (data oriented) transaction  
processing)

**“The real world is mostly event driven, and event-driven situations are best addressed by event-driven business applications”.**

**Social Media reflects Events faster than Traditional Business Systems**

# Big Data Big Analytics Unified Business



# Mindset

“Education is the most powerful weapon we can use to change the world, and Mindset Network is a powerful part of that world changing arsenal.” said by Nelson Mandela at the launch of Mindset Network in 2003.

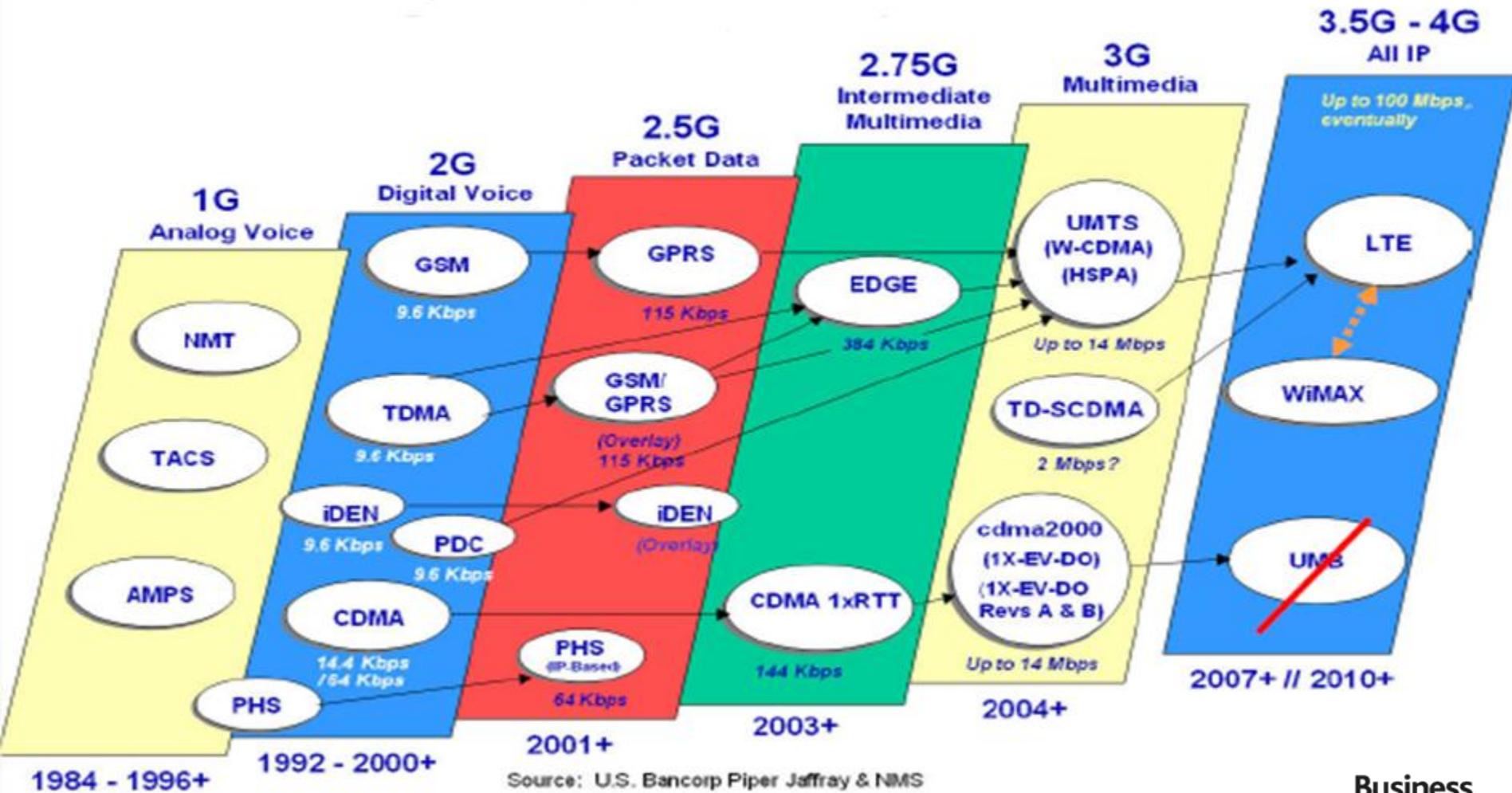
# What is Broadband ?

- It used to be the back haul network
- Now it is last mile Where ever you are

## But what is it really ?

- Its when you have enough or there is surplus to meet your current requirement.
- If you don't it is a narrow band.

# Wireless Migration



# Cloud Companies “Many in China”

## 云计算应用之路 第三届中国云计算大会

指导单位：工业和信息化部、国家发展和改革委员会  
 主办单位：中国电子学会  
 协办单位：中关村科技园区管委会  
 承办：中国电子学会云计算专家委员会、中国云计算技术与产业联盟  
 协办：CSDN & 《程序员》、电子工业出版社

### 合作媒体 (排名不分先后)

大会官方报道: **CSDN 云计算**

大会战略合作门户: **搜狐IT**  
it.sohu.com

大会特别门户合作: **凤凰网 科技**  
tech.ifeng.com

大会指定手机媒

大会指定独门户: **sina 新浪科技** 大会独家微博: **新浪微博**

特别支持媒体: **网易科技** **IT168.com** **51CTO.com** **yesky.com** **DoNews** **eNet** **doc in 豆丁**

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**艾瑞网** **手机中国** **DoSaaS.com** **电脑商报** **创业邦**

**InfoQ** **高工物联网** **TechTarget** **PCHOME**

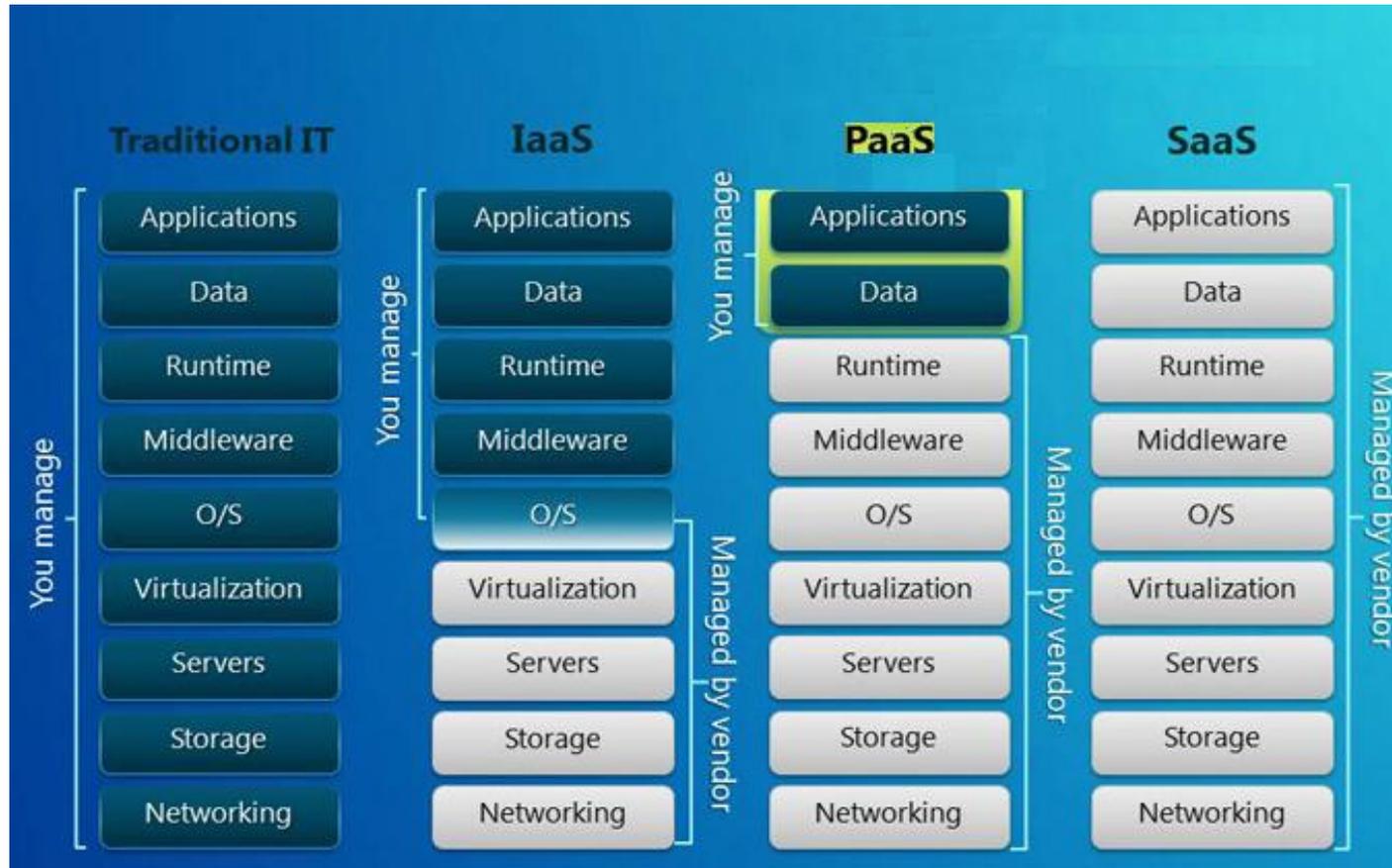
**IT经理世界** **IT.com.cn** **TechWeb** **YNET** **ChinaByte**

**WatchStar** **CNSN** **中国工业报** **中国通信** **中国**

Business Connexion

Connective Intelligence

# Security is a factor of what you use



# Standards to watch

## **Federated security (e.g. identity) across Clouds**

Metadata and data exchanges among Clouds

## **Standards for moving applications between Cloud platforms**

Standards for describing resource / performance capabilities and requirements

Standardised outputs for monitoring, auditing, billing, reports and notification for Cloud applications and services

Orchestration and middleware tools for creating composite applications across Clouds

Standards for machine-readable Service Level Agreements (SLAs)

**The Certificate of Cloud Security Knowledge (CCSK) is quickly becoming the necessary certification for anyone looking to demonstrate their knowledge of cloud security.**

**P2301 IEEE      OpenStack      Openflow      OpenAPI**  
**Hadoop      and      HTML5**

# RetroFitting Cloudwash model Will Fail



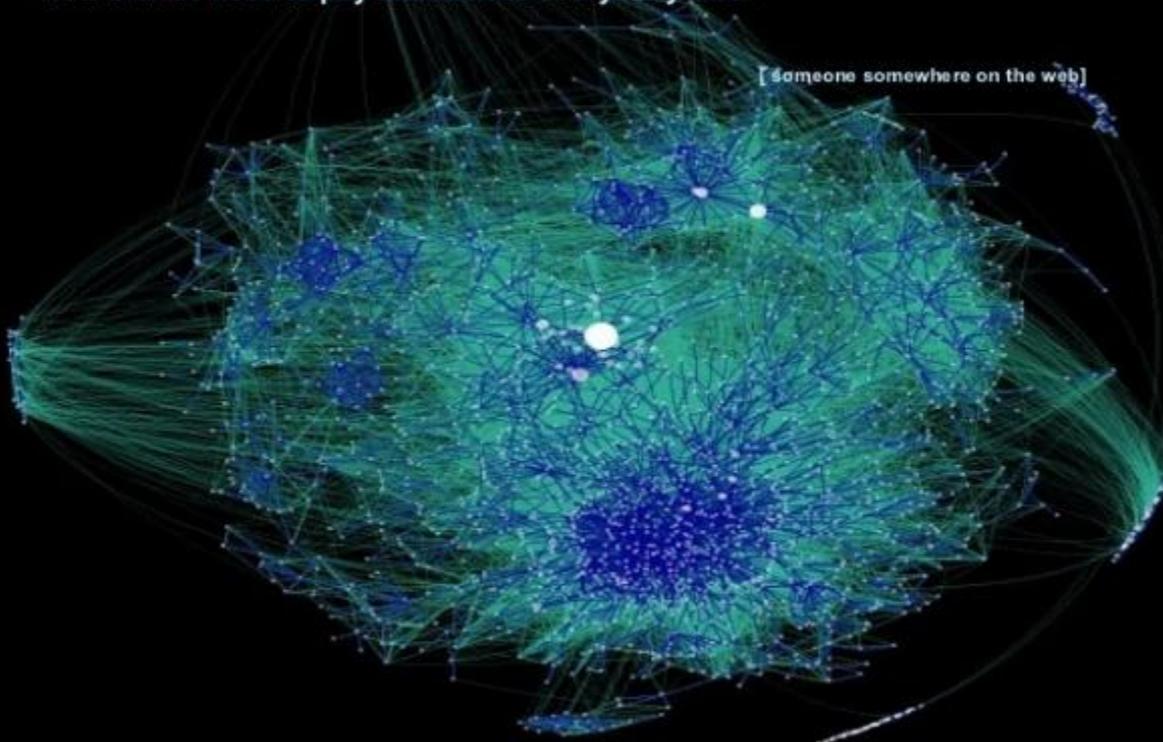
# Clouds means work for companies up to the Challenge





"In the old days, brands wanted everybody to pay attention to them.  
Now brands need to pay attention to everybody else."

[ someone somewhere on the web ]



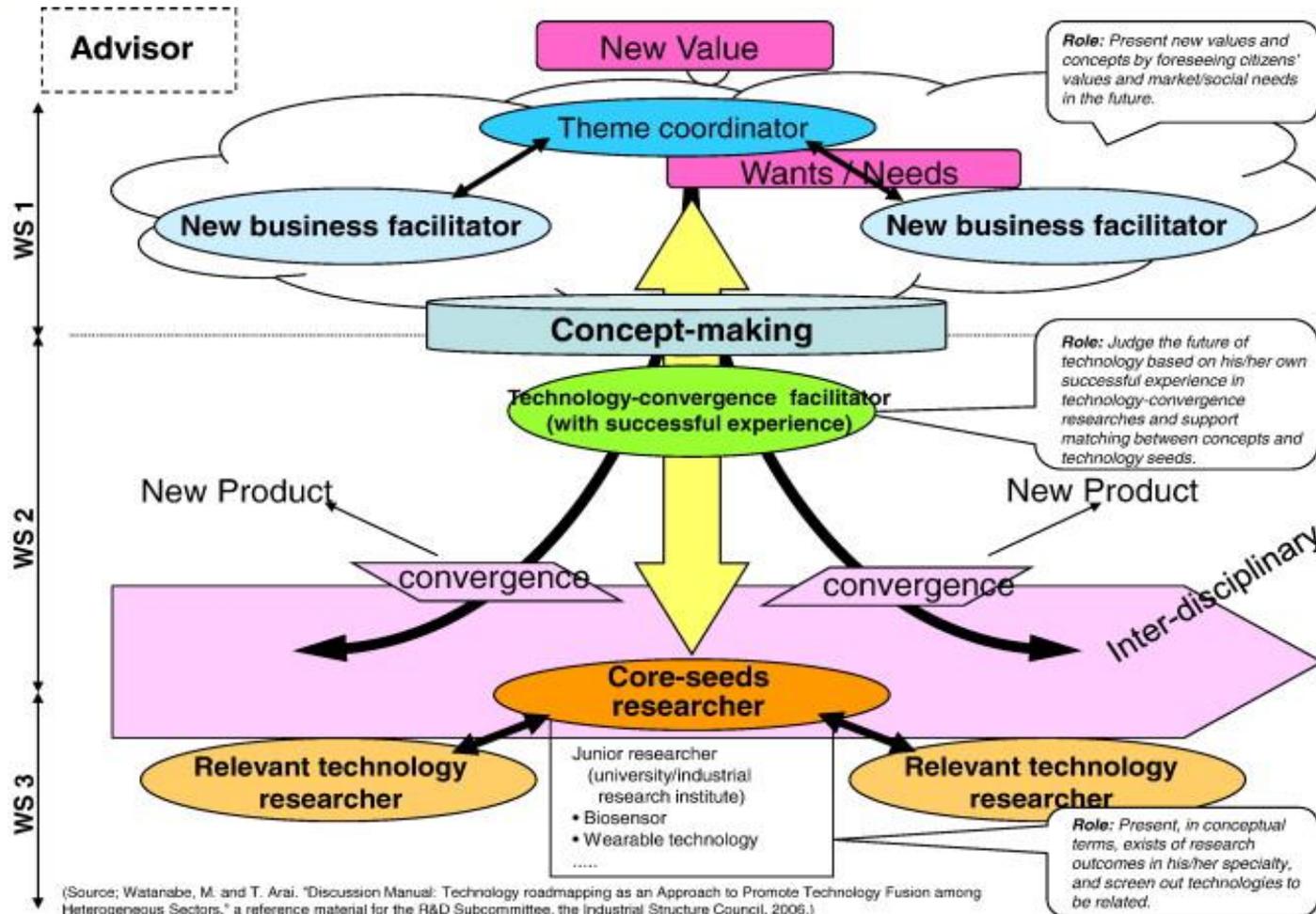
Power shift



**Business  
Connexion**

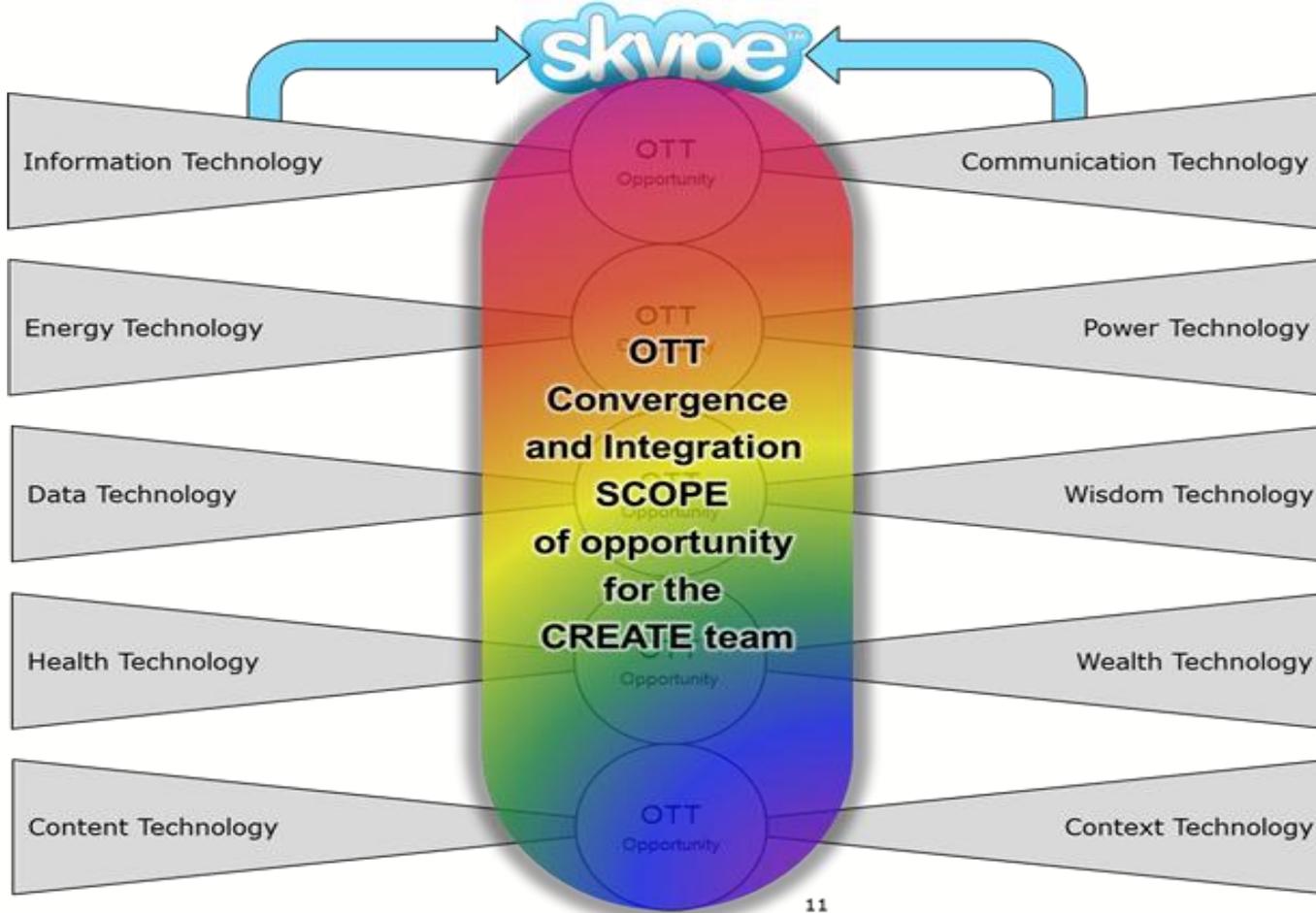
*Connective Intelligence™*

# Understand the demand and respond to it and you will succeed



# More convergence to come

Solution Areas | Over The Top "OTT" opportunities



# Augmented Reality





**Business  
Connexion**

*Connective Intelligence*

**Thank you**



Andy Brauer  
CTO  
Business Connexion

# Acquisition

# Marshalling

# Analysis

# Action

## Data Acquisition



## VLDW and BI Appliances



## Analytics



## BPM & Action



Including Complex Event Processing (CEP) tools

## Data Providers



And all your own data  
And your partners data

## No SQL



## Content Management



## Data Virtualization



## BI Tools



Capgemini - Capping IT off  
Manuel Sevilla - 2012

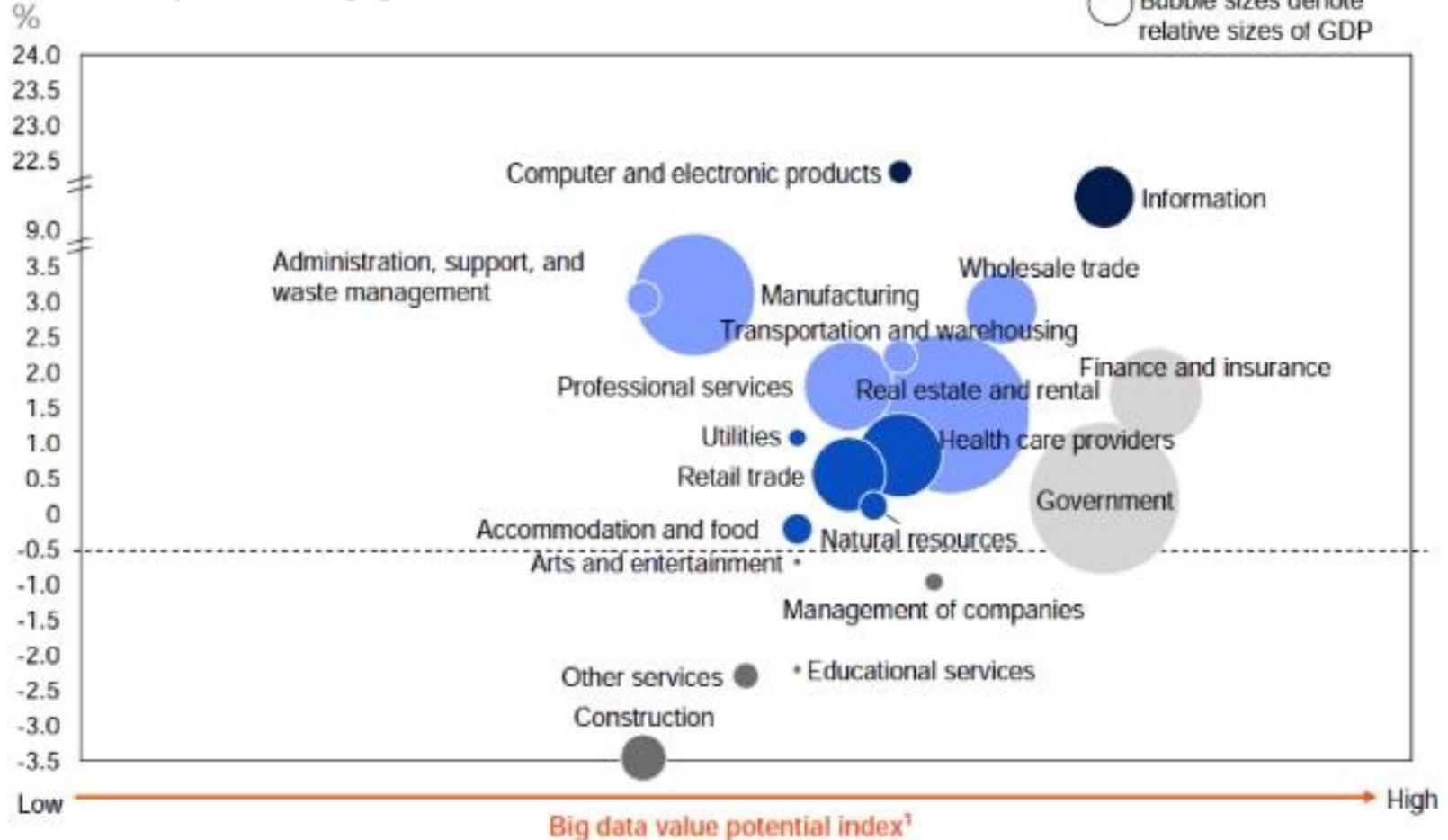
## Data Governance





## Some sectors are positioned for greater gains from the use of big data

Historical productivity growth in the United States, 2000–08



1 See appendix for detailed definitions and metrics used for value potential index.  
SOURCE: US Bureau of Labor Statistics; McKinsey Global Institute analysis

# Virtual Lab

## It is in the Cloud

