BusinessConnect and SolutionsConnect
It's time to make bold moves.

Steps to Cloud Nine
The Cloud Transformation Journey

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The Cloud Transformation Journey

Reinventing
Australian
enterprises for
the digital economy

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National Institute of
Economic and Industry Research

Differences in market capitalisation for sample leaders and followers by 2025.

FINANCIAL SERVICES $billion		
Market capitalisation – leader in 2025		2025 $69
Market capitalisation – follower in 2025	2025 $22	GAP $47
RETAIL $billion		
Market capitalisation – leader in 2025		2025 $78
Market capitalisation – follower in 2025	2025 $1.5	GAP $76.5
MINING $billion		
Market capitalisation – leader in 2025		2025 $130
Market capitalisation – follower in 2025	2025 $38	GAP $92
TELECOMMUNICATIONS $billion		
Market capitalisation – leader in 2025		2025 $102
Market capitalisation – follower in 2025	2025 $48	GAP $54
TOTAL GAP		$269.5 billion

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Over the Next 12 Years the Digital Economy will become <u>the</u> Economy

Customers become more connected

Consumers and employees will demand more

Organisations will get flatter and more agile

Enterprises will make faster, more-data-base decisions

Enterprises will face more sources of competition

Underpinned by a heavy reliance on digital
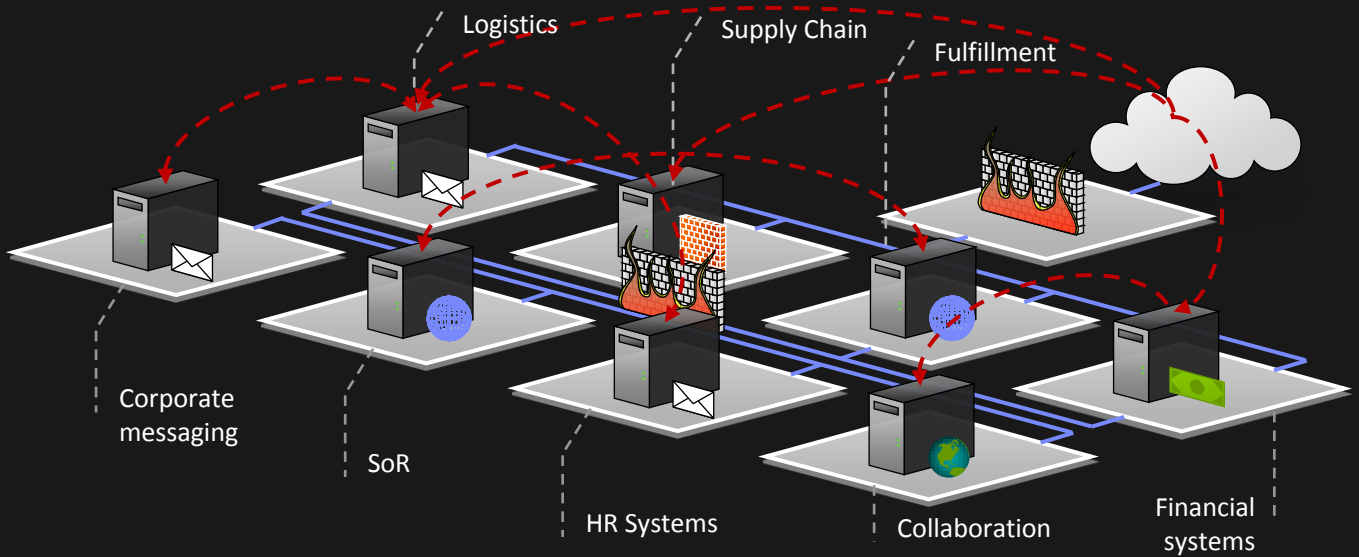
Digital transformation forces

Pervasive connectivity

Big data

Social

Mobile

Cloud

Analytics

IBM
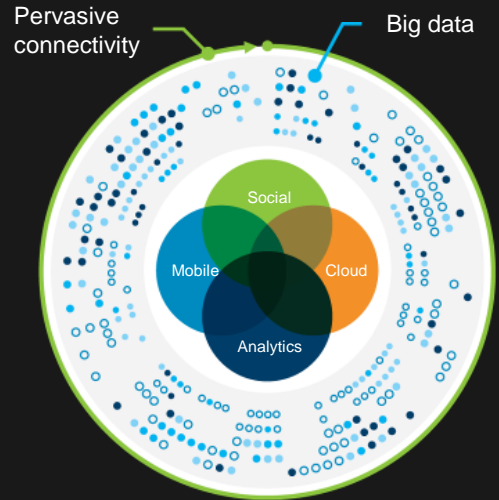
Moving to a New World

Systems of Engagement are delivering user-centric services into the enterprise

Systems of Record (SoR)

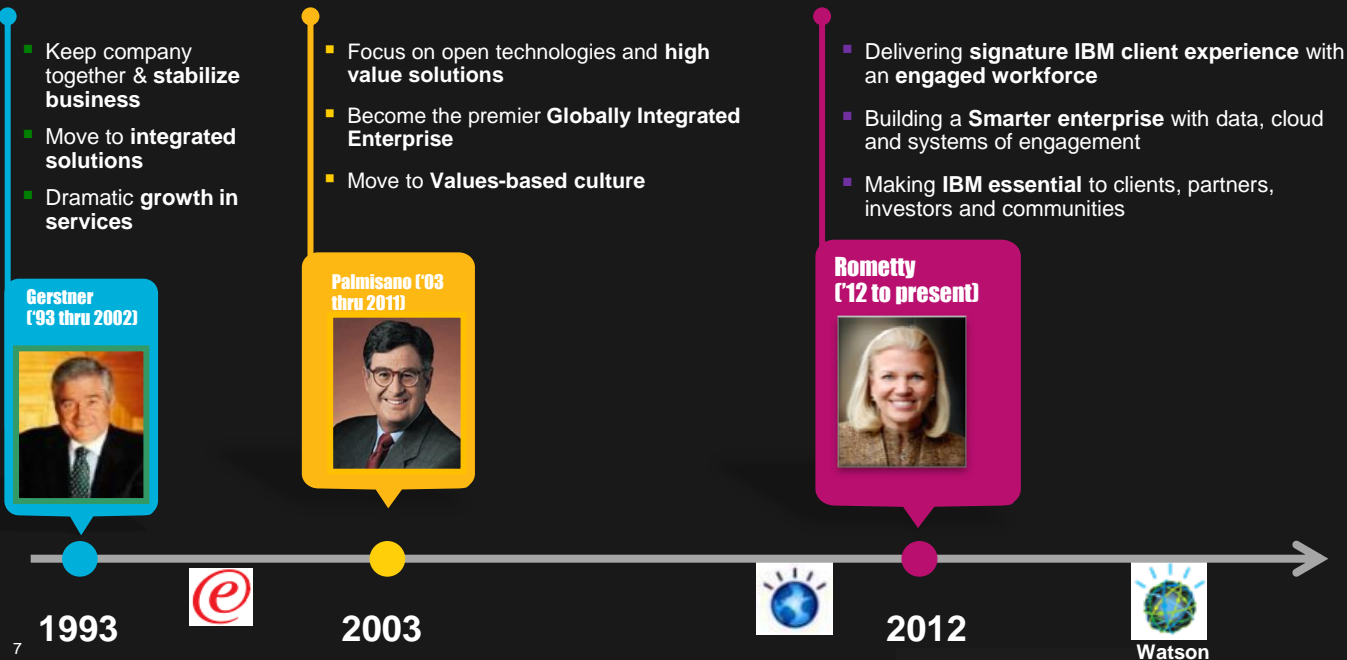Systems of Engagement (SoE)

WAN / LAN

Data Center
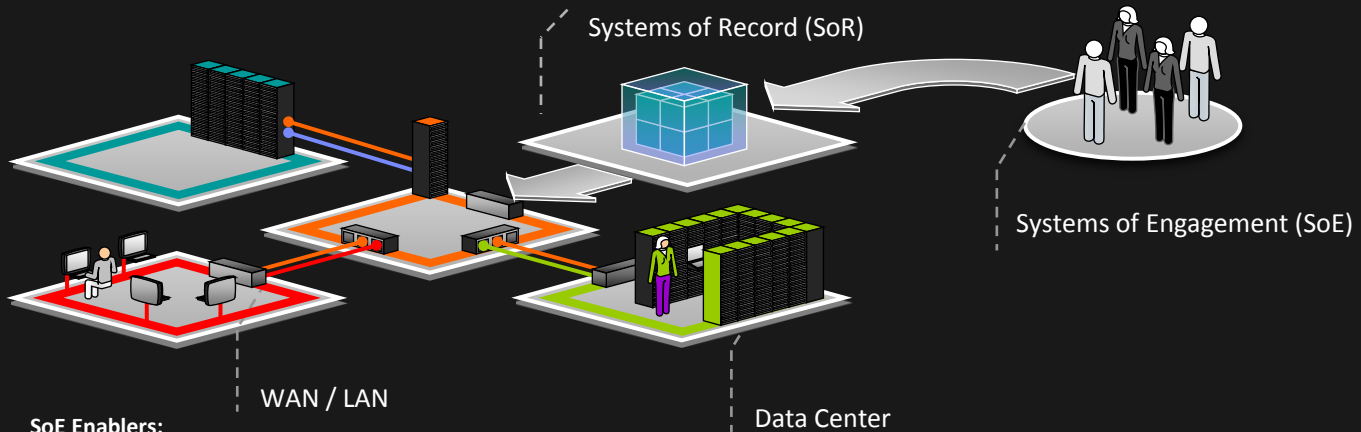
SoE Enablers:

- **Social** drives agility

- **Mobile** enables a 24x7 connected, engaged workforce

- **Analytics** enable data-driven insights for faster, smarter decision making

- **Cloud** enables ubiquitous access to resources and applications, and workload flexibility
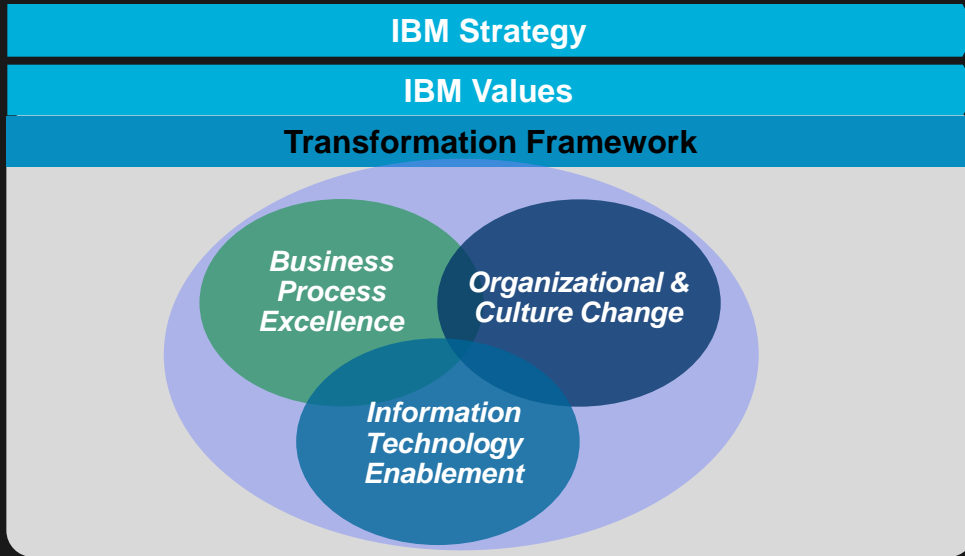
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But the Reality is we Have Legacy Apps to Deal With…

Logistics

Supply Chain

Fulfillment

Corporate messaging

SoR

HR Systems

Collaboration

Financial systems

Cloud Offers A New Way To Bring In User-Centric, SoE Services

A Cloud Operating Environment allows us to construct
apps from APIs ... regardless of where they reside

SaaS
PaaS
IaaS

Cloud

Firewall

Datacenter

On-Premise
Cloud

API Economy

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IBM's Transformation: An Ongoing Journey

- Keep company together & **stabilize business**
- Move to **integrated solutions**
- Dramatic **growth in services**

Gerstner ('93 thru 2002)

- Focus on open technologies and **high value solutions**
- Become the premier **Globally Integrated Enterprise**
- Move to **Values-based culture**

Palmisano ('03 thru 2011)

- Delivering **signature IBM client experience** with an **engaged workforce**
- Building a **Smarter enterprise** with data, cloud and systems of engagement
- Making **IBM essential** to clients, partners, investors and communities

Rometty ('12 to present)

1993

2003

2012

Watson

IBM's approach to transformation

IBM Strategy

IBM Values

Transformation Framework

Business Process Excellence

Organizational & Culture Change

Information Technology Enablement

5 Principles of Smarter Transformation

Create a movement

Build a platform for continuous improvement

Pursue growth as well as productivity

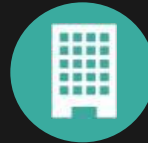Apply technology for smarter transformation

Establish an enterprise change capability

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Technology: a catalyst for innovation and growth

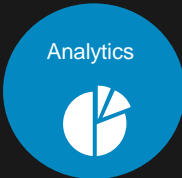The transformation of IBM's IT Organization Pervasive Consolidation

CIOs
128 to 1

Data Centers
155 to 5

Applications
16000 to 3800

More than $1.5B in IT savings since 2005. Now we're reinvesting these savings in our future.
Using IT not just as a productivity tool, but as a catalyst for innovation and growth

Analytics

Social

Mobile

Cloud

Watson
Engagement
Advisor

Projecting savings of
$100M+

Supports
428,000 bloggers
86,000 public comm

Over 185,000
mobile devices

Reduced server
provisioning from 5
days to one hour

Helps contact center
agents answer client
questions

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Six initial workloads chosen by the IBM CIO for Cloud

Analytics	Develop/Test	Collaboration	Storage	Prod Support	Self-Service
Blue Insight	**Develop/ Test Cloud**	**SmartCloud Meetings**	**Storage Cloud**	**Production Cloud**	**Self-Service App Env**
• Standardized BI/analytics capabilities • 300K users, 500 ported/ boarded apps • Predictive modeling (SPSS) and data mgmt • 50K peak reports/day	• Server setup from 5 days to 1 hour • 95% of new server reqs via this cloud • 13,000 VMs provisioned for 2,100 users	• 85% of web conference minutes • > 50M meeting minutes per month	• File storage cloud used by > 130K users & applications • Block storage cloud w/ automated tiering (50% reduction $/GB)	• Private cloud for lower tier/ departmental applications • First apps migrated and operating • Refining platform, expanding use on best fit basis	• Platform for composite app development and execution • Programmer-less app development • Example: >200 forms-based internal process apps
SaaS	**IaaS**	**SaaS**	**IaaS**	**IaaS**	**PaaS**

The IBM CIO cloud experience
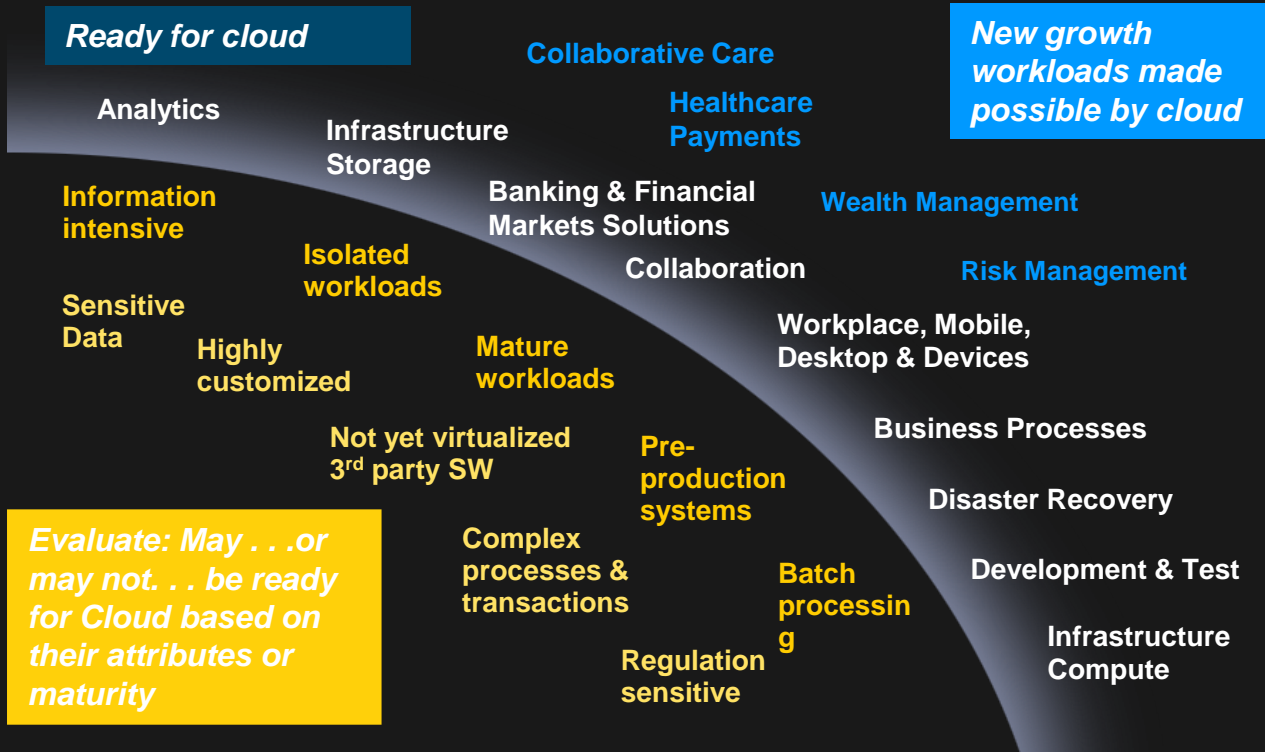
Key lessons learned

- **Cloud adoption comes with benefits and risks**
    - Benefits of Cloud are real, but require careful planning & execution
    - Cloud providers are at various states of readiness and maturity – technologically and otherwise.
    - Security & service levels need to be well understood by IT and the business.

- **Private cloud is a viable first step**
    - Agility is biggest benefit and driver
    - Presents an opportunity to transform internal processes and organization for increased efficiency

- **Think small & targeted**
    - Small steps with tactical/point solutions, not sweeping infrastructure change
    - Application portfolio-led perspective works best

- **Enabling Self Service for IBM'ers creates new work for existing roles and requires new roles to be created**
    - System Integration skills and roles are critical

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Cloud readiness assessment − By Workload

Ready for cloud

Collaborative Care

Analytics

Healthcare Payments

Infrastructure Storage

New growth workloads made possible by cloud

Banking & Financial Markets Solutions

Information intensive

Wealth Management

Isolated workloads

Collaboration

Risk Management

Sensitive Data

Highly customized

Mature workloads

Workplace, Mobile, Desktop & Devices

Business Processes

Not yet virtualized 3rd party SW

Pre-production systems

Disaster Recovery

Complex processes & transactions

Batch processing

Development & Test

Evaluate: May . . .or may not. . . be ready for Cloud based on their attributes or maturity

Infrastructure Compute

Regulation sensitive

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Identifying the Most Appropriate Cloud Service Model

The Right Cloud for the Right Workload

Will your operating environment need to rapidly change or require ongoing customization?	**Can your workload function with a given PaaS stack's standard offering?**	**Will out of the box functionality work for your business/process?**
IaaS	**PaaS**	**SaaS**

IaaS
- Foundation of Cloud computing
- sometimes referred to as Hardware as a Service (HaaS)
- service provider owns & runs the equipment. Client typically pays on a per-use basis.
- Dynamic scaling
- Shared or dedicated physical infrastructure

PaaS
- Platform as a Service (PaaS) is a way to rent hardware, operating systems, storage and network capacity over the Internet.
- Shared platform
- Shared phys infrastructure
- Access limited to platform software

SaaS
- Software as a Service (SaaS) provides On-Demand software
- All users will have the same version of software
- Application level multi-tenancy
- Shared physical infrastructure

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Where to from here in your cloud journey: Here are some steps to consider:

Business

- Undertake a Cloud Assessment - infrastructure, platform software or combination

- Cloud computing transformation advisory

- Access new capabilities via IBM Marketplace eg. analytics tools, marketing tools, financial tools

- Leverage IBM Marketplace to monetize company value

Developers

- Access PaaS catalogue - Bluemix on SoftLayer

- Access SaaS catalogue - customise Software offerings

IT Operations

- Dev and test
- Storage
- Disaster recovery
- Infrastructure refresh to cloud (eg. to SoftLayer using Racemi)
- Collaboration eg. SmartCloud meetings
- Packaged apps to Cloud (CAPEX to OPEX)
- On-Premise / Off-premise / Hybrid

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