The Power of Cloud:
Driving Business Model Innovation

Cloud’s “game changing” attributes are revolutionizing industry value chains, forcing companies to embrace new business models
Agenda

Importance of cloud

- Cloud business enablers
- Cloud enablement framework and archetypes
- Summary and recommendations
Cloud is widely recognized as an increasingly important technology; adoption is expected to accelerate rapidly in the coming years.

What is Your Organization’s Level of Cloud Adoption?

- Today:
  - 38% Piloting
  - 21% Adopting
  - 13% Substantially Implemented

- 3 yrs:
  - 91% Piloting
  - 21% Adopting
  - 41% Substantially Implemented

The Global Cloud Computing Market is Forecast to Grow 22% per year through 2020

- 2012: $41B
- 2015: $150B
- 2020: $241B

Source: (1) 2012 joint IBV/EIU Cloud-enabled Business Model Survey of 572 business & IT leaders; Q4. Which of the following most accurately describes your organisation’s level of cloud technology adoption today and which do you expect will best describe it in three years?

Sizing the cloud, Forrester Research, April 21, 2012; http://www.cio.com/article/684338/Survey_CIOs_Are_Putting_the_Cloud_First

Nearly half (48%) of CIOs surveyed evaluate cloud options first, over traditional IT approaches, before making any new IT investments.
In addition to enhancing internal efficiencies, organizations clearly intend for cloud to improve their business capabilities.

### How Important are the Following Objectives for Adopting Cloud?

**% of Respondents**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased collaboration with external partners</td>
<td>35%</td>
<td>27%</td>
</tr>
<tr>
<td>Competitive/cost advantages thru vertical integration</td>
<td>28%</td>
<td>29%</td>
</tr>
<tr>
<td>New delivery channels/markets</td>
<td>30%</td>
<td>26%</td>
</tr>
<tr>
<td>New/enhanced revenue streams</td>
<td>25%</td>
<td>29%</td>
</tr>
<tr>
<td>Competitive differentiation thru specialization</td>
<td>29%</td>
<td>22%</td>
</tr>
<tr>
<td>Rebalanced mix of products/services</td>
<td>31%</td>
<td>15%</td>
</tr>
<tr>
<td>Flexible pricing models</td>
<td>26%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Source: 2012 IBM/EIU Cloud Survey Results, Q5: How Important are the Following Objectives for Adopting Cloud?, n= 572
Although organizations say they intend to use cloud to solve business issues, almost two thirds relegate it to the IT realm today.

**How High a Priority is Cloud Adoption for your Organization?**

- Leading/important priority for IT: 62%
- Leading/important priority for entire company: 38%

Source: 2012 IBM/EIU Cloud Survey Results, Q7. Which of the following best describes how high a priority the adoption of cloud technology is for your organisation? n=397
While only a few visionary businesses today are using cloud for radical business innovation, the number will double in three years.

What is the Primary Focus of Your Organization’s Cloud Adoption Strategy?

- **Today**
  - Change industry role: 8%
  - Redesign industry: 3%
  - New industry: 3%
  - New business: 2%

- **3 yrs**
  - Change industry role: 16%
  - Redesign industry: 10%
  - New industry: 5%
  - New business: 4%

Over one third (35%) of organizations surveyed plan to harness cloud for radical business model innovation within three years.
Cloud helps business and IT create and deliver value in fundamentally new ways

Build enduring customer relationships

Improved speed and dexterity

Deliver IT without boundaries

Transform the economics of IT
Agenda

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Summary and recommendations
Mobility, social media, increasing digitization and new analytics capabilities are conspiring to drive broad business change

**Major Technology Trends driving Business Change**

**Mobile revolution**
- Connectivity, access and participation are growing rapidly
- Smart devices are becoming the primary route to get connected
- Devices are getting smarter as they are increasingly enriched by mobile apps

**Social media explosion**
- Social media is quickly becoming the primary communication and collaboration format
- GenY’s or “digital natives” use of technology and social media platforms is accelerating adoption
- Enterprises are adopting social media but are struggling to realize the value and manage risk

**Hyper digitization**
- Digital content is produced and accessed more quickly than ever before
- Internet traffic is growing globally driven by consumer use of video, mobile data, interconnectedness
- An increasing number of connected devices and sensors is further driving growth

**The power of analytics**
- New capabilities for real time analysis, predictive analytics and micro-segmentation are emerging
- Top performing companies use analytics to drive action and business value
- Analytics are making information “consumable” and is transforming all parts of the organization, from customer intimacy to supply chain management

Source: IBV Analysis

Mobility, social media, increasing digitization and new analytics capabilities are conspiring to drive broad business change
Cloud harnesses the capabilities borne out of these trends to empower six potentially “game changing” business enablers

Cloud’s Business Enablers

1. Cost Flexibility
   - Shifts fixed to variable cost
   - Pay as and when needed

2. Business Scalability
   - Provides limitless, cost-effective computing capacity to support growth

3. Market Adaptability
   - Faster time to market
   - Supports experimentation

4. Masked Complexity
   - Expands product sophistication
   - Simpler for customers/users

5. Context-driven Variability
   - User defined experiences
   - Increases relevance

6. Ecosystem Connectivity
   - New value nets
   - Potential new businesses

Source: IBV Analysis
Cloud enables businesses to reduce fixed IT costs and shift to a more variable, “pay-as-you-go” cost structure

1 Cost Flexibility

Characteristics
- Shifts CapEx to OpEx, when and as needed
- Shifts cost from fixed to variable
- Generates faster payback and higher ROI

Finding
- 31% of executives see cloud’s ability to provide pay-as-you-go, cost flexibility as a top benefit¹

Example: Etsy – the world’s handmade marketplace

- Etsy is an online marketplace to buy and sell handmade goods. In addition to bringing buyers and sellers together, Etsy offers product recommendations based on analysis of buyer preferences.
- Etsy uses cloud based analytics capabilities for its targeted marketing approach by renting hundreds of computers every night to analyze data from a billion views of its website.
- Cost flexibility of the cloud allows Etsy access to tools and compute power that only large retailers like Gap or Ikea could previously afford.

Source: (1) 2012 joint IBV/EIU Cloud-enabled Business Model Survey of 572 business & IT leaders; Q6a3-Q6b3; Expected benefits of cloud – Greater cost flexibility (today and next three years), N=572

© 2012 IBM Corporation
Cloud enables businesses to grow efficiently, expanding the range of business options

2 Business Scalability

Characteristics
- Rapid / elastic provisioning of resources
- No scale limitations
- Benefit from scale economics without achieving large volumes on your own

Finding
- 32% of executives see business scalability as a top cloud benefit

Example: Netflix
- Netflix streams movies on-demand with large surges of capacity required at peak times.
- Use of cloud allowed Netflix to rapidly scale up its business without having to buy, support and operate infrastructure and resources to meet its growth requirements.
- Netflix’s move to the cloud “was largely about paying down our technical debt and building a scalable web-based product using current best practices.” – Adrian Cockcroft, Cloud Architect at Netflix

Cloud’s ubiquitous and nearly unlimited computing power drives scale economics and enables self-provisioning and peak/non-peak responsiveness

Source: (1) 2012 joint IBV/IEIU Cloud-enabled Business Model Survey of 572 business & IT leaders; Q6a2-Q6b2(1). Expected benefits of cloud – More scalable and flexible services (today and next three years), N=572; Source: (2) http://radar.oreilly.com/2012/05/netflix-cloud.html
Market Adaptability

Characteristics
- Facilitates prototyping
- Speeds time to market
- Supports rapid prototyping and innovation

Finding
- 33% of executives see market adaptability as a top cloud benefit

Example: ActiveVideo’s Cloud TV™

- Active Video’s CloudTV™ platform allows content providers and distributors to react immediately to changing consumer demands and deliver what the consumers want
- Cable, IP and Satellite TV providers can create and deliver interactive, on-demand content dynamically to consumers on any device
- Content providers, TV programmers and web content developers can create or change an application -- for entertainment, commerce, advertising, social media, gaming or news and sports – and deploy it all-at-once for all end-users

Cloud-enabled services can be tuned for market dynamics and demand and then rapidly updated, revamped and deployed via web services

Source: (1) 2012 joint IBV/EIU Cloud-enabled Business Model Survey of 572 business & IT leaders; Q6a1-Q6b1(1): Expected benefits of cloud – Greater speed and adaptability within the organisation (today and next three years), N=572

© 2012 IBM Corporation
Cloud enables businesses to attract a broader range of consumers with elegantly simple solutions

4 Masked Complexity

Characteristics
- Expands feasible range of sophistication in products and services
- Minimizes requirements of user to understand how product works or how to maintain it

Finding
- Cloud’s ability to mask complexity is one of the lesser known business enablers with less than 20% of executives seeing it as a top benefit

Example: Ricoh Cloud Print

- The Ricoh Cloud Print platform uses tools via a cloud to convert and process print requests from any mobile device (e.g. tablet, smartphone) to a Ricoh printer
- Removes complexity for users – rapidly enable print services accessible from anywhere with a VPN connection
- Reduces cost and management of supporting diverse end-user mobile devices, content-producing applications, network configurations and printer types

Source: (1) 2012 joint IBV/EIU Cloud-enabled Business Model Survey of 572 business & IT leaders; Q6a5-Q6b5\(^{(1)}\): Expected benefits of cloud – Reduced complexity for customers (today and next three years), N=572

© 2012 IBM Corporation
Cloud enables businesses to create personal experiences that adapt to subtle changes in user-defined context

5 Context-driven Variability

Characteristics
- Supports context-driven, user-centric experiences (preferences, movements, behaviors)

Finding
- 52% of Respondents say that addressing fragmented user preferences is important for their organization

Example: Apple’s Siri™

Siri™ is the Apple iPhone’s cloud-based, natural language “intelligent assistant” – the first of a new type of user experience that relies on context to create a more personal, intimate interaction

Leveraging the computing capabilities and capacity of the cloud, Siri™ “understands a wide variety of ways to ask a question, grasps the context and returns useful information in a friendly way, either audibly or by displaying results...It learns your voice as it goes.” - Walter S. Mossberg, Wall Street Journal

The computing power and capacity of cloud enables individualized, context-relevant customer experiences

Source: 1) 2012 joint IBV/EIU Cloud-enabled Business Model Survey of 572 business & IT leaders; How important is it for your organisation to address the following technological and social developments?; 2) Wall Street Journal, Personal Journal: The iPhone Finds Its Voice, Walter S Mossberg, October 12, 2012
Ecosystem Connectivity

Characteristics
- Facilitates new value nets of partners, customers and other external players

Finding
- One-third of executives see cloud’s ability to enable and facilitate external collaboration as one of its major “future” benefits

Example: Colleagues in Care
- Colleagues in Care is an expanding, cloud-based global network of medical professionals who work together to provide healthcare services to aid the poor and help alleviate suffering.
- Today, CIC’s cloud solution expands the reach of healthcare to the Haitian population to treat illnesses, diseases and medical conditions that might otherwise go untreated.
- The ecosystem allows healthcare coordinators to match specific skills needed to treat illnesses, conditions and diseases, helping to save lives.

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More and more, companies are relying on collaborative ecosystems to provide the input for innovation that will drive their growth.

Source: (1) 2012 joint IBV/IEU Cloud-enabled Business Model Survey of 572 business & IT leaders; Q6a8-Q6b8(1): Expected benefits of cloud – Enhanced collaboration with customers/external partners (today and next three years), N=572
Agenda

Importance of cloud

Cloud business enablers

Cloud enablement framework and archetypes

Summary and recommendations
Cloud business enablers are already driving innovation across company/industry value chains and customer value propositions

**What is my role in the value chain?**
- What to do and when to rely on others?
- Where to specialize and how to set up interdependent networks?

**How will I do what I do?**
- What kind of delivery structures?
- Which operating model?
- What is the cost structure?

**What is my customer value proposition?**
What mix of products and services?
Which customer needs are being satisfied?

**Which customers am I serving?**
Which customer segments?
What type of relationships to maintain?
Which channels?

**How do I generate revenue?**
Which pricing models?
How and where to capture value?
Enterprises are leveraging cloud to enhance, extend and invent new customer value propositions

Enhance
- Improve current value proposition to retain/attract customers for existing products and services
- Appeal to existing customer segments
- Garner incremental revenue

Extend
- Extend value proposition to attract customers to different products and services
- Attract existing or adjacent customer segments
- Generate significant new revenues

Invent
- Construct radically different value proposition to create a new “need” and own the market
- Form new customer segments
- Generate entirely new revenue streams
Cloud is also being leveraged to improve, transform and create new organization and industry value chains

**Create**
- Build a new industry value chain or disintermediate an existing one
- Radically change industry economics

**Transform**
- Change organizational role within the industry or enter a different industry value chain
- Develop new operating capabilities
- Enter adjacent industries

**Improve**
- Increase efficiency and effectiveness of the organization
- Increase partnering, sourcing, and collaboration
We classify organizations according to the extent to which their use of cloud impacts value chains and value propositions.

Cloud Enablement Framework

Disruptors create radically different value propositions, generate new customer needs and segments. They disintermediate existing industries or even create new ecosystems.

Innovators significantly extend customer value propositions resulting in new revenue streams and transform their role within their industry or enter a different industry ecosystem.

Optimizers use the cloud to incrementally enhance their customer value propositions while improving their organization’s efficiency.

Organizations should determine how and to what degree cloud can be used to enable their business model.
Optimizers, innovators and disruptors each face strategic opportunities and significant risks

<table>
<thead>
<tr>
<th>Organizational Classification</th>
<th>Major Opportunities</th>
<th>Major Risks</th>
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<tbody>
<tr>
<td>Optimizers</td>
<td>▪ Deepen customer relationships by expanding value</td>
<td>▪ Realization of limited revenue or market share gains</td>
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<tr>
<td></td>
<td>▪ Increase partnering by applying cloud</td>
<td>▪ Increased dependency on partners</td>
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<tr>
<td></td>
<td>▪ Reduce costs by leveraging cost flexibility</td>
<td>▪ Potential industry disruption from less risk averse player</td>
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<td></td>
<td>▪ Increase overall efficiency</td>
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<tr>
<td>Innovators</td>
<td>▪ Expand ability to move into adjacent market or industry spaces</td>
<td>▪ Rapid replication of innovation by competitors</td>
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<td></td>
<td>▪ Combine previously unrelated elements of the value chain and value proposition</td>
<td>▪ Value capture may not be sustainable</td>
</tr>
<tr>
<td></td>
<td>▪ Gain competitive advantage</td>
<td></td>
</tr>
<tr>
<td>Disruptors</td>
<td>▪ Capture unique competitive edge through creation of new or disruption of existing</td>
<td>▪ Untested business models may not succeed</td>
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<tr>
<td></td>
<td>industry</td>
<td>▪ Fast followers are often more successful than first movers</td>
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<tr>
<td></td>
<td>▪ Invent new customer needs or define entirely new markets</td>
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<tr>
<td></td>
<td>▪ Take advantage of and sustain first mover advantage</td>
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In the next three years, disruptors expect to significantly outperform both innovators and optimizers.

Percentage of respondents expecting to significantly or somewhat outperform peers

- Disrupters: 68%
- Innovators: 57%
- Optimizers: 54%

Source: (1) 2012 joint IBV/EIU Cloud-enabled Business Model Survey of 572 business & IT leaders

Q9bc1-4(1): Changes to Value Proposition to increase revenue in three years (N=67) q1- How would you describe your organization’s financial performance compared with your peers? (over the next 3 years) (Percentage of responses) N= (next 3 years) : Optimizers: 193; Innovators: 335; Disruptors: 44
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- Cloud business enablers
- Cloud enablement framework and archetypes

Summary and recommendations
Cloud’s business enablers are fuelling innovation and empowering organizations to optimize, innovate and disrupt business models.

Cloud offers six “game changing” business enablers...

...that are fuelling innovations across enterprise value chains and customer value propositions...

...empowering organizations to optimize, innovate or disrupt business models.

Cloud’s Business Enablers

1. Cost Flexibility
2. Business Scalability
3. Market Adaptability
4. Masked Complexity
5. Context-driven Variability
6. Ecosystem Connectivity

Cloud Enablement Framework

- Value Chain
- Market Adaptability
- Masked Complexity
- Context-driven Variability
- Ecosystem Connectivity
- Business Scalability

Organizations need to assess themselves using the Cloud Enablement Framework and examine the potential to innovate by leveraging the cloud’s business enablers.
There are three initiatives you can start today to capture value from cloud-enabled business models

1. Establish shared responsibility for cloud strategy and governance across the Business and IT

2. Look beyond your organization’s borders to maximize value derived from your cloud adoption

3. Strategize whether your organization will be an Optimizer, Innovator or Disruptor through the use of cloud-enabled business models