Service offerings
Emerging Technologies - Cloud Computing

pwc

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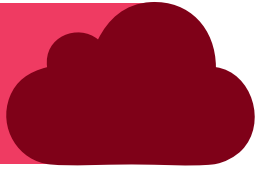
Section 1
Our point of view

Enabling better decision-making
IT platforms of the future

Over the last two years, businesses have being exposed to factors such as volatility, randomness, disorder and uncertainty due to changes in the global economic as well as market structures. Customer expectation is also undergoing a dramatic shift. These factors are forcing enterprises to look closely into all aspects of their business and operational models, and explore the 'IT platforms of the future'. Executives can leverage cloud-based solutions across several important areas within their enterprises. The decision to invest in cloud cannot be ad-hoc. Instead, it must involve a comprehensive assessment and due diligence of multiple aspects. Of course, new opportunities typically usher in new challenges.

We believe that enterprises will need to address three key transformation questions

How do we transform IT?	*How can we scale operations with changing business requirements?*	*What new services can help us engage with customers better?*
Opportunity: Enterprises can drive business growth by transforming their IT functions into a strategic business unit.	**Opportunity:** Enterprises can scale their business, reduce time-to-market, and bring about collaboration with the cloud.	**Opportunity:** Enterprises can innovate and create new products and services to better engage with their customers and communities, and thereby generate new sources of revenue.
Challenges: As companies shift from traditional or legacy systems to the 'IT platform' of the future, executives will need to manage a hybrid architecture and adopt a services culture. They may face a paucity of key skills in cloud management capabilities.	**Challenges:** Traditional or legacy systems, integration issues and orchestration of business processes across multiple clouds can be daunting. Governance, risk management and compliance of data managed by cloud providers are also important.	**Challenges:** Enterprises must adapt their business models to the changing needs, transform their go-to-market strategies and shift to a services-based culture so as to leverage the true power of the cloud.

Business benefits of cloud can span across the entire enterprise

Cloud holds immense potential to help executives tackle complex business problems. However, its adoption requires a well-defined strategy (including a roadmap, architecture design as well as an operating model) formulated after the assessment and due diligence of business drivers, challenges, processes, technology landscape, return on investment, regulations, compliance and security. A one-size-fits-all approach does not work. When deployed accurately, a cloud-based platform can usher in unprecedented benefits across the enterprise, such as greater business agility, higher levels of innovation, increased simplicity and economies of scale.

Business agility	Compliance	Cost-efficiency	Improved productivity
Cloud can boost business agility and improve operational scalability. It enables enterprises to reduce their time-to-market by introducing new services, products or capabilities at the speed of changing market demands, thus targeting new opportunities and enhancing customer engagement.	Cloud computing helps businesses comply with required regulatory compliances efficiently and effectively. Today, major cloud service providers are compliant with multiple regulations as well as compliances.	The service delivery model of cloud transforms the traditional CAPEX model of financing to an OPEX model, that is, a pay-as-you-use cost model. Cloud can also reduce costs through automation, consolidation and standardisation.	Cloud can improve business productivity by reducing effort as well as investment in maintenance or support-related activities. It thereby shifts resources to enable greater focus on innovation.

Section 2
Cloud service offerings

PwC and the cloud

PwC global overview

- Member of the PwC network of firms across 157 countries with more than 184,000 people
- Over 80% of Fortune 500 companies among clients
- Services across advisory and tax; concentration on 16 key industries
- Global perspective, local implementation, in-depth experience and a long-term view for clients
- Solutions from strategy through execution
- Among Fortune's 100 best companies to work for (2013)

Our Emerging Technologies Cloud practice

- More than 30 citations across domestic as well as international markets
- Advisors to the government of India for formulation and implementation of the government cloud and AppStore
- Full spectrum of services across strategy, design, architecture, transformation, implementation, migration and support
- Client sectors include financial, healthcare, education, software, consumer and industrial products, energy and central government
- State-of-the-art cloud innovation labs located at Kolkata and Bengaluru

Our cloud thought leadership

PwC 5th Annual Digital IQ Survey Report - The India Story

Cloud: The sky's the limit

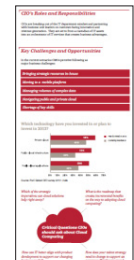Through the looking glass - Emerging trends

Running IT as a business

10Minutes on the Cloud

Security Among the Clouds

CIO's Cloud: Our Perspective

Our differentiators

Industry expertise	Business perspective	Transform methodology	Change management	Co-creation
Deep experience with market issues and trends impacting specific industries	Extensive insight as well as understanding of the business and what matters to customers, the C-suite, and shareholders	Robust methodology to help effectively manage the transformation within the organisation	Change management as an integral part of methodology	A collaborative approach to solution development enabling acceleration of change within the organisation

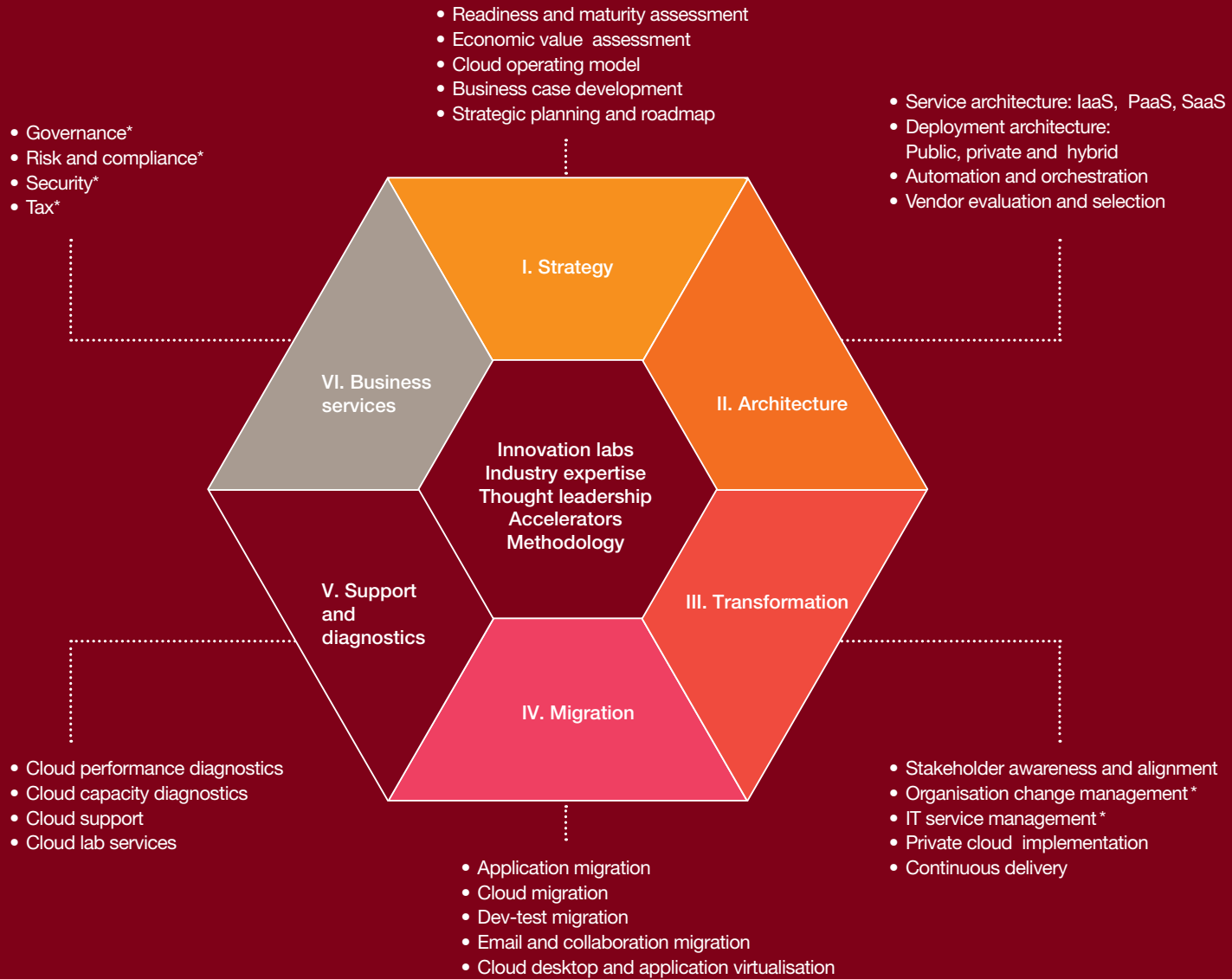| Strategy to support	Thought leadership	Complementary partners	Knowledge databases	Controls
Delivery capabilities spanning from strategy to execution	In-depth, original research as well as analysis of the prevailing significant technology as well as business trends	High-impact alliances with multiple leading software providers	Access to knowledge bases such as global best practices, gateway, etc	System security, audit and controls

Cloud service offerings

- Readiness and maturity assessment
- Economic value assessment
- Cloud operating model
- Business case development
- Strategic planning and roadmap

- Service architecture: IaaS, PaaS, SaaS
- Deployment architecture:
  Public, private and hybrid
- Automation and orchestration
- Vendor evaluation and selection

- Governance*
- Risk and compliance*
- Security*
- Tax*

I. Strategy

II. Architecture

VI. Business services

**Innovation labs
Industry expertise
Thought leadership
Accelerators
Methodology**

V. Support and diagnostics

III. Transformation

IV. Migration

- Cloud performance diagnostics
- Cloud capacity diagnostics
- Cloud support
- Cloud lab services

- Stakeholder awareness and alignment
- Organisation change management*
- IT service management*
- Private cloud implementation
- Continuous delivery

- Application migration
- Cloud migration
- Dev-test migration
- Email and collaboration migration
- Cloud desktop and application virtualisation

*Collaborative Competency Support*

Section 3
Summary of citations

Citations on our cloud business transformation engagements: Summary

| #	PwC industry verticals	Client name	Nature of engagement
1	Government	Australian Canberra Territory, Australia	Cloud adoption assessment and strategy
2	Government	Department of Electronics and Information Technology (DeiTY), Government of India	Formulation of cloud policy, strategic adoption for establishing and implementing of GI cloud for India
3	Education	Global education services provider , India	Cloud adoption assessment and strategy to address across universities, distance learning centers and corporate training centers
4	Entertainment and media	Leading publishing company, India	Assessment, design, implementation and migration of SAP and BI to AWS cloud
5	Industrial manufacturing	Fortune top 10 : Large multinational manufacturing company, India	SaaS solution architecture and implementation based on salesforce.com
6	Retail and consumer	World's third largest manufacturer and exporter of home furnishing, India	Cloud adoption strategy and SAP disaster recovery solution on cloud
7	PwC network	Cloud Innovation Lab, USA	Research, development and solution validation of cloud technologies
8	Government	National Informatics Centre, Government of India	Emerging technologies: Strategic roadmap
9	Technology	Leading datacenter hosting services provider, USA	Service oriented operations organisation to support new cloud service offerings
10	Technology	Worlds leading product and technology company, USA	Cloud transformation services
11	Financial services	Leading international property and casualty insurance company, global	Design and implementation of private cloud
12	Healthcare	Leading cancer research center and hospital , USA	Workload characterisation, high performance computing environment design and cloud deployment or service models
13	Telecom	US based communications company, USA	Architecture and implementation of private cloud
14	Financial services	Worlds leading financial institution, USA	Integration of orchestration and an automation tool to a custom private cloud
15	Mining	Large mining and petroleum company, Singapore	Collaboration platform on public cloud
16	PwC network	Technology consulting practice, Australia	Design and implementation of email and collaboration solution on Amazon web services cloud
17	Retail and consumer	Leading consumer retail chain, India	Design and implementation of Microsoft dynamics ERP on TATA InstaCompute cloud
18	Aerospace and defence	Leading airline based out of United Arab Emirates	Risk assessment for private cloud
19	Technology	Leading security software corporation, USA	Architecture and design of private and hybrid cloud environment
20	Aerospace and defence	Leading manufacturer of silicon photonics technology USA	Strategy and assessment for photonics technology in datacenter , telecom, aerospace and defence sectors
21	PwC network	Cloud computing practice, USA	Strategy, design, deployment and integration of HP cloud platform environment and HP HAVEn
22	Financial services	Leading equipment financial services company, India	Cloud desktop assessment and value proposition
23	Entertainment and media	Leading media company, India	Cloud adoption strategy and design
24	Healthcare	Leading healthcare services provider, India	Data centre and application architecture assessment and strategy
25	Entertainment and media	Leading premium cable and satellite television network, USA	Video transcoding on AWS cloud
26	Technology	Worlds leading product and technology company , USA	Platform-as-a-Service (PaaS) strategy
27	Retail and consumer	Leading duty free services provider, India	Design of MS Dynamics ERP on AWS virtual private cloud
28	Healthcare	Leading system integrator and application service provider, Oman	Software as a service readiness assessment
29	Mining	Large mining and petroleum company , Singapore	Cloud strategy, design and implementation of play pen environment for Microsoft SharePoint on AWS cloud
30	Healthcare	Leading healthcare services provider, Cayman Islands	Design and implementation of a hospital management system and Oracle eBS on AWS cloud
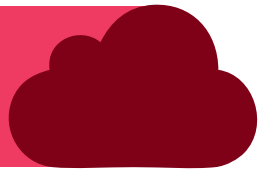
Section 4
PwC cloud innovation lab and accelerators

PwC's cloud innovation lab

PwC's cloud innovation lab leverages technologies from alliance partners such as HP, Microsoft and Oracle to provide proof-of-concept for our cloud solutions.

Combining PwC's comprehensive methodologies and deep subject matter expertise with cutting edge hardware and software, PwC cloud lab showcases solutions that can create greater agility, boost financial results and redefine customer engagement.
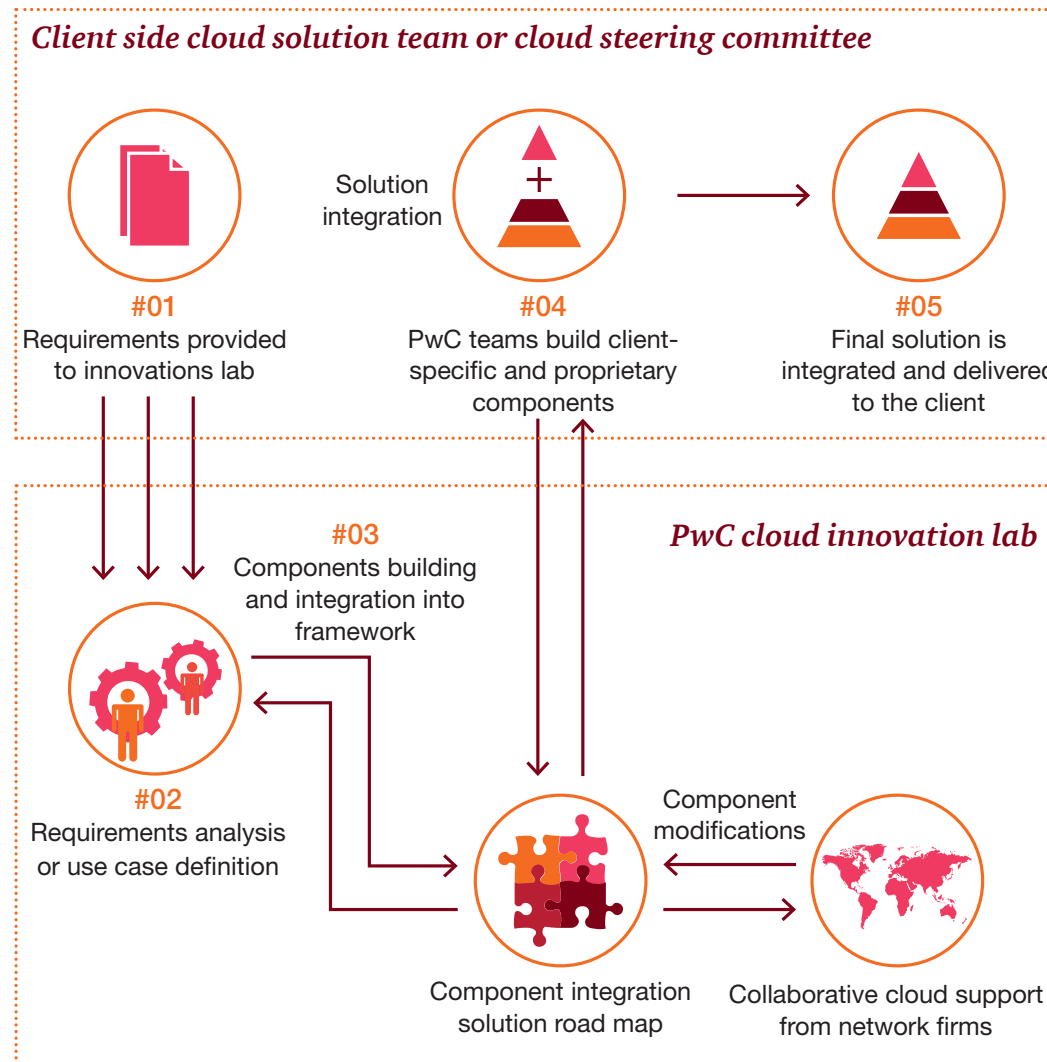
Objective
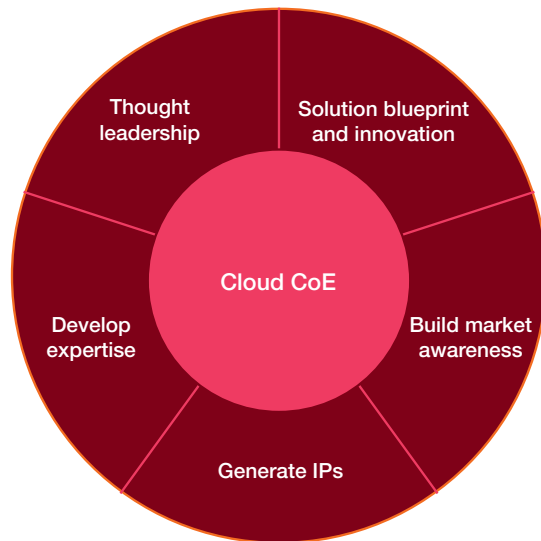
Selected use cases

- Private cloud solution using HP cloud system
- Video transcoding solution on AWS cloud
- SAP on public and private cloud
- Continuous delivery automation using HP CDA
- Data protection using autonomy
- VMware vCloud Automation Center
- Private cloud solution using HP cloud system matrix
- Cloud desktop solution using XenDesktop with Hyper-V
- Cloud based disaster recovery solution
- Cloud financial planning and analysis
- Cloud based email solutions: MS Exchange
- Messaging and collaboration solution using Microsoft SharePoint and Lync
- Smart data cloud solution using Hadoop and MapReduce
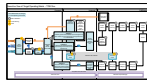- Enterprise revenue optimisation system (ERoS) using HP HAVEn platform

How do clients engage with PwC's cloud innovation lab?

Client side cloud solution team or cloud steering committee

#01
Requirements provided to innovations lab

Solution integration

#04
PwC teams build client-specific and proprietary components

#05
Final solution is integrated and delivered to the client

PwC cloud innovation lab

#03
Components building and integration into framework

#02
Requirements analysis or use case definition

Component modifications

Component integration solution road map

Collaborative cloud support from network firms

PwC's cloud accelerators*

	PwC's cloud governance, risk and compliance framework
	PwC cloud reference architecture
	PwC cloud adoption model
	PwC's cloud infrastructure and operations model
	PwC's cloud measurement (metrics KPIs) definition framework
	PwC's cloud service management framework
	PwC cloud desktop technology framework
	PwC cloud software technical architecture framework
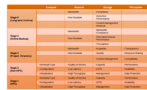
	PwC's cloud resource management model
	PwC's customer lifecycle practice maturity models
	PwC's cloud or SaaS business process model framework
	PwC contact center reference architecture
	PwC cloud cost comparison analysis tool
	PwC cloud cost-benefit analysis
	High performance computing matrix

*A list of selected cloud accelerators have been provided.
Sample screenshots have been provided for illustration purpose*

About PwC

PwC helps organisations and individuals create the value they're looking for. We're a network of firms in 157 countries with more than 184,000 people who are committed to delivering quality in Assurance, Tax and Advisory services. Tell us what matters to you and find out more by visiting us at www.pwc.com.

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PwC refers to the PwC network and / or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details.

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