Governance, COBIT and the Cloud a match made in the sky!

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Robert Stroud

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  - IT Governance Committee Member
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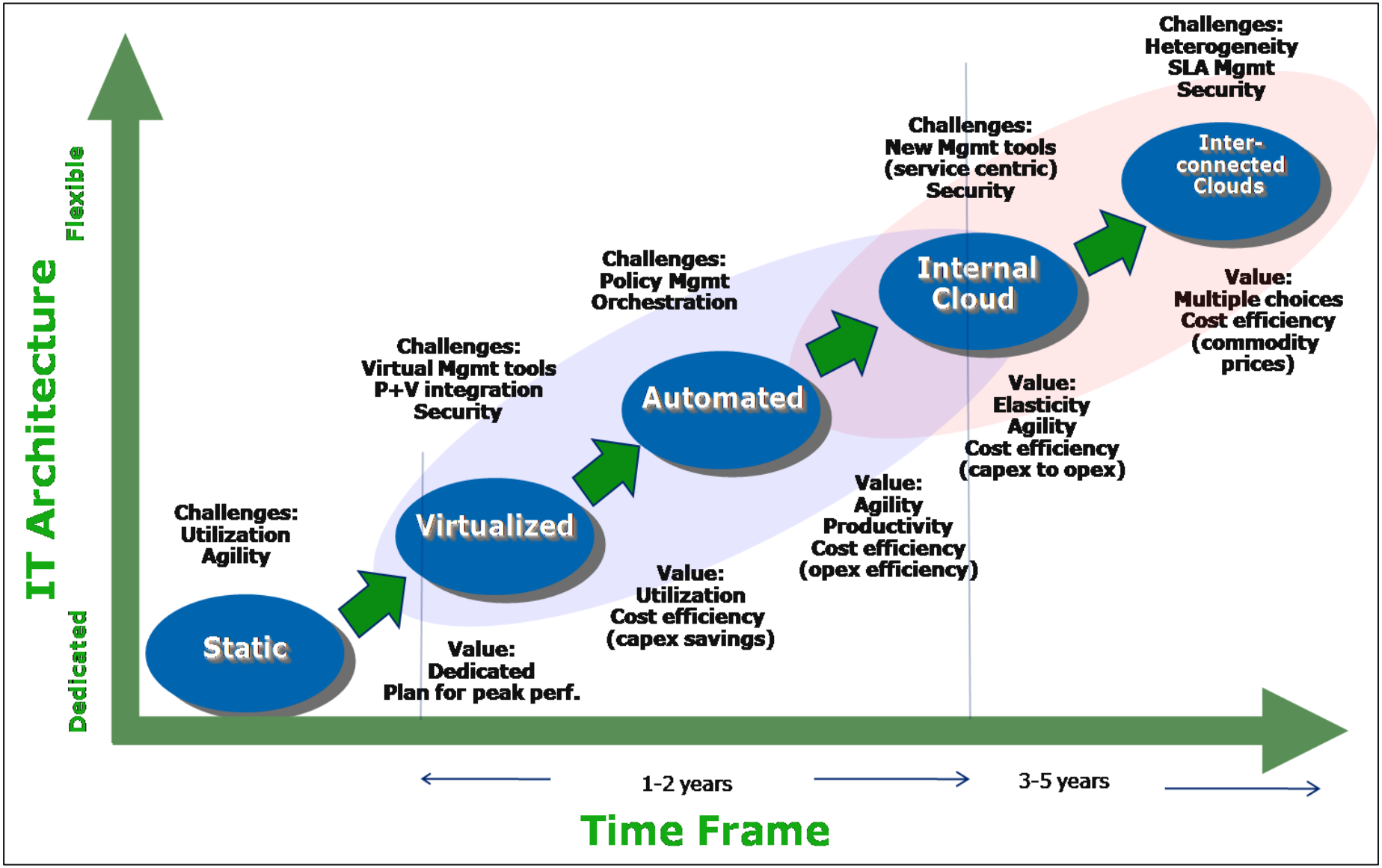
Abstract

> Governance, COBIT and the Cloud a match made in the sky!

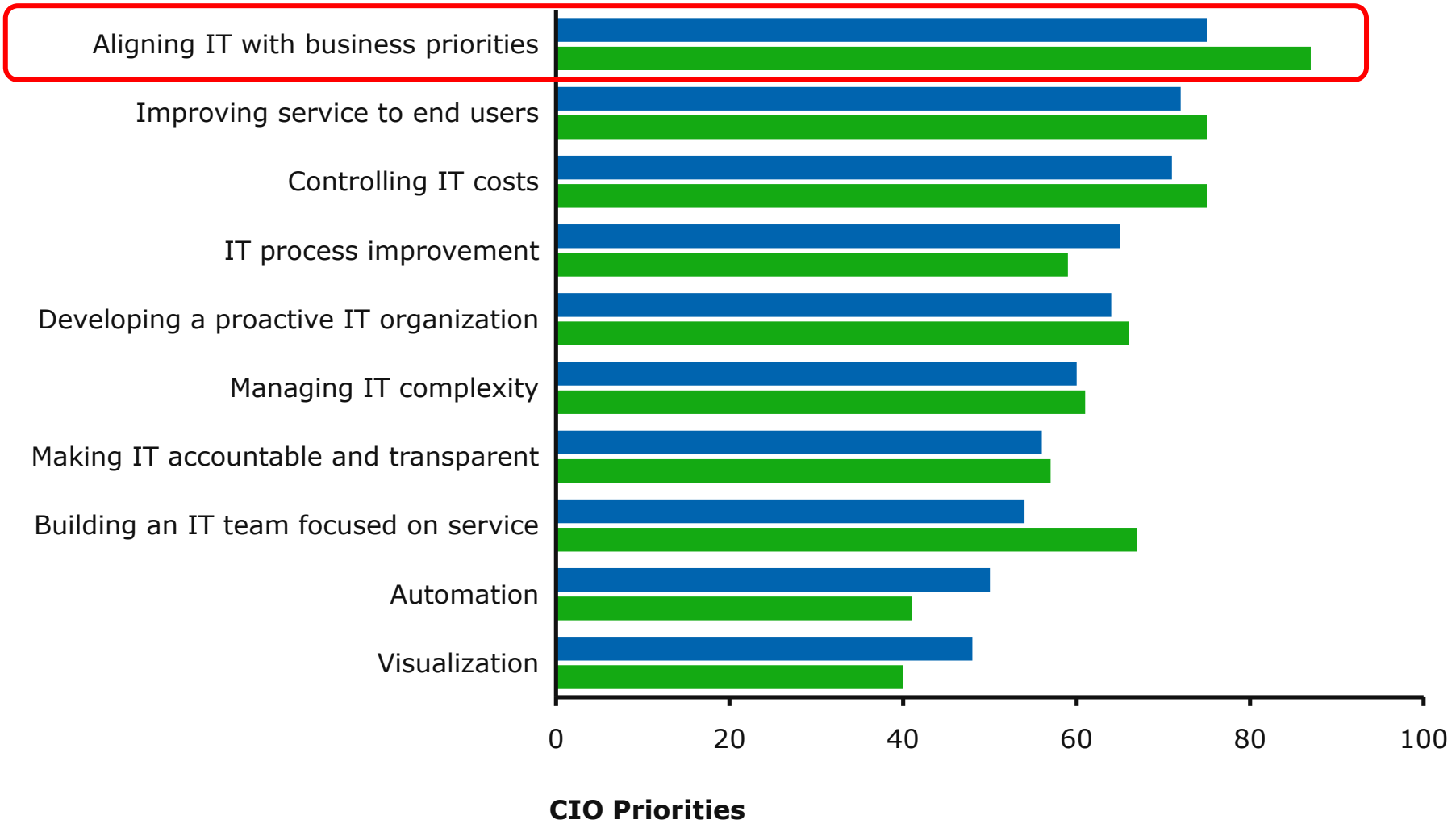
- As IT professionals it is not enough to align with the business we must integrate IT with the business whilst predicting demand and then balancing the scarce resources to ensure that we deliver to correct level of service and at the correct time and the appropriate cost and meeting all government regulations. As IT professionals we much balance the emerging technological advances in virtualization, SaaS and Cloud computing, the proliferation of network connected devices and the ever increasing rate of IT enabled business change. Robert Stroud, ISACA International Vice President and internationally recognized Governance and Service Management evangelist will share his thoughts on the requirements for the future of Governance and COBIT in the Cloud to empower you and your business.

The Cloud will Change Everything

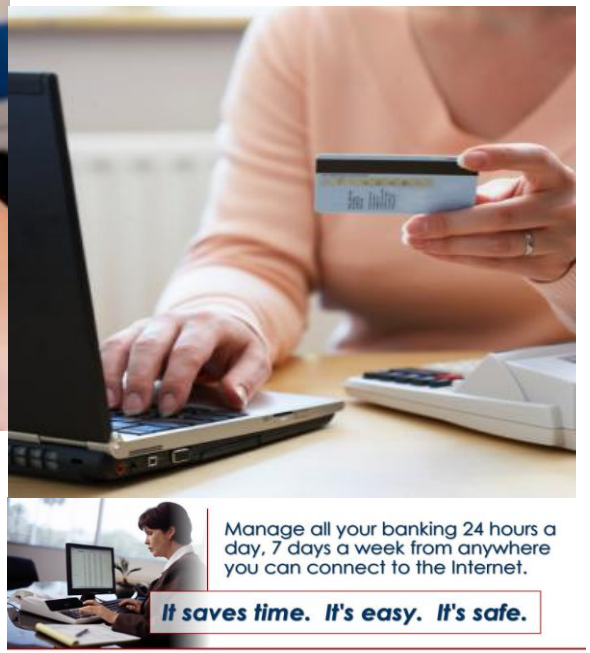
Evolution is inevitable!



Business Demands



Business-IT Dependence



Secure transactions

Cost per business transaction

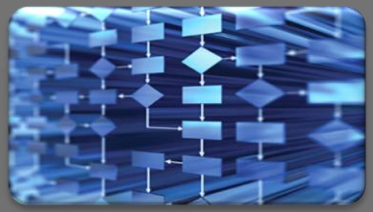
Compliance requirements

IT Must Deliver

Cost Appropriateness

Elasticity / Scalability

Speed to Service Delivery



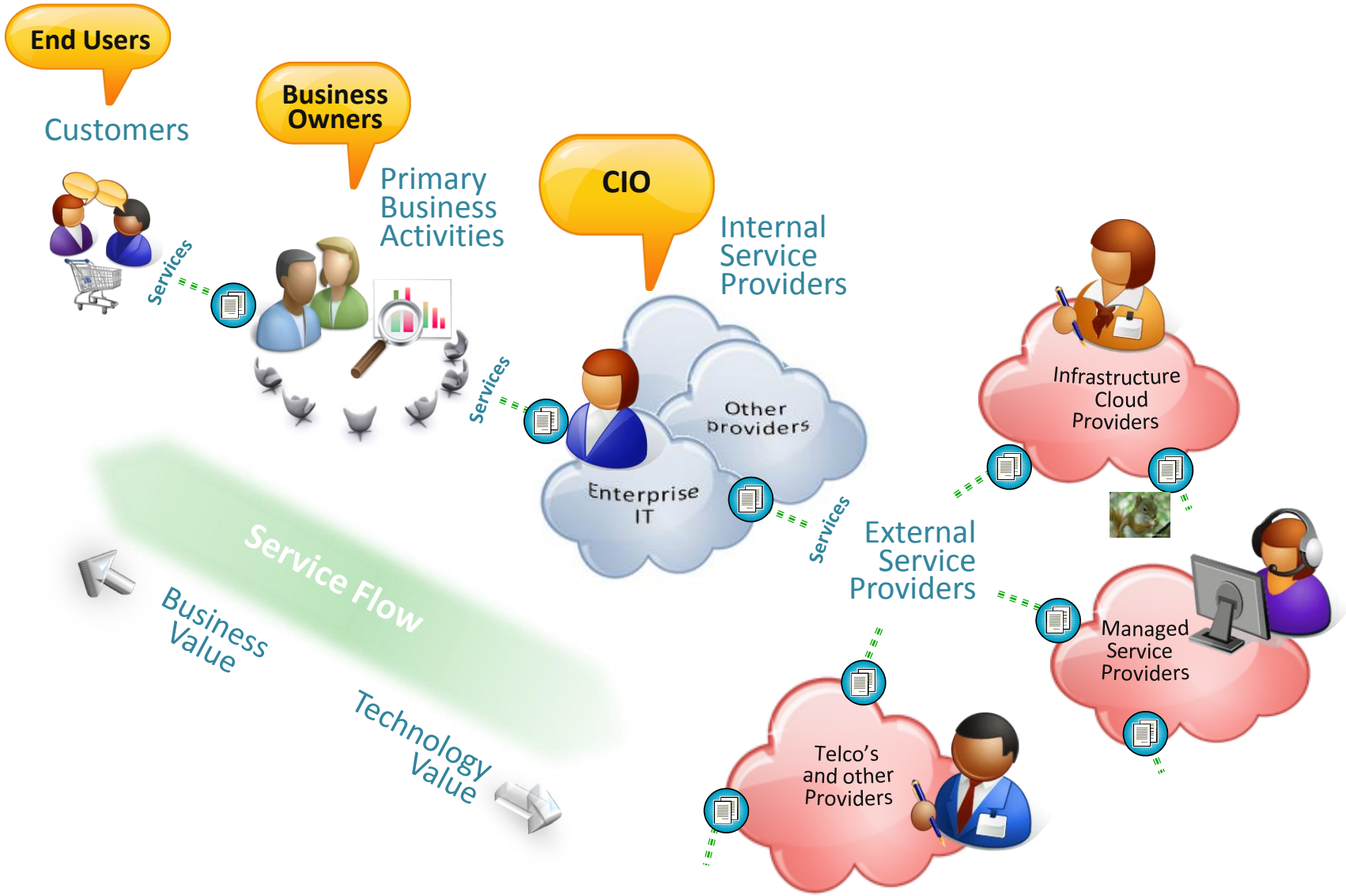
Legal Compliance

CIO role Transitioning

- The CIO role is transitioning from one of simply managing operations and to managing the IT as a service value chain.
  - Previously: The CIO ran the internal "IT factory"
  - The new complexity: Both enterprises and external service providers become producers and consumers of services
- The CIO must weave together & optimize this value chain to best support various customers & enable a company's business
- Cloud is accelerating and mandating the transition

CIO

Landscape for IT enabled Business



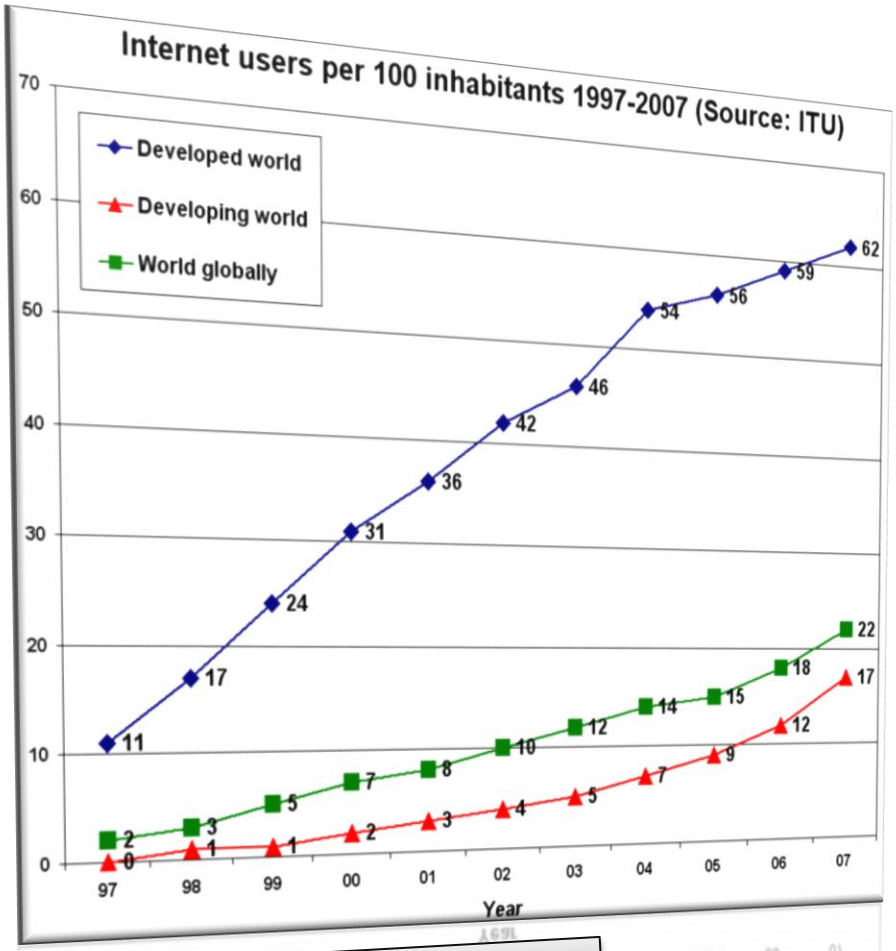
The Cloud: Defined

Internet is global

Rank	Country	Internet users[1]	% of pop.[1]	Date
—	*World*	1,581,571,589	23.6%	2009
1	People's Republic of China	298,000,000	22.4%	2009
-	*European Union*	297,001,040	60.7%	2009
2	United States	227,190,989	74.7%	2009
3	Japan	94,000,000	73.8%	2009
4	India	81,000,000	7.1%	2009
5	Brazil	67,510,400	34.4%	2009

Rank	Country	Internet users[1]	% of pop.[1]	Date
-	*Greenland*	52,000	90.3%	2009
120	Iceland	273,930	90.0%	2009
51	Norway	3,993,400	86.0%	2009
49	Finland	4,353,142	83.0%	2009
28	Netherlands	13,791,800	82.9%	2009
35	Sweden	7,295,200	80.7%	2009

Rank	Country	Internet users[1]	% of pop.[1]	Date
172	North Korea	-	-	2009
154	Myanmar	40,000	0.1%	2009
170	Timor Leste	1,200	0.1%	2009
167	Sierra Leone	13,000	0.2%	2009
98	Bangladesh	500,000	0.3%	2009
123	Democratic Republic of the Congo	230,400	0.3%	2009

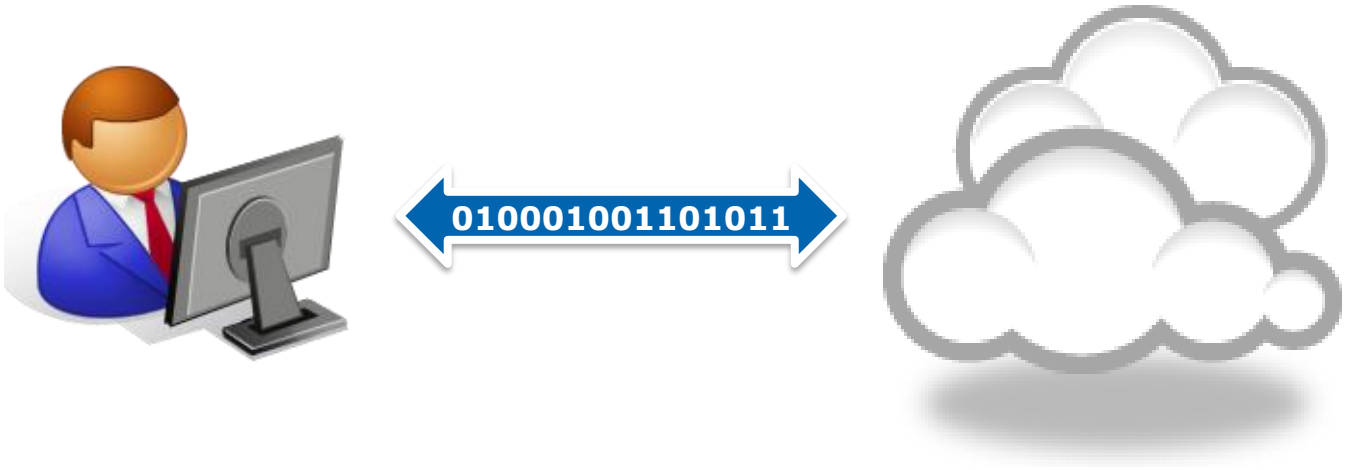


Source: International Telecommunication Union, 2009

What Is The Cloud?

> Cloud computing is a style of computing in which dynamically scalable and often virtualized resources are provided as a service over the Internet. Users need not have knowledge of, expertise in, or control over the technology infrastructure in the "cloud" that supports them

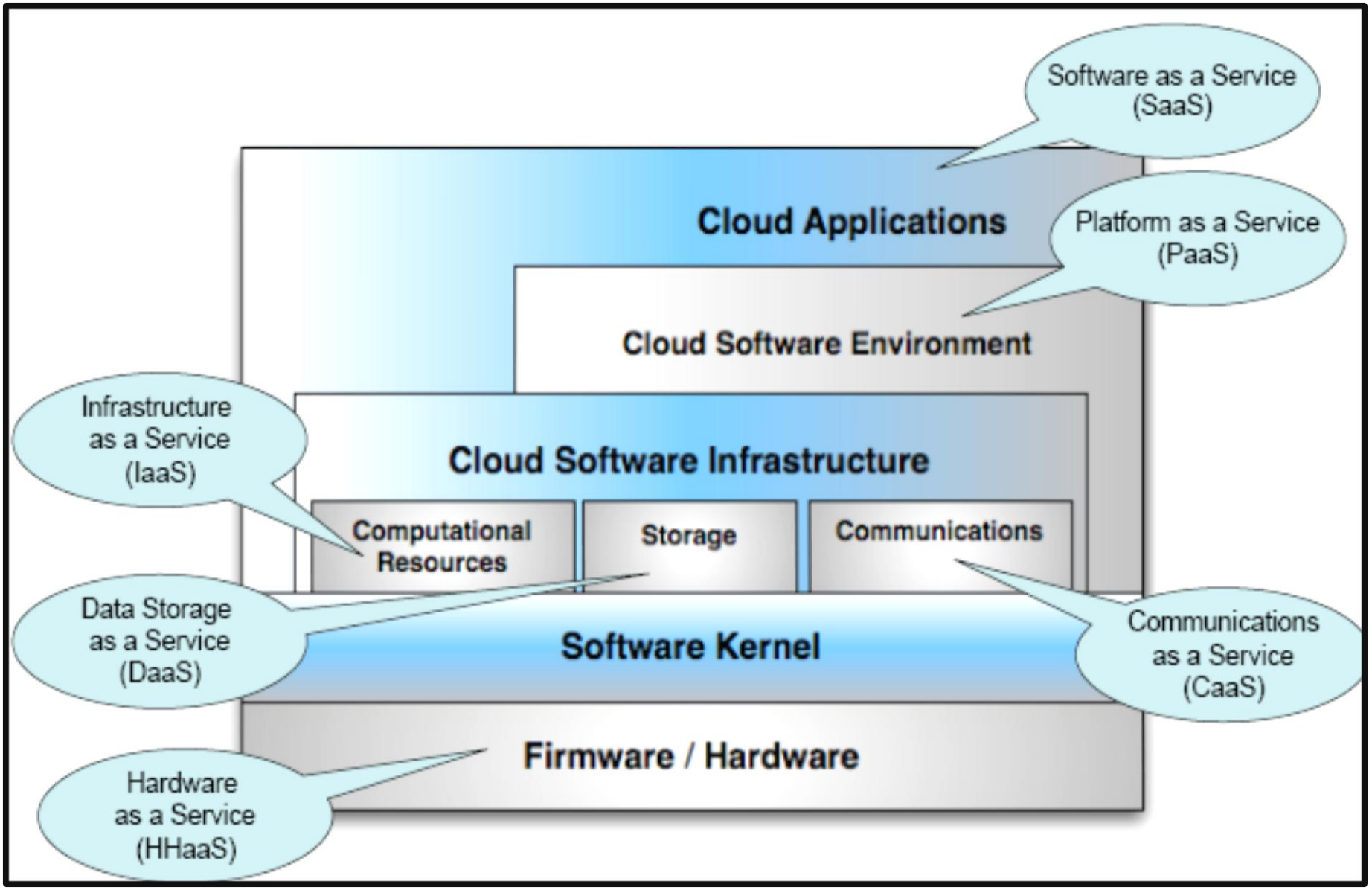
Source: en.wikipedia.org/wiki/Cloud_computing



Cloud Computing definitions

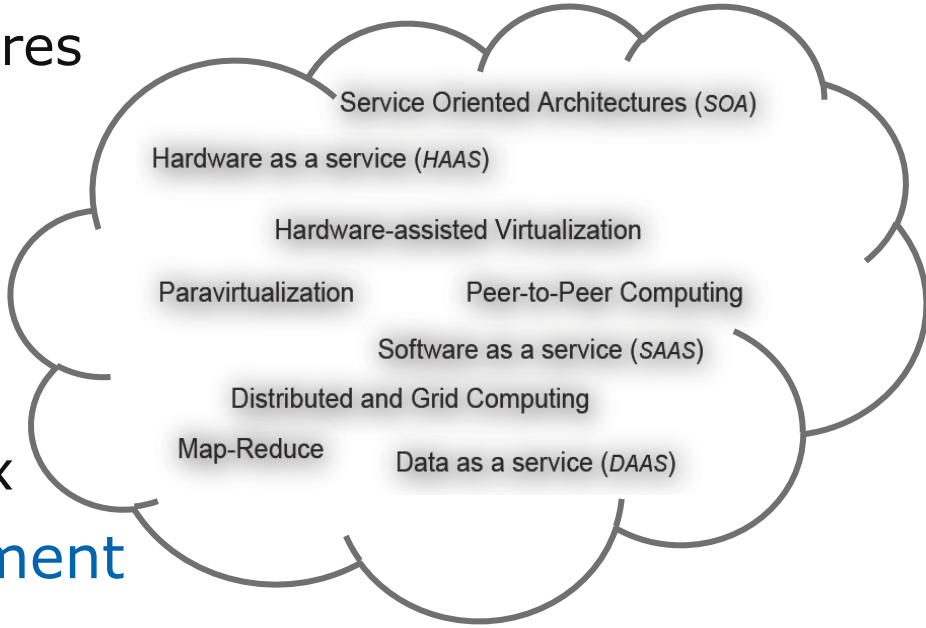
- Cloud Manifesto
  The key characteristics of the cloud are the ability to scale and provision computing power dynamically in a cost efficient way and the ability of the consumer (end user, organization or IT staff) to make the most of that power without having to manage the underlying complexity of the technology. The cloud architecture itself can be private (hosted within an organization's firewall) or public (hosted on the Internet).
-
- University of California - Berkeley
  Cloud Computing refers to both the applications delivered as services over the Internet and the hardware and systems software in the Data Centers that provide those services. The services themselves have long been referred to as Software as a Service (SaaS), so we use that term. The Data Center hardware and software is what we call a Cloud

Cloud Ontology



Promises of Cloud Computing

- >Low barrier to entry
  - Reduced Capital expenditures
  - Less expertise required
- Low overhead
  - Pay for what you use
  - Low annual maintenance
  - Less unscheduled break/fix
- Greater IT to business alignment
  - Focused on business needs
  - Rapid time to service



Governance in the Cloud

Challenges

Greatest Concerns Surrounding Cloud Adoption at Your Company

Security	45%
Integration with existing systems	26%
Loss of control over data	26%
Availability concerns	25%
Performance issues	24%
IT governance issues	19%
Regulatory/compliance concerns	19%
Dissatisfaction with vendor offerings/pricing	12%
Ability to bring systems back in-house	11%
Lack of customization opportunities	11%
Measuring ROI	11%
Not sure	7%
Other	6%

*Respondents selected up to three criteria.

SOURCE: CIO Research

Governance in the Cloud

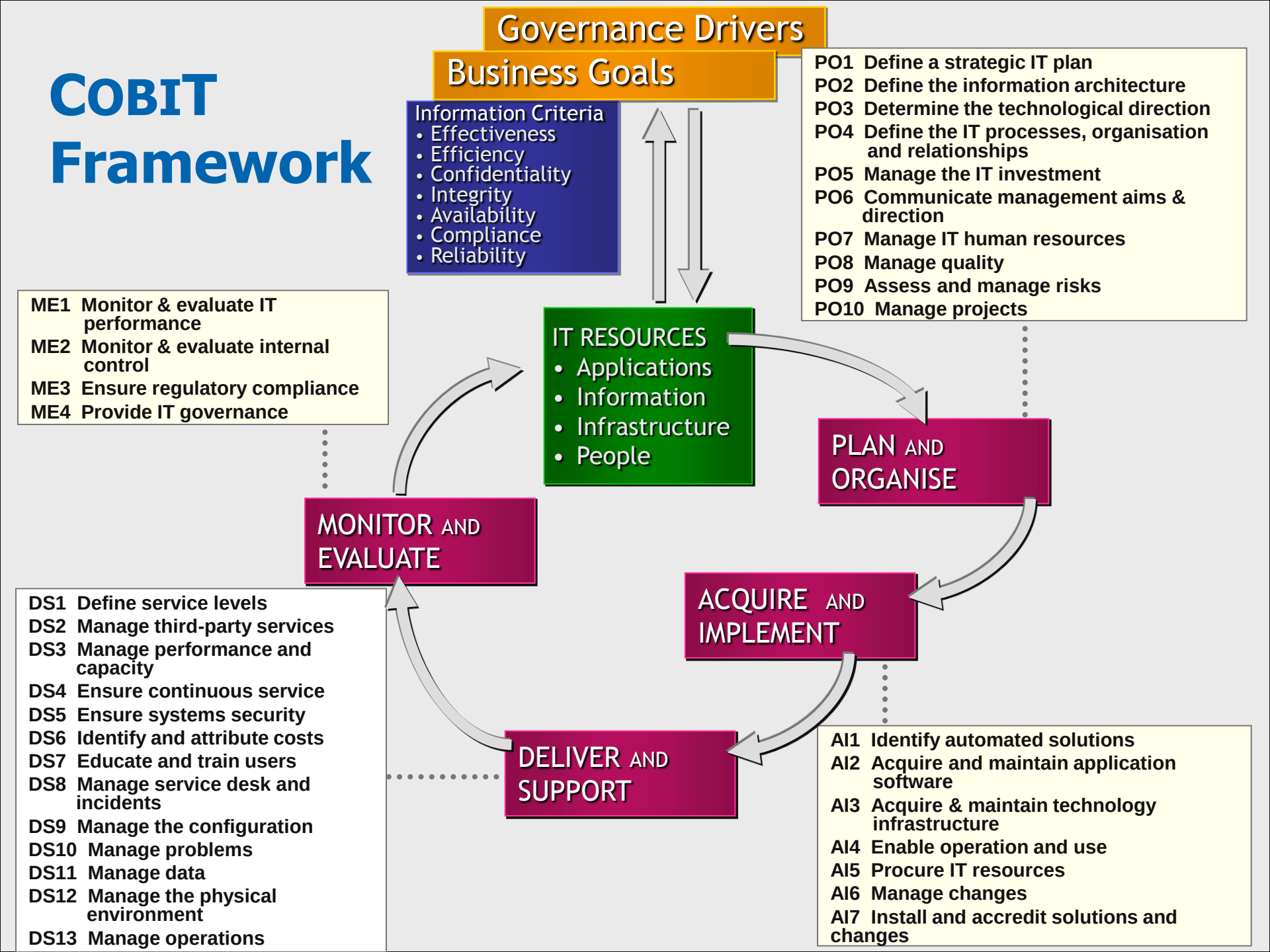
> Governance in the Cloud is more critical than ever:

- Managing increasing risks – including security, compliance, projects and partners
- Continuity of critical business processes extends beyond the data centre
- Organizational objectives must be clear with the growing dependence on third parties
  Flexibility, scalability and services will change dramatically changing organizations and business practices to create new opportunities and reduce cost
- Ensures continuity of IT knowledge which is essential to sustain and grow the business
- Sound, flexible and aligned Governance is required

COBIT™ – the roadmap

- Globally accepted set of tools that ensures IT is working effectively
- Provides common language to communicate goals, objectives, expected results
- Based on industry standards and good practices in:
  - Strategic alignment of IT with business goals
  - Value delivery of services and new projects
  - Risk management
  - Resource management
  - Performance measurement

COBIT Framework



Risk & Opportunity

IT as Value Inhibitor or Destructor

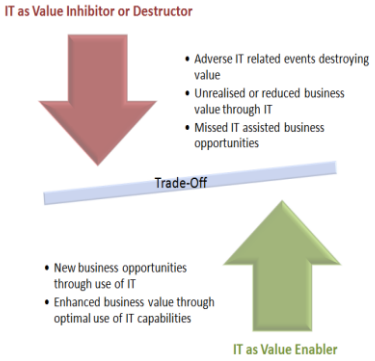
- Adverse IT related events destroying value
- Unrealised or reduced business value through IT
- Missed IT assisted business opportunities

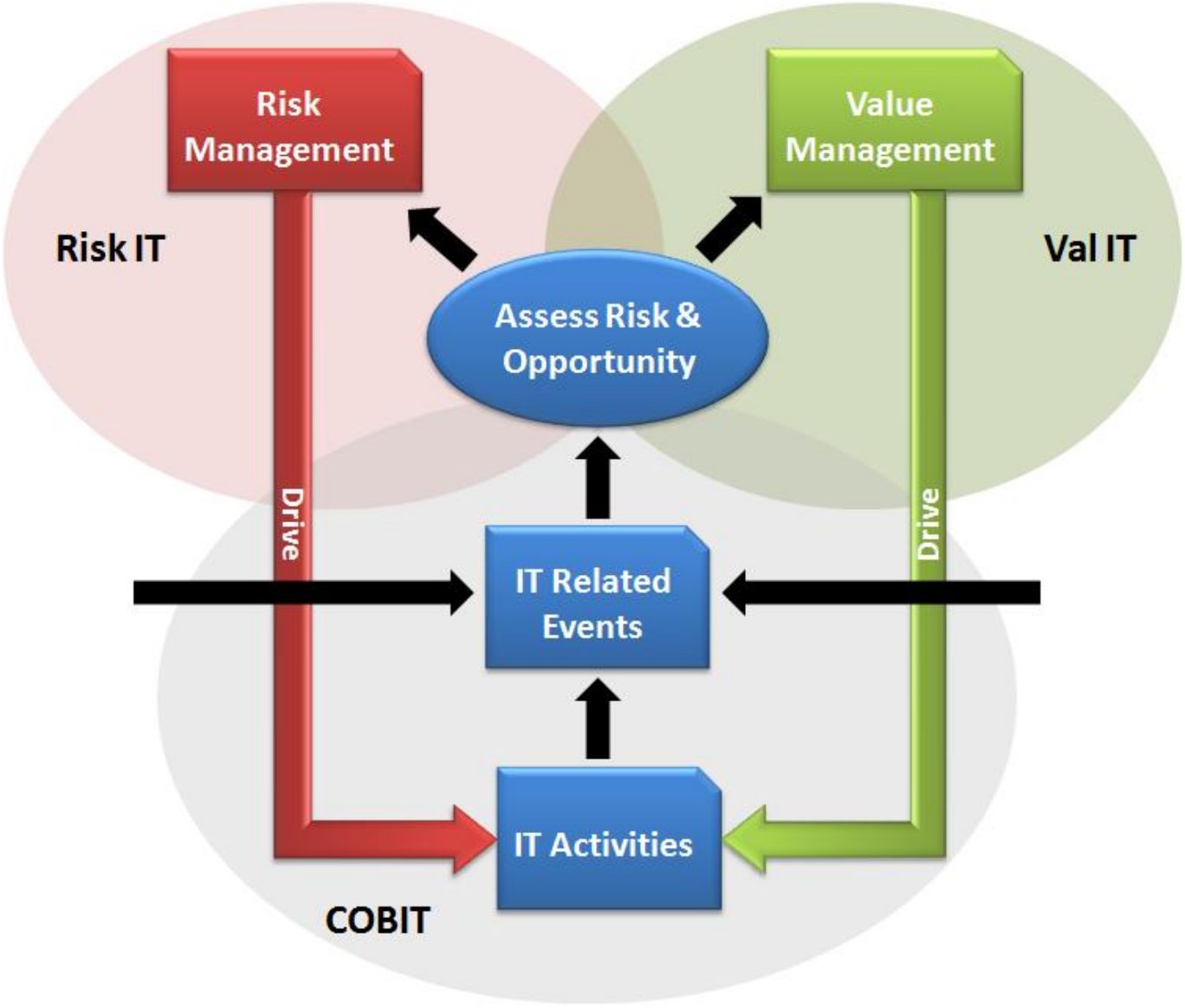
Trade-Off

- New business opportunities through use of IT
- Enhanced business value through optimal use of IT capabilities

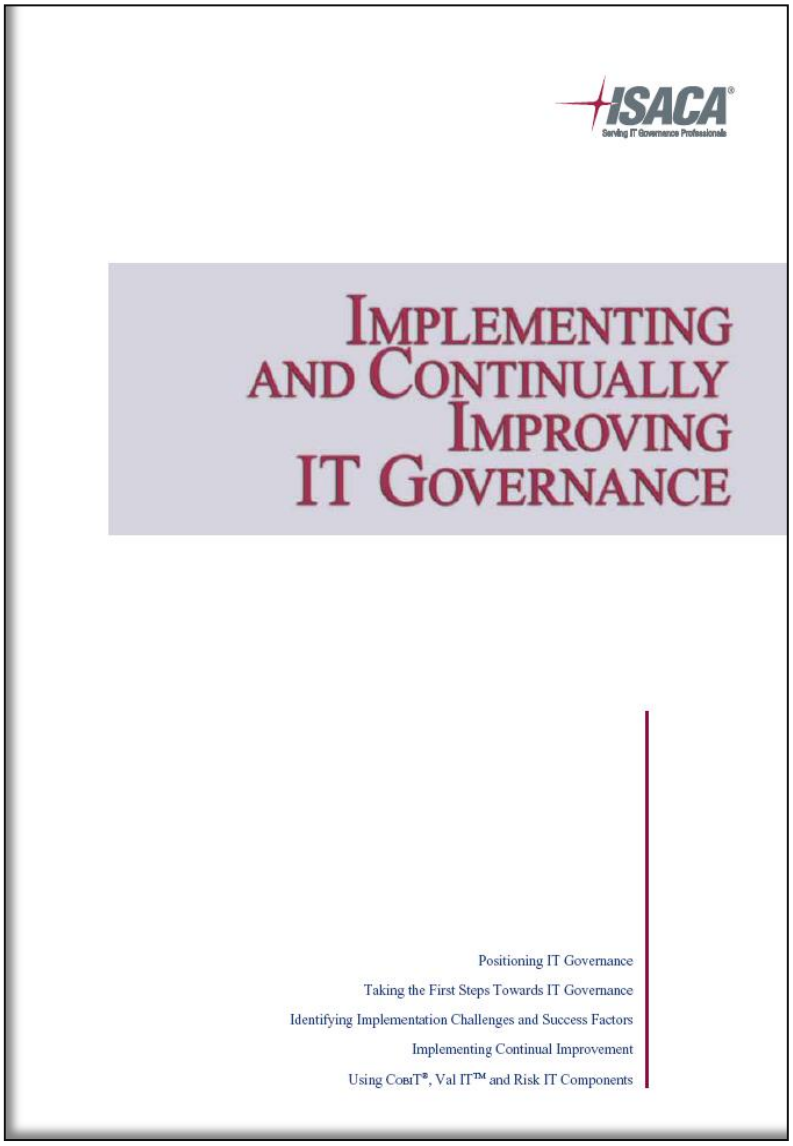
IT as Value Enabler

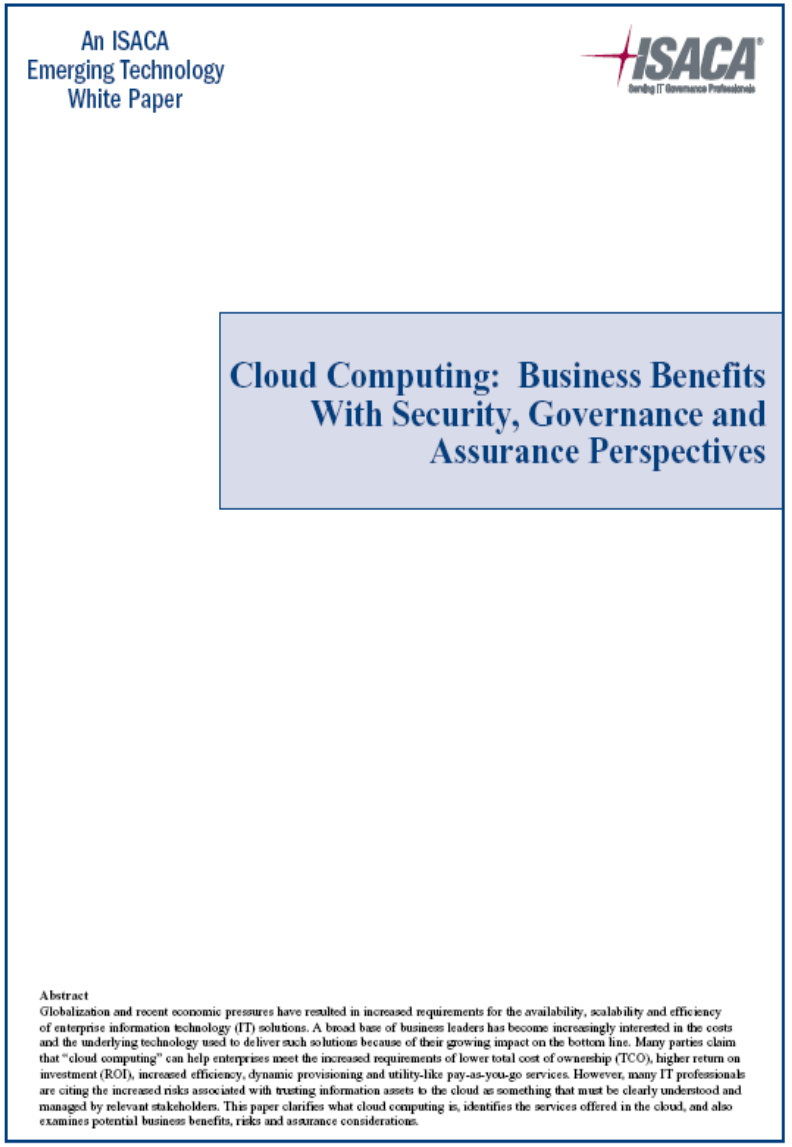
Risk & Opportunity





Positioning IT Governance





Creating the Right Environment

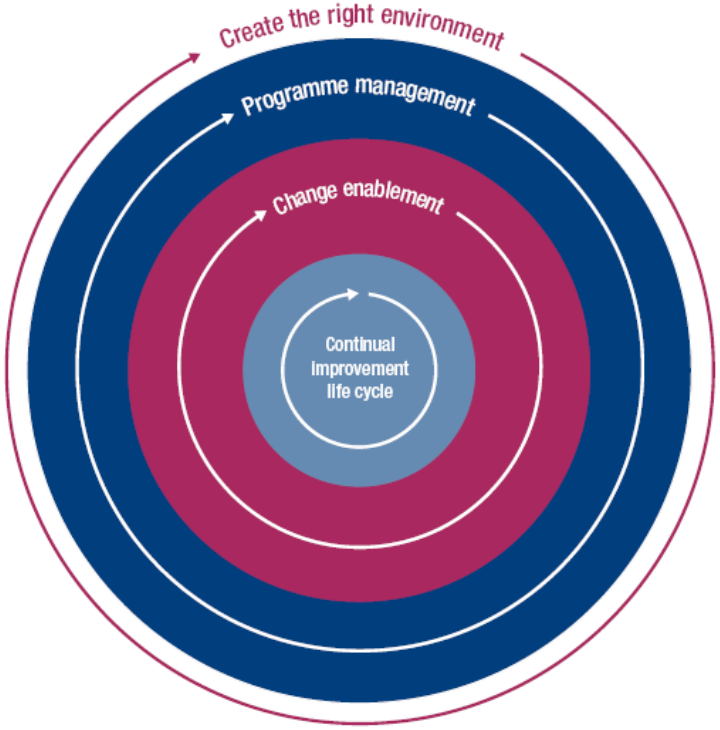
- Creating the right environment a pre-requisite for successful implementation so that IT governance processes operate effectively as part of normal business practice, there is a culture supporting this, and there is top management active commitment
- To foster successful governance of IT:
  - Include adequate direction and oversight, including guiding principles
  - Provide sufficient commitment, direction and control of activities that are aligned with enterprise objectives
  - Provide a foundation for ongoing implementation and operation of effective IT governance practices, in conjunction with process improvement activities

Creating the Right Environment

- Executive management should specify and design the guiding principles, decision rights and accountability framework for IT governance
  - Set the tone at the top
  - Encourage the desired control culture regarding the use of IT to support enterprise objectives
  - Allocate clear roles and responsibilities for directing the IT governance improvement programme
- Provide a mechanism for executive and board oversight and direction of IT activities e.g. IT Strategy Committee
- The executive should mandate adoption of an IT governance framework
  - Principles, Policy, Organisation, Structures, Processes and Practices
  - Integral part of enterprise governance
  - Ensure alignment of IT risk management within the enterprise risk management framework

Initiating the Lifecycle Approach

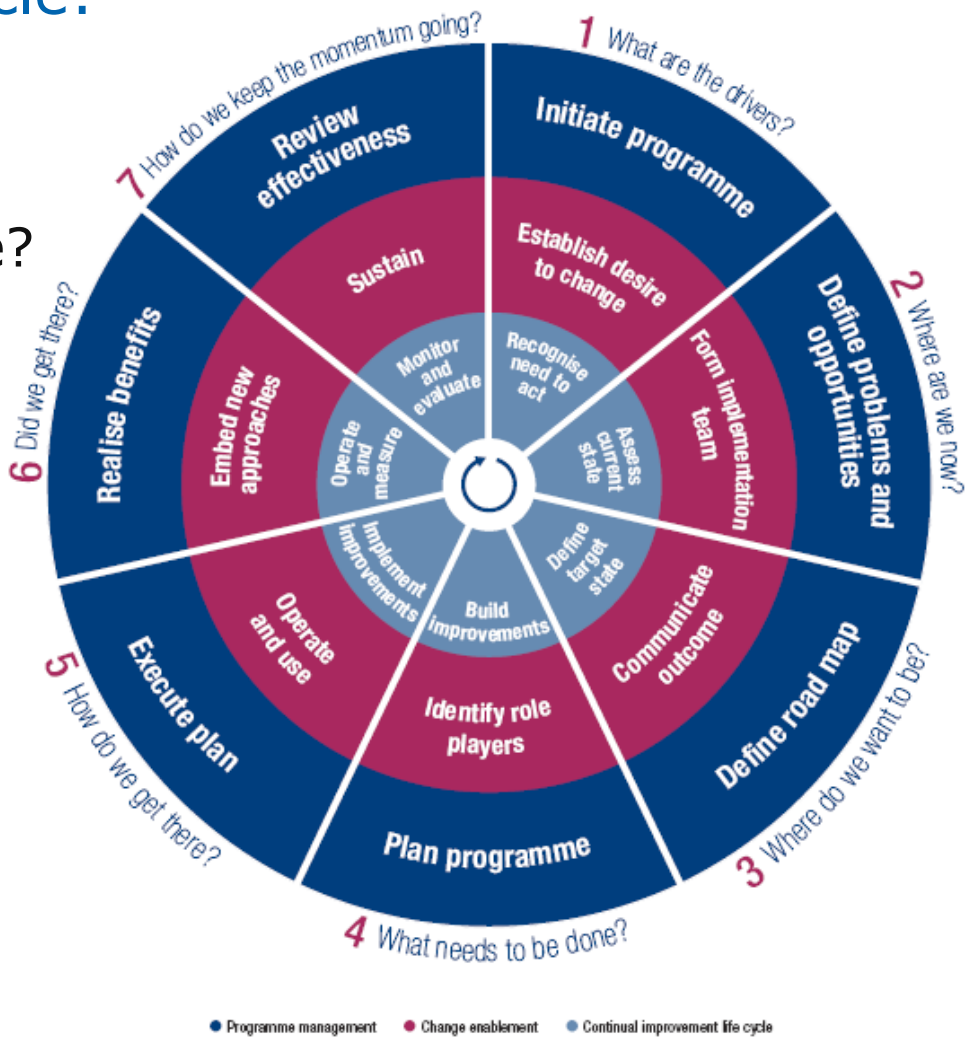
- Lifecycle provides ongoing improvement and iterative governance maturity
- Three concurrent activities:
  - Continual Improvement
  - Change Enablement
  - Programme Management



Implementing the Lifecycle

> Seven phases in the lifecycle:

- What are the drivers?
- Where are we now?
- Where do we want to be?
- What needs to be done?
- How do we get there?
- Did we get there?
- How do we keep the momentum going?



What Are the Drivers?

- Need for new or improved IT Governance Organization is usually recognized by organization Pain Points and/or Trigger Events
- Pain Points should be identified by management, audit, and risk and compliance processes
- Board and executive management personnel should:
  - Analyze Pain Points to identify root cause
  - Look for opportunities during trigger events
- Combination of realized trigger events and existing pain points provide the business case for improved or new IT Governance initiatives
- The goal of this phase of the lifecycle includes:
  - Outlining the business case
  - Identification of stakeholders and roles & responsibilities
  - IT Governance programme “wake-up call” and kick-off communications

Where are We Now?

- Define the Problems and Opportunities
  - Understand the pain points that have been identified as governance problems
  - Take advantage of trigger events that provide opportunity for improvement
- Form a Powerful Guiding Team
  - Knowledge of the business environment
  - Insight into influencing factors
- Assess the Current State
  - Identify the IT goals in respect to enterprise goals
  - Identify the most important processes
  - Understand management risk appetite
  - Understand the maturity of existing governance and related processes

Where Do We Want to Be?

- Define the Roadmap
  - Describe the high level change enablement plan and objectives
- Communicate Desired Vision
  - Develop a communication strategy
  - Communicate the vision
  - Articulate the rationale and benefits of the change
  - Set the ‘tone at the top’
- Define Target State and Perform Gap Analysis
  - Define the target for improvement
  - Analyze the gaps
  - Identify potential improvements

What Needs to Be Done?

- Develop Programme Plan
  - Prioritize potential initiatives
  - Develop formal and justifiable projects
  - Use plans that include contribution and programme objectives
- Empower Role Players and Identify Quick Wins
  - High Benefit, easy implementations should come first
  - Obtain buy-in by key stakeholders affected by the change
  - Identify strengths in existing processes and leverage accordingly
- Design and Build Improvements
  - Plot improvements onto a grid to assist with prioritization
  - Consider approach, deliverables, resources needed, costs, estimated time scales, project dependencies and risks

How Do We Get There?

> Execute the Plan

- Execute projects according to an integrated programme plan
- Provide regular update reports to stakeholders
- Document and Monitor the contribution of projects while managing risks identified

> Enable Operation and Use

- Build on the momentum and credibility of quick wins
- Plan cultural and behavioral aspects of the broader transition
- Define ‘Measures of Success’

> Implement Improvements

- Adopt and Adapt best practices to suit the organisation’s approach to policies and process changes

Did We Get There?

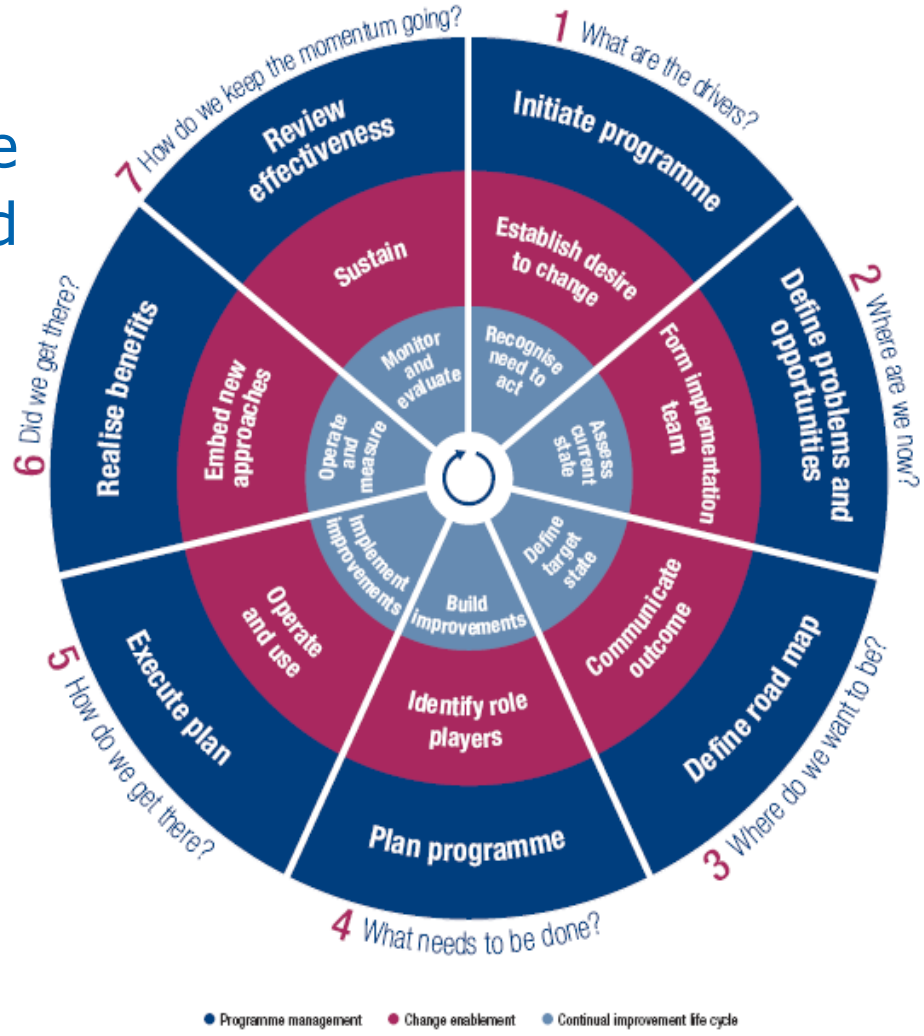
- Realize Benefits
  - Monitor the overall performance of the programme against business case objectives
  - Monitor and measure the investment performance
- Embed New Approaches
  - Provide transition from project mode to 'business as usual'
  - Monitor whether new roles and responsibilities have been taken on
  - Track and assess objectives of the change response plans
  - Maintain communication and ensure communication between appropriate stakeholders continues
- Operate and Measure
  - Set targets for each metric
  - Measure metrics against targets
  - Communicate results and adjust targets as necessary

Keeping the Momentum?

- Continual Improvements – keeping the momentum is critical to sustainment of the lifecycle
- Review the Programme Benefits
  - Review Programme effectiveness through a programme review gate
- Sustain
  - Conscious reinforcement (reward achievers)
  - Ongoing communication campaign (feedback on performance)
  - Continuous top management commitment
- Monitor and Evaluate
  - Identify new governance objectives based on programme experience
  - Communicate lessons learned and further improvement requirements for the next iteration of the cycle

Challenges to Success

- Experience of IT governance implementations shows there are practical issues that need to be overcome for the initiative to be successful and for continual improvement to be sustained



Enabling Change

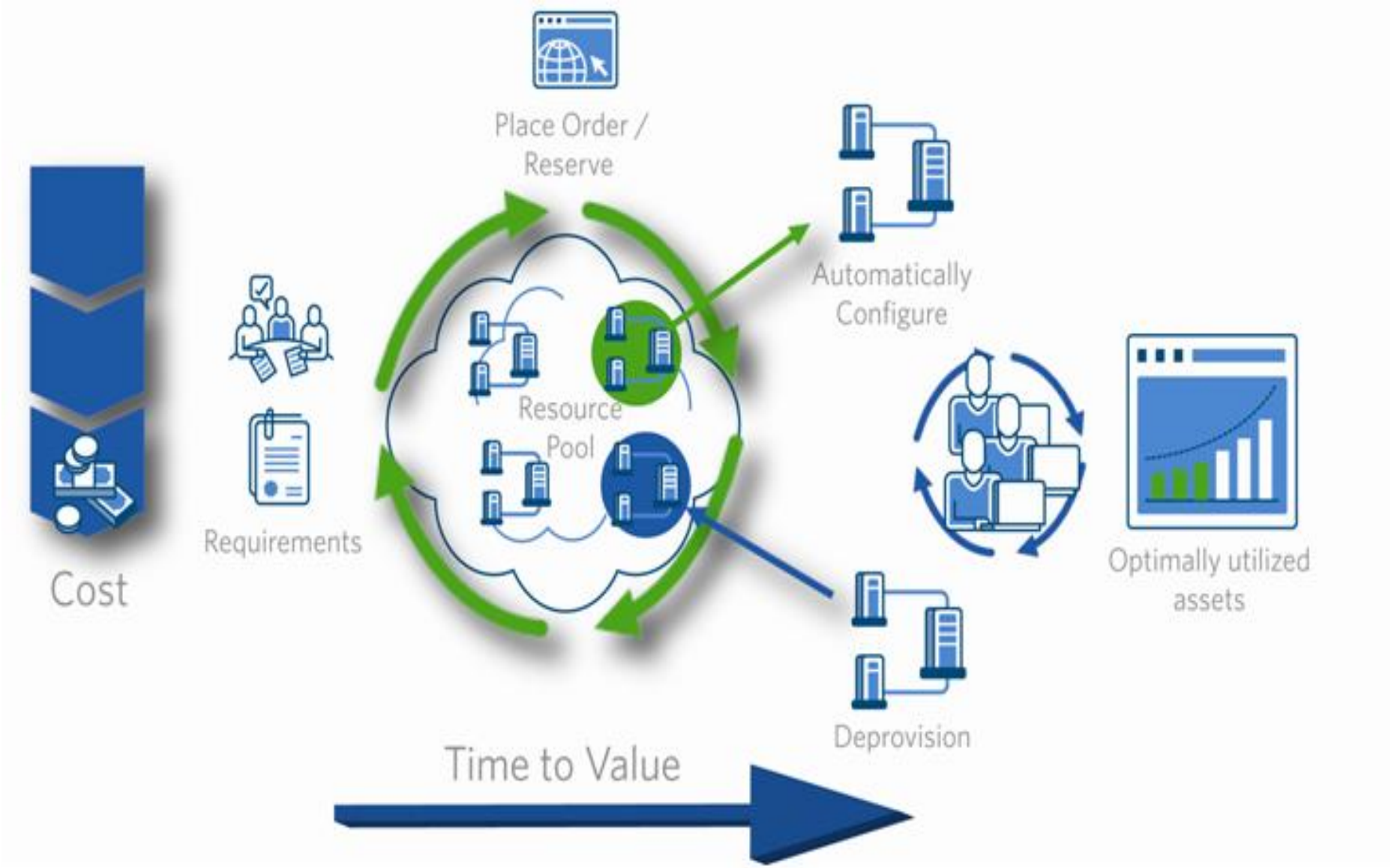
> Guidance provided at each lifecycle phase

> Based on Cotter Model:

- Establish a sense of urgency
- Form a powerful guiding coalition
- Create and communicate a clear vision, expressed simply
- Empower others to act on the vision, identifying and implementing quick-wins
- Enable use and implement improvements/produce more change
- Institutionalise new approaches
- Sustain

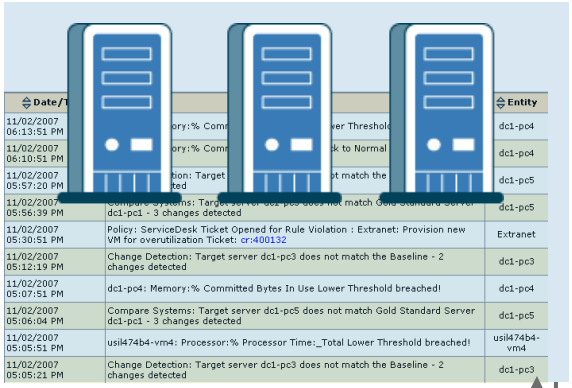
Cloud Examples

Self-service Resource Provisioning



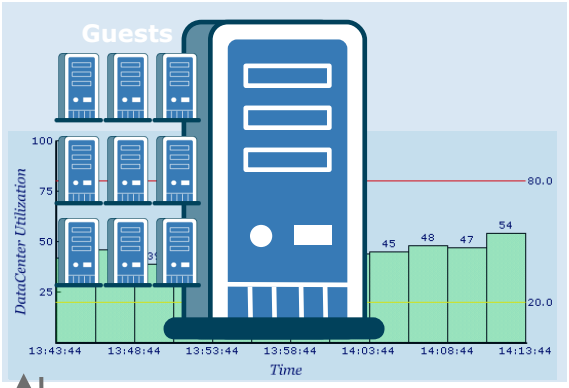
Physical and Virtual Server Provisioning: Across any Cloud

Order Entry Server Group



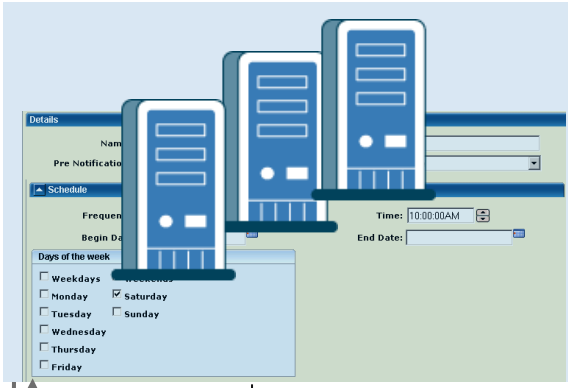
Alert with Approval

Online Web App Server Group



Dynamic

SAP Server Group



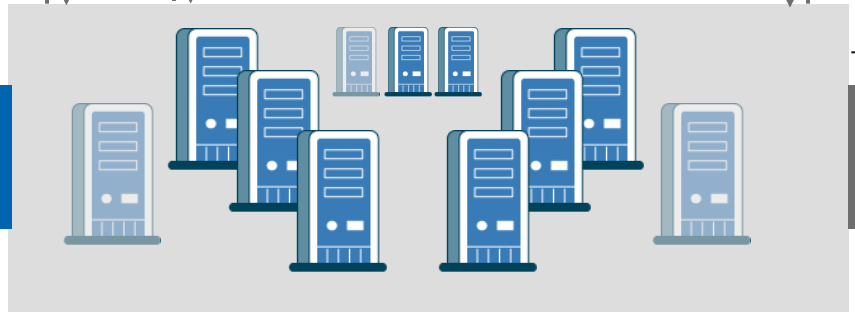
Scheduled

Provision & Verify Configuration

Benefits

- > High Availability
- > Reduce CAPEX
- > Reduce OPEX
- > Compliance
- > "Green" IT

Power Up

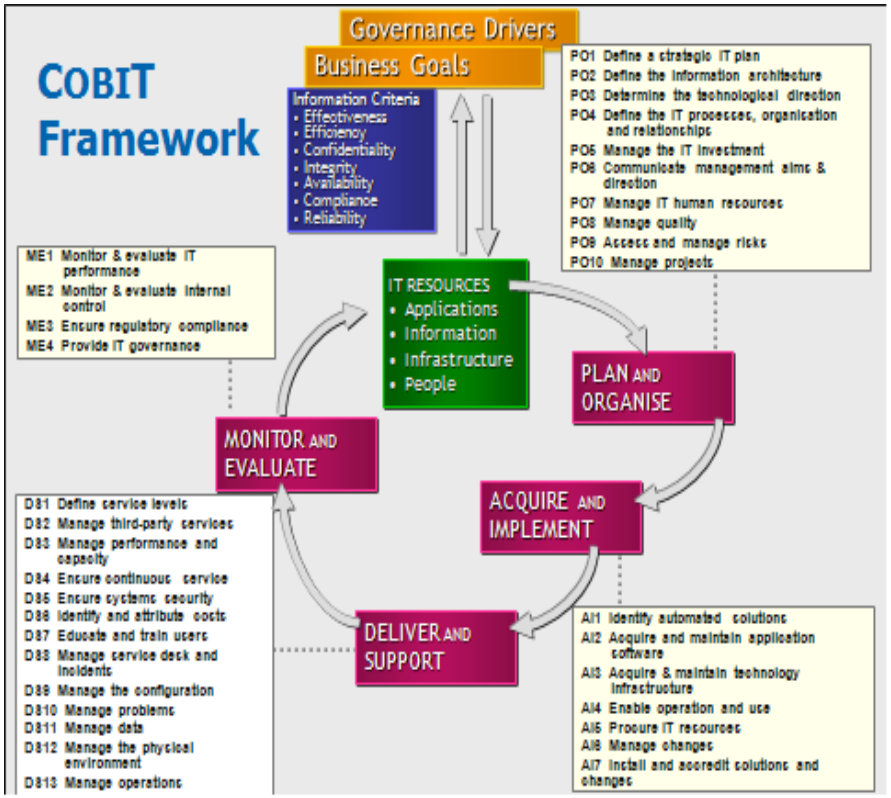


Pooled Resources

Power Down

Audit Events

Key Processes

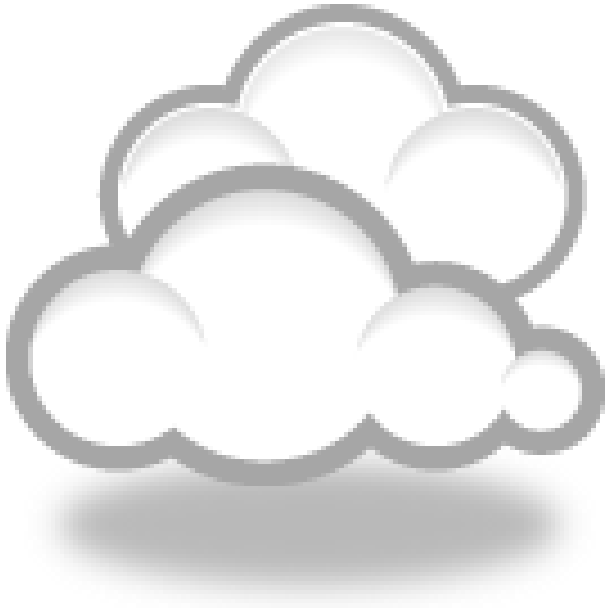


- > AI6 Manage Changes
- > DS1 Service Level Agreements
- > DS2 Manage third-party services
- > DS3 Manage performance & capacity
- > DS4 Ensure continuous service
- > DS5 Ensure systems security
- > DS6 Identify and attribute costs
- > DS13 Manage Operations

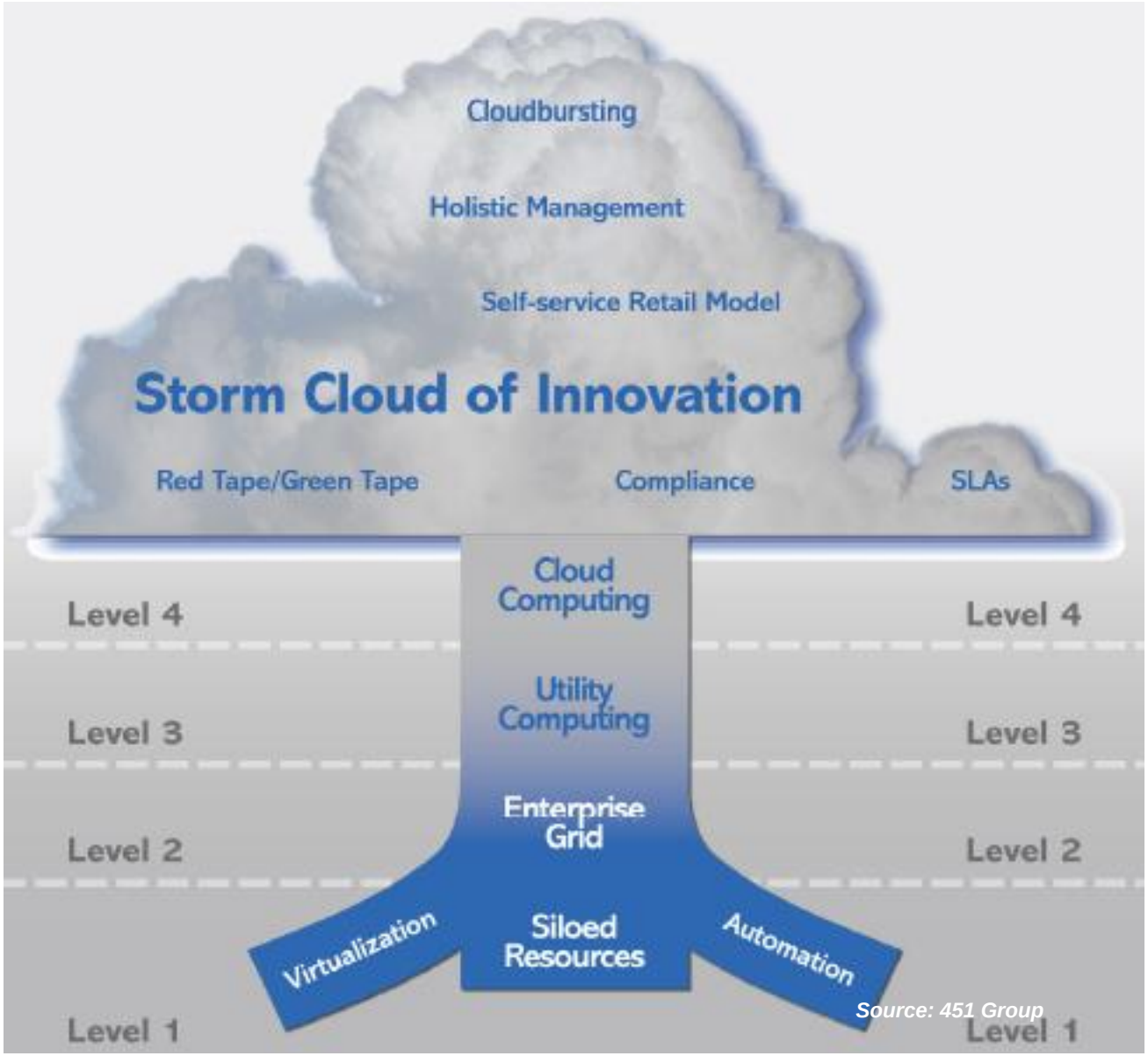
Conclusions

The Promise of Cloud Computing

- >Low barrier to entry
  - Reduced Capital expenditures
  - Less expertise required
- Low overhead
  - Pay for what you use
  - Low annual maintenance
  - Less unscheduled break/fix
- Greater IT to business alignment
  - Focused on business needs



Cloud Maturity Cycle



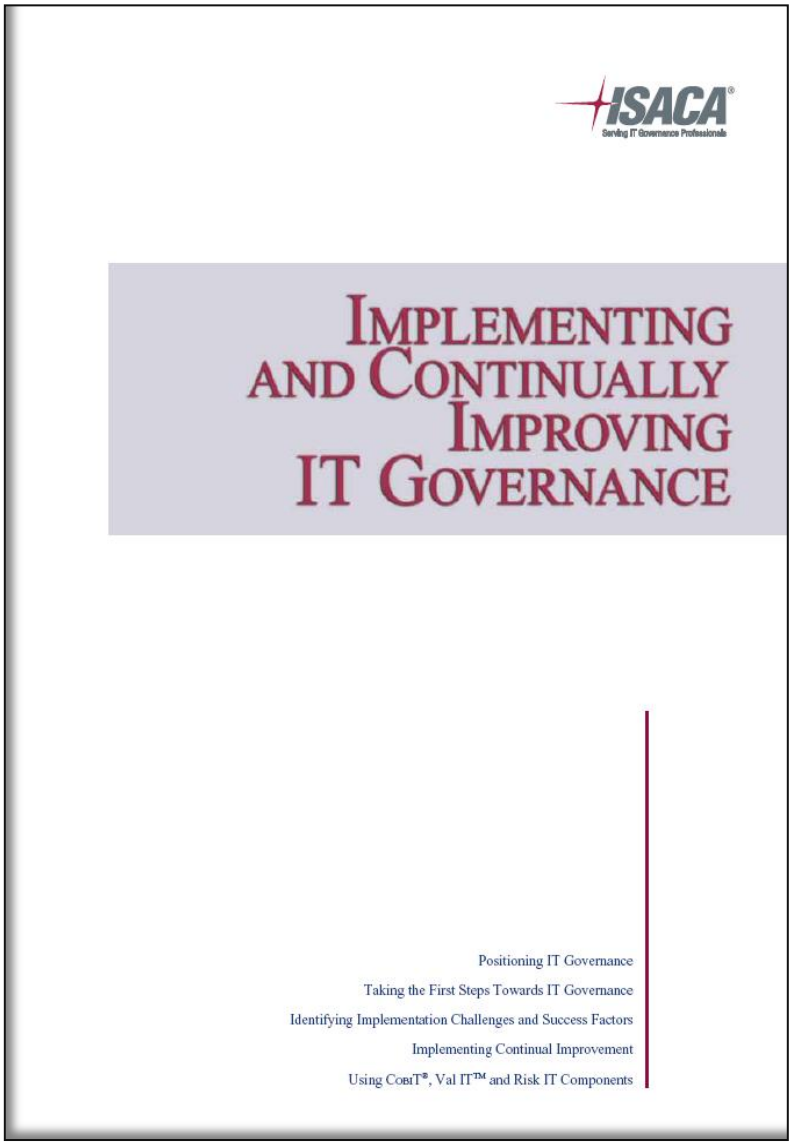
Source: 451 Group

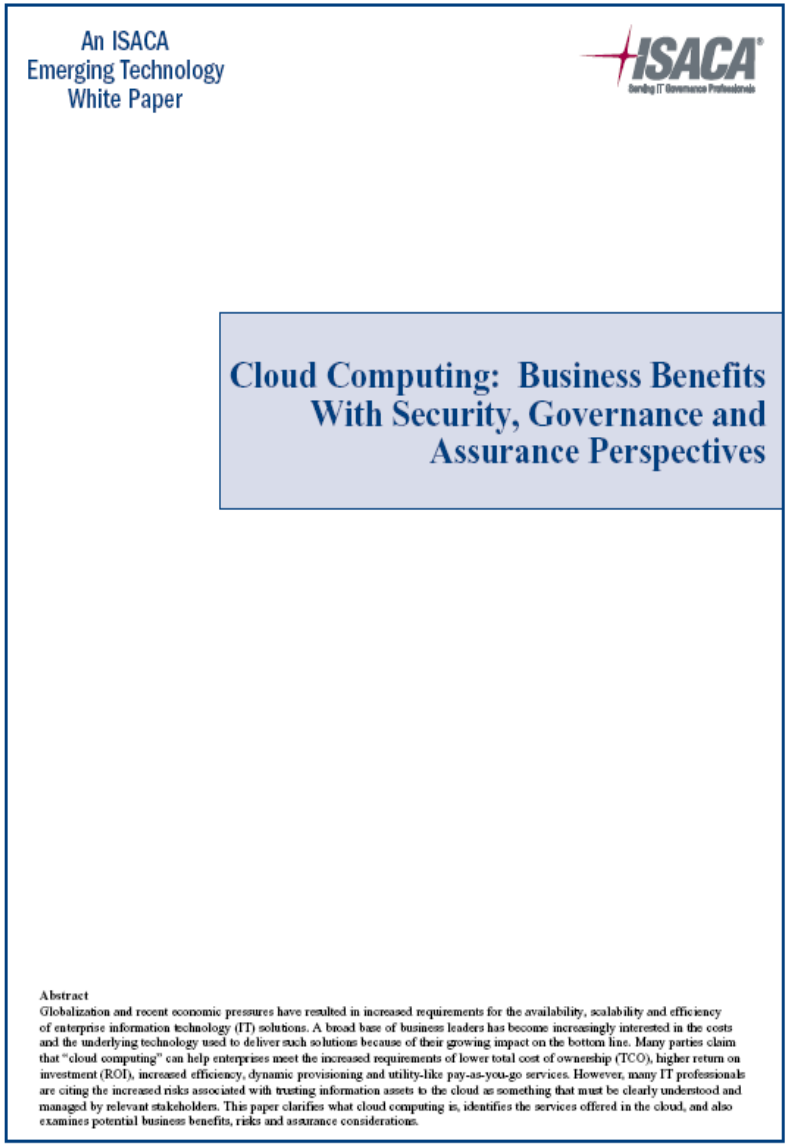
Business is Dependent on IT!

Positive customer experience your business lifeline!

IT is critical to delivering a positive customer experience to drive revenue and growth – Sound Governance is Required

Guidance is available





Thank you!

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