Modernising the public sector through the cloud

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Working definition

…ubiquitous

…convenient

…on-demand

…shared configurable resources

…rapidly provisioned

…minimal management, effort or service provider interaction

Types of cloud

Cloud Computing

Private Cloud

a dedicated resource provided by a cloud service provider for a single client/user

Public Cloud

an open resource open to the public

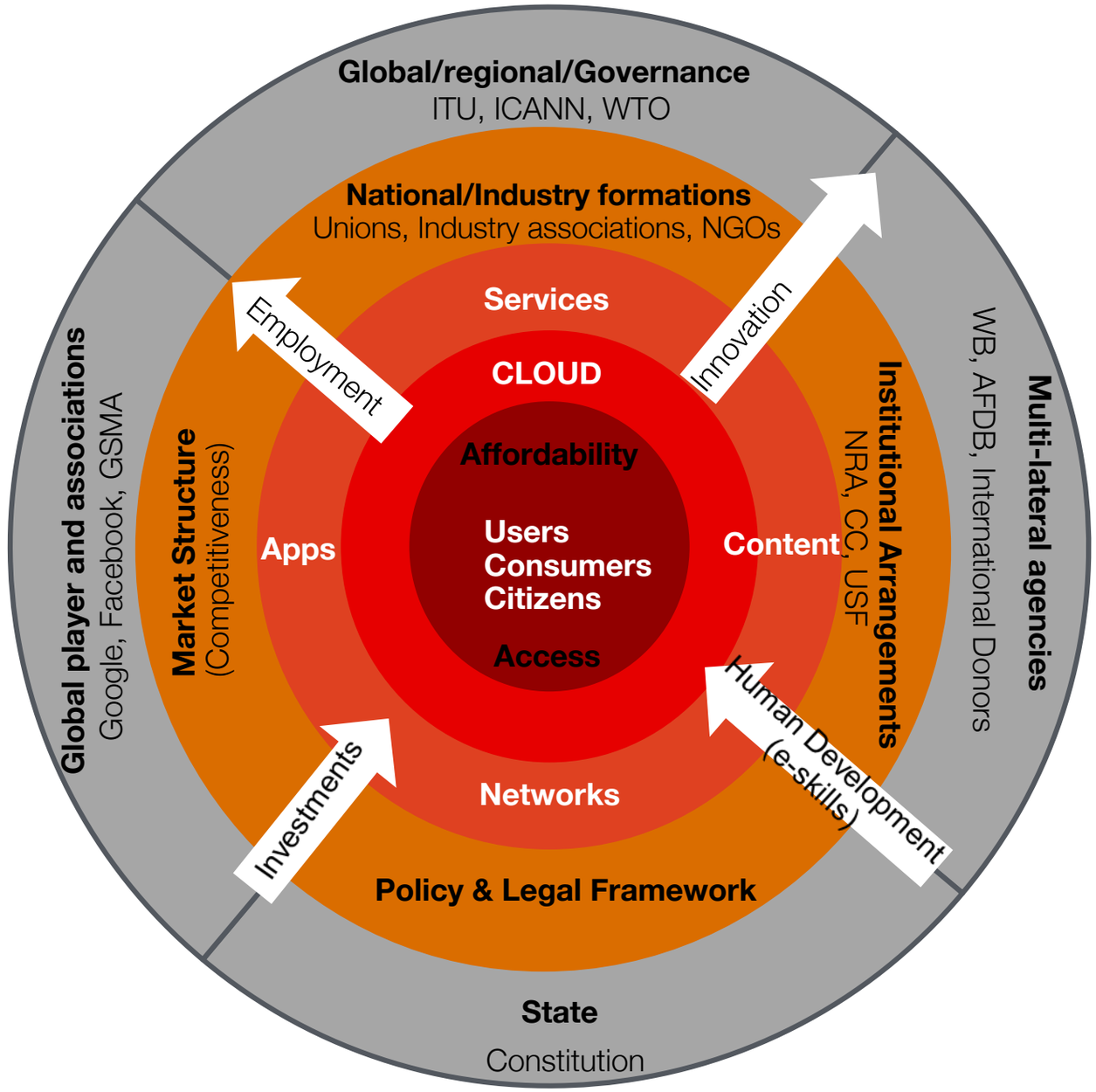
Hybrid Cloud

a mixture of the deployment models

SaaS, PaaS, IaaS, Cloud Consulting

Cloud in the ICT Ecosystem

Integrated perspective of users, markets, networks, services, applications & content, determining governance, legal and regulatory frameworks



Significance of the Cloud

Value of cloud computing for the public sector

Global standard for IT provision

Generic benefits

Efficiency at reduced public resources

Cost Savings

Key in times of stagnating economy and reduced government spend

Stimulates e-government

The South African Case

Context

- ICT a key enabler for the achievement of government policies for economic growth and development

BUT…

- Lack of affordable always on, high-speed and high-quality bandwidth (a key cloud enabler)

AND…

- With some exceptions, Government has lagged behind the private sector in the strategic deployment of ICT

Context (cont…)

AND…

- The private sector has cautiously adopted cloud computing, while response from government sluggish and uneven (SITA ‘initiative’ may fix this)

AND…

NO policy or uniform standards to direct the strategic development of cloud computing across the public sector

Context

RESULTING IN…

- Growing frustration amongst government with the inability to deploy cloud services

HOWEVER…

- Independent government agencies and some of the larger metros not bound by the SITA Act have adopted cloud for non-critical functions

Context

Supplier driven

Increased use by private sector

early adoption of e-commerce and e-government

Privacy and security concerns

ICT skills shortage

Fears of redundancy in human resources

Gvt. Uses cloud for non-critical processes

Slow modernisation of IT by government

protracted policy processes and delayed decision-making delaying adoption

Disconnect between policy and implementation

Government specific

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Context (cont…)

Barriers to cloud adoption in public sector

Technical barriers	Managerial and organisational barriers	Policy challenges
Broadband	**Incoherent approaches to management**	**Inadequate frameworks**
Vendor selection and quality of services	**Data residency concerns**	**Procurement permissions**
Privacy and Security	**Data costs**	**Cybersecurity, trust, awareness**
standards and interoperability	**Policy guidelines, classification of data**	**No ‘cloud first’**

SA Cloud Readiness

Policy & legal framework

✓ Strong legal frameworks in place to impact the development and adoption of cloud by the public sector….

✗ Sector specific laws, institutional arrangements and capacity are weaker, slowing adoption (despite some progress)

National Integrated ICT policy

Through the NICTP government has identified the following areas key for cloud readiness….

- facilitate access to IT resources on-demand without the need for significant capital expenditure….
- South Africa has not explored additional capabilities of the Internet that can support more sustainable data management and digitisation….
- South Africa will develop initiatives to promote localisation data centres to position South Africa as a data centre hub….
- Government will monitor developments in relation to cloud computing to assess the need for specific rules, standards, regulations and/or guidelines on cloud computing
- Government will embrace innovative ways of using the Internet and may develop relevant standards, policies and regulations relating to Digital Object Architecture…

Findings/Conclusions

Key findings and conclusions

Cloud services is best able to address the business challenges in the public sector

Human resource implications/up-skilling

Funding lumpiness - shift from Capex to Opex

Institutional arrangements - cohesion

Fragmentation of mandate in government

Lack of coherent public policy/ public sector guidelines

Restrictive procurement rules

Recommendations

Recommendations

- Improve availability and quality of broadband infrastructure (critical mass, network effects, growth)
- Position cloud as a solution to capital/skills shortages
- Create a secure, trusted environment for the Internet (e-commerce, e-government)
- Develop a cloud computing policy framework for public sector
- Enable shift from Capex to opex in public sector
- Establishing government working group (SITA (DTPS),GITOC, Treasury, academia/civil society)
- Establish a designated champion for cloud computing services
- Implement and enforce open and interoperable standards to public procurement
- Adopt best practices to develop security framework for cloud services
- Expand data classification guidelines to include cloud computing
- Provide guidance for cloud vendor certification and compliance

THANK YOU

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