

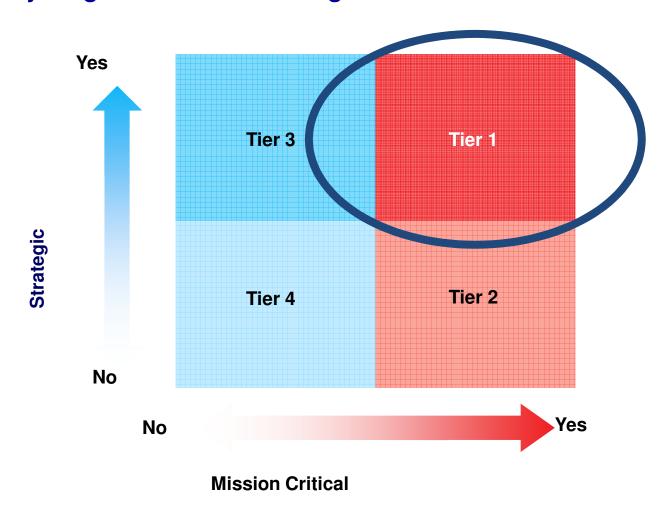
If your head is in the cloud, where are your feet?

The near future of cloud is Hybrid

Bart Bogaert

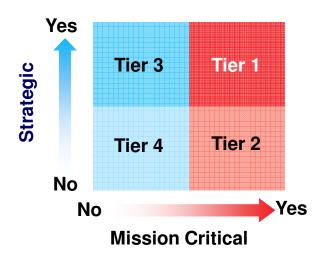


Everything we do in IT is strategic and business critical





Everything we do in IT is strategic and business critical ... or not?



- Most clients have many Tier 4 and relatively few Tier 1 applications
- Start by migrating Tier 4 applications to a cloud environment, moving lowest-risk applications first
- Apply lessons learned to subsequent migrations of higher tier applications

	Tier 4	Tier 3	Tier 2	Tier 1
Application Class	Not strategic or mission critical	Strategic but not mission critical	Mission critical	Key - Most critical
Typical distribution	55%	20%	20 6	5%
Availability required	Low 95% or less	Medium 95-98.5%	High 95.5-99.7%	Very high Never down
Support effort	Rest effort	Business hours	24*7	24*7
Monitoring	No mo. Horing	Basic server	Infrastructure	Application level

IBM. Ö

Make sure you choose the right cloud-mix

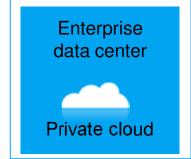


Private

IT capabilities are provided "as a service," over an intranet, within the enterprise and behind the firewall

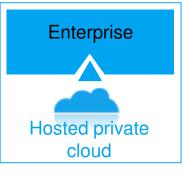
Public

IT activities / functions are provided "as a service," over the Internet

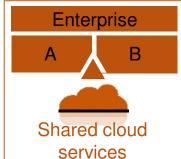








Third-party hosted and operated



Users

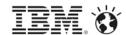
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Public cloud services

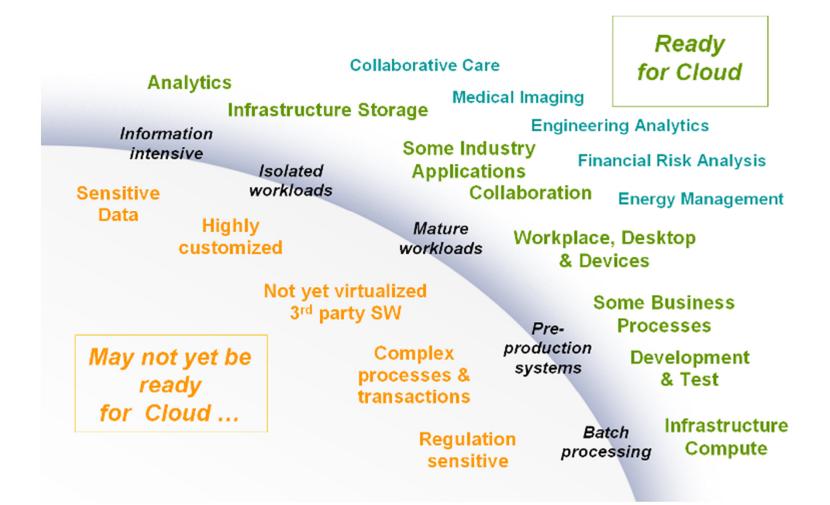


Decide by objective criteria

rivate Cloud		Public Cloud
low	Variable workload	high
high capex	Cost	opex
low	Cloud provider dependency	moderate
high	Accessibility to data	guarantee
guaranteed	Privacy of data	guarantee
high	Skills needed	low
intensive	Maintenance operations	none
intensive	Security operations	reduced
privat	Security policy	market
low	Network access	can be hig
high	Network bandwidth need	low



Still, combining workloads not ready for cloud and workloads ready for cloud, or already in the cloud read is today's challenge



Hybrid IT: bridging traditional IT with all cloud delivery models



Private cloud

On or off premises cloud infrastructure operated solely for an organization and managed by the organization or a third party



Available to the general public or a large industry group and owned by an organization selling cloud services.



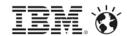
Traditional IT and clouds (public and/or private) that remain separate but are bound together by technology that enables data and application portability

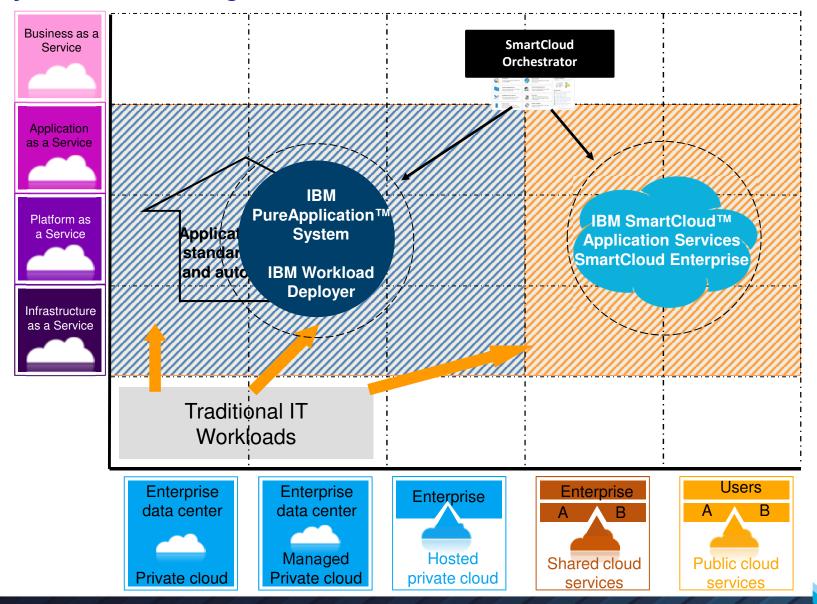


Traditional IT

Appliances, pre-integrated systems and standard hardware, software and networking.

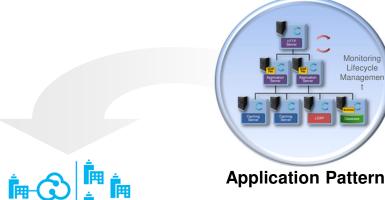
Hybrid Cloud: integration and orchestration





IBM SmartCloud supports Application Patterns across deployment options







Deploy patterns to your existing infrastructure with **SmartCloud Foundation**

Deploy patterns to PureApplication System **Deploy patterns to SmartCloud Application Services**





IBMSmartCloud

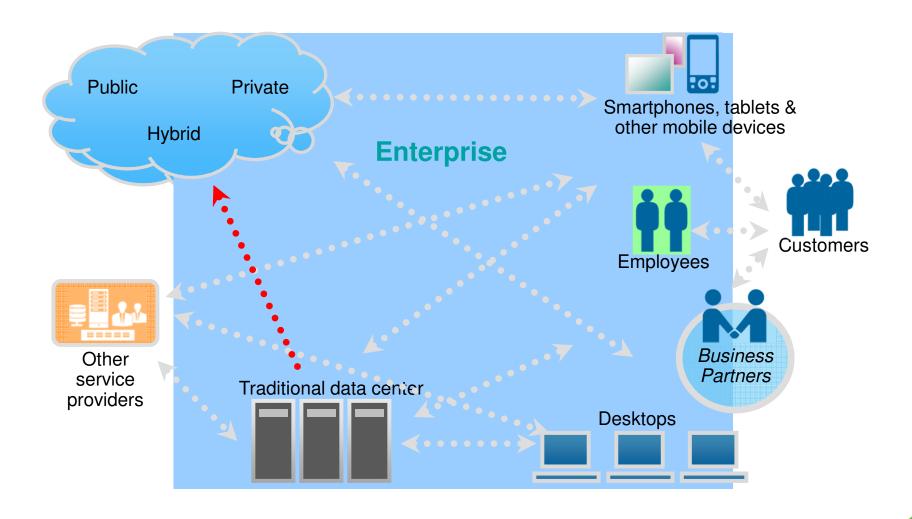
Private Clouds

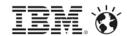
IBMSmartCloud

SmartCloud Application Services SmartCloud Enterprise



The future of the CIO Office





... with expected challenges ahead on multiple dimensions

Integration

How to connect on-premise services and data to off-premise counterparts, including business data mapping and service integration.

Security

How to integrate on-premise/offpremise identities, policies, auditing systems; how to ensure proper security of off-premise cloud workloads; How to secure management and payload interactions.

IT Service Management

Operational aspects of IT services and cloud adoption impact on IT processes.

Management

Manage capacity in the cloud; provisioning- and de-provisioning based on monitoring data, capacity overflow from on-premise to Cloud; DR and resiliency.

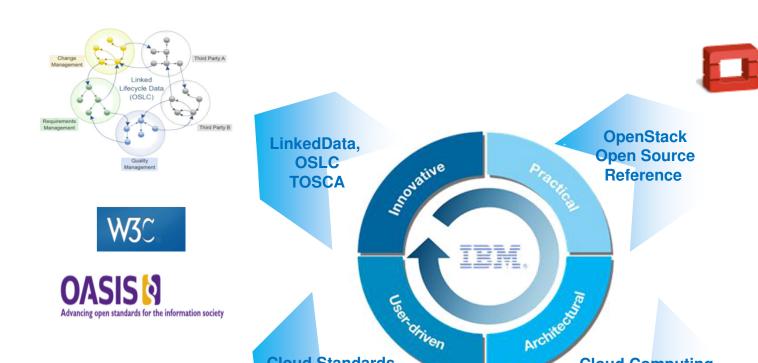
Governance

Who can, does, or should use which cloud-based services; characteristics of service request management of on- and off-premise resources.

Monitoring

Integrate monitoring of off-premise infrastructure and applications with an on-premise management system; Enable on-premise monitoring and event infrastructure to reach into clouds.

Pay close attention to vendor lock-in, even with cloud services ...



Cloud Standards

Customer Council

(CSCC)





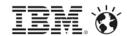
Cloud Computing

Reference

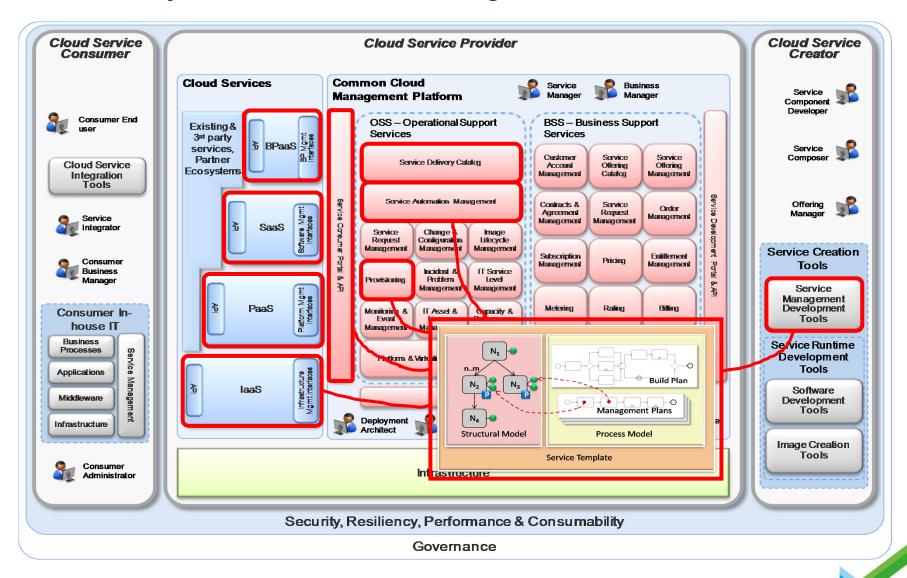
Architecture

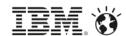
(CCRA)

openstack*

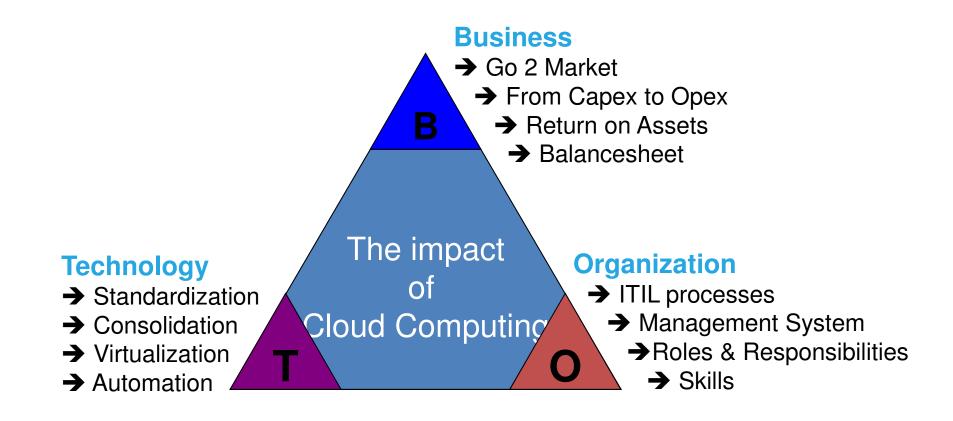


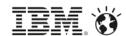
... and stay in the driver's seat using architectural control





... but don't forget that only 10% is about technology





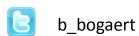
Final Messages

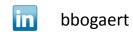
- Define your sourcing strategy to include cloud services
- Always stay in control of your IT landscape:
 - Architectural
 - Security
 - Governance
- Make your cloud journey one that is adaptable, there will not be an definitive end-point anymore
- Make sure cloud services are properly imbedded in your organization



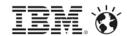








facebook. bbogaert



About me ...



Bart Bogaert
Business Development
Executive at IBM
2 Eng Degrees (Ghent)
Ph.D. (Tilburg)
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Traveling



Born in medieval Manhattan (Ghent), Worked for Siemens (DE and BE) and IBM in international and national functions.



Flying (private licenses JAR and FAA)



Proud father of two daughters, oldest loves ninja fighting and skiing, youngest plays violin and dances ballet.



Photography