Cloud Feasibility Assessment – Benefits of Transitioning to Cloud

A transition to Cloud would provide the University with the following direct and indirect benefits

DIRECT BENEFITS
CLOUD CAPABILITIES & FEATURES

INDIRECT BENEFITS
CLOUD CONSUMPTION ENABLES...

Scalability

Movement of workloads to Cloud will allow the University to instantly scale up or down in line with student and researcher demands. This will allow the University to maintain quality services as it grows and account for volatile or seasonal application usage (e.g. peak enrolment periods).

Self Service & Self Provisioning

A Cloud environment will allow for greater adoption of self-service and provisioning, particularly in the research space. Graphical user interfaces and Cloud tools can be set-up to allow users to run their own workloads and have visibility of the costs and metrics associated.

Reduced Environmental Impact

The University will not need to disrupt it's natural environment to build a new Data Centre and will contribute to lower greenhouse gas emissions through use of more efficient facilities offered by public Cloud providers.

Creation of New Revenue Streams

The University can capture additional revenue streams by providing researchers with Cloud services through a portal that is managed by IT. As a result, researchers will no longer need to procure their own hardware to run research workloads and the University will be able to capture this expenditure.

High Availability

Infrastructure will be highly available in the Cloud with fewer outages experienced and less downtime. Applications will exist across a number of disparate Cloud Data Centres and can auto recover or terminate and restart if performance drops enabling continued quality of services.

Flexibility

The University will have access to the full range of programming models, operating systems, databases and architecture with which they are familiar as well as new services available through the market place. The University will not be locked into infrastructure purchases and will have more freedom of choice.

Focus on Value Adding Activities

The University can free up its resources to focus on more growth and transformation activities. This will give staff more time to uplift the environment, develop new service offerings and improve the student and researcher experience rather than keeping the lights on.

Improved Brand Perception

Movement to a full Cloud environment will enhance the University's brand and reputation as a forward-thinking University. In addition, the Cloud Platform can become a selling point to attract technology students and researchers to collaborate.

Automation and Ease of Management

Platform and application automation will enable greater ease of management across patching, security, provisioning, testing, deployment and logging. These operational areas become integrated into the service that the University consumes allowing quicker deployment of services.

Greater Security Controls

Cloud environments keep track of all changes made through logging and can make use of the latest firewalls and security features to reduce the likelihood and impact of cyber attacks and internal mistakes.

Greater Agility and Time to Market

Ease of development and provisioning in the Cloud will enable the University to quickly spin up new ideas and test them. This way of operation lends itself to greater agility through learning fast and taking ideas to market or further iterating upon them.

Cost Avoidance and Cost Savings

Through not building a Data Centre, the University will achieve upfront cost avoidance. Whilst this will be partially offset by the need to increase investment in Cloud migration, it will drive a reduction in costs long-term through a reduction in IT overheads.

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Cloud Feasibility Assessment – Risks and Mitigations

Detailed below are some of the key risks and considerations of conducting a large Cloud Transformation

	Risks	Mitigations
People	**A. Skills** – The IT Team is not equipped with the skills to manage the transition to the Cloud Platform.	Establish Cloud Function and training program in line with recommendations from the Operating Model.
	B. Capability – Unable to develop new capability quickly in line with platform migration.	Develop standards and build patterns to be used for application deployments in the Cloud.
	C. Future Needs – The University is not able to adapt to support unanticipated future needs.	Augment capabilities of University staff with managed services providers and partners.
	D. Risk Averse Culture – The IT team is averse to the change from the current ways of working.	Run sessions with Senior Leadership and have managers lead the change. Run a town hall with all IT staff.
Process	**E. Manual Workload Increase** – Early migration activities may initially delay current IT processes and increase manual workloads.	Optimise Cloud environments for automation by developing decision criteria that is independent of human intervention.
	F. Legal Requirements Mandated – The University needs to ensure compliance with changing regulatory requirements.	University legal team be up to date on Cloud service adoption and conduct regular audits of the Cloud Enablement Function for compliance.
	G. Security Breach – Security policies may not be enforced leading to data compromise.	Define and run regular security audits and penetration testing to ensure Cloud security is maintained across the network.
	H. Procurement – Risk that delays in approval slow the procurement process and reduce the amount of time available for migrations.	Migration partner to work closely with procurement to provide all required information in a timely manner, not to exceed 2 days.
Platform	**I. Vendor Lock-In** – Movement of an entire environment to Cloud creates a dependency on the provider.	Leverage non-proprietary Cloud services to enable interoperability and enable multi-Cloud platform to prevent lock-in.
	J. Changes to Cloud Costs – Risk that costs of Cloud services will increase, straining the IT Budget.	Negotiate price-protection with Cloud providers during procurement process and optimise the environment against cost.
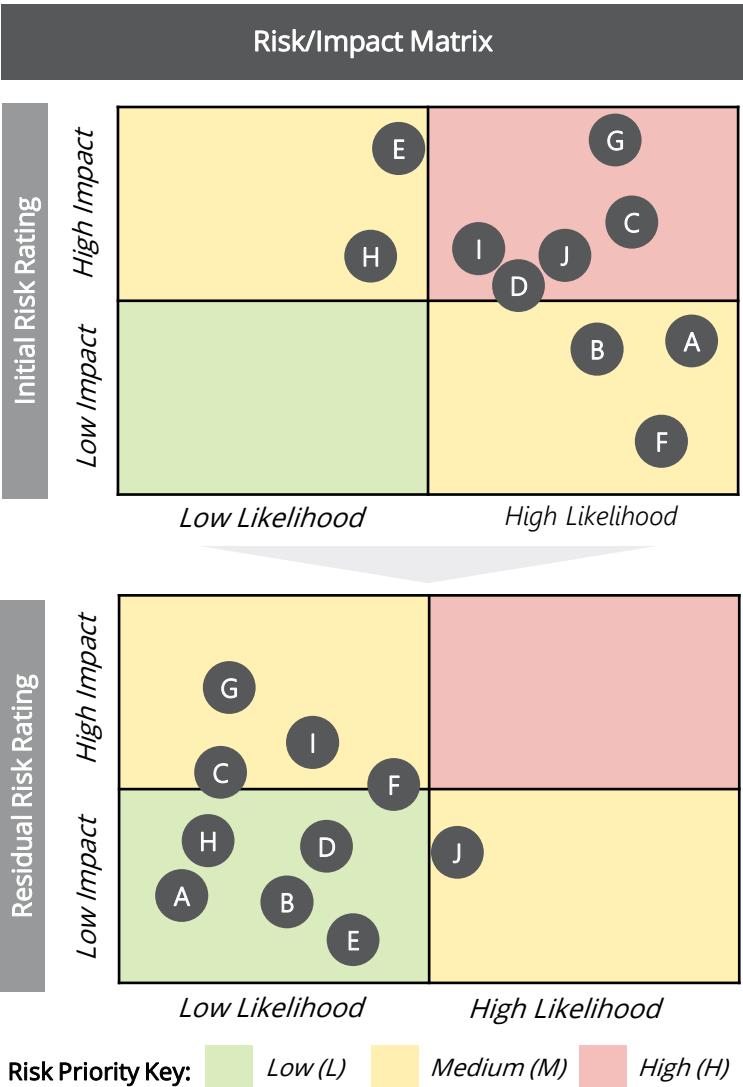
Risk/Impact Matrix

Please note, mitigations and the risk/impact matrix were not a key part of the ideal answer, but are a good frame of reference to use when discussing risks.

Risk Priority Key: Low (L) | Medium (M) | High (H)

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Cloud Feasibility Assessment – Considerations for Transitioning to Cloud

Before the University embarks on the transition journey, the following should already be in place to ensure successful cloud adoption

Executive Sponsorship
Executive sponsorship from the University Board is vital to create strategic alignment, set vision & goals, and assign resources to propagate & sustain the cloud initiative

Program Governance
A well designed governance enables consistent and efficient execution of the day-to-day activities through the migration design and execution

Business Case
It is essential to create a business case and perform financial analysis to assess expected business benefits, migration costs, and cloud TCO

Application Assessment
Application assessment enables identification of cloud suitable candidates and drives concentrated efforts to migrate shortlisted applications

Cloud Strategy
It is critical to define cloud strategy, charter and guiding principles focused on cloud adoption, migration repeatability and efficiency

Operating Model
The right Operating Model lays the foundation of success for both, the ongoing migration efforts and the target state objectives

Security & Risk Management
Security and risk management need to be taken into consideration while designing the app target state

Migration Methodology
Migration methodology which is designed based on industry best practices and has a proven record is crucial to program's success

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