Cloud Suitability Assessment – Cloud Accelerators and Inhibitors

Highlighted below are they key factors that determine whether an application is suitable for Cloud or not

Accelerators

Highlighted below are factors that would signify that workloads are Cloud suitable.

Highly Volatile or Unpredictable Usage Patterns – Can take advantage of Cloud scalability to cater to user demand at all times. Hosting these workloads on premise would require careful planning and/or overprovisioning.

Overprovisioned Applications – Applications that consistently have a low (<40%) utilisation of resources are likely overprovisioned. A Cloud offering would remove some of this sunk infrastructure cost.

Dev/Test Environments – Sandbox environments can be easily scaled up or torn down on demand in the Cloud and are prime candidates for migration.

Infrequently Accessed Storage Archives – It can be more cost effective to host large storage volumes that do not require frequent or immediate access.

Application Scales Out Horizontally – Applications that scale out horizontally are typically good candidates for Cloud as they need more machines but do not require high specifications (vertical scale out).

End of Life (EOL) – Applications, or underlying infrastructure, reaching end of life provides a burning platform and is imperative for decoupling workloads from infrastructure and migrating to Cloud.

Existing SaaS Offering – Applications that have an existing Software as a Service offering are simpler to move to Cloud as they do not require any change to the code base but only a change to the subscription model for the service.

Low Degree of Integration – Applications with less integration and touchpoints with other systems are simpler to shift to Cloud as there is no need to unpick all the points of connectivity and ensure that these flow in the new environment.

Low Degree of Customisation – Applications with less customisation will require less refactoring, or changes to the code base when being moved to Cloud, making them simpler migrations to conduct.

Cloud Suitable

Inhibitors

Highlighted below are factors that would hinder the suitability of a workload for Cloud.

High Network Throughput Applications – Applications with high throughput requirements may see performance issues and latency if they are located away from their users.

Heavily Integrated Applications – Applications that are heavily integrated will continue to require a high amount of communication or dependencies with their counterparts. In this case it is recommended that they remain together, be it in the Cloud or on premise.

Desktop Applications – Desktop applications typically have high performance and low latency requirements; hence, recommended to remain as is.

Infrastructure Management Applications – Infrastructure management applications are better positioned on premise with the infrastructure appliances that the applications communicate with.

Hardware Dependencies – Configurations that make use of high specification, obsolete or rare equipment are better off in the Data Centre and may not be supported Cloud products.

Security Infrastructure – Security infrastructure should remain on premise to ensure proximity to the environment and related appliances.

High Degree of Integration – Applications with a large amount of integration need to have detailed discovery and analysis of their application flows and connections to other systems to ensure these are accounted for in the Cloud.

High Degree of Customisation – Applications with a large amount of customisation need to have a more detailed discovery and analysis of the application changes to ensure that all the custom features are accounted for in the Cloud.

Less Cloud Suitable

Please note, inhibitors are not part of the ideal answer, and have only been included here for reference.

Cloud Suitability Assessment – Application Prioritisation

Highlighted below are the applications that should be prioritised for the Cloud Proof of Concept (POC) and a brief justification as to why

Priority	Application	Justification
1	Confluence	• Confluence could easily be shifted to the Atlassian Software as a Service (SaaS) offering with minimal effort. • It is typically used for document storage, which would make it simple to transfer files and does not have any sensitive data or an immense volume of it. • Furthermore, the application has minimal customisation meaning it would not require refactoring or changes to the code to move to Cloud.
2	Enrolments Plus	• The enrolments application would be highly volatile in its usage, with a lot of activity at the start of a term, followed by minimal use throughout. • It is not heavily integrated and does not contain sensitive data making it simpler to move to Cloud. • Furthermore, the application has Dev/Test environments which could be moved first as part of the transition and is not heavily customised, meaning it will not need significant refactoring to be moved to Cloud.
3	Echo360	• Echo360 is used to stream video and audio content from lectures to students. It has highly volatile use which is well suited to the scalability and elasticity of Cloud infrastructure. • In addition, the application is not highly customised and has a lot of data that is not sensitive. • Furthermore, the Development and Test environments for this application could be migrated to Cloud first, allowing the developers to sandbox new ideas in the Cloud and get ideas to market faster.
4	Student Feedback Survey	• The student feedback survey is a simpler application with a low degree of integration, minimal data and only moderate customisation • The application has some development and test environments and does not contain sensitive information making it a low risk option for Cloud transition.
5	SharePoint	• SharePoint has existing SaaS offerings which would accelerate its transition to Cloud. • It is somewhat volatile, but does not have much in the ways of integration or sensitive data.

Please note, the above is an example of an ideal response based on some of the criteria that we have selected. You may have had a different answer based on the criteria you researched, which would still be relevant depending on how well you were able to justify the choice. In reality, the vast majority of applications can move to Cloud. In this case, there were only a few listed in the Application Portfolio that we would not recommend to begin with as part of a Proof of Concept including:

- Research Master and Medical Clinic – as these contain sensitive research and medical data. It is better to start a POC with less sensitive applications.
- Data Warehouse and Mulesoft – as they are very heavily integrated and it would be difficult to unpick these for a POC.
- Photoshop – as it is a Desktop application. Whilst you can run desktops in the Cloud (Desktop as a Service) it is a more advanced use case.

All other applications could be well justified based on the criteria you researched and the data provided.