

Sheffield Hallam University & CoreAzure: Cloud Readiness Assessment & Transition Planning

Background

Sheffield Hallam University is one of the largest and most popular universities in the UK, with over 30,000 students from more than 100 countries enrolled. It is also regarded as one of the best modern universities in the north of England and has eight subjects ranked in the top 20 in the UK (The Times and Sunday Times University League Table). Sheffield Hallam is also among the best universities in the UK for international student support.

In 2019, a procurement exercise was run to identify a Microsoft Gold partner to implement a Cloud Readiness

Assessment (CRA) designed to develop a business case to support a cloud transition programme and, if that the case was approved, to then assume the role of cloud implementation and migration delivery partner.

The drivers for the cloud transition programme and business case focussed on an estates strategy and a change agenda based on utilising cloud-based technologies and hosting techniques to enhance services and student experience.



The Challenge

In completing the Cloud Readiness Assessment and hence in developing a successful case for cloud, the team faced a number of challenges including;

- A large and highly complex infrastructure and application estate.
- A high-level of demand for IT project and BAU requirements thereby limiting the amount of in-house resources available.
- Forming a business case justification when the on-premise hosting environment had a low level of residual infrastructure risk.

Why CoreAzure ?

CoreAzure's successful track record of enterprise-scale migrations supported by comprehensive business cases and investment rationale was a major factor in being awarded the contract. We were able to demonstrate strength in depth and provide the required support and delivery skills for both the Cloud Readiness Assessment and the implementation of enterprise-scale Microsoft cloud transition programmes.

Our reputation was also enhanced by;

- Being an accredited Microsoft AMP partner with eligibility for financial support being made available.
- Being highly recommended by Microsoft as an Advanced Specialisms and Microsoft Cloud Centre of Excellence partner.
- Having a primary focus over the past 5 years in the HE sector – we could demonstrate an understanding of the technology landscape and the workloads used to support teaching and learning activities.

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The Solution

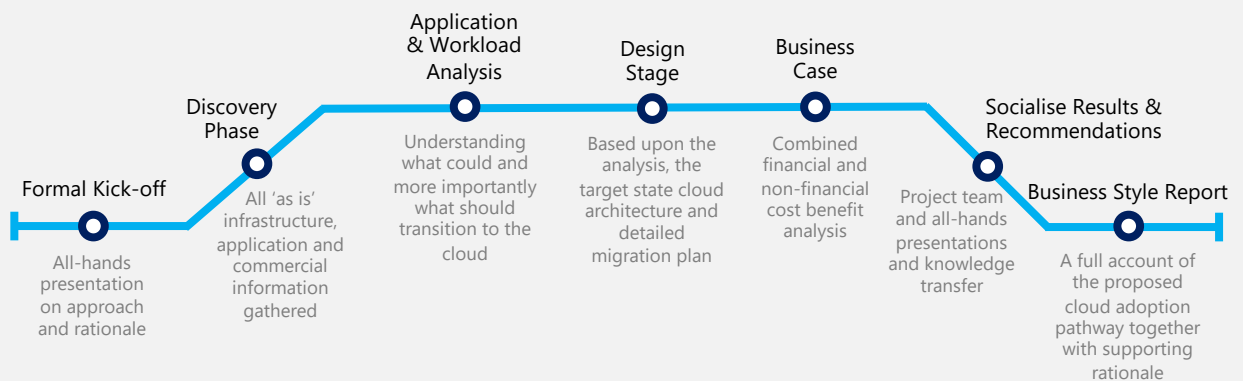
After The approach we used was developed from many years of experience and successful CRA and business case outcomes. The scope of the CRA covered three main areas;

- A unique discovery and assessment of readiness and the pathway to cloud.
- An understanding of drivers and constraints for change e.g. compliance frameworks and security standards.

- The financial and non-financial case for change.

The Sheffield team understood the limitations of a 'lift and shift' cloud transition strategy, and that failing to tackle over-provisioning within the on-premise estate and by not adopting a transformational based approach would inevitably lead to higher than necessary Azure consumption costs.

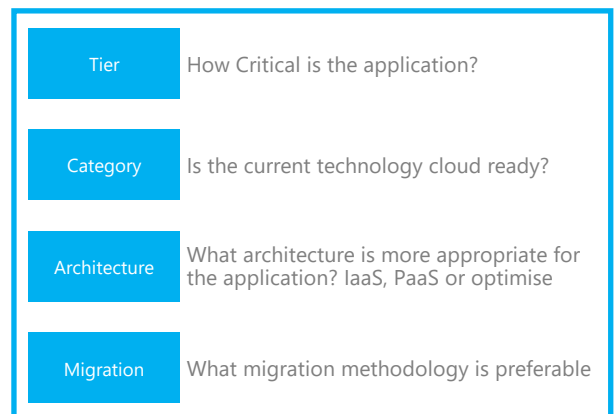
Key stages of the CRA



Methodology

CoreAzure use a tried and tested methodological approach named TCAM (Application Tier, Category, Architecture and Migration) to structure the assessment of which applications could and should be successfully migrated to the Cloud together with any associated work to make that possible or what to do in those cases where migration is either commercially or technologically not viable. TCAM structures this assessment from the following perspectives;

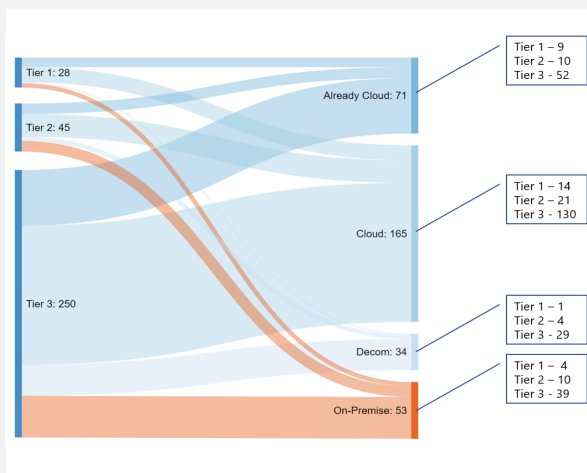
- The criticality of application / workload.
- Is the current technology cloud ready?
- What architecture is most appropriate for the application (IaaS, PaaS; or optimise).
- What migration methodology is recommended.



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Once we had determined the pathways for all in scope applications and workloads (see below), the joint team focussed on establishing the target state architecture and detailed migration plan used to calculate the transition costs within the business case. The design was based upon;

- Establishing the pre-requisites required to migrate the workloads.
- Standard Patterns (e.g. App hosting).
- Automated deployment (Infrastructure as code).
- The re-use of standard HE specific design templates.
- Gaining environment accreditation.



Business Case Development

In developing the business case the team synchronised the reducing on-premise IT spend with the anticipated Azure cloud hosting costs to form a 5, 7 and 10 financial profile. This information was supplemented with a range of non-financial benefits including;

- enhanced levels of scalable access regardless of device type and location.
- greater autonomy for end-users (students, faculty and staff).
- the potential for innovation and collaboration.
- the development of a common data model (CDM).
- the flexibility to choose the best hosting for each of Sheffield Hallam's applications.
- a step change in financial transparency.

Results

12 months on, Based on the analysis and associated business case our recommendations were as follows;

- 165 applications would be migrated to the Azure platform & a further 34 to be decommissioned.
- A fully resilient and secure hybrid cloud architecture based upon a single Azure cloud tenancy and where SaaS and PaaS would be the preferred way of providing services in the cloud.
- A combined on-premise and cloud-based storage strategy.
- The implementation would take 24-months to complete and based upon an Agile approach.
- CoreAzure would initiate and complete a series of all-hands meetings designed to fully brief the key project stakeholders including the IT team, researchers and a selection of application owners.

The Cloud Readiness Assessment and associated business case was subsequently approved by the university executive and the transition project was initiated in the summer of 2019

"We needed the confidence of knowing that the approach CoreAzure used had built successful business cases in other UK universities; the team used their experience and patience to guide us and our stakeholders through this complex decision-making process"

Dave Thornley, Head of Digital Architecture



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