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Abstract

The research project sets out to determine the most suitable criteria for evaluating legacy applications for migration to the cloud.
Cloud computing has become established as the platform of choice for deploying applications and it represents a fundamental shift in how businesses access IT services. However, not all applications can take advantage of cloud computing, many companies have legacy applications, these are typically in-house developed or customised applications where the development skills are either scarce or non-existent. This dissertation conducted research to identify the most suitable criteria to analyse legacy applications for migration to the cloud.

The literature reviewed common characteristics of legacy applications and explored the issues associated with them. Possible solutions to these issues were outlined, and the option of migrating to the cloud was developed. It contains analysis on the thinking on the benefits of migrating legacy applications to the cloud, migration approaches and the criteria for evaluating legacy applications for migration to the cloud.

The study was carried out using an interpretive philosophy, the research method was semi-structured interviews, and the findings were analysed using a qualitative approach combined with thematic analysis and inductive reasoning.

The findings revealed that the issues with legacy applications are likely to increase into the future, particularly the skills shortage. The criteria which the findings revealed as being important when evaluating legacy applications for migration to the cloud were the number of integration points, level of change required, data criticality and cost. Organisations typically based their migration decision on one of these criteria. The study also questions the value of carrying out an in-depth evaluation of legacy applications as the skills are lacking for such an exercise. The preferred approach is to replace specific capabilities with cloud capabilities or functions and gradually replace the application.

The conclusions of the research are that legacy applications are often core applications and having them prone to failure could have disastrous consequences for an organisation. These applications are already failing to fulfil some business requirements and given the frequency of changes required to secure applications and data, the issues need to be addressed sooner rather than later.