

# Investigating the feasibility and worth of migrating legacy systems

Patrick Naish (pn3g10@soton.ac.uk)

**Abstract**—The abstract goes here.



## 1 INTRODUCTION

THIS project will be an investigation into the existing and proposed tools and methodologies for migrating mainframe (or similar legacy system) applications to run under more modern systems, such as on PCs, distributed systems and/or web services. Assessing the usefulness of such tools and methodologies is important for making decisions on whether to attempt to recoup previously invested time and resources from existing systems, or invest again in a newer, more flexible version of said system. Therefore, the questions this project aims to answer are whether sufficient tools exist to facilitate code migration, whether there are standard[1] (or at least widely accepted) methodologies in place for doing so, and whether such migrations turn out to be genuinely beneficial for the related parties subsection 3.1.1.

## 2 PROBLEM BACKGROUND

2.1 Differences between mainframe and modern system architectures

2.2 Factors prompting/necessitating migration

2.3 Example case studies

## 3 APPROACHES TO SYSTEM MIGRATION

### 3.1 End-system structures

3.1.1 *Service-Oriented Architectures*

3.1.2 *Object-Oriented Platforms*

### 3.2 Tools for code analysis

3.2.1 *SoftAudit and complexity metrics*

3.2.2 *COBAudit*

### 3.3 Tools for migration

3.3.1 *COB2WEB*

3.3.2 *COBRedo*

3.3.3 *COBStrip*

3.3.4 *COBWrap*

3.3.5 *COBLink*

3.3.6 *etc*

### 3.4 Techniques

3.4.1 *Service-Oriented Migration and Reuse Technique (SMART)*

3.4.2 *Service-Oriented Software Reengineering Methodology (SoSR)*

3.4.3 *Ubiquitous Web Applications Design Framework (UWA)*

3.4.4 *etc*

Hello there

### **3.5 Comparison of approaches**

## **4 ISSUES WHICH MUST BE ADDRESSED**

### **4.1 Cost-effectiveness**

### **4.2 Maintainability**

### **4.3 Risk**

### **4.4 Automation**

### **4.5 Testing**

## **5 CONCLUSION**

## **REFERENCES**

- [1] A. Almonaies, J. Cordy, and T. Dean, "Legacy system evolution towards service-oriented architecture," in *International Workshop on SOA Migration and Evolution (SOAME 2010)*, 2010, pp. 53–62. [Online]. Available: [http://serviceorientedarchitecturesoa.net/goto/http://research.cs.queensu.ca/home/cordy/Papers/ACD\\_MigToSOA\\_SOAME10.pdf](http://serviceorientedarchitecturesoa.net/goto/http://research.cs.queensu.ca/home/cordy/Papers/ACD_MigToSOA_SOAME10.pdf)