Design for ECA Migration to Azure

For Electrical Contractors Association

Commercial in Confidence

**Version –** 0.11

**Issue -** Released

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Table of Contents

[1.0 Document Control 3](#_Toc519181491)

[1.1 Authority 3](#_Toc519181492)

[1.2 Identity 3](#_Toc519181493)

[1.3 Revision History 3](#_Toc519181494)

[1.4 Distribution List 3](#_Toc519181495)

[1.5 Principal Contact 3](#_Toc519181496)

[2.0 Document Conventions 5](#_Toc519181497)

[2.1 Glossary of Terms 5](#_Toc519181498)

[3.0 Introduction 6](#_Toc519181499)

[3.1 Summary 6](#_Toc519181500)

[3.2 Requirements 6](#_Toc519181501)

[3.3 Constraints 6](#_Toc519181502)

[3.4 On-going Projects 6](#_Toc519181503)

[4.0 Services 7](#_Toc519181504)

[4.1 ECA 7](#_Toc519181505)

[4.2 Policy and SLA 7](#_Toc519181506)

[5.0 Azure Technology 10](#_Toc519181507)

# Document Control

## Authority

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## Identity

|  |  |
| --- | --- |
| Issue Type | Released |
| Date Issued | 11/07/2018 |
| Title | Design for ECA Migration to Azure |
| File Name | Design for ECA Migration to Azure |

## Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Status | Comment |
| 0.10 | 11/07/2018 | Draft | Issued |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

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|  |  | | |

# Document Conventions

Each section in the document will contain a table such as the following, explaining why we made our recommendations. This is followed by general information about the subject to ensure you understood our thinking.

|  |  |
| --- | --- |
|  | Design Decision  This symbol indicates a design decision has been made and what it is. The following text will also provide the rationale regarding that decision. |

|  |  |
| --- | --- |
|  | Design Decision TBC  This symbol indicates a design decision has yet to be confirmed |

|  |  |
| --- | --- |
|  | Important Information Follows  This symbol indicates that valuable information will follow, and special note should be taken. This might be a pre-requisite that is required for the design component. |

|  |  |
| --- | --- |
|  | **Ultima Recommendation**  Ultima recommends that you use X technology to fulfil this requirement |
| **Why we made this recommendation for your environment**  We made this decision based on your requirement for X. This is fulfilled by this in the following way… |
|  | **Why we discounted other solutions**  Alternative solution X was discounted because… |
|  | **Alternatives we didn’t discount**  Although not a direct recommendation, the following solutions would also meet your requirements. Our overall recommendation considers the whole environment for the most efficient solution. Some of these may meet this specific need better but be worse overall.  Solution 1 – This solution would meet needs better here but is less efficient overall…  Solution 2 – This solution would also meet this need but not others in the environment and so would be a point solution |

## Glossary of Terms

We may use the following terms in this document and will not explain them each time so have included them here for your reference.

|  |  |  |  |
| --- | --- | --- | --- |
| Term | Description | Term | Description |
| PaaS | Platform as a Service | IaaS | Infrastructure as a Service |
| SaaS | Software as a Service | HA | Highly Available |
| Scale Up | Increase the size of nodes to increase scale | Scale Out | Add nodes to increase scale |
| IoT | Internet of Things | VM | Virtual Machine |

# Introduction

## Summary

The section below provides a high level, baselined version of the requirement as provided by the Client.

Electrical Contractors Association (ECA) have traditionally been a ‘working hours’ organisation. Due to recent technical and operational issues encountered, consideration of a resilient cloud adoption with 24/7 management has been accelerated. ECA host several internally and externally facing line of business websites and applications with shared SQL backends. ECA are particularly interested in re-working these sites and applications to utilise Azure’s PaaS offerings. Applications that cannot take a PaaS transformation approach are being considered for an IaaS migration or extension to the cloud.

## Requirements

The following known requirements were captured. These are things which are planned but may not currently be a part of the solution.

* To demonstrate resilience and scalability and so be better able to pursue new business opportunities
* Urgent desire to improve availability and reduce outages
* Restructure of resources
* Re-architecting websites and applications to fit a PaaS solution is preferred
* Utilising IaaS VMs for workloads that cannot be migrated to PaaS is considered
* Reliable connectivity to the Azure environment is required as some sites used internally have a high impact if offline
* 24/7 managed service of Azure environment

## Constraints

The following is a list of constraints which may affect the solution going forward:

* Unknown

## On-going Projects

* Office365 POC

# Services

This section details the services within the scope of this engagement. For ECA, the details were captured during site meetings.

|  |  |
| --- | --- |
| Service Name | Description |
| ECS Card Manager/Rules Engine | Private website and/or Silverlight applications |
| Financial services | Private Silverlight application |
| SSRS | MS SQL Server Reporting Services |
| ECA Connect | Private internal website |
| Watchdog | Private Windows services |
| eca.co.uk | Public Kentico CMS version 9.0 |
| ecsexams.org.uk | Public Kentico CMS version 9.0 |
| Ecscard.org.uk | Public Kentico CMS version 9.0 |
| File archive | Copy Azure based data files to archive storage |

## ECA

## Policy and SLA

|  |  |
| --- | --- |
| Service Priority | This service is required by the business and there will be an immediate impact if the service is unavailable. The service must be online within a short timeframe.  No planned downtime is acceptable within the operating hours of this service. Unplanned downtime must be minimised.  Recovery would be required following a service affecting disaster such as building loss. |
| Availability | 24x7 |
| Backup retention | There was no specific backup retention known for this service, and so initially a 30-day rolling backup will be used. |
| Archive requirements | No specific archiving requirements were known at the time of the workshop. Long term retention may be required for this site for legal purposes to ensure that content on a given day can be shown when required. It is believed that the database itself holds this information, however, and so further archives will not be kept. |
| Disaster Recovery | Required. |
| Compliance requirements | None |

### Connectivity

This section details the present topology of the service; including users, sites, servers and links.

|  |  |
| --- | --- |
| Role | Description of interaction |
| Public | Public access is required to the public web sites. |
| Company Users | Team access a different web interface to add and manage content. |
| Developers | Least privilege access is required by developers to update code. |
| Administrators | Access is currently required by administrators for managing the server estate. |

|  |  |
| --- | --- |
| Site | Link type and bandwidth |
| Sevenoaks | -Mb |
| Swanley | -MB |
| Branch Offices | -Mb |

### Current Systems

This section details the current make-up of the service in terms of servers, hardware and software.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Server Name |  | Type | App Plan | Name | Equivalent Resources | Description including software and role |
| ECA Connect |  | VM | 2 |  | 6 |  |
| ECS Card |  | VM | 2 |  | 6 |  |
| Financial |  | VM | 2 |  | 6 |  |
| SSRS |  | VM | 4 |  | 8 | IIS Web Server |
| Watchdog |  | VM | 4? |  | 8? | Windows Service(s) |
| Eca.co.uk |  | PaaS Web App | Standard 3 |  | 4 Core 7GB RAM | Kentico 11 |
| Ecscard.org.uk |  | PaaS Web App | Standard 3 |  | 4 Core 7GB RAM | Kentico 11 |
| Ecsexams.org.uk |  | PaaS Web App | 2 |  | 6 | IIS Web Server – Kentico 11 |









 