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|  |
| Solution Architecture Document |
|  |
| [Project Name] |
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Document Control

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**Document References**

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# Introduction

## Document Purpose

The purpose of this document is to describe the IT solution design for the [project].

The purpose of the solution design is to:

* Communicate the end-to-end IT solution to all stakeholders
* Provide traceability of the solution back to business requirements and reference architecture
* Provide all views of the solution required for design, build, testing and implementation
* Define impacts of the solution for estimation, planning and delivery purposes

The structure of the document develops the solution from the drivers of why the solution is needed, through the conceptual non-technical description to the solution design and delivery implications.

* Drivers and constraints of the solution – To define the purpose and goals of the project along with the constraints of the solution
  + Project overview
  + Reference architectures
  + Business context
  + Requirements
* Conceptual solution - Defining the conceptual architecture by defining the current and target state in a more abstract view
* Logical solution – To specify the solution using the various architecture views
* Solution delivery - Specify the delivery approach and assessment of the solution
  + Delivery considerations
  + Architecture assessment
  + Impacts assessment

## Document Scope

The scope of this document is limited functional and non-functional requirements and processes related to the [*project*].

## Document Audience

The audience for this document includes:

* **Project Leadership Team:** [*names here*];
* **Project Team:** [*names here*]
* **ABC Team:** [*names here*]

## Definitions

The following acronyms and definitions will be used in the [*project*] and within this document.

| **Term/Acronym** | **Definition** |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |

# Solution Overview

[*complete*]

## Solution Objectives

[*complete*]

## Solution Scope

### In Scope

The functional scope for the project includes:

*[complete]*

### Out of Scope

The following are deemed out of scope:

[*complete*]

## Assumptions

The following assumptions will be validated as part of solution design and implementation:

[*complete*]

## Constraints

The following constraints apply to the [project]:

[*complete*]

## Dependencies

The solution is dependent on the following items:

[*complete*]

## Key Architecture Decisions

|  |  |  |
| --- | --- | --- |
| # | Title | Decision |
| *AD1* | *Description here* | *Decision here* |
| *AD2* |  |  |
| *AD3* |  |  |

*[for each item in the table above you may point out the problem statement, proposed solution options, pros and cons of each option, decision made and the rationale behind it]*

# Business Context

## Business Capabilities

[*complete*]

## Key Business Requirements

[*complete*]

### Key Business Processes

[*complete*]

.

### Business Users

[*complete*]

## Non Functional Requirements

| Requirement # | Requirement Description | NFR Category | Implication / Action Taken |
| --- | --- | --- | --- |
| NFR.AVAL.001 |  | AVAILABILITY |  |
| NFR.AVAL.002 |  | AVAILABILITY |
| NFR.CONTI.001 |  | CONTINUITY |  |
| NFR.CONTI.002 |  | CONTINUITY |
| NFR.CONTR.001 |  | CONTROL |  |
| NFR.DATA.001 |  | DATA |  |
| NFR.DATA.002 |  | DATA |
| NFR.DATA.003 |  | DATA |
| NFR.DOCO.001 |  | DOCUMENTATION |  |
| NFR.DOCO.002 |  | DOCUMENTATION |
| NFR.INFRA.001 |  | INFRASTRUCTURE |  |
| NFR.INFRA.002 |  | INFRASTRUCTURE |
| NFR.INTER.001 |  | INTERFACE |  |
| NFR.MGNG.001 |  | MANAGEABILITY |  |
| NFR.MIGRT.001 |  | MIGRATEABILITY |  |
| NFR.MIGRT.002 |  | MIGRATEABILITY |
| NFR.OPSUP.001 |  | OPERATIONAL SUPPORT |  |
| NFR.OPSUP.002 |  | OPERATIONAL SUPPORT |  |
| NFR.OPSUP.003 |  | OPERATIONAL SUPPORT |  |
| NFR.PERF.001 |  | PERFORMANCE |  |
| NFR.PERF.002 |  | PERFORMANCE |
| NFR.RELIA.001 |  | RELIABILITY |  |
| NFR.RELIA.002 |  | RELIABILITY |
| NFR.RELIA.003 |  | RELIABILITY |  |
| NFR.RELIA.004 |  | RELIABILITY |  |
| NFR.RELIA.005 |  | RELIABILITY |  |
| NFR.SCALE.001 |  | SCALABILITY |  |
| NFR.SCALE.002 |  | SCALABILITY |
| NFR.SCALE.003 |  | SCALABILITY |  |
| NFR.SCALE.004 |  | SCALABILITY |
| NFR.SECUR.001 |  | SECURITY |  |
| NFR.SECUR.002 |  | SECURITY |  |
| NFR.SECUR.003 |  | SECURITY |  |
| NFR.SECUR.004 |  | SECURITY |  |
| NFR.SECUR.005 |  | SECURITY |  |
| NFR.SECUR.006 |  | SECURITY |  |
| NFR.SECUR.007 |  | SECURITY |  |
| NFR.SECUR.008 |  | SECURITY |  |
| NFR.SECUR.009 |  | SECURITY |
| NFR.USABL.001 |  | USEABILITY |  |
| NFR.USABL.002 |  | USEABILITY |
| NFR.USABL.003 |  | USEABILITY |
| NFR.USABL.004 |  | USEABILITY |
| NFR.USABL.005 |  |  |
| NFR.USRPR.001 |  | USER PROFILE |  |
| NFR.VOLUM.001 |  | VOLUME |
| NFR.VOLUM.002 |  | VOLUME |
| NFR.VOLUM.003 |  | VOLUME |
| NFR.VOLUM.004 |  | VOLUME |
| NFR.VOLUM.005 |  | VOLUME |
| NFR.VOLUM.006 |  | VOLUME |
| NFR.VOLUM.007 |  | VOLUME |

# Conceptual Solution Overview

## Conceptual Architecture

*[conceptual solution diagram and description here]*

# Solution Architecture

## Information Architecture

*[Information architecture diagram here (eg. ERD)]*

### Data Object Inventory

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Ref. | Data Object | Desc. | Business Capability Area | Source of Truth System | Key Attributes |
| *DO1* | *e.g. Customer* |  |  | *e.g. SalesForce* | *Id, First Name, Last Name..* |
| *DO2* |  |  |  |  |  |

## Application Architecture

*[Application landscape diagram and description here]*

### Application Inventory

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Ref. | App Name | Ver. | Key Modules | Hosted | Vendor / Supported by | Strategic Alignment |
| *AP1* | *System 1* |  |  |  |  | *Strategic* |
| *AP2* | *System 2* |  |  |  |  | *To be decommissioned* |

## Integration Architecture

*[Integration Diagram here]*

### Interface Inventory

| Ref. | Interface Name | Desc | Data Object(s) | Source | Target | Freq. | Batch / Realtime |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *IN1* |  |  | *[reference data objects from information architecture table]* | *[reference from application architecture table]* | *[reference from application architecture table]* | *e.g. Daily* | *e.g. Batch* |
|  |  |  |  |  |  |  |  |

## Infrastructure Architecture

*Infrastructure Diagram here(Servers / Data Stores / Switches / ..)*

*Include infrastructure envrionments (e.g. Dev / UAT / PROD)*

### Infrastructure Repository

|  |  |  |  |
| --- | --- | --- | --- |
| Ref. | Hardware | Specification | Location |
| IF.PRD.01 | Production App Server |  |  |
| IF.DEV.01 |  |  |  |

## Security Architecture

### Identity and Access Management

*This section specifies controls related to the management and enforcement of access rights into systems, applications and resources – Authentication and authorisation methods, SSO, etc.*

### Threat Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Ref | Threat | Likelihood | Impact | Rating | Action |
| *TRD-01* | ***Spoofing***  *Spoofing of an identity to gain unauthorised access to the application* | *Unlikely (2)*  *Skilled attacker / limited external users will access via secure channel* | *Moderate (3)* | *Medium* | * *Identify security requirements of information* * *Network Switches should be configured in high-security mode to defeat spoofing attacks* |
| *TRD-02* | ***Denial of Service***  *Attacker impacts availability of the application preventing processing and access by users* | *Unlikely (2)*  *Skilled attacker / isolated servers serving internal and external users* | *High* | *Medium* | * *Data Centre Monitoring* * *Apply appropriate physical security mechanisms* |
|  |  |  |  |  |  |

# Solution Management

## System Operational Management

### System Support and Incident Management

*[complete]*

|  |  |  |
| --- | --- | --- |
| Escalation Level | Description | Responsible |
| 1 | *Help Desk* |  |
| 2 | *Level 2 Application Support* |  |
| 3 | *Level 3 Application Support* |  |
| 4 | *Vendor Support* |  |

### Backup / Restore / Data Retention Methodology

*[complete]*

### End User Computing (EUC)

Including end user system min requirements, patching, browser requirements etc.

*[complete]*

## User On-boarding

*[complete]*

# Solution Delivery Considerations

## Development Considerations

*Development tools, language, code repository, versioning, branching, backup, etc.*

## Deployment Considerations

*Deployment approach, deploying components, deployment checklist etc.*

## Data Migration Considerations

*Approach, Scope of data migration, data objects, tools used, source of data, data format, etc.*

## Application Decommissioning

*Applications to be decommissioned, approach and time line of decommissioning, impact assessment, etc.*

# Appendix

## Open Issues

*[list open issues here]*