

Solution Name

GIS Detailed Solution Design Document

Author

Date

Version

**Document Control**

**Document Change history**

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| VERSION | DATE | DESCRIPTION OF CHANGE | COMPLETED BY |
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People listed in this section are responsible and must formally approve the document for it to become an approved design. Authorisation can then be sought.

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## Introduction

The below sections outline the project related to the solution. This is to give the context of the project and what the aim of the solution is to be. This is what is to be delivered, what is not part of the delivery, risks and assumptions, what is to be considered a success.

## Purpose

*<The purpose of this document is to record the detailed solution design for……>*

(Solution description; what is the solution supposed to provide for the business & how; High level business requirements; etc.)

## Document Audience

*<This document is intended for use by>*

## Document Contributors

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| --- | --- | --- | --- |
| Name | Role | Date | Nature of Contribution |
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## Document References

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| Reference Document Type | Author | Version | Location/Link |
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## Glossary of Terms

|  |  |
| --- | --- |
| Term | Description |
|  |  |
|  |  |
|  |  |
|  |  |

## Architectural Overview

## Problem Statement

*<Describe of current condition or an issue which needs to be addressed>*

## Solution Overview

*<This section will provide high level description of the solution goals and/or objective.>*

## Current State

*Place diagrams here, with explanations. Like an executive summary, this section should be enough* *for a reader to understand the solution concept.*

Insert the current state diagram

## Future State

*Place diagrams here, with explanations. Like an executive summary, this section should be enough for a reader to understand the solution concept. Inform if this is the state the project will be delivering.*

Insert the future state diagram

## Environments

*What environments will be deployed? Eg Test, Pre-Prod, and Prod. How will they differ from each other? How will each environment stay in sync?*

|  |  |  |
| --- | --- | --- |
| Environment | Notes | Synchronisation |
| Development |  |  |
| Test |  |  |
| Pre-Prod |  |  |
| Production |  |  |

## Costs

*List all costs: Infrastructure, software, support costs (when being outsourced to vendors), licensing, testing etc. Number of FTE’s needed to support the system?*

## One-off initial costs

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Price | Number | Total |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## On-going support costs per year

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Price | Number | Total |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Scope

*<List down the scope statements which are specific to implementation of the solution>*

### In Scope

### Out of Scope

## Assumptions & Risks

### Assumptions

*< List down the assumptions that can also be considered as basic business rules to implement the solution>*

### Risks

*<List down the risks which are related to this solution>*

## Software/Application Versions

*<List down applications & software used in this solution along with its version details)*

## Prerequisites

*<Describe the basic requirements which are necessary for a successful implementation of solution>*

## Detailed Requirements Summary

*<Describe the high-level requirements for the implementation of the solution, refer High Level Design Document>*

## Solution Pros & Cons

*<List down the Pros & cons of the solution>*

## Solution Detail

*<This section should describe the solution in detail, functionality and architecture. Include the diagrams showing the relationship between the different components>*

## Design

*<Insert the solution design diagram>*

## Data Flow Diagram

*<Describes data flow between different component>*

## Data Model

*<Describes the relationship between different components>*

## Network Overview

*This section provides a high-level overview of the logical network connectivity required by the proposed solution in the various environments. The purpose is to present a detailed physical network design to be created and implemented by the infrastructure team.*

*Draw diagram that shows the placement of logical network connections between the components of the proposed solution.*

## Solution Components

|  |  |
| --- | --- |
| Item Type | Item Details |
| Project Folder |  |
| Feature Layer | *<List down the layers & Rest URL’s>* |
| Database Servers |  |
| Data Sources |  |
| Data Outputs |  |
| MXD’s |  |
| Related Services |  |
| Scripts/Workbenches |  |

## Consideration for Metadata Update

*<List down the considerations for updating metadata.>*

## External System & Application Dependencies

*<Mention external system/application dependencies, if any>*

## Data Refresh/ETL

*<Include data refresh/ETL tasks, if any>*

## Jobs & Scheduling

*<Update jobs which needs to be executed and its schedules, if any>*

## Security

*<This section should describe the measure included in the solution design to ensure the security and integrity of the data>*

## Monitoring & Reporting

*<Specify any process/tool which is used to monitor the solution, If any>*

*<Describe How will reporting be delivered for the solution, if any>*

## User/Group Access & Restrictions

*<List down the user/group access requirements to apps/folders etc. and access restrictions details, if any.>*

## Restricted Items

*<List down the restricted items like layers.>*

|  |  |  |
| --- | --- | --- |
| Item | Item Details | Access |
|  |  |  |
|  |  |  |

## Implementation and Operational Requirements

## Implementation View - Methodology & Tool

*This section describes implementation details of the proposed solution and its components.*

*<Describe the solution deployments methodology/tools used, if any.>*

*<Include high level deployment process flow diagram, if required>*

## Metadata ISO 19115

## Field Data Definitions

## Backup Strategy

*<Describe how backup process works, schedules, automated scripts etc., if any>*

## Training

*<Describe training requirements, plan & schedule, if required>*

## BAU Operational Procedures

*<Update BAU roles & responsibilities such as the role of GIS team and what it is excepted to do, once the solution is implemented. >*

The following documents are to be produced as part of the project and approved prior to go-live

• Ops Handover

• SD Handover

## Testing & Performance

*How is the solution going to be tested after implementation to ensure it complies with this design?*

*Name specific tests, test documents, and desired outcome*

## Solution Support

## Business Process

*<Define the roles and responsibility of different member/group within an organization to clarify who performs what.>*

*<Include business process flow diagram, if required>*

## Roles, Responsibilities & Ownership

|  |  |  |
| --- | --- | --- |
| Name | Team, Group or Organistation | Role/Responsibility |
|  |  |  |
|  |  |  |

## Support Levels

|  |  |  |
| --- | --- | --- |
| Level of Support | Team, Group or Organistation | Role/Responsibility |
|  |  |  |
|  |  |  |

## Service Level Agreements (SLAs)

|  |  |  |  |
| --- | --- | --- | --- |
| Vendor | Component | Current Support | SLA |
|  |  |  |  |
|  |  |  |  |

## Common Troubleshooting Steps

*<Describe common issues & troubleshooting steps for SD/Ops team to follow, if any>*

## Disaster Recovery

*If Disaster recovery system is included in the solution design, furnish those details. If no DR system is implemented and an alternate system is to be considered during the emergency, then furnish the details for the same.*

## Governance & Compliance

*<Describe how the solution will be governed & managed. And include compliance that need to be met, if any.>*

## Checklists

*<Pls feel free to add or remove anything from this list>*

☐ Project Handover documents (Operational & Service Desk Guide), and other documents like High Level Design & As Built documents are delivered?

☐ Is design/code review done?

☐ Is peer review done?

☐ Is implementation plan review done?

Did we apply Vision Zero principles when designing the solution?

☐ Naming convention followed?