*<xxx System>*

*System Requirements Specification*

**Client**





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**Prepared By** Thomas Beale  
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# Introduction

## Purpose

The purpose of this document is to describe the system requirements of XXXXX.

It will be used as the basis for the architecture of the XXXX implementation.

## Scope

### Inclusions

This document covers the following broad system functions:

* xx

### Exclusions

The following system functions are out of scope:

* xxx.
* Reporting

## Definitions, acronyms, and abbreviations

The following definitions are used in this document.

| Term | Definition |
| --- | --- |
| Archetype | Re-usable, formal definition of domain content data points and data groups, relating to a domain topic. |
| Composition | openEHR Reference Model class representing the minimum unit of communication and committal to the EHR. |
| Consumer | A consumer of healthcare. |
| GP | General Practitioner |
| openEHR | The openEHR Foundation, a non-profit organisation that publishes industry standards for health information, content and service APIs.  See <http://www.openEHR.org> |
| XML | Extensible Markup Language. See <http://w3c.org> . |

## References

These documents should be read in conjunction with this specification.

|  |  |  |  |
| --- | --- | --- | --- |
| Ref | Name | Version or File Name | Date |
|  | xxx | 0.1.0 | 26/09/2011 |

# Introduction

## Background

<Summary of need underlying the system>

## Operating Environment

<High-level Description of operating environment for new system, typically including a diagram>

## Design Constraints

<Factors that may impose limitations on how the system may be implemented and/or deployed>

### Technology Requirements

<Requirements of system to use specific technologies, databases etc>

### Licensing and Intellectual Property

<E.g. if IP rights of certain content or data that may be accessed or persisted by the system have to be observed>

## Use Cases

## Overview

<Typically shows system + actors in diagram>

## Actors

### Actor #1

< describe Actor #1>

### Actor #2

< describe Actor #2>

### System Administrator

< describe System Administrator>

## Use Case Group/User type #1 Use Cases

### UC-001: xxxx

<description>

#### Pre-conditions

#### Normal Course

1. Step 1
2. Step 2
3. ...

#### Alternate Course: xxx

1. Step 1
2. Step 2
3. ...

#### Alternate Course: yyyy

1. Step 1
2. Step 2
3. ...

#### Post-conditions

### UC-002: xxxx

Etc

## Use Case Group/User type #2 Use Cases

### UC-00N: xxxx

# System Interfaces

## External System #1

<Requirements of interface to External System #1>

## External System #2

<Requirements of interface to External System #2>

# Application Interfaces

## API #1

<Requirements of API of component #1>

## API #2

<Requirements of API of component #2>

# User Interfaces

## User interface Paradigm

<General requirements for type of paradigm(s) to be supported, e.g. form-based, gesture-based, stateless, etc >

## Platform Independence

<Requirement for UI to be provided on multiple platforms; acceptable variants, etc>

## System Dashboard / Admin Panel User Interface

<Requirements for administrator / special user UI>

## Application #1 User Interface

<General description of App #1 UI; note that exact descriptions, e.g. screen mockups are only needed if the customer is specifying at that level; if screen / form mockups are used, refer to a separate document, in order to more easily change manage docs.>

## Application #2 User Interface

<IBID>

# Business Semantics

<describe requirements in terms of business processes, workflows, rules >

## Workflow / Process Descriptions

xxxx

## Business Rules

xxxx

# Data Management Requirements

## Backup and Recovery

<Requirements for backup and recovery of data, configuration(s) and any other persisted information, typically based on internal format>.

## Archiving

<Requirements for data to be archived in a lower-availability system>

## Data Remediation

<Requirements to do with post-hoc fine-grained correction of data corruption, or other detailed data problems that would ordinarily require data migration.>

## Data Dump and Load

<Requirements for standard-format based dump/load capability>

# System CRITICAL ATTRIBUTES

## Volumetrics

<Requirements in terms of overall volume of data, including pattern over time>

### Production Data

### Archived Data

### User Load

## Performance

### User latency

<Requirement for system to react to various kinds of event, e.g. UI action, API request etc>

### Transaction Rates

<Required Ave, max peak transaction rates on transaction-based interfaces>

## Availability

<Aggregate (i.e. statistical) availability of system to users, including client systems. Normally defined in terms of ‘% uptime’; mean time to fix>

### Failure Modes

<Requirements for mean time between failure, failure modes, including acceptable number of points of failure; types of failover needed; >

### Disaster Recovery

<Requirements for post disaster recovery>

## Instrumenting

<Requirements for Instrumenting of system, i.e. real-time visibility of system behaviour, e.g. user load, transaction rates on each interface, current user latency max and ave, data volumes, etc>

## Projected Operation – N years

<Requirements / expected requirements over N years>

# Adaptability Requirements

## Scalability

<Requirements for scaling of system, e.g. stated in terms of ability to add extra host to cluster, extra hardware, etc>

## Extensibility

<Requirements on ability to add new modules, functionality etc>

## Platform and Portability

<Requirements for system to be deployable on various platforms>

## Configurability

<Indication of what characteristics are considered hard-wired versus user or admin configured>

# Security

## Authentication

<Requirements for user and system authentication>

### Password Strength and validity period

<Requirements for password-based authentication>

## Authorisation

<Requirements for user authorisation>

### Role Based Access Control (RBAC)

<Requirements for RBAC, may include table of rights in terms of User x User case>

The following table provides a suggested configuration of user roles that are allowed to perform the user cases presented in section XXX.

| **Use Case** | **system admin** | **provider** | **user admin** | **it support** |
| --- | --- | --- | --- | --- |
| UC-001: Login User | ✓ | ✓ | ✓ | ✓ |
| UC-001: Logout User | ✓ | ✓ | ✓ | ✓ |
| UC-004: Change User Password | ✓ | ✓ | ✓ | ✓ |

Table 1 Use Case User Role Permissions

### Other access control models

## Audit

<Requirements for audit trail of transactions / interactions with system supported by the system>.

## Data Privacy

<Requirements, including legislative, of data privacy that the system must support>.

## Data Integrity

<Requirements of the system to ensure integrity of data when stored, and in the long term>.

## Non-repudiation

<Requirements of the system to ensure integrity of data when stored, and in the long term>.

# Migration

## Data Migration

<Requirements relating to initial (or ongoing) legacy data migration into new system>

## User Migration

<Requirements, e.g. specific help features, ‘old/new’ mode screens & skins, documentation, training material, to enable users to efficiently migrate to the new system>

# Standards Support and Conformance

The xxx System uses several standards and specifications that allow it to interoperate with other systems. These include:

* openEHR Reference and Archetype Models
* HTML 5
* CSS ?
* HTTP 1.1

# Internationalisation and Localisation

<Requirements of the system in terms of being internationalised, i.e. whether i18n is a built-in feature, and if so, what localisation to a given target locale/language should involve, how much work, etc>.

# Documentation Requirements

<Requirements for documentation of the system>