

Design Pack

Month 201X

Created by:

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# Conceptual design

## Problem statement / service description

## Goals and drivers

## Stakeholder / location and actor viewpoints

## Options analysis

### Alignment to EA Principles and strategic fit

### Fit to requirements

### Pros and cons

### Timescales

### Costs

| Option | Estimated days | Day rate | Number of users | Monthly charge rate per user | Year 1 estimate | Year 2 estimate | Year 5 estimate |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item 1 |  | £ |  | £ | £ | £ | £ |
| Item 2 |  | £ |  | £ | £ | £ | £ |
| Item 3 |  | £ |  | £ | £ | £ | £ |
| Option 1 indicative total |  | £ |  | £ | £ | £ | £ |

Table 1 - Example of an indicative cost model

### Benefits and risks

### Recommendation

## Recommended option conceptual design

# Logical design

Not all views will be relevant in the context of every project / service - discuss with your Architecture Partner what is most appropriate to include.

## High-level solution concept view

## Business context viewpoints

## Capability to application map

## Data architecture

## 2.5 Design requirements, assumptions, constraints, risks and issues

You may want to use these example tables:

| Ref. | Priority | Status | Summary statement |
| --- | --- | --- | --- |
| BR.01 | Must | Assumed |  |
| BR.02 | Should | Specified |  |

Table 2 - Example table of business requirements

| Ref. | Priority | Status | Summary statement |
| --- | --- | --- | --- |
| FR.01 | Must | Assumed |  |
| FR.02 | Should | Specified |  |

Table 3 - Example table of functional requirements

| Ref. | Priority | Status | Summary statement |
| --- | --- | --- | --- |
| A.01 | Must | Assumed |  |
| A.02 | Should | Specified |  |

Table 4 - Example table of assumptions

| Ref. | Priority | Status | Summary statement |
| --- | --- | --- | --- |
| C.01 | Must | Assumed |  |
| C.02 | Should | Specified |  |

Figure 5 - Example table of constraints

| Ref. | Description | Risk  (H/M/L) | Impact  (H/M/L) | Owner | Mitigation |
| --- | --- | --- | --- | --- | --- |
| R.01 |  | H | H |  |  |
| R.02 |  | M | L |  |  |

Figure 6 - Example table of risks

| Ref. | Description |
| --- | --- |
| I.01 |  |
| I.02 |  |

Figure 7 - Example table of issues

# 3 Physical design

You should work with your Architecture Partner to determine which of the following elements are most relevant for your design. It’s useful to include narrative with each diagram, to further explain the design elements.

## High Level Design (HLD)

### Application

### Data / physical ERD

### Integration

### 3.1.4 Hosting

### 3.1.5 Security

#### 3.1.5.1 Identity and Access Management

## API design

## Infrastructure / network topology

## Disaster recovery, logging, audit and error handling

## Service management and support



## Architectural / design decisions

| Date | Decision description | Options and outcomes |
| --- | --- | --- |
|  | For example, IaaS over PaaS | For example considered IaaS, PaaS, SaaS options, IaaS selected for segregation of sensitive data and expediency. |
|  |  |  |



## Document references

# Annexes



## Useful references

* [DfE Enterprise Architecture Principles](https://educationgovuk.sharepoint.com/sites/gp/Architecture%20Services%20Documents/DfE%20Enterprise%20Architecture%20Principles.docx)
* [DfE Business Capability Model](https://educationgovuk.sharepoint.com/sites/gp/WorkplaceDocuments/Capability/DfE%20Business%20Capability%20Model.pdf)
* [DfE architecture repository](https://educationgovuk.sharepoint.com/sites/gp/WorkplaceDocuments)
* [Example architecture diagrams](https://educationgovuk.sharepoint.com/:f:/r/sites/gp/WorkplaceDocuments/Practice/Templates/Example%20diagrams?csf=1&e=0gripF)
* [API Strategy and Integration patterns](https://educationgovuk.sharepoint.com/:w:/r/sites/gp/WorkplaceDocuments/Strategy/Approved/DfE%20API%20Strategy%20and%20Integration%20Patterns.docx?d=w0d2c25dac0f64fd7abba4472a44ad3b0&csf=1&e=rzmEqI)
* [DfE IdAM strategy and patterns](https://educationgovuk.sharepoint.com/:w:/r/sites/gp/WorkplaceDocuments/Reference%20Architectures/Patterns/Pattern_IdAM.docx?d=wff10a2368c8b492897fa93d0f195b69d&csf=1&e=kNfbhH)
* [DfE technical standards](https://educationgovuk.sharepoint.com/sites/gp/WorkplaceDocuments/Standards)
* [GDS Technology Code of Practice](https://www.gov.uk/government/publications/technology-code-of-practice/technology-code-of-practice)
* [DfE technology service offer](https://educationgovuk.sharepoint.com/how-do-i/it/Pages/service-offer.aspx)
* [Reference Non-Functional Requirement (NFRs)](https://educationgovuk.sharepoint.com/:w:/r/sites/gp/WorkplaceDocuments/Reference%20Architectures/Patterns/DFE%20Reference%20NFR%27s%20v4.0.docx?d=wad9f0663140a442ebd404c7837b6ce0f&csf=1&e=elBJwh)
* [Departmental Security Assurance Model (DSAM) process](https://educationgovuk.sharepoint.com/how-do-i/projects/senior-responsible-owner/Pages/information-security-risk.aspx)
* [Departmental security architecture principles](https://educationgovuk.sharepoint.com/how-do-i/it/Documents/security-policies/departmental-security-architecture-principles.docx)
* Service Management processes (expected June 2019)