

**DIGITAL OPERATING MODEL –
DESIGN PHASE
SUPPORTING DOCUMENT 2:
TARGET STATE ARCHITECTURE**

NOVEMBER 2016

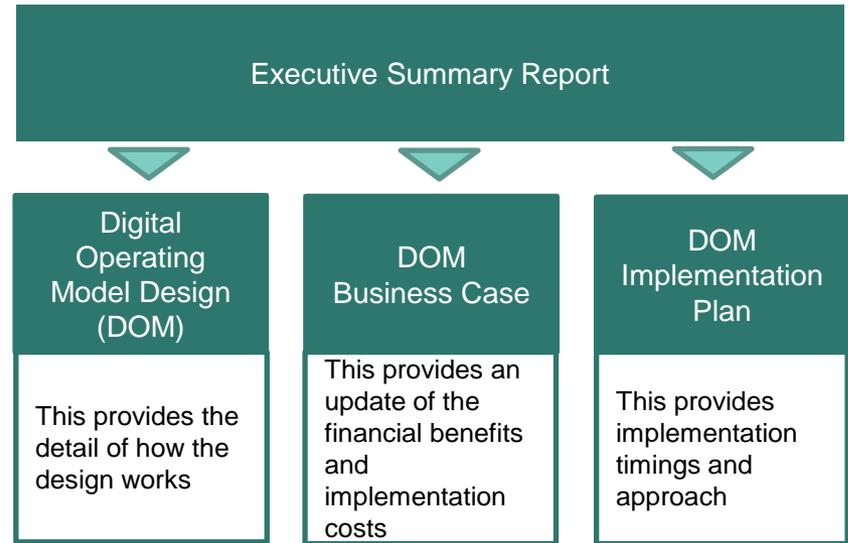
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The aim of the Target State Architecture (TSA) is to articulate the impact of the future ways of working and what technologies are required to support the change.

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Purpose of the TSA document:

- The emerging requirements, organised into themes and detailed in features needed
- A translation of requirement features into technology components needed
- A fitness assessment of the current landscape and what needs to be introduced or changed
- An analysis of procurement options and a recommendation
- Next steps once the target state architecture has been agreed



Summary documents including:
1. New Processes, 2. Target State Architecture (this document), 3. Corporate Plan, 4. Change Management Strategy

All documents outlined here are available and can be found at:
<http://www.bedford.gov.uk/DOM>

CONTENTS

Section	Areas covered
Document Governance	<ul style="list-style-type: none">• Document Scope• Ownership and Governance
Executive Summary	<ul style="list-style-type: none">• Overview of the emerging requirements• Overview of the target state architecture
Emerging Requirements	<ul style="list-style-type: none">• Digital operating model requirements in themes, based on the output from corporate plan, digital vision, technical strategy and the digital operating model workshops• Features associated with each theme mapped to technology component.
Target State Architecture	High level architecture of the future digital platform, including: <ul style="list-style-type: none">• Technology components required to enable the change,• How well the current systems support the digital vision,• Alignment with the Technology Strategy
Sourcing Options	Assessment of the sourcing options for the technology components recommended in the target state. This will enable development of: <ul style="list-style-type: none">• Sourcing Principles• Sourcing Process
Next Steps	<ul style="list-style-type: none">• Next Steps• High level plan
Annex	<ul style="list-style-type: none">• A - How well are current systems supporting the Council?• B - Architecture Components Profiles• C - Glossary

DOCUMENT GOVERNANCE



DOCUMENT GOVERNANCE

Document scope

The aim of the Target State Architecture is to articulate the impact of the future ways of working and what technologies are required to support the change. As such, this document covers:

- The emerging requirements, organised into themes and detailed in features needed
- A translation of requirement features into technology components needed
- A fitness assessment of the current landscape and what needs to be introduced or changed
- An analysis of procurement options and a recommendation
- Next steps once the target state architecture has been agreed

The Technology work-stream operates under the overall programme governance of the Bedford Borough 2020 (BB2020) programme, where the Executive are responsible for general governance and providing the strategic direction of the programme.

EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

Emerging Requirements

Bedford Borough Council is embarking on a Digital Transformation to better serve its residents, businesses and staff. As part of the Digital Operating Model (DOM) needed to deliver this transformation, a Target State Architecture (TSA) has been developed to illustrate the technology components that will be needed. The architecture has been based on an analysis of the emerging requirements which have been collated into seven themes:

- **Resident & Business Engagement:** An enhanced resident & business experience that makes it easy and enjoyable for users to interact with the Council, using any device.
- **Digital Community:** A place that allows residents and businesses to form interest-based connections within the Borough in an easy and transparent manner and one that reduces Council intervention.
- **Digital Self-service:** Transactions and assessments designed in a way that they require minimum effort from residents and staff and provide decision makers with real-time data and archived history to make rapid decisions.
- **Intelligent Information:** A smarter way for residents to receive and send information. Consolidating and mastering information in one shared place.
- **Data & Analytics:** Real-time dashboards and analytics reports allow the Council to make the right decisions and prioritise actions.
- **Integration:** Designed to support a robust and consistent integration with line of business workflow systems.
- **Digital Employee:** A new way of working that supports and promotes self-service, collaboration and mobility.

Digital Platform Architecture

Using the emerging requirements, a Target State Architecture has been developed, comprised of the following technology components:

- **Digital Portal:** A mobile-optimised and personalised portal through which residents, businesses & staff can access Council services.
- **Customer Relationship Management (CRM):** Enables a single view of the residents and businesses, improved workflow capability and logging of all resident contact regardless of channel.

EXECUTIVE SUMMARY

- **Enterprise Service Bus:** An integration component deployed to avoid and replace existing point-to-point integrations.
- **Data & Analytics:** A reporting and visualisation component which joins up different pieces of resident or business information to support a single view across all service areas. This will enable increased insight and analytics and more informed decision making.

Through developing the target state, current systems in use at the Council have been assessed and it is noted there is the potential to re-use elements of the existing applications landscape, e.g. the Content Management System. However, it is through the development of the Solution Architecture (described in the next steps) where further analysis will be undertaken, ensuring that all options are identified and assessed on their ability to meet the needs of the Digital Operating Model.

Procurement and Sourcing

To deliver the digital operating model, the recommended route for procuring and implementing the target state architecture will be through the Digital Marketplace, in particular the G-Cloud framework. Using this approach, it will be possible to save on the time and cost traditionally associated with entering into individual procurements as all Digital Marketplace frameworks have successfully been through the OJEU process.

However, during the procurement phase, should other options emerge which are more beneficial in terms of cost or timelines, these will not be precluded.

Next Steps

The next steps will be to commence soft market engagement with software vendors and Systems Integrators. This process will assist in developing the Solution Architecture, the intent of which is to provide an increased level of detail to the target state architecture and recommend the technology choices.

EMERGING REQUIREMENTS



EMERGING REQUIREMENTS - THEMES

Seven digital themes have been drawn, underpinning the common digital entry point of the future operating model, delivering improved efficiency and effectiveness in initial resident or business contact and assessment activities, as well as enhanced employee experience and efficiency.



Resident & Business Engagement

An enhanced resident & business experience that makes it easy and enjoyable for users to interact with the Council, using any device.



Digital Community

A place that allows residents and businesses to form interest-based connections within the borough in an easy and transparent manner and one that reduces Council intervention.



Digital Self-Service

Transactions and assessments designed in a way that they require minimum effort from residents and provide decision makers with real-time data and archived history to make rapid decisions.



Intelligent Information

A smarter way for residents to receive and send information. Consolidating and mastering information in one shared place.



Data & Analytics

Real-time dashboards and analytics reports allow the Council to make the right decisions and prioritise actions.



Integration

Designed to support a robust and consistent integration with line of business as well as a better engagement and seamless flow of transactions across partners for richer insight.



Digital Employee

A new way of working that supports and promotes self-service, collaboration and mobility.

RESIDENT & BUSINESS ENGAGEMENT



An enhanced resident & business experience that makes it easy and enjoyable for users to interact with the Council, using any device.

- Engaging site that keeps residents online and encourages channel shift to go online first
- Ability to have a personal space where all requests and other activities can be recorded and tracked
- A personalisation of the experience, tailored on an understanding of the individual's needs and usage
- A consistent experience regardless of device and mobile friendly
- A personal space that keeps track of historical interactions
- A secure environment
- A platform that supports residents mobile behaviour and multi channels and multi device usage
- A platform that meets the Council's accessibility standards
- Gold mark standard content
- A platform that meets the Council's equality duties
- A platform that has the ability to support easy translation into multiple languages
- Account creation using Google, Facebook, Twitter to connect to the platform
- A site that is easy to search and can find relevant information

POTENTIAL TECHNOLOGY COMPONENTS

- Digital portal
- Content Management System
- Search Engine
- Business Process Management
- Workflow
- Calendar/Scheduling/Booking
- Maps
- Single Sign On
- Social media account Integration
- Translation solution integration
- Mobile solution

DIGITAL COMMUNITY



A place that allows residents and businesses to form interest-based connections within the Borough in an easy and transparent manner and one that reduces Council intervention.

- Community spaces where residents can share and support each other, acting as a short circuit for Council services
- Enable residents to discuss and comment on key issues
- Enable residents to bookmark and “favourite” discussions or subjects
- Secure environment where an invited group such as family, case workers and professionals can manage support for ongoing care needs
- Enable the Council to create polls and surveys to invite residents feedback and find what matters to them
- Allow residents to register interest in different types of volunteering activities. Also enables the Council and charities to list out volunteering opportunities
- Staff view for monitoring, moderation and supporting where needed

POTENTIAL TECHNOLOGY COMPONENTS

- Community Groups
- External community portals
- Case Management System
- Authorisation System
- Moderation system
- Forums
- Campaigns & Surveys
- Digital Marketplace

DIGITAL SELF-SERVICE



Transactions and assessments designed in a way that they require minimum effort from residents and provide decision makers with real-time data and archived history to make rapid decisions

- Report it: Enables residents to easily report issues
- Request it: Enables residents to request services or assets
- Apply for it: Enables residents to make online application for services and benefits
- Pay for it: Enables users to pay online, or offline for any service through a consistent and simple process
- Book it: Enables residents to book appointments
- Enable payments and refunds for multiple services in one transaction, linked to the invoice
- Provide support of delegation to a carer or an agent acting on behalf of a resident
- Enables residents to proactively self-assess their overall needs
- Allow for transactions and assessments to be paused and resumed at a later date for a connected account
- Support secure identification and verification with evidence capture
- Meet Accessibility standards, declarations and equality duties for all communities
- Provide access to real-time support without having to re-enter the information

POTENTIAL TECHNOLOGY COMPONENTS

- Digital Portal
- Business Rules Engine
- Customer Relationship Management
- Case Management System
- Knowledge centre
- Payment Gateway
- Notification Gateways (Email, Short Message Service, ...)
- Electronic Document and Records Management System
- Workflow
- Form Engine
- Online support, web chat

INTELLIGENT INFORMATION



A smarter way for residents to receive and send information. Consolidating and mastering information in one shared place.

Smart inbound information

- Intelligent search across the whole platform to find the most appropriate information or transaction
- Use natural vocabulary to enable quick and easy navigation to information
- Artificial intelligence to provide real-time virtual assistance
- Single version of the truth and 'golden' record

Smart outbound information

- Enable proactive multi-channel messaging that supports the sharing of information or prompts to complete an action in more detail
- Display intelligent content across the site based upon the user's profile and context
- Suggestion of relevant and related services to the user

POTENTIAL TECHNOLOGY COMPONENTS

- Search Engine
- Predictive and natural language search
- Artificial intelligence
- Master record of data
- Master Data Management
- Online profile
- Business Rule Engine
- Notification Gateways (Email, Short Message Service)
- Social notifications (Facebook, Twitter, ...)

DATA & ANALYTICS



Real-time dashboards and analytics reports allow the Council to make the right decisions and prioritise actions.

- Customisable dashboards to enable real-time decision making that is easy to filter, share and view in the office or a mobile device
- Harnesses the power of insight, based on historical data to anticipate future trends
- Use statistics analysis for decision making and residents & staff interaction
- Monitor social trends to improve service and pre-empt needs
- Communicate to residents how the Council is acting and performing
- Ability to monitor and identify fraud

POTENTIAL TECHNOLOGY COMPONENTS

- Business Intelligence
- Extract Transform Load
- Reporting Tool
- Statistical Analytics
- Predictive Analytics
- Data Visualisation
- Dashboards
- Social listening
- Customer Relationship Management
- Master Data Management

INTEGRATION



Designed to support a robust and consistent integration with line of business as well as a better engagement and seamless flow of transactions across partners for richer insight

- Facilitate exchange of information between internal systems in a robust and consistent fashion
- Use integration of systems to pre-populate information where possible during a self-serve experience
- Allow seamless and secure integration to enable the sharing of data with other partners e.g. other councils, Police, Health
- Integrate easily with existing and future line of businesses for a seamless experience for residents
- Future proof against technological and partner changes and different delivery models

POTENTIAL TECHNOLOGY COMPONENTS

- Application Program Interface (API) exposed for partner access
- Calls to partners APIs
- Application Protocol Interface Management
- Enterprise Service Bus (ESB)
- Extract Transform Load (ETL)
- Authentication and access management (IdAM)

DIGITAL EMPLOYEE



A new way of working that supports and promotes self-service, collaboration and mobility.

- Enable employees and members to self-serve, automating where possible
- Access all information including holiday records, performance appraisals, training records, tasks and notifications on a consolidated portal
- Ease the access to all information with the need to log in once only
- Enable employees to collaborate and share information in real-time
- Create a space where information and documents can be shared in an easy-to-find format
- Allow employees and members who require it, to be mobile without being restricted in their work
- Easy and simple assets requests and allocation

POTENTIAL TECHNOLOGY COMPONENTS

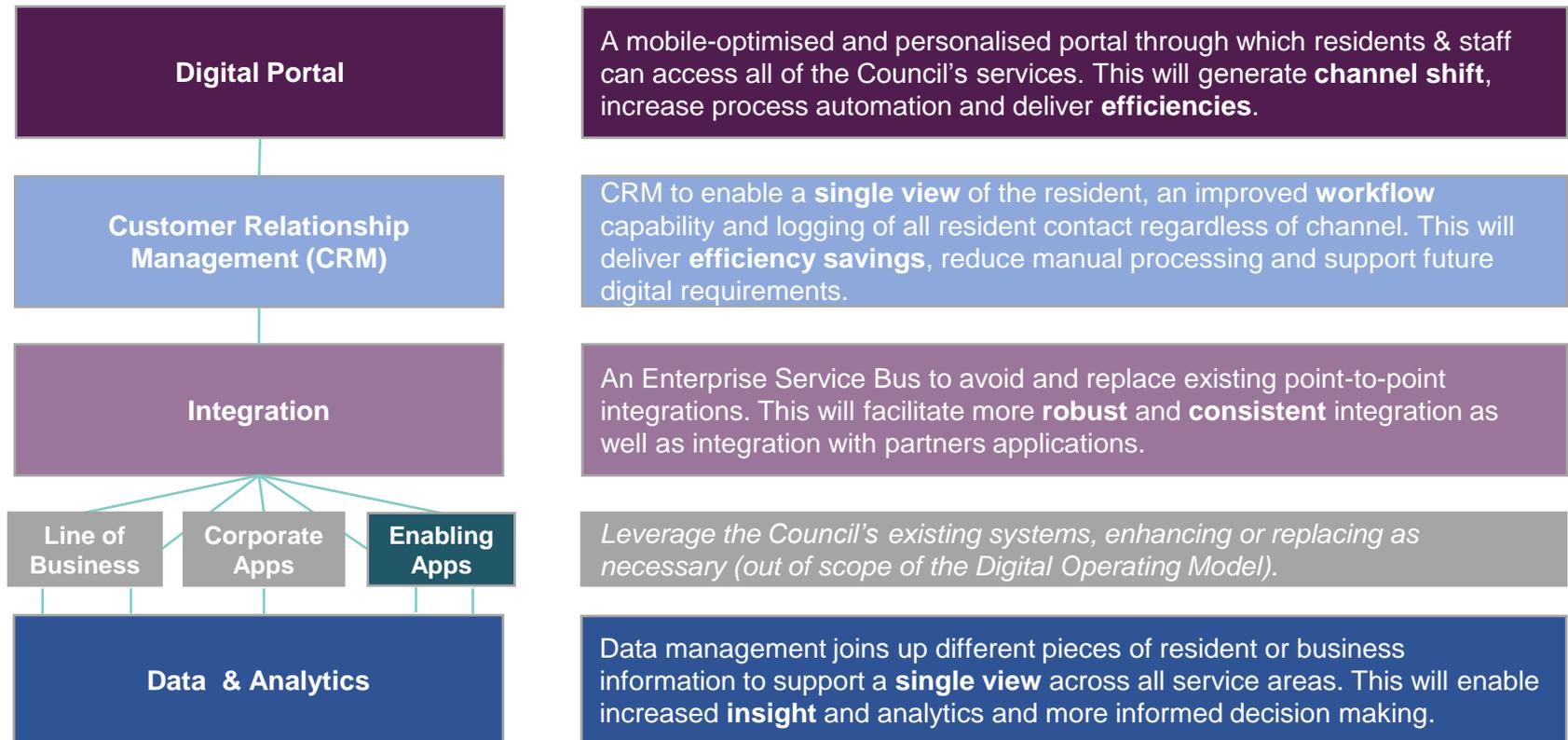
- Self-service portal
- Collaboration tools
- Knowledge centre
- Electronic Document and Records Management System (EDRMS)
- Online training
- Single Sign On
- Mobile Solutions
- Secure Authentication
- Enterprise Resource Planning
- Asset Management tool

TARGET STATE ARCHITECTURE



WHAT TECHNOLOGY IS REQUIRED TO ENABLE THE CHANGE?

The technology components derived from the emerging requirements have been collated to form an architecture that will underpin the Council's future state. These have been integrated together into a high level architecture that illustrates how the different components will work together to enable the future state design.

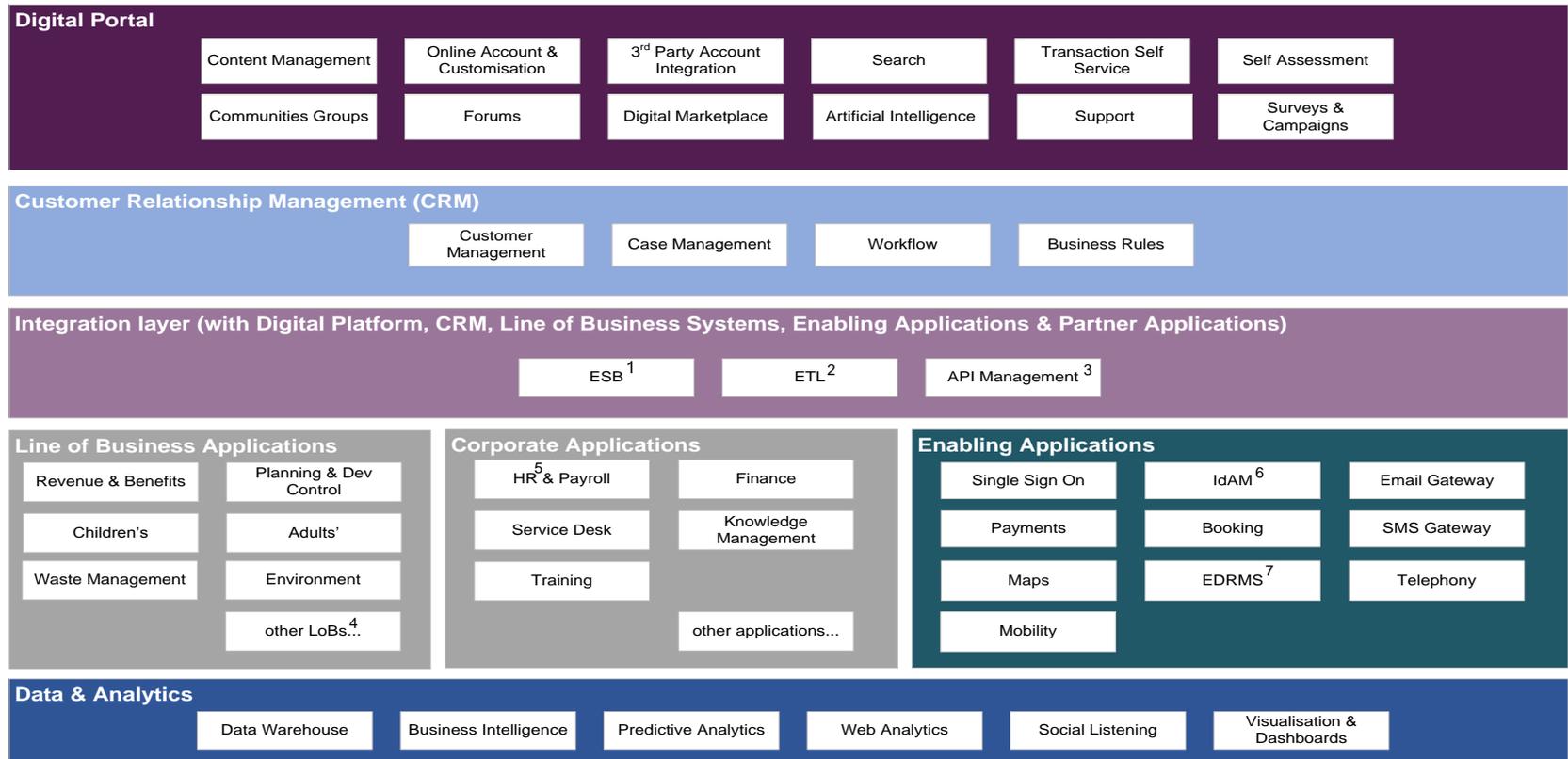


It is worth noting that the Security aspect is not covered in the TSA. This is by design as that aspect does not fit in this document. It will be however covered in a future step, as part of a Solution Architecture document.

WHAT TECHNOLOGY IS REQUIRED TO ENABLE THE CHANGE?

The high level architecture can be further detailed to illustrate how the emerging requirements from the previous section are fulfilled and integrated in one of the 4 layers of the future Digital Platform, by a technical component.

Note that Line of Businesses fitness assessments are out of scope of the Digital Operating Model project but shown here in order to illustrate how they will fit in the new Digital Platform.



Implementation of the TSA will support the simplification and reduction of the IT estate, reduce ongoing support effort associated with multiple systems and modernise the Council technology stack, in line with the Technology Strategy.

¹ ESB: Enterprise Service Bus
² ETL: Extract, Transform, Load

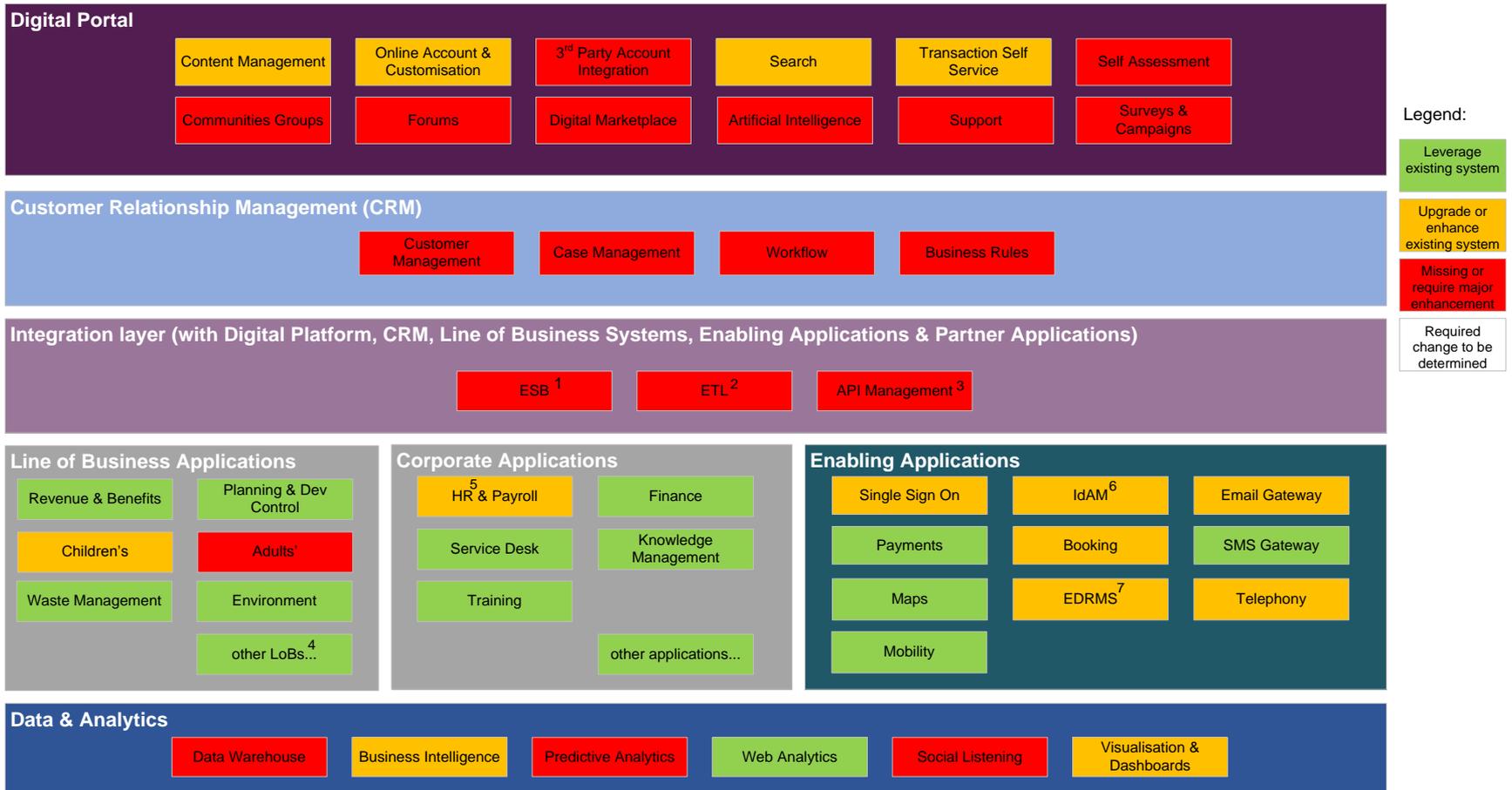
³ API: Application Program Interface
⁴ LoB: Line of Business

⁵ HR: Human Resources
⁶ IdAM: Identity and Access Management

⁷ ED RMS: Electronic Document and Records Management System

COULD CURRENT SYSTEMS SUPPORT THE DIGITAL VISION?

Existing systems have been considered and assessed as to how well they could support the creation of a new Digital Platform. A significant proportion of capabilities are assessed yellow or red, indicating a gap or need to make improvements or rationalisation.



* Details about the status of the components can be found in Annex A.

ALIGNMENT WITH THE TECHNOLOGY STRATEGY

It is important to ensure the Target State Architecture supports and delivers all the ambitions defined and agreed in the Technology Strategy. The following shows how the target state has been developed in alignment with the Technology Strategy.

<i>Core Ambition</i>	<i>Description</i>	<i>Alignment in TSA</i>
Data-centric	Data and services will be accessible anywhere , on any device and in the context that the user chooses regardless of the underlying data source.	The Digital Platform is to be mobile-optimised, supporting multi-device and multi-channel access.
Cloud by default	To align with best practice, strategic solutions across all Council service areas will be implemented with a key focus on cloud platforms and solutions .	This will be delivered during procurement via preferring solutions and suppliers on the cloud if available and relevant.
Corporatised IT	An IT function, with a focus on delivering service excellence , will be set up with decision-making and governance processes to reflect changes in the future technology landscape and organisation operating model using the technology architecture artefacts mentioned above.	The Digital Platform provides a single place to access all staff needs with single sign-on. The Integration layer allows integration with existing Corporate applications and new ones for better support of residents and businesses.
Use of COTS	Technology will be a key enabler for new services, but also a means to ensure efficiencies in delivery and value for money . The use of commercial off the shelf (COTS) technologies and solutions should be the preferred option. When specific customisation is necessary it must be done consciously and when commercial off the shelf offerings have been evaluated.	This is supported, delivering the Digital Platform as a single solution. This will be delivered during procurement via preferring COTS solutions delivering the largest amount of requirements, if available and relevant.

SOURCING OPTIONS



SOURCING PRINCIPLES

Sourcing Principles underpin decision making for the procurement, ensuring the procurement is proper, legal, and ethical. Procurement of the technology components needed to realise the target state architecture will follow the Council's procurement approach and will be compliant with all regulations applicable to Local Authorities. In particular:

Principle	Description
<i>Appropriate sourcing route</i>	Comply with Public Contract Regulations and principles, using procurement routes that are a strategic fit for the Council.
<i>Value for money</i>	Manage procurement as a project and use existing Procurement service, consider cost as an important factor in the selection process.
<i>Bundling</i>	If a solutions exists that covers several features or components defined in the TSA, these will be the preferred solution. This will provide easier integration as well as a usually cheaper cost.
<i>Government technology frameworks</i>	If a solutions exists and is available via an existing GDS framework, these will be preferred sourcing options. This will allow using a standard, faster, tried and tested procurement process.

To deliver the digital operating model, the recommended route for procuring and implementing the target state architecture will be through the Digital Marketplace, in particular the G-Cloud framework. Using this approach, it will be possible to save on the time and cost traditionally associated with entering into individual procurements as all Digital Marketplace frameworks have successfully been through the OJEU process.

However, during the procurement phase, should other options emerge which are more beneficial in terms of cost or timelines, these will not be precluded.

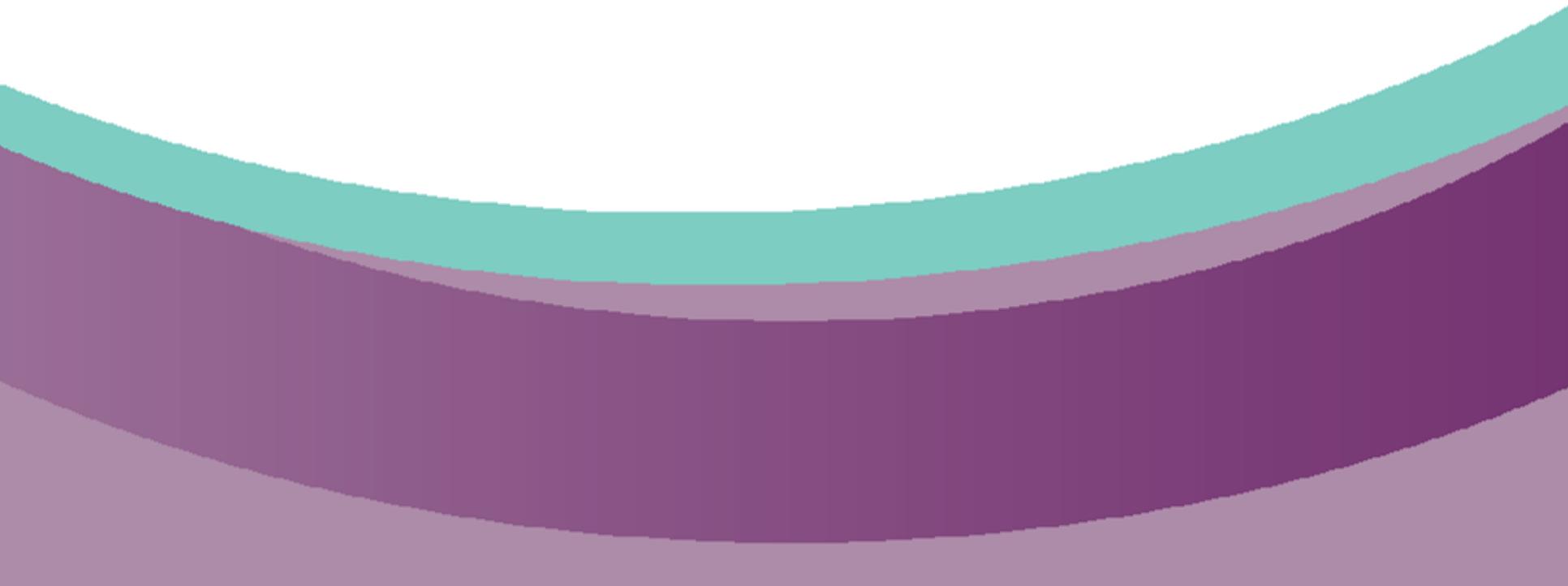
Further information on procuring through G-Cloud can be found at <https://www.gov.uk/guidance/g-cloud-buyers-guide>. The following section provides an overview of how this will apply to the Council.

SOURCING PROCESS

To use G-Cloud, the Council will have to keep a record of all the selection process stages and demonstrate a clear, accountable audit trail, including searches carried out, filters applied and any evaluations made. The steps involved in using G-Cloud are as follows:

Sourcing Step	Description
Requirements	The feature requirements described in this document along with emerging requirements as the design progresses will be used to assess the technologies and services that are available and are a good fit for the programme and the Technology Strategy.
Search & Filter	Buyers search for services on the Digital Marketplace and narrow down the list of possible suppliers using filtering and then keyword searches e.g. “Local Authority Platform”, “CRM”, “Digital Portal”.
Evaluate	<p>There are 2 ways to review your shortlist: lowest cost or most economically advantageous tender (MEAT). For a MEAT-based assessment of suppliers, it will be necessary to use the criteria listed below, but you can decide what detailed characteristics you use and how you weight them.</p> <ul style="list-style-type: none">•Whole life cost: cost effectiveness and running costs•Technical merit and functional fit with the emerging requirements•After sales service management: help desk, account management and assurance of supply•Non-functional characteristics e.g. ability to execute, vendor reputation
Award/Buy	<p>If only one supplier meets the requirements, it is possible to award the contract without doing anything else.</p> <p>If there are a number of suppliers on the shortlist and all of those suppliers meet the requirements, the decision rests with the Council. This choice could be based solely on the cheapest price available or based on best fit.</p>
Record Savings	<p>Upon entering into a contract, a G-Cloud Customer Benefits Record must be completed and submitted to Crown Commercial Services.</p> <p>Contract awards on G-Cloud can only last for up to 24 months. After this period, it will be necessary for the Council to re-evaluate their needs and the services purchased. If the needs/requirements haven't changed, it will be necessary to repeat the search conducted previously, checking no other services are available, if not they can reorder with the existing supplier.</p>

NEXT STEPS



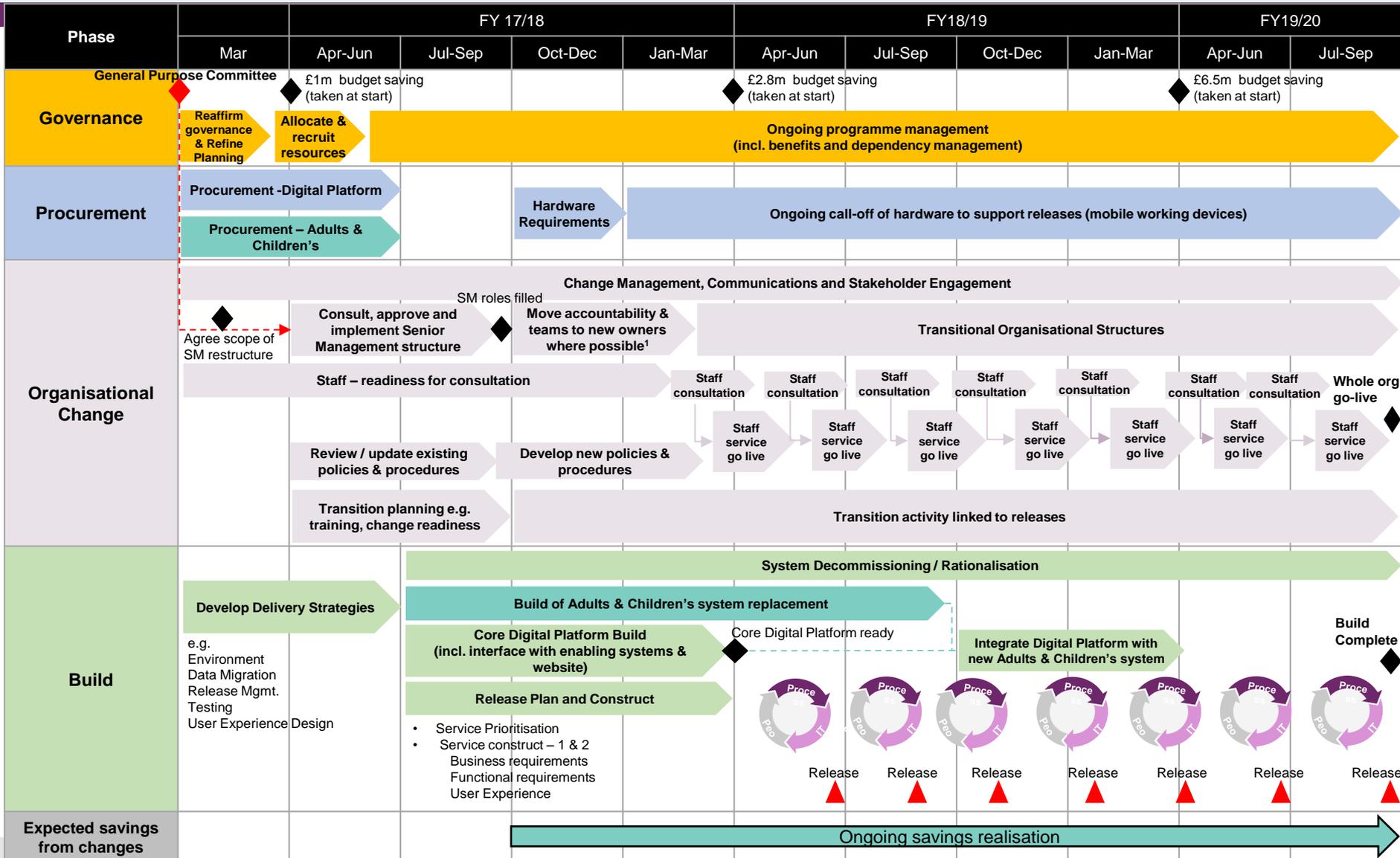
NEXT STEPS

Building on the current state assessment of the Council's IT systems, a high level solution architecture will be developed. The purpose of this document will be to make explicit technology recommendations for each component identified in the target state. This will involve:

- Further-fit analysis of existing technology already available at the Council,
- Soft market testing with vendors to assess other market offerings,
- Development of technology assessment criteria based on: fit to requirements (functional and non-functional), cost, risk and benefits,
- Options papers for key components along with a technology recommendation,
- Support of requirements gathering activities in order to ensure the validity of the target state architecture.

In addition, the solution architecture will also involve the development of a roadmap, based on a series of transitions states designed to align with Council change during the digital operating model implementation as well as existing commercial contracts in place (this is illustrated overleaf).

HIGH LEVEL PLAN



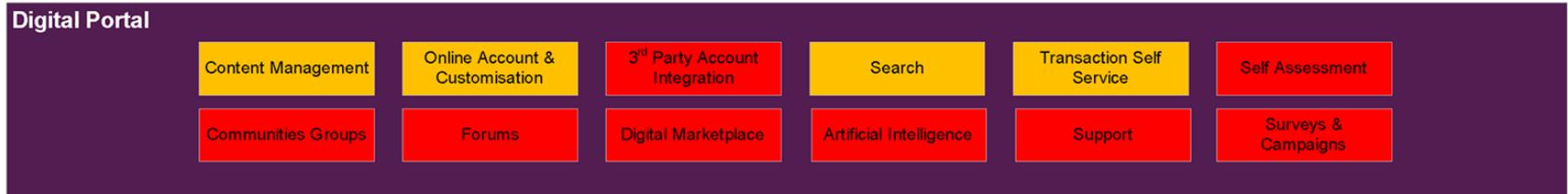
¹The move of accountability and teams to new Senior Manager structure is a complex process that needs to be worked through in more detail in the coming months

ANNEX A – APPLICATIONS ANALYSIS



APPLICATIONS ANALYSIS

This section provides additional details on existing systems that could provide the functionality of one or several of the Digital Platform components, and gives a rationale for the RAG rating that was allocated to each.



Component	Rationale
Content Management	There are currently several technology components used in house that provide some CMS functionality. The Digital Platform will rationalise this state and build around one common technology for all services.
Online Account & Customisation	There is currently no ability to create an account. It is noted that a project is in progress for Revenue & Benefits and, if appropriate, could be extended for all services.
Search	There is a useable search engine used to index the current site. Its implementation on the site should be reviewed and it would need to be extended to be used globally to allow finding matches from LoBs and documents as well as the main site.
Self Assessment	There is a single self assessment tool which is a single online form i.e. it is not dynamic and testing has shown it is difficult to use. It is a customised tool.
All other red rated	Currently does not exist on the Council's website.

APPLICATIONS ANALYSIS

Customer Relationship Management (CRM)



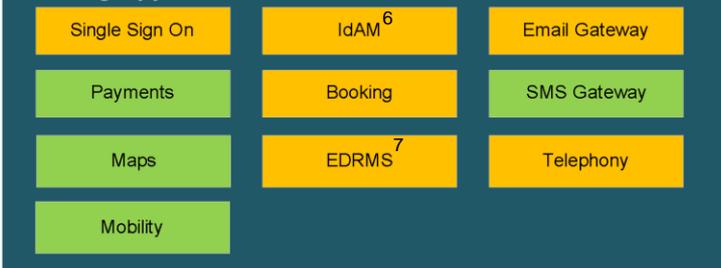
Component	Rationale
CRM	There is currently no CRM solution in place within the Council. There are however several systems that do have a CRM capability or replacement functionality which also applies to workflows that can be found in the existing forms solution.

Integration layer (with Digital Platform, CRM, Line of Business Systems, Enabling Applications & Partner Applications)



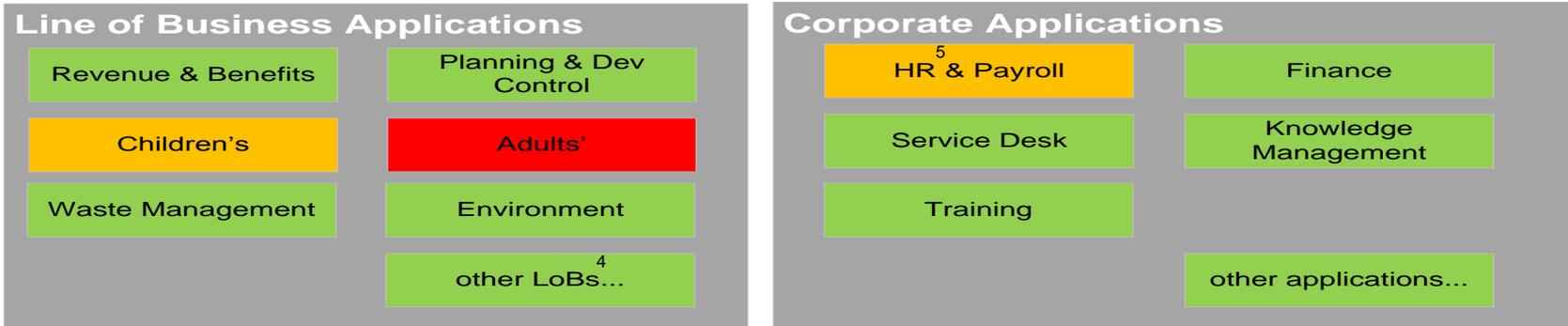
Component	Rationale
Integration	There is currently no common Integration in place but instead a lot of point to point integration solutions. One screen scraper solution is available for very specific and limited cases but hasn't been used yet.

Enabling Applications

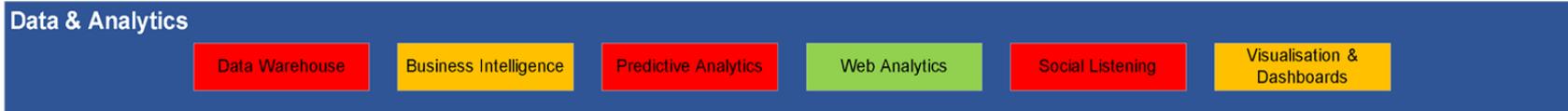


Component	Rationale
Email & SMS Gateways	No email gateway per se although there is a newsletter function.
Booking	No common solution although a new system just started being used at Registrars.
EDRMS	Several solutions are used for document storage due to different workflow requirements.

APPLICATIONS ANALYSIS



Component	Rationale
Line of Businesses & Corporate Applications	<p>Initial analysis of the line of business systems have confirmed that APIs are available. However, it is noted there are enhancement projects started around the Children and Adults' systems.</p> <p>Where a direct integration is not possible, other approaches will be assessed, e.g. it will be possible for the integration layer to instead send an email to the appropriate email inbox to be picked up by a workflow process.</p> <p>These cases are expected to be in the low numbers and systems can be expected to be enhanced at a future stage for a better integration.</p>



Component	Rationale
Data Warehouse Predictive Analytics Social Listening	Currently does not exist on the Council's website.
Business Intelligence (BI) & Dashboards	Several solutions for different needs and not easy to create new report or visualisation

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ANNEX B - TECHNOLOGY COMPONENT PROFILES



TECHNOLOGY COMPONENT PROFILES

This section provides a profile slide for each of the main components that are part of the Digital Platform Architecture.

For each element, it summarizes

- The main requirements that should lead to a recommendation
- The benefits of having the technical component in place
- The current state at the Council
- Considerations when choosing the solution

DIGITAL PORTAL

A Digital Portal enables to provide residents with a highly personalised, interactive service online. Additionally, the self service element will automatically link residents interactions to the relevant service area or system without manual intervention, delivering efficiency savings for Bedford Borough Council.

Requirements

- **One log in** to access all services e.g. payments, bookings,
- **Customisable homepage** tailored to the resident's needs and preferences
- **Customisable settings** e.g. preferred communication channel such as email or text, types of information a resident would like to receive
- **Online alerts** e.g. your results are published
- The use of **Single Sign On (SSO) through existing accounts** e.g. Facebook
- **Interaction log** keeps to record prior contact

Benefits

For residents

- **Informative:** Residents are informed of things that matter to them
- **Versatile:** Residents have access to services tailored to their needs

For Bedford Borough Council

- **Increased process automation** due to increased self serve usage
- **Improved view of** the resident through resident specific data/ intelligence collected

Current state

- The Council does not provide the ability for a resident to create an account which can be used for: personalisation, case management, self assessments.
- Residents can complete some basic online applications however that information is not automatically forwarded to the end system and requires manual processing and re-keying. A portal would pre-populate forms with resident data and automated processing would make the resident experience a better one.
- A new portal has been started, based on .NET which the Council is skilled for.
- Single sign-on can't be used with all systems as some are on different upgrade path and are not currently compatible.

Considerations

There are many digital portal technologies from which to choose and a full market engagement is recommended.

In the open source market, there are players with vibrant developer communities and marketplace where it is possible to download modules that provide portal capability.

In commercial options there are substantially large developer communities which could be used for development needs.

CUSTOMER RELATIONSHIP MANAGEMENT

The Council having currently no CRM, implementing one will enable a single view of a resident for service staff, enable more efficient resident service and deliver a more joined up resident experience. Additionally, investment in a strategic CRM solution will drive savings as it can be used to replace existing line of business systems. This will deliver efficiency savings, reduce manual processing and support future digital requirements.

Requirements

- **A single customer view** providing the ability to track residents and their communications across every channel
- **Social Engagement** to analyse what residents are saying on social media and the news
- **Integration** with digital portal, email marketing, finance and office productivity systems
- Use of the **CRM workflow and case management** features to replace existing line of business systems
- Shared resident insight through **BI Dashboards and interactive reports**

Benefits

- Improved resident service levels
- Better communication between different teams in Bedford Borough Council, facilitating a more cooperative approach to resident service
- The self service portal will automatically link residents interactions online to the relevant service area or system without manual intervention, delivering efficiency savings for the Council
- Greater insight to residents and their interactions
- Using the workflow capability of a leading CRM will provide a platform for simplifying the IT estate and potentially Line of businesses

Current state

- There is no CRM system in place.
- Residents make applications online however then cannot monitor their request progress
- There is no single view of a resident and their interactions with the Council. This creates inefficiencies as there is not a clear view of a resident's history. Additionally, a request in the context of Bedford Borough Council, can come from someone who applies for someone else as their Carer.
- Inadequate flow of information between systems results in manual tasks and inconsistent experience

Considerations

There are several leaders on the market which should be reviewed for their completeness of vision and ability to execute. A market intelligence analysis should be able to provide that information.

The Council should also consider options that can have a Not For Profit pricing option.

Other considerations:

- Their workflow capabilities that could act as a platform for replacing administration systems
- Social engagement features that are tightly coupled with the resident record, enhancing the single view

ENTERPRISE SERVICE BUS

A key component of the recommended Target State Architecture is an ESB which would enable the Council to integrate the digital portal, CRM and Line of Business systems in a consistent and robust manner.

Requirements

- Future proof against technology and partner changes
- Consolidate and share information between systems, have a 'golden' record that is the single version of the truth
- Reduce multiplicity of technology and complexity of the IT landscape

Benefits

- Provides the Council with a strategic approach to integration
- Isolate and reduce impact of a change of line of business, thus removing any dependence effect
- Isolate challenges raising from multiple technology and language stack, providing a single and consistent way to exchange information
- Suitable with a digital forward looking platform, scalable and flexible

Current state

- There is no ESB system in place. A screen scrapper is available but not in use.
- Integration is made point-to-point between systems, using a multiplicity of small integration tools but that is customised for each specific need.

Considerations

Consider and evaluate using an ESB to replace existing point-to-point, batch transfer and manual re-keying integrations between internal, corporate and Line of Business systems. This would involve understanding the integrations required between systems.

BUSINESS INTELLIGENCE & DASHBOARDS

Based on the digital vision articulated by Bedford Borough Council, placing data at the centre of the Council and deriving insight from it is of vital importance, e.g. establishing the link between a resident's needs and their interaction with the Council. Business intelligence (BI) simplifies information discovery and analysis, making it easy to access, understand, analyse, collaborate, and act on information, anytime and anywhere.

Requirements

- Rich and interactive visualisations
- Self Service functionality and reporting
- Web publishing and content sharing
- Filters and dynamic drill downs
- Ability to work with multiple data sources e.g. CRM, finance, line of businesses

Benefits

- Prediction of residents demand using more scientific methods
- A standardised approach to data visualisation beyond simple charts and tables
- Dashboards that display information in real-time
- All of Bedford Borough Council's data presented in one place
- Replacement of bespoke analysis i.e. spreadsheets
- Consolidation of the application estate as multiple existing solutions could be replaced

Current state

- BI & Reporting is provided by a mixture of different applications.
- Inadequate flow of information between back office systems means the information is not shared between systems and BI on residents is somewhat limited.
- There is no predictive analysis of residents interactions with the Council.
- There is no analysis of social trends.

Considerations

There are several leaders on the market which should be reviewed for their completeness of vision and ability to execute. A market intelligence analysis should be able to provide that information

Several players are positioned as established leaders/visionaries in the field of End User BI, alongside large enterprise and analytics solution integrators.

Consider planned technology rollouts that could make new products available as part of the offering and could act as the foundation for building a Data Analytics capability.

CLOUD PLATFORM

A Cloud Platform offered by a service provider is a hosted service which facilitates the deployment of software applications without the cost and complexity of acquiring and managing the underlying hardware and/or software layers.

Requirements

- Technology and infrastructure that can scale as Bedford Borough Council's resident base increases
- Business continuity and data security
- Automated application of patches and fixes
- Value for Money
- PSN compliant

Benefits

- Cloud based services are ideal where there are fluctuating bandwidth demands. If the service needs increase, it is easy to scale.
- Gives access to enterprise class technology, making it easier to disrupt the market as infrastructure can be commissioned immediately
- Increases the maturity of the digital workforce as access to Cloud platforms is over the Internet
- Decreases hardware costs (CAPEX) as Cloud is based on a pay as you go model (OPEX)

Current state

- There is a mix of on-premise, cloud enabled and hybrid (parts being hosted locally and other on the cloud) hosting solutions for the systems.
- The majority of the services are however on the cloud as they have previously transitioned to use their cloud offering.

Considerations

Evaluate completeness of offering and ability to execute. Of particular note for Bedford Borough Council is content storage and delivery services.

Consider the option of a hybrid cloud platform with a common set of technologies and capabilities across on-premises, and Service Provider clouds making it easier to move Virtual Machines.

ANNEX C – GLOSSARY



GLOSSARY

Acronym	Definition
API	Application Program Interface
BI	Business Intelligence
COTS	Commercial Off-The-Shelf
CMS	Content/Case Management System
CRM	Customer Relationship Management
EDRMS	Electronic Document and Records Management System
ERP	Enterprise Resource Planning
ESB	Enterprise Service Bus
ETL	Extract Transform Load
GDS	Government Digital Service
Gold Mark	Satisfactory of industry standards
HR	Human Resources
IdAM	Identity and Access Management

Acronym	Definition
IT	Information Technology
LoB	Line of Business
OJEU	Official Journal of the European Union
RAG	Red Amber Green (Assessment rating)
SMS	Short Message Service
SSO	Single Sign-On
TSA	Target State Architecture (this document)

