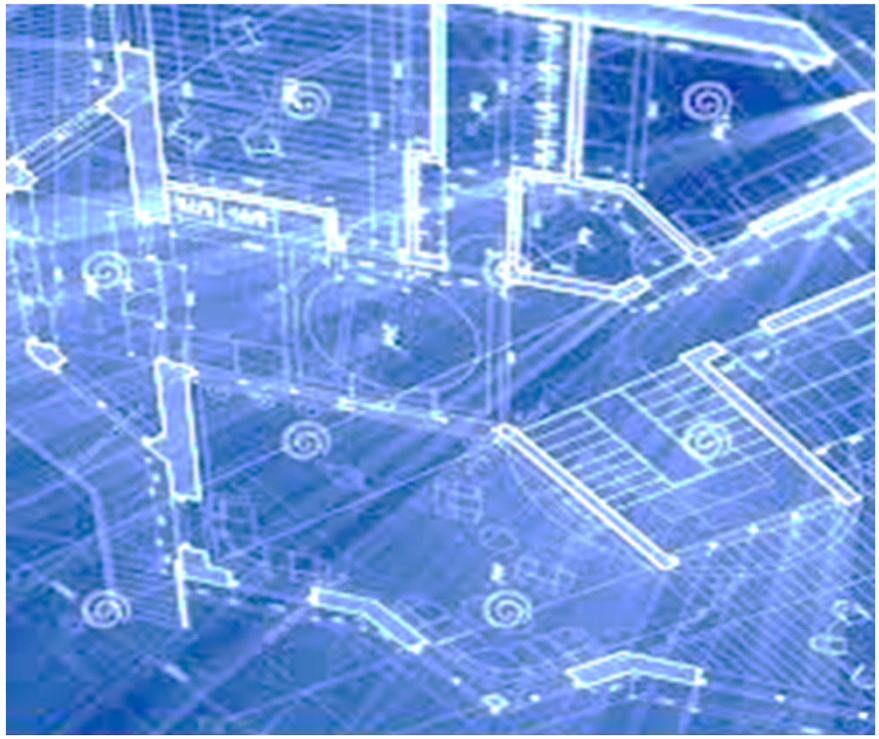
Enterprise Architecture
Havering Council

Tim Ward, optima IT Ltd



optima

Maximising return on IT investments

Introduction

This document sets out a high level roadmap to best deliver on the internal and external drivers facing Havering council.

Fundamentally this roadmap should deliver a cost effective, robust and appropriately flexible platform and enabler for the council to deliver to its organisational goals.

The document recaps the drivers for change, sets out a high level target state architecture that enables the organisation to address these drivers and a high level roadmap to deliver toward this target state.

Context

The Covid-19 crisis has created opportunities for, a re-examination of business priorities and the ensuing IT roadmaps (architecture) for our council.

“Enterprise Architecture” is, fundamentally, about aligning IT delivery with the strategic aims of an organisation.

Information Technology delivers no benefits in its own right, it can however be a significant enabler of business change and transformation.

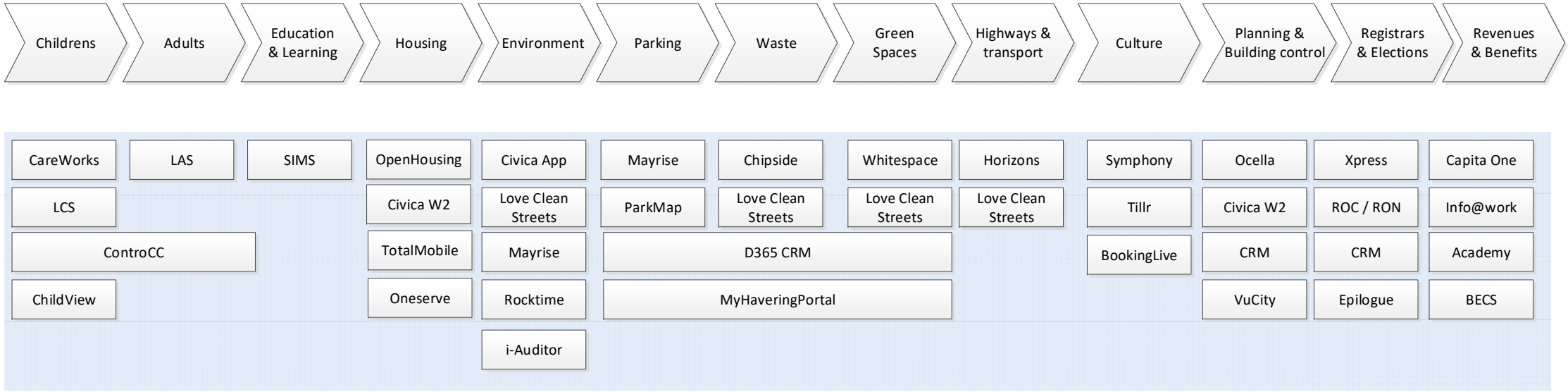
The following diagram is the output of workshops with senior council stakeholders which highlights key drivers and investment objectives that drive business changes. These in turn can be underpinned by IT enablers.

As-is architecture

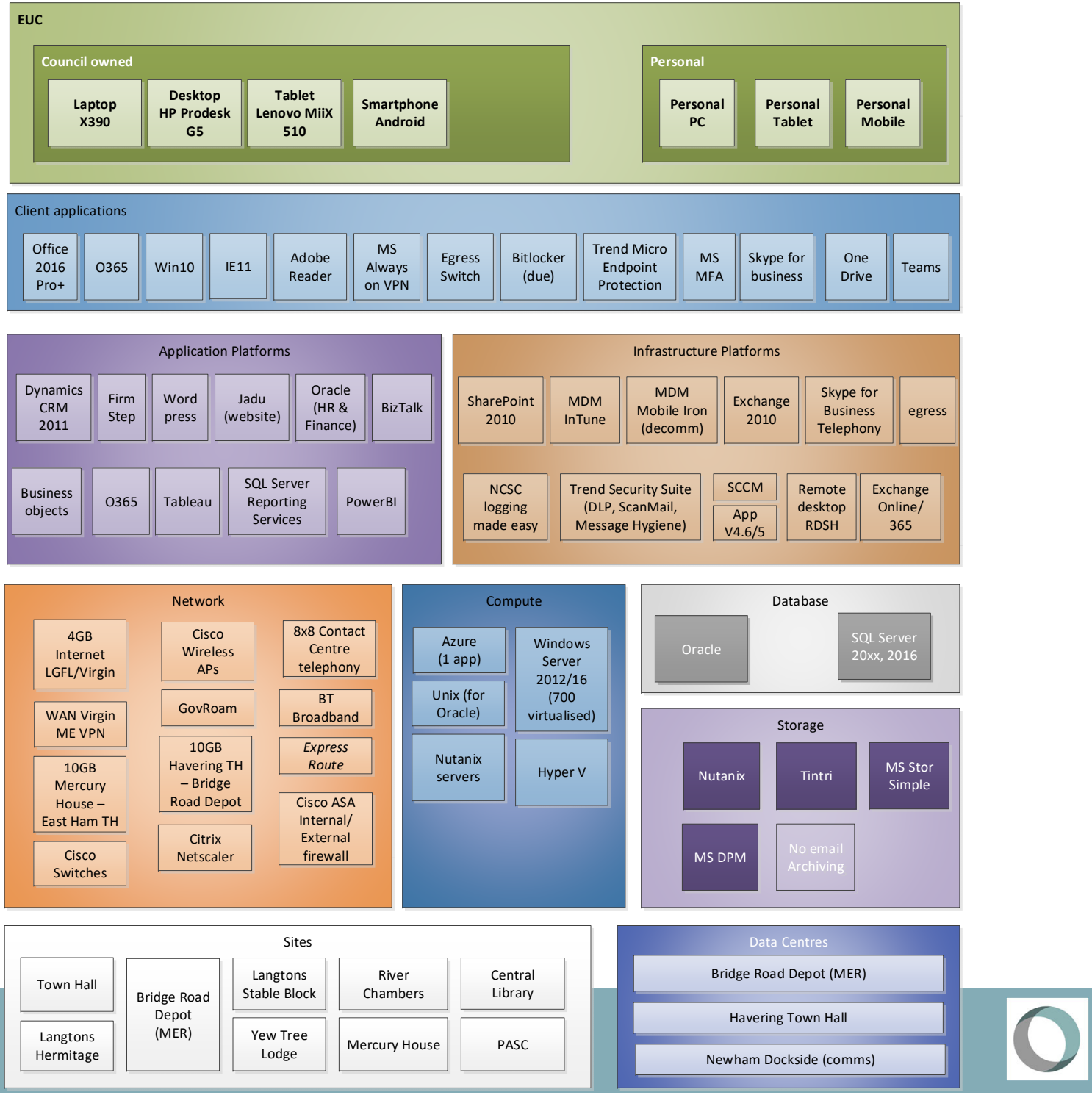
This section includes:

- Application landscape
- Technology landscape

Application landscape



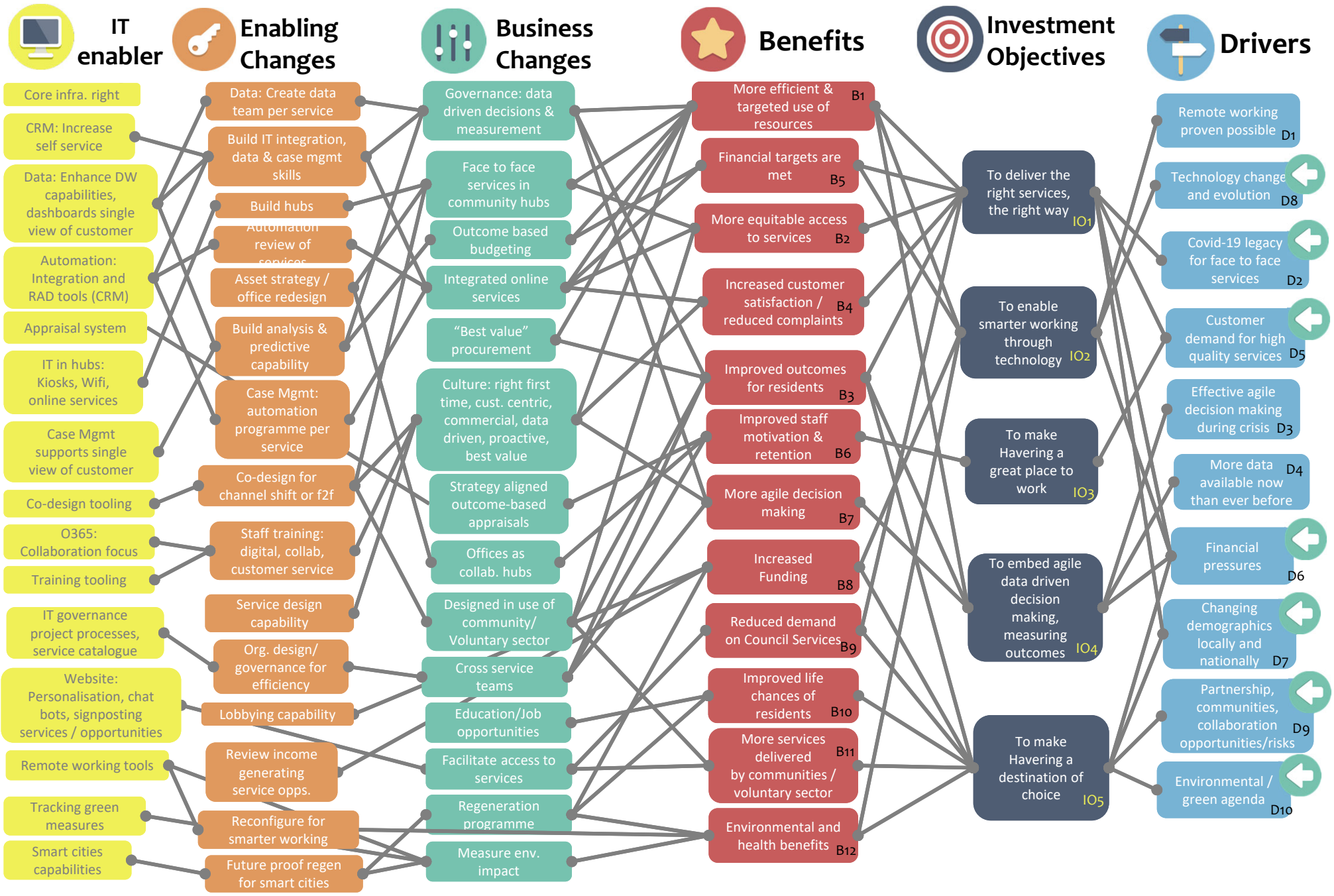
Technology landscape



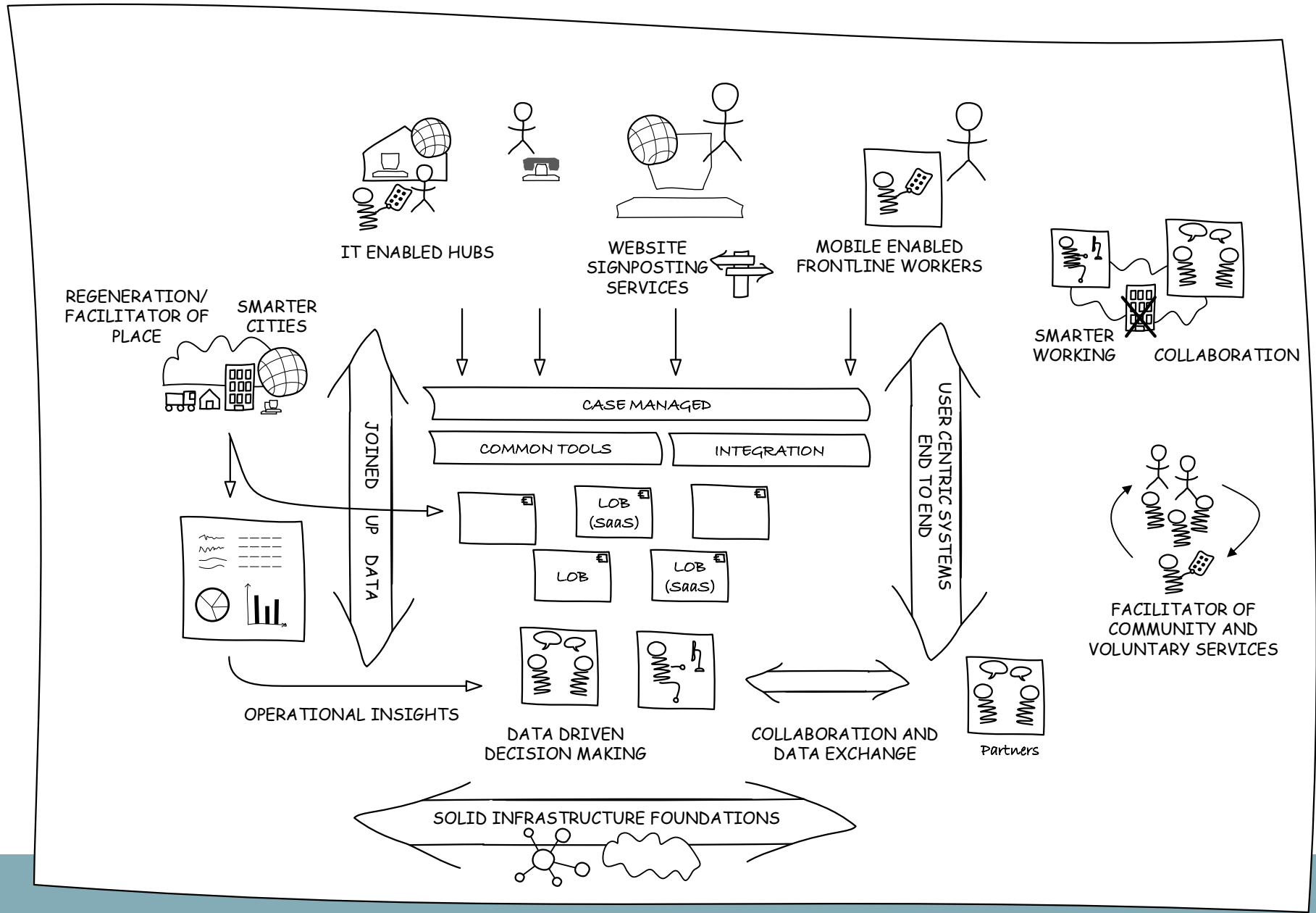
To-be architecture

This section includes

- Benefits dependency network
  - Drivers, Investment Objectives, Benefits sought, Business Changes and IT enablers
- Conceptual target state
- High level roadmap – sunray diagram
- Target architecture themes
- High level architecture components
- High level platform view


IT enabler
Enabling Changes
Business Changes
Benefits
Investment Objectives
Drivers
Core infra. right
CRM: Increase self service
Data: Enhance DW capabilities, dashboards single view of customer
Automation: Integration and RAD tools (CRM)
Appraisal system
IT in hubs: Kiosks, Wifi, online services
Case Mgmt supports single view of customer
Co-design tooling
O365: Collaboration focus
Training tooling
IT governance project processes, service catalogue
Website: Personalisation, chat bots, signposting services / opportunities
Remote working tools
Tracking green measures
Smart cities capabilities
Data: Create data team per service
Build IT integration, data & case mgmt skills
Build hubs
Automation review of services
Asset strategy / office redesign
Build analysis & predictive capability
Case Mgmt: automation programme per service
Co-design for channel shift or f2f
Staff training: digital, collab, customer service
Service design capability
Org. design/ governance for efficiency
Lobbying capability
Review income generating service opps.
Reconfigure for smarter working
Future proof regen for smart cities
Governance: data driven decisions & measurement
Face to face services in community hubs
Outcome based budgeting
Integrated online services
"Best value" procurement
Culture: right first time, cust. centric, commercial, data driven, proactive, best value
Strategy aligned outcome-based appraisals
Offices as collab. hubs
Designed in use of community/ Voluntary sector
Cross service teams
Education/Job opportunities
Facilitate access to services
Regeneration programme
Measure env. impact
More efficient & targeted use of resources B1
Financial targets are met B5
More equitable access to services B2
Increased customer satisfaction / reduced complaints B4
Improved outcomes for residents B3
Improved staff motivation & retention B6
More agile decision making B7
Increased Funding B8
Reduced demand on Council Services B9
Improved life chances of residents B10
More services delivered by communities / voluntary sector B11
Environmental and health benefits B12
To deliver the right services, the right way IO1
To enable smarter working through technology IO2
To make Havering a great place to work IO3
To embed agile data driven decision making, measuring outcomes IO4
To make Havering a destination of choice IO5
Remote working proven possible D1
Technology change and evolution D8
Covid-19 legacy for face to face services D2
Customer demand for high quality services D5
Effective agile decision making during crisis D3
More data available now than ever before D4
Financial pressures D6
Changing demographics locally and nationally D7
Partnership, communities, collaboration opportunities/risks D9
Environmental / green agenda D10

Conceptual target architecture



Target architecture themes (1/2)

IT enabled hubs

- Required face to face service delivery focused around hubs, which also act as locations for signposting access to community and voluntary services. IT supports council staff and access to online services.

Online services

- Increasing channel shift for appropriate services. Signposting of online council services as well as community and voluntary sector services.
- Efficient access to information and services supported by personalisation, webchat and a case management approach to service forms. Case management underpins single view of customer.
- Business process review and redesign for automation and integration opportunities.

Smarter working / collaboration

- Technology as an enabler of different working styles in, around and away from the office. Decrease in office space facilitated by efficient remote working capabilities and collaboration tools.

Mobile enabled frontline workers

- Easy access to required council systems on the move.
- Devices and remote access capabilities go part of the way to supporting this.
- Business process review and redesign are likely required to derive full benefits.

User centric systems – end to end

- Services designed around the end customer, from initial point of contact, across relevant services and through relevant LOB systems.

Target architecture themes (2/2)

Joined up data – supporting operational insights and collaboration

- Joined during the customer journey and at the point of entry.
- As well as joined after the fact for reporting purposes and to address a legacy of un-linked data.
- Data teams aligned with service areas support delivery of performance data, underpinning data driven decision making.
- “Open data” and other mechanisms for appropriate collaboration and data exchange with partners.

Regeneration / Facilitator of space

- Build smart cities capabilities in from the beginning. Signposting and IT facilitation of strategy.

Facilitator of community and voluntary services

- Through signposting / directory capabilities and IT enabled Hubs.

Common tools

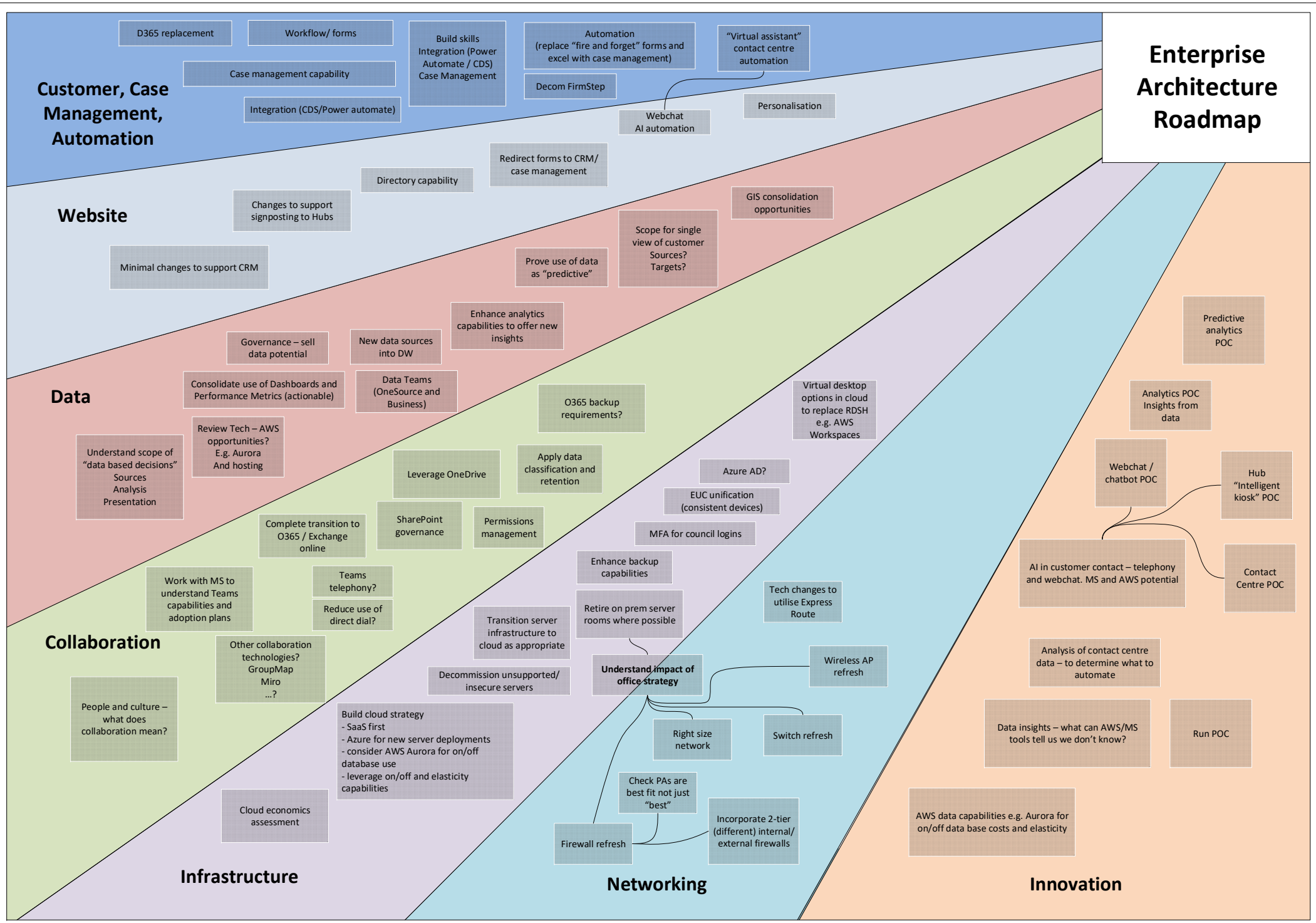
- Leverage core platform capabilities for Case Management, Process Automation, Reporting/Data, Integration.
- Driving reduced cost of ownership, increased expertise and faster delivery from IT.
- Some need for compromise where common platforms maximise benefits to wider organisation.

Integration

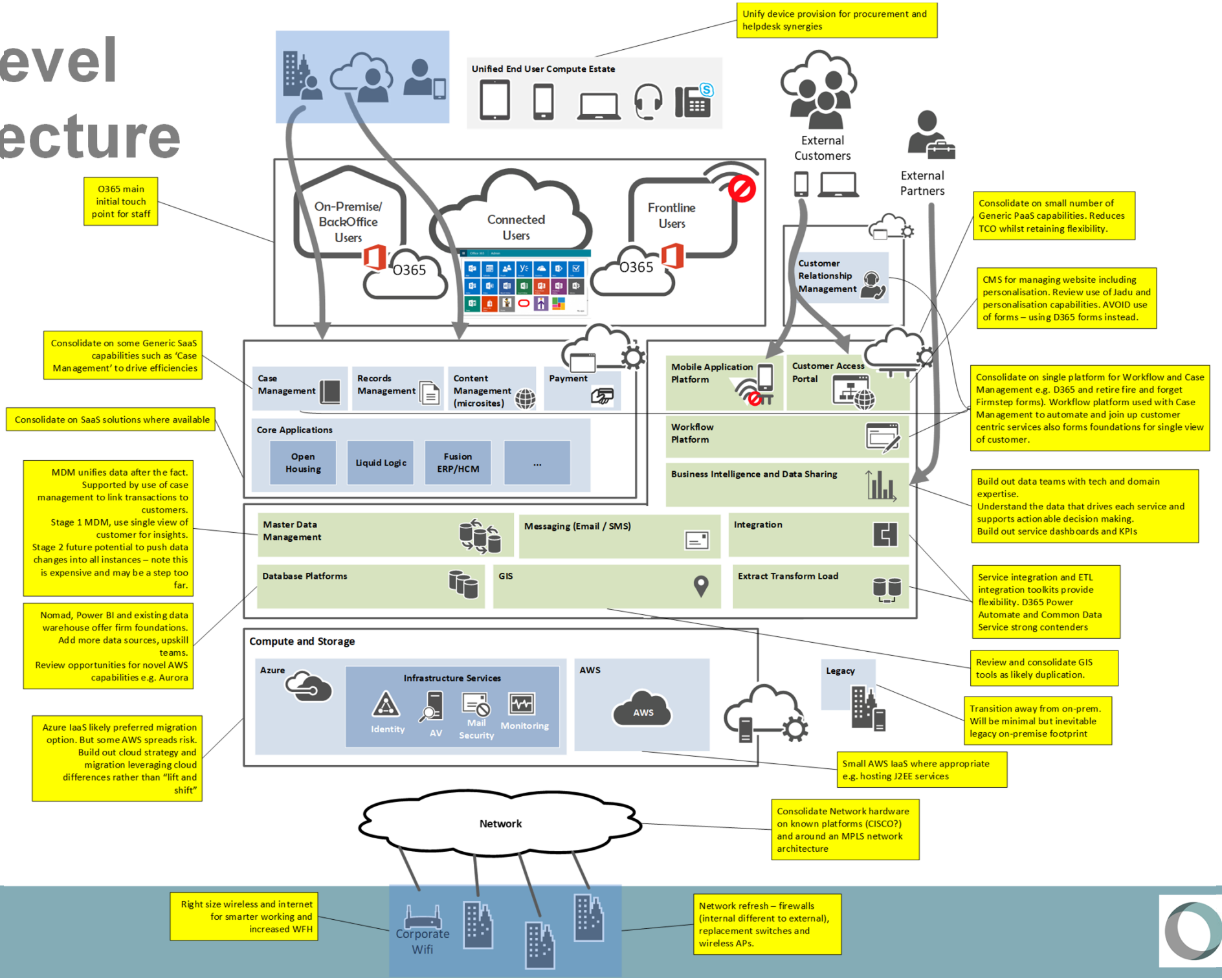
- Efficient council operations facilitated by expertise in Integration capabilities joining up transactions between LOB systems and between service areas.
- Allows for exceptions which optimise solutions for services, with integration back to core platforms.

Solid infrastructure foundations

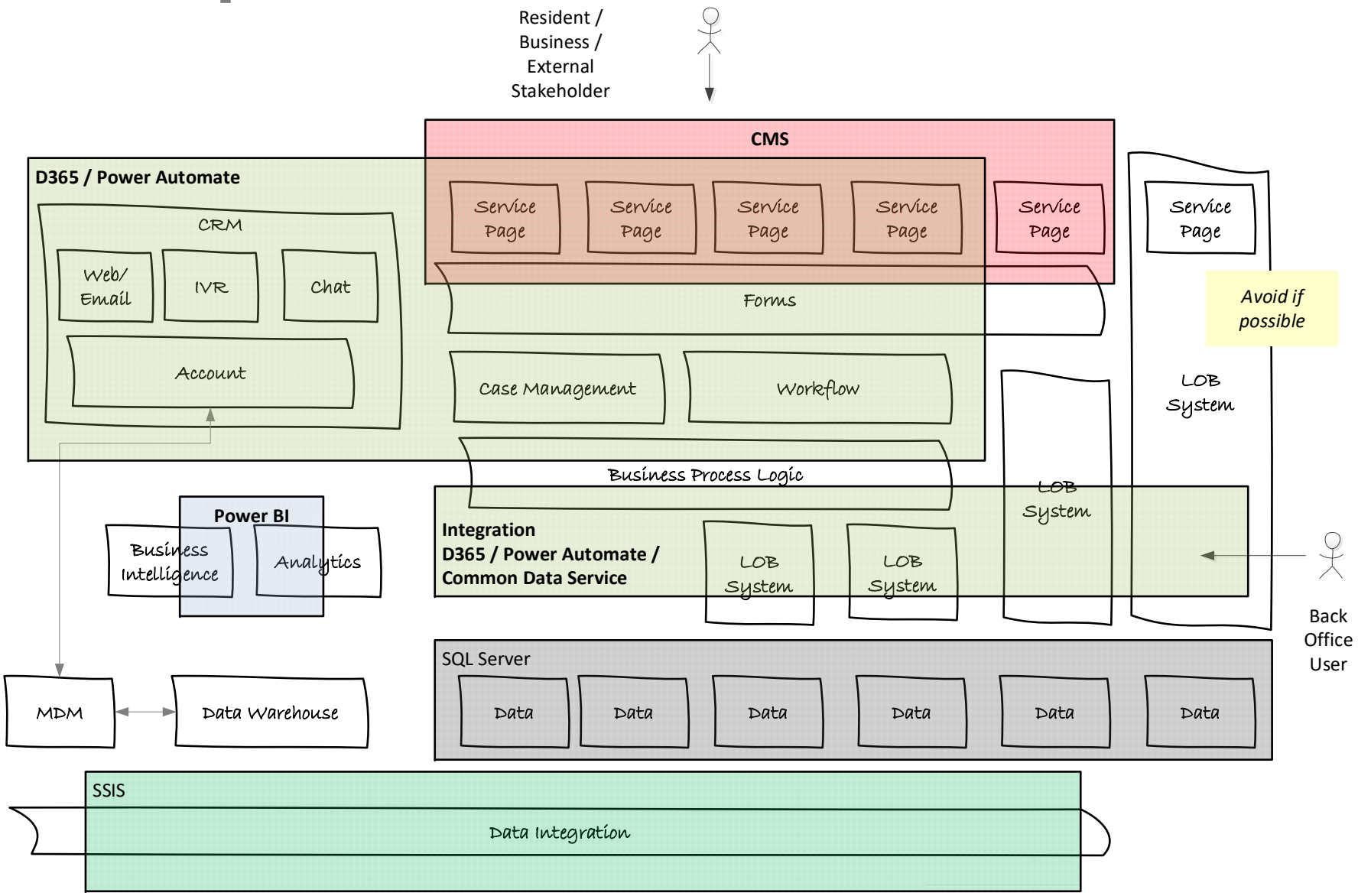
- Appropriate levels of security, resilience and robustness to underpin council services.
- Increasing use of cloud services where cost effective.


Enterprise Architecture Roadmap
Customer, Case Management, Automation
D365 replacement
Workflow/ forms
Build skills Integration (Power Automate / CDS) Case Management
Automation (replace "fire and forget" forms and excel with case management)
"Virtual assistant" contact centre automation
Case management capability
Decom FirmStep
Integration (CDS/Power automate)
Webchat AI automation
Personalisation
Website
Redirect forms to CRM/ case management
Directory capability
Changes to support signposting to Hubs
GIS consolidation opportunities
Scope for single view of customer Sources? Targets?
Minimal changes to support CRM
Prove use of data as "predictive"
Data
Enhance analytics capabilities to offer new insights
Governance – sell data potential
New data sources into DW
Consolidate use of Dashboards and Performance Metrics (actionable)
Data Teams (OneSource and Business)
O365 backup requirements?
Virtual desktop options in cloud to replace RDSH e.g. AWS Workspaces
Review Tech – AWS opportunities? E.g. Aurora And hosting
Understand scope of "data based decisions" Sources Analysis Presentation
Leverage OneDrive
Apply data classification and retention
Azure AD?
EUC unification (consistent devices)
SharePoint governance
Permissions management
Complete transition to O365 / Exchange online
MFA for council logins
Enhance backup capabilities
Work with MS to understand Teams capabilities and adoption plans
Teams telephony?
Reduce use of direct dial?
Tech changes to utilise Express Route
Retire on prem server rooms where possible
Transition server infrastructure to cloud as appropriate
Collaboration
Other collaboration technologies? GroupMap Miro ...?
Understand impact of office strategy
Wireless AP refresh
Decommission unsupported/ insecure servers
People and culture – what does collaboration mean?
Build cloud strategy
- SaaS first
- Azure for new server deployments
- consider AWS Aurora for on/off database use
- leverage on/off and elasticity capabilities
Right size network
Switch refresh
Check PAs are best fit not just "best"
Cloud economics assessment
Incorporate 2-tier (different) internal/ external firewalls
Firewall refresh
Infrastructure
Networking
Predictive analytics POC
Analytics POC Insights from data
Webchat / chatbot POC
Hub "Intelligent kiosk" POC
AI in customer contact – telephony and webchat. MS and AWS potential
Contact Centre POC
Analysis of contact centre data – to determine what to automate
Data insights – what can AWS/MS tools tell us we don't know?
Run POC
AWS data capabilities e.g. Aurora for on/off data base costs and elasticity
Innovation

High level architecture



High level platform view



Governance

This section includes

- IT principles
  - A detailed breakdown of the proposed IT principles is also available.

IT Principles (1/3)

A set of IT Principles is proposed on the following slides.

IT Principles are high level statements of the fundamental values that guide decision-making and activities in relation to IT.

They are the foundation for both architectures, standards, and policy development.

Their use ensures the managed evolution of Havering's Enterprise Architecture, reducing delivery risk and managing IT Total Cost of Ownership.

IT Principles (2/3)

The evolution of our IT landscapes should be driven by business need and guided by a set of IT principles to assist our decision making

Governance

- Clear alignment with strategic plans
- Maximise benefit to the organisation
- Leverage common use applications, integrate where divergence is critical
- IT engaged in all IT deployments
- Customer centric design
- Agile delivery methodology
- Tolerance of innovation and experimentation – fail fast.

Data

- Data should be accessible, managed as an asset and appropriately protected
- Data will be shared unless there exists a strong case otherwise
- Data should be integrated to support a single view of the customer

IT Principles (3/3)

Applications

- Clearly defined architecture and strategies
- Design for ease of use
- Rent before buy before build – “Configure” where possible
  - (SaaS before PaaS before IaaS before “tin”)
- Build for business efficiency, integrating services and information
- Alignment with agreed standard technologies

Technology

- Controlled technical diversity
- Strive for reusability
- Reduce complexity
- Appropriate security – to minimum standards
- Requirements based change