TPXimpact

Technology, Web & Data Discovery

Woking Borough Council

March 2023

Contents

01 Context and summary

Purpose of this report

This report provides the outputs from a short discovery in Woking Borough Council on their technology, web and data stack and processes.

It provides insights on the current "as-is", and a provides recommendations and guidance on the way forward.

It is intended the contents of this report help identify where deeper discovery and analysis is needed, strengthen the business case for future investment into technology, and inform the future ICT strategy and roadmap.

Background

Despite significant financial pressures, Woking wants to become an exemplar council.

A renewed way forward is needed to ensure digital capabilities that support this ambition.

The Council has some good foundations in the technology space:

- The ICT service have a detailed understanding of systems and processes
- A recent audit has provided a way forward on cyber security.
- A digital strategy has been developed – with limited consultation – to cover the period 2022–25

The digital strategy is an important first step in achieving fit for purpose digital services. The strategy is focused on three themes:

1. Smart People – get the most out of digital technologies in homes and communities, improve health and wellbeing and enrich their lives.
2. Smart Place – use smart technologies, and promote a digital economy through digital infrastructure and advanced connectivity.
3. Smart Council – optimise digital to work more efficiently, collaboratively and informed.

The brief

TPX was asked for a high level review of the Council's technology, web and data – to inform where WBC need to test and do deeper discovery.

Technology and infrastructure

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- Priorities for improving systems, technologies and assets – focusing on larger systems and transition to cloud
- How to move from large suppliers to multiple specialists
- Most appropriate telephony, contact centre and ICT service desk software and systems
- Advice on delivery of public wifi

Website

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- Advice on website review including building on our platform, back office systems, back office process, content management and site hierarchy
- Advice on the upgrade and rollout of the web offer (on Drupal) and the use of low code.

Data

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- High level review of data collection, use, and standards
- Recommendations to ensure best use of data and tools to improve insights

Finally: advice on skills needed – in house, external support or in partnership with other boroughs

What we did:

- **A review of existing documentation, including current work plan, and digital strategy.**

- **A kick-off session with ICT management team, and follow on one-to-one interviews to understand the current state, challenges and priorities.**

- **Developed a set of hypothesis and themes based on these sessions, and started to test these**

- **Developed recommendations and guidance on the way forward, next steps and what good looks like**

- **Sessions with ICT leadership to help understand recommendations and opportunities**

Summary of recommendations

We recommend the following areas as your **immediate priorities.**

Website update

The website needs to be upgraded by November 2023. As there is no simple pathway to upgrading to an up to date system, we recommend building a new website. This can be done without taking capacity from internal teams.

Discovery on Cloud

Undertake a deeper discovery on Cloud (applications and infrastructure) so that you can plan for whether and how you start the transition. To open the way for Cloud, move away from hard phones.

Service desk backlog

Clear the backlog with the service desk – looking at options on how to do this including short term additional resource.

We have provided a detailed set of recommendations for each area across the short and long term

Technology and infrastructure

Web

Data

Operating model

O2 Technology and infrastructure

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Summary of recommendations

Infrastructure and applications

Move to Cloud (hosted by Azure) as your storage system.
See the case for change, and what reliable storage looks like.

As a first step, **undertake a deeper discovery** in order to calculate your precise storage needs and the best migration path for each application.
Advice on a high level scope and what capabilities are needed are available here.

Hardware and services

Move away from hardware telephony to a software solution.

Control hardware costs by tracking assets in possession of each employee, on desks and in storage.

Use current usage figures to assess whether the intended benefit of public wifi has been met. We have suggested some considerations.

Service desk

Prioritise clearing the ICT service desk backlog.

Alongside this implement a new process and training for the team to ensure tickets are dealt with effectively and efficiently in future.

Supporting information

Cloud migration

Move to Cloud (hosted by Azure) as your storage system.
See [the case for change](#), and [what reliable storage looks like](#).

As a first step, **undertake a deeper discovery** in order to calculate your precise storage needs and the best migration path for each application. [Advice on a high level scope and what capabilities are needed are available here](#).

Supporting cloud infrastructure requires different skills from supporting the current data centers, [capability considerations are here](#).

/Where you are now

Infrastructure

Currently WBC has a traditional infrastructure setup, consisting of two on-premise data centres, with minimal cloud infrastructure.

These assets are in two separate locations to provide redundancy and high availability. The hardware is robust and reliable with minimal interruptions to service and consistent uptime. Memory is at capacity in the current system so expansions are being considered. The current server support ends this year and the team are exploring the possibility of an extension.

Infrastructure is supported at multiple office locations and some affiliated organisations.

Applications and software

The majority of line of business (LoB) applications are hosted in-house on-premises by the Council.

Access to these applications is through Citrix. Other applications are hosted by the provider directly. Office and Sharepoint have been migrated to SaaS versions. The on-prem Sharepoint instance will be decommissioned in June this year.

Major LoB applications are supported by dedicated roles. These staff members administer the applications and maintain the application databases, data loads and reports.

Moving to Cloud (the case for change)

WBC currently has the majority of services and applications hosted in on-premises data centers. Moving to cloud would mean moving services and applications onto data centers hosted by an external provider – usually either Microsoft (Azure) or Amazon (AWS). This means Woking would no longer manage physical servers.

Security

The Council holds a large security risk in hosting their own data centres.

We have seen in other organisations the effect of a cyber attack can have on the data held within the centres. WBC is aware of security risks through the provision of hardware and networks to partner organisations, as these offer an easy entry point for malicious actors into the WBC network.

Azure cloud provides organizations with a comprehensive set of security features and monitoring, including audit logs of any access or changes.

Features

Azure cloud provides a wide range of features and services which would help WBC to manage their infrastructure in new ways.

With an on-premises data center, Woking purchases hardware initially and is committed to a fixed capacity. However with a cloud setup, servers can be spun up and paid for only when needed – for example dev and test environments can be created only when needed, and removed once the change is deployed.

Monitoring of services, errors, audit logs and granular permissions also make application and infrastructure management easier.

User experience

Cloud-hosted or SaaS (software as a service) application models provide user access from anywhere, making it easier for staff to work from home.

Application providers are increasingly moving to SaaS models, meaning that often the best features for users are only available on SaaS versions.

In some cases, new versions will not be available for local hosting at all. Both Civica and Capita have already indicated to WBC that they want to move to cloud hosted versions.

What reliable storage looks like

In evaluating the costs and benefits of a cloud migration, it is important to consider the reliability of hosting your own storage versus the SLAs guaranteed from a cloud provider. We have heard that WBC's current setup is reliable. I comparing this to cloud commitments it is useful to quantify this reliability.

Reliable storage refers to a storage system that provides consistent and secure access to data with minimal risk of data loss or corruption.

Reliable storage systems typically have several key characteristics:

- **Redundancy** to prevent data loss due to hardware failures
- **Data integrity** mechanisms to prevent data corruption
- **Durability** to withstand power and hardware failures without losing data
- **Security** measures such as encryption and access controls to protect against data breaches
- **Scalability** to accommodate increasing storage needs without compromising performance or reliability
- **High performance** with fast and efficient data access, minimal latency, and downtime.

Comparing costs

Cloud services may initially seem more expensive than an already established on-premises data center. However, on premise infrastructure requires significant upfront capital investment which will recur when the hardware reaches end-of-life. There are also invisible costs that can be difficult to calculate but can't be overlooked such as electricity and cooling, use of space that could be utilised differently, and the cost of having teams to look after the physical hardware.

Initial outlay **Ongoing costs**

	Implementation	**Running costs**	**Ad-hoc costs**	**Staff costs**	**Overall**
On Prem	The initial purchase of servers, cables and other equipment is a large expense. When these items reach end-of-life, this cost will be repeated.	Ongoing running costs include electricity usage and ground rent - in this case, the cost of not using the space for something else.	Additional capital costs are incurred when equipment and hardware needs to be replaced. This can be predicted by looking at equipment life expectancy.	To support and maintain the physical infrastructure requires a mid sized, in person team. They will need to be available on call for incidents and out of ours work.	The cost profile of on-prem data centers is **high upfront** capital costs, with running costs **hidden** in facilities and staffing budgets. Incidents and upgrades can incur **major spikes** in expenditure.
Cloud	The initial migration to cloud is a major project. A "lift and shift" approach is simplest but can make ongoing costs higher.	Monthly payments are required for cloud services, dependent on amount used. Careful monitoring can keep these costs low.	Additional costs can be incurred when eg increasing processing for batch jobs or spinning up test servers for new releases.	The majority of support is carried out by the cloud provider. Staff can be remote, less mobile, and need a smaller range of skills.	The cost profile of cloud storage is a **flatter consistent cost** by month, more visible and easy to monitor and predict. Costs can be **controlled** more easily.

Cloud discovery project scope

Before committing to a cloud migration, carry out a discovery to identify key milestones, draft a migration pathway and ensure you get the best price. This investigation can be carried out by the existing team in house as a discovery project looking at the current infrastructure and applications.

Conduct a current state assessment

Compile a **comprehensive list** of all resources hosted on prem. This includes applications, databases, and data processing activities.

Looking at these applications and services, check what the **storage and performance needs** are against what is currently in place. In some cases current servers may be over resourced for the needs such that costs can be saved by downgrading.

Review **hardware condition** and expected lifetimes of servers to forecast when expensive physical servers will need to be replaced. This can set the timeline for a migration.

Analyse the technical feasibility

On an application by application basis, assess the **technical feasibility of cloud hosting** and preferred options for each.

Document **contract end dates**, support lifetimes and usage statistics for each application to identify whether they need to be kept and target dates for decisions on each application.

Request information on each **supplier's roadmap** to determine migration paths for each application (their cloud hosting, your cloud hosting, SaaS). As **procurement best practice**, check whether you will have access to **raw data exports** in the event of moving away from that product in future.

Develop a migration plan

Develop a **migration sequence** based on the **dependencies** and **deadlines** identified in the assessment. Prioritise the migration sequencing based on **expected cost savings** and **end-of-life dates** for applications and hardware.

Engage with cloud providers to get more **detailed costings** based on the required spec. Both AWS and Microsoft Azure have **funding offers** and can help to construct more detailed business cases using their industry experience, going beyond the estimates that will be available through online calculators. As WBC is already heavily reliant on Microsoft, Azure would be a good fit, but getting an estimate from AWS may lead to Microsoft providing more support or free training.

What Cloud could mean

On premises	Infrastructure-as-a-Service (IaaS)	Platform-as-a-Service (Paas)	Hosted services	Software-as-a-Service (SaaS)
Software is hosted on a physical server by the Council. Woking staff manage physical servers and everything hosted on them.	Software is hosted on virtual servers. The virtual machines (VMs) are hosted on servers in the cloud provider's data center. Existing physical servers may be exactly replicated as VMs or may be redesigned and resized to optimise storage and minimise costs. Woking staff manage virtual infrastructure.	Individual services are migrated to managed services, rather than installations on a VM. For example: using Azure SQL Database instead of installing SQL Server on a VM. Woking staff still manage the SQL database, but do not have to maintain the SQL server it runs on or an associated VM.	Specific applications can be hosted by the software vendor This is similar to SaaS but distinguished by the vendor holding a specific instance of the application for Woking. The vendor manages a server and associated infrastructure to run the WBC applications. Woking may have some access to this.	Specific applications can be replaced with fully cloud-native applications accessed through a web browser. Woking has no information or access to the underlying infrastructure.

/Capabilities

Transitioning from on-premise infrastructure to cloud infrastructure requires infrastructure technicians to develop a new set of skills to support Azure cloud infrastructure. Here are some essential skills that an infrastructure technician should acquire before supporting Azure cloud infrastructure.

Cloud computing and Azure fundamentals

- Understanding of cloud computing concepts and delivery models
- Familiarity with Azure architecture and services
- Knowledge of Azure security features and capabilities

Automation, scripting, and monitoring

- Ability to use Azure automation and scripting tools such as Azure PowerShell and Azure CLI
- Knowledge of Azure monitoring and troubleshooting tools such as Azure Monitor, Azure Advisor, and Azure Log Analytics
- Familiarity with network concepts and Azure virtual networking

Network and Security

- Familiarity with network concepts, including IP addressing, routing, DNS, VPN, and firewalls, to set up and manage Azure virtual networks and network security groups.
- Understanding of Azure network security features, such as Azure Security Center and Azure Network Security Groups
- Knowledge of Azure security best practices to ensure the cloud infrastructure is secure.

Service desk

Prioritise <u>clearing the ICT service desk backlog</u>.

Alongside this implement a <u>new process</u> and <u>training</u> for the team to ensure tickets are dealt with effectively and efficiently in future.

Where you are now

Service Desk are currently working through a large backlog of unassigned tickets.

Tickets are picked up on an ad hoc basis by the Service Desk, and there is no process for assigning tickets priority based on needs.

Tickets raised through the Service Desk tool are competing with tickets raised over email, phone, Teams and in person, making it difficult for the team to enforce a process.

Clearing the backlog

The first priority for the team needs to be clearing the existing ticket backlog.

To do this, this must be a priority for the whole of ICT not only for the Service Desk team.

Focused steps will accelerate the clearing of the backlog.

- **Assign a dedicated team member to work through the backlog**
Take one team member off the desk so they are no longer answering the phones or helping with walk-ups, and have them focus on working through the backlog. Their aim will be to resolve as many tickets themselves as possible, not passing tickets on to others but focusing on resolving each ticket in turn. This could be a rotation with a different person each week.

- **Analyse the backlog**
Ticket backlog compared to employee count is very high. Some tickets may not be relevant any more, and some may be duplicates where the customer raised the same query again as they did not get a response at first. Analysis of the backlog may also reveal customers who raise many tickets, where visiting /calling that person may lead to quicker resolutions of several tickets at once.

- **Get dedicated support from other teams in ICT**
The Applications and Modern Workplace teams must also prioritise clearing the ticket backlog. These teams could provide one person one day a week as a minimum, with that person focused on working through the Service Desk backlog and looking for any tickets that they can resolve.

Future process

To keep the ticket backlog down in future, a new process needs to be established. This process should be agreed by the whole team and monitored by the Service Desk Manager.

Point of query	Prioritisation	After resolution	Performance
All queries must be added to the Service Desk tool.	**Each ticket should be assigned a priority order before it is resolved.**	**Once an issue has been resolved, details on the resolution should be added to a knowledge base.**	**Define varied KPIs for the team to align incentives to positive customer outcomes**. Currently the team only track # unassigned tickets. Move to including % first time fix, customer satisfaction (survey after resolution), average resolution time, first response time, longest resolution time. Reports on these KPIs can be built in Power BI based on extracts from the KBox system as a temporary measure.
Requests via phone and walk ups should be logged in the system. This ensures that they can be tracked and have ticket numbers assigned in case of follow ups.	An appointed person per week should take the first look at tickets and assign priority to each based on standard metrics representing the impact of the issue on the customer's ability to do their work. These are usually set as P1, P2, P3 where P1 is a substantial material impact.	This could be built in Sharepoint and shared by the whole ICT team. It should include details on all issues that have occurred, the root cause and the resolution. Technical documentation on all new and existing applications should also be added to aid ICT staff in resolving issues.	
Requests coming over email and Teams should be asked to log their ticket in the ticketing system, and told that they won't get a response over email or Teams. The Service Desk team could set an out-of-office auto reply on their emails to this effect so that users are aware.	The team should then select any P1 ticket first, in order of creation date if there are multiple (oldest first), then P2s in order of creation date (oldest first) and then P3s in order of creation date (oldest first).		
One person per day could be assigned to deal with walk ups. If they are already helping someone, then the next person has to wait rather than taking another person away from the tickets.			

Service Desk Training

Dedicated time needs to be set to train service desk to improve first time resolution rate. This is the responsibility of the Apps and Modern Workplace teams to provide appropriate handover and training. Taking the whole team off the desk at once can be detrimental to customer service, so options to split the team into two groups for training purposes should be explored.

Collate list of things that service desk need to be trained on to improve first time resolutions. This list can be compiled by speaking to service desk and supplemented by analysing recent tickets to identify the issues that take the most time to resolve or remain unassigned.

Focused training sessions should be held by knowledgeable staff in the wider team, focused on frequent user issues. Training documentation should be added to Sharepoint. We can see a large influx of tickets due to gaps in users knowledge. More training sessions need to be held to upskill the users and a push towards training documentation and guides before raising tickets

Hardware and services

Move away from hardware telephony to a software solution.

Control hardware costs by tracking assets in possession of each employee, on desks and in storage.

Use current usage figures to assess whether the intended benefit of public wifi has been met. We have suggested some considerations.

/Telephony

Where you are now

Physical desktop phones, known as **hardphones**, are installed and supported by the ICT team in WBC offices and in affiliated organisations including the leisure center and the museum.

The majority of WBC telephony is provided by Mitel, running on-premises in Woking data centers. This is a VOIP system where calls are made through desktop phones and routed through Woking's network. It is possible there are still some traditional landline phones as well.

The Council does not have spare desk phones and has not purchased any new phones in some time.

Impact

- High hardware and maintenance costs
- Limited mobility for staff who use WBC telephone system in their work, especially for Contact Center, as staff may not be able to work from home
- Security risks where phones are a less secure access point into WBC networks
- Obstacle to cloud migration as telephony currently uses an on-premises setup

Recommendation

We recommend implementing a **softphone** system and removing physical phones from offices. We recommend integrating with MS Teams for a seamless unified communications experience for staff. This will offer:

- **Reduced hardware costs**: Software phone systems eliminate the need for costly hardware components such as PBX systems and phones.
- **Lower maintenance costs**: Software phone systems require less maintenance and support than physical systems, reducing ongoing costs.
- **Improved mobility**: Software phone systems enable remote workers to easily connect to the system from anywhere.
- **Greater flexibility and scalability**: Software phone systems can be easily scaled up or down to meet changing business needs.

Partner organisations using WBC phones may also cause a blocker when attempting to move to softphones. This needs to be assessed and a decision made on the continued provision of phones to those locations.

Softphones

Hardware phones are **familiar** and **easy to use** for staff without a learning curve (at least for basic calling functionality). However, while they may look like a traditional landline phone, they use VOIP technology reliant on the Mitel server hosted on-premises in Woking's data centers. Users may be unaware of this underlying complexity.

In contrast, **software phones** may initially be unfamiliar to staff leading to resistance. Selecting a software phone that integrates with MS Teams will help staff to build familiarity with one tool, limiting the number of new systems they have to learn at once.

Future vision for Woking

- No fixed phones on desks
- Staff receive external calls through Teams
- Staff can make external calls to residents and businesses landline phones through Teams
- People can join Teams calls through calling a phone number without using the Teams client
- Contact Center use headsets and laptops instead of physical phones

Teams as a softphone

- Additional licences from Microsoft for external dialling
- Microsoft can provide phone numbers or connect to existing PBX or SIP trunking
- Microsoft was the leader in the 2022 Gartner quadrant for Unified Communications as a Service

Teams with third party add-ons

- There are a host of vendors who offer alternative softphone options to integrate with Teams
- These may offer more affordable licencing options than Microsoft
- Capacity and quality should be considered as all Contact Center calls will be routed through this system

Staying with Mitel

- Mitel is the existing provider for WBC telephony
- Mitel does offer cloud options in addition to the on-premises arrangement currently in place
- Mitel also offers integration with MS Teams

Asset Management

We can see that Assets within the Organisation are being catalogued. There is still a lot of work to be done but keeping up to date with what hardware is in possession of each employee and in storage is a great start to have control of hardware costs as you will be able to re assign assets from members of the organisation who leave and not order duplicate hardware of what already exists in storage

Keeping track of EOL and warranty or support periods for hardware is also crucial, this includes mobile phones and laptops. This will help to track vulnerabilities and ensure that hardware assets are up-to-date with security patches. This can help reduce the risk of security breaches and ensure that the organization is compliant with data privacy regulations.

Public wifi considerations

There are social impact considerations when it comes to the thought of removing public Wi– Fi. The absence of public Wi–Fi at the shopping center may lead to a decrease in access to information, limited communication, reduced educational resources, limited economic opportunities, and increased digital divide.

Assess the current internet usage. Before exploring new internet suppliers, it's important to understand the current usage of the public Wi–Fi. Analyze the data usage, user traffic patterns, and peak usage times. This will help you to determine the bandwidth and data limits required for the new internet plan.

Providing public Wi–Fi can be expensive, both in terms of hardware and ongoing operational costs. Organisations need to evaluate whether the benefits of providing public Wi–Fi outweigh the costs.

O3 Web

/Where you are now

Website

The current website is on Drupal 7 which is out of support November 2023.

The website was built by external consultants at Plan Alpha, but has some modifications build in house by Andy. It is hosted by Rackspace. There are some simple integrations to payment portals by Capita and a self service customer account system.

There are also several microsites used by other business areas built on a custom CMS by a local consultant.

Content

Content is created and managed centrally following the Gov.uk model.

Content model was previously decentralised, with services directly providing content for the website. When the website was rebuilt 7 years ago, it was moved to a fully centralised model where a single employee creates all content. This is to keep it all consistent and ensure that it all provides value for the users. However, this is a side-of-desk job without dedicated resource.

Support

The website has limited internal support in addition to a support contract with external agency Plan Alpha.

The support contract with Plan Alpha expires in November this year as well. Andy perceives them to have been an unimpressive supplier and not proactive in website improvements.

The microsites are not supported by ICT, and ICT has no oversight of them. They are supported by the local consultant who built them.

/Recommendations

Website technology

Replace website by Nov 2023 due to security risks as the system falls out of support. See here. Undertake a full website rebuild to latest version, Drupal 10, in either vanilla form or as local Gov Drupal (to ensure the longest possible support and best available features). See here.

Remove Granicus forms and Victoria forms and instead build custom forms using Drupal forms (to enable automation) See here on eforms.

Require microsites to be built on the same open source CMS rather than custom CMS to ensure that they can be appropriately supported internally. At minimum, require use of *any* open source CMS rather than custom built CMS to avoid vendor lock-in. See here

Content and capabilities

Use the opportunity for online service delivery using best practice.

Adopt a hub-and-spoke decentralised model for creating and maintaining content and build this in to the new website.

Update the style guide.

Make use of website data to inform service delivery.

Resource dedicated roles and a clear responsible owner of web strategy. Consider a combination of in-house with external technical expertise on front and back end.

Supporting information

Website technology

Replace website by Nov 2023 (due to security risks as the system falls out of support). See here.

Undertake a full website rebuild to latest version (as no simple migration path is possible from Drupal 7 to more recent versions). Recommend Drupal 10 in either vanilla form or as local Gov Drupal (to ensure the longest possible support and best available features). See here.

Remove Granicus forms and Victoria forms and instead build custom forms using Drupal forms (to enable automation) See here on eforms.

Require microsites to be built on the same open source CMS rather than custom CMS to ensure that they can be appropriately supported internally. At minimum, require use of *any* open source CMS rather than custom built CMS to avoid vendor lock-in. See here

The case for upgrading

The current website is hosted on Drupal 7, which will be out of Long-Term Support (LTS) in November this year. Upgrading is essential.

- **Security**: Platforms out of LTS no longer receive security updates, making them more vulnerable to attacks. As the current website is hosted locally on-premises within Woking data centers, this vulnerability could spread to other Council systems. Drupal will announce by July this year whether support for Drupal 7 will be extended, but that could be too late for Woking to build a new site in time if the end-of-life date does not get pushed back.

- **Performance**: Newer platforms often come with performance improvements, such as faster page loading times and better caching mechanisms. These improvements can enhance the user experience on your website.

- **Features and functionality**: Supported platforms provide access to new features and functionality as they are released.

- **Compatibility**: Upgrading to a newer version ensures that your website remains compatible with the latest technologies.

- **Hosting**: Current website is hosted by Rackspace. External hosting should be maintained for future site, to guarantee security and uptime with 24/7 support. .

Choosing a new CMS

Given the need to replace the website, Woking may reconsider the content management system (CMS) used. However, we would advise not to spend limited time or resources on a discovery on this. Open source platforms offer flexibility to the Council and freedom from vendor lock in, and Drupal is a solid choice which the Council now has some in-house skills with.

	Off the Shelf CMS (e.g. Jadu, GOSS, Contensis)	Open Source CMS (e.g. Umbraco, Drupal, Wordpress)	Custom CMS (e.g. as used on Woking microsites)
Flexibility	None or limited	Yes, full freedom to customise the code.	Yes, in negotiation with the developer
Supplier Model	Relationship with CMS vendor - tied to relationship as long as you have the CMS. It is not possible to use other developers for the customisation of off-the-shelf products.	No relationship with CMS vendor. Flexible relationships with web development agencies, contractors, or hire in-house developers. It is possible to change supplier anytime without changing CMS.	Relationship with CMS vendor - tied to relationship as long as you have the CMS. It is not possible to use other developers for the customisation of their products. In the case of the current microsites, this dependency is a high risk as the developer is an individual contractor and single point of failure.
What you pay for	Licensing Implementation Hosting Support	Implementation Hosting Support Development resource	Licensing Implementation Hosting Support Development resource
Cost	£££	£	££

LocalGov Drupal

Drupal is an open source CMS, free to use. Local Gov Drupal is a custom version of Drupal specifically designed for local councils, by local councils. Local Gov Drupal has been developed by a community of developers, designers and leaders from local councils across the UK. Rather than starting from scratch with a plain install of Drupal, councils can start from features that have been designed for their particular needs.

30
councils now signed up to use LocalGov Drupal

The case for LocalGov Drupal

- Out-of-the-box features and structure designed for councils
- Learn from other councils effort rather than reinventing the wheel
- Already built on GDS standards, based on user research and tested in the public sector
- Staff become part of a professional community and can collaborate with other councils to find and share solutions to common problems

The case for plain Drupal

- The LocalGov version has already been customised, which can be restrictive if it does not match your needs
- Increased flexibility to pick and choose features from a wider range of Drupal components without worrying about compatibility with the LocalGov modifications
- Extra features in LocalGov may not be needed, causing confusion for administrators

Approaches, costs and time

WBC does not have the capability to build a website in house so will be reliant on a third party Digital Experience agency for the technical aspect of the build.

A good vendor will also supply project management, business analysis and user research capabilities alongside the development team, minimising the pressure on the Woking ICT team and allowing this work to proceed in parallel with other internal projects.

The cost may range from **£100–200K** and could take 3–4 months for Local Gov Drupal and 4–5 months for plain Drupal.

Gold standard – Carry out a full review of all content, design a new information architecture, redesign digital services, and create new content. Team including user research, service design and business analysis.

Silver standard – Pick your key content areas and redesign those. Clean up and remove some old content, but migrate a lot without review. Bring in some business analysis and research in key areas only.

Bronze standard – Technical build only: developers build the website, and all content is migrated as–is without any review or clean–up.

Suggested next steps:
- Identify milestones and necessary deliverables for November 2023 , and consider the resources needed, including human resources, financial resources, and tools required.
- Analyse your current Drupal 7 site's functionality, modules, and features that you use regularly to ensure they are compatible with the replacement.
- Define your strategy for data migration. This can range from rewriting the content to building export, data transformation and import scripts. This should include identifying which web pages are business critical (vital for moving across)

Integrating Eforms

Eforms at present are not integrated. This creates inefficiencies with manual steps being required which can cause delays, sometimes significant ones, before information can be acted on. Increased automation is possible through processes which pick up the generated emails. However a better solution would be fully integrated with the forms going straight into the target system.

Current

Resident fills in a form → Filled in form is produced → Email to person → Delay → Person copies data → Data saved in target system → Available for reporting or action

Automated

Resident fills in a form → Filled in form is produced → Email to service account → Automated process copies data → Data saved in target system → Available for reporting or action

Integrated

Resident fills in a form → Data saved in target system → Available for reporting or action

/Eforms platforms

Compatibility

Granicus and Victoria forms offer a range of customization options, but integrating these customizations with other systems may require additional technical work. For example, if you have customized the design of a form in Granicus forms, it can have issues displaying on Mobile

Drupal also offers a range of modules and plugins that can help you optimize your forms for mobile devices. For example, the "Mobile Detect" module can be used to detect the type of device being used to access your website and adjust the display of your forms accordingly.

Support and Integrations

Granicus and Drupal are separate platforms that may require Support to maintain in case of technical issues and requires specific knowledge on the platform to provide assistance.

Granicus isn't currently integrated into the website due to technical challenges. Drupal forms integrates into a drupal website with ease

Cost

Granicus offers several subscription plans for its forms platform, ranging from basic plans to more advanced plans with additional features and capabilities. The cost of these plans varies depending on the size and needs of your organization, as well as the specific features and capabilities you require.

Drupal forms comes along with the Drupal site and does not incur any additional cost

Microsites

Where you are now

Main website is on Drupal 7, content overseen by Comms, tech overseen by Modern Workplace team, support contract with Plan Alpha.

However other Woking websites are on a custom built CMS built and supported by an individual independent contractor. The content on these sites is not overseen by the same team as for the main website, and the technical support is not overseen by the central ICT team.

Impact

- Single point of failure – single independent contractor
- Higher costs
- Lack of central technical oversight can lead to security risks.
- Inconsistent look and feel and out of date content

Recommendations in depth

Put in place light–touch governance around duration of microsites and retention – ensuring any new microsites are by exception only, and the arrangements are in place for continued upkeep or closing.

Bring all sites onto same open source platform as the main CMS (Drupal). At minimum, require use of *any* open source CMS rather than custom built CMS to remove single points of failure.

Require microsites to follow same content style guidelines as main site.

Content and capabilities

Use the opportunity for online service delivery using best practice.

Adopt a hub-and-spoke decentralised model for creating and maintaining content and build this in to the new website.

Update the style guide.

Consider oversight arrangements so the case and plans for maintenance/decommissioning of microsites is made.

Make use of website data to inform service delivery.

Resource dedicated roles and a clear responsible owner of web strategy. Consider a combination of in-house with external technical expertise on front and back end.

Content model

Where you are now

Woking's primary public website currently uses a heavily **centralised content model**.

In this model, a single team is responsible for creating, updating and maintaining all web content. In Woking, this work is primarily done by **one person**.

Previously, different teams in the council produced their own content. The current content model was chosen in order to give a **more consistent user experience** and ensure that content was relevant for residents.

Impact

A small central content team will struggle to satisfy the demand created by the **channel shift** Woking needs to meet cost savings targets. As a rule of thumb, other local Councils that run a centralised content model employ a team of 5+ Content Designers.

Recommendation

We recommend adopting a hub-and-spoke decentralised content model. In this model, the content team is responsible for the **overall strategic direction** of the site, large content projects (e.g. new journeys) and key pages. Services create **operational** content which the central content team review and approve before publishing.

The central content team act as a center of excellence. They should establish guiding principles and communicate the vision to all service areas. They provide **training** and a **clear style guide**. They also provide analysis of web traffic to help services make decisions about their website sections.

When the website is rebuilt, a new CMS should be chosen which supports **approval workflows** for publishing content*. This will mean centralised approval can be enforced in the system, ensuring a consistent user experience and process efficiency by having the approval easy and in-system.

*All versions of Drupal do provide this functionality.

Content creation process

Other local authorities (e.g. Reading Borough Council) have recognised that for the decentralised model to work well, there should be a dedicated 'digital service champion' in each service area. They act as a conduit between the web team and the service and are ultimately responsible for the web content of their service area. They liaise with other subject matter experts in their service area where necessary. Below we show what a future model could look like in practice.

	Content creation	Content upload	Reviewing content	Publishing content
Digital Service Champion	- Drafts BAU content - Engages with residents to ensure content is fit for purpose - Runs readability and accessibility checks (if applicable) - Sign-off from Manager and Comms team if content is contentious	Uploads content to the CMS – lays out the content on the page and previews it		- Reviews published content - Engages with performance analytics received from the content team
Content team	- Ensures that the Digital Service Champion has been upskilled in BAU content creation - Co-creates content where needed		- Receives a workflow request (the system indicates what has been changed) - Reviews and amends content - Ensures content is readable and accessible and well designed	- Publishes content to the website - Measures the performance of the content changes and shares insights back to the service

Setting style guides

Several councils have published guidance on how they produce quality content for residents on their publicly facing websites.

Two of the leading councils in this are [Essex](#) and [Croydon](#).   The key common themes from both are:

- Creating content should be based on meeting a user need

- Content should aim to make it as easy as possible for users to complete a task (if necessary)

- Ensure that plain English is used, use the active voice and avoid jargon

- Avoid duplication

- Make content accessible

- Measure the performance of content (be realistic, Essex recommends 12 week reviews for high-volume content, down to 12 month review for low-volume content)

Other examples:
- [Buckinghamshire](#)
- [Renfrewshire](#)
- [Suffolk](#)
- [Surrey](#)

Making the most of the opportunity

An upgrade to your website creates opportunities to redesign it in line with best practices and service needs. This is important as websites are an integral enabler of the move towards self-service, and an increasing proportion of service delivery happening online.

Some aspects of best practice approaches include:

- Testing regularly with users, and improving web services based on resident insight

- Using software to understand user behaviour
  - Using google analytics to understand common user journeys and prioritise addressing the most important user journeys
  - Using Hotjar to understand user behaviour on specific pages

- Meeting the Technology Code of Practice (which sites like LocalGov Drupal aim to do)

- Creating reusable components for other Councils to benefit from
  - Design libraries
  - Content guidance
  - User research libraries which includes research on websites

Best practice

Examples of a user–focused approach to developing Council websites
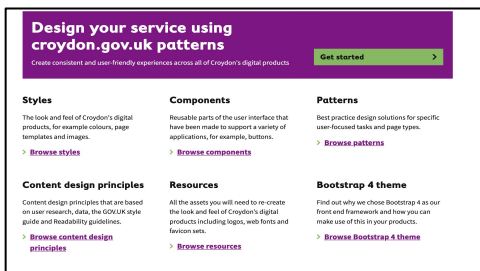
Lambeth consulted 500 residents, and interviewed 150 residents to to ensure navigation was intuitive, content was easy to understand and the site was accessible

Hackney tested the navigation on its new website with 7 residents to make sure that residents could confidently complete tasks

Dorset Council tested the its new website platform through 24 remote use–testing sessions to test several of their 10 most common user journeys

Examples of high design standards, openly available

Croydon

Essex

North Northants

Making use of website data

Best practice councils see websites as services which need iterative improvements, which means regularly reviewing data and identifying opportunities to improve.

Two examples from Hackney Council are:

1. In 2020, Hackney Council wanted to promote alternative housing options to applying for the social housing register. To first understand how users interacted with the housing register web page they used Hotjar software (right) **to find that 50% of visitors were selecting 'Join the housing register' rather than look at housing alternatives** and identified content changes to make housing alternatives more appealing

2. Hackney Council also used analytics to review its 'Community Hall Hire' service (Spacebank). By designing the 'Community Hall Hire' service around user needs, testing and continuously improving they were able to **drive up room bookings from 11 bookings a month to 149 bookings a month.**
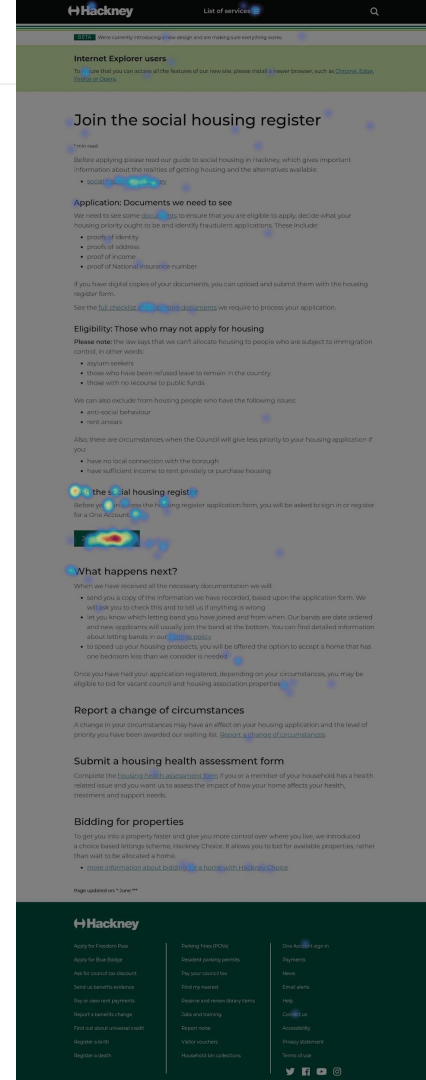
/Capabilities

Short term:
- Bring in additional support to have a new website in place for November 2023.

Longer term:
- The current Website is currently being managed without any full time dedicated staff. The website is increasingly important with the push to digitise services and deliver more online.
- Whilst some of website management can be outsourced, the Council will still need someone internal to own strategy and vision, and strong supplier management.
- Internal skills will be needed for eforms, customisation, and content design.

04 Data

Data and reporting

Where you are now

There are currently a mixture of reporting solutions for different applications. Some use built-in reporting, some use third-party reporting tools on top, and some reports need to be run by the Applications team (for example, Uniform).

Most applications are hosted on-premises, giving the Applications team full access to their backend databases, many of which are SQL based.

Impact

Most reporting tools currently used don't allow for interactive data exploration but rather provide static reports. This can be limiting if users need to explore complex issues or have questions that aren't answered in out-of-the-box reports.

Where reports are generated by the Applications team, this causes a bottleneck for staff who may need to wait a week to see data. It also creates a backlog of time consuming work for the Applications team.

Recommendation

Explore user needs and capabilities around data analysis. Identifying what information business users need but don't currently have access to, and understanding how that information will help them to make decisions, will help to determine a way forward around reporting. In particular, to understand whether it is necessary to bring together disparate data sources or whether improving single-system reporting will be of enough benefit to users.

Power BI is already being investigated, and could be the tool-of-choice for third-party reporting, replacing several existing tools. Where reporting is being done through built-in reports in the Line of Business (LOB) application, this is a good solution for users in that business area. However for management levels who need to look at many different reporting tools, consolidating reports in one platform will be more efficient and encourage them to use those reports more regularly.

Data landscape

Reporting tools

Databases

Power BI considerations

Power BI is not a free tool so any formalisation or rollout should be evaluated carefully and compared against other reporting tools available.

Licencing

Power BI licencing models are differentiated by **report publishing ability** and **dedicated processing power**. Woking is unlikely to require dedicated processing power, so the main consideration is how much we expect report creation / data exploration to be centralised versus being expert users in the business areas. If it is expected that there will be a large number of report viewers who do not publish reports themselves, then a Premium Capacity model may be appropriate.

Security

Accessing databases through any third-party reporting tool opens up the risk of inappropriate data sharing.

This can be controlled through granular database security and limitations to file sharing. Reports connected to the database will verify security credentials when they are opened, rather than containing the data directly in the way of a static report.

Reports can be built on a cube (SSAS) to provide an additional layer of separation from the source database.

Interoperability

Reports will need to draw data from a range of databases including Ingres, Oracle and Progress.

Power BI would use a standard ODBC connector for Progress and Ingres, and a specific Oracle client ODAC connector for Oracle databases.

Other reporting tools may provide more or less refined connections to these database types.

/Data capabilities

We recommend identifying willing individuals in the existing team to train on Power BI.

While Power BI is advertised as suitable for business users, these would need to be highly analytical and used to performing complex functions in Excel.

The Applications team already have SQL and SSRS skills, and should find the move to Power BI easy as this is based on a similar technology. Power BI uses the same data modelling as SSAS (SQL Server Analysis Services) which may also be familiar to the team.

O5 Roadmap

Vision for the role of ICT at Woking

Now: Reactive IT

- Technology choices are led by business decisions
- Service leaders do not consider technology implications of their decisions and do not see themselves as delivering digital services
- ICT team are caretakers of technology systems and infrastructure
- ICT team react to Services and provide what they ask for with little opportunity to challenge or advise
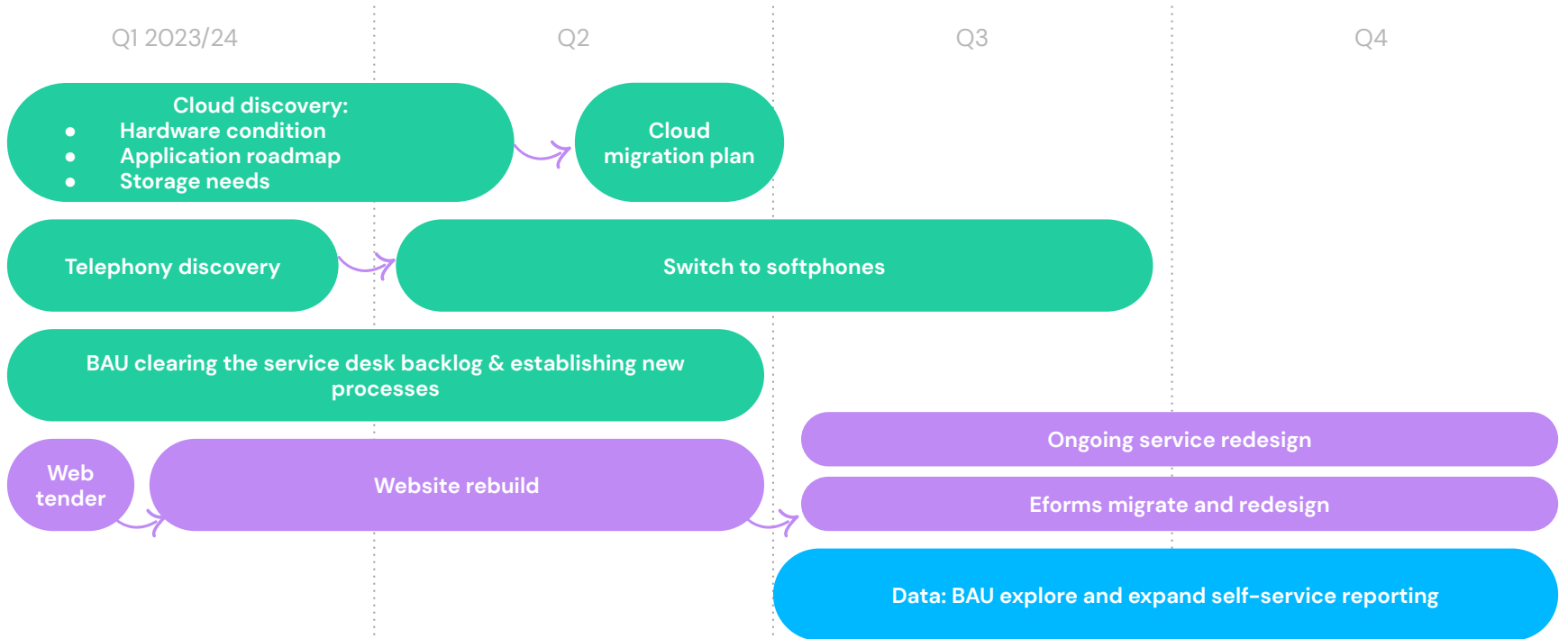
Next: Strategic IT

- Technology decisions are based on business needs
- ICT team are owners of technology decisions and build strong relationships with Service leaders to understand their needs
- ICT team build digital collaborative behaviours in the wider organisation

Later: Integrated IT

- Business decisions consider technology from the start
- Service leaders fully own digital services
- Digital collaboration is embedded in everyone's ways of working
- ICT team are partners of Service leaders in providing digital services

Roadmap for this year

Cloud discovery:
- **Hardware condition**
- **Application roadmap**
- **Storage needs**

Cloud migration plan

Telephony discovery

Switch to softphones

BAU clearing the service desk backlog & establishing new processes

Ongoing service redesign

Web tender

Website rebuild

Eforms migrate and redesign

Data: BAU explore and expand self-service reporting

Thank you

TPXimpact