
Digital Strategy

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EXECUTIVE SUMMARY

Our vision is to provide excellent services which are easy to access. This strategy sets out how we will review and structure our technology to enable people to get what they need from the council easily.

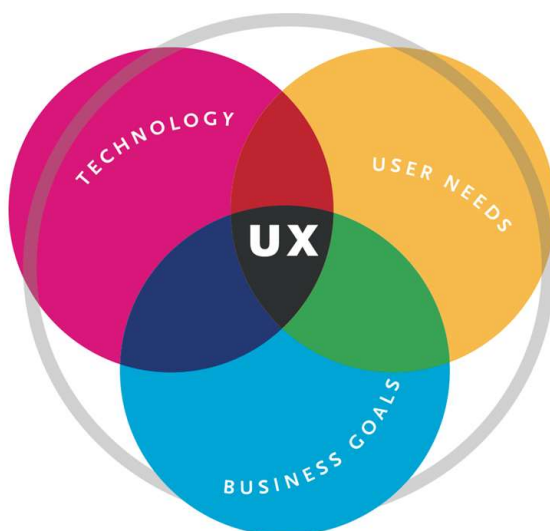
This strategy builds on the technology audit carried out by Socitm Consulting in 2013 which reviewed the technology infrastructure at North Norfolk District Council and how the technology needed to adapt to support the future needs of our citizens and our authority.

As a Council we know we need to enable people to access our services online 24/7, and we want their User eXperience (UX) to be as intuitive as possible. We know we need to support online transactions and enable mobile working. By being as flexible as possible with our technology we can support whatever new technologies emerge and take advantage of the way people want to use services in the future.

As an authority we know our challenge will be to do more with less; to enable more transactions through the web site; to provide secure access to self-service accounts and to open up technology to be used via the cloud.

If we are to offer the best solutions possible to our residents we also need to address the skills gap in our workforce to ensure we are realising the full potential of the technology and ensure assisted access to services, building up the knowledge and experience of using digital technologies.

We also need to maintain trust and confidence in our online offer; and central to this is maintaining data security while enabling ease of access to services.



Building a great user experience (UX)

Technology	Business Goals	User Needs
Flexible	Cost-effective	24/7 availability
Software as a Service	Integrated with existing back office systems	Mobile Responsive – usable on a range of devices
Licensing	Automated	Intuitive – easy to use
Cloud-based v Internally Hosted		
Scalable	Secure	Secure
Extensible	Increase efficiencies	Accessible
	Increase productivity	Seamless to users
	Better service	
	Skilled workforce	

We need front-line services which automatically update our back office systems supporting shared working with a range of authorities and organisations. This will support our Business Goals which are to improve customer services whilst reducing the cost of services.

Our Digital Strategy is designed to deliver a technology platform which builds on existing investment to deliver improvements in user experience, as well as integration across our services.

This will free the Council to deliver significant and sustained improvements in customer service and business efficiency; provided it is coupled with improvements to skills and training for our workforce and increased awareness of the benefits of digital service use across our community.

The Digital Strategy will deliver an agile and flexible approach to satisfying user expectations and business need; now and in the future, as the technology landscape changes. It will move Information Technology from not only supporting, but also to stimulating business change.

INTRODUCTION

The Council recognised the importance of a coherent approach to business change, based on the future development of strategic digital systems in early 2013 and commissioned a full review, supported by external expertise.

Following this review, the Council approved a five year programme, supported by an investment of £1.4M. In early 2014 the Business Transformation Programme was initiated, which identified a number of improvements to the technology deployed by the Council to improve delivery of its services. Alongside the deployment of the technology platform, the way every Council service is delivered is being examined to identify any potential improvements and efficiencies.

This investment is planned to deliver significant improvements in customer service, for both users and service delivery partners, at the same time as achieving efficiencies, with minimum annual revenue savings of £375,000.

The 18 months since then has seen good progress in the delivery of the technology platform with a number of projects and workstreams completed and several more currently in progress. The first of the major service reviews, in Planning, is also underway.

The digital improvement programme is designed to deliver a robust, agile and sustainable information systems platform that can support a step change in the Councils ability to react rapidly and effectively to business change. It will create the foundation of a long term, strategic technology platform that will enable innovation at all layers of the organisation for the foreseeable future.

This technology platform will enable, and prompt, a repeating cycle of business process improvement which will drive better Customer Services and operational efficiencies on an on-going basis. This will ensure the Council remains best placed to address both the current challenges and those that will undoubtedly arise in the months and years ahead.

The platform will deliver a step change in technology capability which will be sufficiently agile to adapt to emerging technologies and business improvements for the next 5-10 years.

However, due to the rapidly evolving technology landscape, the platform will be continually reviewed, to ensure it offers the best possible support to rapid service improvement and efficient working, across the Council.

CURRENT POSITION

The Council delivers services to business of many sizes, 54,000 households and a population of 102,000. In demographic terms, the District has an age profile which includes a significantly higher proportion of older residents than the national average.

It covers a large geographic area which is predominantly coastal or rural in nature. Public transport services in many areas are infrequent and North Norfolk has particularly poor mobile network coverage alongside significant areas of poor access to high speed Broadband.

Taken together, the issues of the demographic profile in NNDC, and the weaknesses in public infrastructure, create a scenario which is particularly significant when designing and commissioning services for delivery to the public.

Paradoxically they create a scenario which would benefit significantly from 24/7, self-service web and mobile communications accessible services, but these same factors inhibit their availability and take-up by those who would benefit most.

With the Better Broadband for Norfolk initiative continuing to improve the Broadband available in the District, and major investment programmes for both Mobile Network Operators the impact of the access constraints will diminish in the medium term.

Whilst not materially altering the objectives of Digital Transformation, these constraints may make the uptake of digital services slower than in areas with better provision. In the short term, these negative issues will need to be actively considered during the design of the service to minimise their effect.

The Council started the Programme from the position of having a fit-for-purpose, well managed and stable IT infrastructure. The security elements of the system were sound but it lacked the ability to be able to provide the significant levels of change required for the future.

Historically, the procurement of service based or so called, “back office” systems, has been overly focused on individual service-specific functionality, without sufficient recognition of how these systems sit within a more integrated council wide Digital Architecture.

This has resulted in a variety of technology components which differ from service to service but deliver many of the same facilities and functions. This lack of standardisation represents a barrier to rapid implementation of improved business processes.

As we have started to move forward, standardisation has therefore been an important consideration. For example, the deployment of the web forms package to provide online services for all service areas will ensure a standard “look and feel” and a consistent user experience, whichever function the user wishes to access. This ease of use and consistency will help to encourage uptake of online self-service across as many business processes as possible.

Likewise, we have also sought to ensure that the integration software that has been commissioned will facilitate efficient, end-to-end transactional services without any re-keying

of data. This will maximise the efficiencies generated by channel shifting customer contacts from expensive to provide, face to face and telephony interactions to more cost effective self-service, online transactions.

A significant step change in communications and collaboration, both within the Council and with external partners, has been achieved with the deployment of Microsoft Skype for Business. This will be further enhanced with the upcoming deployment of Microsoft SharePoint for electronic document and records management. These systems have been deliberately procured to integrate tightly with our existing infrastructure and further enhance the mobile working facilities available to both the users of Council provided services and those engaged in service delivery away from the Council offices.

DIGITAL ARCHITECTURE

The Digital Architecture of an organisation defines the technology components, standards and processes, their interactions and the standards they are built upon.

It provides a holistic view of how Business Transformation is, and will be, supported by an underlying IT infrastructure which also supports a flexible approach to future change. Given the reasons for change described above, it is important to ensure however, that as well as being digitally enabled, such change is business led and at the same time, centred on the customer.

For the Council, it is clear that the digital architecture needs to continue to build on the historically secure foundations and existing, best of breed service based systems, to deliver a standards based, flexible technology platform which is capable of ready integration across a wide range of Council and partner systems.

The architecture will enable the Council to meet customer needs and expectations of how, where and when they can access the services provided.

It will deliver a platform which is based upon standardised, commonly available IT products, but which is capable of accommodating service applications from different vendors.

Our digital architecture will be centred on the following key considerations:

Flexibility

The flexibility of the preferred architecture will ensure that the technology platform will support and assist the business in implementing new strategic directions, without technology being a barrier or limitation.

The pace of digital change and development is extremely fast. We will ensure therefore, that at a strategic level, our architecture will evolve dynamically to take advantage of new technologies and facilities as they arise, whilst trying to remove any technology barriers to business improvement.

At service level, digital architecture will reflect the need for built-in flexibility to support both changes in requirement at service level and to ensure that it can take advantage of corporate level changes in technology.

The use of a web forms package will deliver a user experience compliant with the best practice contained in central government provided, Government Design Standards, which are reflected in our Customer Service Strategy. It will insulate the service users from any future changes in underlying, service specific software. This will encourage a long term channel shift, which will assist with reducing the operational costs of delivering services across the Council.

To maximise the efficiencies arising from channel shift, software based integration tools will

automate data integration between disparate service specific systems.

Together these components will allow the continued procurement of software which best meets the need of service processes but which is fully integrated with the Council technology platform.

Compliance

It must be recognised that there are specific constraints arising from the need for the Council to be connected to the Public Sector Network (PSN). Our Digital Architecture will therefore also encompass the legislative and policy frameworks that define public sector approaches to information systems.

In addition, it needs to accomplish this in a way that doesn't unduly impede the adoption of new technology which can provide real business benefit. This balance is difficult to achieve and maintain and is a significant but required drain on technical resources. It will require a strategic, yet pragmatic assessment of the risks and opportunities presented by the ever changing technology landscape.

The selection and procurement of service specific systems i.e. Environmental Health M3, HR Resourcelink, etc. also needs to strike a balance; between systems which are highly customised, to support service process specific requirements, as well as compliance with required technology and architectural standards.

Integration

At the core of the development of the Council's technology platform is the ability to provide a consistent user experience, irrespective of the service being accessed.

This is supported by platform tools which allow data to flow between service systems to deliver joined up, fully transactional services which allow data to be stored only once, but is then able to be accessed from any of the systems that require it.

Procurement of service specific applications will therefore have to emphasise the requirement for integration capabilities based on open technology standards as well as Application Programming Interfaces (API's), which will define how software and systems from different vendors can interact successfully.

However, it is not feasible or cost effective, to carry out wholesale replacements of existing systems. It may also unduly restrict the choice of system if an API is unavailable, or costs prohibit their provision.

Therefore, to insulate the Council from being unable to integrate applications that do not provide a cost effective API, a solution that will allow such applications to be integrated has

been procured as a part of the central IT platform.

This addresses the risk of being unable to integrate existing service applications which are otherwise fit for purpose, and the data they contain, into the platform.

The technology platform component software has been selected to maximise the ability to develop functional software components which can be reused across differing processes and services. For example, the function to allow a user to position an event or data against a map is a fundamental building block of many customer driven processes. This has been developed as a reusable building block within the Council's software platform, to provide that facility whether reporting fly tipping or during the planning application process. This encourages ease of use for users at the same time as reducing the resource requirement to develop and maintain the software.

PROCUREMENT AND GOVERNANCE

Procurement processes will need to ensure that any new or significantly modified systems are procured in a way that ensures the requirement to maintain and further enhance existing integration with the central platform is at the forefront. This will be critical when producing specification requirements and tenders.

In turn, this will facilitate the ongoing acquisition of best in breed systems and digital components, based upon standardised IT and systems.

The procurement will specify an optimised use of cloud and private infrastructure and services which are driven by business needs, whilst at the same time addressing issues such as privacy and sharing of data within the Council and with any appropriate partner agencies.

To ensure that business needs drive technology, rather than the other way round, we will need a methodology that captures such requirements in a standard, objective way. These requirements can then be allied with general IT and Information Management standards to ensure that the procurement of future systems contributes to improved customer service and improving efficiency within the Council.

All major service systems will have the approval of the Business Transformation Board and their procurement and implementation will be project managed in accordance with Council Programme and Project Management processes.

In order to enhance systems and data integration and interoperability, all IT procurement is coordinated by IT staff, working closely with business process owners across the Council. This ensures that all systems procurement and upgrades are working together, towards a standards based, integrated, simplified and lower cost infrastructure.

INFORMATION STRATEGY

This has been identified as an area that requires further development and improvement, in order to provide an appropriately managed and usable data landscape.

We will establish clear process, policy and practice to ensure that data is managed in accordance with the requirements of information ownership legislation, PSN compliance and industry best practice. This will ensure accurate, up-to-date data is available to underpin the efficient delivery and improvement of the services we provide.

To achieve this, data management processes and procedures will be established across the Council to ensure data is stored securely, in a single, secure storage environment. This will require a hybrid infrastructure of both Cloud provided and private infrastructure and services.

In order to facilitate this, we will establish a Council wide Master Data Catalogue which will also reduce any potential risks arising from non-compliance with legislation covering the use and storage of data within the Council.

It will provide the “single version of the truth” for all information assets held by the Council.

At the heart of the information architecture will be two corporate master data sets which will coordinate and link all core person and core location data, with case and transaction based intelligence held within the service specific systems.

The core location data will be created against the national standard data set, the Local Land and Property Gazetteer (LLPG), which uniquely identifies every location within the area for which we are responsible. Using this data, locally generated data and intelligence can be referenced in a way that is recognised by all other Council systems and that can be easily shared with partners.

Wherever data has geographic attributes it will be rendered on public and internal mapping systems which will make full use of the mapping and other data sets available under the Public Sector Mapping Agreement (PSMA).

The core person data set will be created and maintained by aggregating individual contacts and applying rigorous validation processes to ensure data integrity and accuracy and to prevent duplication of data.

Because some contacts do not require definite identification of the user, it will require significantly more complex management processes to build and maintain the core person data set than it will for the core location data.

Service quality and operational effectiveness will be measured against a set of key corporate and service specific metrics. The data driving these metrics will be accumulated, as far as possible from the underlying business systems and formatted and presented automatically to provide real-time and historical information. The information will be presented in a manner that is engaging, visually attractive and easy to interpret.

TECHNOLOGY AND DIGITAL ROADMAPS

Technology

The Council has developed an extensive range of infrastructure systems which are predominantly provided under the terms of the government framework Enterprise Agreement with Microsoft. The agreement allows for licences to be deployed as both cloud based and on premise which allows a very flexible approach to infrastructure required to access services for members, officers and partner agencies and significantly improves the facilities for collaborative working with a wide variety of partners.

To support the service specific business systems we will deploy a small number of strategic technologies to develop and implement a core platform which will act as a bridge between all service based applications and the underlying collaboration, personal productivity and communications software tools.

Key components include:

Unified Communications, to offer a step change in capability in communication, collaboration and mobile working.

Corporate Document and Record Management System to improve information governance and accessibility.

Digital Mailroom facilities allowing all paper information received to be digitised and indexed at the point of entry.

Customer Contact and workflow management system, to ensure effective and efficient case management of customer interactions which will span all communication channels.

A **web forms** package to provide the high quality user experience necessary for the successful adoption of self-service, web based facilities.

Software integration tools which will remove the barriers to data sharing between service specific and corporate systems.

Cloud based services will form an integral part of the technology mix which underpins the Councils Digital Platform. Business needs and operational efficiency will drive the mix of cloud services deployed.

The balance of Cloud and on-premise infrastructure will change over time as business needs and technology changes dictate but are likely to include: Software as a Service (SaaS) to provide access to cloud hosted applications such as e-mail, document sharing or service specific applications; Platform as a Service (PaaS) to provide cloud hosted web sites and databases and Infrastructure as a Service (IaaS) to provide cloud hosted servers, data storage and network services and facilities.

Wherever possible, we will maximise the use of use of our existing strategic software assets for example, the Council's Microsoft Enterprise Agreement, which includes the deployment of the cloud based Office 365 software. Whether these are deployed as cloud, on premise or as a hybrid of the two models will be determined by business and operational requirements.

To achieve this, we will access cloud services in a multi-cloud configuration with a seamless blend of on-premise and multi-vendor cloud services to maximise the business benefits for the Council.

Digital

We will implement a high quality, consistent, easy to use, web based customer interface for all online interactions. This will insulate customers from the back office systems used to manage the delivery of services to them.

We will develop and deploy a single customer account which will allow users of Council managed services to access a view of their services which is personal to them and will provide a single point of access for all functions and services.

However, whilst encouraging the use of on-line self-service access, the Council will ensure that those users who have or wish to do so can continue to access services through facilitated channels that meet their needs. These will include the option for face-to-face and telephony assistance

We will adopt a twin track approach of improvements in enabling technology being implemented horizontally across all services (eg MFD's, on-line payments engine, on-line bookings system) and service process re-engineering to deliver process improvements.

The Planning Service will be the first to undertake the reengineering process and this will be built upon the technology improvements that have already and will be delivered as part of the Digital Transformation Programmes. These include: web based, user self-service forms; online payments and bookings; Digital Mailroom; Integration software linking service and corporate systems; and enhancements to the existing, service specific system.

The recently deployed Skype for Business unified communications solution has provided the platform to facilitate a wide range of flexible and agile working patterns, which drive further efficiency in field working and office space utilisation.

To allow practical adoption of these new ways of working, we will now provide a range of different mobile devices across the Council. The IT budget will be re-profiled to allow for this and will provide the hardware to allow employees to work wherever it is most effective and efficient for them to do so.

Utilising the capabilities of the technology platform, the channel shift of customer interactions to self-service will be prioritised on the basis of maximising service and operational improvements.

The performance monitoring and reporting capabilities of the Council will be significantly

improved by the implementation of a Council wide Business Intelligence (BI) platform. This will harvest data from service specific systems and present users with a dashboard which will be specific to an individual's role within the Council.

Timeline

Printing and Scanning	Nov 14 Dec 15	Departmental Multi-Function-Devices; Corporate Print Solution.	Cultural Change; Support for paper free processes; Cost reductions.
Digital Mailroom	Apr 15 (on-going)	Scanning at point of entry; Indexing of information received at point of entry.	Improved business processes; Standardised document management; Operational efficiencies.
Network Enhancements	Apr 15 Jun 16 Jul 16 Nov 16	Security Mobile Working Server and Storage Virtualisation Cloud Adoption	PSN Compliance; Support Agile and Field Working; Improved Business Continuity arrangements;
Integration Platform	Jul 15 (on-going)	Integration Tools; Single Data Management Process; Data Sharing.	End-to-end integration; Automated data synchronisation; Improved Data Management; Easier data sharing.
Unified Communications	Sep 15 Mar 16	Telephony Integration; Presence; Instant messaging; Video and Voice Conferencing; Internal & External Desktop Sharing; Contact Centre System.	Hot Desk facilities; Improved Internal and external Communications; Better partner collaboration.
Transactional Website	Oct 15 (on-going) Mar 16	Transactional web forms; New open source Content Management System	Improved ease of use; Support Channel shift; End-to-end transactional efficiencies; Adoption of Government Standards.
GIS	Nov 15	Public Facing Data Mapping Facilities; Intranet Mapping Upgrade.	Support for self-serve; Encourage take up of digital services; Operational efficiencies.
Document & Records Management	Jan 16 Mar 16	Corporate Records Management; Document Management Workflow.	Single point of the truth; Version control; Lifetime document management; Operational Efficiencies.

INVESTMENT PROFILE

Finances

The existing Business Efficiency and Digital Transformation Programme budget has provided capital and revenue investment to make significant changes to the technology platform. In addition, some projects have been added to the programme, which have separate funding identified e.g. GIS improvements, to improve digital; mapping of data and printing services procurement, which will further drive down the use of paper within the Council.

However, it may well be that the Programme budget needs to be increased on an invest to save basis for some of the projects within the Programme as there are clear indications that by doing this, a higher level of long term revenue saving than originally envisaged can be achieved.

It is not believed that there is a need to greatly increase the IT goods and services budget in terms of infrastructure and software provision, although this could change over time.

However, there is a clear case for an increase to the IT staffing budget to support the business as usual capacity as well as the capability to deliver future Programme requirements.

Staffing

The background of change, both in business requirements and the technology that supports it, is continuous. Once a process has become digital, it has to be maintained in both technology and business process terms. This generates a steady increase in the requirement for resourcing of the activity to ensure the platform remains current and effective.

The Council generally enjoys success when recruiting entry level technical staff. However, we have particular geographic and pay structure issues, which are impediments to timely recruitment of skilled and experienced staff, both contract and permanent.

An agile and imaginative approach to IT staff resourcing will be needed to ensure the availability of the skills and capacity required to implement and maintain the momentum of change.

To achieve this will require ongoing investment, but by actively developing entry level staff, we can minimise the funding requirement. To reduce the requirement for highly specialised skills we will keep differing technology components down to a minimum and concentrate permanent staffing resources on the critical core components

CONCLUSION

The Programme is delivering in line with anticipated outcomes and has made good progress in the delivery of the technology platform.

It has now commenced using the new technology capabilities to review business processes across the Council. These are being implemented as both vertical, service by service improvements and horizontal improvements which see all services taking maximum advantage of the common platform components such as on-line payments and bookings, digital mailroom etc.

Together these improvements offer the opportunity for real gains in the quality of citizen services and in the efficiency with which they are delivered. However focus must be maintained on realising the benefits if the maximum return on the Council's investment is to be achieved.

The technology components have been carefully selected to ensure the Council has the right mix of technologies to deliver a highly flexible and sustainable platform.

This ensures we can extract the maximum benefit from investment to date and that components and services can be added, updated and removed in the future with minimal disruption to the users of the services and in as cost effective manner as possible.

The risks and issues arising from our geographic and demographic constraints will need to be recognised in the planning of future services and facilities but at the same time they provide a stimulus for continuously extending the scope and the reach of the digital enabled services delivered by this programme.

For the future, it is recognised that this transformational journey will never end. As changes in legislation, customer expectations, finances and technology occur with increasing frequency they will generate a continuous need to refresh and improve the Council's Digital Platform.

This strategy defines a sustainable approach to the implementation and continual improvement of the technology and service landscape which will allow the Council to deliver easy to use access to services, twenty four hours a day, 365 days a year in a customer centric and cost effective way.