

ICT & DIGITAL STRATEGY

2017-2020

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FOREWORD

A decade ago, social media was still in its infancy. The only ‘cloud’ people knew about was in the sky. And mobile phones were mostly used for phoning people.

The world has changed and we – as citizens and communities – are different. We have different expectations and we do things differently.

We buy online. We talk online. We learn online. We are ‘digital by default.’

This means councils must be digital by default too – and build their services, processes and decisions around the technology shaping everyday life.

From e-commerce to analytics; From machine-learning to mobile.

If you’re involved in delivering this work, you’re involved in something really important. Because without a strong ICT infrastructure and a digital mind set, we will fail ourselves and our customers.

Technology will transform the way we work, and the way we support and engage our citizens, and I’m really excited about the future.

We really need this strategy and it has my full support.

The truth is a digital society expects a digital council.



Helen Paterson
Chief Executive



David Kelly
Lead Member for Organisation – Planning and
Corporate Services

PURPOSE

The purpose of this document is to define Wrexham Council's ICT and Digital Strategy for the years 2017 through to 2020 and how this will support and enable the Council's Strategic vision and priorities.

Wrexham Council has a vision, outlined in the Council Plan 2017 -2022, to be “a strong and inclusive community leader” ensuring “Wrexham and its people are supported to fulfil their potential, prosper and achieve a high standard of well-being”.

In support of this the Council has identified four strategic themes: People, Place, Economy and Organisation, each of which contains a number of priority outcomes.

ICT & Digital services will play a fundamental role in supporting all of these priorities:

- Providing the technological infrastructure to allow the economy to develop
- Supporting the delivery, performance and management of Council services
- Growing the availability of self- service to employees, members and customers
- Supporting employees and members in their day to day roles
- Providing Members & Managers with the data to inform their decision making
- Supporting members, employees and customers in growing their digital skills to make best use of technology

The Organisation Development and Workforce Strategy will complement this Strategy by providing the workforce with the necessary framework and support needed to deliver the digital agenda.

Our aim is to “use the power of digital technology to transform the way the Council works and how we engage and support our communities”

Our overriding principle for ICT & Digital services is to **“Simplify, standardise and share”**

1. KEY DRIVERS

The strategy has been developed in the context of a number of key strategic, business and technological drivers which affect how ICT can best support and enable the Council in delivering its priorities over the next three years.

2.1 Strategic

- The need to drive transformation across the Council to support improvements to service delivery.
- The potential for Local Government reform outlined in the Welsh Government White Paper “Reforming Local Government: Resilient and Renewed” issued on 31/01/2017.
- The need to modernise the ICT service ensuring its long term sustainability.
- The need for comprehensive, accurate and timely management information, enabling improved decision-making.

2.2 Information Management and Security

- The need to conform to relevant information management legislation and standards; in particular the GDPR regulations.
- The need to ensure that the data and information held by the Council is collected, stored and used appropriately and subject to effective controls.

1.3. Customer Focus

- The rising expectations of customers to be able to conduct their business on line and at a time convenient to them.
- The need to adapt our processes and procedures to focus service delivery around the customer (whether “citizen”, “business”, “visitor” or other “stakeholder”).
- The need to be able to provide truly “joined up” services across partners and across local and central government.

2.4 Technological

Rapid changes in the technology landscape provide both opportunities and challenges to the public sector. These include:

- The growth in off-premise (Cloud) solutions.
- Increasing options for both SaaS (Software as a service) and IaaS (Infrastructure as a service).
- Mobile technology developments including tablet devices, the emergence of 4G/5G wireless connectivity and web based applications.
- The increasing use of social media as a method of accessing services.
- The extending functionality of the PSBA service across Wales.
- The increasing availability of data management to match, analyse and re-use data.
- The proliferation of WiFi and the extension of connectivity and controllability of smart devices in the IoT (Internet of Things), increasing exploration of artificial intelligence and voice control across the public sector.

2. GUIDING PRINCIPLES

In order to address these drivers and challenges ICT delivery will need to be developed in accordance with a number of key principles:-

Principle 1 - Alignment of ICT to business

The ICT and Digital services will be aligned with the Council's business vision, objectives, and strategies and will support its re-shaping principles surrounding customer management, service delivery, strategic core & corporate support.

Principle 2 - Digital by design

All services, processes and supporting ICT will be developed and delivered making full use of technology as an enabler and considering digital delivery channels as the primary choice.

Principle 3 - Enhanced customer service

Citizens will be able to access services through the channel of their choice and have a consistent user experience across all channels. Access to on-line services will be available 24x7. Front line employees will be provided with solutions which provide an accurate, consistent and relevant view of citizens, properties and businesses.

Principle 4 - Adoption of new technologies - Cloud

The ICT service will actively review and consider new, innovative technologies where these add value or reduce costs for the Council. Initially this will focus on options for a collaborative, community or 3rd party Cloud solution as the preferred option for the hosting of applications.

Principle 5 - Corporate application management

The Council will become increasingly digitally cohesive and adopt an application portfolio consisting of core corporate applications performing generic functions, supported by bespoke applications for specific business areas.

Principle 6 - Information management

ICT solutions will be developed to ensure that they maintain the security, confidentiality and integrity of all personal data in line with the requirements of the General Data Protection Regulations (GDPR) and security standards such as PCIDSS and PSBS compliance. The usual position for public information datasets and other non-personalised information will be to publish openly and to enable re-use through the Open Government License for Public Information.

Principle 7 - Scalability

Technology should be scalable in order to provide the ability to respond to the level of user needs. For example, an increase in user numbers or the requirement to handle more data.

Principle 8 - Governance

All services will adhere to this ICT & Digital Strategy and fully engage with the ICT service from requirement gathering stages through to options appraisals, purchase and implementation.

Principle 9 - Managed risk

Risk and security controls should be balanced according to business objectives – security controls should be proportionate to risk. In addition, security should be user transparent, not hindering user access more than is necessary.

3. ICT & Digital Strategic Themes

Given the Strategic context and key principles there are eight themes that shape the ICT & Digital Strategy. These themes are:

- Customer Focus and Digital Services
- Process Transformation
- Workforce Development
- Security, Resilience & Future Proofing
- Better use of Data
- Community Engagement
- Collaboration & Partnership Working
- A Business-driven ICT Operating Model

4.1 Customer Focus and Digital Services

A key strategic aim for Wrexham Council is to expand the availability of on-line services for customers and to ensure these are simple and effective to use. Our aim is to provide a single integrated service for customers irrelevant of the method by which they choose to contact us. Supporting this will be a single record for each customer with a consistent view of the customer's key details and contact record.

Technology will support this through:

- An updated and modernised website and internal intranet site with a greater emphasis on transactional services. We will invest in an updated website, incorporating a secure employees/member area and will take advantage of Cloud technology to allow this to be hosted externally. The website will be developed in accordance with the UK Government's Digital Service Standards and Technology Code of Practice.
- Continued expansion of the Council's digital self- service account for customers (My Account) and digital information service (My Alerts). Consolidation of all existing customer portals within My Account.
- Working with partners to develop a self-service portal focused on services for businesses.
- Fully automating on-line services wherever possible, updating "back office" systems without the need for further employee intervention.
- Expanding and introducing new digital channels including social media, web, video chat and SMS.
- Replacing the current Customer Relationship Management System (CRM) with an "internal" view of the My Account system to record contact and therefore continue to maintain a single thread for customer records.
- Investigating the options for Cloud technology within the Council's Corporate

Contact Centre, providing the potential to enable access to software which was previously not viable. Cloud also provides opportunities to share functionality with other local authorities, opening up the potential for shared services, improved 'agile' working and enhanced business continuity.

- Exploring opportunities for artificial intelligence and further expansion of voice control.
- Providing access to digital services within the Council's "one stop shop", Contact Wrexham, for those customers who are unable to use or are less comfortable with digital technologies along with employees trained and able to support them in this.

4.2 Process Transformation

In order to deliver truly digital services to customers, our internal processes, procedures and working practices need to align with a “digital world”.

- Information needs to be easily accessible and proactively published wherever possible.
- Processes need to be re-designed to be simpler and more streamlined to enable customers to self-serve.
- Service requests need to be communicated immediately to the person able to fulfil that request.
- Decision making needs to be at the lowest, most appropriate level.

Technology can support this in a number of ways:

- Expansion of the inbound mail-room – enabling documents received to be scanned and forwarded electronically.
- Implementation of e-forms on the Council’s website – digitising service applications, requests and reports.
- Improved facilities for the storage of internal documentation currently held in shared folders or emails.
- Improved tools to allow for the collaborative production of documents.
- A review of existing business applications to minimise the sources of data held.
- Data matching tools to identify and flag inconsistencies in information held.
- Expansion of the use of mobile devices to enable employees to work agilely and to receive work requests in the field or at home.
- Improved methods of contact such as “Skype” and in-cab technology to allow direct contact with employees in the field and to reduce the reliance on email.
- Workflow management within systems to ensure appropriate levels of decision making.
- Support for a corporate approach to process review, utilising tools such as LEAN Thinking.

4.3 Workforce Development

A more informed, mobile and ICT aware workforce is one of the main enabling factors for the transformation of service delivery. Employees must be provided with the tools to enable them to provide and manage the delivery of services anytime and anywhere. They must also have the training and support to enable them to make best use of the tools available to them.

Meeting these demands will require greater insight into job functions and work-styles in order to deploy a tailored but consistent and effective technology solution that is highly resilient. Our aim will be to make the process from initial service request to service fulfilment as seamless as possible.

Technology can support this through:

- Continuing the transition from fixed workstations towards more laptop or tablet devices breaking the link between employee and workspace.
- Reducing the volume of business applications and improving integration between those remaining – reducing the sources of information and the number of systems requiring updating.
- Maximising the use of workflow to ensure appropriate authorisation and quality assurance.
- Supporting the procurement and implementation of a performance management tool to support Managers in service delivery, performance and monitoring.
- Supporting the implementation of self service for employees and managers including HR/payroll and business administration functions.
- Explore the opportunities to utilise Microsoft Office 365 to enable better mobile & Agile working and support business continuity.
- Increasing the use of collaboration tools such as screen-sharing and video meetings to reduce travel, improve effectiveness and provide more sustainable meeting options.

In support of this, there will be a requirement to upskill the workforce to ensure that the maximum benefits are gained. The Council's induction and development programme will be developed in conjunction with colleagues in the HR and Organisational Development Team to expand the provision of ICT learning. Consideration will also be given to the minimum ICT skills required for all new employees.

4.4 Security, Resilience & Future-proofing

To provide the transformation capabilities required through this Strategy, there needs to be a robust, resilient and secure foundation upon which the Council's technology is built.

To enable an 'always-on' Digital service there will need to be a significant change in the Council's core ICT provision. The current reliance on locally-hosted services will prevent us achieving an 'always-on' service for citizens and employees. Additionally, issues with the recruitment and retention of skilled ICT resources, adds a risk to our business continuity plans.

We will therefore reduce the reliance, both on local infrastructure and resources by moving to 'Cloud' services where this is practical. Locally-hosted applications will be delivered from alternative platforms, either Software as a Service (SaaS) from the application provider; or a managed off-site cloud service (IaaS - Infrastructure as a Service) supplier.

Reliance on local data storage will be similarly reduced with a move to hosted storage, where availability will be managed by the provider.

Procuring ICT and applications in this manner brings increased flexibility and financial planning by use of 'pay as you go' models. The ability easily to vary capacity based on fluctuating demand makes the cloud model more cost-effective.

The increasing requirements on security; compliance with updated data protection law (e.g. GDPR) and other mandatory regulation can be managed through service agreement with providers, whilst the Council retains overall control rather than requiring additional resource from the local ICT team.

4.5 Better use of data

Wrexham Council, like many organisations within the public sector, holds a vast array of data but does not always make best use of that data.

We will follow the principles of “open data” and “data transparency” making more public data available on-line, enabling others to share and use that data and increasing the transparency of the Council by allowing stakeholders to understand the reasons for the decisions we make.

We will also reduce the administrative burden of responding to multiple, similar FOI requests by pro-actively publishing information wherever possible and publishing our responses to all FOI requests.

We will develop our Customer Insight capabilities, analysing data to identify trends and becoming increasingly proactive in addressing these. We will identify technology which can support our data insight ambitions using this to analyse data and improve the information available to decision makers across the Council.

Sharing data between different services within the Council can prove challenging, with multiple sources of data and inconsistent recording / presentation of data. The rationalisation of business applications and the adoption of core corporate applications for some generic functions will begin to address this. In addition a common data standard will be developed to provide consistency in the description of an individual or asset and supporting the development of accurate and single sources of information.

4.6 Community Engagement

Adoption of a comprehensive digital approach can have significant benefits over and above the most obvious efficiency and modernisation gains.

According to the “[doteveryone](#)” Digital Inclusion Heat Map, Wrexham has a high likelihood of digital exclusion based on infrastructure, skills and social economic factors. This is similar to neighbouring authorities such as Flintshire and Shropshire but higher than Denbighshire and Powys for example. The UK Government Digital Strategy identifies some benefits of digital for individuals, as cutting household bills, finding a job, or maintaining contact with distant friends and relatives; for organisations the benefits are described as providing ways to reach more customers and reduce operating costs. There are also the broader benefits of helping to address wider social and economic issues like reducing isolation and supporting economic growth.

Although some work has taken place to enhance digital inclusion across the County Borough, this has lacked co-ordination and structure. The Council should take a lead in facilitating a programme to enhance digital inclusion across the County Borough, focusing on those factors identified within the heat map. This can be as simple as providing suitable facilities with Internet access, engaging with private sector suppliers to provide those facilities and helping volunteer ‘digital hosts’ to educate the public.

Digital technology has already supported greater democratic engagement through the web casting of Council meetings and through the use of social media, enabling direct engagement and consultation with customers. We will look to extend this further and will also work with other democratic bodies such as Community Councils to see how digital technology and use of data could further support them and their communities.

Advances in social & other digital media provide the Council with greater opportunities to coordinate & support community schemes. We will support the aims of “Together in Wrexham” enabling people to “make their own positive contribution to help others”. We will also investigate innovative socially beneficial schemes providing low cost deals to citizens.

4.7 Collaboration & Partnership Working

The ability to work more effectively with our partners across the public, private and voluntary sectors is an essential goal for Wrexham Council.

The recent publication of the Welsh Assembly Government White Paper “Reforming Local Government: Resilient and Renewed” and its ongoing consultation will provide a more robust roadmap for the future of shared service delivery and collaboration across Wales. It is clear however that this is the direction of travel across Wales and that the ICT infrastructure and future ICT developments must be sufficiently flexible to accommodate this.

In some areas, such as Health & Social Care, the national procurement of shared business applications will be a key enabler to collaborative working. Wrexham will continue to support the work of the National Procurement Service, adopting nationally procured technologies where there are clear business benefits, both financial benefits and those which support the wider collaborative agenda.

For those services without a common business application, ICT will need to provide a platform which allows for the seamless, secure and reliable transfer of information between partner organisations. This will be developed in accordance with existing security regimes and be compliant with the new GDPR regulations from May 2018.

4.8 ICT Operating Model

The revised operating model for the ICT Service, approved by the Council's Executive Board in September 2016, identified the need for the Council to evolve into an organisation with ICT at its heart and systemically embedded in all of its operations, designed to deliver services efficiently in a manner increasingly demanded by both an evolving employee base and more crucially its service users.

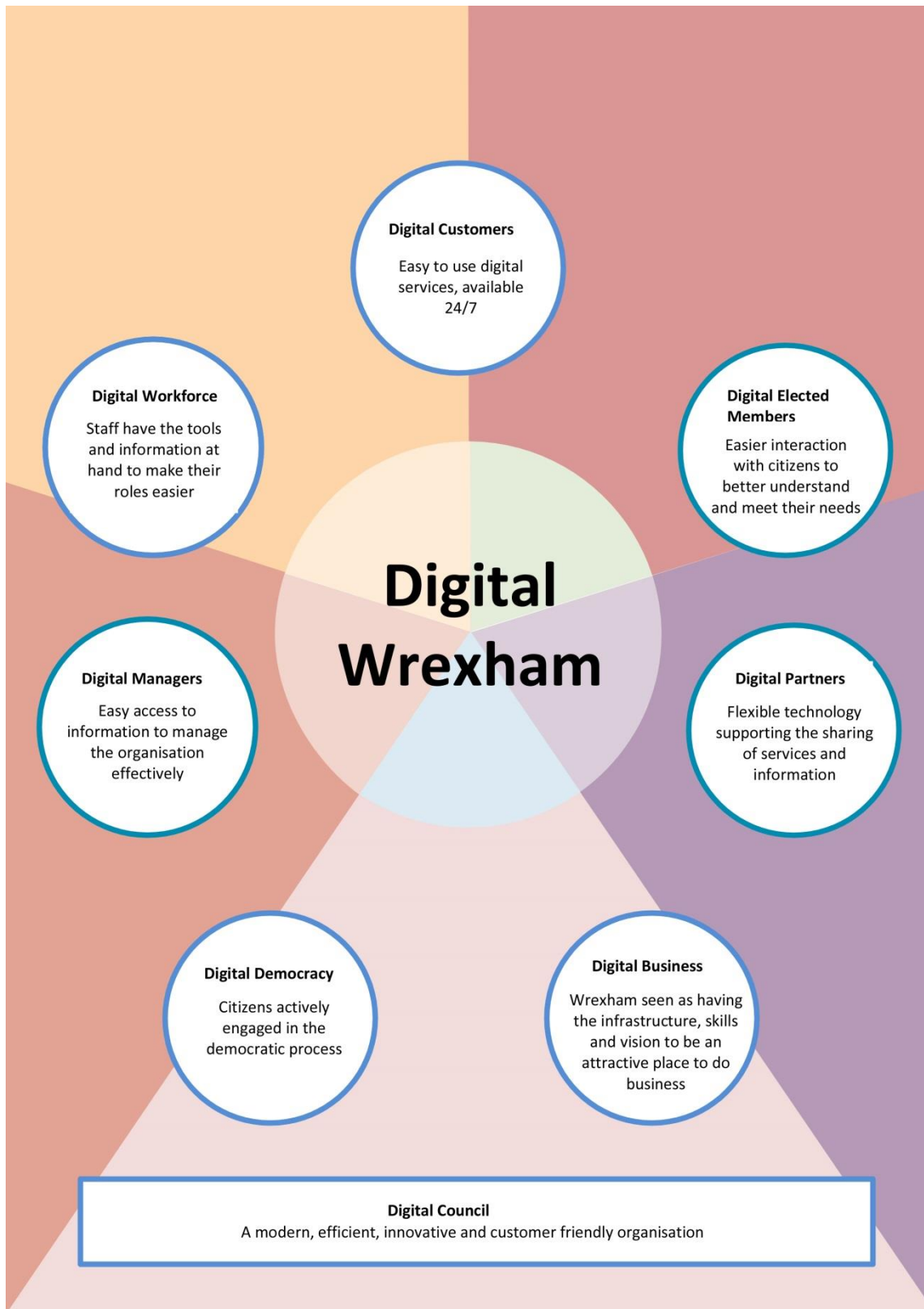
To support this a number of key principles for the future delivery of ICT were agreed:-

- ICT to provide an agreed “core” service to the Council through a structured Service Level Agreement (SLA) and associated Key Performance Indicators (KPI's) that are agreed with the business and in line with expectations;
- An expansion of the current Business Partner role, providing strategic support to Departments, identifying and understanding business requirements and supporting Departments in adopting technology selected on its ability to meet these requirements.
- A greater transparency across the Council of the current and future costs of ICT, with an improved understanding of the total costs of technology, including support costs.
- A much improved governance procedure for all Projects, with clear stages of authorisation and review, detailed business cases and transparency of implementation costs, including those of ICT, defined and agreed.
- A significant investment in the ICT infrastructure to enhance its reliability, resilience and flexibility.

Full details of the model can be found at

[ICT Services in WCBC: Transformation and Investment Assessment](#)

4. The Difference: Outcomes of the ICT Strategy



ICT & Digital – Glossary of terms & abbreviations

Term or Abbreviation	Meaning
1 st Line Support	A single point of contact and ownership for all basic technical and desktop support to end users. It also serves as a call logging and diagnosis point for more technical issues.
2 nd Line Support	A technical escalation point for the 1st line team; they handle all incidents that have a more technical element.
3 rd Line Support	Provide highly technical assistance to users and internal teams, the 3 rd line team are responsible for taking ownership of incidents requiring in-depth diagnosis.
Application	An application is a program designed to perform a specific function directly for the user or, in some cases, for another application program. Examples of applications include word processors, database programs, Web browsers etc.
Artificial intelligence	Within the Contact Centre this refers to for example virtual agents, automated planning and forecasting, automation of routine transactions
‘Agile’	Agile working is a way of working in which an organisation empowers its people to work where, when and how they choose. It relies on ICT to enable people to work in ways which best suit their needs without the traditional limitations of where and when tasks must be performed.
Analytics	The field of data analysis. Analytics often involves studying past historical data to research potential trends, to analyse the effects of certain decisions or events.
Business continuity	The capability of the organisation to continue delivery of products or services at acceptable predefined levels following a disruptive incident. (cf. Disaster Recovery, below)
Citrix	Citrix is a virtual computing environment which allows applications to be accessed remotely. It is used by Agile workers to access WCBC ICT services.
Cloud (computing)	‘Cloud computing’ has many interpretations. It can mean any bought-in computer service that sits outside the Authority’s infrastructure or premises.
CoBIT	Control Objectives for Information and Related Technology. A framework for IT governance and management.
Content Management System (CMS)	A CMS supports the creation, management, distribution, publishing, and discovery of corporate information without the need for specialist technical knowledge. It enables multiple users to update a website quickly & simply, keeping information up-to-date and accurate.
Data centre	A facility that centralises an organisation's IT operations and equipment and where it stores, manages, and disseminates its data. Data centres house a network's most critical systems and are vital to the continuity of daily operations.
‘Digital Authority’	A model for local government with the aim to improve the use of technology, digital resources and better information management to enhance services to employees & customers.

ICT & Digital – Glossary of terms & abbreviations

Disaster recovery (DR)	Disaster recovery (DR) involves a set of policies and procedures to enable the recovery or continuation of vital technology infrastructure and systems following a natural or human-induced disaster. Disaster recovery focuses on the ICT or technology systems supporting critical business functions, as opposed to business continuity, which involves keeping all essential aspects of a business functioning despite significant disruptive events.
EDRM	Electronic Document and Records Management – the electronic storage, indexing & archiving of documents
End user compute	Technology used to give end users access to critical systems, most commonly this refers to the device (tablet, laptop, desktop, thin client) and any backend infrastructure required to maintain it.
Enterprise Architect (EA)	A technical & business expert who is responsible for the development of the Authority's ICT and Digital Strategies. The Enterprise Architect role is embedded into the senior leadership structures and the business transformation programme
Firewall	A firewall is a network security system designed to prevent unauthorized access to or from a private network
GDPR	General Data Protection Regulation – Revised Data Protection regulations due to come into force from May 2018
IaaS	Infrastructure as a service – third-party provision of hardware, software, servers, storage and other infrastructure components
ICT	Information & Communications Technology
Infrastructure	The entire collection of hardware, software, networks, data centres, facilities and related equipment used to develop, test, operate, monitor, manage and/or support ICT services
Internet of things	Connecting devices over the internet allowing them to communicate with us, other applications, and each other. Smart meters for gas/electricity for example
ITIL	Information Technology Infrastructure Library - a framework for IT governance and management.
Middleware	A general term for software that serves to "glue together" separate, often complex and already existing, programs. E.g. middleware is used to connect the contact centre with building services applications.
Network	A network refers to a series of points or nodes that are interconnected by data circuits. Networks can also be identified by characteristics of distance, for example a local area network (LAN), metropolitan area networks (MANs), and wide area networks (WANs).
Operating System	An operating system (OS) is system software that manages computer hardware and software. e.g. Microsoft Windows

ICT & Digital – Glossary of terms & abbreviations

PaaS	Platform as a service - third-party provision of hardware, software, servers, storage and other infrastructure components plus the management of these and the applications they host
PCI DSS	Payment Card Industry Data Security Standards – A set of standards to which we must comply to enable us to take payments from major credit/debit card suppliers
Prince2	PRINCE2 is a project management methodology developed by the UK government and used in ICT environments.
PSBA	PSBA (Public Sector Broadband Aggregation) is a Wales-wide data network which was launched in 2007. It is a managed network which connects public sector organisations in Wales to a private secure Information and Communications Technology (ICT) Wide Area Network.
SaaS	Software as a service - third-party provision of an application which is made available to customers over the Internet.
SAM	The WCBC Intranet, an internal Authority website.
Server	A computer or computer program which manages access to a centralised resource or service in a network.
Storage Area Network (SAN)	A dedicated resilient high-speed network that interconnects and presents shared storage devices to multiple servers.
Switch	A computer networking device that connects devices together on a computer network
Systems administration	The day-to-day support for an application. Can include tasks such as reporting, user account management, etc.
Technology roadmaps	Plans that match the short-term and long-term goals of the Authority with specific technology solutions to help meet those goals.
Thin client	A lower-cost computing device that's connected to a network. Unlike a typical PC or "fat client," that has the memory, storage and computing power to run applications and perform computing tasks on its own, a thin client functions as a virtual desktop, using the computing power residing on networked servers.
Unified Communications (Comms)	The integration of real-time communication services such as instant messaging (chat), presence information, voice, mobility features audio, web & video conferencing, desktop sharing with non-real-time communication services such as unified messaging (integrated voicemail, e-mail, SMS and fax).
VMware	VMware is software which allows users to create multiple virtual computer systems, on a single computer or server. In WCBC VMWare is used to support multiple servers, in a resilient way, in the data centres.
WiFi	Wireless data networking technology that uses radio waves to provide wireless high-speed Internet and network connections.
Windows	A computer operating system developed by Microsoft.