



VALE of GLAMORGAN COUNCIL
ICT STRATEGY

2017-2021



Strong
Communities
with a Bright
Future

www.valeofglamorgan.gov.uk

Foreword

During a period of unprecedented change in public services in Wales, the Vale of Glamorgan Council recognises the importance of ICT as an enabler for positive change in order to creatively and innovatively rise to the challenges being presented. In doing so, we are taking the opportunity to proactively reshape our services to meet the expectations of our citizens and customers and to mitigate the impact of reducing funding on priority services.

The ever increasing dependence on the use of technology is affecting all of our lives and this is not only changing society, but also how the Council works. The Council has made good progress on the use of ICT in recent years. The OneVale transformational change programme introduced new ways of working alongside an integrated corporate services system that streamlined processes and improved the way we operate our HR, payroll, procurement and finance services. It also provided us with the opportunity to establish a corporate contact centre, Contact OneVale, which handles customer enquiries for all Council services.

More recently we have begun joining up our services with our partners in Health and neighbouring Local Authorities to ensure that we are better co-ordinated and more responsive. This is allowing us to have more staff in direct contact with customers and making it easier for staff to plan services and target resources to those most in need and improve our relationships with our customers.

This strategy, which is the fruit of collaborative effort across the Council's departments, provides a vision and direction to show how the Council will take advantage of these opportunities as the platform upon which to reshape the way in which we deliver services through the use of Information and Communications Technology (ICT) in the coming years. The aim of this strategy is to **enable opportunities for improvement through the innovative use of ICT, now and in the future.**

This strategy will contribute to the Council's Digital Strategy which is currently under development. As a key enabler to deliver our digital vision, ICT is a key enabler in ensuring we achieve the Council's ambition for technology to be at the heart of service delivery, helping individuals, business and communities achieve their full potential, in their work, their education, at home and in their social life and in doing so will contribute to our Council's overall vision for the Vale of Glamorgan – strong communities with a bright future.

Councillor Neil Moore

Leader of the Vale of Glamorgan Council

1. Introduction and Strategic Context

1.1 The ICT Strategy

The Council's previous ICT Strategy was published in 2010. The majority of recommendations and actions of that strategy have now been completed or superseded and this strategy is designed to cover the next four year period (2017–2021). Some of those actions included refreshing the desktop infrastructure and moving to Windows 7, the virtualisation of the UNIX and Windows servers, the creation of a development capability in Application Support, completing a Microsoft Enterprise Agreement and a rationalisation of ICT budgets.

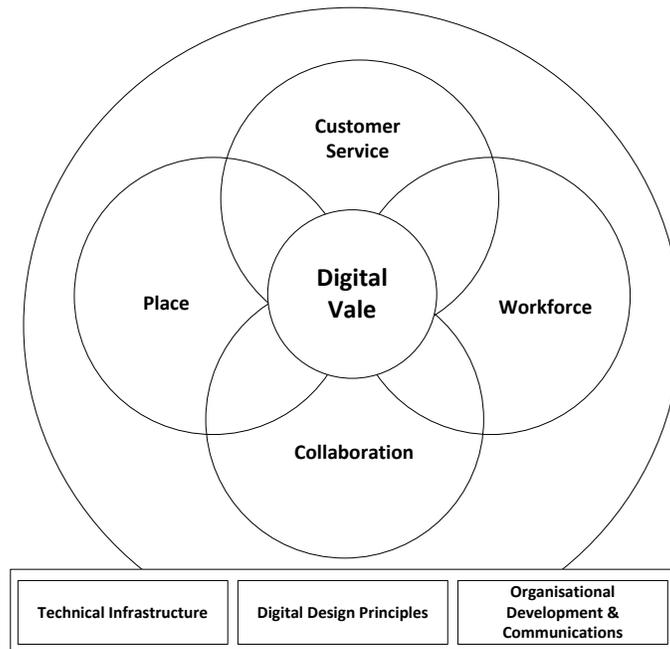
The Council is facing challenging financial circumstances over the period of this strategy and one of the main challenges will be how to harness the potential of ICT to help maintain priority services, enable changes to service delivery all within the context of reducing financial and staffing resources. The contribution ICT will make to these endeavours is set out in this strategy and associated action plan and will be a key enabling strategy underpinning our developing Digital Strategy that will be published later in 2017.

Technology changes fast and the challenge is to keep pace with that change whilst providing appropriate and secure systems and services to those frontline departments that must make greater use of technology if they are to meet their own financial and customer demands. This strategy sets out how the Council intends to meet these challenges and achieve its overall aim of **enabling opportunities for improvement through the innovative use of ICT, now and in the future.**

1.2 Digital Strategy

Digital technology has the potential to enable the Council and our partners to deliver services in a more efficient, product and cost-effective way. Our Digital Strategy will benefit our staff and citizens, develop the Vale of Glamorgan as a place and improve the support we provide to others. For these reasons, we have recognised digital as a key enabling project within the Council's transformational change programme, Reshaping Services. Reshaping Services seeks to reshape the way we work in order to mitigate the effect of the impact of cuts and assist in continuing to provide priority services.

The Digital Strategy is currently being developed by a team of Council staff and is using key Council mechanisms such as the Reshaping Services Programme Board, Insight Board and groups of colleagues to develop a truly collaborative and wide ranging strategy. The Digital Strategy is being structured around the following four themes, with enabling activities being recognised as important for the successful delivery of the strategy and associated action plan.



Our vision for a digital Vale, is delivered through four interrelated elements with the objectives of:

<p>Digital Customer Service</p>	<p>Enabling citizens to get the services and information they need online</p> <p>This means providing services and information online to residents and businesses in a user-friendly way similar to that seen in much of the private sector and elsewhere in the public sector.</p>
<p>Digital Workforce</p>	<p>Enabling staff with the digital tools and skills required to deliver services effectively and efficiently</p> <p>This means delivering positive outcomes for our residents by giving staff access to the data they need and the best available technology, ensuring they have the skills to use it effectively.</p>
<p>Digital Place</p>	<p>Equipping residents and businesses with the digital skills and technology they need to enhance their lives</p> <p>This means enabling residents and businesses in the area to use digital technology to improve their lives, providing them with access to devices and the internet as well as developing their digital skills, from the children and young people in our schools to our elderly residents.</p>
<p>Digital Collaboration</p>	<p>Enabling the council and its partners to tackle complex issues and work together seamlessly</p> <p>This means using digital technology to work with our partners to deliver the outcomes we both desire.</p>

Our vision for a digital Vale, is supported by:	
Technical Infrastructure	Ensuring appropriate technical infrastructure is in place to deliver our objectives.
Data, Customer Insight & Digital Design Principles	Using data and customer insight to inform our decision making and to evaluate our work will enable us to deliver responsive digital projects. Following digital design principles to ensure appropriate and sustainable digital work is undertaken.
Organisational Development & Communications	Supporting the delivery of our strategy requires the organisation to have appropriate skills and capacity to undertake the work and an ability to communicate, engage and work with others to ensure success.

ICT can be seen therefore as a key enabler within each of these four themes as well as part of the supporting activities. Once complete, the actions and implications for the ICT Strategy will be known and this document will be updated to include the complete set of activities required to deliver the Digital Strategy.

1.3 The ICT Strategy & Integrated Planning

The ICT strategy is one of the documents which together make up the Council’s strategic planning framework. The framework (referred to as the ‘golden thread’) describes how our strategies, plans and processes work together and how they are monitored and scrutinised.

Our enabling strategies, of which the ICT Strategy is one, are key drivers for the delivery of our Corporate Plan. As such, the ICT Strategy outlines how the Council will use ICT to support the delivery of the Corporate Plan, other enabling strategies and contribute to the transformational change of our services through the Reshaping Services programme. The way in which the Council will deliver its strategies are reflected in service, team and personal development plans to ensure contributions are coordinated effectively.

In addition to the emerging Digital Strategy, the ICT Strategy also helps to support the delivery of our other key enabling strategies as follows:

- **Medium Term Financial Plan** by identifying IT systems and technologies that will reduce the costs of delivering services to our customers and put us in a stronger position to achieve our savings targets for future years.
- **Information Management Strategy** in terms of information management, governance and data protection/security issues that go hand in hand with developing and implementing a new approach to ICT systems and technologies.
- **Customer Relations Strategy** by setting out how we can utilise new technologies to enhance the customer experience and deliver efficient and effective services through digital media channels.

- **Risk Management Strategy and Register** by highlighting high level risks associated with delivery of an ICT Strategy which in turn informs how we manage these risks at the corporate level.
- **HR Strategy and Workforce Plan** by implementing new technology to enhance working practices and enabling us to support a more flexible and mobile workforce.
- **Corporate Asset Management Plan** through enabling us to reduce our carbon emissions and rationalise our building assets by utilising IT equipment/ technology that is sustainable and space saving, which facilitates us to work in a smarter and more agile way.

2. The Vale of Glamorgan Council's ICT Service

2.1 A Profile of the Council's ICT Service

The Vale of Glamorgan Council's ICT service is provided for all areas of the Council and indirectly to the residents of and visitors to the Vale of Glamorgan.

The ICT department currently employs approximately 43 full time equivalent members of staff, but is going through a restructure in 2017 that is intended to increase the capacity of the service and raise staffing levels to around 50.

As a result of that restructure the current Head of Strategic ICT will leave the authority in 2017 following a change in the management structure of the service.

The service supports approximately 2000 internal staff and elected members with about 1100 PCs, 780 laptops, over 300 tablet devices, 82 UNIX servers and 231 windows servers, 150 printers, 1300 mobile phones and 2300 telephone extensions in over 100 locations.

The ICT service desk deals with over 40,000 calls a year with 95% of calls being dealt with within target.

There are 60 Educational Establishments with access to the Council's corporate network and the internet which are supported by a combination of Corporate ICT and the Education ICT services. The proposed restructure referred to above will consider the merger of these two teams.

Some services are also being provided to Town and Community Councils and a full ICT Support service is being provided to Bryn Hafren Comprehensive School with a view to expanding that service to other comprehensive schools.

ICT facilities, support and training are provided to the Elected Members with a proposal to move them to a more digital provision after the Local Government elections in May 2017. The introduction of modern tablet devices would see the removal of printed agendas for members and would therefore be self-financing. There are over 170 application services in use. The most commonly-used corporate services are:

- E-Mail including internal and external mail and other mail tools such as electronic calendars.
- Web Access both internal within the Council (the Staffnet) and to external websites as well as the support and maintenance of the Council's own website.
- Microsoft Office, including the principal applications such as Word, Excel, Outlook and Exchange and also others such as Access, Project and Visio.
- Corporate Electronic Document Management (TRIM)
- Geographic Information System (GIS)

The Council has been using an Enterprise Resource Planning (ERP) system, the Oracle e-Business Suite, which has been deployed corporately for the last ten years. It delivers specific services to areas within the Council and also delivers an electronic interaction for the whole council. Services included are:

- Customer Relationship Management (CRM) including recording of service requests from the public and the passing of these requests to back-office systems for action and resolution.
- Financials including General Ledger, Accounts Payable and Receivable along with Purchasing. Electronic interactive procurement is provided throughout the Council to those entitled to purchase.
- Human Resources (HR) and Payroll, including self-service (electronic payslips and i-expenses).

- There is a range of other services that are provided by ICT for specific functional or departmental use.

These services are supported by a corporate infrastructure of networks and servers which must be highly available and resilient.

2.2 The ICT Service's Operating Model

The ICT Service has adopted the principles of the IT Infrastructure Library (ITIL) in its management of services. Many staff in ICT have received training in ITIL and all are expected to achieve the ITIL Foundation Qualification as a minimum standard. The following describes the current operating model for the ICT Service in the Vale of Glamorgan Council.

- **Resolution of Operational Issues**

Customers raise service requests via the Service Desk which records the contact as an incident (or service request). Some are resolved immediately and simply, but others require greater customer liaison. The benefit of this approach is an increase in customer satisfaction and in fewer losses of service.

- **Change Control**

Many service breaks are caused by changes that are implemented without proper planning and testing and without awareness of their effects. To reduce the risks and improve control ICT all changes to the ICT infrastructure need to be approved through a Change Advisory Board (CAB).

- **Availability of Services**

Availability Management looks at availability in a strategic manner, seeking to eliminate single points of failure and to design resilience into the system. Alongside Availability Management is Capacity Management which seeks to ensure that there is sufficient current and future capacity for services to operate.

- **Business Continuity**

IT Service Continuity Management (ITSCM) covers the different types of arrangement that will be needed to restore services at different levels and timescales. These plans will cover the restoration of the ICT element of a service. This is also known as "Disaster Recovery".

To be effective, ITSCM is only a component of Business Continuity Management (BCM), which covers the overall business recovery of services which deals with issues such as staff, premises, HR, pay and transport. These are usually outside the scope of ICT and need to be considered by the business, although ICT will advise. The Service has produced ITSCM plans for all of the major ICT services.

- **Service Level Management**

Service Level Management is where customers and the ICT Service agree a level and quality of service and can review the issues and areas where services do not meet expectations.

- **Governance and Decision Making**

ICT is subject to Corporate Governance in its strategic direction and in its allocation of resources and this is exercised through a variety of means, including:

- Managing Director/Section 151 Officer
- Corporate Management Team
- Cabinet
- The Insight Board
- Corporate Resources Scrutiny Committee
- The Information Governance Board
- Customer Relations Board
- Internal and external Audit

Policies are developed for the use of ICT and for good practice and are presented for ratification via the corporate governance arrangements outlined above, after which they become mandatory Council policy. ICT procurement is facilitated and monitored and the technical specifications of any hardware or software are required to be within the parameters of this ICT Strategy.

Internal Audit has produced reports on Microsoft Exchange, Oracle E-Business, the backup infrastructure, endpoint security, Firewalls, use of ICT consultants, LALPAC licensing system, ICT asset management, network resilience issues, PCI-DSS, and OHMS and continue to play an important role in monitoring the internal control environment within which ICT operates.

The ICT Service also has its own governance processes which include the ICT Management Team, Change Advisory Board and Account Managers.

3. Developing the ICT Strategy

When developing the ICT Strategy, the challenges presented by a range of external and internal factors have been evaluated to determine the impact upon the Council and the response required by the ICT Strategy.

3.1 External Drivers

- **Welsh Government Strategy & Policy**

Delivering a Digital Wales (2010) is the Welsh Assembly Government's framework for addressing the challenges of rapidly evolving trends in information and communications technology (ICT), digital media and the internet in a citizen-focused way and embracing the opportunities and imperatives of this rapidly evolving world. Delivering a Digital Wales formulates a vision for a Digital Wales (2013), with emphases on: inclusivity and the participation of all citizens, the development of skills at all ages and levels, the use of ICT to strengthen the economy, transformation of public services and its role in supporting Welsh creativity, culture and language, and the delivery of an infrastructure that enables all of Wales to access digital technology.

<http://wales.gov.uk/topics/businessandconomy/digitalwales/publications/framework/?lang=en>

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The ICT Strategy for the Public Sector in Wales (2013) provides the technical strategy, architecture, infrastructure and standards to implement Delivering a Digital Wales and is written primarily for the ICT profession working in the Public Sector in Wales. The ICT Strategy for the Public Sector in Wales is closely aligned with the UK Government ICT Strategy and where appropriate collaboration and use of services provided from the UK strategy are envisaged. Welsh Government has recently appointed a Chief Information Officer after a gap of three years and for the first time a Chief Digital Officer.

A national "Government ICT Strategy" was published in January 2010 outlining the future strategic direction of public sector ICT, in central and local government. The Government is moving into the delivery of on-demand services, using the concept of "Cloud" computing. This involves delivery of services bought in from the wider ICT community (mainly large internet service providers) to provide application services to the public sector. This has the capacity to provide great flexibility and other benefits but there is an innate security risk. However, if these services are from a trusted and secure source then some of these concerns may be reduced. For this reason the Government is producing its own set of on-demand services.

The latest update was published in January 2015.

Government is looking towards a transformation in the delivery of technology services in the public sector, removing the duplication of services across the public sector, moving towards a common infrastructure and increasing the use of partnerships. In providing services according to the new model there will be a transformation in the process of procurement for technology. Procurement will be able to be done with confidence in the propriety of the process and its value for money.

- **Public Services Network (PSN)**

The Council must maintain its accreditation annually for the Public Services Network which allows access to Governments systems such as the DWP and Ministry of Justice. This process ensures that the Council's systems and infrastructure are suitable for purpose and meet security standards. The Welsh equivalent to PSN is the Public Sector Broadband Aggregation (PSBA) of which the Council is an active participant.

- **Shared Services**

The Welsh Government has moved towards being more directive on the use of on-demand services provided centrally. The first example of this in Wales has been the procurement of a single Welsh Community Care Information System (WCCIS) that all Councils and Health Boards are expected to use. This system went live in the host authority, Bridgend, in 2016, with this Council joining this national system in 2017/18. The Council will also join a National Library system in 2017 and will provide a shared service for Environmental Health and Trading Standards for Cardiff, Bridgend and the Vale hosted on a cloud based solution from Tascomi.

- **Common Desktop Strategy**

Welsh Government recommends that across the public sector, the desktop hardware should be simplified and standardised on common models and that desktop software should be available off-the-shelf. This is known as commoditisation of the desktop. The National Procurement Service has released an ICT Framework Agreement which all public sector bodies should be using to acquire their desktop estate.

- **Local Government Reform and Potential Reorganisation**

The mergers of Local Authorities proposed by the Williams review have now been replaced with a proposal for Local Authorities to work together on a more regional basis. The Vale of Glamorgan Council is a member of the Cardiff City Region Deal with 9 other Councils in South East Wales and it is anticipated that shared ICT services across the region will help to deliver some of the benefits of this collaboration as an example of future models of working. Collaboration is a key theme of the emerging Digital Strategy.

3.2 Internal Drivers

In addition to the external drivers impacting upon the Council, a range of internal drivers have been considered when developing the ICT Strategy as outlined below.

- **Transformational Change – OneVale and Reshaping Services**

The Council's previous transformational change programme, OneVale, was designed to effect a transformation in the way the Council operates and deal with customers. This programme was a major driver of ICT services in recent years.

In response to the challenging financial climate, the Council has developed a strategy for transformational change called Reshaping Services. Recognising the unprecedented financial challenges facing the Council, the proactive strategy seeks to reshape the way in which we work in order to mitigate the effect of the impact of cuts and assist in continuing to provide priority services. The Council acknowledges that a strategy that consists solely of incremental cuts to budgets will simply lead to a steady decline in the quality and availability of public services, dissatisfaction among those who use the service and poor staff morale. For these reasons, the

Reshaping Services programme seeks to identify alternative ways of delivering services which provide better outcomes for citizens and/or more efficient means of delivery.

Reshaping Services builds upon the success of OneVale and offers a new opportunity for technology to continue to play a leading role in the development of innovative and efficient working practices and service delivery. For example, future ICT projects will involve a greater emphasis on home and mobile working, web development, further integration of Oracle CRM with the Council's website and other business applications and the development of shared systems to facilitate collaboration with other organisations.

It is increasingly being recognised that real savings in the costs of the delivery of services to customers are going to be achieved only by transforming the nature of service delivery. This will involve improving access to services and using different channels for delivery as outlined in the Council's Customer Relations Strategy. In this context any reduction in the capacity of ICT resources to deliver this transformation makes the achievement of wider savings more difficult; savings may be made at the cost of gaining greater efficiency savings through transformation and it will be vital that this is monitored throughout the programme's delivery.

The vision for the Council will be articulated in the development of a Digital Strategy which is currently in progress and due to be published in the spring of 2017. This will identify a wide range of areas that digital working can be used to achieve the aims of the Reshaping Services programme. We have identified four themes which are described in the Introduction to this strategy. The ICT Strategy will play an important role in the delivery of these themes, including the associated supporting activity that will be so vital to ensure efficient and effective delivery of projects. This will necessitate an update to this ICT Strategy upon completion of the Digital Strategy. However, this strategy is being published now to enable the Council's vision for ICT to continue be implemented, with preparatory and explorative work being progressed.

The Council has experience of change through transforming service delivery that will be important to draw upon when approaching Reshaping Services. For example, the Vale of Glamorgan Council has actively pursued shared services arrangements including shared Audit, CCTV and Parking Enforcement services with Bridgend Council. The Council is also a member of the South Wales Swift (software) Consortium for Social Services. A shared service for Environmental Health, Licencing and Trading Standards across Bridgend, Cardiff and the Vale Councils was created in 2015 and offers the opportunity to leverage the power of ICT to deliver more resilient and efficient services through the use of online customer access and mobile working technologies. A project is also currently underway to investigate the opportunities to create a shared ICT service across the Vale of Glamorgan and four neighbouring authorities Cardiff, Merthyr, Bridgend and RCT.

The ICT Strategy considers the Reshaping Services programme from two perspectives: as an enabler of transformational change and as a service which forms one of the programme's service reviews. For example, as part of the first phase of service-based reviews, work is underway in a number of areas. These include the Shared Regulatory Service with Bridgend and Cardiff Councils that delivers increased resilience, access to specialist skills and financial savings by adopting a regional approach to service delivery. Changes are also being made to the way in which the Council operates, including a significant rationalisation of office accommodation and the adoption of smarter working practices to drive savings and improve productivity and this will involve ICT being deployed to support more agile and flexible ways of working.

Reshaping Services also involves work that cuts across all Council departments and seeks to exploit the synergies between departments and the economies of scale presented by tackling issues corporately. For example, projects are underway to improve the level of income that is generated by the Council, to consider the way grant funding is used and distributed and how

demand is managed for services. The Council is also recognising the value of the contribution that Town & Community Councils and the voluntary sector have to play; there is a project dedicated to developing these relationships and working in partnership on specific projects, including community asset transfers.

Mobility will help promote and facilitate new ways of working. Improved communication and increased use of wireless technology will deliver secure home, remote and mobile working. The Council expects an increase in the use of smartphones and tablets to access Council data on the move. Whilst this offers opportunities for increased efficiencies it must be balanced by the need to secure that data and prevent unauthorised access to it. The addition of these devices and associated operating systems such as Android, will require additional support skills within ICT. This builds on developments in recent years to increase the availability of Council systems on a variety of devices and from multiple locations. The Council has also introduced a guest wireless network (Wi-Fi) at most of its main office locations to facilitate access to services by the public and visitors.

The Council recognises that there will be a change in the level and nature of the demands placed on ICT staff and that skills and capacity will need to be developed as part of this. The ICT Service Plan will consider, for example, the workforce planning actions that are necessary to ensure the right balance of capacity and skills are deployed within available resources.

The ICT service itself too forms part of the Reshaping Services programme and has been tasked with evaluating different models of service delivery in order to deliver financial savings as well as maintain a resilient corporate service.

• **Resources**

The Council has continued to meet the challenges brought about by national reductions in public spending whilst still delivering effective and efficient services to internal users and the citizens that benefit from Council services. Looking forward, the on-going budget pressures created by the national financial settlement for local government continue to be acute and are a key driver for the work of the Council, in particular in delivering the Council’s savings plans by doing more for less or working in collaboration with our partners in the public, voluntary and private sectors.

The Council has allocated savings targets to the ICT Service with work underway to deliver and develop schemes. As with all services, the extent of savings required is a significant challenge. The Service (in consultation with users) will develop schemes using robust business cases and research.

2015/16 (£)	2016/17 (£)	2017/18 (£)	2018/19 (£)	Total (£)
70,000	205,000	400,000	150,000	825,000

This reduction in revenue expenditure may have implications on the capacity to deliver the services required by the Council and as such, evaluation of different options for service delivery will be necessary in order to reduce any associated risks from reduced funding.

The Council also makes capital expenditure available to the ICT service of £300K per annum. Whilst sufficient for some projects, additional resources may be required to make the infrastructure investments needed over the life of the strategy.

In workforce terms, there is a continual requirement for skilled staff to meet the current and future needs to support existing services and develop new ones. These skills are in short supply and the Council has experienced difficulties in the recruitment and retention of experienced

technical staff. Additional resources may be secured through shared posts, contracting or managed services but these have different challenges in terms of expense and flexibility.

- **Delivery of the Council's Corporate Plan & Associated Plans**

The Council's new Corporate Plan sets out how it will deliver a series of actions in order to achieve four well-being outcomes for residents of the Vale of Glamorgan. The well-being outcomes are:

- An Inclusive and Safe Vale: Citizens of the Vale of Glamorgan have a good quality of life and feel part of the local community.
- An Environmentally Responsible and Prosperous Vale: The Vale of Glamorgan has a strong and sustainable economy and the local environment is safeguarded for present and future generations.
- An Aspirational and Culturally Vibrant Vale: All Vale of Glamorgan citizens have opportunities to achieve their full potential.
- An Active and Healthy Vale: Citizens of the Vale of Glamorgan lead healthy lives and the most vulnerable in our communities are protected and supported.

The ICT Service will support the Council's achievement of these well-being outcomes by contributing to the delivery of some specific actions. Example actions include:

- To develop and deliver the Council's Digital Inclusion Strategy to increase access to digital technology and improve digital skills
- To improve access to health and social care services by improving the speed, simplicity and choice of how to access services
- To explore options for single integrated IT systems and integrated budgets across the Cardiff and Vale region for social care.

The ICT Service will also make contributions to the integrated planning actions contained in the Corporate Plan, such as through the rationalisation of office accommodation, delivery of the Reshaping Services Programme (as described previously) and by facilitating changes to performance management and engagement arrangements by harnessing the opportunities ICT present.

- **Sustainable Development**

Contributing to resilient and sustainable services is an essential challenge for the ICT strategy to meet. The Council has a duty placed on it by the Well-Being of Future Generations Act which introduces the Sustainable Development principle that:

"You must act in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs, by taking account of the sustainable development principle".

In doing so, the ICT Strategy sets out how the Council will challenge itself in line with the ways of working introduced by the sustainable development principle. For example the Council is:

- Looking to the long term – This strategy takes a strategic approach to ensure services are sustainable are based on an understanding of the future need and demand for services. Fewer physical servers using reduced power and more efficient network power usage will reduce power consumption. The Council has consolidated its server rooms into a single, purpose built, facility to further reduce the running costs of its ICT Infrastructure. Increased

mobile and remote working and reductions in the use of printers and consumables such as paper will also help to reduce the environmental impact of the Council's operations.

- Taking an integrated approach – the ICT strategy sets out how, along with other Council strategies and plans, the Council will meet the needs of customers and how it will do so by working with partners.
- Working in a collaborative way – the ICT Strategy recognises the value and drive for achieving more and delivering better services by working as part of a team, for example by working with the Third Sector, Town and Community Councils and neighbouring authorities. An example of such an approach is the delivery of the joint Regulatory Service with Cardiff and Bridgend Councils and the important role ICT plays in this service.

4. Aim, Objectives & Strategic Actions

The external and internal challenges that are presented above demonstrate the environment within which the Council is operating and the specific drivers influencing ICT which underpin this strategy.

The strategy has the overall aim to **enable opportunities for improvement through the innovative use of ICT, now and in the future.**

To deliver the aim, four objectives with associated actions have been identified as outlined below. These show how ICT underpins the delivery of high quality services in the Vale of Glamorgan and include reference to activities that will contribute to the Digital Strategy. Once the Digital Strategy has been finalised, this ICT Strategy will again be reviewed to ensure the appropriate references are made between the documents and to ensure ICT contributes to the various and wide ranging actions that will be required from the Digital Strategy.

i. To improve and enable greater access to services

The Council will improve and enable greater access to services via multiple channels and securely to home, remote and mobile workers. This will contribute to the challenges of enhancing mobility and sustainability. This will be achieved by more responsive and flexible service delivery methods that will achieve costs reductions (for example in premises and transport).

Action	Due Date
Improve the availability and usability of mobile working solutions whilst maintaining compliance with security and information management requirements.	2017/18
Develop and deliver the Council's Digital Inclusion Strategy to increase access to digital technology and improve digital skills.	2017/18
Evaluate the usability and delivery of Cloud computing for the Council.	2017/18
Upgrade servers to Windows 2012 to enable the Council to leverage the opportunities offered by Microsoft's Azure service (which is a cloud based data hosting service) and as such further enable mobile working practices and efficiencies.	2017/18
Investigate the use of the cloud based storage for lowest tier storage / archiving / backup to enable ease of remote access and reduce the amount of physically hosted infrastructure.	2017/18
Support the delivery of the Council's Space project by working to re-cable the Civic Offices and deployment of ICT as appropriate.	2017/18
Pilot software at Contact OneVale that brings together web chat, telephone and email contacts from our customers to a single agent to increase efficiency in contact handling and increase the range of channels available	2017/18

Complete a review of the Council's website with an emphasis on the transactional elements to ensure they are compliant with the Digital Design Principles we will adopt and enable a prioritised set of processes to be identified that will be the focus of process reengineering work.	2017/18
Pilot "Google for Work" and Office 365 to determine the potential for increased functionality (agility, collaboration and flexibility) in the way staff work in line with the Council's Space project which seeks to make more efficient and effective use of office accommodation.	2017/18
Review the current range of online services that are available and their use, including Google Analytics to understand customer behaviour to inform the development of future service offerings.	2017/18
Review the requirement for aligning key digital services, e.g. the digital portal for Council Tax with others to identify the value of a single citizen account	2018/19
Continue to integrate online forms with the CRM system	2018/2019

Further information on this objective can be found in appendix 1.

ii. To support innovation through the use of ICT

The Council will support innovation through the use of ICT to contribute towards the Reshaping Services programme and other continuous improvement activities. By using ICT, the Council will seek to maximise the value delivered by Council services at a time of reducing funding. In doing so, ICT will assist to mitigate the impact of these funding reductions and as such help to maintain priority services. It is also important that ICT assists the Council to reflect the changing expectations of service users and staff who increasingly use a range of technologies in their everyday lives.

Action	Due Date
Contribute to relevant Reshaping Services programme projects, to ensure that ICT is considered and used to deliver innovation as part of the transformational change programme.	2019/20
Contribute to the development and implementation of the Council's Digital Strategy.	2019/20
Introduce a Unified Communications Solution via the upgrade of the Council's IP telephony system to include presence functionality, video messaging and instant messaging.	2017/18
Develop and increase the transactional capability of the website by integration with back-office systems and applications	2018/19
Implement the WCCIS system for Social Services as a replacement for the current Swift system.	2017/18

Further information on this objective can be found in appendix 2.

iii. To maintain, support and develop resilient ICT infrastructure and systems

A key element of the ICT Strategy is how the Council will continue to maintain, support and develop resilient infrastructure and systems to meet the changing environment within which the Council operates. Actions in this area reflect the Council's desire to invest in ICT where it is appropriate to do so to support the Council's operations. This reflects the knowledge that ICT can be an enabler for change throughout the entire organisation and resilient services and systems are essential in order for the organisation to function efficiently and effectively.

Action	Due Date
Investigate options to replace the Council's Wide Area Network (WAN).	2017/18
Investigate the provision of a second internet connection to the Council in order to provide additional service resilience.	2017/18
Further integrate applications (including the Council's website) with other back-office systems to deliver efficiencies and improvements based on business requirements.	2019/20
Consolidate applications by the transfer of functionality and integration.	2018/19
Upgrade the desktop operating system to Windows 10.	2017/18
Comprehensively review the current software in use by the Council.	2017/18
Investigate the potential offered by a new archiving solution for email and rarely used files.	2017/18
Upgrade the Oracle hardware infrastructure.	2017/18
Upgrade the Council's IP telephony system.	2017/18

Further information on this objective can be found in appendix 3.

iv. To deliver quality ICT Services

The ICT strategy also sets out the actions that will be taken to ensure the continued effective and efficient management of services. These actions reflect the need to ensure that the appropriate ICT skills, training and associated performance management processes are in place. Action will also be taken to consider the most effective and sustainable operating model for the service as part of the Reshaping Services agenda.

Action	Due Date
Evaluate and report on a range potential future operating models for the ICT service as part of the Reshaping Services programme in order to deliver savings to target.	2017/18
Develop and evaluate a proposal to create a shared ICT Service across five councils.	2017/18
Introduce a mandatory annual DPA and Information Security training course, with a 90% annual compliance target for all service areas.	August 2017

Adopt ECDL as a corporate standard for training in ICT skills	September 2017
Work to comply with relevant security standards, including PCI and PSN.	March 2020
Expand the provision of managed ICT services to comprehensive schools and town/community councils and other organisations as appropriate.	September 2017
Use the Council's corporate Project Management methodology for relevant projects.	March 2021
Work to increase the number of ICT staff who have been trained in the ITIL approach to ICT Service Management.	April 2018
Develop arrangements (such as SLAs) with a range of services, including schools and the catering service.	2017/18

Further information on this objective can be found in appendix 4.

The action plan associated with the ICT Strategy can be found in appendix 5.

5. Monitoring the Performance & Delivery of the Strategy

Once updated following the completion of the Digital Strategy, the delivery of this strategy will be monitored as part of the Council's overall performance management framework. Actions from the strategy will be contained within relevant service plans and this will contribute to the reporting of overall 'corporate health'. Corporate health reflects the progress being made against integrated planning actions that support the delivery of the Council's Corporate Plan.

A range of measures will be established to reflect the progress being made on delivering the strategy. These measures will include performance on a range of metrics such as:

- Customer / User Satisfaction. This will be measured on a quantitative basis periodically and also through other channels to gather qualitative data. The Service Desk automatically generates a random satisfaction questionnaire e-mail to customers throughout the year, the results of which are published on staffnet.
- Benchmarking. The ICT Service will take part in a SOCITM benchmarking exercise with all Local Authorities in Wales during 2017.
- Service Level Reviews. This will be a formal process to monitor issues from a customer perspective. This will take the form of meetings on a regular basis between customers and Account Managers. Service level Agreements (SLAs) are being drawn up and agreed, and will periodically be reviewed.
- Call Resolution against Targets. ICT will monitor and report the success rates of call resolution compared to targets outlines in the Service level Agreements (SLAs).
- Availability of Services. ICT will monitor and publish availability of key services on the staffnet and in service level reviews.
- Project Success. ICT will monitor project success outcomes as contained in project briefs and business cases.
- Sickness. The number of days lost to sickness is measured and managed both for short and long-term sickness as a part of the corporate Management of Attendance policy.
- Website. The website is monitored for quality. It is monitored independently by SiteMorse for a range of measures including functionality, performance and quality. It is also measured internally for satisfaction, capability and usage.
- Staff Turnover. The number of leavers is monitored as part of corporate HR policies.
- Equipment Recycling. The percentage of equipment recycled is monitored; all unused equipment will be recycled as a part of the WEEE directive.
- Equalities. ICT maintains equalities awareness at level 3.
- Power usage data.
- Information Security metrics regarding the number of incidents and near misses relating to information disclosure.
- PSN and PCI Accreditation.

An annual review will be undertaken of the Strategy as part of the performance management process.

6. Glossary of terms

Cloud Computing	Resources as a service over the Internet.
DMZ	De-militarized Zone
ERP	Enterprise Resource Planning (Oracle e-Business Suite)
EDRMS	Electronic Data and Records Management System
ICT	Information and Communication Technology
IP	Internet Protocol
ISMS	Information Security Management System
MDM	Mobile Device Management
PSBA	Public Sector Broadband Aggregation
PSN	Public Services Network
SaaS	Software as a Service
SLA	Service Level Agreement
SMS	Simple Message Service
Terabyte (TB)	1000 Gigabytes

Objective 1: To improve and enable greater access to services

The Council will improve and enable greater access to services via multiple channels and securely to home, remote and mobile workers. This will contribute to the challenges of enhancing mobility and sustainability. This will be achieved by more responsive and flexible service delivery methods that will achieve costs reductions (for example in premises and transport).

- **Access for Internal Customers – Home/Remote Workers**

Remote and mobile working is a key deliverable from this strategy as it is capable of enabling major operational improvements. A home working solution has been in place for a number of years using a Council laptop and remote access point plugged into the home broadband, the Council's wireless network is extended into the home allowing staff to connect securely into Council systems as if in the office. This will be expanded over coming years to greater numbers of staff. The use of soft phones on laptops with a headset expands the Corporate Telephony system into the home.

The ratio of laptops to desktops has been changing over recent years and numbers of each are forecast to be equal by 2018. From a position of having virtually no tablet devices 2 years ago, there are now around 300 in use across the Council. This is to be encouraged to facilitate remote and mobile working.

The Council is in the process of rationalising its buildings under the banner of the Space Project. In order for this reduction in premises to be successful services will be delivered securely through mobile working technologies. This will allow more flexible working and enable staff to work at many different locations, thereby making better use of office space including hot desking. It can also assist in service delivery out of normal hours or at times of operational difficulty.

Two factor authentication has been provided through the use of RSA tokens allowing access from remote sites not on the Council network. These physical tokens are now being replaced by software versions on a mobile phone and the use of a Microsoft product, Direct Access, is being investigated as a possible replacement.

- **Networking – Mobile**

Mobile network access is an increasing part of the work done by ICT and it is a key component of the principle of mobility. Networking for mobile workers will be upgraded to take advantage of the latest evolving technology. The council will provide a scalable managed mobile infrastructure for home and mobile working that will improve provision of mobile devices and collaboration for mobile workers.

A wireless network has been implemented for all Council buildings and schools so staff could potentially work from any of these locations. A free public access wi-fi solution from the Cloud has also been provided in most of the Council's building to encourage public access to services which are increasingly being moved on line. A secure roaming solution to allow staff to work in other local authority buildings will be implemented in 2017.

- **Mobile Telephony**

The mobile phone contract will be tendered again within the life of this strategy to ensure that the Council continues to receive best value and access to modern mobile services. Fixed-line and mobile telephony may converge in future. A single handset, with a single number, could replace both the

fixed line and mobile devices. They would use the internal network via wireless when in range and the mobile network when out of range.

- **Digital First**

The Council is developing an overarching Digital Strategy to take advantage of the growing number of digital channels and technologies. A key part of the strategic expectations of the Council is to enable access to services through a wide variety of channels. All channels that are available to customers will be considered as a method for service delivery, but the customer experience must be improved and managed to encourage use of these channels. Particular emphasis will be placed on the continuing development of the website as an access channel and increased ability to carry out transactions will be a key deliverable and the supporting activity of digital design principles will be key here to ensure that these services and the channels they operate through are well designed, easy to use and cost effective to operate. The Customer Relations Strategy also promotes consideration of channels including:

- Web
- Digital TV
- SMS
- Telephone/Smartphone
- Social Networking such as Facebook and Twitter
- Face-to-Face
- Self Service

Objective 2: To support innovation through the use of ICT

The Council will support innovation through the use of ICT to contribute towards the Reshaping Services programme and other continuous improvement activities. By using ICT, the Council will seek to maximise the value delivered by Council services at a time of reducing funding. In doing so, ICT will assist to mitigate the impact of these funding reductions and as such help to maintain priority services. It is also important that ICT assists the Council to reflect the changing expectations of service users and staff who increasingly use a range of technologies in their everyday lives.

There will not be any in-house development of large scale or strategic applications. There is, however, scope for development in a number of areas. Existing applications will be examined to see if the capability is there or if it can be activated; analysis will examine whether improved functionality can be achieved by integration between applications. Small scale application development will be provided. Report writing is one form of development that will depend heavily on the use of existing resources.

- **Incorporation of Functionality**

The Oracle e-Business Suite (ERP) has wide capabilities that can be used to deliver additional functionality. It has the potential to be developed to provide services particularly in the customer service and asset management / maintenance arena that have not yet been fully exploited.

- **Integration of Functionality**

Integration allows the use of both systems and can be done at several levels and in one or multiple directions. It may also be a specific tailored integration between two systems or may be a generic multi-purpose integration.

- **Business Led Development**

Larger-scale developments are likely to be led by the business who will project manage them and will determine the overall direction of development. The Council may work in these cases with a strategic partner.

- **Software as a Service**

Cloud Computing and On-Demand Services will be evaluated. A number of organisations are offering this in a more secure manner; these include the Government and major suppliers. This allows organisations to buy into services without the need to build and maintain them. In effect, customers subscribe to these services. It is therefore recommended that “Cloud” computing and Software as a Service (on-demand services) be investigated and evaluated in line with Government Policy and industry developments.

- **Service Users**

Services are already being provided to Town and Community Councils and Bryn Hafren Comprehensive School, but there are opportunities to expand the provision of services to other schools and public sector organisations. A number of libraries will be run by community organisations and will require an ICT Support Service from the Council. Opportunities to generate additional income will be explored wherever possible. The new data centre has the capacity to host systems for other organisations which could generate some income for the Council.

- **Transactional Website Development**

The Council has internal and external websites with content managed by corporate functions. ICT will create additional content where necessary, but will focus on developing and procuring

applications that are deployed on the website to add improved functionality and transactional capability.

The website is now a strategic product that plays a major part in the delivery of and access to services for mobile workers and customers.

Objective 3: To maintain, support and develop resilient ICT infrastructure and systems

A key element of the ICT Strategy is how the Council will continue to maintain, support and develop resilient infrastructure and systems to meet the changing environment within which the Council operates. Actions in this area reflect the Council's desire to invest in ICT where it is appropriate to do so to support the Council's operations. This reflects the knowledge that ICT can be an enabler for change throughout the entire organisation and resilient services and systems are essential in order for the organisation to function efficiently and effectively.

The Council's ICT infrastructure includes mainly the physical hardware, but also the software and intangible elements, such as networks. Customer expectations of ICT are and have been for some time that key services are permanently available during agreed operational hours. Considerable effort is taken to ensure that the major application services are available when required and a target of 99.95% availability of the top 20 most important systems has been set. Any breaks in service are dealt with as fast as possible.

The strategic approach to infrastructure is based on the principles of the challenges. Consolidation is achieved by having fewer servers using fewer operating systems running fewer database technologies supporting fewer application systems. Sustainability is gained by increased use of virtual servers which use fewer resources than physical servers and by managing the power usage of the infrastructure. Mobility is delivered through increased use of smartphones and tablet devices and by wireless networking and by supporting home and remote users of ICT services.

Procurement of infrastructure items is managed in conjunction with the management and support of infrastructure.

- **Hardware**

The most visible part of the infrastructure is hardware, comprising of the servers, printers, laptop and desktop pcs. A capital programme has been established to provide financial resources to ensure that the underpinning infrastructure of the Council is well maintained and replaced or upgraded as the need arises.

- **Windows Servers**

The Council has successfully upgraded its core servers to Windows 2008 R2. Over the next couple of years ICT will begin the migration to Windows 2012 as part of this process in compliance with PSN.

- **Windows Server Virtualisation.**

Virtualisation allows the hosting of a number of virtual servers on a single physical server. Since physical servers normally do not use all of their resources, better usage of those resources is achieved by virtualisation.

ICT currently supports 231 Windows servers of which 122 are virtual and it is proposed to increase the use of virtualisation as it provides the following benefits:-

- Reduced Power Consumption
- Better use of CPU and memory
- Reduced Air conditioning

- Better resilience and recovery with greater speed
- Improved ability to respond to customer demands

The primary focus of Windows Server Virtualisation is to meet the future demand for servers, both from new applications and services and also from the increased demand due to the ease of implementing test / development and disaster recovery servers, thus increasing the resilience of the Windows Server estate, rather than directly to reduce the number of physical servers.

Achieving the target for a reduction in server numbers will be dependent upon the availability of sufficient financial resources.

During 2013 a review of the windows virtual infrastructure was carried out. As a result new physical servers were purchased to replace older and slower equipment and at the same time increase the capacity to meet the needs of the council to host more virtual servers and services. ICT has been replacing other older servers within the virtual server infrastructure to maintain software and security compliance whilst again increasing the capacity of virtual server resources for the council's future needs. Further reviews will be carried out as and when necessary. It is recommended that existing physical servers are migrated to new virtual servers wherever possible.

- **UNIX Servers**

The Unix estate consists of 40 Physical servers, the majority of which are running Solaris 10 with some running Linux. There are an additional 42 virtual servers, making a total 82 Unix systems in the Vale running the councils critical systems.

The Unix team advocates the use of Open source software where appropriate and have implemented a number of business critical systems that are open source. From an operating system point of view Solaris and Linux are Open source and there are numerous installations of Java and Apache on these servers.

In these times of austerity the use of Open Source may well become more prevalent as the need for providing services remains while budgets get tighter.

Future plans for Unix services include moving to Solaris 11 and use of Oracle's free Hypervisor – "Oracle Virtual Machine" to further consolidate the 40 servers and moving to a more cloud oriented approach for delivering Unix services.

The Oracle server estate has been updated and will come on line in 2017. This will reduce the number of servers in the UNIX estate to around 5. This clearly shows the advance in technology over the interim period and the increase in capacity and processing power of the newer server models.

This approach should allow the Council to easily and quickly provide Unix services to other authorities or partners.

The Linux services are also consolidated onto a 4 node cluster so we can consolidate all the Linux servers we have at the Vale onto one Highly Available cluster. This ensures the performance and resilience needed is available and also the capacity to use more Open source and/or Linux applications going forward.

- **Data Storage**

The Council has had NetApp Storage installed for around 8 years. In this time, the production storage has had 100% availability. Current capacity is 150Tb; however Government data is estimated to grow by 30% each year. NetApp has options such as thin-provisioning, de-duplication and compression to mitigate this growth, ensuring the Council is getting the most from its investment.

The Council now tiers its different types of data. The top tier takes advantage of the latest solid state technology with a NetApp technology called “Flash Cache”. This is a cache which monitors busy disks and moves the data into the cache, accelerating the performance of the Applications. The second tier is Serial Attached SCSI (SAS) disk, this disk is where the critical applications reside. And the third tier is a cheaper Serial-ATA disk, which will be used for normal data.

- **Backups**

The Council backup strategy is tightly integrated into its core systems Unix, NetApp and VMWare. The Council uses the Symantec NetBackup centralised backup solution, which is the current number one enterprise data protection product in the market.

The Council currently backs up 20Tb per week. The council has adopted a Disk-to-Disk-to-Tape (D2D2T) strategy for quick backups and a short “Mean Time To Recovery” (MTTR) due to the large amount of data being backed up.

Integrating the data on the NetApp storage with the NetBackup D2D2T means that data has three levels of safety, a NetApp Snapshot, A NetApp Snapmirror and a NetBackup tape backup.

The current infrastructure now has no Single Points of Failure (SPOF) and means we can take advantage of new technologies such as accelerated backups and de-duplication.

Using these Appliances also gives the Council options for off siting its data to a neighbouring authority.

- **Desktop Hardware**

The desktop infrastructure is in a much better state than ever following a corporate technology refresh policy. All desktop devices have been upgraded to the Windows 7 operating system and are running Microsoft Office 2010. No desktop device is older than 4 years and the continuation of the refresh policy should maintain this going forward.

.A review of desktop operating systems took place early in 2016 and recommended an upgrade to Windows 10 and Office 2016. Options to move to Office 365 or Google for work are currently being investigated, but in all probability no decision will be taken until the Microsoft Enterprise Agreement is due to expire in 2018.

- **Desktop Computer Virtualisation.**

A review of the council’s current Citrix environment has been undertaken and as a result the Council has replaced it with a more streamlined Microsoft Remote Desktop service. It is highly unlikely that desktop virtualisation will ever happen due to the current virtual infrastructure’s capacity and use of desktop and laptop computers throughout the council offices.

- **Printers**

A contract has been awarded for the supply and support of Multi-Function Devices which will provide printing, scanning and copying services. This provides greater print availability and on-demand prints can be received at any managed printer at a time selected. Access is controlled and payment is by usage, which will provide accountability. The Council has recently agreed to extend the current contract with Xerox until February 2018.

The overall number of printers in use at the council has been reduced from over 400 to around 175 with further reductions to come.

- **Networks**

The Council will be supported by a network that provides constant availability and sufficient capacity for current and future needs. The strategic approach is to use the latest infrastructure and methods for increased resilience and security and to upgrade capacity to meet needs.

Networks – General

Convergence on to the IP (Internet Protocol) Network. An increasing range of services will be delivered as part of the IP network, including voice, fax, CCTV, video conferencing, power and traffic signals

PSBA Participation. The council has taken part in the PSBA project and in the other services that are linked to it. This will give access to a national secure, private, Wide Area Network (WAN) which enables secure interactions between connected public sector organisations in Wales and which is accredited for the Government Connect Secure Extranet (GCSx). It will also provide a platform for shared services.

Standardisation. Hardware components will be standardised to allow connectivity and interoperability and will mainly be sourced from two principal specialist suppliers for specific products.

Local Area Network (LAN) Connectivity. This will continue to be 100Mb/s with Power over Ethernet (PoE), allowing low energy usage to be maintained and minimise capital investment.

Data Centre Network Connectivity. There are multiple switches in the data centres for resilience and they have the capacity to allow up to 10Gb/s links.

Wide Area Network (WAN) Connectivity. The WAN was procured in 2010 and has been upgraded over the last few years to deal with increased demand. Work is on-going to identify the requirements for the next few years as demand is expected to continue to grow and the Council is investigating the opportunity to introduce a second internet access point at the Alps Depot to improve network resilience. An opportunity to upgrade schools connectivity through a Welsh Government grant is currently being considered.

Network Security. New Unified Threat Management (UTM) appliances procured in 2010 provide web content filters, anti-virus protection, intrusion prevention and allow connection to the network. These will be updated during this strategic period.

Wireless Networks. Wireless networks exist to provide flexible connectivity and the increased security requirements will be met by higher level authentication. In future the wireless standard will be high enough to be considered as an alternative to physical cables. Security for wireless networks has increased to the point that security protocols being used for wireless are being applied to wired networks. It is therefore recommended that the use and deployment of secure wireless networks be increased.

Power Usage. Power usage is 1.5W to 2.5W per connection for 2500 connections; power savings can be made by optimising power consumption and heat output.

Networking – Schools. School's networks will be increased in capacity to provide for increased usage and facilities. ICT will also consider, with the schools and the Education Service, how improved support can be offered. Currently connections to schools meet Welsh Government guidelines of 100Mb/s for secondary schools and 10Mb/s for primary schools, although most primary schools in the Vale now have access to 25Mb/s.

Welsh Government has indicated a target for the next iteration of the PSBA network of 1Gbps per secondary school and 100Mbps per primary and special school by 2020 (to be achieved in incremental stages during the term of the new contract whilst ensuring that bandwidth equates to actual Internet connectivity). This increased network capacity should allow:

- Increased access to rich internet media
- Centralisation of Schools Information Systems
- Increasing numbers of PC's and other devices

- High-Definition video conferencing

Fixed Line Telephony. Cisco Unified Communications IP telephony systems have been installed at main offices. This has provided reduced communication costs and free telephone calls between Council buildings. It also allows a move from costly telephone lines to less expensive internet-based services. The current version of Cisco Call Manager will be upgraded in 2017.

FAX. Alternatives are being considered where an email is sent and converted to a fax transmission. This will allow the release of dedicated fax lines, the removal of some 47 fax machines and generate savings.

- **Software**

The approach to software infrastructure is governed by consolidation. A smaller number of applications using fewer databases with a smaller number of reporting tools and technologies will be sought wherever possible.

- **Application Consolidation**

The Council will endeavour to incorporate the functionality of application services within the larger strategic applications and particularly the Oracle e-Business suite.

Oracle e-Business System. The Council has implemented a number of modules of the Oracle e-Business system, which now delivers HR, Payroll and Financial systems (including i-procurement) along with the CRM system.

Application Service Evaluation. Applications will be evaluated to determine if the service is still required. If they are, they will be evaluated further and their data and processes examined to see if either the functionality may be subsumed within the Oracle e-Business suite or integrated with it.

Database Consolidation. ICT will rationalise the databases used onto Oracle and SQL wherever possible. Oracle should be used for all major applications wherever possible using the latest appropriate version of Oracle. Third-party supported applications that are not currently on Oracle may be migrated when the suppliers offer an Oracle version.

Microsoft SQL Server. This will be used as an alternative where appropriate. Applications not migrated to Oracle will be installed on SQL Server, where possible.

Data Consolidation. There are two sets of data that are used across multiple applications, Names and Addresses. Ideally there should be a single source of these data sets which will be shared between systems subject to the requirements of the Data Protection Act.

Database Reporting. A number of tools are in use for general database reporting including BI-Query and Business Objects. For the Oracle E-Business Suite Discoverer, Oracle Reports and Oracle Application Express are used. A major focus will be to improve the use of Discoverer reporting and investigating a potential Business Intelligence solution. This will be combined with the creation of generic reports to enable end-users and particularly systems administrators to develop their own reports with decreasing ICT involvement. The intention is to reduce the number of tools in use.

- **Software/Application Review**

Many of the Council core software applications such as the Oracle E-Business Suite and TRIM were purchased up to 10 years ago and many other systems have been in use in the Council

since its inception in 1996. Although occasionally reviewed on an individual basis, no overarching review of the suitability or relevance of these systems has ever been carried out.

If a system was the best available when it was purchased, it may not be now if it has not evolved over the interim period to keep up with the needs of an ever changing organisation and the constant advances in technology.

A key recommendation for this strategy would be to carry out a comprehensive review of all systems in use to establish if they are still fit for purpose, still required, provide the desired functionality or could be replaced with a different solution that may be more functionally rich or more cost effective to acquire, deploy and support.

This will take considerable time and resource at a time when both staff and financial resources are in decline, but will provide the basis for future investment and will be an important element of any digital transformation programme that the Council develops as part of the proposed overarching Digital Strategy.

- **Member Services**

ICT facilities are provided to elected members. The following services are provided:

- Laptop or tablet Computers
- Wireless home networks
- Training and advice is also provided on an ad-hoc basis.

The Council has trialled use of webcasting of Council Planning Committee meetings to provide access to a wider audience and also the possibility of remote attendance at council meetings by members or guests.

The Democratic Services Committee provides governance for Member's ICT issues and requirements and discussions have taken place regarding the suitability of equipment for member's use. It has been agreed to establish a trial of tablets by members for their use instead of laptops which would be funded by the removal of the current provision of paper documents. Members would be expected to bring their devices to meetings and use the free wi-fi facilities to view all documents on line.

A revised Code of Conduct for Councillors has been prepared.

- **Internet Services & Digital Processes**

A part of the Digital Strategy will look at the processes currently in place and how they can be made digital. For example the Council still produces cheques, although in decreasing numbers. Should cheque payments change to electronic BACS payments? A large proportion of correspondence is still carried out by posting hard copy letters to citizens when it would be more cost effective to use email.

Objective 4: Delivery of ICT Services – Providing a Quality Service

The ICT strategy also sets out the actions that will be taken to ensure the continued effective and efficient management of services. These actions reflect the need to ensure that the appropriate ICT skills, training and associated performance management processes are in place. Action will also be taken to consider the most effective and sustainable operating model for the service as part of the Reshaping Services agenda.

In the delivery of services to customers a number of processes are adopted to ensure the quality of services. These will ensure that services meet customer needs and expectations of quality. There is also a Service Improvement process.

- **Financial Management**

The ICT Budget is designed to meet the running costs of the ICT service. However, ICT Revenue Budgets for the purchase, lease and rental of hardware and software are held mainly by departments. However, ICT would seek control of these budgets in order to provide a co-ordinated infrastructure refresh programme.

A capital programme of investment in ICT infrastructure has been established up to the end of the financial year 2019-2020. This should ensure that the reliability and availability of the infrastructure is maintained during this period

- **ICT Procurement.**

Advice and guidance is provided on technology-related purchases and assistance in the procurement process. Technology purchases will be monitored for technical suitability and compliance with this strategy. All technology purchases should be made through ICT as set out in the Computer Code of Practice. Improvements in the purchasing process through the introduction of i-Procurement have allowed better and more consistent monitoring of ICT budgets and spending. ICT will work with corporate procurement to ensure best-value procurement.

- **Managed Services**

Managed services are being developed by ICT which include the maintenance and procurement of infrastructure and maintenance and development of other services such as websites. These will be offered to associated bodies such as Town and Community Councils and schools. The ICT team has recently taken over the provision of ICT services to Bryn Hafren Comprehensive and will seek to expand this service to other comprehensive schools.

- **Resource Management**

ICT resources are limited and expected to cover a wide range of areas. A staff resource plan is maintained to identify the use of resources and to determine where resources could be available.

- **Project Management**

The corporate project management methodology will be followed. ICT may provide project management for the ICT element of projects.

ICT will also have a standing invitation to participate in all corporate pre-project meetings to ensure that any ICT requirements are identified.

- **Service Management**

Services will be delivered according to ITIL principles in the management of customer facing services and it is recommended as part of this strategy that the principles of Service Management are adopted to improve services.

- **Sustainability**

Green Dragon Level 3 has been achieved by ICT and then by the Civic Offices as a whole. Technology equipment is recycled in accordance with the WEEE directive and paper usage has been reduced by a combination of multi-function devices, duplex as standard and a reduction in the number of printers.

Further work is being carried out as part of a digital transformation to further reduce the volume of printed material used across the council and the ratio of mono to colour has already been reduced from 80/20 to 90/10.

The technology refresh programme will introduce newer, more energy efficient devices and when combined with a power management solution, that turns off computers when not in use, will considerably reduce the power consumption of these devices.

A project to consolidate the computer rooms within the Civic Offices has been completed and delivers both power and space savings that contribute towards the Council's target on CO2 emissions.

- **Security**

Security is a key strand in the delivery of the sustainability principle. It encompasses security of the Council's vital information assets including its data, networks and physical security.

A full time Information Security Officer has been in post since 2013, to ensure that the Council maintains its accreditation to connect to Government networks; and that the Business and ICT are compliant with all legal, regulatory and statutory requirements in their development and use of ICT facilities and information assets.

The ICT Security Group led by the Information Security Officer maintains a set of mandatory ICT Security Policies which are regularly updated. An Information Security Policy was also produced following the acquisition of the Enterprise Content Management solution (Project TRIM).

A Corporate Security Policy has been developed combining aspects of all of these separate policies which need to co-exist and rely on each other if the security of the Council's systems, information and buildings is to be maintained and enhanced. Training will be provided and steps taken to raise and maintain awareness of security issues.

The Council undertakes annual IT Health Checks (penetration and security tests) to identify and resolve any vulnerabilities in the Council's ICT systems and infrastructure.

The ISO/IEC Standard for Information security management (ISO/IEC 27001) has recently been updated (now ISO/IEC 27001:2013) and currently only a small number of Local Authorities in Wales have obtained accreditation for their ICT departments. The process of accreditation is onerous and resource intensive and therefore it is recommended that the Council works towards compliance with selected controls within the ISO/IEC 27001:2013 standard, without going for full accreditation.

The ICT Security Group together with the mandatory policies, led by the Information Security Officer, will provide advice and guidance in the following areas:

- Mobile devices security
- Removable media security
- Acceptable use policy
- Logical access controls
- Protection from cyber-threats and malware
- Physical Security of Computer Rooms and ICT-related areas
- IT Health Checks (penetration and security testing)
- Security incident management
- Application security
- Third party remote access management
- Threat Management including intrusion detection and prevention systems, content filters and virus protection
- Compliance with Council policies and legal, regulatory and statutory requirements

The Council will continue to work with external organisations and suppliers in the secure provision of access to internal and external services, and carry out regular security testing using both internal resources and external, certified specialists formally to test network security.

The Council has achieved compliance with the Public Services Network (PSN) Code of Connection (CoCo) and many of the security controls introduced in order to comply with the PSN are aligned with the controls in the ISO/IEC 27001:2013 security standard.

The PSN is continually being enhanced and ICT Security Policies will be reviewed regularly to ensure continued alignment with its requirements. This will allow continued connection to the PSN and the use of PSN web-based services including secure e-Mail.

Access to the PSN is essential to the daily operations of the Council as public sector organisations such as the DWP (Department for Work and Pensions) cannot exchange sensitive or restricted data except through the use of secure networks provided by the PSN, and with organisations that are PSN compliant.

The Council has been identified as a Payment Card Industry (PCI) level 4 merchant and will continue to maintain compliance with the necessary security requirements.

The Council will participate in the Cymru WARP (Warning, Advice and Reporting Point) to improve security alongside other public sector bodies.

- **Skills Audit**

Departments undertake a Windows and Microsoft skills audit of their staff as part of the annual Personal Development Review Scheme (PDRS).

A skills framework for ICT skills will be created and an audit of these skills undertaken within ICT. Skills needed for specific tasks and for specific jobs will be identified and appropriate training provided. It should be noted that the ICT training team has now merged with the corporate training team and is no longer under the direct control of the ICT Service.

- **European Computer Driving Licence (ECDL)**

ECDL is a strategic product for all staff as a measure of the general ICT skills level for staff. The training organisation is accredited to examine students for ECDL and awarding it as a qualification. This will improve ICT skills throughout the Council.

It is recommended as part of this strategy that a corporate decision should be made to adopt ECDL as a standard for all staff using ICT systems.

It is also recommended that all staff using ICT should obtain ECDL as a minimum qualification to improve efficiency. These staff will be encouraged to obtain advanced ECDL qualifications. Improved training should improve effectiveness and will reduce operational incidents.

Training will aim to ensure that each department contains a Microsoft Office super-user holding an ECDL Expert qualification. This person would be able to support users in Word, Excel, PowerPoint and Access.

Action Plan

Ref	Action	Due Date	Officer Responsible
Objective 1: To improve and enable greater access to services			
1.1	Improve the availability and usability of mobile working solutions whilst maintaining compliance with security and information management requirements.	2017/18	Andrew Brain/Richard Hortop/Jens Chinneck
1.2	Develop and deliver the Council's Digital Inclusion Strategy to increase access to digital technology and improve digital skills.	2017/18	Nick Wheeler
1.3	Evaluate the usability and delivery of Cloud computing for the Council.	2017/18	Emma Williams
1.4	Upgrade servers to Windows 2012 to enable the Council to leverage the opportunities offered by Microsoft's Azure service (which is a cloud based data hosting service) and as such further enable mobile working practices and efficiencies.	2017/18	Emma Williams
1.5	Investigate the use of the cloud based storage for lowest tier storage / archiving / backup to enable ease of remote access and reduce the amount of physically hosted infrastructure.	2017/18	Emma Williams
1.6	Support the delivery of the Council's Space project by working to re-cable the Civic Offices and deployment of ICT as appropriate.	2017/18	Richard Hortop
1.7	Pilot software at Contact OneVale that brings together web chat, telephone and email contacts from our customers to a single agent to increase efficiency in contact handling and increase the range of channels available	2017/18	Tony Curliss
1.8	Complete a review of the Council's website with an emphasis on the transactional elements to ensure they are compliant with the Digital Design Principles we will adopt and enable a prioritised set of processes to be identified that will be the focus of process reengineering work.	2017/18	David Esseen
1.9	Pilot "Google for Work" and Office 365 to determine the potential for increased functionality (agility, collaboration and flexibility) in the way staff work in line with the Council's Space project which seeks to make more efficient and effective use of office accommodation.	2017/18	Nick Wheeler

1.10	Review the current range of online services that are available and their use, including Google Analytics to understand customer behaviour to inform the development of future service offerings.	2017/18	Nick Wheeler
1.11	Review the requirement for aligning key digital services, e.g. the digital portal for Council Tax with others to identify the value of a single citizen account	2018/19	Nick Wheeler
1.12	Continue to integrate online forms with the CRM system	2018/2019	David Esseen
Objective 2: To support innovation through the use of ICT			
2.1	Contribute to relevant Reshaping Services programme projects, to ensure that ICT is considered and used to deliver innovation as part of the transformational change programme.	2019/20	Nick Wheeler
2.2	Contribute to the development and implementation of the Council's Digital Strategy.	2019/20	Nick Wheeler
2.3	Introduce a Unified Communications Solution via the upgrade of the Council's IP telephony system to include presence functionality, video messaging and instant messaging.	2017/18	Richard Hortop
2.4	Develop and increase the transactional capability of the website by integration with back-office systems and applications	2018/19	Dave Esseen
2.5	Implement the WCCIS system for Social Services as a replacement for the current Swift system.	2017/18	Kevin Lewis
Objective 3: To maintain, support and develop resilient ICT infrastructure and systems			
3.1	Investigate options to replace the Council's Wide Area Network (WAN).	2017/18	Richard Hortop
3.2	Investigate the provision of a second internet connection to the Council in order to provide additional service resilience.	2017/18	Richard Hortop
3.3	Further integrate applications (including the Council's website) with other back-office systems to deliver efficiencies and improvements based on business requirements.	2019/20	Dave Esseen/Dave Roberts
3.4	Consolidate applications by the transfer of functionality and integration.	2018/19	Curtis Allen/Kevin Lewis/Dave Roberts
3.5	Upgrade the desktop operating system to Windows 10.	2017/18	Andrew Brain

3.6	Comprehensively review the current software in use by the Council.	2017/18	Nick Wheeler
3.7	Investigate the potential offered by a new archiving solution for email and rarely used files.	2017/18	Emma Williams
3.8	Upgrade the Oracle hardware infrastructure.	2017/18	Emma Williams
3.9	Upgrade the Council's IP telephony system.	2017/18	Richard Hortop
Objective 4: To deliver quality ICT Services			
4.1	Evaluate and report on a range potential future operating models for the ICT service as part of the Reshaping Services programme in order to deliver savings to target.	2017/18	Nick Wheeler
4.2	Develop and evaluate a proposal to create a shared ICT Service across five councils.	2017/18	Nick Wheeler
4.3	Introduce a mandatory annual DPA and Information Security training course, with a 90% annual compliance target for all service areas.	August 2017	Jens Chinneck
4.4	Adopt ECDL as a corporate standard for training in ICT skills	September 2017	Rob Phillips
4.5	Work to comply with relevant security standards, including PCI and PSN.	March 2020	Jens Chinneck
4.6	Expand the provision of managed ICT services to comprehensive schools and town/community councils and other organisations as appropriate.	September 2017	Andrew Brain/Emma Williams/Richard Hortop
4.7	Use the Council's corporate Project Management methodology for relevant projects.	March 2021	Nick Wheeler
4.8	Work to increase the number of ICT staff who have been trained in the ITIL approach to ICT Service Management.	April 2018	Nick Wheeler
4.9	Develop arrangements (such as SLAs) with a range of services, including schools and the catering service.	2017/18	Nick Wheeler

