Argyll and Bute Council

ICT Strategy 2013-2016

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1   Introduction

1.1   A National Perspective

The last few years have seen a wealth of public sector ICT strategy documents being published starting with the Scottish Government's Digital Ambition for Scotland in October 2010, John McClelland's review of ICT Infrastructure in the Public Sector in Scotland in June 2011, then the public sector strategy entitled Scotland's Digital Future: Delivery of Public Services published in September 2012 closely followed by the High Level Operating Framework and the Local Government ICT Strategy – Delivering Better Services for Communities both in January 2013. The update of our own ICT Strategy was deferred to allow us to take account of these national activities.

1.1.1   When John McClelland published his review of public sector ICT Infrastructure in 2011, some sectors believed it was the start of a radical overhaul of ICT Service Delivery in Scotland which would change the landscape forever. McClelland's review criticised the way ICT was procured and delivered. He turned the spotlight on the ICT industry who exploited opportunities to supply the same systems to so many different organisations, all of whom paid the bills from the public purse, and enjoyed super profits as a result. He saw huge levels of waste across Scotland's public sector and an opportunity to save c 20% of total public sector spend on ICT of c £1.4bn. The review signalled the start of a radical overhaul of expenditure on ICT.

1.1.2   McClelland acknowledged those who were open and transparent about the quality of their services and their costs, those who were determined to take advantage of innovative opportunities, and those who were already trying to work with partners and within frameworks to get the best possible value from suppliers. He saw differences in the standards applied in numerous agencies and recognised good practice where it existed. So when the Scottish Government published its response to the McClelland review in the shape of the new public sector ICT Strategy – Scotland's Digital Future: Delivery of Public Services, it did so on the basis that the radical overhaul had already started in many quarters and used examples where innovation was at the heart of a drive to reduce costs, meet demands, and deliver better services. It created a new governance structure with a local government sectorial board reporting to the public sector reform board.

1.1.3   Similarly, a new Local Government ICT Strategy was also published in response to the McClelland review and takes into account the Christie Review and the opportunity for further digital service delivery at a time of financial austerity. The LG Strategy plays heavily on the proposal the "we should do things once not 32 times".

1.2   A Local Perspective

Both of the national strategies provide us with the necessary strategic direction towards reduced costs and better services. Here in Argyll and Bute the ICT Service has led the way in terms of innovation, reducing costs and providing better services - despite greater pressures from higher levels of demand, and recognises its key role in doing more of this in the future. We have had some particular challenges with unacceptable levels of downtime experienced by some services in August 2012 due to problems with the virtual server environment and again in March 2013 due to power outages. We are working hard to reduce our exposures to these risks in future.

1.2.1   The single converged Pathfinder North network has been fully exploited and we have transformed the way we work and the way we deliver services. Our improvements since 2008 have been delivered because we had the best available core infrastructure to support us and deployed the latest technology as soon as the network became available. Virtual Servers, Unified Communications, wireless networking, shared ICT services with ACHA, Workforce Deployment, Customer Management, our involvement in NGB and SWAN, and a standard approach to Asset Management and the sustainability of fit for purpose end user devices via our corporate PC replacement programme have all helped to deliver significant benefits for the Council. Many more initiatives around GIS, Property Management, Education, Roads, Fleet, HR & Payroll have been delivered and our working environment has been transformed since our last strategy was published in 2008.

1.2.2   Socitm benchmarking shows that we deliver the second least expensive ICT Service amongst Scottish Local Authorities despite our small size.   We took out costs of 20% through the service review process in February 2012. We recognise there are many opportunities to improve the service further, working with both local and national strategic partners and delivering even better services, further cost reductions, whilst coping with continually increasing demands. We are actively engaging with the new national ICT workstream entitled "Reducing ICT costs", recognising the opportunities for increased collaboration in contracting as well as shared infrastructure. We will be mindful of any potential negative effects on the local economy and other risks posed by these opportunities as well as their potential benefits.

1.3   Background

The last version of the ICT strategy in 2008 was drawn up to support the corporate plan 2007-2011. It concentrated on supporting the local shared services diagnostic programme which subsequently developed into the Process for Change programme with the 2 key themes of workforce deployment supporting mobile working, and Customer Management transforming services to customers. It envisaged completing the implementation of the initial Broadband Pathfinder rollout and moving to a single converged IP network along with further virtualisation of servers within the

consolidated server environment and increase in resilience of ICT services. All of those objectives have been achieved. This strategy now looks forward to 2013-16.

1.4 Preparing an ICT Strategy fit for 2013 – 2016

This ICT Strategy looks at the major challenges ICT faces over the next three years partly driven by the new national strategies, and the Scottish Wide Area Network and the Next Generation Broadband projects, and partly by our own local priorities; the replacement for Pathfinder North, Information Management and Security, Mobility, Collaboration and Shared Services, Cloud Computing and further innovation.

The strategy complements the Council's corporate objective to become a "forward looking and ambitious" organisation.

In line with the national strategy for local government, we want to continue to take advantage of ICT technologies, plan and procure better, share future developments and operations where the benefits to the Council are clear, above all with the aim of delivering better services to the people of Argyll and Bute.

2   Where We Are Now

2.1   ICT Service Review 2011 - 2013

2.1.1   The ICT Service conducted a full Service Review through 2011/12 which returned the full 20% target savings of £636,394 but looked to improve customer satisfaction and introduce new services identified by our customers as areas they wished to see developed further. The selected option delivered an overall reduction in the number of managers, re-invested in key front-line IT services, and looked to the external marketplace and an opportunity to deliver further shared services arrangements with our community planning partners. The review has been fully implemented through 2012/13 but we continue to develop our strategy towards the on-going marketing of services to external agencies.

2.1.2   In supplies and services, new technology produced telecoms and video conferencing savings with no or little impact on service delivery. There were also savings from the ending of capital charges associated with the previous consolidated server environment, and reduction of ICT topslice which had previously been available to fund corporate IT developments such as Process for Change. In future the only source of such funding will be from the IT capital programme. There has also been targeted changes to the Microsoft Enterprise Agreement.

2.1.3   Overall there were no changes to the overall staffing complement. Five posts were deleted from the staffing establishment – one third tier manager post, two admin posts, the client liaison manager post and reprographics manager post. There is now a single third tier manager in charge of the ICT function.

2.1.4   The former client liaison manager post was merged with the business manager post to head up a combined project management and client liaison section with 3 new client liaison officer posts covering all the main departments. With an additional senior engineer post to take forward small scale in-house developments, there is more capacity to respond to currently unmet departmental ICT needs.

2.1.5   In print services, following the amalgamation of the former IT print room with the corporate reprographics unit, we flattened the structure and removed a supervisory post and replaced this with a clerical post to give additional capacity to meet both internal and external demands.

2.1.6   Income generating opportunities have been explored with community planning partners following the successful contract with ACHA for print, desktop services and other IT support services. At the same time we continue to look to drive down the cost of local printing by developing and implementing a new corporate wide print strategy.

2.2   Infrastructure

Current infrastructure

2.2.1   The service operates from three data centres in Kilmory, Helensburgh and Campbeltown with the latter soon to be transferred to Helensburgh. These centres host a consolidated and virtualised server environment designed to offer rapid server and storage commissioning as part of our move to a dynamic infrastructure. The service supports over 4,000 users, 7,500 pupils, and supports over 7,600 devices over 234 locations with a total cost of function in 2012/13 of £3.4m (including capital).

2.2.2   Since 2007 the Council has led the way in exploiting the Pathfinder North network to deliver a step change in the Infrastructure required to support the Council's portfolio of systems, services and applications. Most council offices and all schools on the Pathfinder network are served by a single converged IP network utilising virtual separation of data across three distinct user groups – corporate, education and public. This Virtual Private Network (VPN) separation is in line with CESG (the UK Government's National Technical Authority for Information Assurance) directives for membership of the Public Sector Network. A recent bandwidth utilisation study provided reassurances that the bandwidth levels are sufficient to meet short to medium term requirements but the Pathfinder North contract ends in March 2014 and some changes will be made on an affordability basis. The original seven year Pathfinder contract ends in 2014 but partners are not expected to transition to the new Scottish Wide Area Network until it becomes available in 2016. Agreement has therefore been reached to plug the gap and extend the Pathfinder Network until 2016. Contract terms had to be revisited after the withdrawal of the Scottish Government's Pathfinder subsidy and a compromise was reached to ensure the Council could afford an extension. Bandwidth levels will generally be reduced during the extension period and restored to existing levels by the time the new SWAN network is delivering services.

2.2.3   The central server infrastructure has recently been upgraded for the second time since 2007 to deliver a fit for purpose virtualised environment spread over two resilient data centres. Final preparations are under way to establish improved disaster recovery and business continuity policies which make use of the "live – live" server environment in Lochgilphead and Helensburgh. This approach ensures the server load is spread across the two live environments with each data centre providing "on-net" data recovery facilities for the other. This in effect helps to ensure systems can be recovered as quickly as possible in the supporting data centre. Sufficient capacity has been included to allow for reasonable levels of growth over the coming years but each data centre is capable of increasing capacity considerably should the Council become a central hub for shared ICT services for additional partners.

2.2.4   A new managed wireless network sits alongside the existing wired LAN giving mobile or flexible workers access to systems from all corporate locations.

Touchdown zones have been created in support of the Workforce Deployment strategy with more zones scheduled to be introduced over the coming year. The Education Domain Extension programme is also upgrading network facilities within schools to ensure secure access to corporate and education systems and will include a wireless replacement programme for schools. A pilot Bring Your Own Device project is due to be introduced in Oban High School where teachers and pupils can use the Public VPN channel for filtered internet access. In addition password controlled Guest Wireless access has been enabled throughout the managed wireless network but user expectations are such that services are applying pressure to introduce more open wireless access from all public locations.

2.2.5   The Council's Rolling PC Replacement Programme was introduced in 2010 on an asset sustainability basis. This programme is funded from central capital allocations and is managed centrally by the IT service. In short all PCs, Macs, and laptops on the corporate or education networks are replaced every three or four years as part of an Asset Management agenda to ensure assets are properly maintained and fit for purpose.

2.2.6   The Council has just moved to a new mobile phone contract with Vodafone which is expected to deliver considerable savings over the coming years. A full range of smartphone and tablet devices are available under the contract.

Future infrastructure requirements

2.2.7   The infrastructure outlined above has allowed the Council to deliver more efficient services. From the limited architecture outlined in 2007 the core infrastructure has grown to deliver more modern and reliable services. The growth rates were not foreseen but can be in part attributed to the success of the infrastructure developments. The next stage in the infrastructure transition will look towards mobility and the need to access data on the move. This may lead towards Cloud hosting opportunities earlier than expected. At the same time, new sharing arrangements will impact on decisions around hosting locations, and security and recovery standards. Existing sharing partners such as ACHA may also decide to make greater use of standard industry cloud services to enable higher availability levels than those offered by traditional 9 to 5 service providers.

2.2.8   The Council takes the 3 components of computer security very seriously:

- •   Confidentiality
- •   Integrity
- •   Availability

2.2.9   The ICT strategy is backed up by ICT security policies which are regularly updated. Council systems contain significant volumes of highly confidential data, much of which is personal data and subject to the Data Protection Act. The accuracy or integrity of data needs to be maintained if data is to be utilised for management decision making, and systems should be available

whenever they are needed. All of these requirements continue to grow in importance.

2.2.10 The Council will consolidate further with the introduction of the dual strategic server facilities in Kilmory and Helensburgh offering sufficient processing power for nearly all of the Council's corporate server needs and, through the use of virtual technologies, considerable room for expansion and additional application hosting as the need arises. Supported by high speed network access across the Council area, the centres will provide backup and recovery facilities to each other. Services operating in the Campbeltown server room will move to Helensburgh.

2.2.11 System Availability must be at the core of the ICT service ethos. Near 100% targets and 24/7 availability should be achievable given the robustness of the new network and server environments. Such targets can be more or less guaranteed with the introduction of adequate resilient and redundant connections and capacity across the service. The network will be enhanced with further resilient connections at core sites such as a new LAN extension between the data centres and by a Disaster Recovery /backup facility operating to the latest industry standards.

2.2.12 With an emphasis on the rationalisation of customer contact and the expected increase in those communicating with the Council via alternative channels, access to our systems and network will be required outwith the normal 9 to 5 working day. This access must maintain the highest levels of security and will be scrutinised by bodies associated with the Payment Card Industry and other regulatory agencies. The systems maintenance cycle will change to accommodate higher availability thresholds with more emphasis on minimising downtime across core customer applications during an extended working day.

2.2.13 Remote and mobile workers will continue to require Virtual Private Network (VPN) based secure access from home and beyond. Traditional desk based access will continue to be the norm but a greater number of staff will require remote access from tablets devices and smartphones. Touchdown and Team zones will increase with the new accommodation projects to allow mobile workers the freedom to access the network from any single point of access. Systems must be capable of authenticating users across a variety of access platforms.

2.2.14 Our obligations in participating in the Public Service Network (PSN), dictate that we undertake annual security health checks and maintain appropriate security policies including Acceptable Use and Lockdown policies. The Code of Connection requirements for accessing the PSN are becoming increasingly stringent.

2.3   Current Business Systems

Driven by national initiatives and the need for service improvements and efficiency, in the last 10 years we have witnessed a dramatic change in the way that technology has been used to underpin change and improvements in the delivery of Council services to our customers. Technology has transformed the way we live our lives, having become ubiquitous both in the workplace and in day to day life. The ever increasing expectations of our customers and employees for available, accessible and flexible information and services, drives the product development of our business application systems.

2.3.1   All Council Departments and most of the composite services are supported by established, best of breed business application systems including:
- Lagan Customer CRM (Customer Service Centre)
- Carefirst (Social Work)
- ORACLE FMS (General Ledger and Payables)
- PECOS (Purchasing)
- WDM and TOTAL (Roads)
- Northgate Revenues and Benefits
- Northgate HR & Payroll System
- Uniform (Planning, Licensing and Regulatory Services)
- Civica Libraries System
- Civica Document management
- LocalView (GIS)
- SEEMIS (Education)
- Pyramid (Performance Management)
- MyOptions (Flexi/Time Management System) etc.

These are supplemented by a range of key corporate wide systems designed to assist the Council in its operation such as:
- **Microsoft Exchange** - our electronic mail and calendar facility;
- **LYNC** – the recently adopted Unified Communications platform including telephony, instant messaging, video conferencing and collaboration; and
- **Sharepoint** - the integrated Microsoft file share and collaborative content management platform.

2.3.2   As a Socitm accredited, top rated, four star site – the Council website (developed using an Open Source (Drupal) content management system), has in recent years been the catalyst for offering modern transactional services online. In support of those services, business applications have become more focused on facilities that offer opportunities for greater levels of self service and electronic interaction for customers. The Council's website, based on open source technology, is ranked among the top 20 local authority sites in Britain. The current focus is to upgrade the website to provide better access to mobile devices.

2.3.3   In 2012, people used the council's website to make over 21,000 payments, totalling £1.6 million and for different council services like council tax, cashless catering, planning fees and car parking fines. In addition citizens can tell the council about issues like dog fouling or fly tipping and can request services like new bins, winter gritting or setting up a direct debit to pay their council tax or apply for a job.

2.3.4   ICT has been a key enabler in this evolution which has combined our adoption of web technologies combined with the essential integration of business applications to provide the level of experience available to both our customers and workforce. All this against a backdrop of new and ever evolving security threats and the challenges associated with protecting the Council's infrastructure and information assets.

2.3.5   The ICT Projects (Business) team has expanded to accommodate the very important role of ICT Client Liaison Officers. Affiliated with the Council's individual departments, their role is to assist departments and their component services to identify opportunities to exploit technology with a with a view to improving the ways in which they work and where possible, the delivery of services to customers.

2.3.6   The ICT Applications Team now incorporate a small development team that have brought opportunities for small scale developments as a more flexible and affordable systems development environment complimenting large scale business application functionality.

2.4   Marketing our Services / Sharing our Services

2.4.1   In addition to national recognition for offering an overall good quality and good value ICT Service (based on SOCITM ICT benchmarking rankings), the Council continues to draw attention and accolade for its involvement in significant and innovative technology developments (such as Pathfinder, LYNC etc.). This in turn ensures the Council is well placed when it comes to marketing and sharing ICT services to our community partners and other public sector organisations.

2.4.2   In 2011, the Council successfully bid for a contract following an EU tender to provide ACHA, the main social housing provider in Argyll and Bute, with a comprehensive suite of ICT Infrastructure services including LAN, WAN, servers, telephony, unified communications and Microsoft Exchange. This extends to some database management and print services. Although there is a significant degree of separation, both ACHA and the Council benefit from sharing some core infrastructure components. This has been a very successful commercial partnership which could form the basis for a future shared service model. ACHA have recently extended the existing contract(s) for an additional two years in advance of re-tendering for ICT services in 2015.

Economic Impact

2.4.3   Retaining commercial arrangements such as that with ACHA and seeking out further marketing opportunities can contribute to greater economic stability through the retention of ICT related skills and jobs within the Argyll and Bute Council area:

- Delivering Local services
- Meeting local needs
- Living and working in rural communities.

3   Vision for the ICT service 3 years hence

3.1   The ICT service is an 'enabling' function which supports the Council in its delivery of services and in performing a leading role in the local community. The Council's Corporate Plan 2012-13 outlines our key corporate objectives and outcomes where we are "forward looking and ambitious, continuously improving our relationship with our partners, customers and employees to ensure that we deliver the right services, by the best people, in the best way. In this time of efficiency savings we are continuing to transform the Council".

3.2   In an extremely challenging financial climate, the Council has recognised that ICT has a key role to play in helping us to become a "forward looking and ambitious" organisation through the delivery of reliable and efficient ICT Services, by maximising access to information to support better quality decision making, via continuous improvement, and supporting a change in work styles. With the recent introduction of new technologies such as Microsoft Lync, the ICT Service has shown how much can be gained from a carefully managed approach to innovative technology. The Council expects the ICT Service to seek further opportunities to contribute to an on-going transformation programme and to help deliver the greatest service delivery efficiencies possible. Innovation inherently carries risk but appropriate risk management practices will continue to be applied when considering all innovative opportunities.

3.3   ICT has a key supporting role in the Council's corporate objective of "Working together to improve the potential of our area" by supporting the development and modernisation of the region's broadband and mobile networks. Various national initiatives are underway to provide the core infrastructure needed to deliver a vision for Scotland's Digital Future. At the heart of the vision is a programme of work to modernise and upgrade the core national communications infrastructure and introduce standards for sharing information, collaboration, and interacting with other agencies. The Council is particularly involved as an early adopter of the Scottish Wide Area Network (SWAN) and is a participant, through Pathfinder North, in the SWAN Vanguard project. It is also involved in both the Highlands and Islands and Rest of Scotland Next Generation Broadband projects which are intended to deliver super-fast broadband speeds to at least 75% of premises in our area. These are recognised as being central to the economic development of our area.

3.4   ICT also has a key role in delivering the objective of "Working together to improve the potential of our organisation" through the role that the Council's website can play in making it easy for our citizens to do business with us online and through the customer service centre telephony centre and service point network. It is fundamental in terms of improving the efficiency of the internal organisation through providing more integrated systems and making it

easier to communicate. In particular it is recognised that ICT can play a key part in this Council's delivery of services in an area of challenging geography.

3.5   The Council's Corporate Plan contains a number of specific Corporate Outcomes which ICT assists in delivering as follows:

ICT related Corporate Outcome	Comment/ Current Status
We have a skilled and competitive workforce capable of attracting employment to Argyll and Bute.	The Workforce Deployment programme has relied on a radically different infrastructure architecture which has helped to transform the potential to attract the best employees.
Our young people have the skills, attitudes and achievements to succeed throughout their lives.	Schools continue to benefit from the Education Domain Expansion, access to GLOW2, centralised ICT Support and the corporate PC replacement programme.
Our partners and communities are able to be fully engaged in the way our services are delivered.	The Council's four star Better Connected website continues to engage fully with our communities and our partners. We have developed new policies to support our adoption of social media.
The places where we live, work and visit are well planned, safer and successful, meeting the needs of our communities.	Planning Services are now delivered online and the Local Development Plan consultation is very much facilitated by all these materials being available online.
We contribute to a sustainable environment.	Energy efficient and virtualised data centres, collaborative unified communication tools, environmentally friendly disposal policies all contributing to a lower carbon footprint. Target to reduce spend on postage and bulk reprographics across the council.
We engage with our partners, our communities and our customers to deliver high quality, continually improving, efficient and responsive services.	New Client Liaison Team working within our customer community, New approach to procurement delivering better value from our suppliers and partners. Regular customer satisfaction surveys informing future service delivery priorities and areas for improvement.
Our customers have accurate, accessible and up-to-date information on our organisation and the services that we provide.	Customers can access council services more easily via multiple communication channels and these services are continuously improving and delivering higher quality. IT applications and infrastructure are available to users when they want to use them, and meet business needs.

4   Key ICT Trends

The following are seen as key ICT trends which should influence the ICT strategy over the next few years:
- Cloud Computing;
- Mobile technology/ Bring Your Own Device (BYOD) and Social business tools;
- Open source;
- Big Data; and
- Information Management.

These are all explored in more detail below.

4.1   Cloud Computing and Server Capacity

The virtualised server environment was introduced in 2007 to support an ever expanding application environment and to provide a platform for easier expansion. It was initially designed to host up to 60 applications with an expectation of growth at a rate of five new applications each year for the next five years. By the end of 2012 the environment now hosts in excess of 200 application servers – more than double the numbers originally expected. It is anticipated that this trend will continue over the next three to five years but at a lower rate than recently experienced. Appropriate capacity has been built in to the new server facilities in Kilmory and Helensburgh to cope with a steady increase in demand.

4.1.1   The UK government published its Cloud Strategy in October 2011 for the G-Cloud and established a Foundation Delivery Partner programme to start trialling particular types of cloud service provision. This was primarily aimed at central government with just one local government participant. However there is a clear intention to adopt a public cloud solution first policy though this will not be possible in every case.

4.1.2   The Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications and services) that can be rapidly provisioned and released with minimal management effort or cloud provider interaction. As such it should have the potential to offer significant cost reduction opportunities. Prior to tendering for the recent upgrade to the server environment, the ICT service undertook a detailed review in February 2012 of facilities available through the Cloud and determined that they were not yet mature enough to meet the council's complex requirements. Gartner's assessment in July 2010 was that the timescale for moving to "Hybrid Cloud Computing" was 5 to 10 years. At that point one would expect that an organisation's systems could be delivered via a combination of public and private cloud services with integrations of systems being feasible across the two delivery models.There is therefore an expectation that the Council can expect to start to transition to Cloud based services over the next 3 years and that the local data centre capacity growth rates will lessen as a result. There is also an expectation that it is unlikely that we undertake another full scale

refresh of the consolidated server environment and will more likely transition to cloud based provision in the medium term.

4.1.3   It is inevitable that the Council will be encouraged to participate in a number of hosted service opportunities. Having recently made the necessary investment to improve the two local data centres in Kilmory and Helensburgh and ensure a fit for purpose fully dualled data centre environment is available for Argyll and Bute, the Council should not rush to move systems to alternative host providers until satisfied that the business case represents significant improvements in availability, reliability and recovery in the event of a disaster. Those assurances will come in time, especially as the market prepares to welcome the wider public sector drive to reduce the number of data centres by significant margins and transition to larger, more capable, tier 1 data centres. Until such times as those assurances and guarantees can be fulfilled, the Council's IT service must continue to invest and seek to deliver higher levels of availability at both of the upgraded data centres. However when tendering for systems, we will always be open to considering hosted alternatives.

4.2   Mobile technology/ Bring Your Own Device (BYOD) and social business tools

4.2.1   There has been a dramatic growth in the ownership of smartphones and tablets. Over the coming years, members of the public will expect to access Council services more easily using these devices at a time of their choosing. They expect to have a choice of access channels – via the website from a range of mobile devices or via a TV or PC; or by telephone (and on occasion, also face-to-face) – and a consistency of service experience irrespective of channel. This reflects the success of the Customer Service Centre over the past few years and the expectation that more of the Council's service contacts should be easily co-ordinated from one central team. The public will continue to expect an improvement in the customer experience no matter which communication method (telephone, email, text, webchat, Twitter) is used to initiate the contact. This expectation will influence and direct plans to integrate more of the Council's key IT systems with the Customer Relationship Management (CRM) system, and necessitate a further improvement in communications between back and front office staff, better exploiting the Presence capabilities within the MS Lync environment.

4.2.2   Online service delivery is a normal extension of any credible business support strategy and will develop further over the coming years. Virtual access channels such as webchat technology, which allows users to communicate in real time using easily accessible web interfaces, will be available from many public sector websites but the challenge for Local Authorities is how to ensure the service is available when our customers need it over an extended support day, and also to ensure that it is cost-effective. An early pilot of webchat found that it was little used and could not be cost-justified at that time, but this is expected to change over time.

4.2.3   We will continue to explore BYOD and will support this facility where it does not compromise the security of the council's IT systems and our accreditation to the Public Sector Network Code of Connection, and where it is cost-effective for the council without creating undue demands for specialist support. Initially this is restricted to providing guest access to the Internet, but we will actively explore opportunities for extending this.

4.2.4   Mobile technology and social business tools depend on the various national and local infrastructure projects to deliver improved connectivity before the region can truly benefit from such technologies. We will continue to push the mobile telephony companies to improve the quality of the mobile networks across the region and will work with the two Next Generation Broadband projects to ensure high speed broadband services are available as widely as possible. The Council's ambition to deliver a truly flexible and empowered workforce will not be complete until employees and customers can access all systems and data from anywhere, using any recognised secure and supported mobile device. There is a current project to upgrade the council's website to be fully accessible from mobile devices.

4.2.5   The introduction of new flexible workstyles resulted in a greater demand for remote and mobile access to the Council's systems. This in turn brought about a significant change in the underlying infrastructure to allow users to roam from one location to another or to access Council systems while outside the traditional network boundaries. The new Unified Communication platform, Microsoft Lync, has worked well within the traditional wired and the new wireless network environment and has been coupled with Cisco's secure VPN technology using ASA Security Gateways & Web Security for policy enforcement on the network and Cisco AnyConnect for secure VPN connectivity at the client end. This environment ensures compatibility with the Public Sector Network (PSN) Code of Connection (Co-Co) and offers secure access to Council applications from traditional end user devices such as PCs and laptops.

4.2.6   As the wider communications environment changes and higher speed connectivity becomes available over mobile networks, the Council will expect proposals for more effective use of mobile working technology and wider adoption of mobile versions of systems to become available on smartphones and tablet devices. The Council already deploys a significant number of smartphones and tablet devices but they are largely used to access the Council's generic email/calendar/contacts/office applications. Earlier trials of mobile access to service specific applications were hindered by the lack of mobile coverage or from insufficient access speeds over legacy 2G networks. The new 3G or 4G enabled networks will allow mobile workers to undertake more 'service specific' tasks while on site. In many cases the Council will already have the required specialised service management system in place to allow this. In some cases the specialised system may need to have a 'mobile module' added to deliver the full onsite capabilities. The Council has already

invested in a mobile integration package from NDL which is expected to integrate existing business applications and extend them to field workers – the challenge for the ICT Service is to deliver such integration quickly, simply and cost effectively and in readiness for the new network upgrades appearing through 2014.

4.3   Open Source

4.3.1   When considering major new developments, upgrades, or replacements, we will work with other public sector partners and look first to reuse or share – this will very much depend on all system, network and environmental conditions being in place to support any sharing partnerships. An additional key technology trend is the increasing availability of open source solutions currently exploited by the local government sector. We were an early adopter of Drupal which is an open source content management systems (CMS) used to develop the council website.   This, along with generic integration technologies, is a key enabler to joined-up access to systems for our citizens. Our success with Drupal, led to the highest 4 star Better Connected award for the Council's website and significant improvements in the quality of the Council's intranet site, "The Hub". Many local authorities in Scotland have now followed our lead and are now working with open source products such as Drupal and this may provide an area for further development and partnership working in the future.

4.3.2   Open Source solutions have been successfully used elsewhere to help deliver improvements.   Our new small scale development team are using open source development tools. NESTA has recently funded four Open Data projects all using open source code and this is available for re-use. Two of these projects have now completed and are models for low-cost, re-usable developments delivered within short periods of time.   The Scottish Government is also funding a proof of concept of Open Data in connection with TellMeScotland streaming data out in different formats. These projects will just be the start of more opportunities in this area which the council will explore through its Innovation sub-group.

4.3.3   However the biggest opportunity for cost reduction lies in the area of office products (email, word processing, spreadsheets, databases etc). The Council has worked with Microsoft desktop and server technologies for many years, and has invested significantly and standardised on Microsoft products, despite the availability of alternative open source solutions on the market. The open source market still lags behind the major software suppliers in delivering the national and international benchmark standard for office and desktop products. User productivity will continue to improve when working in a seamless collaborative environment. For the foreseeable future it is proposed that the Council should continue to invest in opportunities to exploit the platform further rather than switching to less functional open source alternatives which would risk losing all the recent productivity gains. Additional projects will look to fully exploit the Lync, SharePoint, Exchange and Office

products as we move towards the implementation of a new Information Management Strategy and an opportunity to add structure to our core data assets to make it easier to identify, manage and retrieve information. It is unlikely that we will move to Open source office products within the next 3 years or so, but we will continue to actively monitor other open source opportunities.

4.4   Big Data and Information Management

4.4.1   The 3 characteristics of Big Data are Volume, Velocity and Variety. Social Media is one of the main sources of Big Data. The challenge is to analyse a mix of data types including structured data from your core business systems, along with enterprise content such as emails and documents alongside social media data to provide meaningful information such as pattern analysis for failure prediction. This sort of technique could be very useful in fraud detection.

4.4.2   We remain less convinced that predictive analytics and "big data" will be equally influential in the short term, although they may well be transformative in the medium to longer-term and these concepts will be explored through our Information Management workstream. Whilst these may well be areas which the public sector would like to exploit, they would require significant levels of investment that would have to be justified on a business case, and it may well be difficult to show direct links to improved national outcomes. We expect to concentrate on areas such as a master customer database, building a single consolidated view of a household across council systems and the separate Information Management project as first steps towards Big Data. The establishment of core referencing of customers and assets is also likely to be a pre-requisite to more extensive inter-agency working in future.

4.4.3   Much of the new ICT capability described above does not require the procurement of many new specialised applications. As already stated we already have a CRM package. We also have systems to operate a local Corporate Address Gazetteer and a Street Index.   These existing systems can support the core referencing of buildings, land, roads and other physical infrastructure in the Council area. The Council also already has Geographical Information System (GIS) software which can be linked to these indexes to add a geographical dimension to this 'asset' information. However the Information Management (IM) project, which is one of the Council's corporate improvement workstreams, may introduce a number of new systems designed to streamline access to the Council's main information repositories.

4.4.4   The IM project will focus on opportunities for ICT to play a role in achieving significant improvements in how the Council carries out its business. Information management is an area featured within the corporate performance audits where several aspects were deemed as basic with room for improvement. It initially aims to deliver a vision and strategy for Information Management improvements across Council services and until both elements

have been developed the impact on the application portfolio remains unclear. It seems certain the IM initiative will contribute significantly to the Council's application procurement portfolio over the next three years.

4.4.5   Possibly the most wide ranging ICT requirement of the previous 5 years has been the development of much greater automated linkage of the CRM system with a wide range of existing specialised systems. This was intended to present customers will full-blown self-service options via the Council website - the customer gains 'anytime' convenience and the Council experiences lower per transaction costs if the uptake is sufficient. The Council has already built these linkages and should expect to expand on the range of services available via the Contact Centre. Earlier the role of two broad indexes was touched on   - these will be pre-requisites to our ability to use middleware productively :
- a property/asset/location index
- a customer details/preferences index

4.4.6   The Council is far better placed in relation to the first index - it is close to being viable for use in conjunction with middleware, the CRM system and specialised service management systems. The second indexing capability is far from being established. The contact centre has concentrated on detailed re-engineering of individual service processes but we are at an early stage in developing an organised approach to gaining customer consent to use contact details across the Council. The national Citizens Account project made limited progress in setting up a shared framework to deal with the awkward issues of consent gathering and identity authentication. The new national ICT strategies focus on Identity Assurance and the Scottish Government expects the Citizens Account to be at the heart of a new Scottish Public Sector Identity Strategy that takes account of existing approaches in Scotland, approaches being developed in the UK and the USA, and private sector practice. The Council will be expected to adopt this new strategy and deploy or upgrade applications within a framework that gives assurances around user authentication.

5   ICT Strategy Principles and required Strategic Capabilities

The new ICT Strategy for the Public Sector in Scotland (Scotland's Digital Future: Delivery of Public Services) and the recently published Local Government ICT Strategy both look to a time when the physical infrastructure boundaries between public sector agencies no longer hinder the delivery of IT services that are "high quality, continually improving, efficient and responsive".

The strategies were created in response to McClelland's review of IT Infrastructure in Scotland where the public sector was criticised for a failure to achieve better value through collaboration and the sharing of ICT Infrastructure. McClelland has encouraged the Scottish Public Sector to make services more effective and easier to access via ICT but not as independent bodies. The objective to share where possible is clear and ambitious and will forever change the ICT landscape in Scotland through shared systems, shared procurement, shared staff, and shared knowledge and expertise. Both of the resulting strategies look to improve performance across the public sector and help to reduce the overall costs of front line service delivery and of ICT in general. The face of public sector ICT service delivery is therefore changing and there is an expectation that each agency or authority will work more closely together.

5.1   The 4 National Strategic Principles

There are 4 strategic principles that the public sector is expected to adopt to help improve digital services, reduce costs and enable reform. These principles are taken directly from the national public sector strategy and are summarised below:

1. Customer / Citizen Focus
2. Privacy and openness: using data appropriately
3. A Skilled and Empowered Workforce
4. Collaboration and Value for Money

It is proposed that the council adopts and follows all these principles in its ICT strategy.

5.1.1   (1) Customer/Citizen Focus

We will adopt an approach of "digital first" in service design. Council services will be:
- available online wherever they can be so;
- accessible through a wide range of devices including computers, smartphones and televisions. We plan to upgrade our CMS shortly to support mobile devices and already offer access via TVs through Looking Local;
- accessible through the council website as a single, though not exclusive, point of entry to public services to help navigate through the public sector landscape. Supporting links from the national DirectScot portal;
- available with assisted access to take into account the differing capacities of users, including by telephone or face-to-face;

- secure, reliable, resilient, high quality and high performing.

We will

- use systems of assuring identity that are secure and give access to all public services. We will adopt the national authentication services when these become available but in the meantime will continue to use the self-service portal supported through the Lagan CRM system;
- be shaped by the needs of users and involve service users directly in their design;
- use ICT to enable personalisation of services and self-management;
- be designed to take account of the methods and capabilities already provided by the private sector that are used extensively and intuitively by citizens;
- be joined up through the use of common technology applications;
- work because they rest on common standards that comply with appropriate local, national, UK, European and international requirements;
- support the delivery of the Scottish Government's digital participation ambitions set out in Scotland's Digital Future.

5.1.2 (2) Privacy and openness
This is about making effective use of all forms of data to deliver business outcomes within a framework which maintains public confidence and meets statutory requirements. In handling personal data we will:

- protect identity and privacy in line with legal requirements including the Human Rights Act and the Data Protection Act, and good practice as set out in the Scottish Government's Identity Management and Privacy Principles;
- create, use and encourage the use of systems that allow self-management of data by citizens and businesses;
- share data with our public sector partners, in line with legal requirements, such as the EU Directive on the Re-use of Public Sector Information and good practice, in order to improve the quality and efficiency of our services and enable personalisation to ensure that services are appropriate to needs.

We will also:

- maintain information security policies and procedures in recognition of outcomes from annual internal and external security audit assessments and in line with CESG requirements for access to the Public Sector Network.
- in accordance with the Public Service Network (PSN) requirements, we will undertake annual security health checks and maintain appropriate security policies including Acceptable Use and Lockdown policies.
- re-use data from our systems, safely anonymised, to support research and analysis which can contribute to the development of approaches which better meet desired outcomes;
- publish as much information as possible concerning the data we hold, and how and when we will make that data available in re-usable form;

- open up access to data created and held by the council to make our services more transparent and accountable and potentially provide businesses with the opportunities to develop new products and services and therefore grow the economy;
- specify to prospective suppliers of ICT systems the most effective common standards to use for publishing and sharing data, to support the linking of data between datasets regardless of source;
- make data accessible in formats that allow and encourage re-use, with re-use possible under licence terms that are clear, fair, transparent and where possible free.

5.1.3   (3) A Skilled and Empowered Workforce

We aim to have a workforce that is skilled in using digital technologies and gains recognition from doing so. We will:
- ensure council staff receive relevant training in digital technologies to allow them to do their job as efficiently and effectively as possible taking full advantage of all the technologies available to them;
- ensure that our employees can be confident and assured in delivering services anywhere through any device from wherever makes sense to access the systems which they need;
- training will be delivered as an integral part of all ICT projects;
- ICT training needs will be identified as part of the annual PRD/PDR process for all employees;
- deploy our ICT staff in order to maximise the impact of their skills and use resources efficiently;
- develop shared approaches with our public sector partners to enhance the skills of our ICT workforce, and using those skills where most useful, to support the delivery of digital services to our citizens.

5.1.4   (4) Collaboration and Value for Money

We aim to reduce our costs as much as possible. We will:
- reference the national High-Level ICT Operating Framework and support the re-use and sharing of existing assets as a priority, and ensure any new investment in ICT is bought with the potential for sharing in mind;
- participate in the Scottish Wide Area Network using common network and connectivity requirements which will support a catalogue of services that make communication, sharing and service provision more cost-effective;
- demonstrate savings on ICT spend through improved ICT procurement, utilising national frameworks where they offer good value and developing local framework contracts where there are no national frameworks;
- specify interoperability requirements;
- where cost-effective, exploit new ways of working including open source, cloud computing and an 'any device anywhere' approach;
- continually review and improve existing ICT systems in order to maximise their effectiveness and the value we gain from the existing investment;

- offer IT services to our community planning partners to maximise the return on our IT investment;
- continue to participate in Socitm benchmarking to identify opportunities for improvement;
- market ICT expertise in similar ways to the ACHA contract exploiting shared service opportunities along with the cost benefits this can deliver for all parties involved.

We face increasing resource challenges. Argyll and Bute anticipates a significant drop in the younger population and a decrease in working age people. In particular, the ageing population will continue to intensify the demand for some services. We have 25 of Scotland's 95 inhabited islands, and there are also many fragile remote communities on the mainland. It is a challenge to provide services that are equally accessible to all. The Council continues to face a significant backlog for investment in its assets, including schools, roads, leisure facilities and offices. Investment in ICT projects has to compete against these other priorities.

Sections delivering front line services will become yet more dependent on effective and reliable ICT capabilities. Services need to be available beyond the traditional Monday to Friday, 9.00 to 17.00 time slot. We require better technical interaction between internal ICT systems which were developed to support specialised Council functions in isolation. We have increasing requirements to share information with others. All of these demands look to the ICT service for fulfilment yet we are planning on a reduction in revenue of 2.9% per annum. The principles specified above will need to be followed rigorously.

Retaining commercial arrangements such as that with ACHA and seeking out further marketing opportunities can contribute to greater economic stability through the retention of ICT related skills and jobs within the Argyll and Bute Council area with a local workforce:
- Delivering Local services
- Meeting local needs
- Living and working in rural communities.

5.2   Strategic Capabilities

The Local Government ICT Strategy outlines seven strategic capabilities that need to be in place if ICT-enabled local public services transformation is to be achieved. These have been reviewed and adapted to create six local capabilities to suit our requirements as follows:

- **Leadership**: Clear and engaging leadership will be needed to realise change. Politicians, managers and staff will need to be involved and energised to improve services. The Chief Executive, Strategic Management Team and ICT Steering Board all have a key role to play in building collaboration across services and with partners and delivering redesigned services.

- **Shared governance**: The aspirations of joint working and the subsequent provisioning of technology to support transformed local public services should be supported by the Community Planning Partnership and all members of the CPP should adapt their ICT strategies to support this.

- **Organisational change**: New models of delivering services will require us to have different skills and capabilities and we should look across the public sector in Scotland to help us acquire these skills and capabilities rather than always seeking to be self-sufficient. We will need to exploit the rapid changes in technology as well as understand the changing demands of our business and its users. We will continue to look at new technologies and methods of rapid development and opportunities for use of open source materials.

- **Programme management**: Programme management and change skills are critical if programmes are to be delivered within cost and realise the benefits. We have adopted the Managing Successful Programmes methodology which complements PRINCE2 and this is now being followed across the organisation. We need to put more effort into benefits realisation.

- **Strategic commissioning & Procurement of Services**: We work closely with the Procurement and Commissioning Team in develop suitable sourcing strategies and will make full use of national frameworks where these are available and fit for purpose. There are opportunities to put more local framework contracts in place, and to explore further opportunities for a joined-up approach with our Community Planning Partners. We will support national user groups and a national approach to managing relationships with key ICT suppliers where possible and continue the adoption of a more formal approach to managing contracts in line with the Council's procurement manual.

- **Collaborative services**: We will actively seek opportunities to provide ICT services to our Community Planning Partners as well as participating in national collaborations such as SWAN. We will develop our capabilities of both participating in and providing such collaborative services.

We propose the adoption of these 4 strategic principles and 6 strategic capabilities which should underpin all the elements of our ICT Strategy.

6   High Level Operating Framework

The Scottish Government's High Level Operating Framework discusses and outlines a framework to support and develop the ICT Architecture of public sector bodies in Scotland. A number of architectural layers are defined to allow the ICT architectural landscape to be simplified and synthesised into common, industry recognised components. The application of those layers allows for the modelling of current and planned architectures against a target ICT Architecture. The architectures under review in the framework may be aggregated at local, sector and national levels in support of moving towards the target (or blueprint) architecture; and also influencing the use of ICT to improve the quality and effectiveness of services delivered. The Operating Framework is aimed at assisting organisations in:

a)   The assessment and modelling of their current architectures in a consistent manner;

b)   Comparing architectures across organisations to mapping commonality and understand uniqueness;

c)   Identifying a Target ICT Architecture at National, Sector and Local levels;

d)   Establishing a roadmap to support organisations as they move towards that target architecture.

The framework has just recently been published but it recognises that technology evolves at a rapid pace and any model will need to develop and improve as the thinking matures. The model will provide a vital checklist for us and ensure the local ICT architecture will continue to allow the Council to partner and participate with national and local ICT initiatives.

6.1   Initial Current Assessment

Appendix 1 takes the questions posed by the framework model and provides an assessment of our current positions on each component. The model encourages an annual assessment of the current and planned horizons but looks for a longer term view of the Strategic position of where each organisation wants to be, taking into account that each organisation will by their own uniqueness be limited to where on the maturity model their optimum level of adoption will reside. This strategic position should be seen as a "moving target" and updated as frequently as the ICT Steering Board feels necessary. For the purposes of the strategy the responses have been combined into an initial position statement.

The initial assessment has shown that we need to review our adoption of the National Citizens Account when that becomes a viable option, and to be open to opportunities to share and re-use common line of business applications, and re-emphasises the importance of obtaining and maintaining PSN accreditation which is currently in progress. We currently have invested in our own data centres rather than using a shared data centre, and this alternative may become a cost-effective option in the future and this option should be kept under review.

7 Integrating Business Priorities with ICT Strategy

There is no doubt that there is a very strong lead by both Scottish and National Government in the shaping of ICT Strategy within local government. It is assumed that the business priorities of the departments in terms of public service delivery are also being shaped by the same agendas presented by government. However there will undoubtedly be local priorities which should also be considered as an additional focus to national strategy when preparing an ICT strategy for Argyll and Bute Council.

The ICT Client Liaison function serves an important role in ensuring that the ICT Strategy is very much in-line with the priorities and focus of Departments and the individual services that they represent. Individual reviews of the priorities for each of the four departments have been undertaken and resulting action plans have been produced by the ICT Client Liaison Officers. These documents are:

- Customer Services and Chief Exec – ICT Strategy v1.0
- Community Services – ICT Strategy v1.0
- Development & Infrastructure Services Strategy v1.0

All are available on the [ICT Steering Board](#) Sharepoint site.

The table "*Emerging Departmental Priorities*" below represents the key business development priorities that are dependent on underpinning ICT technologies and services. Some of the items listed below are merely "concepts" at this stage – in order for an ICT project to progress, a fuller business case analysis will be carried out and presented to the ICT Steering Board as proposals – normally via the appropriate ICT Client Liaison Officer. Those proposals shall be assessed and prioritised against a clearly defined set of criteria and methods by the ICT Steering Group before either funding and / or ICT resource is allocated.

This framework will allow competing demands for Council resources to be compared like for like inclusion within the ICT Development Plan of ICT developments. The assessment approach to be adopted is largely based on that adopted for recent Council service reviews and focuses on the following key elements for assessment and prioritisation:

- **Impact on**
  - Corporate Plan;
  - Customers;
  - Individual Service Plans;
  - Legislative / regulatory compliance;
  - ICT Strategy

- **Affordability**
  - Negative or positive financial impact

- **Deliverability**
  - Timescale;

      ○ Resource needed/ available (IT and non IT);
      ○ Complexity

- **Implementation Risk**

7.1   Emerging Departmental Priorities

Amongst the emerging development priorities featured in the table below, there are some key common priorities across most of the services including:

- **Improvements in Information Management -** There is a change programme underway that focuses particularly on our non structured electronic documents and content which currently resides on file shares and sharepoint sites. This also extends to improvements to business application based information and records management.

- **Bring Your Own Device (BYOD)** – The possibility of allowing the workforce and customers to access internet and possibly some Council Services within Council buildings is emerging as a common theme across several services.

Department	Emerging Service Priorities	Initial Outline
Development & Infrastructure (D&I)	**Improving and Streamlining the use of ICT Systems**	D&I are currently undergoing a review of key ICT Business Applications to ensure those core systems are: • Fit for purpose • Supportable/maintainable • Fit for future service requirements • Operating and maintenance costs are optimised • Appropriate resources and skills are available • Risks are identified and managed **It is likely that new priorities may emerge from this process.**
	WDM Optimisation & Integration	WDM is the main system used by Roads and Amenity Services for asset management and roads and street lighting maintenance. Full capabilities and benefits are not being realised. Through data cleansing, appropriate configuration and further utilisation of the available functionality, WDM could be a more cost effective and powerful business tool within Development and Infrastructure Services and play a key role in the effective service delivery for all Road and Amenity Services,* as well as contribute to improvements for other services such as Strategic Transportation and Marine Operations. In order to understand service requirements a review should be undertaken to produce a revised requirements specification that can be assessed against WDM capability to allow identification and planning of the work that is required
	Improved Data Management	D & I Services have identified a need for a SharePoint site to host the policies and documentation associated with a quality management system comprising of departmental and service specific areas.

Department	Emerging Service Priorities	Initial Outline
(Development & Infrastructure cont.)	Mobile Working	Development and Infrastructure Services seek to adopt a more mobile approach for staff that work out in the field delivering services, especially roads operations and Amenity Services. Mobile solutions can achieve increased productivity and efficiency by allowing services to be delivered in new and more cost efficient ways and freeing staff to work in new and more flexible ways. A mobile solution involving the use of electronic forms to undertake inspections, via a mobile device on location, would be beneficial to the majority of Development and Infrastructure Services.
	Projects Management	There is no clear, standard solution or approach within Development and Infrastructure Services for managing programmes of work or projects. This means the sharing, monitoring and reporting of such work is disjointed and inefficient. Investigation is already in progress to evaluate Concerto Projects as a possible replacement to the legacy, in-house developed Job Manager Access database, currently used by the roads design team. Such a solution may also be a viable option for Economic Development, to allow them to record, monitor and report on projects and programmes of work, e.g. CHORD.
	LEADER Database	The Development Team has raised concerns about the in-house developed access database that is used for LEADER – rural developments. While this database has proven an invaluable tool which the LEADER Team depend on, it is currently unsupported by ICT. This poses a risk should there be any operational issues with the database or development needs to meet service changes. This is a vital resource and should be moved onto a more scalable, supported and future proof solution such as a SQL platform. Investigation will take place initially to capture requirements and review suitable options to establish whether a commercial product is available and cost effective or whether a small development is more appropriate.
	TOTAL System Optimisation	Total is currently used by Roads Operations and Finance to monitor the costs of roads maintenance jobs. Interest has been expressed in increasing the effectiveness of this system by optimising its use to record and report in more detail to better understand

Department	Emerging Service Priorities	Initial Outline
(Development & Infrastructure cont.)		performance and improve financial management. The use of Total could also be extended to Amenity Services to allow standard jobs to be measured in terms of time and costs. Options will be investigated to understand what benefits could be achieved and the work that is required in doing so, to assess feasibility.
	BACAS Upgrade	The current Burials and Cremations System (BACAS) set up comprises of standalone PC installations across 8 sites. There is currently no approved standard configuration, so each is different and used by staff in a different way. A standard configuration is to be agreed that could better support the interment process, and a networked version with a centralised database, hosted in the data centres, be implemented in order to address • Inconsistent set up and usage • Difficulty in IT application support and maintenance arrangements. • Interruptions to service delivery due to application down time (Islay) • Inefficient use of staff time due to disaggregated approach to requests for system changes, report production, requests for change etc • Poor quality of management reports • Risk of data loss and security breaches
	Flight Data Management Solution	There is currently no formal system in place which allows Strategic Transportation to easily manage, manipulate and report on data related to flights, landing charges, passenger numbers, trends, etc. Much of this data is required to report against service performance indicators, monitor and negotiate contracts, as well as evidence improved use of the Airport facilities. A system solution would be very beneficial and reduce unproductive activity of staff in relation to duplication of effort and manual manipulation of gathered data via spreadsheets. It would also allow accurate service data to be produced and published via the website to promote and support development of the Airport service.

Department	Emerging Service Priorities	Initial Outline
(Development & Infrastructure cont.)	Marine Data Management Solution	There is no formal system in place to allow Marine Operations to easily manage, manipulate and report on data related to piers and harbour charges, ferry schedules and passenger numbers. This data is needed to report against performance indicators and will also provide visibility of performance and finances to support service improvements.
	GIS Work Plan	A proposed GIS work plan for 2013/2014 has been established. This work plan supports a number of service priorities and is integral to the ICT Strategy to allow improved efficiencies and service delivery across all service areas, for example: • Core Path Planning • Route Optimisation • WDM Integration
	Customer Management/Interaction	Much reference is made in the service plans to improving the accessibility and quality of information provided to the wider public and business community via the council website. There is also a desire to increase the range of online services and ability to carry out surveys and questionnaires in order to gather valuable feedback and continually seek the opportunities to improve service delivery.
	Customer Satisfaction: Improved handling of complaints	Currently within Development and Infrastructure Services further work is required to deliver surveys and accurately and efficiently capture and analyse this data. Staff have also reported that the complaints functionality within Lagan does not provide adequate detail or reporting, and so there is duplication in effort, time and resources to enter this data into a legacy, in-house developed access database, which has limited support, security and scalability. To address these areas, work should be considered via the Customer Service Board; to design and deliver surveys and retrieve survey data using such means as the Council website, email, sms and social media and to improve the complaints functionality and reporting within Lagan or to procure a solution which can be integrated with Lagan.

Department	Emerging Service Priorities	Initial Outline
Community Services		
Social Work General	Focus on CareFirst as core system; Multi Agency Information Sharing (e.g. Multi Agency View (MAV), Getting it right For Every Child (GIRFEC)/ access to Childrens Plan)	At a general level this is a priority for all areas of Social Work. The on-going development and use of the CareFirst Social Work Management System is key as the application underpins service delivery for Adult, Children, Mental Health and Criminal Justice services in addition to statutory reporting, budget management and income generation. OLM have recently been developing their system to accommodate the drive for Councils to engage more with partner organisations, external service providers and share information. The multi-agency view (MAV) development within CareFirst has positioned the application well to support future joint working initiatives.
Adult Services	Self Directed Support (SDS)	Self-directed support (SDS) allows people to choose how their support is provided to them by giving them as much ongoing control as they want over the **individual budget** spent on their support. In other words, SDS is the support a person purchases or arranges to meet agreed health and social care outcomes. Currently councils are only required to offer the first option (a Direct Payment) but many councils in Scotland offer all the options: • allocated to a provider the person chooses (sometimes called an **individual service fund**, where the council holds the budget but the person is in charge of how it is spent) • or the council can arrange a service for the supported person • or the supported person can choose a mix of these options for different types of support. Currently councils are only required to offer the first option (a Direct Payment) but many councils in Scotland offer all the options. The Scottish Government is currently working on a Self-directed Support Bill which if enacted will place a duty on councils to offer all four options. The Councils Social Work System provider OLM have developed a full SDS module for CareFirst which Social Work are considering.

Department	Emerging Service Priorities	Initial Outline
(…Adult Service cont.)	Integration Agenda	Integration of Adult Services (Older People services) by April 2015, possibly others (rest of Adult services, mental health, Childrens Services, Criminal Justice) to follow. This is an important priority for Community Services. Initial indications from Community Services are that Adult Health service will be integrated by April 2015. Depending upon what agreements are reached with NHS and the possible setup of a new body corporate organisation with transfer of budget and resources from both social care and health could have impact or opportunity for ICT.
	Criminal Justice	The Criminal Justice service currently operates under a shared agreement with West Dunbartonshire Council (WDC). WDC host the criminal Justice module on their CareFirst system. There is a requirement by next year to introduce the Government Protective Marking Scheme (GPMS) system for protective marking of documents and a sub requirement will be for secure email option for sharing data with partner organisations not on Government Secure Xtranet (GSx). WDC have introduced a GPMS system already and the Council's criminal Justice are keen to trial a system. ICT have already looked at a couple of options and a pilot will commence soon before go live requirement next year. In addition, consultation has begun around significant reform of the Criminal Justice Service in Scotland which would undoubtedly have ICT implications.
	Information Management	Across Adult services, information management needs to be reviewed. The current CareFirst system holds client records and care plans and financial assessment data but there is a plethora of manual records with retention requirements and no formal digital system in place.
	Call Management for Homecare	Home Care has been outsourced across the Council except mid Argyll, Kintyre and the Islands where the inhouse provision was the most cost effective when tendered a year or more ago.

Department	Emerging Service Priorities	Initial Outline
(…Adult Service cont.)		The service are interested in a scheduling/call monitoring and possible billing system and 3 market leading systems have recently been demonstrated as part of recent market research by the department.
Childrens Services	GIRFEC	Utilising the Multi Agency View (MAV) function of CareFirst, Rothesay Academy will commence as a pilot. Getting it Right for every child (GIRFEC) allows the school to view the childrens plan setup in CareFirst and allow the school to contribute data. Following the pilot the plan is to rollout across all schools.
	Multi Agency View (MAV) – Childrens Plan, Child Protection Messaging	OLM have recently demonstrated their Child Protection (CP) messaging system which is yet another development around the Multi Agency View (MAV). This module when adopted will allow partnership working in providing an alert system for child protection. Following the recent cancellation of the eCare programme, a national CP alert system not fully used will also be ceased requiring the Council to introduce a local system. It is envisaged the system will be utilised by Police, NHS, schools and service providers along with CP staff and will interface with the child plan function within CareFirst. A second phase development by OLM is underway to allow submission of data by partner organisations.
	Early Years Systems provision	Childrens services require a new early years system as part of the drive to build on the GIRFEC principles and adopt the Scottish Government's Early Years Framework. A major focus from an ICT perspective will be around partnership working, information transfer and the introduction of an early years system for pre-school/nursery units under the early years service. The system is likely to be somewhere along the lines of a mini SEEMIS type system collating note chronology and links to other systems such as CareFirst. This may well have an infrastructure requirement at locations where service is provided.
	Fostering Services – CarePay/ Information Management	Data retention is an on-going requirement with some services such as Foster Care only just beginning to start to use the CareFirst system. There is a requirement for storing records in some cases up to 100 years. At present records are stored manually and in

Department	Emerging Service Priorities	Initial Outline
(Childrens Services cont.)		line with upcoming use of CareFirst this needs to be looked at. There is interest in wider information management aspects and the Head of Childrens services has offered Foster Care as an area to be looked at under any information management project. Further work is required around CarePay in relation to Foster Care provision and this could result in help form ICT with data integration work to finance systems.
	BYOD	Childrens Services have highlighted BYOD access at our two hostels in Oban and Dunoon. With BYOD pilot a in Oban, many of the same young people (50+) return to the hostel after attending Oban High school and Childrens Services view continuation of BYOD access at the hostel as essential as other pupils who return home after school will be able to continue using their devices from home. At present, children at hostels may be disadvantaged.
Community and Culture	Leisure Management System review	A review of the Leisure Management system is underway. It is anticipated that there will be a business case arising to replace the current Leisure Management system by way of introducing smaller more focused systems which more effectively serve the department's needs, supporting future developments and innovation within Leisure. This is a priority for Leisure services as the current system is 8 years old and is deemed to only meet up to 60% of their needs. On-going issues with the supplier are prevalent and costs for supporting the system have risen substantially this year forcing budget pressures on the department.
	Extend interactive services at Libraries incl wireless access / BYOD	Libraries continue to develop their current systems and seek to enhance the availability of interactive services from library premises, e.g. Wireless public access, interaction with Customer Service Centre, working more with other services to utilise library premises e.g. bases for community education provision. Development of e-book services. The Spydus LMS system is in line to be hosted by Civica soon. The new hosting arrangement includes an archive and digital record module which will allow Community and Culture to meet a key service plan action to Identify and purchase an IT

Department	Emerging Service Priorities	Initial Outline
(Community and Culture cont.)		system for storing archive records and Establish a Digital Archiving Working Group to investigate requirements for the long term preservation of digital records. The library service is keen to initiate public wireless access BYOD to allow members of the public to utilise their own devices within libraries
Community Learning	Increase community learning opportunity and training currently delivered form a variety of sources such as community services and libraries.	In light of the new welfare reform work, community learning have an aim to help educate more vulnerable members of the community with learning ICT skills hence use of community centres and libraries for courses. The aim is to expand the community learning provision via greater Public Network provision at an increased number of sites.
Community Planning	Increase Community Planning Events	Develop capacity to host more community planning events across a wider range of locations and utilise VC or Lync options for communities to conference into centrally help events.
Active Schools Coordinators (ASC)	Corporate System utilisation	ASCs staff now utilising corporate build laptops to benefit from full range of corporate systems. Extension of Microsoft Lync and VPN access will assist in the drive for more interaction with emerging Community based developments.
Education	New School Builds Project : • Oban High; • Islay High; • Campbeltown Grammar; Dunoon Primary Campus	Following negotiations and tendering work, a future stage, ICT will be required to assist with a more detailed ICT specification of requirements.
	• Microsoft LYNC adoption	Following the wireless infrastructure upgrade that was completed at the end of May an Education LYNC pilot will commence in advance of further role out for Education staff.
	Bring Your Own Device (BYOD)	On completion of a proposed BYOD pilot at Oban High School, the Education Services will work with ICT to develop a plan for the application of BYOD in schools once benefits are better understood.

Department	Emerging Service Priorities	Initial Outline
(…Education continued)	Domain Extension	Continued 4 year Education Domain extension programme which includes an overhaul of IT security arrangements, access to file & print services, and the extension of the wireless infrastructure across the school estate. This will provide staff and pupils with access to a more reliable and secure infrastructure where their information is secured to corporate standards. A range of corporate services can be exploited by Education including Microsoft LYNC, Remote desktop support, central storage, backup of data, improved email service, etc.
	Tablet Devices	Education aim to use tablet devices to deliver new ways of learning and adopting a flipped classroom approach as outlined in their vision document. Support for Tablet Devices will be assessed by ICT via a pilot using the Mobile Iron MDM solution.
	Partnership Working i.e. GIRFEC	See Children Services above.
	Library System Management	Many schools are showing interest in replacing ageing or costly Library Management systems (LMS) and would like to utilise the corporate LMS, Spydus. Library Services has agreed that schools will be able to use Spydus after the system is hosted by Civica. Education catalogues will be migrated to Spydus and each school library will be managed by the Library Service.
Chief Exec		
Strategic Finance	• Improved Management Information & Reporting • Interfaces between systems to reduce manual effort (Oracle Payables/Purchasing highlighted, requirement for Carefirst Interface) • Right First Time – Data Entry.	In order to improve efficiency a number of areas need to be focused on including some review of business processes and potential re-engineering. Issues over repeated double keying, due to data errors from other areas, is hindering the use of resources appropriately. The Head of Service also highlighted the need for improved Management Information, Reporting and system interfaces.

Department	Emerging Service Priorities	Initial Outline
	• Concerto Embedding – Project Management Module for Capital Monitoring (decommissioning of CAMIS) • PSTM (Public Service Treasury Management) Access Databases / Spreadsheets – Integrity Review	The new Property management System supports a generic Project Management module for capital projects. Upgrade for Windows 7 compliance.
Human Resources	• Resourcelink Development • Cognos Reporting Review • Learning & Development • Health and Safety System • Expansion of HUB availability to staff • Expansion of E-Learning capability.	Improve efficiencies including extension of Interfaces. Increase efficiencies including extension of Interfaces. Cognos Reporting – The Business are finding this a very technically complex Reporting tool to work with in respect of Report creation, this is despite additional training being provided by the supplier. A review is required. Expansion of PDR process and employee self-service for training & development ts. Acquisition and implementation of software to support Health and Safety functions.
Customer Services	•	
Customer and Support Services	• Extension of Customer Service Delivery Channels • Extension of services available 24/7.	Improvements are aimed at increasing choice for customers in interactions with the Council through increasing service availability times This is aimed at e.g. Mobile Apps, Social Media presence, Interactive Booths as Service Points / Libraries.
Procurement	• Oracle EBS R12 Upgrade • Oracle EBS P2P Module Implementation	There is a significant challenge to improve the council's invoice payment performance and to provide benefit management information on purchases as well as supporting commitment accounting. Ensuring the corporate Financial Management System includes Purchasing Module integrated with Purchasing Systems is key

Department	Emerging Service Priorities	Initial Outline
Revs & Bens	• Landlords Portal and Integration	As a result of the recent Revenue & Benefits Service Review, opportunities have been identified to reduce costs incurred in relation to interaction with Private and Registered Social Landlords in respect of Housing Benefit. It is proposed that a web portal is developed that will allow Landlords access to information currently only available by direct contact with the Revenue & Benefits department or via postage of Housing Benefit payment information.
	• Electronic Council Tax	In addition, there is a requirement to implement functionality to allow annual & adhoc electronic billing of Council Tax in order to reduce current postal costs. The selected solution should also allow access for registered Citizens to their Council Tax Payment information via the Council Website.
Governance & Law	• Members Portal	There is a target to increase the transactions dealt with via the portal by 50 each quarter. Member usage uptake is increasing and positive feedback has been received.
.	• Possible Upgrade of Licensing Software / Software Roadmaps are created and kept up to date	The Licensing software used by G&L is stable and satisfies requirements although the upgrade path should be checked by ICT to ensure continued service.
Facility Services	• Mobile Capability for Property staff	Improved IT tools and mobile working along with corresponding staff training to fulfil duties, integrated with the Property management System;
	• Concerto Embedding – Project Management Module for Capital Monitoring (decommissioning of CAMIS)	The new Property management System supports a generic Project Management module for capital projects.
	• Expansion of technology into School Kitchens	Expoliting newer technology (equipment .system function and smartcards)

Department	Emerging Service Priorities	Initial Outline
	• Expansion of time logging to Janitorial & Cleaning staff	This removes the need for manual time recording and multiple entry of data.
	• Bulk Back Scanning as an enabler for Office Rationalisation.	Removing a significant storage requirement within offices.
ICT	• HEAT Replacement	HEAT is the Council's Service Desk System which is unlikely to support fully the ICT Service in its adoption of the ITIL Service Management framework.
	• Scotland Wide Area Network (SWAN)	Arrangements for wide area network following end of Pathfinder contract in March 2014, and work with HIE & Scottish Enterprise to ensure Argyll and Bute's requirements for broadband are reflected in next generation broadband projects.
	• Public Sector Network (PSN)	Acquiring and maintaining PSN accreditation

8   Governance

8.1   Role of the ICT Steering Board

The overall aim and role of the ICT Steering Board is to set the strategic direction for ICT for the Council and to make strategic decisions about ICT developments. The ICT Steering Board will oversee the prioritisation, development and delivery of the ICT capital work programme, ensuring the most appropriate deployment of funds and resources in support of the Council's corporate and service objectives. This extends to the assessment of outcomes and ensuring that expected benefits are delivered.

8.1.1   Responsibility for day-to-day ICT operational matters including its revenue budget and service plan delivery remains entirely with the ICT Service and will continue to be reported via Pyramid and through the Customer Services Departmental Management Team. However the responsibility for ensuring that the Council's future ICT needs are met as best as possible within agreed resources is a shared one, with input from all Council Services being essential in order to identify such future needs. The ICT Steering Board's primary objective is to ensure that these future needs are recognised and reflected within the ICT strategy and planned ICT developments.

8.1.2   In order to ensure that the most appropriate investment of resources in ICT developments, it is generally accepted that the following elements must all be considered:
- ICT Strategy – the vision for exploiting ICT in the future;
- Policies and Standards including those associated with technology selection and procurement, and acceptable use of ICT;
- Current and future levels of resources invested in ICT and satisfaction with ICT Service Delivery;
- Investment prioritisation and approval of development proposals – a key outcome for the ICT Developments workstream;
- Benefits realisation – assurance that investments have delivered the expected outcomes; and
- Investigation of Strategic Partnerships for ICT.

8.1.3   The ICT Steering Board will be responsible for developing and updating the ICT Strategy and monitoring progress against the agreed strategy; for approving ICT policies and standards; for approving development proposals based on business cases; for reviewing and assessing the adequacy and effectiveness of resources invested in ICT across the Council in the context of the agreed strategy and approved developments.

8.1.4   The ICT Steering Board will report to the Corporate Improvement Programme Board (CIB). The Chair of the ICT Steering Board is the Executive Director Customer Services who is a member of CIB and will report on progress to CIB on a regular basis as required by CIB. Board members will comprise the

Head of Service and Third Tier Manager responsible for the Council's ICT function, a Head of Service from each of the Council's Directorates plus Chief Executive's unit, and a representative from Strategic Finance with responsibility for the Council's capital programme. Also in attendance will be the ICT Projects and Liaison Manager and the 3 ICT Client Liaison Officers and an admin officer responsible for arranging meetings, taking minutes and issuing papers.

A sub group for reviewing ICT Strategy will be created and will report to the ICT Steering Board.
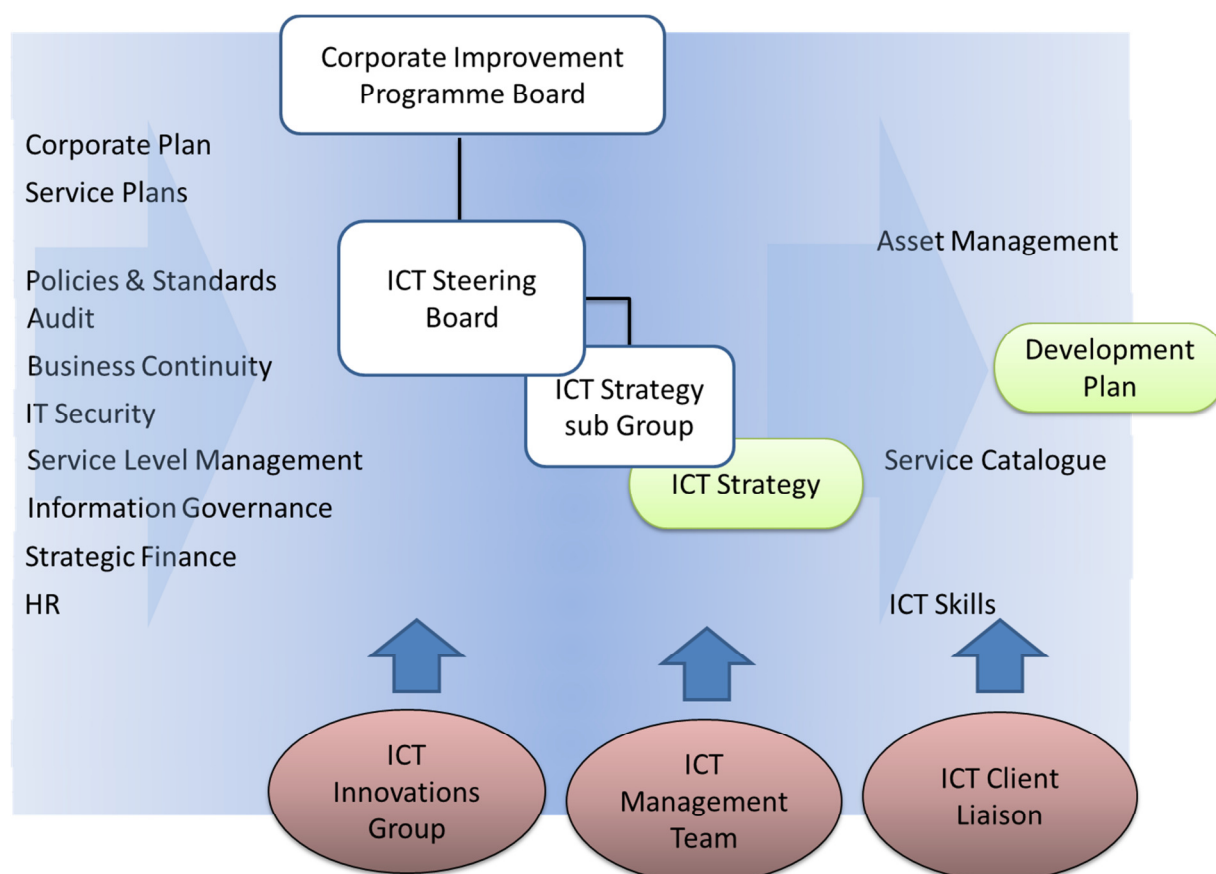
8.2   ICT Steering Board Member Responsibilities

- Attendance at ICT Steering Board meetings as scheduled;
- Create ICT Strategy sub-group which has specific responsibility for developing the ICT Strategy;
- Agreement of ICT Strategy;
- Agreement of ICT Development Framework;
- Consider Development Proposals for inclusion in ICT capital programme;
- Agreement, monitor and review of ICT Development Plan;
- Review of Benefit Realisation for completed projects;
- Approval of ICT policies and standards
- Review of ICT customer satisfaction levels

8.3   An Integrated ICT Strategy

The overall objective is that we build a corporate strategy that integrates ICT as an essential component rather than as at present presenting a separate ICT strategy after the corporate strategy. We aim to design systems that exploit employees' knowledge, building an information organisation with service plans that assume that ICT is fundamental to their success.

8.4   Responsibilities of the Strategic Management Team (SMT)

The SMT is responsible for understanding the broad possibilities in applying ICT to add value to the Council's services, focussing on the total business process and not on current organisational structures and methods, thereby creating an environment where ICT initiatives can be successfully implemented. They are also responsible for supporting ICT activity with the right level of funds and resources. ICT should always be on the agenda of the Strategic Management Team, Members, Directors and Heads of Service should regularly attend seminars etc. on ICT opportunities with ICT shaping new objectives.

8.5   Responsibilities of Members

Members have a responsibility to approve the ICT strategy for the Council. The ICT Service will actively engage with Members through Members Services to support Members' own IT needs, and will hold regular meetings with the lead councillor for Customer & Support Services (the service within which ICT is located) to ensure that Members support the ICT Steering Board in taking forward the development of emerging service policy issues, and in the promotion and awareness of ICT strategies, achievements and constraints. The ICT services will support the lead councillor to report back to the Council on these matters and to be an ambassador for the service both locally and nationally.

9   Resourcing

Argyll and Bute Council has a centralised ICT function providing a full range of support services to all corporate and primary school users and services. In addition the service provides all infrastructure and key application support services for secondary schools. ICT operates from three main centres in Kilmory, Helensburgh and Campbeltown and also has a number of key frontline support staff based in Oban and Dunoon.

9.1   ICT Structure

The ICT function now operates as one central service with four distinct areas of responsibility:

- ICT Projects and Liaison (8 FTE) – Procurement (specification and tendering) of new systems, and project management of their implementation and testing. Input to ICT Strategy. Leads the establishment of the IT Capital Programme. ICT Client Liaison team
- Production (26 FTE) - desktop support to all corporate and primary school users, Corporate print facilities, Unix Server Support
- Networks and Servers (14.5 FTE + 2 Temp) - provision and maintenance of application servers, file and print servers, Microsoft domain, voice and data network connections, network security, telephone switches, administration of Azzurri billing and Vodafone bills, Provision of Shared IT Services to ACHA under contractual agreement.
- ICT Applications (7 FTE) – first line support of applications, installation and testing of software upgrades and new releases, interfaces between applications. Shared IT Services to ACHA under contractual agreement.
- Management & Support – 2 FTE

9.2   Server and Data Infrastructure

The service operates from three data centres in Kilmory, Helensburgh and Campbeltown with the latter soon to be transferred to Helensburgh. These centres host a consolidated and virtualised server environment designed to offer rapid server and storage commissioning as part of our move to a dynamic infrastructure. The service supports over 4,000 users, 7,500 pupils, and supports over 7,600 devices over 234 locations with a total cost of function in 2012/13 of £3.4m (incl capital charges). This equates to 1.6% of the council's total revenue budget. Unlike the rest of support services, a significant part of the budget (c £1.3m) is for externally provided supplies and services.

9.3   Network and Communications Infrastructure

The Council is a senior partner in the Pathfinder North network, and, until 2014, will continue to benefit from significant Government investment in our converged voice and data network. All schools, libraries and major offices are connected via a state of the art high capacity broadband network from Vodafone which allows ICT to deliver the very latest corporate and educational technologies. The Council benefits via cheap landline and mobile telephony costs, high speed application and communication access in schools and offices, federation with external partners via

the new unified communications system, and a secure, robust and highly available server and application service. The Scottish Government subsidised the cost of the network over the initial 7 year term but has withdrawn the subsidy from 2014. The Council, alongside other Pathfinder partners, will transition to the new Scottish Wide Area Network (SWAN) for public bodies but the new network is not expected to be available until 2016. The new SWAN network will take advantage of significant investments in Next Generation Broadband and will offer more affordable broadband services than currently available. In the meantime the Pathfinder North partners have agreed a two year extension to the Vodafone contract but the costs have increased significantly due to the withdrawal of the Government subsidy. The Council has recognised the additional cost pressure and agreed to set aside £1.1m in 2014 to help fund the contract extension.

9.4   Specialist Business Systems

Specialised systems are provided mostly through the procurement and local installation of packaged applications on a commercial basis. There is no in-house capacity for the development of large bespoke systems. Subsequent operational support and upgrade of these packaged systems is delivered through a small internal support team working with users and making use of maintenance contracts with suppliers (in many cases the originators of the deployed packages). Recognising the need for small scale developments to supplement existing business applications, a small ICT Developments Team has been created.

The ICT Steering Board has responsibility for assessing ICT development proposals using agreed criteria and methods outlined within the ICT Developments Framework. The ICT Steering Board has responsibility in agreeing the progress of ICT developments and allocation of resources on a business case basis.

9.5   Flexible Working

Recently ICT as a whole has been active in identifying and deploying a range of generic and specialised technologies to support the Council's adoption of new internal workstyles and means of engagement with its customers. LYNC, our new unified communications platform has been a key enabler for more efficient and effective communications internally, supporting presence and video conferencing facilities along with a range of capabilities for collaborative working. This has introduced a revolutionary level of flexibility for staff in such a geographically widespread organisation. The extension of the wireless network linked to the new flexible working regime and facilities in the Council has also contributed to the success and uptake of more flexible working practice.

9.6   Benchmarking

ICT is regularly benchmarked against other Local Authorities via the National and Scottish SOCITM benchmarking services and regularly compares favourably with similar authorities in terms of cost, quality, and the effectiveness of the services delivered. Of all participating public organisations in Scotland, Argyll and Bute Council regularly emerges close to the bottom of the cost i.e. low cost. In terms of

quality, and despite the low cost of ICT service sin comparison in comparison with the majority of other participants, the Council regularly appears mid way in most service delivery measures, is considerably above average in procurement measures and only falls short in services that are directly impacted by our geographical remoteness. The Scottish SOCITM benchmarking club was highlighted by John McClelland in his review of ICT infrastructure in the public sector in Scotland, as an exemplar model to be followed by all public sector organisations. Argyll and Bute Council have been an early adopter of ICT benchmarking via the UK Benchmarking service and became a founding member of the Scottish SOCITM benchmarking club.

9.7   Service Provider to ACHA

The ICT service is in the final year of a 3 year IT services contract supplied to ACHA with an option to extend for a further 2 years currently under negotiation. The contract is worth c £1.7m over the contract period.

9.8   IT Service Management

The Service is seeking to establish a formal IT Service Management (ITSM) methodology in order to ensure that all aspects of IT service delivery are aligned to supporting the business needs of the Council's Service Departments. We have selected the Information Technology Infrastructure Management Library (ITIL) methodology which was developed by the UK Government's OGC and is in its current 3rd version, ITIL V3. The adoption of ITIL V3 will ensure that all IT services provided by the business unit are appropriately aligned to the Council's needs in support of its stated goals and visions.

9.9   ICT Capital Programme

There is an on-going capital programme to invest in improved IT infrastructure and new applications to support new or changing business needs. This includes a managed programme for the replacement of PCs, Education domain extension in schools, further adoption of GLOW, establishment of successor to Pathfinder network, new property management system, further development of GIS, development of Social Work systems, and response to increasing requirements for more formal records management. The ICT Steering Board will oversee the prioritisation, development and delivery of the ICT capital work programme, ensuring the most appropriate deployment of funds and resources in support of the Council's corporate and service objectives. This extends to the assessment of outcomes and ensuring that expected benefits are delivered.

ARGYLL AND BUTE COUNCIL ICT 2013 – 16 CAPITAL PLAN			
Head of Customer and Support Services	**2013-14 £000's**	**2014-15 £000's**	**2015-16 £000's**
Asset Sustainability			
Telecomms Network	54	55	55
Computer Network Security	119	50	50
MS Exchange & Doc Sharing	62	25	25
Internet / Online Access	123	76	50
Voice over IP	145	50	50
Corporate GIS Portal Rollout	39	69	44
Video Conferencing	53	35	24
IT Education	431	195	195
PC Replacement	924	850	850
Planning Scanners Replacement	12		
Server Capacity Growth		80	80
	1,962	**1,485**	**1,410**
Service Development			
IT Enablement Process for Change	150	237	
Applications Projects	307	311	195
Flexi System HRS Integration	38		
Property management System	18		
Mobile Working	11		
Server Replacement	99		
Education Domain Extension	156		
	779	**548**	**195**
TOTAL	**2,741**	**2,033**	**1,605**

10   Conclusions

By committing to the adoption of the four strategic principles and six strategic capabilities outlined in Section 3 of this strategy, we will ensure we are in the best possible position to deliver IT Services that are high quality, continually improving, efficient, and responsive. At the same time we will be best placed to take advantage of innovative opportunities, we will plan and procure more efficiently, we will share future developments and operations where the benefits to the Council are clear and, above all we will deliver better services for the staff, customers, partners, and the people of Argyll and Bute.

10.1   ICT Strategy Actions

The actions associated with the adoption of the principles and capabilities are outlined in Section 3. There is a large body of work required to meet the national standards. The ICT Steering Board will monitor the Council's progress against each target. In addition the strategy identifies a number of local priorities we must pursue over the coming three years. These priorities have led to an additional set of actions which need to be addressed and will contribute to the Council's objective to be a forward looking and ambitious organisation. The priorities in the table below are cross referenced to the paragraph where they have been identified.

|	ICT Strategy Actions	
	Priority	**Action**
1	Cloud Computing (see para 4.1.2)	The Council expects to start to transition to Cloud based services over the next 3 years and the local data centre capacity growth rates will lessen as a result. It is unlikely that we will undertake another full scale refresh of the consolidated server environment and will more likely transition to cloud based provision in the medium term.
2	BYOD (see para 4.2.3)	We will continue to explore BYOD and will support this facility where it does not compromise the security of the council's IT systems and our accreditation to the Public Sector Network Code of Connection, and where it is cost-effective for the council without creating undue demands for specialist support. Initially this is restricted to providing guest access to the Internet, but we will actively explore opportunities for extending this.
3	Mobile Networks (see para 4.2.4)	We will continue to push the mobile telephony companies to improve the quality of the mobile networks across the region and will work with the two Next Generation Broadband projects to ensure

	ICT Strategy Actions	
	Priority	**Action**
		high speed broadband services are available as widely as possible.
4	Mobile Services (see para 4.2.6)	We will use the mobile integration package from NDL to integrate existing business applications and extend them to field workers – the challenge for the ICT Service is to deliver such integration quickly, simply and cost effectively and in readiness for the new network upgrades appearing through 2014/15
5	Reuse and Share (see para 4.3.1)	When considering major new developments, upgrades, or replacements, we will work with other public sector partners and look first to reuse or share – this will very much depend on all system, network and environmental conditions being in place to support any sharing partnerships. In addition the Council will offer and consider further sharing and marketing opportunities with Community Planning and other partners.
6	Open Source (see para 4.3.3)	The council will explore further opportunities on Open Source systems through its Innovation sub-group. It is unlikely that we will move to Open source office products within the next 3 years or so, but we will continue to actively monitor other open source opportunities.
7	Big Data (see para 4.4.2)	We will concentrate on areas such as a master customer database, building a single consolidated view of a household across council systems and the separate Information Management project as first steps towards Big Data.
8	Information Management (see para 4.4.4)	We will deliver a vision and strategy for Information Management improvements across Council services which will then ensure the IM initiative will contribute significantly to the Council's application procurement portfolio over the next three years.
9	Customer Contact (see para 4.4.5)	We will expand on the range of services available via the Contact Centre
10	Identity Assurance (see para 5.1.1)	The Council will adopt the new national Identity Strategy when it becomes available and deploy or

	ICT Strategy Actions	
	Priority	**Action**
		upgrade applications within a framework that gives assurances around user authentication.
11	ITIL (see para 9.8)	The ICT Service will adopt ITIL V3 to ensure that all IT services provided by the business unit are appropriately aligned to the Council's needs in support of its stated goals and visions.
12	ICT Security (see para 2.2.14)	We will maintain information security policies and procedures in recognition of outcomes from annual internal and external security audit assessments. Our obligations in participating in the Public Service Network (PSN), dictate that we undertake annual security health checks and maintain appropriate security policies including Acceptable Use and Lockdown policies.
13	Business Process Re-engineering (see para 3.2)	ICT has an important role in supporting services in the review of business processes where technology could enable improvements.

APPENDIX 1 - Architectural Framework – Current Maturity Assessment

1   <u>Architectural Framework</u>

A proposed model of Architectural tiers or services is depicted in the following diagram.
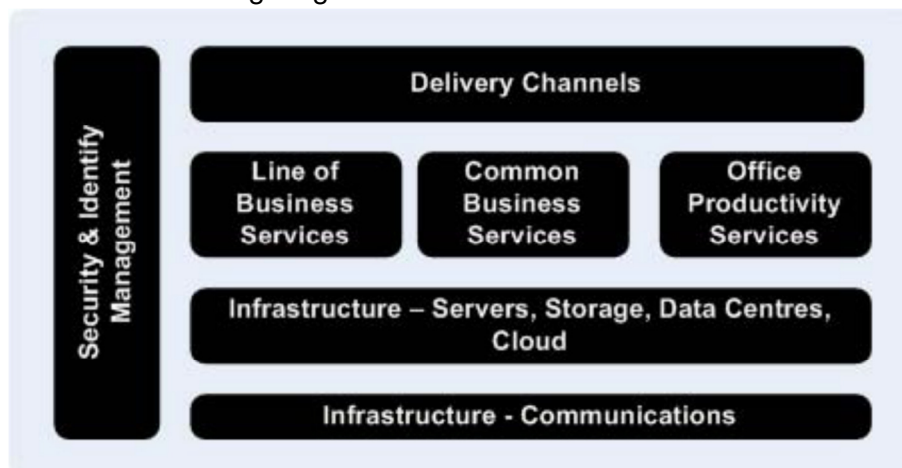
Each of the components is explained in the following text and later expanded to describe to support their measurement against a baseline 'Ideal Organisation'.
A model to assess the current maturity or adoption of the architectural principles, assessed against each tier above is therefore presented. It's recommended that this assessment should be carried out on 3 aspects as follows:

Current   As-is assessment of the architecture.
Planned   Funded and in-flight projects. It's recommended that these 2 are re-evaluated at least annually.
Strategic   Assessment of where that organisation wants to be, taking into account that each organisation will by their own uniqueness be limited to where on the maturity model their optimum level of adoption will reside.

1.1 <u>Infrastructure – Communications</u>

All public sector locations and establishments require some form of IT (data) and/or telephony (voice) service. There is already a national level procurement in progress (SWAN) to support rationalisation and convergence of multiple network services into a single, unified service portfolio.

• Is your organisation using communications procured under shared Public Sector frameworks?

A&B Response: Yes we are already partners in the SWAN Vanguard and will transition to the SWAN network in 2016. Existing communications have been procured under the shared Pathfinder North contract or the national communications frameworks.

- Are all parts of your network accredited to a particular standard of Public Sector Network (CoCo).

  A&B Response: No. The network is split into three virtual private networks – Corporate, Education and Public. In line with CoCo guidelines the Corporate Network is accredited to the GSx CoCo standard and is in the process of reaching the CoCo PSN standard but the Education and Public networks were not required to reach the same standards. While improvements will be made to the Education network through the Domain Extension project and information security will improve, the Education strategic aim to allow external devices to access the network will limit the likelihood of subsequent accreditation.

- Do your offices and data centres have resilient communications links (i.e. multiple routes)?

  A&B Response: No but the Pathfinder Network has been designed to incorporate resiliency at strategic points around the network. The SWAN Vanguard project includes multiple secondary route options which will be applied to data centres.

- Do you offer video conferencing/VOIP on your network?

  A&B Response: Yes but we have moved beyond VOIP and offer Unified Communications. The Lifesize Video Conferencing network has been migrated to use higher quality IP connections and HD cameras. We also operate two Virtual Meeting rooms for multi-point conferencing. Microsoft Lync has been deployed for corporate staff and we are working on integrating Lync and Presence within the VC network.

1.2 Infrastructure - Servers, Storage, Data Centres and Cloud

The deployment of physical IT assets has evolved dramatically in recent years. Critical business applications, for example ones which impact the safety of the public or employees, require high availability which can best be delivered through modern data centres. Where practical organisations should host IT assets in locations geographically separated from their employees.

- Are your servers hosted in your offices or in a shared data centre?

  A&B Response: They are hosted in dual data centres located in Lochgilphead and Helensburgh which also host shared services for ACHA. These data centres have recently been refurbished to the highest standards and, later in 2013, we will move to a new "live – live" load balanced model across both centres where each provides a full Disaster Recovery(DR) facility for the other.

- What proportions of your servers are hosted on virtualised infrastructure?

  A&B Response: 90%.

- Do you perform DR testing every 6 months?

  A&B Response: *Yes the Council's new DR test plan selects two Applications for separate DR tests per annum.*

  (Internal Note: We have to complete 2 servers per year as an auditable requirement but do have plans for a much higher number to be tested once we have the Helensburgh server room).

1.3 Security and Identity Management

Security needs to be central to how modern business operate. Within the public sector specifically, there is a need to:
- support the concept of "The Citizen" nationally, across sectors and locally;
- share information more readily (e.g. within the health social services and criminal justice domains);
- enable public or citizen access to an increasingly diverse service base in a uniform and consistent manner.

Common security and ID management processes, services and tools are essential elements of the architecture to enable all of these aspirations.

- Do all your users access your systems using a logon ID that can be used across the public sector by using an ID or multiple IDs that are local to you organisations?

  A&B Response: The National Citizen's account has not yet delivered this functionality. *We will adopt the national authentication services when these become available but in the meantime will continue to use the self-service portal supported through the Lagan CRM system*

- Do you carry out penetration testing on your applications annually?

  A&B Response: *Yes we carry out two penetration tests each year*

- Do you have an external web site?

  A&B Response: *Yes*

- Do you offer any services via your web site to external organisations or the public?

  A&B Response: *Yes we offer a range of customer services via the website including payment based transactions.*

- Do you support logon credentials for members of the public? Are they supportive of the citizen account?

A&B Response: We offer logon credentials for members of the public where they are required for transactional purposes. We will be supportive of the citizen's account when the national authentication services become available.

1.4 Standard Office Productivity Applications

Standard applications like Word, Excel and email are widely prevalent in the user community today. Their interoperability and incorporation of new 'standard applications' perhaps such as those emerging social media platforms are vastly common across the Scottish Public Sector. Where there is a perceived unique requirement in this tier, this should be considered the exception rather than the rule.

• Do your employees use a common, shared office platform?

    A&B Response: Yes we use a common Microsoft Office platform.

• Do you procure your applications on a per usage or per seat basis (SAAS – Software as a Service)?

    A&B Response: we procure via the national Microsoft Enterprise Agreement on a per seat basis.

1.5 Common Business Services

Currently most public Sector bodies operate as largely independent businesses with their own employment processes, payroll, etc. Therefore there are a number of business services, payroll, HR, etc. which are similar in their application. As noted in the national and draft sectorial strategies it is expected that there are significant opportunities to standardise and re-use across these services.

• Do you support HR, Finance, and Procurement operations from a shared platform?

    A&B Response: Yes we use PECOS and PCS tender on a shared platform for procurement, but we operate our own instance of Resourcelink for HR and Payroll, and Oracle Financials for Accounting.

• Are your HR, Accounting or Procurement systems purchased through a central agreement?

    A&B Response: Yes PECOS is provided as part of the national agreement. The Oracle licensing was purchased via the previous national Oracle licensing agreement but we are disappointed that the Oracle ULA has recently been ended. Resourcelink was purchased after an EU procurement process.

• Do you have a SAAS model for obtaining these services?
    A&B Response: No

1.6 <u>LOB Applications</u>

Line Of Business Applications are by definition, specific to the agency/public body which requires them. In a number of cases they may be bespoke applications. However, even at this level, there will be opportunities to share data, or perhaps compromise on process to allow for standardisation of applications.

- Are you sharing data with other Public Sector bodies (in or out)?

   A&B Response: *Yes – both in and out with ACHA and DWP.*

- Is your data sharing interactive or batch driven?

   A&B Response: *Batch driven.*