



# ICT Strategy 2011 - 2012

## ICT Strategy 2011-12

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## 1. Summary

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An ICT strategy is a key success factor for a modern organisation. This strategy summarises how the ICT Strategy team, ICT Shared Service and partners contribute to the success of Cheshire East. The strategy is based on three key principles:

- To transform services through prudent investment in technology
- To drive costs down
- To work with partners in ways which maintain Cheshire East's freedom to innovate and act, while at the same time achieving the benefits of economies of scale and understanding of industry good practice that come from sharing services

An ICT Strategy ensures that everyone who needs to be is aware of the vital importance of ICT to the achievement of business objectives. At the end of the strategy there is a glossary which explains acronyms and technical terms.

## 2. Business Context

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Cheshire East has broken new ground in using Information and Communications Technology (ICT) to improve processes and much more importantly, it can bring about improvements for citizens in their daily lives. It used to be said that ICT is a key enabler of local authority services. Now it is more than that – it is at the heart of everything the council does.

The ASPIRE core values of the Council are embedded in our approach to the delivery of ICT services. For example, we:

- Take **action**, by implementing new technology to support new, lean business processes
- **Support** clear and effective communication with service users using the internet and phones
- Put **people** at the heart of what we do by engaging directly with citizens and providing ICT services to the community
- Demonstrate **integrity** in our dealings with our staff, as we rationalise arrangements for the delivery of ICT
- **Recognise** the contribution that investment in ICT makes to the achievement of corporate objectives
- Draw on industry best practise to deliver **excellent** ICT solutions in response to customer requirements.

Every service Cheshire East provides, benefits from the innovative approach to ICT, to which Cheshire East is committed. This includes the development of partnerships with other organisations ranging from our immediate geographical neighbours such

as Cheshire West and Chester, through partners in service delivery such as the NHS, Police and Fire, to partnerships with the voluntary and private sectors.

Environmental considerations are at the forefront of the Council's approach to ICT, reducing carbon footprint assisting in the delivery of the Council's policy on the environment and to drive down costs, achieving both objectives through measures such as investing in the Council's ICT estate to reduce electricity usage.

## **The local agenda**

Localism values the unique local features which give strength to a community. This ranges from local culture to local enterprises, especially in the agricultural and food industries. Cheshire East is an area of contrasts, from remote sparsely populated areas, to major townships. The local agenda is a concept with a long provenance that has received broad support over many years from a wide variety of political opinion. However, too often in the past the financial argument of economies of scale has meant that the specific needs of local communities have not been reflected in local, national and regional policies.

***Digital communications and superfast broadband, which can reach and empower local communities, is a technology which can change that. For the first time we can reflect local needs, drive costs down and remove the digital divide which exists between urban and rural areas***

Cheshire East is working with BDUK, local communities and partners in all sectors of the economy to bring affordable high capacity digital communications to all the citizens of Cheshire East. This will embrace not only existing technologies such as smart meters and broadband over power lines using fibre optic cable, copper telephone line and wireless, but will also explore new technologies to increase the capacity and coverage to citizens and businesses. Furthering the local agenda achieves some of the other objectives set by Cheshire East, for example the economic development of local businesses in rural areas by affordable digital communications.

To underpin multi agency, collaborative working (endorsed by Government agenda and specifically with respect to Health and Public Health) the vision is to create a ubiquitous Public Service Network (PSN) infrastructure across the Cheshire sub-region for all public sector bodies that is cost sustainable, secure, compliant, resilient, scalable and future proof.

## **3. ICT Contribution to business success**

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Appropriate and cost-effective use of ICT is essential to the success of any local authority. Effectively without this the Council does not exist as far as a majority of citizens are concerned.

There are many services which become dramatically better and cheaper with the effective application of technology. These range from registering a birth, through to arranging a funeral and encompass a huge range of other services which impact on the daily lives of citizens.

The Cheshire East website is one of the key means by which the public transacts with the Council. This high quality website has been recognised by SOCITM, and has been awarded three star status.

Cheshire East is committed to prudent and cost effective financial management and the only way that this can be achieved is through investment in technology. Cheshire East will, at the same time, be proactive in seeking out investments in technology that will benefit the citizen.

National strategies and initiatives which will be driven by technology include:

- Superfast Broadband Britain: 2011
- Treasury National Infrastructure Plan: 2011
- Government ICT Strategy 2011
- Our health, our care, our say: a new direction for community services (white paper)
- Children Act 2004
- Every Child Matters
- Harnessing Technology and Next Generation Learning
- Connecting the UK: the Digital Strategy
- Transformational Government Enabled by Technology
- Service Transformation: A better service for citizens and businesses, a better deal for the taxpayer, electronic data sharing between professions, citizen access to electronic records, modern methods of accessing services/choice of channels, access to broadband for citizens and businesses.

Of crucial importance is the Council's belief in electronically enabling every citizen through broadband technologies. These will include the more familiar means of communication such as DSL technology, but will embrace new technologies such as ethernet over power lines which use the existing electricity distribution infrastructure to bring high capacity broadband into all homes with mains electricity. This new technology has the power to dramatically reduce power consumption not only of the Council itself – but, much more importantly, for local communities in their entirety. Because it achieves much more effective capacity planning, it reduces the need for power generation.

So vital is digital communications that a new emphasis will be placed on business continuity through the development of innovative ways of providing data centre services which locate processing and data storage simultaneously in more than one geographical location to safeguard against service outage.

To contain the cost within what can be afforded; this will be done through partnerships with other organisations. Potential partners will be chosen from the public, private and voluntary sectors.

## 4. ICT principles

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- ICT services are aligned with the organisational development and business transformation agenda
- We deliver value for money by sharing services and costs with partners
- Our contribution to business change initiatives is achieved through alignment with a corporate project and programme management methodologies
- Technology is selected and deployed in a way that reflects the environmental agenda and thereby ensures environmental sustainability as well as driving down running costs
- We provide a single point of contact
- ICT services are integrated with mobile/flexible working initiatives
- Service delivery is client-focused, offering local training and support
- We provide a timely response to problems
- Service metrics are integrated with corporate performance management processes
- Technology is used to enable the corporate policy to centralise common business processes and comply with government standards
- Technology is used to standardise, streamline, automate and optimise business processes across organisational units
- We design systems and processes so that data entered once is applied many times thereby significantly reducing manual handling
- We continue the consolidation and optimisation of the underlying infrastructure, supporting ICT and delivery business processes to achieve efficiency savings
- We continue to identify best practice in the marketplace and strive to optimise to best of breed performance standards
- We will create capacity to develop and expand services to include additional partners and customers

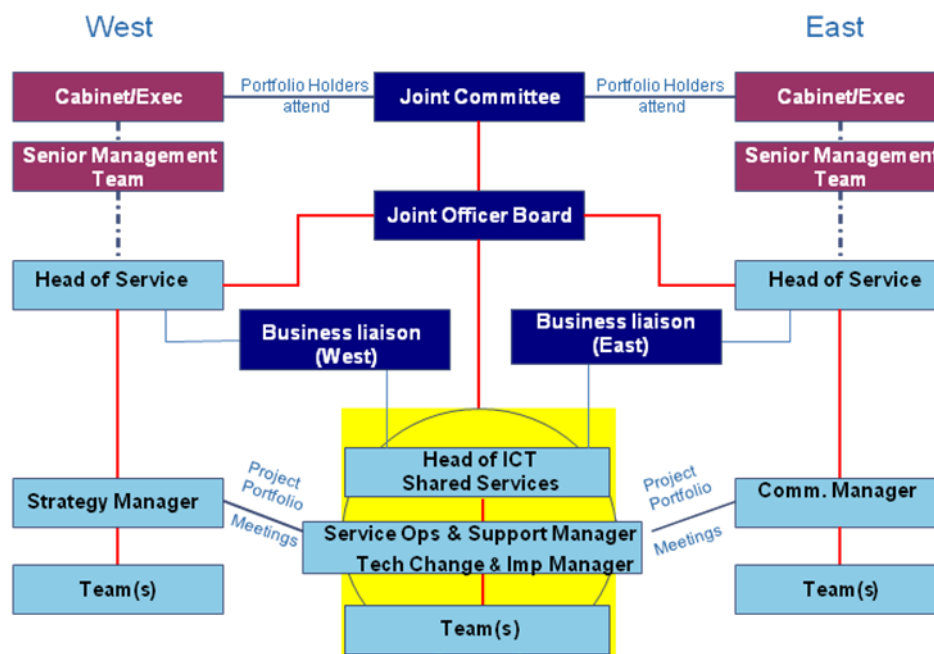
## 5. ICT governance

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Cheshire East is committed to the concept of shared ICT services across and beyond the public sector. Schools are already an important component of this shared service. An ICT Shared Service has been developed with, and hosted by, Cheshire West and Chester.

The diagram below illustrates the current governance arrangements for ICT Shared Services:

## Cheshire ICT Shared Service Governance Structure

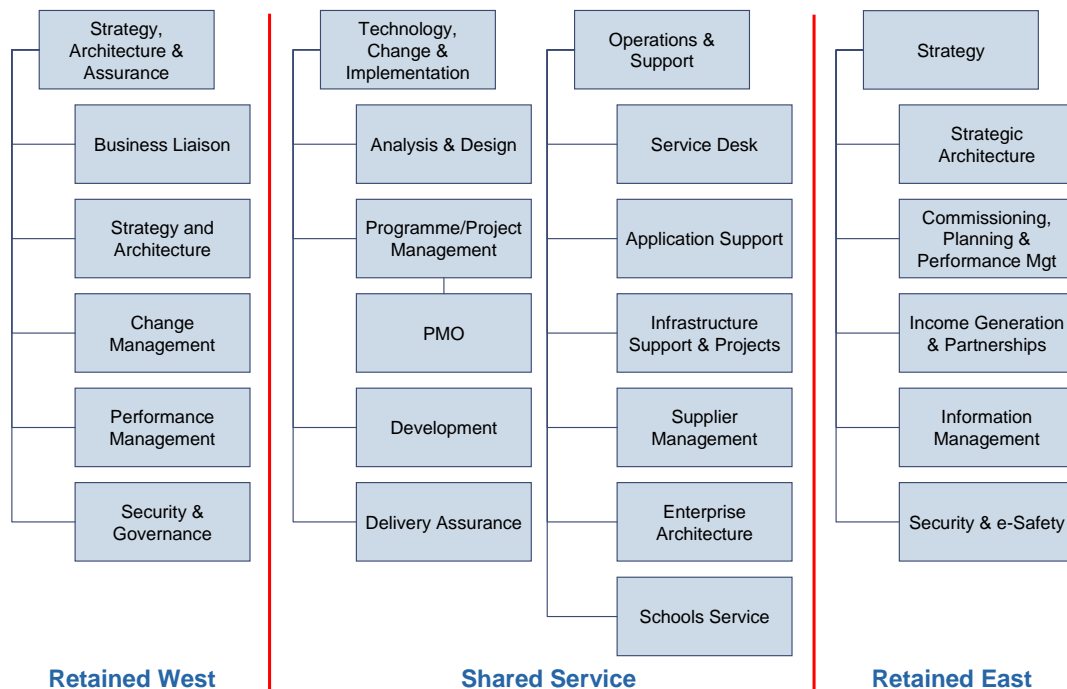


The two main bodies that formally govern all shared services are:

**Joint Committee (JC).** This is a formal governance body, consisting of members from each client, with constitutional powers delegated from each authority so is, effectively the ultimate power for these services and all shared services are accountable to the JC. This committee mirrors the role of shareholders in a business, i.e. they are investing the resources of the two Councils to get a return on their decision to share, through a more efficient and effective set of services; and

**Joint Officer Board (JOB).** ICT Shared Services is accountable to a formal JOB which is chaired jointly by the section 151 officers of both councils. The JOB's role mirrors that of a board of directors and oversees business strategy and planning, operational and financial performance, issue management and transformation.

The diagram below shows the structures of the Cheshire East, Cheshire West and Chester and the ICT Shared Service organisations:



The current ICT shared service arrangements have had to be developed from scratch. This has taken time and is a maturing model, with all parties learning and adapting as we go.

The main purpose of the ICT Shared Service is to develop, operate and deliver a cost-effective, quality and efficient ICT service, reducing costs through the introduction of lower cost technology while enabling each authority to pursue their transformation agendas and introduce fundamental business change. In order to drive efficiency and further progress the collaborative working agenda, the ICT Shared Service will actively identify opportunities for implementing common and shared applications and infrastructure between the two authorities. The shared service promotes a single infrastructure that is flexible enough to meet the needs of both CE and CWAC.

For equipment, the scope of the shared service can be summarised as:

- Procure, install, maintain and operate ICT-related assets and equipment at data centres and other agreed core processing locations, including servers and related ICT equipment;



- Procure, install, maintain and operate a data and voice network, including Wide Area Network (WAN) and Local Area Networks (LANs) at each site along with remote access functionality; and
- Procure, install, maintain and operate ICT-related desktop assets including desktops and/or portable computing equipment, telephony equipment and other agreed peripheral equipment.

Once commissioned by ICT Strategy; for ICT project and development services, the scope of the shared service can be summarised as follows:

- Provide resources to undertake research, requirements analysis, systems analysis, and develop requirements, design and test specifications;
- Provide programme and project management specialist skills, using standard programme and project management methodologies based on good practice and industry standards;
- Provide development and configuration resources for new infrastructure and applications; and
- Undertake robust and coordinated assurance of business solutions to ensure that testing is robust and fit for purpose and that systems are accepted by users.

For support services, the scope of the shared service can be summarised as follows (including other external organisations and schools, in accordance with agreed service levels and funding arrangements):

- Provide support for, and attempting to resolve, issues and problems, including issues associated with ICT and telephony equipment, applications and information maximising ICT Service Continuity
- Handle requests for additional, replacement or disposal of ICT and telephony related assets and equipment, in accordance with agreed approval and budget arrangements;
- Maintain technical documentation;
- Manage joint ICT-related suppliers, contracts and licences, as commissioned, by the ICT Strategy team.

Generally the ICT Shared Service will adhere to all legal and statutory obligations, including operating to recognised standards, supported by certification of industry bodies as required by the client authorities and maintaining the appropriate level of security for data and ICT equipment as documented in the ICT security policies developed by each authority.

These sharing arrangements have been in place and operational for 2 years. During this time significant work has been done to address corporate ICT issues, such as finance and procurement protocols and manage a large programme of work required to disaggregate transitional shared services and drive changes through shared services to reduce costs and increase efficiency to benefit all involved.

At the Shared Services Joint Committee on 31st March 2010, Members recognised the achievements of the ICT Shared Service over the first year of operation; through a period of great transition and upheaval for both Cheshire East and Cheshire West and Chester councils and confirmed their ongoing commitment to these arrangements. Looking to the future, however, it was agreed that, in principle, ICT Shared Services should form a separate legal entity to the Councils which would allow ICT to adopt a more commercial approach to service delivery. ICT Strategy will work with ICT Shared Services (and others) to develop the new entity; and ensure its successful implementation by September 2012.

## 6. ICT financial management

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The adoption of a sound financial model for ICT services is as important as the choice of the right technology. A key objective over the 2011/12 financial year is to simplify this picture and streamline the financial management of ICT.

The ICT service currently relies on revenue and capital from a number of different sources in order to run services and deliver its programme of work.

The permanent resources for the central ICT services are funded by:

- Base budget
- Charges to schools
- Staff recharges to capital
- Other recharges to services

Two thirds of revenue is spent on staffing costs. Not all permanent employees are funded from revenue. Instead, they are recharged to the capital programme. An annual capital programme of approximately £900k is required to provide sufficient funding for all these staff.

Capital costs are funded by capital reserves, unsupported prudential borrowings and grants. The use of the capital reserve to fund significant new ICT investment is probably not sustainable over the medium term. As a result, the use of unsupported borrowings is likely to increase. This has a revenue impact.

In addition to ICT Strategy, many individual Services hold significant budgets covering licences, maintenance contracts and staffing. We continue to exploit opportunities for consolidating these budgets.

## 7. ICT infrastructure strategic direction

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The technical strategy for Information Technology should meet the following principles:

- Cost effective and value for money (including total cost of ownership)
- Environmentally friendly
- Manageable
- Agile
- Innovative
- Scalable
- Sustainable
- Secure
- Resilient Interoperability including standardisation
- Maximise use of resources

Generally ICT Strategy will try to select the most suitable, widespread and / or the de-facto industry standard products. Harmonisation of the standards from the legacy councils will be continued to ensure that there is common functionality to maximise continuity, good practice and lower support costs.

## 8. ICT services and processes

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Cheshire East, in conjunction with partners, adopts a flexible approach to the use of international standards and methodologies. We avoid a bureaucratic approach and use simple processes with clear documentation. Where it is beneficial we will obtain accreditation for our processes. ICT Strategy is looking to achieve ISO 38500.

Cheshire East ICT Strategy has worked with the ICT Shared Service's Service Improvement Group to ensure that national best practice is adopted in project and programme management, using PRINCE2 to manage projects and MSP to manage programmes. ITIL is used to support the management of ICT services. A Technical Design Authority and Change Advisory Board are operating to ensure that new systems can interoperate with existing technology and that they conform to the Council's standards.

An internal Quality Management System is operated and has been accredited through ISO 9000 within the ICT Shared Service. Cheshire East ICT Strategy is keen to work with ICT Shared Services to adopt ISO 20000 standards in relation to the Service Catalogue.

ICT services and processes will also be judged against the Council's green agenda.

Subscriptions to representative bodies will be maintained where these give good value. These will be limited in number to ensure focus on benefits. They will include NWeGG and the Gartner Group.

## 9. ICT application portfolio

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Business applications are integrated into the front-line business processes and are essential for everything the Council does. The current application infrastructure encompasses both shared and CEC specific systems, support tools and common technical services inherited from the four predecessor authorities.

The application portfolio has evolved through the implementation of bespoke systems, packages and self service applications. These have different life spans, support requirements and business continuity capabilities.

There have been significant opportunities for the consolidation and convergence of systems over the past year. These continue to be exploited to drive out economies of scale and improve operation and support.

Partnerships with other agencies are being explored to strengthen delivery and maximise agility and flexibility.

We have developed and will maintain roadmaps for business applications, designed to support the business processes of the authority. These plans are aligned with the IT infrastructure principles described in section 5 and also address:

- business application harmonisation requirements
- environmental considerations
- business continuity requirements
- the demands of a mobile workforce
- growing data volumes within a national data sharing context
- the need for flexibility to support an agile business

## 10. ICT infrastructure

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The existing ICT infrastructure consists of the following layers:

A Wide Area Network, which has capacity to meet the current needs of Cheshire East, its present partner Cheshire West and Chester, and other potential partners such as the Fire Service, for some years to come. It will require ongoing investment to introduce network segmentation and access control technologies in order to achieve a consolidated and fully converged network. A strategic review will be undertaken in 2011 to ensure the wide area network will support future business requirements and strategic aims and objectives.

Cheshire East inherited three data centres which are wholly owned and used exclusively by Cheshire East (Macclesfield Town Hall, Sandbach and Crewe). It also shares the use of other data centres with Cheshire West and Chester (Backford Hall, Minerva Avenue and Chester Town Hall). This mixed estate of data centres presents a clear opportunity to reduce ongoing costs and to improve resilience through rationalisation and harmonisation.

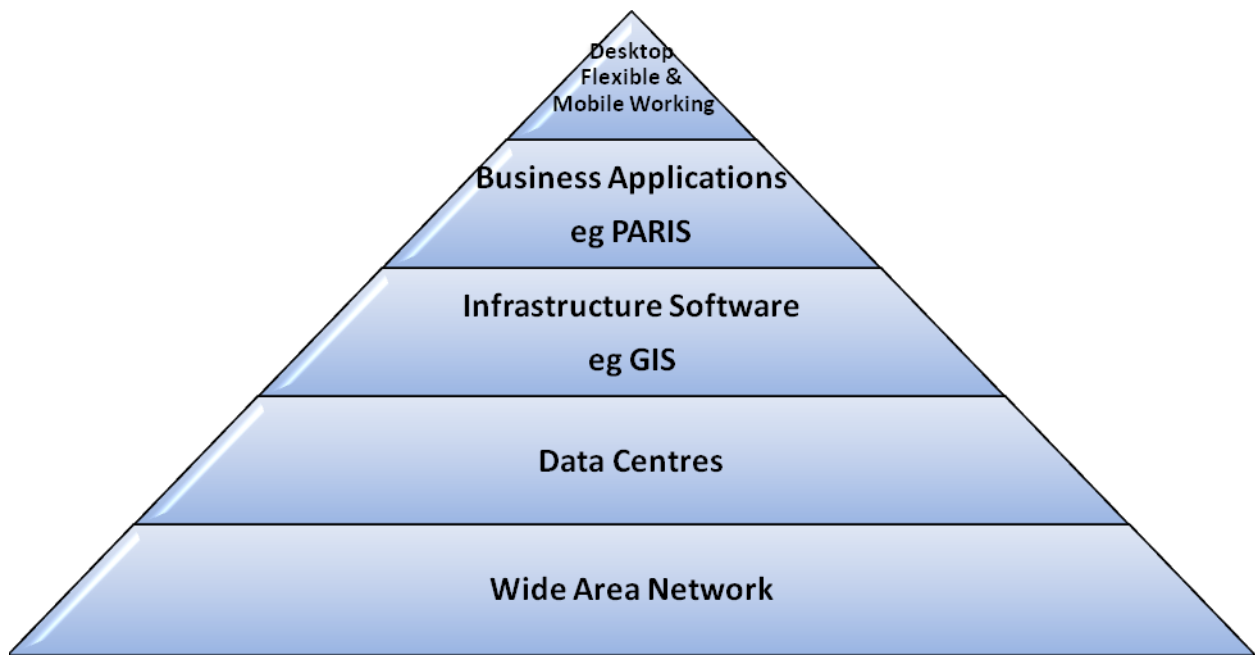
The Data Centre in Macclesfield Town Hall is being refurbished. This is being undertaken as a project integral with the development of a new CCTV monitoring centre which will be based on the Macclesfield Town Hall Data Centre.

Cheshire East inherited an estate of servers and storage which is mixed but comprises for the most part Oracle on an AIX Unix platform and Microsoft SQL. Significant virtualisation has already taken place. With about 75% of servers virtualised this represents industry best practice already, but even greater benefit can be achieved from further virtualisation and harmonisation.

Opportunities are being taken to reduce cost and reduce the impact on the environment through adopting best practice in energy management and where possible these are synchronised with the harmonisation of business applications. Underlying infrastructure software such as geographical information systems (GIS) will be further developed and maintained in partnership.

Cheshire East inherited an estate of some 6000 desktop computers and laptops from the previous councils. A next generation desktop strategy is being finalised to achieve rigorous standardisation to drive down running and support costs and to improve the overall experience of the user. From the beginning of the 2011-12 financial year the budgets for replacement and new desktop equipment have been unified and centralised under the control of the Cheshire East ICT Service. This includes desktop and laptop PCs.

The following diagram represents the different layers that make up the ICT Infrastructure:



## 11. Information Management

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The scope and portfolio for Information Management (IM) covers the following broad areas:

- Governance
- Security
- Data Quality
- Records Management
- Compliance

IM considers information in any format – paper and electronic documents, email, photographs, maps, throughout its lifecycle from when it is received, created or captured until it is archived or destroyed.

Through a programme of work we will provide a set of corporate tools, standards, and protocols to enable this to be done in the most efficient and effective way to support the business and ensure that the authority's legal and statutory obligations are observed. This will ensure that the right people have the right information at the right time to do their jobs while being mindful of data security requirements and the risks of data loss.

There will be a long term strategy to ensure that the majority of information being created and retained by the authority is electronic. This will ensure flexible and mobile working initiatives are supported as well as reducing the pressures upon the authority's estate.

## 12. ICT structure, staffing and sourcing

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Effective workforce planning is fundamental to the achievement of ICT Strategy service goals and objectives in the short and longer term. It's about, understanding the people implications of achieving service priorities and putting in place plans to ensure the right people, with the right skills are available at the right time, in the right place. This helps ICT to develop a workforce profile which continues to be 'fit for purpose' and is 'agile' in supporting the service to initiate and adapt to change.

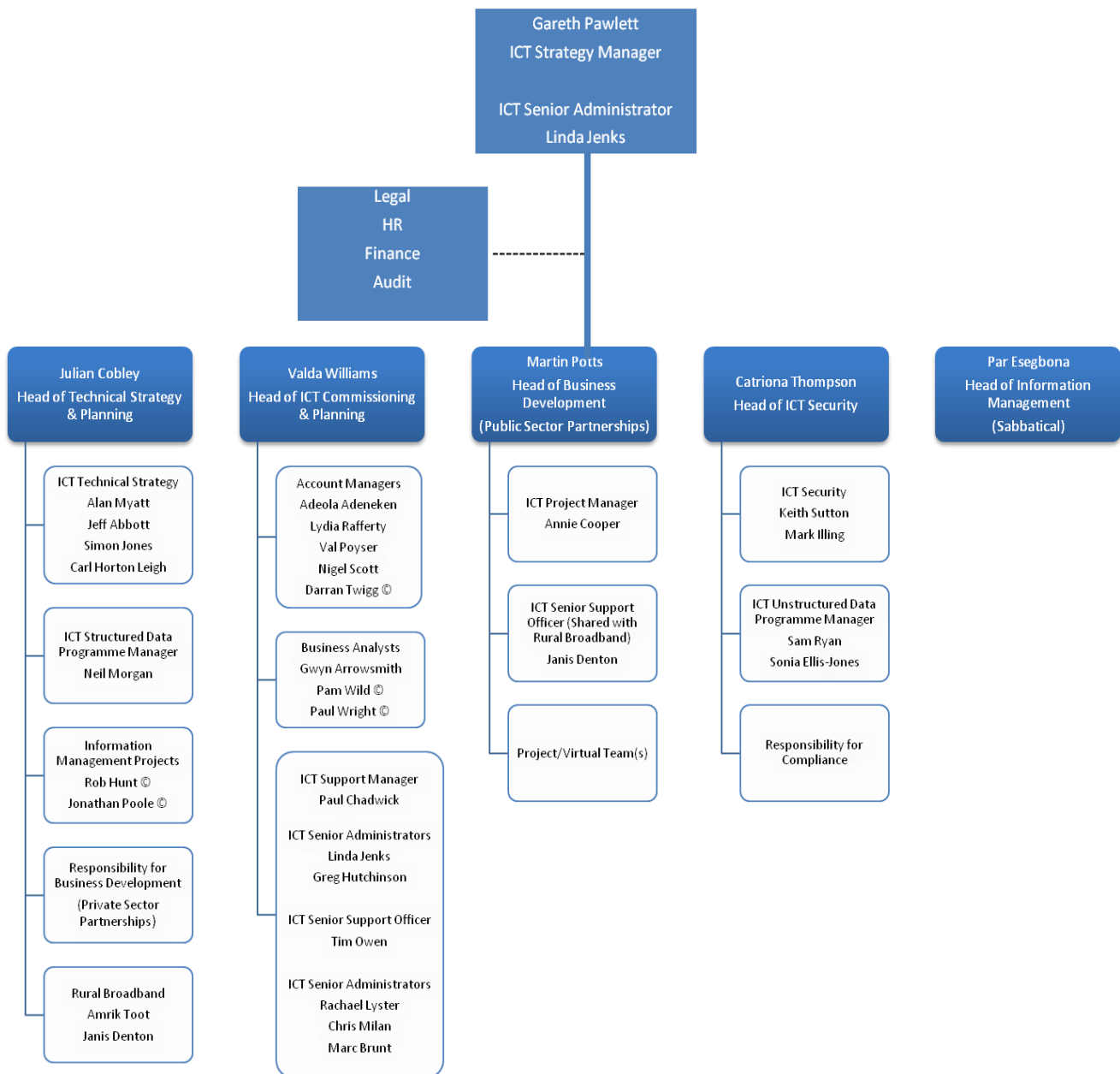
The skills and resources available within the ICT Shared Services and ICT Strategy teams are supplemented by the use of contractor, consultants, temporary staff including student placements and implementation partners. In addition, some work is commissioned externally. ICT managers use their knowledge of industry trends and corporate plans to consider the immediate and long term resource requirement of the department before deciding how to fill vacancies.

The ICT Strategy team is staffed predominately by ICT professionals; people who have graduated, have ICT qualifications or have trained and worked within an ICT department for a number of years. Key skills include:

- ICT infrastructure and application awareness
- ICT security awareness
- Business & local Government understanding
- Strategic visioning
- Business analysis
- Commissioning and planning
- Negotiation skills

The ICT Strategy Team is also committed to supporting the Corporate Apprenticeship Scheme and apprentice placements for 2011-12 have been established.

The diagram below shows the Cheshire East ICT Strategy structure and roles:



ICT Strategy currently employs 28 full time and 1 part time permanent staff. It is a strategic ICT service that commissions the delivery of an ambitious ICT work programme which supports corporate transformation in 2011/12. It has also:

- Worked with public and private partners to create a green and innovative ICT infrastructure that puts Cheshire East on the map. Activities include the development of a state of the art Data Centre, lead membership on the EURIM Information Society Alliance, and collaboration of superfast broadband activities with Broadband Delivery UK (BDUK).
- Made significant inroads into major efficiency opportunities through partnership working with both the public sector and private sector, building on the foundation work that has been done to date. Examples of this are data centre resilience with



Warrington BC and network infrastructure integration with Fire & Rescue (to optimise internet service provision and station service performance).

- Continues to strive for improvement in the delivery of service to Cheshire East from the ICT Shared Service through effective liaison with ICT Shared Service and by contributing to the development of a new separate entity
- Continues to support the Council in complying with the stringent Government Connect requirements, all the time seeking to minimise the negative impact on day to day business

In principle, the ICT work programme is financed through Service held capital funding, and the ongoing work is funded from revenue. The ICT work programme changes in magnitude each year. There is active management of the proportion of contract staff and directly employed staff employed to deliver the ICT work programme.

The ICT Shared Service has skills in the following areas: project management, systems analysis, ICT technical infrastructure, ICT solution infrastructure, Microsoft development, web developments, SQL database administration, Social Care application development, Oracle eBusiness suite functionality and development, Oracle database administration, desktop hardware and software, flexible and mobile working solutions, networks, telephony, servers, geographical information systems, Business Objects reporting, service management and data centre operations.

Staff potential is maximised through formal training, coaching and providing role based developmental opportunities. The cost of training to developing new technical skill sets is built in to the capital cost of programmes.

### 13. ICT risk management

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Risks are managed at project, programme, service and departmental levels. ICT risk management and business continuity approaches are aligned with corporate risk management and corporate business continuity procedures.

Rapid change increases risk and ICT service continuity arrangements are in place for key applications. However, resilience comes at a cost and a balance needs to be struck between the cost of engineering away a risk, and the likelihood and consequences of it happening. With the development of technical strategies which cover topics such as data centre services and infrastructure, decisions will need to be made by Cheshire East about what levels of service continuity can or should be funded.

Technical solutions are in place to reduce the risk of virus infection, malware distribution and data compromise. As cyber attacks become ever more inventive and complex, it is important that the ICT security infrastructure continues to be upgraded and enhanced in line with Government and National standards and good practice guidelines.

## 14. Supporting documents

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Further supporting documents are being developed. For timescales, please refer to the ICT Strategy Communications Plan.

- Applications – Strategic Direction
- Infrastructure – Strategic Direction
- ICT Finance
- Information Management – Strategic Direction
- ICT Sourcing Strategy
- Green ICT Strategy
- FMW Strategy
- Data Centre Strategy
- Desktop Strategy
- Telephony Strategy