1   Context

1.1   This Information Systems (IS) Strategy sits with the Council's business planning and financial management approach, and has been developed as a five year strategy.

1.2   It is governed by the Council Plan and the four objectives of

Strong Derby
Safe Derby
Ambitious Derby
Resilient Council

In line with both our statutory duties and the commitments we have made with our partners for 'Derby 2030', our pledges for Derby City Council over the next three-years are:

- a **safe** and pleasant environment for you to live and work, including information security, cyber-security and tools that support home and remote working for staff and digital access to council services for our customers.
- a **strong** community where residents feel empowered and can engage with the council and with others electronically, where communities help challenge the digital divide and where businesses are supported to grow with highly available technology.
- an **ambitious** and forward looking city with good prospects for everyone, that builds upon the City's existing local high technology economy, that invests in skills for its future workforce and that make a modern and vibrant use of digital services.
- a **resilient** Council, focusing on how we as a Council can deliver our services going forward; minimising the impact of budget cuts, increasing the ability for customers to do business (self-service) with the council on line, and when office buildings are closed that keeps pace with the digital age.

1.3   It is also developed to cover the medium term financial planning cycle for April 2016 to March 2019 and the budgets allocated to and available for Information Systems Services over this period.

1.4   This strategy is an operational strategy that governs the design, delivery and management of Information Systems Services; it forms part of the wider approach to delivering Digital Derby.

1.5   The strategy takes the council forward from the end of its previous Information systems contract with Serco into the new service delivery model that is driven by a need for greater agility and flexibility and the adoption of cloud computing.

1.6   In this time period, in accordance with the report approved by Cabinet in 2015 we will further explore opportunities for delivering Information Systems services with partners where such can either reduce costs, enable more efficiencies or reduce risks. We will explore

   i)   Options for more joint and shared procurement, and supplier management with other councils in the East Midlands
   ii)   Delivering a new service as part of any combined authority that may come into being either just for Information systems or as part of wider "back office" shared service delivery
   iii)   Delivering a new service in a formal or informal federated agreement with other Unitary Authorities (because we provide and support the same systems)
   iv)   Other options that may emerge locally, regionally or nationally

   Our adoption of cloud computing to replace the previous outsource contract and the 2 year contract length for the data centre/server components increase the possibility of achieving such that were not possible within the Serco contract.

1.7   The strategy has the following components:

   i)   Context
   ii)   Governance Arrangements
   iii)   Service Management Approach
   iv)   Information Communication Technology (ICT)
   v)   Software Services (ISS)
   vi)   Information Security

2   Governance Arrangements

2.1   The Information System (IS) Strategy and the Information Systems Business Plans are subject to approval by a corporate Information Systems Strategy Board, with cross directorate representation.

2.2   Responsibility for Information Systems Management rests with the Director of Digital Services who will convene the Information Systems Strategy Board and will report as required to the Chief Officer Group, to the Lead Member and to Council Cabinet.

2.3   The development of any new shared service opportunities will need formal sign off by the Information Systems Strategy Board, by Chief Officer Group and ultimately by Cabinet.

2.4   When replacing or renewing existing systems or when buying new systems the corporate procurement rules and thresholds will be followed. Where possible we will utilise framework contracts that can make the procurement process easier and that can take advantage of pan public sector scale pricing.

2.5   Approval for new contracts will be in accordance with contract procedure rules that require all new Information System contracts to receive approval of the information system management who will undertake technical and licence compatibility checks.

2.6   The responsibility for reviewing and approving all new Information Systems contracts in accordance with procurement regulations is:

   i)   All new contracts/expenditure costing £ 165,000 or above need Cabinet approval (via the financial matters and contract procedures report or a separate project report)
   ii)   All new contracts/expenditure costing between £ 30,000 and £ 165,000 need approval by the Information Systems Strategy Board or by Chief officer Group
   iii)   Any new contracts/expenditure costing less than £ 30,000 may be approved by the Information system Management Team

2.7   An Information Systems contract register will be maintained jointly with the corporate procurement team. Each year a roadmap of contracts due to expire in the next three years will be prepared and circulated to the business managers in each Directorate. Responsibility for bringing forward action and for preparing revenue or capital budget submissions to replace or renew such contracts is the responsibility of the Head of Service identified as the business owner, with the support of the IS department.

2.8   A business case template and process is used for all new and all replacement projects; this does not apply to annual renewal of licences or maintenance agreements that are within valid contracts in accordance with procurement

rules.

2.9 The council's risk management scheme will be used to maintain both operational and project risk registers as set out in the annual business plan. In accordance with this responsibility for managing risk is:

- All red risks will be reported to both the IS and business service directors who need to ensure action is taken.

- All Amber risks will be reported to both the IS and business Heads of Service who need to ensure action is taken.

- All Green risks should be managed by the identified business owner for the system/project.

2.10 Part of the business case process for reviewing and implementing information systems requires that the business owner conducts a Privacy Impact Assessment (this is to meet Information Commissioners Office guidance). This also supports the Council's Information Governance approach.

3   Service Management Approach

3.1   A new Target Operating Model (TOM) has been developed to manage the transition from the previous arrangements where much of the service was contracted to a service partner (Serco).

3.2   For each component of this TOM a service description has been prepared and this will be refined and enhanced as the new service based on cloud computing is introduced early in 2016.

3.3   To support good service management the ITIL best practice framework will be used and it will be a requirement for IS department team leaders to have or to attain ITIL foundation level qualifications and for IS department Heads of Service to have or to attain ITIL Expert qualifications.

3.4   The five ITIL lifecycles will be used to support service management

- Service Strategy
- Service Design
- Service Transition
- Service Operations
- Continual Service Improvement

3.5   An annual business plan will be prepared each year, informed by the contract register showing systems due for re-tender and by business led projects needing information systems services identified across the council. This business plan will be formally reviewed each quarter with the owners of each action within it responsible for managing delivery.

3.6   Exception based reporting will be adopted whereby both operational services that fall below agreed targets and change/transition services or projects that exceed defined tolerances will be escalated for attention of the Senior Management Team.

3.7   As the new service model becomes embedded during 2016/17 a range of suitable new operational performance measures will be identified and these will be framed in a balanced scorecard approach with four quadrants:

Customer Outcomes/Value
Financial Affordability
Technical Measures
Improvement

The intention is to develop this new balanced scorecard for adoption from April 2017.

3.8   It is recognised that with current budgets and staff capacity an increasing proportion of the available resources will be dedicated to business as usual operational services. Thus there will be a need for more advanced planning of

change projects, and the business cases and cost models for such will need to include the extra resources and budgets required to achieve the proposed change.

3.9   Budget and staff resources will first be allocated to support statutory functions, and thereafter to support the priorities set by Council Cabinet and or the Chief Officer Group.   It is important to manage requests for services carefully to avoid users seeking to progress change requests or small works that may cumulatively tie up resources and use budgets (inside or outside of the information system budget) that detract from this.

3.10   The service will endeavour to offer access to both staff and customers to systems beyond the supported hours; we will do this by adopting cloud computing and with user self-service portals and on line support tools. However with limited staff resource we cannot offer an extended human support service and the service desk may only be staffed between 9:00am and 5:00pm.

3.11   In line with digital derby we will endeavour to automate or to have user friendly forms and workflows to guide users through common and simple tasks and to submit faults or make service requests. This will allow us to free up staff time to focus more on service delivery rather than on logging activities.

3.12   For the service to operate effectively more attention will need to be given to demand management and to automating or eliminating high volume, low value activities especially those that are caused by lack of automation or lack of user training. We cannot afford a dependency culture and we need to encourage a more IT self-sufficient workforce.

4   Information Communication Technology (ICT)

4.1   The Council recognises that technology infrastructure it is not a core function it should provide directly.

4.2   The council therefore intends to source most of the technology infrastructure from the market place; and for example will not have on premise data centre or servers except where such are essential.

4.3   We are adopting a cloud computing model and moving towards utility computing. Data centre services, servers and storage will all be hosted remotely with secure connectivity in accordance with the Public Sector Network (PSN) and other relevant compliance regimes. Our cloud computing approach will include components that are delivered through:

      i)   Infrastructure as a Service (the initial model to support migration from the Serco contract)
      ii)   Platform as a Service (to support application consolidation)
      iii)   Software as a Service (as application software contracts expire and need replacing)

4.4   We will consolidate and rationalise the existing diverse voice and data network services using the government framework contract opportunities that will see migration of existing services as and when the current contracts expire.

4.5   We will continue to monitorthe opportunity to adopt a bring or use your own device policy to replace client computers in the work-place; and will develop options for such as both security and staffing implications become clearer. Such a policy will not be mandatory or enforced upon employees.

4.6   The council will continue to provide secure remote access for home working that allows staff to use non council devices in accordance with the security compliance requirements; and for use of smart phones with required security to enable mobile working.

4.7   Whilst providing and supporting the core technology is not seen as a core council function, supporting the environment, managing user accounts, managing and controlling devices and supporting users is a service that will be provided and managed internally.

4.8   There is considerable knowledge of the technology environment and of the business needs that could be lost with a remote service desk or user support service. We need flexibility and agility at a time when the council may change considerably and such can be difficult to achieve in out-sourced or shared service contracts.

4.9   In adopting this model we need be more robust in supplier and contract management. We aim to achieve economies of scale and remove duplication that exists between the existing Serco and DCC teams, and by re-focussing the IT client team from what is often an extra tier to the service desk function

to be more focussed on both supplier management and on business relationship management.

4.10   A technology consideration continues to be the operating system platform and the desktop tools, which historically the council has used Microsoft. In order to reduce risks and costs of migration it was decided to remain with the Microsoft platform and adopt the Azure platform as the initial solution as we end the contract with Serco. This also reflects the legacy application software estate most of which runs on Microsoft operating systems.

4.11   During the timeframe of this strategy a further review of the platform will take place and having moved to the cloud and as we replace application software we should become less tied to a specific operating system. Open source solutions that are provided through cloud computing means will be considered.

5   Information Software Support (ISS)

5.1   The council has had a strategy of buying rather than making its software for many years, and this will continue to be the case. It is not a core function for the council to develop in-house software and it does not allow us to share costs with others.

5.2   In line with our cloud computing strategy the preferred model for future application software solutions will be to have these as Software as a Service and with solutions that are fully web enabled, needing no or minimal local client software.

5.3   Where software cannot be delivered or costs much more in the Software as a Service model then we will consider alternatives, in particular where such can be delivered in a Platform as a Service solution.

5.4   The council recognises a need for some local customisation, for example customer self-service forms, to develop scripts and workflow processes within applications and to be able to generate reports and data extracts. We will retain staff who can undertake such functions.

5.5   To support local customisation we will require software solutions to support the use of generic tools and skills and not to lock in with proprietary tools specific to their application. For example we will use where possible:

- SQL or equivalent database and reporting tools
- HTML, XML and other recognised web platform tools

5.6   The council is exploring which tool could best allow it to develop and support smaller applications internally, moving away from access databases to one that is more applicable to a web enabled approach. We need a tool that is agile and flexible and that can be used across a wide range of business needs without the need for external support.

5.7   As the council develops its Digital First approach it will be essential that new software applications provide true web enabled customer self-service portals that can be embedded within the Council's website and that can be delivered in responsive web mode on different devices with different screen sizes. They should also support staff use from a wider variety of locations and devices.

5.8   The ability to deliver application software and customer access in the form of mobile applications (app's) will be a consideration when replacing the existing application software estate.

5.9   To make user access easier it will be important that application software can be integrated into single and seamless sign on for both staff (integrated with active directory) and customers (integrated with authentication and verification). Removing the need for multiple user accounts and multiple passwords, with different lengths, complexity and time-out/expiry periods.

5.10   The council intends to continue its programme of rationalising software and is seeking to maintain:

    i)   A corporate CRM solution that supports customer interactions, case management and transaction workflow processing

ii)   A derby Direct to you portal for customer self-service transactions (that will include embedded self-service modules for different application software)

iii)   A corporate document management and workflow solution

iv)   A corporate Geographic Information System for all spatial data

v)   A corporate content management system that supports all council internet, intranet and extranet services

vi)   Corporate financial and staff management systems

5.11   There will still be a need for specialist software to support different business functions.

5.12   We need to rationalise the very many and different websites, most of which have different look, feel and navigation and provide a disjointed experience for our customers, with separate registration and user accounts. No new web site will be commissioned or purchased unless it meets the corporate standards and can be fully integrated. Having strong sub branding within the core website will be encouraged and supported to achieve the best balance between what we acknowledge are discrete businesses within the council and a whole council approach.

5.13   Our information software solutions need to support open data and the transparency agenda and the ability to bring together data using master data management tools and techniques. As such open and transparent data schemas that use defined standards for data types (people, location etc) will be important.

6   Information Security

6.1   The council is committed to maintaining its obligations for information security, for protecting the data we hold in accordance with prevailing regulations and standards and for managing our customer data with respect and integrity.

6.2   The council will maintain technical security measures including:

- Encryption of mobile devices and data in transit
- Gateway protection with intrusion prevention and detection
- Virus and Malware prevention and detection
- Dual factor security for systems and data where applicable
- Device management tools and procedures
- Secure remote access facilities
- Segregation of employee and public access networks
- Customer authentication and verification before accessing confidential and personal data
- Software that enables protective marking to be added to files and emails
- Regular penetration testing in accordance with the compliance requirements

6.3   The council will work to achieve compliance with the relevant security policies including:

- The Public sector Network (PSN) compliance regime
- The Payment Card Industry compliance regime
- The NHS Information Governance regime
- Measures required to access and process data for youth offending and with the courts
- Advice and guidance issued by the Information Commissioners Office
- Other policies and agreements made with partners with whom we share information

6.4   This Information Systems department are responsible for the technical security measures, the Information Governance group are responsible for policies, procedures and training in respect of information security. The Information Systems function will actively contribute to such and will contribute to such policies and to providing advice and guidance to staff and service users.

6.5   As the council moves to a cloud computing model with more services hosted remotely then it will be a requirement in all contracts and with all suppliers that they provide information security certification that allows the Council to meet these information security obligations.

6.6   As the council adopts its digital by design and digital first approach to provide greater customer self-service through internet portals, mobile applications and the like then again it will be a requirement that such can be implemented and certified to be consistent and compliant with these information security obligations.

6.7   As the council further explores flexibility for its workforce be these use of personal smart phones, allowing shared use of a council provided use (council and personal) or bring/use your own device then the information security requirements will be paramount.