G4S Lincolnshire Police Strategic Partnership ICT Strategy 2012-2015

November 2012

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Version: 1.2
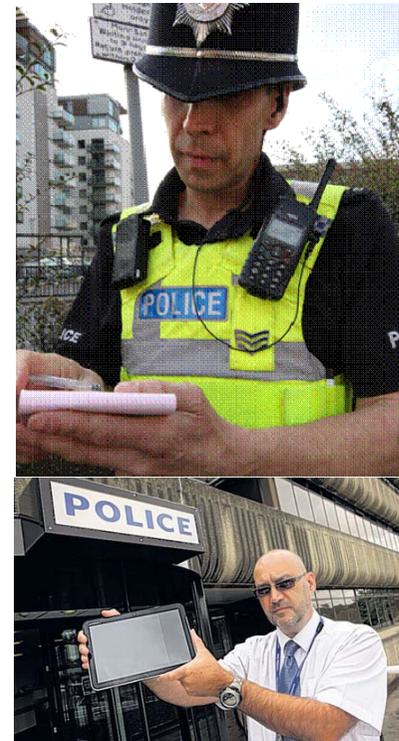
1. Purpose of this document

This is an executive summary of the Lincolnshire Police ICT strategy for 2012-2015, for approval by Lincolnshire Police Authority (LPA).

The strategy builds on the commitments made in the Service Delivery Agreement between LPA and G4S and describes the ICT changes that are built into the agreed schedules. As such, there are no additional financial approvals needed from the Authority.

2. Status and coverage

This document is a non-technical summary of the full ICT strategy. It describes the main changes that will occur in the initial period of the Partnership, complementing our wider Transformation Plan.

The strategy has been discussed and agreed at senior level in the Force to ensure appropriate alignment with operational priorities.

This document summarises:

- The vision and principles that will guide our strategic ICT development
- The significant ICT changes that will be made in the early years of the Lincolnshire G4S partnership to improve services and provide a platform for subsequent transformation
- The benefits that will result for the citizens of Lincolnshire and for operational police officers
- A roadmap for implementation and an approach to managing change to build confidence.

The strategy covers a three year period, through to 2015; promoting alignment with the Force's strategic planning cycle. However, given the level of change envisaged in the first two years and the pace of

change in the wider Police ICT world, we are committed to a full refresh of the strategy in year 3.

3. Vision and Guiding Principles

This strategy will deliver the infrastructure and technologies required to underpin the Force Vision, Priorities and Policing Plan.

To secure the best policing for all the people of Lincolnshire, our Vision for ICT is **to provide an ICT environment where all our staff, both officers and support staff, can access all the information that they require – local, national and international - in a fast and efficient manner, no matter where they are, the time of day or the day of the week**.

The key challenge for the ICT strategy, in a resource-constrained environment, is that our starting point is an ICT infrastructure that is recognised as not fit for the increasing demands of modern policing.

This strategy, therefore, sets out how we can best invest in creating a stable ICT platform for the wider transformation of the police force, through ten years of partnership, while also delivering short-term operational benefits. It is organised under five themes. Three are about delivering business benefits – to the public, our staff and our partners – and two are about the 'behind the scenes' enablers:

- **Improving the user experience for the public and officers –** increasing productive time and improving public satisfaction.

- **Creating one integrated ICT system** – so that we can manage information better, improving its availability and value and enabling streamlined administrative processes.

- **Supporting collaboration with Partners** - enabling effective and efficient partnership working and generating revenue for reinvestment through the framework contract.

- **Delivering a secure and resilient platform** - it is critical to stabilise the current systems before we add new technologies.

- **Improving value for money** – applying rigorous commercial methods to extract maximum value from our investment in ICT.

4. Improving the user experience for the public and police officers

Improving the 'customer experience' is at the heart of our new approach to ICT. Whether it is a frontline officer requiring information to make an operational decision or a member of the public calling to report a crime, effective and modern ICT is fundamental to transforming the way Lincolnshire works.

ICT touches 2,383 users in 54 locations, but the Force infrastructure means that transactions are slow, data quality is variable and there are limited opportunities for the kind of modern 'always on' mobile data or 'self-service' approach that most people now take for granted. We can also improve our service to the public by making it easier to interact with Force and improving the quality of data to inform call handling and risk assessment. This Target Operating Model is graphically represented in Appendix I.

Planned improvements

We will:
- Implement a *Citizen Relationship Management (CRM)* solution, preceded by a feasibility study to determine the right solution.
- Remove the need for re-keying of data by integrating *Niche RMS* with *NSPIS Command and Control* and *t-Police*
- Implement *t-police* to provide an integrated Enterprise Resource Planning (ERP) system for HR, Finance and Duty Management transforming our support service applications.
- Implement a 'single sign-on' solution for staff
- Enhance *Genie* (the Force search tool) to streamline the review of data under MOPI
- Implement a digital evidence management solution, integrated with *Niche*, to hold photographs, voice and video interview recordings, CCTV and body-worn video recordings.
- Invest in new workstations and a 24/7 ICT helpdesk.

- Upgrade e-mail functionality to Microsoft Exchange 2010.

Benefits for members of the public

- **A more personalized service**: Call handlers and frontline staff will have instant access to information, including previous contacts with members of the public.
- **Access to online options**: The public will have increased opportunity for online interaction with the Force, instead of paper application forms or phone calls. Potential elements of this are represented in Appendix III

Benefits for police officers and staff

We will **minimise administrative burdens for frontline staff**:
- IT applications will become single data entry, reducing input time for front-line officers, allowing them to return to duty more quickly, while making data available where needed.
- Staff will save time at the start of a shift by no longer having to sign-in separately to different operational systems.
- Staff will be able to update finance, HR, duty states and update their IT account using self-service, making processes faster and more efficient, as well as reducing administration costs.

We will **improve access to data and automate processes**:
- *t-Police* will supply more reliable data and processes to support financial oversight and strategic decision making about resource deployment – e.g. event management including personnel skills search and matching.
- Direct access to digital evidence will speed up investigations and increase the chance of identifying suspects or victims.
- Searching systems will be faster and more effective.
- Staff will have better performing workstations but, should they need it, IT support will be available round the clock.

Opening up future opportunities

Improved mobility: we will pilot frontline data entry by officers to help plan for a comprehensive, medium-term mobile solution, positioning the Force to respond to rapid developments in mobile operating systems (tablets and smart phones) in the next 12 months.

The deployment of innovative data mobile solutions will also be targeted at assisting support staff functions where there are potential benefits to be gained in areas such as Street to Suite (S2S), Estate maintenance and fault reporting, staff self service with *t-Police*.

Creating One Integrated ICT System

Information is the heart of policing, allowing resources to be deployed and decisions taken - to catch criminals, protect victims and solve emerging problems.

Lincolnshire has implemented *Niche RMS* as the core operational policing system, but the Force has yet to fully exploit its capabilities and integrate other systems. As a result, information is of variable quality, data is not efficiently shared and decisions are sometimes made on partial information and intelligence. Optimising *Niche RMS* is a key component of the strategy but we are making a series of changes to integrate separate systems to improve efficiency e.g. automated real time feed of Command & Control Incidents into Niche RMS. (Appendix II)

One integrated system also means focusing on communication platforms and giving officers flexible, mobile access to information.

Planned improvements

All systems will adopt a **single data model**, enabling a common, comprehensive understanding of what data needs to be captured, the quality required and how it is to be stored and used. Adopting a single data model will remove the inconsistency of multiple points of data entry, save time creating data and improve quality. This single data model will enable the re-use of data across applications and support system integration.

We will **integrate *Niche RMS* with *NSPIS Command and Control*** to remove dual key data entry and optimise case and incident management. This will allow a single view of incidents and ensure that data captured during operational activity can be collated and shared, as appropriate, within the Force and with partners.

We will **introduce the remaining modules of *Niche RMS*** - Property and General Incident. This will then represent the full product suite for the RMS and will provide a platform to deliver additional functionality and benefit to officers, for example enabling a more efficient approach to property management and potentially reducing the physical storage capacity required.

The **implementation of *t-Police*** will replace a series of legacy applications with an integrated set of 'back office' support functions.

The **introduction of a Virtual Desktop** (see section 7) will provide users with access to their applications at any location.

We will exploit converging digital technologies to **integrate our voice (fixed-line and mobile), data and radio platforms,** providing the infrastructure for mobile working. Our aim is "one SIM per officer" and one network.

Benefits for the police and the public

Streamlining data collection and improving the value of our data: our aim is to achieve a single instance of each data entity – e.g. 'the golden nominal' – with all parts of the business using the one dataset and reporting performance from the one set of reports. This will allow officers to capture and record information once – saving officer time and reducing handling in the "back-office".

Unlocking **streamlined business processes**: *Niche RMS* provides for electronic tasking and workflow allowing process efficiencies across the Force, when fully utilised. T-Police delivers similar benefits for support functions.

We will **enable more effective mobile working** by reducing the number of devices that officers need to carry as well as delivering more consistent network performance for communications. The aim is to enable staff to work effectively anywhere in the county.

Future opportunities that will open up as a result

A level of maturity of integrated solutions is required before a full records management policy can be implemented so this is a medium term ambition within the scope of this document.

5. Supporting Collaboration with Partners

Partnership has never been more important for Lincolnshire, as we seek to manage serious crime with other regional forces; bring more offenders to justice with our CJS partners and build on the G4S contract through shared services with other Forces that will generate revenue for reinvestment in Lincolnshire.

Planned improvements to work with Partners

Interactions with Criminal Justice partners require high volumes of data to be shared on a regular basis. Developments such as the digital case file put extra pressure on police ICT resources as the volume of data being stored and shared increases. To provide a basis for current and future collaboration, it is a design principle that **all investment should enable collaboration and openness to sharing data with partners** both regionally and nationally.

In support of our commitment to closer working with our partners we will:

- Implement a digital evidence management solution
- Implement the *Niche* Property module to manage physical evidence better
- Use *Niche* to support improved warrant administration and execution
- Provide a corporate electronic document management solution unlocking a range of process improvements for the Force, partners and the public e.g. in the Central Ticket Office
- Replace Acorn (the Force's bespoke Road Traffic Collision system) with *Niche* (General Incident module).

As part of the ongoing collaboration project between the Regional Forces, we will continue to develop a working relationship and associated protocols, with the Regional ICT teams. This will realise the anticipated benefits as outlined in their draft Operating Model and reproduced below:

- The information resource of the Region will be converged to develop an intelligence rich picture of criminals, victims and witnesses, which officers can utilize to support local, regional and national decision making.
- Communications systems will span the whole of the East Midlands so that they enable and support the Region to develop new approaches for the use and management of people assets in support of policing operations.
- The Region will maximize the operational benefits of science and technology to transform the service.
- Information systems and services will balance the need to secure data against the need to ensure officers have sufficient access to information so they can protect themselves and members of the public.
- The East Midlands group of Forces will maximize the benefits of a combined ICT collaboration to improve value for money and also to influence the future of ICT nationally.

Additional opportunities will be proactively sought with the local Lincolnshire County Council, not only in relation to their recent expression of interest for provision of ICT services but also in respect of potential shared services and data. An example of this would be the provision of a CRM system for the Force that also encompasses County Council functionality that allows call taken by the Force, but relate to requests for Council related functions, to be seamlessly transferred to the appropriate Council department. This functionality may also be developed to allow inter partner sharing of agreed citizen data such as residential addresses, email addresses and telephone numbers.

required to implement an authentic shared service environment and generate the associated efficiency benefits.

- Unlock volume purchasing discounts
- Create an architectural development plan for expanding shared systems
- Review ICT staffing to identify efficiency savings through reducing duplication.

Opportunity to share services through the G4S contract with other Forces on the Framework

Ten other police forces are named on the framework under which G4S and Lincolnshire Police agreed their partnership. As such all ICT developments covered by this strategy will be developed in such a manner that **service delivery and some of the core, underlying infrastructure components can expand progressively** to handle predicted growth levels should more forces take advantage of the partnership framework. For example, the architecture of *t-police* that has been designed to allow for services to multiple forces from a common platform.

The shared services model which has been designed is flexible and scalable to allow for fully integrated service management or a hybrid model, depending on the needs of the additional Force(s).

Benefits to the police and the public

- Streamlined criminal justice processes, supported by shared applications and enhanced data sharing, releasing time savings and increasing accuracy across the CJS, through access to complete sets of documents
- Increased effectiveness through enhanced identification of offenders through digital evidence management solution
- Economies of scale from shared service operation for all participating forces.
- Revenue available for reinvestment in Lincolnshire.

Future opportunities that will open up as a result

At the point at which additional Forces join the Lincolnshire framework, we have a clear view of the developments that will be

6.   Creating a secure and resilient ICT platform

The most critical parts of our ICT estate are the elements of infrastructure that our users do not see. Currently the Force's ICT infrastructure at Nettleham does not conform to standards of security, performance and resilience required for modern policing. This includes inadequate disaster recovery provision.

The ambitions set out in this Strategy require a fundamental shift in the technologies we use to store and transmit our data.

Planned improvements

We will:

- Implement a **standard operating environment** for user workstations, to provide consistent functionality to users, aiding mobility and making workstations easier to maintain. This initiative also contributes to an improved end-user experience (see Section 4).

- Implement an **Active Directory Upgrade** to facilitate greater collaboration both within the Force and with Partners. This will also enable improvements leading to the implementation of 'Single Sign On' (see section 4) and reducing the time taken to log-on at the start of a shift.

- Establish a **new prime data centre** to host the key Force computer systems. The new data centre will be operated on a shared basis but will meet industry standards and be accredited to IL3 (restricted) security level. We will provide Lincolnshire Police with state-of-the-art IT infrastructure services including high quality System Management software offering enhanced

monitoring and proactive notification of system performance and access to new technologies and services as they arise.

- The existing on-site **Nettleham Data Centre will then be converted for use as a Disaster Recovery (DR) centre** as primary elements of the IT estate are migrated to the new shared service environment. Once migration is complete, and DR resilience achieved through a private cloud solution, Nettleham can be fully decommissioned.

- The technical configuration of the two data centres will enable a full **Virtual Desktop**, enabling users to access their applications and data anywhere that is required.

- **Server virtualization** within the prime data centre will provide a flexible and scalable approach to storage which will become increasingly important to the Force as digital evidence and electronic case files become common to the majority of investigations.

Benefits to the police and the public

- Improve the end-user experience
- Reduced administrative burdens (removing the need for multiple passwords/Sign Ons to access systems)
- Full compliance with Government security standards
- Higher standards of resilience
- Reduction in total cost of ownership
- Reduced environmental impact from servers
- Increased ICT system performance
- Increased flexibility as storage and performance needs change.

Future opportunities that will open up as a result

These changes will create a flexible and scalable infrastructure able to respond to additional Forces joining the shared services environment.

7. Improving value for money

Controlled investment

Delivering the ICT strategy will require investment in infrastructure, applications and data storage solutions. Investments will demonstrate value for money and business benefit through a structured management regime.

There are three types of investment:

INVESTMENT TYPE	INVESTMENT PROCESS
1. Pre-approved, costed and baked into the G4S SDA	Demonstrate value for money in choice of proven technology to minimise delivery risk
2. Costed options within the contract	Demonstrate value for money through a "mini-business case" demonstrating actual costs and planned benefits
3. Speculative investment required due to changing business need or emerging technology	Demonstrate value for money through a "full business-case" which demonstrates options, costs and benefits

At this stage, the commitments covered by this strategy have been costed and included within the initial G4S contract/SDA.

Applying commercial disciplines

Going forward we will demonstrate value for money by:

- Engaging with customers on a transparent commercial basis, focused on business benefits

- Using agreed measures to judge success

- Selecting proven technology and approaches to minimise risk

We will engage with customers on a transparent basis, focusing on business benefits

- All investment will be on a business case basis.

- The ICT delivery organisation will engage with the operational parts of the Force as with a commercial customer.

- Pricing will be transparent.

- The provider will be accountable for service levels and changes will be by negotiation.

We will use agreed measures to judge success

- Total cost of ownership over the operational lifecycle

- Operational cost reductions

- Business performance improvements/benefits.

We will select proven technology and approaches to minimise risk

- ICT provision will, where possible, be through the delivery of standard commercial off-the-shelf solutions.

- Expensive customisation will be avoided.

- Where police-specific solutions are necessary they will be developed and deployed on a shared-basis, using solutions in operation in other force areas, wherever possible.

- Service delivery will adhere strictly to industry-standard best practice (ITIL®).

8.   Implementation

Roadmap

The diagram below shows a high level summary of the planned changes in the period. It shows that we are making significant changes in the first 18-24 months, followed by a period of steady-state operation. This approach is designed to create a stable ICT platform for the wider transformation of the Force. In practice, we recognize that the pace of change – internal and external - will require us to refresh our strategy in year 3, alongside the Force's strategic planning cycle.

ICT ROADMAP	2012				2013				2014				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
IT INFRASTRUCTURE																
Disaster recovery		▓	▓	▓	▓	▓										
Network Review		▓	▓	▓	▓											
Active Directory Upgrade			▓													
Desktop/OS refresh					▓	▓										
Server/DC hardware refresh					▓	▓										
Hardware maintenance									▓	▓	▓	▓	▓	▓	▓	▓
IS APPLICATIONS																
Support Applications																
T Police		▓	▓													
Firearms Licensing scanning & Document Management		▓	▓													
Central Ticketing Office (CTO) scanning & Document Management		▓	▓													
Exchange 2010 Upgrade			▓	▓	▓											
Planned changes and implementation					▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
Operational Applications																
C&C upgrade		▓	▓													
Niche optimisation incl Command & Control Interface		▓	▓	▓	▓											
CRM			▓	▓	▓											
Planned changes and implementation					▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
ICT ORGANISATION																
ICT Strategy Development			▓													
ICT Departmental Re-Structuring			▓													

LPA and the Force can have confidence in delivery of this strategy because we are committed to four pillars of effective delivery:

- Governance to ensure proper oversight and control
- A fit for purpose IT organisation
- Proportionate risk management
- Effective delivery of change.

Governance

We welcome the involvement of LPA and, in due course, the PCC in overseeing the delivery of the strategy.

Day to day we will work closely and collaboratively with the Commercial Partnership Team and the various joint Partnership governance structures to ensure alignment, deal with issues and risks and drive forward delivery.

To support governance, we are putting in place appropriate controls:

- All work is defined in a clear plan, supported by agreed scope and specifications.
- A transparent change control process will allow us jointly to prioritise and manage changes to agreed plans/specifications.
- Any changes beyond what has been agreed will require a business case to demonstrate cost, VfM and business benefit.

A fit for purpose IT organisation to deliver the changes

The IT function will be re-organised into 3 teams to fit this strategy:

- **Service Delivery (Projects)** – a flexible pool of project managers and analysts to define and specify what needs to change to meet business requirements. A core team supplemented by G4S.
- **Service Development** – the core delivery team for changes to applications of infrastructure. Mostly dedicated to Lincolnshire.

- **Service Support (Ops)** – the core delivery team for day-to-day IT maintenance and operation. In time these resources will be mostly shared with other customers of the shared service.

Risk Management

Mitigations for the key technical and business risks have been built into the strategy:

	RISK	MITIGATION
1	Delivery to the agreed timescales	Effective project management and timely business input
2	New technology may fail during development or go-live	Use of proven technology rather than bespoke development Robust UAT
3	Maintaining service levels during implementation	Detailed transition planning and implement change according to risk profile & operational impact
4	Resistance to change to revised operating practices	Full participation of users in design and testing and sustained focus on user benefits
5	Choice of technology limits collaboration with other Forces	Technical architecture and infrastructure chosen to be scalable, flexible and able to deliver a shared service

Effective Delivery of Change

Our overall approach to managing change is set out in the Strategic Partnership Transformation Plan.

Implementing change to the Force's IT systems will require robust planning, rigorous impact assessment and careful management of dependencies to reduce the level of risk the Force is exposed to. Each element of change a different risk profile so will be treated accordingly. Changes to business critical systems will be delivered in a way which minimises risk to operational activity. Infrastructure

changes can mostly be achieved without direct impact on users. Implementing new or upgraded applications, which will impact on users, will be accompanied by robust user testing, training and end-user support.

ICT Target Operating Model: End State @ 24 months
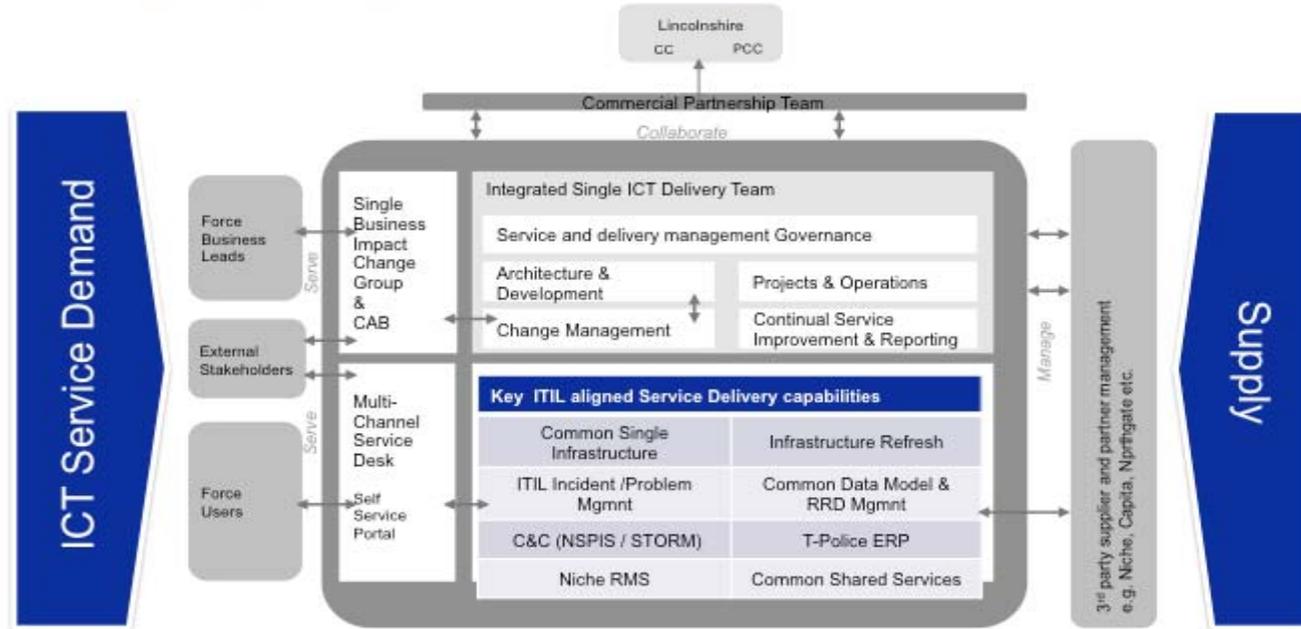
The End State Operating Model will be an ITIL focused shared service centre:
- Consistent service delivery & year on year improvement through CSI
- Common and consistent ITIL aligned incident and problem management
- Extension of existing TDA function to provide Solution Design Assurance
- Single Point of engagement for operations and project based change control through BICG and CAB