For Information / Consideration / Comment / Decision (delete as appropriate)	
Public/Non Public*	
Report to:	**Strategic Resources and Performance Meeting**
Date of Meeting:	**May 2017**
Report of:	**Information Services**
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Agenda Item:	**7**

*If Non Public, please state under which category number from the guidance in the space provided.

Force Update on Information Technology Strategy and Outcomes

1. Purpose of the Report

1.1 The purpose of this report is to provide an update on the delivery of the Tri-Force Information Technology Strategy and work streams as they relate specifically to Nottinghamshire Police. This report includes the following:

- Progress in delivering the current IS work streams for Nottinghamshire;
- The TFC Future Vision[1] which has been promoted to all key stakeholders since February 2017.
- The PRTB bid to the Home Office seeking funding in 17/18 and 18/19 to develop the full business case for delivery of transformational step-change across Nottinghamshire Police Force in line with the TFC vision.

2. Recommendations

2.1 That the PCC and Chief Officers note the considerable steps being taken towards delivering transformational capabilities for Nottinghamshire Police.

2.2 That there is commitment to wider business engagement in the work streams to ensure that benefits are maximised from the new capabilities which are being delivered through the enabling technologies. Examples of this range from front line officer agile work programme, Analytics to inform Prevent strategies and the development of a modern Intranet platform.

3. Reasons for Recommendations

3.1 To allow suitable user groups and business change managers to be identified who will be responsible for delivering new capabilities across Nottinghamshire Police. This will enable the force to leverage the benefits from enabling technologies through wider wide business change and transformation.

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[1] Note that the TFC vision has a broader context across three forces but has significant impact on the future of Policing services within Nottinghamshire.

4. Summary of Key Points

4.1   This section is subdivided into three key areas of strategic work:
- Delivery of the PTF funded TFC Enabling Services IS workstreams;
- Future delivery of the TFC Vision statement (February 2017);
- The bid submission for PRTB funding in 17/18 and 18/19.

4.2   Delivery of the existing TFC Enabling Services IS work streams

A summary of the current twelve information technology work streams being delivered in accordance with the agreed TFC strategy are set out in the table below:

Project/Work stream	Business Benefits	Timelines
TFC Interim ISD Organisation Re-design	By restructuring the three ISD organisations into a single Tri-Force ISD organisation we can organise in accordance with IT best practice, deliver IT convergence, harmonise our processes / procedures and align functional disciplines. This will lay the foundation for an organisation that is able to meet the future requirements of police operations. The organisation will operate as a single virtual function.	Engagement with TU's has started in April 17 to determine approach Pre-work to consultation is ongoing Procedures governing change will be followed
Single Wide Area Network	Integrates the three forces wide area networks for easier connectivity, simplifies cross force mobility and information sharing. Removes complexity, saves money on core connections, delivers high speed access for greater productivity particularly for future digital files and applications.	WAN design approved by end of June 2017 WAN Roll-out: - Start July 2017 - Complete March 2018
Wireless Infrastructure	Reduces baseline costs for the wireless platform and ongoing operations Supports full agility in the workplace, work from any Tri-Force location New high speed core wireless service providing greater resilience and responsiveness.	Core build complete by end of May 2017 Wireless Roll-out: - Start June 2017 - Complete March 2018

Single Telephony Platform	Provide a single telephony system, allowing all users access to modern communications services & new features. All three telephony systems will be consolidated to: - Enable new features e.g. single call number, on-line chat - Improve communication across TFC - Standardise capabilities - A single support team - Consistent User experience across all 3 forces - Enables greater purchasing power and provided economies of scale - Utilise existing equipment - Best of breed solutions for all users - A more resilient solution - Provides a generic system allowing business processes to align - A more dynamic system to upgrade and develop - Future proof - Enables new channels to the public - A single voicemail solution - A single presence solution - Single number reach Savings include: - Reduced maintenance costs through a single supplier - Large scale cost reductions on licensing Smaller supporting teams - Easier and quicker development - Everything needs to be done once. A single directory number (or address) that is unique to a user is a key part of an IPT solution. This has a number of advantages in relation to the following: - A simplified process for the end user - The ability to use multiple devices through a single contact number - A consistent contact sequence	Core build complete by end of August 2017 Roll-out of new service - Start Sept 2017 - Complete March 2018
Identity &	Provides the capability for single sign-on	Design completed by

Access Active Directory	driven by Starters, Movers and Leavers HR process and data base, enables role based access to applications, easier folder access, centralises security, increases the ability share data across forces, removes the need for multiple logins and passwords, increases information security.	July 2017 Roll-out of new service - Starts Oct 2017 - Complete by Dec 2017
Single Email Platform	Easy calendaring for team management, collaboration groups, users manage one mailbox rather than multiples due to the current limitations, enables integration with telephony / IVR, Free / Busy functionality.	Integration of email systems complete by Sept 2017 Full Merger with IdAM exchange by Aug 2018
Printing (Multi-Functional Devices)	Enables access to printer and scanning services at all TFC locations (and could be expanded to East Midlands Region), as if the user were in the base location, removes the need to ask local resources for assistance.	Procurement complete by end of June 2017 Roll-out of new service - Starts Aug 17 - Complete by Jan 18
Agile	Enables easier access to applications or user data from whichever location they are needed. Mobile solutions enhanced to increase Police Officer effectiveness and efficiency by moving to a single Blackberry UEM instance and will: - Give correct information at the time needed - Ease of data capture and input e.g. crime reports digitally captured with smart devices - Enable easier access to applications or user data from whichever location they are needed e.g. ANPR scan and instant search, Forensics reporting - Improve mobile asset management capability Agile Phase II programme will deliver newer and better ways of working for front-line	**Phase 1** Procurement of equipment (Phase 1 laptops and mobiles by March 2017) Roll-out of equipment - Starts April 2017 - Complete by Oct 2017 **Phase 2** Scope of work for Phase 2 is to be agreed with key users in May 2017. The project will complete 31st March 2018 but expected benefits will be

	officers that will be pushing the boundaries with pioneering ideas while being practical and focussed at the same time. It will provide the desired policing capabilities through devices that are intuitive to use with the relevant data flowing to them as and when needed. Policing services for front-line officers cannot be realised through only implementing technology solutions, the agile programme will also help deliver fundamental changes to their business processes to realise the desired benefits of using technology. Examples of this include: - Providing predictive data analytics e.g. footfall data - Improved data sharing for multi-agency working - Location tracking of resources - Connected cars with Wi-Fi hubs for pop-up command centres - Reduced travelling and administration through use of digital systems -	realised in 2018/19
Video Conferencing	Reduced travelling time, costs and loss of productivity, improved ability to collaborate using high quality face to face meetings over video in meeting rooms, at your desk side or from laptops. Easier to use and more reliable.	Core build complete by end of June 2017 Roll-out of new service - Start June 2017 - Complete Sept 2017
IT Service Desk System and Regional Change Optimisation	Single instance of the service management system that will be used across the forces and replace the multiple systems that are currently in place. The system will provide capability to support all aspects of service management (some of which may not be implemented in the first instance): - Service desk (call capture)	Engaged external contractor (Simon Ball) on 6th March 2017 to provide service management support and advice Initial Portal for collaborative groups to

	- Service request management - Incident management - Knowledge management - Catalogue management - Problem management - Change management - Release management - Service level management - Configuration & asset management By moving to a single instance of a service management toolset, a number of significant benefits will be realised that to date have been out of our reach due to the current multi-tool layout. These include: - Process and data standardisation, consistency, conformance and visibility across the forces – This will help ensure that users receive the same service, irrespective of where they are in the region - A key enabler to the effectiveness and efficiency of regional processes, especially Change Management, Problem Management & Release Management. Closely linked to point 1 above, a single toolset will support and drive conformance across all our processes - Supports expected behaviours and service levels across IT teams – A single toolset will help drive this and highlight where variations occur, which can then be actioned through training, documentation etc. - Enables the introduction of OLAs – Operating Level Agreements between forces and teams. This cannot be achieved under the current multi-tool set up. OLAs will help optimise end-to-end process and service performance - Process metrics, measures and KPIs that can be tailored to different levels – These will support a new governance structure and ensure a consistency of service across each process and across the region - Powerful tools to extract, analyse and present data – These will facilitate all	be delivered in Aug 2017 Process alignment - Started March 2017 - Complete by Nov 2017 Full service management transformation completed by March 2018

	aspects of analysis from individual's performance within a process to inter and intra county analysis and trending. 'A single source of truth' - The ability to offer new services to the business e.g. a regional service catalogue – One set of offerings that can be enhanced and refined in line with application and infrastructure rationalisation initiatives	
Management Information (MI) 	Provides Nottinghamshire's senior officers with the ability to develop more dynamic personnel deployment, measure police team and individual performance, improved intelligence analysis to assist preventative measures, making information more readily available enables ability to plan Police Operations strategically, enable predictive analytics, consistent and standard management reporting.	MI Data Architect (Mehran Jahromi) started 12th April 2017 Proof Of Concept for a performance management solution 'Signals for Noise' by June 2017 (subject to licence agreements) MI Strategy defined by August/September 2017
Enterprise Architecture / Data Model 	In developing the Enterprise Architecture and Enterprise Data Model this will position Nottinghamshire to take full advantage of the National Digital agenda, enable the access to all data and turn into information to enable future increased effectiveness, efficiencies and savings. Additionally it will significantly reduce current IT complexity and costs, whilst significantly increasing the quality of the technology deployed to support a modern policing organisation. In addition the work stream will deliver clearly defined KPI's to measure improvement and repeatable design patterns to enable quicker turnaround of solutions.	Architecture Governance Completed to be agreed and signed off by 28/04/2017 Architecture principles and standards to be completed by 21/04/2017 Terms of Reference for TDA and Architecture Forum completed to be agreed and signed off by 28/04/2017 EA training pack for Notts IT staff to be completed by end of May. Training to be

		completed by Aug 2017

4.3   Delivery of the TFC Future Vision (February 2017)

The work streams above are more tactical to enable seamless connection and the ability to share information across the three force's legacy infrastructures..

Over the next 3 – 5 years Policing in the Tri-Force Collaboration comprising Nottinghamshire, Northamptonshire and Leicestershire will undergo unprecedented transformation as the result of national, regional and local technology programmes. The programmes listed below will strategically position us to meet the growing challenge of child abuse, domestic violence, hate crime, cyber-crime and enable prevention strategies, for example.

National

- National Policing Vision for 2025;
- Home Office – Emergency Services Network, Biometrics, Data;
- NPCC – Digital Public Contact, Digital First, Digital Investigations and Intelligence

Tri-Force

- Tri Force Enterprise Architecture - Will deliver best practice which enables TFC to improve its IT delivery and process capabilities.
- Tri Force Data Strategy - The Tri-Force enterprise data hub will enable seamless flow of information between force systems as well as interface with national systems delivering intelligence led Policing.
- Transformational underpinning Work Streams - include Agile, IT Service Desk System and Regional Change Optimisation, better collaboration and communication tools delivered through single telephony and video conferencing platform.

Local Force

- Tri-Force PCC Police and Crime Plans;
- Chief Constable Strategic Plans.
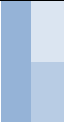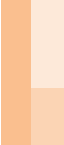
This vision represents the transformational phase for the Tri-Forces / Nottinghamshire and has been developed from the following points of reference:

- National Policing Vision for 2025;
- Tri-Force PCC – Police and Crime Plans;

- Chief Constables Strategic Plans;
- National Programmes (i.e. Digital Contact, Digital First, Identity Access management);
- Enterprise Technology Architecture to reduce the complexity of our 700+ applications.

The vision is based on significant transformation in all areas of police and back office operational functions. This will see the transition to a fully modernised and digitally enabled group of police forces. It must be emphasised that the levels of transformation can be regulated either in time to implement the transformation and the extent to which the vision is deployed will be governed by prevailing fiscal conditions and the desired rate of change expressed by individual force PCCs and CCs.

The TFC strategy and therefore Nottinghamshire transformational change seeks to focus upon the following themes:

Citizen Focus & Community Engagement		Embrace a range of contact channels that enable the two way interaction with citizens in personalised and cost effective ways.
		Provision of a reliable digital policing service that enables the public to feel secure, informed and receive help.
Empower & Enable Front-line Officers		Empower officers with real-time access to information that is presented in an intuitive and interactive way to achieve operational performance gains
		Deliver actionable intelligence and data to identify and prevent crime
National & Regional Policing Initiatives		Develop capabilities, standards and interoperability that enables the Tri-Force to benefit from national, regional and local policing initiatives
		Improve on regional working to reduce process overheads, provide efficiency savings and align more closely to national initiatives all with a view to improving public confidence.
Enhance Multi-Agency Collaboration		Create effective and viable partnerships nationally, regionally and locally that add value to the police service and agencies
		Provide agencies with current and joined up information in order to prevent crime and better safeguard the vulnerable.
Optimised ICT Operational Efficiency		Deliver shared and optimised core IT services along with a data driven intelligence model to increase operational efficiencies and achieve economies of scale from the Tri-Force.
		Provide the core IT infrastructure foundation over which policing services can be further built and improved.

The TFC vision recognises the significance of the national projects as there are number of national digital initiatives from NPCC, NCA, College of Policing, Home Office and other bodies delivering policing capabilities at local, regional and national levels.

It is illustrated in the diagram below that the TFC vision will see the leveraging of these initiatives and not duplicate capabilities, thus reducing cost and ensuring the resources and funds are better allocated in delivering improved policing services.
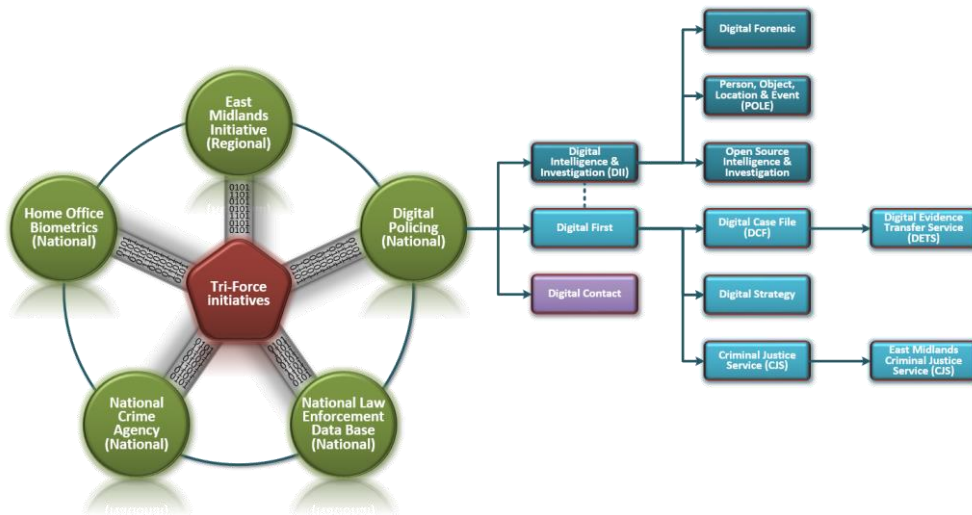
4.4   Submission for PRTB funding 17/18 and 18/19

The funding request has been submitted to engage of specialist resources which will enable the development of a transformation plan and multi-year business case. The objective will be to build a technology solution and Target Operating Model to enable the Tri-Force to meet the demands of modern day policing and to better equip police officers to prevent crime and to protect the vulnerable.

The PRTB proposal submitted to the Home Office in March 17 would, if successful, fund the development of a transformation (Business & Technology) plan and a business case for additional transformation funding. The transformation plan will focus on reviewing processes, behavioural change and enabling business improvements through modern and efficient technology. The scale and scope of the transformation is significant and therefore the overall approach is set out in two phases below:

Phase 1 - This proposal for Tri-Force transformation funding will be used to engage external specialist resources to develop us in the development of a transformation plan and business case to support a multi-year funding request.

Stage 2 - On completion of the transformation plan, business case and single enterprise architecture, external specialist resources will be commissioned to support the implementation of the transformational plan.

The rationale for proposing this holistic approach to transformation is that like many other Police Forces, Nottinghamshire is facing many challenges ranging from fiscal policy, abuse and hate crime, cyber-crime, and vulnerability. Whilst the largely tactical historical implementations of ICT has worked reasonably successfully it does not strategically position us for these future challenges, and will become increasingly restrictive and cost prohibitive to Nottinghamshire police force performance.

Nottinghamshire's technology solutions have been historically short term and tactical in nature, invariably not set within a strategic context. Consequently the technology solutions deployed over the last two decades have resulted in an environment of 700+ applications across Nottinghamshire, Leicestershire and Northamptonshire, the majority of which are 'stove piped' solutions with limited interoperability. Despite the excellent efforts of our police officers they are encumbered with the legacy IT that has been provided and this inhibits their operational effectiveness rather than enables and liberates.

The schema below illustrates examples where the current systems are not joined up. The target enterprise architecture would be a major enabler to delivering the outcomes and benefits and result in significant financial savings.
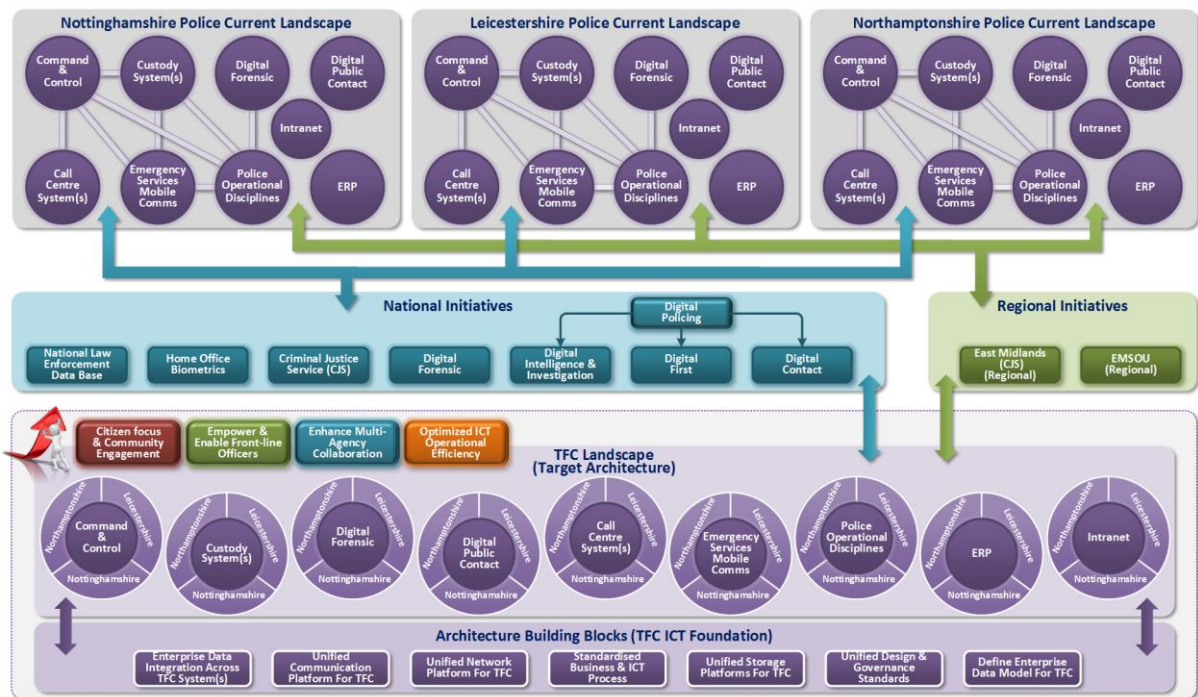
5. Financial Implications and Budget Provision

5.1 The budget provision for the TFC Enabling Services work streams are shown below and are being delivered with Leicestershire and Northamptonshire. It

should be noted that the funding is comprised of PTF grant contributions and Force contributions and the funding formula is also shown below.

Workstream	2016/17 Capital £000	2016/17 Revenue £000	2016/17 Total £000	2017/18 Capital £000	2017/18 Revenue £000	2017/18 Total £000	Total Capital £000	Total Revenue £000
1. Wide Area Network (WAN) Re-Design	285	25	310	520	50	570	805	75
2. Wireless Infrastructure Review & Design	20		20	18		18	38	
3. Single Core Telephony Platform	630	80	710	380	75	455	1,010	155
4. Active Directory Approach & Design								
5. Email Approach and Design								
6. Re-defining Agile & Remote Access Services	1,790	150	1,940	1,790	707	2,497	3,580	857
7. Video Conferencing Transformation	85	15	100	25	14	39	110	29
8. Enterprise Architecture & Data Model Design								
9. IT Service Desk & Regional Change Mgmt Tools								
10. Management Information (MI) Review & Design	70	130	200	115	230	345	185	360
11. MFD Solutions (Printing/Scanning) Review & Design	125	100	225	150	100	250	275	200
TOTAL	**3,005**	**500**	**3,505**	**2,998**	**1,176**	**4,174**	**6,003**	**1,676**

7,679

5.2 Internal / External Resourcing Costs

Workstream	Resourcing		Total
	2016/17 £000	2017/18 £000	£000
1. Wide Area Network (WAN) Re-Design	25	90	115
2. Wireless Infrastructure Review & Design	10	10	20
3. Single Core Telephony Platform	125	350	475
4. Active Directory Approach & Design	205	510	715
5. Email Approach and Design	210	520	730
6. Re-defining Agile & Remote Access Services	250	150	400
7. Video Conferencing Transformation	85	75	160
8. Enterprise Architecture & Data Model Design	315	430	745
9. IT Service Desk & Regional Change Mgmt Tools	225	450	675
10. Management Information (MI) Review & Design	200	400	600
11. MFD Solutions (Printing/Scanning) Review & Design	40	60	100
TOTAL	**1,690**	**3,045**	**4,735**

5.3   Funding Summary

Project Requirements	16/17	17/18	Total
Capital	2350	3653	6003
Resourcing	1690	3045	4735
Revenue	500	1176	1676
Total Expenditure	**4540**	**7874**	**12414**
PTF %	49%	28%	
Grant claimable	2225	2205	4429
PTF Grant Approval	2224	3536	5760

5.4 Funding Formula as set out in the Tri-Force IT Collaboration Agreement. The Apportionment Ratio for the financial year 2016/17 is:

- Leicestershire   35.22%
- Northamptonshire 22.51%
- Nottinghamshire   42.27%

5.5 The out-turn figures for the 16/17 financial year indicates a small underspend in both capital and revenue. A request has been made to Finance to carry over this underspend into 17/18.

5.6 There are significant benefits both cashable and non-cashable from the IS work streams across the three Forces. Whilst it is difficult to determine all the benefits attributable for example travel time and savings due to data limitations, the outcomes from the work streams include: Improved efficiency for front line officers allowing them to attend more incidents and reduce travel costs through agile working; increased security compliance, reduced IT support and fewer passwords resulting from Identity Access Management; Increased operational efficiency and lower licencing costs from Wide Area Network; Increased efficiency within daily briefing and tasking sessions from Video Conferencing resulting in reduced Officer travel time and cost; Rationalisation and standardisation of back office processes from the IT Service Desk Optimisation resulting in improved officer and staff satisfaction as well as licensing cost savings. The overall benefits from the work streams will be tracked as part of the Tri-Force programme moving forward.

5.7 The PRTB funding bid has identified that the contemplated transformation plan together with the technology enterprise architecture would require an additional investment of £40-£70m which it is estimated could yield savings of £175 - £200m over a 5yr period for the three forces of Nottinghamshire, Leicestershire and Northamptonshire.

6. Human Resources Implications

6.1 Restructuring of the three ISD organisations into a single Tri-Force ISD organisation will enable delivery of IT best practice, IT convergence, and alignment of functional disciplines. This will enable Nottinghamshire to meet the future requirements of police operations and take into account

responsibility for delivering the IT vision. Effective transition planning will ensure that business as usual is fully supported.

6.2 TU engagement has commenced and pre work will continue through May 2017. The procedures governing change will be followed.

7. Equality Implications

7.1 A full Equality Impact Assessment (EQIA) will be undertaken prior to the implementation of the revised management structure and this will consider diversity and protected characteristics of the IS workforce in Nottinghamshire Police.

8. Risk Management

8.1 Risks are being managed in accordance with the Management of Risks (M_o_R) methodology. This includes:

- Risk identification through stakeholder workshops;
- Risk / Impact / proximity scoring to ensure focus on significant matters;
- Identification of risk owners and appointed;
- Maintenance of risk logs with regular monitoring and action updates;
- Regular reporting through governance channels;
- Gateway / quality reviews will ensure appropriate risk mitigation undertaken.

8.2 The key risks and mitigating actions are summarised below

- **Risk 1** – Non award of PTF funding would fundamentally challenge the ability to make the savings required. Nottinghamshire Police will struggle to meet future budget reductions without impact on the scope of existing services provided to the public and will not have the capability to provide modern and effective policing services. This will impact on further officer reductions and nationally reported performance.
  Action / Mitigation – Attempt to identify limited funding allowing the development of a scaled back proposal. This would help to move forward with collaborative working but it would not be as far reaching and would deliver far less than planned.

- **Risk 2** –The proposed change is wide ranging in terms of processes, technology and behaviour and the volume of change could result in a delay in delivering an integrated solution.
  Action / Mitigation – Development of a robust transformation plan and strong governance processes to ensure a phased delivery of the transformation on a priority and risk based approach.

- **Risk 3** – The delivery of the IS vision is dependent on the delivery of national programmes and products, if they are delayed or fail to deliver their objectives this will impact on policing efficiencies and capabilities across Nottinghamshire.
Action / Mitigation – Engage and support national programmes and track any risks or interdependencies that arise.

9. Policy Implications and links to the Police and Crime Plan Priorities

9.1 Appendix A sets out how the IS Vision supports the delivery of Nottinghamshire's Police and Crime Plan priorities

10. Changes in Legislation or other Legal Considerations

10.1 Data storage and access will take account of changes in respect of recent legislation as follows:
- IICSA (independent national inquiry into historical child sexual abuse)
- Pitchford/UCPI (national inquiry into under cover policing)

11. Details of outcome of consultation

11.1 Staff consultation has not yet taken place on the IS organisational restructure. This will be undertaken once the new structure and grades have been finalised.

12. Appendices

12.1 **Appendix A** – How the Vision supports the delivery of Nottinghamshire's Police and Crime Plan priorities

Appendix A – Meeting OPCC Objectives through the TFC Vision

	Nottinghamshire PCC Objectives
Citizen Focus and Community Engagement	• Protect support and respond to victims, witnesses and vulnerable people • Tackling anti-social behaviour • Improve support for young victims of crime • Protect repeat victims of domestic abuse and sexual violence • Promote opportunities for local communities to reduce crime • Focus on those local areas that are most affected by crime and antisocial behaviour • Reduce the impact of drugs and alcohol on levels of crime and antisocial behaviour • Intervene early and provide support to complex and priority troubled families • Develop opportunities to involve victims of antisocial behaviour and crime on neighbourhood justice • Provide public information on sentencing and names of offenders
Empower and Enable Officers	• Prevention, early intervention and reduction in reoffending
National & Regional Policing Initiative	• Reduce the threat from organised crime • Work in partnership to address cyber-crime, terrorism, public order and civil emergencies) • Build active communities to improve relationships and community cohesion • share information across force boundaries to manage risks and threats • Pursue criminals through the courts to confiscate & seize assets • Ensure neighbourhoods are free from organised crime • proactive investigation & management of individuals involved in sexual exploitation • Achieve greater financial savings from regional collaboration • Improve victims and witnesses through the CJ system
Enhance multi-agency Collaboration	• Create a partnership fund and provide resources to local resources to local communities to resolve local problems • Work in partnership to address mental health needs & impact of substance abuse • Work with partners to tackle rural crime, protect local natural environments and improve cross border working • Partnering to deal with hate crime
Optimised ICT Operational Efficiency	• Improve the efficiency and effectiveness of the criminal justice process • Improve the timeliness and quality of case files through digitisation • Spending your money wisely • Save resources through co-location and shared services, such as AURORA, MASH.