

Audit	Connect Implementation Review
Assurance Opinion	Limited Assurance
Overall Risk	High Risk
Introduction	
<p>As part of the single Information Services function Humberside and South Yorkshire forces adopted a single IT strategy to meet local and national priorities with the intention of simplifying and reducing the cost of the IS environment for both forces.</p> <p>The Criminal Justice and Investigation Systems Replacement Programme was one of five major IS system rationalisation and convergence initiatives to assist with reducing and standardising IT systems, services and infrastructure.</p> <p>The Connect system replaced numerous aging, legacy, disparate systems across the Criminal Justice and Investigation service with a common integrated platform with the aim of maximising productivity, effectiveness and achieving greater collaboration between forces.</p> <p>Internal Audit reviewed the implementation of Connect in Humberside as major system changes represent a significant risk to the organisation. The scope of the review was wide, consequently it did not examine the granular level of the implementation.</p>	
Main Findings	
<p><u>Throughout the review good practice was identified:</u></p> <ul style="list-style-type: none"> • Timely Implementation: The Connect system rolled out on time under challenging circumstances, • Business Continuity: Arrangements appeared suitably considered, well organised and robust, • Business Case: A documented business case continually updated throughout the project was in place, • Training: Training was delivered to thousands of staff and officers within the resource and time available, • System Testing: Functional testing completed by subject matter experts within the Implementation Team identified numerous issues for resolution in preparation for the 'go live' date, • Blade: Partly mitigated absent legacy data within Connect, providing search functionality within Connect on legacy data. <p><u>The review identified areas where improvement could be achieved:</u></p> <p>Business Case: The objectives and benefits of the project were documented including anticipated financial savings from system licences and support. However, information around a baseline and how benefits and objectives would be measured was absent resulting in it not being possible to determine achievement.</p> <p>Processes & Procedures: Complete documented processes and procedures for Connect were not provided to the force resulting in additional time being required to adequately understand the system and its impact on the force. Processes and procedures were often not suitably determined at go live and in some instances over 9 months after implementation. The absence of suitably determined ways of using the system in good time impacted testing, training, management information and end users.</p> <p>Training: The impending deadline and poor clarity around processes & procedures impacted the ability to effectively design, plan and resource training of the system. Insufficient training resource required additional trainers to be recruited one month before delivery who with difficulty accessing the system and limited time were hindered from obtaining a suitable understanding of the system and the context of its use. A range of courses were developed to meet differing trainee requirements, however, much of the training within the core course was too generic for the wide needs of trainees and their area of business.</p> <p>Super Users: Northgate advised that 'super users' had been invaluable during earlier implementations of their software. The force subsequently developed a programme whereby designated individuals would function as expert system users able to assist others in their area of expertise. Individuals provided by force leaders to act as super users were often not suitable for the role. Additionally, an absence of training provision led to the implementation team providing sessions, poorly attended due to abstraction difficulties. Super users were not sufficiently upskilled and often unable to effectively achieve their intended purpose.</p> <p>System Testing: Testing was predominantly functional with some end-to-end processes tested by the implementation team. However, testing of case building and case management was impeded by the absence of a Two Way Interface, hampering understanding of processes. The implementation team's ability to perform effective end-to-end testing was further limited by decisions around configuration, processes and procedures being taken up to and past the go-live date. More extensive end-to-end testing would likely have uncovered many of the issues subsequently identified following go live.</p> <p>Data Migration: Initially planned ready for go live, this changed due to insufficient consideration and competing resource requirements. The Data Migration lead was not officially recruited into role until May 2016 with no real experience or knowledge of migration and no additional resource until October 2017. The Business Change Team had data migration experience from prior system implementations, however, this was not made clear to the project and not utilised.</p> <p>The force incurred costs of £90k extending the licence of CIS4 to enable system data to be transferred into a warehouse. This could have been avoided through more timely migration activities.</p>	

Management Information: The force opted to use Business Intelligence (BI) over inbuilt Management Information (MI) functionality, albeit a documented decision for this could not be provided. Performance & Assurance did not adequately recognise the extent of change in management reporting in Connect leading to limited progress until the creation of a BI team one month before implementation. Consequently management information available was more limited than prior to Connect & planned.

Access Controls: Connect utilises single sign on based on active directory information. The force intended to automate access permissions by linking a user's HR role to active directory so when a user changes role their system permissions reflect this. The force contracted external provider OCG to map user profiles and permission bundles to HR roles, however, it was found that the HR system had not been adequately maintained and role titles lacked the required specificity to reliably inform permissions. Despite the investment Connect access permissions are still manually maintained at a cost of two FTEs.

Business Change Team: Previously involved in several system implementations and have valuable experience and expertise. The team was briefly involved in the project at the request of force leadership, however, a breakdown in communication, coordination and the relationship with Information Systems led to an absence of their representation, weakening project outcomes.

System Development Life Cycle (SDLC): The implementation deadline appears set by expiring licences and support of key systems, although the force was aware of these issues several years in advance. Many issues highlighted appear due to insufficient time/resource being available to effectively work through the SDLC, signing off each stage as complete before starting the next phase of the project. Corrective action is required to resolve issues that could have been addressed prior to go live.

System ownership, support, development and improvement: The Connect implementation team was disbanded March 2018, albeit with an absence of formal arrangements around future ownership of the system. Many intended project objectives and benefits are still to be achieved. To ensure their achievement and continuous improvement requires an appropriately placed, qualified and experienced team with responsibility for supporting, developing and improving the system.

Recommendations and Management Action

The report makes 24 significant recommendations, with management action required to address a number of issues, including:

- Develop a pre-connect baseline to determine achievement of objectives & benefits and where corrective action is required,
- Development and analysis of metrics to facilitate continuous improvement in processes & technology,
- Ensuring future business case objectives are Specific, Measurable, Achievable, Relevant & Time bound (SMART),
- Ensuring full and editable system documentation, including processes & procedures is a system tender requirement,
- Ensure local processes & procedures are suitably determined, tested, documented and available to users in a timely fashion,
- Develop a complete end-to-end user guide that guides users through the whole process of using the system,
- Consider adopting Connect Express, a simplified, intelligent and guiding user interface,
- Ensure timelier planning and consideration around timescales & resources required for effective training,
- Ensure system design & configuration is suitably determined ready for dependent activities to commence,
- Ensure suitable individuals are selected and sufficiently upskilled to effectively function as Superusers,
- Greater use of end users to perform end-to-end and user acceptance testing to ensure system meets end user needs and identify issues for resolution prior to implementation,
- Ensure data migration is suitably considered and resourced to achieve planned migration targets,
- Ensure that the decision making process and decisions are appropriately documented and supported,
- Map areas and levels of expertise of force personnel so that available expertise is utilised appropriately on future projects,
- Ensure management information requirements are suitably considered & resourced to ensure the availability of management information.
- HR information should be updated to free resource and enable the utilisation of automated access permissions,
- Realistic timescales and resourcing should be provided to projects to ensure delivery on time to the required standard.
- Controls should be implemented to ensure each stage of the SDLC is suitably completed before dependent stages commence,
- Ensure the system audit log is brought up the required standard. Future projects should ensure such critical functionality is at the required standard before fully implementing respective systems,
- Investigate how system update charges for legislative changes were not identified during the procurement to avoid future occurrences. The force should determine whether it is possible to avoid these charges as they are required to ensure the system remains fit for purpose.
- Ensure processes, procedures, training and guidance is sufficient to enable users to utilise digital case file functionality
- Metrics & monitoring should be utilised to identify areas of the process & personnel requiring further support.
- Future dual force implementations should provide a sufficient window between implementations for issue resolution.
- Projects to include arrangements for a suitably skilled & qualified team to take ownership for supporting, developing and improving systems and how they are utilised.

Management responses were received which included satisfactory agreed actions to address the audit recommendations. The implementation of these agreed actions should provide added assurance regarding the workforce planning arrangements at Humberside Police.