1. **Introduction**

1.1. This Information Technology (IT) Strategy has been developed to complement the Probation Board for Northern Ireland (Pdni) Corporate Plan 2014–2017. It describes the IT advances in the last corporate planning period 2011-2014 and details proposed developments over the period 2015-17, including upgrading of infrastructure and replacement of IT systems.

2. **Strategic Context**

2.1. The Pdni Corporate Plan 2014–17 incorporates five strategic themes. This IT Strategy has been developed under the “Working Effectively and Efficiently” theme. Under this theme Pdni is committed to continuously strengthening the performance of the organisation while carrying out its responsibilities effectively and efficiently. One of the actions is “Developing an IT Strategy that enhances workflow in support of front line services and advances practice.” In recent years Pdni has increased its use of IT systems, both internally and by accessing systems from partner organisations. Pdni will continue to invest in technology to help deliver an efficient Probation service.

3. **Background**

3.1. Pdni plays a key role in the Northern Ireland criminal justice system. Pdni is a non-departmental public body (NDPB) funded by the Department of Justice. Its core business is risk assessment of offenders, provision of reports to courts to assist their decision making, preparing offenders for release from custody, and supervision of offenders in the community. There are 350 employees in the organisation operating out of 23 sites throughout Northern Ireland.

4. **IT Development 2011-14**

4.1. There have been significant developments in IT infrastructure and access to other systems during the past three years. These include:

- Implementation of a virtualised server infrastructure;
- Server operating system upgrade to Windows Server 2008 R2;
- Citrix upgrade to XenApp version 5;
- Wide area network migration to Network NI (DFP shared service);
- Introduction of secure remote access solution for 85 users using encrypted laptops;
• New anti-virus, email filtering and web content management software;
• Disaster recovery site moved to HMP Maghaberry;
• Email service upgraded to Exchange 2010;
• Upgrade to Office 2010;
• Implementation of Support Desk helpdesk management system;
• Order processing, payments and travel expenses migrated to Account NI shared service in July 2012;
• Access to DOJ Procurement database;
• Expansion of videoconferencing on Northern Ireland Prison Service (NIPS) videoconferencing network.

5. Information Assurance

5.1. Information assurance (IA) is the practice of assuring information and managing risks related to the use, processing, storage, and transmission of information or data and the systems and processes used for those purposes.

5.2. It is a Cabinet Office requirement that all IT systems processing protectively marked information must undergo an accreditation process. This process involves the production of a Risk Management Accreditation Document Set (RMADS). An IT health-check is also required. This involves a review of system security controls and penetration testing to detect any security vulnerabilities. The DOJ Accreditation Panel oversees the process of IT system accreditation on behalf of the DOJ Information Risk Owner Council (IROC). This group deals with all information assurance matters, made up of representatives from the DOJ directorates, its agencies and Arm’s Length Bodies. PBNI’s representative on the Accreditation Panel is the Head of Information Technology. The Senior Information Risk Owner (SIRO) for PBNI is a Deputy Director who attends IROC.

6. PBNI Alignment with NICS IT Strategy

6.1. The increasing pressure on public finances has been a key driver requiring the Northern Ireland Civil Service (NICS) to consider whether it can make greater efficiencies from its IT infrastructure, its buildings and its information. Hence this is now a time for greater innovation, increased collaboration and sharing across the wider public sector. This will help to reduce costs and to deliver improvements in the experience of citizens using public services.

6.2. The changing IT landscape is now being factored into the NICS IT strategy. The use of Cloud services, mobility and an increasing demand
for internal and external social networking are significant areas of change in the next few years.

6.3. Other initiatives include harnessing the procurement power of Government to deliver improved value for money and stimulating the local economy. NICS are also considering how to move forward with their existing shared service contracts, e.g. Account NI, HR Connect, Network NI, NIDirect and Records NI.

6.4. The business context that underpins the strategy includes:

- Significant budget reduction
- Changing relationship with Whitehall
- Joined up Government
- Growing public expectations on public services
- Impact of NIDirect
- Information losses and public confidence
- Demand for more information
- Creation of new super councils

6.5. The main business principles of the NICS IT strategy include:

- \textit{Reducing business costs} – helping the business to reduce costs through the use of IT
- \textit{Leverage investment in Shared Services} – generating efficiencies through the use of shared services and centralised contracts
- \textit{Improving operational effectiveness} – using IT to help drive duplication and inefficiency out of the business
- \textit{Improving quality and accessibility of services to citizens} – ensuring resource is focused on front line services
- \textit{Embedding information assurance} – ensuring information assurance is built into all systems and services and that staff are fully aware of their legal responsibilities in relation to the handling and security of information
- \textit{Sustainability} – help to reduce cost and waste while supporting sustainable approaches in all aspects of work
- \textit{Take advantage of UK developments} – exploiting the best of UK (and European) developments that can be applied to Northern Ireland.

6.6. These principles are set at a high level and apply to all Departments, Agencies and NDPBs. The principles should drive all IT projects; and all IT projects should be able to link to at least one of these business drivers.

6.7. This PBNI IT Strategy has been developed taking into consideration the strategic direction set out in the NICS IT Strategy.
6.8. The hardware and software that are used by PBNI are consistent with the products used in the NICS (Microsoft Office, Windows 7, HP switches, VMware hypervisor, Dell servers, Multi-Function Printers).

6.9. PBNI have already virtualised its server environment and the managed print service has helped reduce energy and printing costs. PBNI is well versed in the importance of information assurance through the work involved in systems accreditation, investigation and reporting of security incidents and the work of the DOJ IROC.

7. **Aim of strategy**

7.1. The aim of the IT Strategy is to identify the IT developments that are needed to maintain the PBNI network infrastructure and to enhance the use of technology to make the organisation more efficient and effective.

8. **Objectives of the strategy**

8.1. The objectives of the IT Strategy are as follows:

- Identify software upgrades and hardware replacement that are essential to the continued development of the PBNI IT infrastructure.
- Maintain the security accreditation of the PBNI network.
- Utilise the potential of technology and IT systems to enhance service delivery for front line and support staff.

9. **Evaluation**

9.1. An annual implementation plan will be developed, with progress reported to senior management, the Board, DOJ and Unions.
10. **Internal and external drivers**

10.1. PBNII has continued to develop in the past three years with significant changes to the IT infrastructure including server virtualisation, migration to Network NI, the introduction of a managed print service, increased use of videoconferencing and secure remote access to the PBNII network.

10.2. PBNII received a cut in budget for 2014/15 and for this will continue in 2015/16 and beyond. To date the savings have mostly been made in non-staff costs but it is inevitable that reductions in staff numbers will be required if PBNII is to live within its proposed budget allocation. The Government have indicated that the cuts will continue for some time to come, so making better use of new and emerging technologies can help PBNII become more efficient and effective and contribute to future savings plans.

10.3. Increased use of IT at home brings its own challenges with staff often using both hardware and software that is more up to date that what is currently available to them in the office environment. Most people now have smart phones with instant access to email, social media and internet browsing from anywhere. Staff may wonder why these devices and access to information relevant to their work cannot be provided. However PBNII must consider issues of security of information and has legal obligations to protect the personal information it holds. In addition, that ease of access and mobility comes at a cost.

10.4. Effective sharing of information with partner agencies can also help. Although PBNII is currently not able to share case information through the Causeway system, we are currently exploring other options for electronic sharing which will be of mutual benefit to ourselves and others within the criminal justice community. These include electronic access to depositions and providing defence solicitors with an electronic copy of pre-sentence reports.

10.5. To help meet the centrally imposed reductions in the NI block grant, the NICS IT Strategy indicates increased leveraging of the existing IT shared service contracts. Currently PBNII only use Account NI and Network NI, but PBNII may need to consider using other shared services such as HR Connect and IT Assist.

10.6. The Department of Finance & Personnel Asset Management Programme Board has commissioned the collection of IT expenditure...
from the NICS and wider Northern Ireland public sector. The purpose of this exercise is to use the data collected to identify whether there would be opportunities for achieving efficiencies by doing more cross public sector activities, including procurement and shared services. PBNI has submitted a return to DOJ in January 2015.

11. Infrastructure development

11.1. This paper has already been outlined the improvements in the infrastructure since the last strategy update in 2011 (page 2, para 4.1). However there will be a continuing need for further capital investment in order to sustain the IT capability within the organisation.

11.2. The server virtualisation project in 2011 has been successful in reducing the number of servers, saving on power and environmental costs. However the four host servers were actually purchased in late 2010 with a five year warranty. It will be possible to extend this warranty but the servers will need replaced in 2016. The hypervisor software running on the physical host servers is VMWare vSphere ESX version 4.1. This software remains in general support until 2021 however it would be pertinent to upgrade to a later version when the host servers are replaced in 2016.

11.3. The server operating system currently used is Windows Server 2008 R2. Mainstream support for this product ends in 2015 however it remains in extended support until 2020. Again it would be pertinent to migrate to the latest available Windows server operating system in 2016. Microsoft Exchange should also be upgraded at this time.

12. Network development – Network NI

12.1. PBNI migrated its wide area network to the Network NI service in 2011. This shared service is a private network connecting all NICS departments, agencies, ALBs and the wider NI public sector. The current contract is with Eircom and this contract will end during 2017. The procurement of a replacement for Network NI will be taken forward by DFPs Enterprise Shared Services. The requirements of all organisations which use the current Network NI service will be included in this procurement.
13. **Website & intranet**

13.1. The Communications Strategy 2013-16 has an overarching aim of encouraging engagement and consultation with internal and external audiences to increase understanding, awareness and confidence in PBNI and the criminal justice sector. The strategy is underpinned by the need to be open and transparent and engage with the media and the wider community about the elements of probation’s work that it is legal and practical to do so.

13.2. In order to meet this aim there were key objectives contained within the communications plan and PBNI Business Plan 2014-15 to utilise the external Website and internal Intranet operated by PBNI more effectively.

13.3. This includes:

- developing social media channels further and ensuring that we link with partner agencies in criminal justice to highlight issues across criminal justice. In particular PBNI leads on the communications for the multi-agency arrangements of the Public Protection Arrangements (PPANI) and Reducing Offending in Partnership (ROP). The Public Protection Arrangements aim to provide a multi-agency, co-ordinated system of risk assessment and risk management that will be effective in reducing the immediate and long term risk of sexual or violent re-offending. ROP is a partnership between the Department of Justice, Probation Board for Northern Ireland, the Police Service of Northern Ireland, the Northern Ireland Prison Service and the Youth Justice Agency which aims to tackle people who regularly commit crime and who impact most upon the community. The website is essential in disseminating information on these areas of work.

- publish information, stories and key facts which help tell the story of probation to the wider public and help build confidence in probation and criminal justice.

- publish information in relation to Freedom of Information and have a publication scheme using the website to fulfil its legislative requirements set down in legislation by the Information Commissioners Office.

- using the website to have citizen contact about services and develop the information available for victims and offenders on probation.
13.4. The website and intranet are operated by the Communications Unit. The website is used as a forum to publicise the majority of information within PBNI.

13.5. The intranet is used internally to highlight and brief PBNI staff on developments within Policing and Community Safety Partnerships, share good practice amongst staff in relation to the Public Protection Arrangements and the Reducing Offending in Partnership, and keep staff up to date on organisational and financial developments. The intranet also contains paperwork (forms/templates etc.) that staff regularly use in day-to-day work.

13.6. PBNI recently tendered for a new website and intranet and a contract has been awarded in January 2015 to Legato to develop the website and intranet and provide support over the next five years. The new sites will be in place in March 2015.

14. **Personal Computer and Laptop Replacement**

14.1. All PBNI desktop PCs had been purchased with a five year extended warranty. As of September 2014, all desktop PCs are now out of extended warranty and between 5 and 7 years old. The oldest machines are now in need of replacement.

14.2. In November 2014, the Board approved a business case the procurement of 95 laptops. The preferred option in the business case was to start the replacement of desktop PCs with laptops for those probation officers who currently don’t have a laptop (probation officers in the Intensive Supervision Unit already use laptops). It was agreed that a laptop, although more expensive than a desktop PC, would provide greater flexibility in future for probation officers. This would include the future capability for mobile use from outside the PBNI network with the potential for secure remote access from any location (subject to appropriate security policy and procedures). The laptops will initially be a direct replacement for the existing desktop PC. A separate business case will be required to add mobile capability (via SIM card and/or home broadband). Probation officers working in prison establishments will continue to use desktop PCs as a laptop would provide limited additional benefit as they cannot be easily transported in and out of these sites.

14.3. The laptops are being procured through the NICS framework contract for laptops with money allocated in the IT capital budget in October 2014.
14.4. The purchase of these laptops will commence the cycle of replacing the existing desktop PCs. It is planned to replace the remaining desktops for other staff who are primarily office based (field team admin staff, corporate services staff) over the next three years by bidding for further IT capital funding.

14.5. In accordance with HMG Policy, all PBNI laptops are encrypted using Microsoft Bitlocker (Communications Electronic Security Group (CESG) approved).

15. **Software – Citrix, Microsoft**

15.1. PBNI has used Citrix software to deliver IT services to all outer offices since 2005. This software provides users with a good user experience across relatively low bandwidth data circuits. A new virtual Citrix farm was built as part of the virtualisation project in 2010-11. PBNI currently use Citrix XenAPP version 5, which will become end of life in 2015 but has extended support until 2020. This software will need upgraded in 2016 when the virtual hosts are replaced and a new Citrix farm is built.

15.2. PBNI has been using Microsoft products since the 2001. The most recent Enterprise Agreement was taken out in 2009 and expired in December 2014. On advice from Central Procurement Directorate (CPD), PBNI plan to migrate to the NICS Enterprise and Select Agreement. However this will not be in place until April 2015. To avoid reinstatement charges due to allowing the current agreement to lapse, CPD have recommended that PBNI enter a new agreement now, with a view to migrating to the NICS agreement after year one (subject to agreement from Microsoft).

15.3. This agreement will provide PBNI access to the latest versions of both server and desktop operating systems (Windows 2012, currently Windows 8 & Windows 10 later in 2015) and productivity software (currently Office 2013).

16. **Anti-virus and Content Filtering**

16.1. PBNI use Sophos software for anti-virus protection and web and email content filtering. The contract for the anti-virus software runs until June 2019. The contract for the web and email content filtering runs until November 2016 so this solution will need replaced in 2016/17 financial year.
17. **Storage Area Network**

17.1. A Storage Area Network (SAN) is a high speed network of storage devices that also connects those storage devices with servers. It incorporates a series of disks that are used to store PBNI data. It also contains tape drives which are used to back up the date. PBNI have two SANs (EMC Celerra-NX4) – one in HQ and one in the disaster recovery site at Maghaberry. Each SAN comprises a disk controller and a series of trays which house the actual disks. The HQ SAN has four trays and the Maghaberry SAN has two trays. Both SANs were installed in November 2009. EMC will cease support for the Celerra-NX4 in June 2017. The two SANs will need to be replaced before the manufacturers support ends.

18. **New electronic case management system**

18.1. The original contract for Probation Information Management System (PIMS) was awarded in 2002. The system was piloted in two offices in early 2004 and has been in operation throughout PBNI since 2006. The system is an Oracle 10g database with a Microsoft Visual Basic 6 user interface. Both Oracle 10g and Visual Basic 6 are both now end of life.

18.2. Aside from the dated technology, the PIMS system has significant deficits in functionality. The ability for the PIMS system administrator to change any aspect of the system is minimal. The vast majority of changes must be carried out by the supplier and are expensive. The system was not designed as an Electronic Document & Records Management System (EDRMS) and does not allow for easy management of records.

18.3. Since 2010, PBNI have been involved in a joint project with the Youth Justice Agency (YJA) to procure a new electronic case management system. A consultant was used to develop an output based specification (OBS) and develop an outline business case (OBC). The initial OBC submitted in 2011 proposed bi-lateral sharing of information with other CJOs. This was rejected by DOJ as the strategic aim of the department was to use Causeway for data sharing.

18.4. After exploring alternative options to connect to Causeway, the OBC was resubmitted in 2012 with full integration with Causeway as the preferred option. However the high ongoing resource costs made this option unaffordable. The initial project was formally closed down in November 2013.
18.5. DOJ recommended the development of a Strategic Outline Case (SOC), which was submitted in July 2014. The department has asked two additional options to be included in the SOC – exploring the use of PRISM (NIPS prisoner system) and in-house development of a system by DOJ Information Services Division using open source software. NIPS has consulted CPD to explore if the PRISM contract would allow the necessary enhancements to be made to provide the functionality required by PBNI and YJA. CPD have indicated that under new European Contract Regulations this may be possible. A formal submission is now being made by NIPS. DOJ has also indicated that while capital may be available to fund a new system, the system must be self-funding in terms of resource costs.

18.6. The current Causeway contract will end in March 2019. Work has just commenced on exploring the options for Causeway after that date. It may be possible that a new electronic case management system for PBNI and YJA could be included as part of that project.

19. PIMS

19.1. The PIMS servers are now over 9 years old and at the end of their useful life. New servers were purchased in 2014 and it is now planned to upgrade the server operating system to Windows 2008 Server R2, in keeping with all other servers on the PBNI network. Careworks, the PIMS supplier, will be testing the PIMS application to ensure it will run on this new operating system. This work will be carried out in March 2015.

19.2. Careworks have been providing annual support and maintenance under a Direct Award Contract (DAC) since 2007. DOJ have recently approved a new DAC that will extend support that on an annual basis up to March 2019.

19.3. It has also been agreed to make some enhancements to PIMS to enable all equality category data to be recorded on the database and the ability to report on that information.

20. Electronic Appraisal system

20.1. In June 2014, the Audit Committee recommended re-engagement with Kofax, the supplier from 2013, to complete the outstanding work required to deliver a working system that meets the original specification along with the agreed enhancements. The outstanding work has been agreed in a Statement of Works and Kofax commenced with development work.
in mid-December 2014. User acceptance testing is planned for early February and user training planned for March 2015. The system will go live in April 2015.

21. E-learning

21.1. PBNI procured an e-learning system in 2011. The system is based on an open source software product, Moodle. PBNI also has access to a suite of e-learning courses from Learning Pool. PBNI has developed in-house e-learning courses in a range of topics including use of display screen equipment, time management, sick absence management, complaints handling and personal safety. The system has also been used to deliver mandatory training on the new Government Protective Marking Scheme and Responsible for Information (Levels 1-3).

21.2. E-learning provides a means of delivering training courses at people’s desks. With the ongoing pressure on budgets, it is a very useful resource to enable PBNI to continue to deliver training and opportunities for continuous professional development in a cost effective and efficient way.

22. Integrated Human Resources and Payroll System

22.1. The Human Resources Department have been using Personnel Administration Management System (PAMS) since 2001. The system is a COTS (commercial off the shelf) personnel management package that is used to maintain staff personnel and training records. Four years ago, a number of DOJ funded bodies including PBNI were included in discussions with DOJ on the potential to use HR Connect, the NICS shared service for personnel management. This review was carried out as part of the DOJ Reform Programme. However given that the majority of PBNI staff have a different set of terms and conditions of employment ruled PBNI out of moving to the HR Connect shared service.

22.2. PBNI joined the Account NI shared service in July 2012. Since then all purchasing, accounts payable and travel claims have been provided by this shared service. However the PBNI in-house payroll system (Cintra) was not migrated, again because of the difference in terms and conditions of employment.

22.3. The PAMS software is now 14 years old and does not provide the functionality that would be expected in a modern HR management
Likewise the Cintra payroll system does not have the functionality that would make the role of the payroll staff much easier.

22.4. PBNI would derive considerable benefit from a modern integrated Human Resources and Payroll system. Such a system should include the following functionality (not an exhaustive list):

- Attendance Management
- Sick Absence Management
- Annual Leave approval and recording
- Recruitment
- Payroll
- Training / Learning Management
- Staff appraisal
- Employee Self Service
- HR management information
- Health and Safety
- Equality and Diversity

22.5. A project is to be established to take forward this initiative. The initial stage will be the development of a Strategic Outline Case, followed by a system specification and business case. The project will be managed on the principles of Prince 2 methodology.

23. Printing strategy – managed print service

23.1. In autumn 2011, PBNI contracted with Xerox for the provision of a managed print service. Under this five year contract, Xerox provide high speed multi-function devices at all PBNI sites. These machines are capable of printing, copying, faxing and emailing documents. The system also provides the ability to print from any network printer and enhanced security by requiring a user to authenticate with a security card to print out completed jobs.

23.2. PBNI was one of the first public sector bodies in Northern Ireland to implement a managed print service. It has proved popular and is now widely used across the public sector. In the NICS, IT Assist have set up their own managed print service contract and when PBNI’s current contract with Xerox ends in December 2016, CPD have advised that PBNI will be expected to migrate to the IT Assist contract.
24. Secure Remote Access (SRA)

24.1. In September 2011, a contract was awarded to British Telecom to provide PBNI with a technical solution to enable secure remote access to the PBNI network. The solution provides remote access from a laptop, encrypted using Bitlocker (CESG approved). The solution requires two forms of two factor authentication – a username and encryption key, followed by a username and a one-time generated password. Once the authentication has taken place, an encrypted Citrix session is opened and users have access to all systems that they are entitled to use. The solution is based on a combination of hardware (firewall and RSA server) and security software.

24.2. The solution was designed for up to 100 concurrent users. PBNI currently has 85 SRA users. Initially the SRA laptops were provided to area managers who participated in the duty manager system for out of hours contact. This was then extended to all area managers. In 2013, case managers from the Intensive Supervision Unit were also provided with an SRA laptop. This was primarily for remote access to sensitive case papers when away from their office attending LAPPP meetings.

24.3. The number of laptops is due to increase during 2015, as 95 new laptops will replace the desktops of probation officers. However that current project does not include providing secure remote access to the PBNI network at this time. A separate business case will be required if funding becomes available.

24.4. The current contract for the SRA system runs until September 2016. By that date, the hardware and software will need to be replaced. A SRA replacement project will need to start in late 2015.

25. Mobile Phones

25.1. PBNI currently has a contract with Vodafone for the provision of mobile phones and Blackberry devices. This contract, which is available to all UK public sector organisations, is due to expire in May 2015. There are similar UK public sector contracts with other mobile providers including EE and O2.

25.2. PBNI will assess the service which provides the best value before renewing the current Vodafone contract.
26. Videoconferencing

26.1. PBNI now have videoconferencing facilities in 10 offices and this will be extended to three other sites in March 2015 (Crawford Square, Lisburn and Newtownards). In addition it is possible to link to the three prison establishments.

26.2. PBNI currently use the NIPS videoconferencing infrastructure for videoconferencing calls between sites. Whilst there are no call charges for PBNI in using this network, NIPS currently incur high costs in supporting old ISDN units primarily for videoconferences between prison establishments and courts. NIPS has established a project to migrate their service and support to the IT Assist videoconferencing service, delivered on Network NI. Consequentially, other users of the existing NIPS network (PBNI, YJA, NICTS and FSNI) must also migrate to the IT Assist system. PBNI is represented on the project board as a stakeholder.

26.3. NIPS and PBNI have carried out tests between the NIPS and IT Assist networks to ensure connectivity between the systems will be maintained during the migration process. This testing has been successful.

26.4. IT Assist will only allow videoconferencing units which are currently in manufacturers support onto their network. Many of the existing PBNI units are no longer in support and will need replaced. The timescale for the migration to the IT Assist network is by end of June 2015.

27. Electronic provision of Board / Senior Management Team papers

27.1. For a number of years PBNI has considered how to make the production of papers for Board and Senior Management meetings more efficient. The IT Department has investigated how other organisations have tackled this issue. These included the Northern Ireland Assembly, Armagh City & District Council, Northern Ireland Housing Executive and the South Eastern Health Trust. All organisations visited have used various software applications to provide a single electronic pack of papers for each meeting. Access to the papers is provided from a range of tablet devices including Windows and Android tablets, and iPads.

27.2. Analysis of the costs associated with the production of papers for all Board, committee, senior management and various other internal meetings showed that each year over £45k is spent. This is made up of staff time, paper, printing and postage. It has been estimated that 75% of these costs can be saved by implementing an electronic solution.
27.3. A business case was approved by the Board in November 2014. The solution will use Microsoft Surface Pro 3 tablets to access to the document packs. Following a tender exercise, the MinutePad software application will be used to produce the document packs. Users will have the ability to highlight text and add their own annotations to the document. MinutePad is used by a number of local councils, health boards, NI Libraries and Belfast Metropolitan College.

27.4. PBNi is using the Digital Marketplace to buy in the services necessary to configure the tablets devices to access the MinutePad application with the necessary security controls in place.

27.5. The tablet devices will be encrypted using Bitlocker and will be capable of accessing and storing information with an OFFICIAL classification.

27.6. Implementation of the solution is planned for first quarter 2015-16.

28. **Social Media**

28.1. PBNi currently use a number of social media tools.

28.2. Since 2010 PBNi’s Communications Department has been using Twitter. This is an online social networking site that enables users to send and read short 140 character messages called “tweets”. PBNi use Twitter to send out messages about issues affecting PBNi and the wider criminal justice sector. It is also used to bring attention to press releases. The messages can also include photos and links to other resources. PBNi currently has over 1100 “followers” – people or organisations who subscribe to the PBNi Twitter feed and automatically receive and PBNi tweets. These followers include politicians, journalists, other criminal justice & probation organisations and educationalists with an interest in criminal justice. PBNi has sent over 1500 tweets since 2010.

28.3. In September 2012, PBNi launched its own YouTube channel. YouTube is a video-sharing website created in 2005 and now owned by Google. The PBNi YouTube channel currently has 10 videos uploaded to it. The videos provide information on the work PBNi carry out for courts, in prisons and with victims. They also provide information on community service, programmes and the Inspire Project. The videos have had over 2300 views.

28.4. In January 2015, the Communications Department has created a LinkedIn account. LinkedIn is a business focused social networking service with its main aim to help people network professionally.
28.5. Social media is a proven method of engagement with stakeholders and others who are interested in the work of Pdni and the Communications Department is continuing to use the current tools and investigate others that can contribute to getting key Pdni messages and information out to the general public.

29. Other initiatives

29.1. Pdni is currently engaging with other Criminal Justice Organisations in making more use of Information Technology to share information more efficiently and improve business processes. Examples of this include the following:

- Since January 2014, Pdni has been scanning and emailing Pre Sentence Reports to Courts. This currently applies to all reports for Crown Court and for the District Judge's copy in Magistrates Court;
- During 2015, NICTS is planning to provide defence solicitors with the ability to securely download Pre Sentence Reports from the ICOS system.
- NICTS and Pdni are discussing the potential to get access to case depositions electronically from PPSNI during 2015.

30. New technologies

30.1. The rate of change of technology continues at a fast pace. Miniaturisation continues to provide more powerful devices in a small form factor (smart phones and tablet devices).

30.2. A major deficit of the current PIMS electronic case management system is the time that staff spend in keying information into the system that they have already captured on paper. There are a number of technical solutions that could be integrated with a new case management system to enable the information to be captured once and then automatically be uploaded or synchronised with the system:

- Digital Pens – these are input devices which capture handwriting of a user, convert the handwritten analogue information into digital format that enables that then allows that information to be uploaded into an IT system.
- Digital voice recording – these devices record speech in digital format, enabling it to be attached to other IT applications.
30.3. The specification for a new case management system will include piloting of digital pens and digital voice recorders to evidence the savings available through using these technologies.

30.4. Another potential technical solution is the ability to send details of probation appointments to clients via text or email.

30.5. NICTS are encouraging solicitors to get secure email accounts to enable secure sharing of information. This is being taken forward with the Law Society. This initiative could also prove beneficial for PBINI in future.

30.6. The project to replace desktop PCs with laptops for probation officers will give PBNI an opportunity to make the workforce more mobile. This could enable the ability to work from other locations (Court, partner organisation buildings) and potentially from home.

31. Review of IT policies

31.1. There are a number of IT policies in PBNI, including Information Assurance, Information Security, Internet & Email and Monitoring at Work. A review of all PBNI policies is planned for 2015/16 which will consider the format and whether some policies can be discontinued or amalgamated. All IT policies will be reviewed and updated as part of this exercise.

32. Project Management

32.1. All proposed IT projects will be managed with a proportionate level of the Prince 2 project management methodology.

33. Security

33.1. For all IT projects, appropriate security measures will be included to protect against the risk of loss of information, maintaining the integrity of information and unapproved access to IT systems.
### Planned ICT Developments 2015-17

34.1. The table below summarises the key IT developments planned over the life of this strategy:

<table>
<thead>
<tr>
<th>Existing situation</th>
<th>Proposed Action</th>
<th>Timescale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard copy Board &amp; SMT papers</td>
<td>Implement electronic Board / SMT solution</td>
<td>April/May 2015</td>
</tr>
<tr>
<td>Videoconferencing</td>
<td>Migrate to IT Assist network infrastructure</td>
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<tr>
<td>Website &amp; Intranet</td>
<td>Contract awarded for new website &amp; intranet</td>
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<tr>
<td>IT Policies</td>
<td>Review and rationalisation as part of policy review</td>
<td>2015</td>
</tr>
<tr>
<td>PIMS</td>
<td>Upgrade server operating system &amp; equality monitoring enhancements</td>
<td>March 2015</td>
</tr>
<tr>
<td>Secure remote access</td>
<td>Replace existing secure remote access solution</td>
<td>2015/16</td>
</tr>
<tr>
<td>Paper base appraisal system</td>
<td>Implement E-Appraisal system</td>
<td>April 2015</td>
</tr>
<tr>
<td>Existing contract</td>
<td>Review and award new contract</td>
<td>May 2015</td>
</tr>
<tr>
<td>Social Media</td>
<td>Review and expand use of Social Media</td>
<td>2015/16</td>
</tr>
<tr>
<td>Receive hard copy of depositions</td>
<td>Receive electronic copy of depositions</td>
<td>2015/16</td>
</tr>
<tr>
<td>Defence copy of PSRs provide on hard copy</td>
<td>Defence copy of PSRs provided electronically via ICOS</td>
<td>2015/16</td>
</tr>
<tr>
<td>Desktop PCs now 5-7 years old</td>
<td>Replace with new laptops / desktops</td>
<td>2015/16 &amp; 2016/17</td>
</tr>
<tr>
<td>Web and email content filtering</td>
<td>Existing contract ends Nov 16. New contract required.</td>
<td>2016/17</td>
</tr>
<tr>
<td>Server operating system</td>
<td>Upgrade to latest Windows server operating system</td>
<td>2016/17</td>
</tr>
<tr>
<td>Virtualised host servers – HQ &amp; Maghaberry</td>
<td>Replace servers at end of extended warranty</td>
<td>2016/17</td>
</tr>
<tr>
<td>VMWare vSphere 4.1 virtualisation software</td>
<td>Upgrade to latest version of VMWare</td>
<td>2016/17</td>
</tr>
<tr>
<td>Citrix XenApp version 5 software</td>
<td>Upgrade to latest version of Citrix software</td>
<td>2016/17</td>
</tr>
<tr>
<td><strong>Desktop operating system - Windows 7</strong></td>
<td>Upgrade to latest desktop operating system 2016/17</td>
<td></td>
</tr>
<tr>
<td><strong>Exchange 2010</strong></td>
<td>Upgrade to latest version of Exchange 2016/17</td>
<td></td>
</tr>
<tr>
<td><strong>Microsoft Office 2010</strong></td>
<td>Upgrade to latest version of Microsoft Office 2016/17</td>
<td></td>
</tr>
<tr>
<td><strong>PAMS &amp; Cintra Payroll</strong></td>
<td>New integrated HR &amp; Payroll system 2016/17</td>
<td></td>
</tr>
<tr>
<td><strong>PIMS</strong></td>
<td>New case management system 2017/18</td>
<td></td>
</tr>
<tr>
<td><strong>Celerra NX4 SAN at HQ &amp; Maghaberry</strong></td>
<td>Replace SANs at HQ &amp; Maghaberry 2017/18</td>
<td></td>
</tr>
<tr>
<td><strong>Network NI wide area network</strong></td>
<td>Migration to Network NI replacement at end of contract 2017/18</td>
<td></td>
</tr>
</tbody>
</table>

34.2. Note: In 2016/17, the replacement of the virtual hosts servers, upgrades in server operating system, VMWare, Citrix and Exchange are best carried out as one project.

34.3. All proposed IT developments will require a business case and be subject to the availability of capital funding.

34.4. Delivery of this programme of work will also depend on the availability of resources in the IT Department and from other Departments requiring new systems e.g. Human Resources and Finance.

**35. Conclusion**

35.1. This strategy shows that there is a substantial programme of work in the continued development of IT and refreshing of hardware and upgrading of software within the PBNI network over the next two years. The rate of change of technology is rapid and PBNI need to upgrade and enhance its IT capabilities to become even more efficient and effective in its delivery of service, while also achieving efficiency savings.

35.2. PBNI also need to maximise to the fullest potential technology and IT systems to enhance service delivery for front line and support staff.