Information Security – PSN (Public Sector Network) compliance
Report by Hillary Kelly, Head of Customer Services

1   Purpose of Report

This report provides a summary overview of the IT security changes that will need to be made to maintain ongoing compliance with the mandatory Cabinet Office PSN (Public Sector Network) Code of Connection, formerly known as the GSX (Government Secure Extranet), and the implications of these changes on our operations.

2   Background

2.1   All UK councils connect to other government agencies through the Public Sector Network (PSN). At Midlothian this facilitates the processing for Births, Deaths and Marriages, information exchange with the DWP, Blue Badge registration, Tell us Once, Criminal History and Delayed Discharge application access, plus secure email communication with the NHS, Police and Central Government.

The PSN offers the opportunity to benefit from accessing and using shared services right across Central Government and the wider public sector, reducing costs and increasing efficiency and security.

To maintain the security and availability of the network and to protect connected parties, agencies <u>must</u> adhere to a Code of Connection (CoCo) which details baseline requirements to be applied in terms of IT operations and security arrangements. This is essential to maintain accountability and trust between those sharing information.

2.2   Each year UK councils are required to self-assess and document their compliance against a number of controls and submit this to the Cabinet Office for independent assessment.

As a result of some organisations never reaching the minimum security standard and increased cyber security threats, the Cabinet Office changed the IT operation requirements in May 2013 and introduced a 'Zero Tolerance' compliance approach. The result is more controls and the automatic disconnection of non compliant organisations.

3   Action required

3.1   The Cabinet Office has mandated that it is no longer permissible to use personal devices to access PSN connected systems or PSN originated data. This means that all non-Council equipment (personal PC's, tablets & phones) will no longer be permitted to connect to the Councils corporate network and associated services.

The following services will be directly impacted by this mandate and will require to be withdrawn:-

- access to e-mail and calendar information from personal devices e.g. home PC's, personal tablets and personal smartphones. This includes use of Outlook Web Access (OWA);
- e-mail active sync to personal iPads and smartphones;
- connecting to Citrix hosted applications such as Frameworki, file access and intranet via personal devices;
- use of personal devices/home PCs to access documents/write reports etc containing personal, sensitive or confidential information.

These changes will not impact those using protected/encrypted council owned devices such as council laptops and council smartphones.

3.2 Further Cabinet Office controls include the requirement for all those accessing PSN services or PSN originated data will need to meet the Baseline Personnel Security Standard. This will result in an estimated initial 100 employees requiring a basic PVG check (Protecting Vulnerable Groups, formerly known as Disclosure Scotland). The Cabinet Office will shortly be issuing further advice and this number is likely to be extended.

It is clear that the Cabinet Office is likely to introduce further controls as part of their UK cyber security role and further information is awaited in this regard.

3.3 Timescales for changes

Midlothian Council achieved PSN compliance in April 2013 prior to the introduction of new security controls and the 'Zero Tolerance' approach and initially it was believed that we would not be re-assessed for accreditation until April 2014. This would have allowed time for a number of changes which were known to be required. However Cabinet Office has since confirmed that due to the timing of our accreditation, we are not permitted to wait until April 2014 to achieve full compliance.

Negotiations are ongoing with Cabinet Office in relation to revised timescales. It is fully accepted and acknowledged that there is work required to be done in order to achieve compliance and much of this is already underway. However, it is important that we emphasise to Cabinet Office, the significant business impact that a premature switch-off could have, before we have put in place adequate alternative solutions.

The likely timescale that is being proposed to Cabinet Office is for these services to be switched off around mid January 2014 and it is hoped we can demonstrate the business case for this.

3.4 Accredited Technical Business Solutions

In applying these necessary controls mandated by the Cabinet Office, it needs to be recognised that the Council already has accredited

technical business solutions in place that can be implemented, with the correct budget, resources and timescales, e.g.

- Accessing of email & calendar information can be serviced from Council procured Smartphone \ Blackberry;
- Access to the Business critical applications inclusive of files and folders and intranet can be serviced by Council procured and encrypted laptop.

In order to understand the scale, size and scope of this piece of work Heads of Service/service managers have undertaken a review of staff work practices, to verify how many users have a genuine business need to work in this way.

Although Business solutions are available to meet this current change in Cabinet Office guidance the staff resource and timescales required to implement these proposed solutions should not be under estimated and will still need to be determined, once firm numbers are known.

3.5 The time to train and support users in this new way of working with these business solutions is significant. Evidence from existing mobile users tends to suggest that not all users find it straightforward to work in this way, as some staff require a great deal more support and guidance. In order to address the training and support during the roll-out of this new technology, it is necessary to increase the staffing for a short period. Failure to do so would impact significantly on overall performance and productivity in other aspects of IT Services, some of which are equally high priority and/or necessary to maintain compliance.

3.6 Education access to corporate network compliance

Any schools devices that require access to the corporate network and/or business systems will also have to become PSN compliant with the requirements of the Code and therefore will need to adopt the same protocols and procedures applied to the corporate network. All Schools currently have a ".midlothian gov.uk" email address and because of this, they need to be compliant.

3.7 Some Councillors may have specific additional requirements e.g. for access to other government or non-government systems, as part of their duties as a Councillor. Solutions are being explored to try and address these particular needs in the most effective way, whilst still maintaining compliance.

4   Report Implications

4.1   Resource

As outlined in 3.4 above, those employees with a genuine business need to remotely access Council systems can be supplied with a Council laptop and/or smartphone, depending on their service

requirement. These devices can be provided as part of the mobile and flexible working strategy.

The costs for a suitably compatible/compliant smartphone option and/or a council laptop with associated secure software are illustrated in table 1 below:

A breakdown of the components of the standard Council laptop is provided in Appendix 1, evidencing the total cost for the overall package.

Table 1

Device	No of Units	Capital Cost 13/14	Revenue Cost 13/14	Revenue Cost 14/15	Ongoing Annual Revenue Costs
Laptop	112	173,600	3,790	22,736	22,736
Smartphone 9720	138		13,800	12,420	12,420
PVG Checks	100	0	2,500		
Training & Support			8,000		
Totals		173,600	28,090	35,156	35,156
Vodafone Credit			(11,730)		
Net Total		173,600	16,360	35,156	35,156

As detailed in table 1 above, in addition to the cost of the technical solution required, there is a requirement for all employees accessing PSN services or PSN originated data to meet the Baseline Personnel Security Standard, at a cost of £25 per person.

As outlined in 3.5 above, it is necessary to employ a fixed-term resource to carry out training and support for new laptop users. The estimated cost of providing this resource for a 3 month period is £8,000.

There is no provision in the 2013/14 revenue budget for the revenue cost of £16,360 and a supplementary estimate is required. Approval to increase the revenue budget on an ongoing basis from 2014-15 by £35,156 to cover annual maintenance costs is also required.

The General Services Capital Plan has an uncommitted provision of £0.908 million for the PC replacement programme. It is proposed to re-prioritise the programme of works and use this provision to cover the necessary costs for mobile technology to meet the demands for PSN compliance. It should be noted that due to the comparative costs of mobile technology, compared to standard desktop technology, this will leave a shortfall of £0.110 million for the replacement of the remaining PC's. This £0.110 million will require to be added to the General Services Capital Plan in future years.

The cost of deploying the new smartphone technology will be met from the credit held with vodafone.

It should be noted there is also a dependency on third party providers ability to deliver to Midlothian Councils timescales and requirements.

There is one business application which, at its current version, fails compliance for PSN. This is illustrated below:

Business Application and explanation of position	Capital cost to achieve compliance 2013/14	Revenue cost to achieve compliance 2013/14	Ongoing annual revenue cost
Access Point Network (APN) – immediate short term This is now required to support the current iPhone deployment and was not initially required or planned for. This is a new requirement to prevent current solution being non compliant with latest Cabinet Office guidance	£10,000	£12,000	£12,000

Provision for the £0.010 million capital costs required for the access point network will also be required in the General Services Capital Plan in 2013/14.

There is no provision in the 2013/14 revenue budget for the revenue cost of £12,000 and a further supplementary estimate is required. Approval to increase the revenue budget from 2014-15 onwards by £12,000 for annual maintenance costs is required.

4.2   Risk

The major risk for the Council is that non-compliance with the requirements of the PSN CoCo will result in withdrawal of our compliance certificate, PSN disconnection and therefore significant service disruption, or in some cases, inability to deliver a service at all, due to the reliance on PSN access in some areas. Clearly this position is untenable.

In the absence of ubiquitous remote access to email, employees may be tempted to send personal or sensitive information to home email accounts or to copy council information to personal devices using an unencrypted memory stick, which would present a significant information security risk.

Unfortunately, because staff have been afforded additional flexibility in the past, there may be a loss of credibility as these necessary changes will be perceived to be a backwards step and in addition, it is recognised that there will undoubtedly be an impact on some staff in terms of stress and absence levels, as a direct result of the withdrawal of this flexibility.

4.3   Single Midlothian Plan and Business Transformation
Themes addressed in this report:

☐ Community safety
☐ Adult health, care and housing
☐ Getting it right for every Midlothian child
☐ Improving opportunities in Midlothian
☐ Sustainable growth
☐ Business transformation and Best Value
☒ None of the above

4   Impact on Performance and Outcomes

Non compliance may impact the Council though service disruption, negative publicity and inability to meets the needs of the citizen.

4.5   Adopting a Preventative Approach

The proposals in this report do not contribute to a preventative approach to service delivery.

4.6   Involving Communities and Other Stakeholders

There is no involvement of communities and other stakeholders in this matter.

4.7   Ensuring Equalities

There are no equalities implications arising directly from this report.

4.8   Supporting Sustainable Development

There are no sustainability implications arising directly from this report.

4.9   IT Issues

There are significant IT implications throughout this report, as outlined.

5   Summary

All UK councils connect to other government agencies through the Public Sector Network (PSN) and must adhere to the Code of Connection in order to do so. The Cabinet Office has changed the IT operation requirements in May 2013 and introduced a 'zero tolerance' compliance approach.

In order to maintain our compliance with the Code, a number of IT changes require to be made, which have significant implications for service users. These include removal of remote access to Council systems from personally owned devices and basic security checks to be introduced for staff accessing PSN hosted services or PSN originated data.

Midlothian Council is heavily dependent on its PSN connection to support Births, Deaths and Marriages, information exchange with the DWP, Blue Badge registration, Tell us Once, Criminal History and Delayed Discharge application access, plus secure email

communication with the NHS, Police and Central Government, so disconnection must be avoided.

In summary only staff that have been issued with an approved Council smartphone or Council laptop and have completed the approved PVG security checks will be able to access Council Services remotely.

6   Recommendations

Council is requested to:
a) note the requirement to <u>remove</u>:
   i.   all remote access to Outlook Web Access from personal (unmanaged) devices e.g. home PC's etc.;
   ii.   all e-mail active sync to staff and Councillor personal iPads and Smartphones;
   iii. remote access to Citrix hosted applications from all personal (unmanaged) devices e.g. home pc's etc;
b) note that the likely switch-off date for these remote services is likely to be no later than mid-January 2014;
c) acknowledge the need for the introduction of mandatory Personal Baseline Security Standard checks for employees accessing PSN hosted systems or PSN originated data with effect from 01 April 2014
d) note the costs for smartphones, blackberries and council laptops and the proposal to re-prioritise the approved pc replacement programme within the General Services Capital Plan to accommodate the PSN requirements;
e) note the requirement to upgrade the access point network to support the current i-phone deployment;
f) approve the additional £ 0.010 million for Access Point Network in the 2013/14 General Services Capital Plan;
g) approve a supplementary estimate of £28,360 in 2013/14 for revenue costs and an ongoing budget of £47,156 from 2014/15 to cover annual maintenance costs;
h) note that further security changes may be needed to meet Cabinet Office PSN requirements and that additional reports will be presented as required.

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Background Papers:

APPENDIX 1

Standard Council Laptop configuration:-

The total cost of the Council Laptop currently includes the following hardware and software licensing

Standard Council 15" screen laptop – supply & install	
Windows 7; Intel Core i5 Processor; 4 Gb RAM; Secure wireless capability; SSD hard drive; Mouse; Laptop Case	
Docking station – Keyboard	
Vodafone 3G secure data tariff and services	
(Vodafone Secure Remote Access – VSRA is used to help manage seamless connectivity between Corporate , Wireless and Home broadband networks	
Two factor security token (SecureEnvoy) –	
This software is used to provide secure access to the Council Network resources & Business applications	
Standard Council software bundle • Microsoft Office Professional Plus 2007 ○ (Access , Excel, Outlook, PowerPoint, Publisher & Word) • WinZip compression software • Antivirus Software • Citrix client Data encryption	
Total Charge to Service	**£1,550**