

Document Control

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Version	1.0
Owner	National Infrastructure Group
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Compliance	Recommended
Reviewers and Distribution	National Infrastructure Group, eHealth Leads, eHealth Architecture and Design.

Version Control

Date	Version	Author	Changes
13/11/2009	0.1	Paul McLaren	Initial draft
12/01/2010	0.2	Paul McLaren	Further amendments
17/02/2010	0.3	Paul McLaren	Further amendments per consultation record
11/05/2010	0.4	Paul McLaren	Further amendments per consultation record
25/05/2010	0.5	Paul McLaren	Further amendments per consultation record Approval by National Infrastructure Group
5/07/2010	1.0	Paul McLaren	Approved by eHealth Leads Group as a NHSScotland standard

1 Overview

This standard describes the hardware and software specifications for personal computers in NHSScotland. The purpose of the standard is:

- to provide Boards with a specification to which personal computers within the IT estate should comply
- benefit procurement by enabling suppliers to be provide applications that can be seamlessly deployed
- lower deployment costs by providing easier application delivery

This standard benefits both Boards and suppliers by providing a bi-directional understanding of the infrastructure, but additionally allows project teams to ensure they are make informed decisions based on the actual availability of IT infrastructure.

The standard will also be supported by roadmaps planning the lifecycles of each of the elements within the standard.

2 Detail

The standard specification is inclusive of both desktop and laptop clients and describes the standard specification for NHSScotland.

The following requirements exist:

- Boards complying with the standard specification are expected to either have the specification detailed in the standard available or have the facility to make it available on demand.
- suppliers are expected to provide applications that can be deployed and function on specification detailed in the standard without hardware changes or requiring installation of additional software by non-compliant methods.
- non compliance - for applications which require specifications outwith those in the standard then appropriate consultation should be undertaken with infrastructure teams at a local, regional or national level to consider the cost implications and alternatives.

The following tables detail the recommended specification for each section.

Hardware

	Recommended
Processor	Windows 7 compliant minimum
Memory	Windows 7 compliant minimum+, recommended 2Gb
Disk	Minimum to meet local requirements, additional spare space varies locally
Screen Resolution	1,024 x 768 minimum 24 bit minimum upto 32 bit colour quality
Keyboard	Standard UK QWERTY
Mouse	2 button only, scroll wheel optional
USB ports	Availability of spare ports optional

Software

	Recommended
Operating System	Windows XP Professional SP3 and Windows 7
Web Browser	Internet Explorer 6.0 and Internet Explorer 8.0 Active X – signed as safe to execute Windows Media Player 10 minimum Adobe Flash Player 10 Sun Java 6 update 10 minimum NHSScotland approved favourites website list (<i>in development</i>)
Productivity	Office 2003 SP3 Adobe Acrobat Reader minimum version 8.1

Security	Anti-virus – active and centrally managed Firewall – optionally active Anti-malware – optionally active Encryption – per the Mobile Data Protection Standard (ref 1) USB port control – optionally active Preboot authentication - optionally active Faulty hard disks to be retained on site
Client Management	Hardware asset management Imaging Endpoint location information Remote support Application deployment Operating system patch deployment Application patch deployment Software asset management and licence metering
Local Session Data	Session data created by applications should not be retained on endpoint (eg local copies of databases etc)
Screensaver	NHSScotland approved security screensavers (<i>in development</i>) in addition to any local images

Network

	Recommended
Local Area	100Mb/s minimum
Wireless Local Area	Availability optional
Wide Area	NHSScotland sites are connected by N3 and COINs. Site bandwidth varies from 512kb/s to 1000Mb/s with QoS for selected national applications. Asynchronous and synchronous technologies are in use.

Application Delivery And Deployment

The preferred methods of application delivery are:

- compliance with the web browser and additional components within the Software – Recommended specification
- availability of packaged applications for deployment by client management tools
- delivery of application by desktop virtualisation or thin client technologies

Installing or running of applications should not require elevated rights for the logged on user.

Review

This standard will be reviewed annually, indicated by the published date.

References

1. Mobile Data Protection Standard - <http://www.ehealth.scot.nhs.uk/wp-content/documents/mobile-data-protection-standard-pdf3.pdf>

2. Roadmap:



Acrobat Document

Consultation Record (*action in italics*)

Date	Notes
25/05/2010	Remove upto version for Adobe Reader, Java and Media Player - <i>included</i>
25/05/2010	Recommended RAM should be greater than minimum required to run Windows 7 – <i>changed to 2GB</i>
11/05/2010	Hard disk size – <i>amended from physical size to free space</i>
11/05/2010	Add reference to control of USB ports – <i>included</i>
11/05/2010	Standardise list of favourites in browser - <i>included but list to be defined</i>
11/05/2010	Service levels – do we need to include this – <i>new section now included</i>
11/05/2010	Upto browser should be IE8 and not IE7 as XP is compatible with IE8 – <i>included</i>
11/05/2010	Location tracking – this is not clear, <i>updated to “endpoint location information”</i>
11/05/2010	Faulty hard disks should be retained on site - <i>included</i>
11/05/2010	The NHS approved security screensavers should be used.
11/05/2010	Add reference to pre-boot authentication
17/02/2010	Amendment to include minimum and maximum specifications CPU and RAM – “Windows 7 compliant” - <i>included</i>
29/01/2010	RAM figure is too low? Should 1-2gb be given?. Reduce CPU to below 1.8Ghz - <i>included</i>
19/01/2010	Consideration how the standard can be developed to become less vendor specific – <i>roadmaps can provide this in the future</i>
19/01/2010	Add reference to keyboard, mouse, USB, LAN, WLAN availability – <i>included</i>
19/01/2010	Add reference to colour bit depth in screen resolution section – 32 bit? - <i>included</i>
13/01/2010	Include some text about patching or at least the ability to patch -

	<i>included</i>
13/01/2010	Add reference to Mobile Data Protection Standard - <i>included</i>
13/01/2010	Should baseline be added into the title? – <i>no but included in body of standard</i>
13/01/2010	In the review section “as relevant technology changes occur” – is this suitable? – <i>amended to annually by published date.</i>
13/01/2010	Is “Recommended” what you want to say in the table or is this really a minimum expectation? - <i>included</i>
13/01/2010	Consider wording to provide a longer lasting standard such as refer to a min spec detailed somewhere else such as supplies procurement catalogue – <i>consider possible for future</i>
13/01/2010	Applications do not require elevated rights to run – <i>included</i>
13/01/2010	Add asset management to management section - <i>included</i> Add managed patching of OS and apps - <i>included</i> Minimum AV, malware, firewall - <i>included</i>