

**REPORT TO THE EXECUTIVE**



<b>DATE</b>	<b>24th July 2012</b>
<b>PORTFOLIO</b>	<b>Resources &amp; Performance Management</b>
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**Update on Desktop Virtualisation (VDI)**

**PURPOSE**

1. To provide members with an overview of the 2012-14 Desktop Virtualisation programme.
2. To seek approval for the release of £56,000 allocated in the capital budget 2012-2013 for the desktop virtualisation pilot.

**RECOMMENDATION**

3. That the Executive approves the release of £56,000 allocated in the Capital budget for the desktop virtualisation pilot.

**REASONS FOR RECOMMENDATION**

4. The IT Systems and Telephony Transformation Programme and outline timescales were approved by the executive back in November 2010. The transformation programme included the following key project areas – The replacement of Telephony and Transfer to VOIP, Virtualisation and replacement of key application servers, Virtual Desktop Infrastructure (VDI).
5. The replacement of the Telephony and transfer to VOIP as well as virtualisation of key application servers has been delivered successfully. What remains is desktop virtualisation. It was agreed that desktop virtualisation would be delivered in 2 stages. The first stage being a pilot/proof of concept (2012-13) followed by a full rollout the following year (2013-14).

**SUMMARY OF KEY POINTS**

6. The IS strategy, focuses on the importance of the council maintaining its investment in the council's technology assets as they underpin the council's ability to deliver cost reductions and effectively support services. A key component of the IS Strategy is the virtualisation of desktop PC's (VDI).

7. The Council will implement a Virtual Desktop Infrastructure (VDI) Environment and this means that, gradually, Council systems will be adjusted and packaged so that they are not generally accessed via PC's but will be accessed via smaller so called 'thin client' devices (about the size of an average paperback novel) with the data storage and intelligence needed to support the systems residing within the systems held in the Councils computer rooms. However, initially in most areas existing PC's will be used to access virtual desktops. The system experience presented to the end user should be at least equivalent to the current PC based systems experience but within a much more cost effective and controlled IT delivery process. Gradually the Council will replace the current PC infrastructure that is currently funded from capital budget. VDI will significantly reduce energy consumption in comparison with standard PC's. Also the thin client devices will have an extended life expectancy which will allow savings to be generated from reduced PC purchasing and capital budget requirements.
8. Investing in VDI will achieve a variety of objectives; reduction in revenue costs, the ability to sweat existing assets more effectively through enabling the assets to be used for longer and therefore reducing long term capital investment; improved business continuity and reliability service as well as giving the council wider options in the management of its property portfolio through more flexible and home working.
9. As VDI is a large programme of change and there are various solutions out there, to establish the best fit for the Council, the recommended course of action is to establish a pilot or proof of concept.
10. The main technological focus of the pilot will be on VMware View, which is the VDI solution provided by VMWare. The Council currently uses VMWare for most of its server virtualisation. Staff are already familiar in supporting this technology and some of the infrastructure is already in place. Citrix XenDesktop and Microsoft VDI (App-V) technologies will also be investigated as part of the pilot.
11. The pilot will involve the use of 20+ thin and fat clients across various service units and also will encompass remote sites and homeworking. The clients will be connected to central virtual desktop(s) located in the Town Hall.
12. This is the final part of the transformation programme and along with the benefits outlined already, it will also lead to the ability to deliver staffing efficiencies whilst still providing resilient infrastructure and systems.
13. The timescales for the VDI project including the pilot are highlighted on the project plan attached (Appendix 1).

## **FINANCIAL IMPLICATIONS AND BUDGET PROVISION**

14. Officers have previously submitted a business case to the capital programme, that shows the IT systems and Telephony Transformation programme can be funded through prudential borrowing with an estimated cost of £520k. This was approved in November 2010.
15. Of the £520k IT Systems & Telephony Transformation budget, £56k was ear marked for the VDI pilot project.

16. Officers believe that the VDI project will reduce the requirement for year on year capital spend on PC replacement. This was funded through capital receipts at a cost of £79k in financial year 2010-11. There has been no capital spend on PC replacements since 2010-11 in preparation for VDI.

17. There is the opportunity for additional benefits by:-

- a. Reduction of future capital spend on PC's as the life span of existing assets will be extended
- b. Creating greater options within the accommodation strategy for future savings as more staff will be able to work from any site and from home.
- c. Reduction in energy costs
- d. Assisting Information Services in achieving further revenue savings on staffing costs
- e. Reduction in some of our insurance costs due to improved business continuity arrangements
- f. Will increase staff available time due to improved system performance and time taken to provision/repair virtual desktops.
- g. Reduction in license costs

#### **POLICY IMPLICATIONS**

18. None.

#### **DETAILS OF CONSULTATION**

19. Councillor Mark Townsend (Executive member for Resources & Performance Management)  
Councillor Shah Hussain (Executive member for Community Services)  
Mick Cartledge (Director of Community Services)  
Lindsey Cowburn (Senior Accountant)

#### **BACKGROUND PAPERS**

20. None.

#### **FURTHER INFORMATION**

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## Appendix 1

Task Name	Duration	Start	Finish
<b>Business Case</b>	<b>22 days</b>	<b>Mon 25/06/12</b>	<b>Tue 24/07/12</b>
Establish VDI team	1 day	Mon 25/06/12	Mon 25/06/12
Establish project scope and goals	2 days	Mon 25/06/12	Tue 26/06/12
Create a requirements document	2 days	Mon 25/06/12	Tue 26/06/12
Evaluate VDI products	1 day	Tue 26/06/12	Tue 26/06/12
Product comparison matrix	1 day	Mon 25/06/12	Mon 25/06/12
Costs	1 day	Wed 04/07/12	Wed 04/07/12
Supplier Meetings	9 days	Mon 09/07/12	Thu 19/07/12
Exec Reports	2 days	Fri 20/07/12	Mon 23/07/12
<b>Phase 2 - Understand Current Infrastructure</b>	<b>5 days</b>	<b>Mon 23/07/12</b>	<b>Fri 27/07/12</b>
Storage	1 day	Mon 23/07/12	Mon 23/07/12
Server capacity	1 day	Mon 23/07/12	Mon 23/07/12
Links to sites	1 day	Mon 23/07/12	Mon 23/07/12
Desktop and user environment	2 days	Tue 24/07/12	Wed 25/07/12
Server software	2 days	Wed 25/07/12	Thu 26/07/12
Remote working	2 days	Wed 25/07/12	Thu 26/07/12
Application access	2 days	Thu 26/07/12	Fri 27/07/12
Performance metrics	2 days	Thu 26/07/12	Fri 27/07/12
<b>Phase 3 - Mapping the Solution Options</b>	<b>8 days</b>	<b>Wed 01/08/12</b>	<b>Fri 10/08/12</b>
Vmware View	3 days	Wed 01/08/12	Fri 03/08/12
Citrix XenDesktop	3 days	Mon 06/08/12	Wed 08/08/12
Microsoft VDI	3 days	Wed 08/08/12	Fri 10/08/12
<b>Phase 4 - Pilot implementation</b>	<b>112 days</b>	<b>Mon 13/08/12</b>	<b>Tue 15/01/13</b>
Procure hardware	14 days	Mon 13/08/12	Thu 30/08/12
Procure Licenses & Evals	14 days	Mon 13/08/12	Thu 30/08/12
Installation of Server hardware & software	10 days	Mon 27/08/12	Fri 07/09/12
Provision thin clients	10 days	Thu 30/08/12	Wed 12/09/12
Test network and application access	67 days	Thu 13/09/12	Fri 14/12/12
Performance metrics	4 days	Fri 14/12/12	Wed 19/12/12
Feedback & Select Technology	2 days	Thu 20/12/12	Fri 21/12/12
Size Live Implementation	5 days	Mon 07/01/13	Fri 11/01/13
Report to Executive	2 days	Mon 14/01/13	Tue 15/01/13
<b>Phase 5 - Infrastructure Improvements</b>	<b>40 days</b>	<b>Mon 21/01/13</b>	<b>Fri 15/03/13</b>
Desktop hardware improvements/Procurement	30 days	Mon 21/01/13	Fri 01/03/13
Server hardware improvements/Procurement	30 days	Mon 21/01/13	Fri 01/03/13
Storage expansion/Procurement	30 days	Mon 21/01/13	Fri 01/03/13
Reconfigure Storage Arrays	5 days	Mon 04/03/13	Fri 08/03/13
Reconfigure switches	5 days	Mon 04/03/13	Fri 08/03/13
Access devices	5 days	Mon 11/03/13	Fri 15/03/13
<b>Phase 5 - Implement &amp; Manage VDI</b>	<b>163 days</b>	<b>Mon 18/03/13</b>	<b>Wed 30/10/13</b>
Tender or ITQ documentation	10 days	Mon 18/03/13	Fri 29/03/13
Supplier Presentations and QA	10 days	Mon 01/04/13	Fri 12/04/13

Award Tender	3 days	Mon 15/04/13	Wed 17/04/13
Roll Out Plan	4 days	Thu 18/04/13	Tue 23/04/13
Executive Report	2 days	Tue 23/04/13	Wed 24/04/13
Intranet Site	5 days	Thu 25/04/13	Wed 01/05/13
User Workshops & Training	35 days	Thu 02/05/13	Wed 19/06/13
Rollout/Installation	130 days	Thu 02/05/13	Wed 30/10/13
Performance metrics	130 days	Thu 02/05/13	Wed 30/10/13
Feedback	130 days	Thu 02/05/13	Wed 30/10/13