

Subcommittee on the BIT Vista Upgrade Project

The subcommittee makes the following observations about the State's plan for upgrading operating systems to Microsoft Vista and office suite Windows 2007.

The subcommittee met on February 13, 2008 to hear testimony from Otto Doll, Commissioner for the Bureau of Information and Telecommunications (BIT) regarding the proposed plan and estimated costs to upgrade to Vista.

The Microsoft Vista upgrade project will update all personal computers (PC) with the latest desktop operating system and desktop office suite from Microsoft. The State currently has Windows XP as the operating system and Office XP as the office suite standard to the 6,500 desktops and 1,400 notebooks throughout the executive branch, the judicial branch, constitutional offices, and the Legislature. BIT is proposing that the operating system and office suite standard be upgraded to Vista and Office 2007 starting in July of 2008. Although the implementation date is July of 2008, the rollout will take several years.

PC's purchased on State contract since the summer of 2004 have had the capability to run Vista and Office 2007. Since an operating system comes with newly purchased PCs, all new desktops and notebooks purchased since March 2007 have come with Vista. Due to the current licensing agreement with Microsoft, BIT is allowed to continue to install Windows XP until the state is ready to upgrade to Vista. Additional project history, costs, and anticipated benefits information can be found on Attachment A.

BIT provided the subcommittee with a breakdown of costs by agency totaling \$153,370 for upgrading to Vista. The costs were figured based on a number of factors: Vista licenses are included with the purchase of new PCs; BIT maintains a stockpile of memory obtained from surplus PC's; and agencies are refreshing their oldest PC's on a five-year cycle. The only costs incurred by agencies will be for Vista licenses on PC's not refreshed by July 2010. There will be no costs incurred by state agencies if all PC's are refreshed following the five-year refresh cycle to July of 2012. See attachment B for the agency breakdown.

A similar request was made to the Board or Regents regarding the individual campus plans for upgrading to Vista, the policy for refreshing PC's, and estimated costs. See attachment C for details.

The subcommittee expressed several concerns to the commissioner citing literature that was found in various IT publications and personal discussions with individuals and businesses that have already upgraded to Vista. Commissioner Doll discussed the benefits of Vista including improved security, manageability, and productivity that is a value to the state. The commissioner assured the subcommittee that BIT is comfortable with the internal testing that has been done and stated that Microsoft will be releasing a service pack that will have fixes for bugs found thus far.

Subcommittee on the BIT Vista Upgrade Project

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Vista Upgrade Project

Project Statement

The Microsoft Vista project will update all personal computers (PC) with the latest desktop operating system and desktop office suite from Microsoft. The State currently has Windows XP as our operating system and Office XP as our office suite standard for the 6,500 desktops and 1,400 notebooks throughout the executive branch, judicial branch, constitutional offices and the Legislature.

Project History

Windows XP was released from Microsoft in October of 2001. After testing, BIT began implementing this across the State in 2002. Microsoft has released the next operating system (called Windows Vista) to the business community on November 30, 2006.

Office XP was released from Microsoft in the summer of 2001. After testing, BIT also began implementing this across the State in the spring of 2002. Microsoft released the next office suite version (called Office 2003) in the fall of 2003. The State did not go to this version as a standard because of the limited number of enhancements in the product. Microsoft has released the next office suite (called Office 2007) to the business community on November 30, 2006.

Even though these two products were available in 2006, BIT and state government needed 18 months of lead time until July 2008 (FY09) to address:

Budgets - agencies required lead time to plan their budgets for the upcoming fiscal years.

Application testing – BIT requires advanced time to test existing applications on the new operating system before implementing this on a statewide basis.

Return on Investment – XP was first introduced to State government in 2002. A six-year life cycle for the XP operating system is reasonable considering the state has a five year PC refresh cycle. We expect at least a six year life cycle with Vista—which will provide security, productivity and collaboration benefits which are not achievable with the current versions of the operating system and office suite.

Preparation – BIT and the agencies needed lead time to upgrade existing PC hardware and software not able to run Vista.

Await stable product – wanted others to discover “the bugs” in this new software. Microsoft is scheduled to release a Service Pack fixing known problems in March 2008.

Proposed Solution

BIT is proposing that the operating system and office suite standard be raised to Vista and Office 2007 starting in July of 2008. *This is when BIT will begin implementation across the state. The roll-out will take several years.* This gives agencies sufficient lead time to adequately plan for this technology refresh. PCs purchased on State contract since the summer of 2004 are able to run Vista and Office 2007. Since an operating system comes with newly purchased PCs, all new desktops and notebooks purchased since March 2007 have come with Vista. With our licensing agreement from Microsoft, BIT is allowed to install XP until we are ready to go to Vista. Agencies have built up many Windows Vista licenses over time as desktops/notebooks are refreshed across the state.

For the Office Suite, this product does not come on the PC/notebook when purchased from the vendor. Agencies will need to purchase the Office 2007 Professional version.

Proposed Costs

For hardware, current desktops and notebooks on State contract will run the new products. No additional hardware component upgrades are necessary to run either of the products.

For Windows Vista, the normal PC transition plan would address over half of the licenses needed for an agency by July 2008. The upgrade cost for the remaining PCs is \$117.21 per device. Windows Vista will have an XP look and feel so no further training will be necessary.

For Office 2007, agencies will need to purchase Office 2007 for each desktop at \$299.03 per device. The new user interface for the Office Suite product should be intuitive for most Windows users, so no additional training will be necessary.

Funding Proposal

Each agency is responsible for purchasing their desktops, notebooks and software licenses. Agencies will need to purchase Vista on any PCs that have not been refreshed since March 2007 at \$117.21 or wait until they refresh that particular PC.

The Office Suite 2007 license will need to be a separate purchase at \$299.03.

Anticipated Benefits

There is a combination of benefits to consider. Each product has new enhancements that are listed separately below. Also, there are several non-financial benefits to consider:

The older products are more difficult to support – vendor limits fixes to problems,
The new products have new security features built in to address cyber security issues,
The older products can no longer be purchased.

For **Windows Vista**, some of the benefits are:

Improved security features such as enhanced firewalls and internal file level encryption that utilizes a hardware security chip to validate file location,

Improved productivity through redesigning various tools to give the user more information and to speed switching between tasks. This is done through improved explorers, faster and more thorough search features that are available wherever the user is, and an additional task bar for utilities to remain active and visible,

The new Mobility Center provides a **single place to manage notebooks and Tablet PC's** allowing the user to perform such actions as switching on external monitors / projectors, manage battery usage, displaying battery status, changing background images, turning off email reminders and pop-ups to reduce problems during presentations, connecting to wireless networks, and so on,

Reduction of BIT support efforts in maintaining individual operating system images (known as a clone) per agency.

For **Office 2007**, some of the benefits are:

New document formats are automatically compressed which **greatly reduces the size of each file**,

Easier collaboration with more advanced features than in previous versions of Office, New interface to facilitate **easier and more intuitive access to advanced features**, Live Preview **allows the user to see what formatting changes to the**

current document would look like without making those changes – a very handy productivity feature.

New file format options for **greater interoperability in and out of government**, Users can force certain documents to always show up in the recently edited documents list.

Office 2007 Compatibility

Office 2007 will be setup so the default setting for saving Word, Excel and PowerPoint documents will be the Office 97 – 2003 format. This means the files will be compatible with Office XP and can be read by all existing state worker's PCs.

If a file is received that was saved in an Office 2007 format, there is a Microsoft Compatibility Pack that will be available to allow Word, Excel and PowerPoint 2007 documents to be opened in Office XP. BIT has already installed this software for several people in state government because they received Office 2007 documents from outside state government and could not open them in Office XP.

Additional Information Provided by BIT:

Benefits of Windows Vista:

- Improved security
 - **User account control** reduces the impact of malicious software to a computer. The software can not be installed on the computer without the user giving administrator account credentials.
 - **Windows Defender** detects many types of potentially suspicious software and prompts the user for administrator credentials before allowing any changes to the computer.
 - Internet Explorer has many **security enhancements** to protect users from phishing, spoofing attacks, and unwanted downloads.
- Manageability
 - Vista deployment will only require **one clone base image** versus 6 base images currently needed for Windows XP.
- Improved productivity
 - **Instant search** helps locate information on your computer
 - **Windows Mobility Center** provides the most frequently used mobile PC settings in a single, easy to find location. Included are power management, presentation settings, external display, wireless network and display brightness.
- Vendors are focusing on Vista and will only offer **limited enhancements on older products**. This will make older product more difficult to support and fix.
- Many previous products can no longer be purchased.
- **Collaboration** is the sharing of thoughts and ideas in real time and in a visual way over the network. Other can see and respond instantly to share their ideas as well through Windows Meeting Space.
- Better integration of **Tablet capabilities** – more intelligent writing recognition and intuitive user interface.
- **More stable** interface separating the applications from the operating system

Note: Since a Vista license comes with new PCs; BIT maintains a stockpile of memory (obtained from surplus PCs); and agencies are refreshing their oldest PCs on a five year cycle, *the only costs incurred by agencies will be for Vista licenses on PCs not refreshed by July 2010.* Agencies, to the extent they could, have been preparing for this change.

Agency	Total Vista Upgrade Cost
ATG	\$2,482.81
AUD	\$1,113.58
EFM	\$1,347.92
BIT	\$6,278.74
BOA	\$1,992.57
BOP	\$0.00
DENR	\$8,887.49
DHS	\$22,562.93
DLA	\$2,851.18
DOA	\$937.68
DOC	\$19,867.18
DOE	\$4,571.19
DOH	\$16,761.83
DOL	\$5,626.88
DOT	\$18,841.93
DPS	\$18,841.93
DRR	\$17,288.48
DSS	\$0.00
GFP	\$8,673.54
GOV	\$0.00
LRC	\$5,684.69
MVA	\$2,578.62
PUC	\$996.29
SOS	\$879.88
SPL	\$418.24
TRE	\$0.00
TSD	\$0.00
UIS	\$0.00
Retirement	\$1,113.58
EBR	\$0.00
Investment Council	\$468.84
Science/Tech Authority	\$0.00

South Dakota Board of Regents
Vista Upgrades

1) What are the individual campus plans for upgrading to Vista?

BHSU - BHSU began upgrading to Vista in August of 2007. All tablet PC's that we distributed to the faculty and all computers ordered since August 2007 were ordered with Vista. We are not planning on upgrading any older PC's. The plan is to move to Vista as we order new PC's.

DSU - DSU will upgrade E-295 tablets to Vista for fall 2008 – M-275 and M-285 tablets will continue to run XP. Students retaining their E-295 tablets over the summer will have the opportunity to upgrade when they return to campus in the fall. Specialty instructional labs in EH-306, KC-123, and TCB-209 will be upgraded to Vista during the summer of 2008. Faculty/Staff with M-285 tablets or E-295 tablets will be upgraded to Vista as well.

NSU - Beginning this purchasing cycle, new machines will remain with Vista, with the exception of lab machines. Labs will remain with XP until summer 2009. NSU will leave XP on existing faculty/staff machines. Tablet computers being purchased now are coming in with Vista and we do not plan to switch them back to XP.

SDSM&T - Starting this summer, new employee machines coming in with Vista will remain with Vista. Current machines will not be upgraded to Vista unless they need to be re-imaged. The general purpose computer labs will not be moved to Vista for another year when machines are due for replacement. Relative to the Tablet PC Program for students, we are undecided whether we will set up newly purchased tablets with Vista. There are still compatibility issues with some applications, notably Solidworks, but we have been told that the upgrade we will get this summer will be Vista compatible. The tentative plan is to go with Vista on the new tablets, but if we encounter any hurdles along the way, to immediately pull back to XP.

USD - USD and UC plan to begin loading Vista on new computers in the summer of 2008. We do not plan to reload existing PCs with the possible exception of those purchased since Vista's release. We are currently purchasing new PCs with Vista, but are imaging them with Windows XP. We may choose to upgrade some of these at a later date. There will be no cost associated. Relative to the Tablet/laptop PC specific Programs for students, they came loaded with Vista this fall.

SDSU - Any new machines purchased as of Fall 2008 will remain with Vista, and current systems w/Vista licenses that choose to upgrade will be allowed to do so. With the expectation of a mobile computing environment being in place by Fall

2010, there should be no need to put additional dollars into our general computing labs, as they were all upgraded this past summer.

SDSD - At SDSD, we are going to hold off on installing as long as we can. Any new PC's we purchase we will get with XP until Microsoft doesn't offer it any longer, which I think is mid 2009. At that point, all the machines we purchase new will have it so no additional cost is expected, we will look at upgrading existing PC's at that time for current pricing.

SDSBVI - SDSBVI will be following whatever NSU is doing as far as when we will install Vista.

2) What is the policy for refreshing PC's on the campuses?

BHSU - Each college is responsible for upgrading their computer assets and do so as budgets allow for it. Administrative PCs are also replaced as budgets allow and that is around 20 PC's each summer. On an average, a PC has approximately a 4-5 year life cycle on the BHSU campus.

DSU - PCs in labs are upgraded on a 3-4 year cycle. PCs on staff desks are upgraded on a 4-5 year cycle as funds are available.

NSU - Our goal is to upgrade labs on a 3 year cycle and office computers on a 4 year cycle. However, due to budget constraints, we typically upgrade labs every 3-4 years and office machines every 4-5 years.

SDSM&T - Our goal is a 3 year replacement cycle but in practice we are only able to replace employee machines every 4 or 5 years. We do replace general purpose computer lab machines every 3 years.

SDSU - As funds are available, our ideal rotation system is as follows:

Student labs = 3 years

Faculty systems = 4 years

Staff systems = 5 years

USD & UC - USD and UC replace some lab and classroom PCs on a 3 to 4 year cycle. Unfortunately we are about a year behind on all of the rotations. There is no permanent budget for faculty/staff and other PCs. This is done as funding is available, typically on a 4 to 5 year rotation.

SDSD - We are on a 3-5 year plan, closer to 5 years.

SDSBVI - Our policy is to try and refresh our computers on a five year plan.

3) What are the estimated costs for each campus to upgrade to Vista?

BHSU - If we continue with the current plan of upgrading as new PC's are ordered there should not be any additional costs.

DSU - No additional costs are anticipated to upgrade academic tablets and PCs to Vista. Staff machines will be upgraded to Vista as they are replaced.

NSU - We do not anticipate any extra costs with upgrading to Vista as this falls under our software assurance package.

SDSM&T - Since we have a Microsoft Campus Agreement, there will be no software costs for upgrading student machines. This does not apply to administrative machines, but these would only be upgraded as the machine was replaced. Thus, the only "cost" for us will be time for IT personnel to do the upgrades.

SDSU - For data encryption purposes, those with Business editions will need to move to the Enterprise edition, at approximately \$30 per license.

USD - For data encryption purposes, those with Business editions will need to move to the Enterprise edition, at approximately \$30 per license.

SDSD - If we continue with the current plan of upgrading as new PC's are ordered there should not be any additional costs.

SDSBVI - Since Vista will come with the new computers I don't believe there is a cost for upgrading.