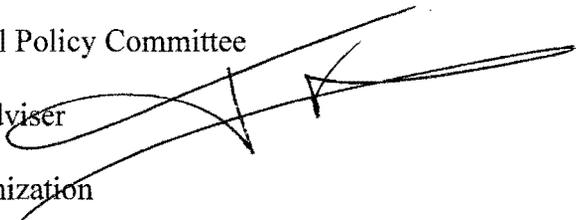


MEMORANDUM

April 12, 2013

TO: Government Operations and Fiscal Policy Committee

FROM: Dr. Costis Toregas, Council IT Adviser 

SUBJECT: NDA: Desktop Computer Modernization

Expected to attend:

Sonny Segal, CIO, Department of Technology Services
Dieter Klinger, COO, Department of Technology Services
Naeem Mia, Office of Management and Budget

Staff recommendation:

1. Staff recommends the **adoption** of the Executive's recommended budget for Desktop Computer Modernization for **\$5,315,030**.
2. The Executive branch should be encouraged to **upgrade the aging Office 2002 suite** of software currently deployed in all laptops and desktops as quickly as economic circumstances permit, and use the opportunity to consider Cloud-based replacements where feasible and cost-effective.
3. DTS should continue to work with CountyStat in order to **document the impact of investments made using tablets, smart phones, and other mobile technologies** on productivity and improvement in service delivery.

Discussion

The Desktop Computer Modernization program (DCM) is part of the Non-Departmental Accounts budget; the FY14 Executive recommendations for DCM are on © 1-2.

There are two major challenges within the DCM budget: the completion of a transition to Windows 7 for all computers (desktops, laptops) and the full utilization and support of new technology platforms such as tablets and smart phones by County employees. In order to evaluate progress made in these two key areas, several questions were raised, and responses provided by DTS on © 3-5.

The following are important points that these answers raise:

1. The DCM program should be funded at an even and constant level for four years in order to accomplish the policy adopted by the County of having an average age of computers of 4 years old. As can be seen by the answer to Question 2 on © 3, 75% of desktop and laptop computers will be 4 years or less by the end of FY14, so DTS is making steady progress towards this important goal that reflects good practice in government and industry deployments of technology platforms.
2. In addition to Windows 7 transitions, the other major platform in wide use in the County is the Office suite of programs (which includes Word, Excel, Outlook, and PowerPoint). Given the large number of computers (over 9,000), DTS has estimated that it would cost an additional \$3m to upgrade the existing Office 2002 to the current version on all platforms. Therefore, in order not to have incompatibilities arise through incremental upgrades, the entire workforce continues to use Office 2002.

There is no recommendation from the Executive to make this investment in FY14; however, the department is exploring new subscription pricing and cloud offerings as ways to move forward. Such a move should be supported when suggested, as the need to upgrade is evident every time a user receives or sends a simple file to systems running the current Office version and incompatibilities arise.

3. The move to tablet use by County employees continues; the Council and Council staffs' positive experiences with mobile devices mirrors the general positive experience throughout the County workforce. It is important to note that the DCM program has primarily been operated through a contractor arrangement, both for the procurement of laptop and desktop devices as well as their maintenance and Help Desk functions. The answer to Question 4 provides insight into DTS's plans to include mobile device support in the upcoming new solicitation for renewal of the contractor support for DCM.
4. Although beyond the scope of the DCM program (which is focused on the procurement and maintenance of equipment), the impact of mobile devices on productivity and service efficiency and effectiveness should be tracked, and operational and supervisory processes streamlined, in order to take account of the investments in these new technologies. CountyStat is the organization that can perform such an evaluation function, and reports should be made available to the Committee and full Council as they are performed.
5. There is a statement on ©5 referencing a response from Dieter Klinger on March 19. The exchange from that date is reproduced below to provide context.

Council staff question:

This topic came up in a recent HHS committee meeting, and there is interest in exploring how we buy hardware/software bundles. The concern is that new computers are bought, but it is not clear whether the latest version of required software are made part of that procurement. I am not sure if the Library system uses DCM, but the budget worksessions for DCM could be the place to have that discussion.

Dieter Klinger answer:

The DCM program has focused on hardware when it comes to replacements. It does also include essential County-wide software such as anti-virus. Starting with FY12 the County established an Enterprise Agreement with Microsoft so that we could upgrade the Windows operating system and keep it up to date on all DCM managed PCs. As we have been replacing PCs they have all been deployed with Windows 7.

The last county-wide purchase of Microsoft Office suite licenses was in 2002 when we deployed the exchange e-mail system and moved everyone to the same office suite. Unfortunately, just when we were ready to move to the next version of Office (when the benefit justified the cost), the fiscal challenges started and budget constraints have precluded our ability to do County-wide upgrade of the Office suite. The cost would be approximately \$3M for 10,000 PCs. Or looking it another way it would be approximately \$300 additional cost per PC. A significant increase to the per PC budget in DCM. It is also not advisable, as a general rule, to upgrade the Office suite by PC, as it will lead to disparate versions resulting in training and support issues.

We are actively investigating options including the new subscription pricing and the cloud offerings.

BTW – This is listed in the RED category of the IT Health Report in the ITPCC slides.

| FY14 Recommended Changes | Expenditures | FTEs |
|---|---------------------|-------------|
| FY13 Approved | 565,040 | 1.00 |
| Increase Cost: Biennial Audit for the Conference Center | 50,000 | 0.00 |
| Increase Cost: FY14 Compensation Adjustment | 5,397 | 0.00 |
| Decrease Cost: Group Insurance Adjustment | -6,011 | 0.00 |
| Decrease Cost: Annualization of FY13 Personnel Costs | -8,170 | 0.00 |
| FY14 CE Recommended | 606,256 | 1.00 |

Consolidated Retiree Health Benefits Trust (MCPS)

This NDA provides consolidated funding for Montgomery County Public Schools' contribution to the Retiree Health Benefits Trust.

| FY14 Recommended Changes | Expenditures | FTEs |
|--|---------------------|-------------|
| FY13 Approved | 58,853,092 | 0.00 |
| Increase Cost: Additional Contribution (Year Seven of Eight-Year Funding Schedule) | 28,982,908 | 0.00 |
| FY14 CE Recommended | 87,836,000 | 0.00 |

Consolidated Retiree Health Benefits Trust (Montgomery College)

This NDA provides consolidated funding for Montgomery College's contribution to the Retiree Health Benefits Trust.

| FY14 Recommended Changes | Expenditures | FTEs |
|--|---------------------|-------------|
| FY13 Approved | 1,779,914 | 0.00 |
| Increase Cost: Additional Contribution (Year Seven of Eight-Year Funding Schedule) | 709,086 | 0.00 |
| FY14 CE Recommended | 2,489,000 | 0.00 |

Council of Governments

The Metropolitan Washington Council of Governments (COG) is a voluntary association of major local governments in the Washington Metropolitan Area. COG seeks to provide regional answers to, and coordination of, area-wide issues such as air and water pollution, day care, housing, crime, water supply, land use, and transportation.

This NDA reflects Montgomery County's share of the organization's operation plus special COG initiatives. Additionally, the contribution supports the Cooperative Purchasing Program; the Anacostia Restoration Fund; and the Regional Environmental Fund.

As in previous years, the Washington Suburban Sanitary Commission will provide Montgomery County's contribution to support the Water Resources Management Planning Program and the Blue Plains Users Program.

| FY14 Recommended Changes | Expenditures | FTEs |
|---|---------------------|-------------|
| FY13 Approved | 770,500 | 0.00 |
| Increase Cost: Membership Dues Price Increase | 26,085 | 0.00 |
| FY14 CE Recommended | 796,585 | 0.00 |

County Associations

This NDA funds Montgomery County membership dues to the National Association of Counties (NACo) and the Maryland Association of Counties (MACo).

| FY14 Recommended Changes | Expenditures | FTEs |
|---------------------------------|---------------------|-------------|
| FY13 Approved | 72,710 | 0.00 |
| FY14 CE Recommended | 72,710 | 0.00 |

Desktop Computer Modernization

The Desktop Computer Modernization (DCM) program is based on a best practices approach to maintaining a modern and cost effective computing environment in the County. The program reduces the Total Cost of Ownership (TCO) of personal computers (PCs) and laptops through standardization, asset management, and maintenance services. DCM includes the centralized management, support, and maintenance of PCs and targets the annual replacement of approximately one-fourth of managed PCs. The program also includes PC-related training and software. This NDA includes funding for Help Desk support, management, maintenance, and replacement of PCs.

For FY14, the approved budget includes funding to continue the scheduled replacement of desktop computers. Microsoft's Windows XP operating system is at the end of its lifecycle and will not be supported beyond April, 2014. Windows 7, Microsoft's new operating system, requires more robust hardware to operate correctly. Old systems will not work properly with the newest systems (without significant support requirements, expanding support resources) across the network resulting in degraded interoperability and communications. Risk of computer security incidents and compromise will increase, without proactive remediation and modernization. Systems operating Windows XP will not receive any security or product updates when support ends. This makes them highly vulnerable to malicious attacks and presents a security risk to the organization.

| FY14 Recommended Changes | Expenditures | FTEs |
|---------------------------------|---------------------|-------------|
| FY13 Approved | 5,315,030 | 0.00 |
| FY14 CE Recommended | 5,315,030 | 0.00 |

Future Federal/State/Other Grants

This NDA enables the County to implement new grant-funded programs up to \$200,000 each and provides funds for grant continuations and enhancements without having to process individual supplemental appropriations through the County Council. Upon approval by the County Executive, funds in this program are transferred to the receiving department's grant account.

| FY14 Recommended Changes | Expenditures | FTEs |
|---------------------------------|---------------------|-------------|
| FY13 Approved | 20,000,000 | 0.00 |
| FY14 CE Recommended | 20,000,000 | 0.00 |

Grants to Municipalities in Lieu of Shares Tax

This NDA funds payments required in accordance with State law. The 1968 Session of the General Assembly revised the tax structure to include a County income tax. As part of this restructuring, the shared tax on banks and financial institutions was eliminated, and a provision was adopted which requires counties to pay annually to municipalities the amount (\$28,020) which had been received by the municipalities in FY68.

| FY14 Recommended Changes | Expenditures | FTEs |
|---------------------------------|---------------------|-------------|
| FY13 Approved | 28,020 | 0.00 |
| FY14 CE Recommended | 28,020 | 0.00 |

Group Insurance for Retirees

Group insurance is provided to an estimated 5,098 retired County employees and survivors, as well as retirees of participating outside agencies. Employees hired before January 1, 1987, are eligible upon retirement to pay 20 percent of the premium for health and life insurance for the same number of years (after retirement) that they were eligible to participate in the group insurance plan as an active employee. The County government pays the remaining 80 percent of the premium. Thereafter, these retirees pay 100 percent of the premium. Employees hired before January 1, 1987, are also offered the option at retirement to convert from the 20/80 arrangement to a lifetime cost sharing option.

Employees hired after January 1, 1987, are eligible upon retirement for a lifetime cost sharing option under which the County pays 70 percent of the premium and the retiree pays 30 percent of the premium for life for retirees who were eligible to participate in the County group insurance plan for 15 or more years as active employees. Minimum participation eligibility of five years as an active employee is necessary to be eligible for the lifetime plan. The County will pay 50 percent of the premium for retirees with five years of participation as an active employee. The County contribution to the payment of the premium increases by two percent for each additional year of participation up to the 70 percent maximum.

On March 5, 2002, the County Council approved a one-time opportunity for retirees still under the 20/80 arrangement with an expiration date to elect the lifetime cost sharing arrangement. The new percentage paid by the County for those electing this arrangement ranges from 50 percent to 68 percent, depending upon years of active eligibility under the plan and years since retirement. The cost sharing election process has been completed.

The budget does not include employer contributions from participating outside agencies.

DCM NDA (April 16 2pm 3CCR)

| | FY14 Rec | FY13 Appr | Increase | % Increase |
|--------------|-------------|-------------|----------|------------|
| Expenditures | \$5,315,030 | \$5,315,030 | 0 | 0 |
| | | | | |
| | | | | |

1. Please provide the composition of the \$5.3m requested budget by platform (Desktops, laptops, servers, tablets etc)

Response: The recommend FY14 DCM budget is composed of the following categories:

| Category | FY14 Budget |
|--------------------|--------------|
| Support Services | \$ 1,994,672 |
| PCs & Workstations | \$ 1,899,975 |
| Software | \$ 631,624 |
| Laptops & Tablets | \$ 413,600 |
| Servers | \$ 288,690 |
| Upgrades & repairs | \$ 86,469 |
| | \$ 5,315,030 |

2. Provide a snapshot of inventory and replacement experience for DCM; reference or cite the recent County Stat report of January 29, 2013, which includes the following:

Desktop Modernization: DTS is in the process of updating PCs to new operating systems and striving to return to a 4-year replacement cycle

- Goals and objectives of project
- Update on current status of effort
- Impact of emerging technologies on existing strategy

Response: The table below represents a snapshot of the DCM-managed primary systems inventory projected upon completion of FY14 replacements. The number of units replaced with Windows 7 operating system are highlighted.

| Description | Projected System Count and Age at start of FY15 | | | | | | | Total |
|--|---|-------|-------|-------|-------|-------|----|-------|
| | 1 yr | 2 yrs | 3 yrs | 4 yrs | 5 yrs | 6 yrs | 6+ | |
| PC-DESKTOP | 1926 | 1924 | 1994 | 137 | 1121 | 732 | 0 | 7834 |
| PC-LAPTOP | 276 | 276 | 204 | 89 | 99 | 252 | 0 | 1196 |
| Total | 2202 | 2200 | 2198 | 226 | 1220 | 984 | 0 | 9030 |
| Percent | 24% | 24% | 24% | 3% | 14% | 11% | 0% | 100% |
| *after 2200 replacements of the oldest systems in FY14 | | | | | | | | |

Please note: The counts above do not include non-seat (i.e., units outside the DCM program) or secondary systems that will also need to be upgraded / replaced to Windows 7 by the departments.

3. What is the % of Windows 7 on county computers? Are there barriers to faster deployment that Council can help the Executive branch overcome?

Response: DTS projects that approximately 3/4 of DCM-managed PCs will have been upgraded to Windows 7 upon completion of FY14 replacements.

Barriers to faster Windows 7 deployment fall into 3 categories:

- a) Additional funding for additional hardware acquisition
- b) Additional funding for additional resources required to handle the additional replacements
- c) Department/application availability/readiness to move to Windows 7. (Lack of application readiness includes factors such as delays by vendors in upgrading older computer software applications to successfully operate on the Windows 7 operating system).

4. Please provide a brief assessment of the overall experience with mobile computing (efficiency, effectiveness, innovations, service improvements, process streamlining)

Response: The County has seen a rapid expansion of employees' use of tablets and smart phones, including both County-provided and employee provided devices. This has given employees more access to e-mail and other systems while not in their office. Several departments are investigating / piloting the use of tablets in the field to replace paper forms or heavier laptops. This is expected to provide service efficiencies and service improvements.

The County has learned that in almost all instances, tablets and smart phones are not a replacement for PCs/laptops, rather an additional complementary device. At the conclusion of last year's Tablet pilot, DTS conducted a survey of participants with the following results:

- 65% reported improved productivity
- Only 14% indicated that replacement of a PC/laptop by a tablet may be possible

Only in very specific instances, such as field inspectors, is it reasonable to assume that a tablet may replace the need for a laptop/PC. Wider and more effective use of tablets will also depend on the development of software applications that are integrated into existing back office systems (such as line of business solutions). The County is in the process of establishing a framework for mobile applications to facilitate governance for the successful growth in the use of such applications on mobile devices.

DTS has developed a Cloud-based mobile support website to assist employees seeking support for mobile technologies. This can be found on-line at <http://mobility.montgomerycountymd.gov>. Additionally, DTS has hosted several "Mobile Support Kiosks" at the EOB, COB and HHS to provide hands-on support to employees seeking assistance with personally owned or County-provided mobile devices. Nearly 250 employees have been provided support at these mobile support kiosks. DTS is incorporating the need for mobile and multi-device support in the upcoming solicitation for the re-competition of the seat management (DCM) contract.

5. Library software upgrades continue to pose a dilemma. The response of Dieter Klinger of March 19 left more questions than answers. When will the enterprise-wide solution be deployed? Is there a way to organize a deployment for specific sub-agency units? And how advanced is the investigation of Cloud-based options?

Response: In lieu of an enterprise-wide deployment of new Office productivity software, departments can request upgrades depending on the availability of departmental funding proportionate to the number of PCs to be upgraded as a part of the planned DCM refresh.

DTS has been informed that Libraries has found funding for including new Office productivity software along with their PC replacements.

Enterprise-wide deployment of either newer PCs or cloud-based Office productivity software is contingent on fiscal resource availability. DTS is laying the ground work for a cloud-based solution, such as upgrading the Active Directory and other infrastructure, and will be expanding cloud-based solutions evaluation and pilot(s) in anticipation of future funding for large-scale implementation.