Office of Technology and Information Services

Program Overview

The Office of Technology functions across all areas of the organization including: Instruction, Operations, Maintenance, and Administration. The diverse responsibilities include: providing technology hardware and software for instruction and operational support; providing and maintaining the Wide Area Network (WAN) and Local Area Networks (LANs and WLANs); installing and maintaining communications systems (email, voice, public address, etc.); deploying interactive multi-media systems (interactive whiteboards and real-time feedback responders, document cameras, projectors, etc.); complex auditorium theatrical lighting and sound systems; technical TV studios; maintain information security safeguards; development of application programs/data analysis reports; maintain operational and system support for administrative/business systems; professional staff development/support; and develop techniques for infusing technology tools into curriculum and effective delivery.

Accomplishments – FY 2012

Application Development:

- **eSchoolPlus: Student Information System Replacement (525 man days –excludes training)**
  eSchoolPlus is the first significant student information system change in 12 years. The project was completed on schedule, within scope and budget limits. Internal training was conducted to 850 employees over the course of several months.
- **Substitute Account Creation Utility**
  Automated creation of a "substitute employee" Active Directory (network) thereby tightening up poor security practice of teachers/administrators sharing AD credentials with substitutes.
- **SharePoint 2010 Implementation and Site Redesign**
  The SharePoint 2010 project improved reliability, performance and user experience over earlier deployments (v2003 / v2007); leveraged new functionality and created secure external access.
- **School Based Attendance**
  A web-based application integrated with *SmartFind Express* (substitute management system) to enable school based exception time reporting/approval, time record collection and subsequent infusion of same into the bi-weekly Payroll process. Automation eliminates paper based "leave requests" and Payroll Office labor previously associated with the collection and key entry of time keeper records.
- **Additional accomplishments:**
  - Refreshed HCPS.org site design and implemented access analytics.
  - Developed Student Services online forms (Gang Related/ Exit Interview).
  - Implemented FitnessGram 9.x.
  - Developed flyer distribution web app.
  - Developed online web app for credit recovery request.
  - Automated quarterly grade submission.
  - Complied with MSDE mandated Student Course Grade Teacher data collection requirement.

Instructional Technology:

- Conducted 6,266 hours of technology literacy and integration professional development to 2442 employees.
- Computer refresh: 3,254 units, total units deployed: 17,716.
- Refreshed 53 school-based file/print servers.
- Installed 240 Interactive whiteboards, total units deployed: 1,687.
- Installed new computer labs at: Church Creek, George D. Lisby, and Riverside Elementary Schools and Science and Math Academy, Joppatowne and Harford Technical High Schools for expanded technology literacy; Harford Technical High School for Machine Shop design; and CEO for expanded professional development opportunities.
- Designed and installed new Music Technology labs in Fallston High School and Harve de Grace High School to accommodate new curriculum/courses.

Print Services:

- Printing Services increased their volume of printing from 34 million to over 43 million pages for the 2012 school year. Twenty eight schools ordered approximately 24,000 student planners for the 2013 school year from the Print Shop, resulting in a reduction in cost of nearly $30,000 from the prior year.

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- The Printing Services department printed all 11 high schools graduation announcements saving thousands of dollars in external printing costs.
- Scaled up printing of student planners to 8 secondary level schools saving thousands of dollars in printing costs to the schools.
- Negotiated a budget neutral contract on the two primary volume printers which increased the volume capacity by 72% and doubled the non-billable printing volume from 18 million to 36 million impressions helping to eliminate overage charges.

Technical Infrastructure:

- **Custom Fabrication for Auditoriums**
  In collaboration with the Office of Technology, the Facilities department contributed to several upgrades to high school auditoriums. Modifications to an unused TV yoke mount and subsequent installation at Harford Technical and Fallston met an operational need in both locations. Provided security and improved functionality for auditorium projection through engineering design and fabrication of a custom LCD projector bar mount built for Aberdeen High. The installations were executed without flaw, with zero downtime to the educational spaces, and saved the district in excess of $5,000.
- **Installation of Wireless Networks**
  Installed wireless (Wi-Fi) networks at Aberdeen and North Harford High Schools and at the CEO building.
- **Microsoft Exchange**
  Completed corporate email migration to Microsoft Exchange 2010.
- **Broadband bandwidth**
  Upgraded 4 sites to broadband speed connection.
- **Additional projects:**
  o Refreshed and upgraded theatrical lighting and house sound system in the Havre de Grace High School auditorium.
  o Installed expanded capability local sound systems in music rooms at Fallston and Havre de Grace High School and North Harford Middle School.

Technology Support:

- Received and completed 14,854 technology related work orders.

Goals – FY 2014

- Expand endpoint security and decrease annual maintenance cost.
- Continue addressing internet bandwidth growth.
- Maintain computer refresh with replacement of end of life operating system.
- Maintain operational warranty support of Enterprise Resource Planning (ERP) system.
- Decrease school's printing costs while increasing efficiency to meet volume growth.
- Investigate mobile devices with administrative functions, curriculum and assessments.
- Expand use of on-demand learning for student and staff.
- Investigate technology literacy in support of Common Core curriculum.
- Maintain alignment of technology resources with local, state and federal plans.

Objectives – FY 2014

- Implement Microsoft's System Center enterprise-wide.
- Continue elimination of T-1 WAN connections by upgrading to metro Ethernet network protocol or direct connect fiber optics.
- Migrate to Windows 7 enterprise-wide.
- Lifecycle migration to current version of Lawson/INFOR.
- Increase number of schools printing Student Planners internally.
- Update print submission software to meet increased demand.
- Develop eLearning strategy for students with accommodation requirements and staff.
- Update HCPS' 3 year Technology Plan with alignment to state and federal educational technology plans and the Board's strategic plan.

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Office of Technology recognizes the necessity for continuous instructional technology training as a part of professional development. In addition, the goal of developing technology-rich, authentic and relevant learning environments is a crucial part of the instructional program to help to engage the learner and provide students with 21st Century work skills.

Highly skilled and trained network administrators, engineers and technicians are responsible for the design, installation, operation, and maintenance of the enterprise infrastructure including the wide and local area networks; virtualized environments and storage area networks; instructional and administrative support systems such as email messaging, Student Information System, Enterprise Resource Planning and SharePoint; telephony and public address communications; and multi-media systems. Additionally, a team of regionally based computer technicians provide just in time support for all end user computers, printers, and related peripherals. Outside contractors are used to augment the existing staff's ability to service and support the wide variety and highly technical equipment/systems.

The Office of Technology is responsible for the processing of all student data, including federal and MSDE reporting; financial records, payroll, requisitions, purchase orders, warehouse, inventory, accounts payable, budgeting, e-mail, and wide area network (WAN) while maintaining a secure computing environment.

FY 2014 Funding Adjustments
The changes for fiscal 2014 include:

Wage Adjustments of ($2,240):
- Salary and wage adjustments, ($2,240).

Base Budget Adjustments net changes of ($8,000):
- Reversal of year end transfer from Computer Contracted Services, $65,000;
- Software maintenance contract expenses transferred from regular programs, $22,000;
- Increase in Business Machines, $5,000;
- Increase in Instructional Computer Equipment, $3,000;
- Reversal of year end transfer to Computer Services, ($65,000);
- Reversal of FY 2013 transfer to Computer Equipment, ($30,000);
- Decrease in Security and Safety Contracted Service, ($5,000); and,
- Decrease in Computer Repairs expense, ($3,000).

Cost of Doing Business of $89,900:
- Annual Contract for eSchool Mall (purchasing software), $35,500;
- Increase in Hardware Maintenance contracts (Wi-Fi & network components), $34,400; and,
- Increase in Software Maintenance contracts (annual increase), $20,000.

The net increase in expenditures from the FY 2013 budget for Office of Technology and Information is $79,660.

Office of Technology and Information

By Object Code	FY11 Actual	FY12 Actual	FY13 Actual	FY13 Budget	13-14 Change	FY14 Budget
Salaries	$3,484,505	$3,572,770	$3,575,933	$3,671,025	($2,240)	$3,668,785
Contracted Services	$1,951,879	$2,419,278	$2,270,421	$2,444,624	$19,900	$2,464,524
Supplies	$839,529	$1,005,260	$1,154,778	$1,133,452	$89,000	$1,222,452
Other Charges	$1,274,743	$1,461,748	$1,589,902	$1,494,436	$0	$1,494,436
Equipment	$739,810	$596,396	$222,028	$282,675	($27,000)	$255,675
Total:	**$8,290,467**	**$9,055,451**	**$8,813,062**	**$9,026,212**	**$79,660**	**$9,105,872**

Budgeted Full Time Equivalent Positions

	FY11	FY12	FY13	13-14	FY14
Administrator	0.0	0.0	1.0	0.0	1.0
Assistant Supervisor	3.0	3.0	3.0	0.0	3.0
Clerical 12 Month	2.0	2.0	2.0	0.0	2.0
Director	1.0	1.0	1.0	0.0	1.0
Printer	3.0	4.0	4.0	0.0	4.0
Teacher/Counselor	2.0	2.0	1.0	0.0	1.0
Technology Prog/Analyst/Tech	43.0	43.5	42.5	0.0	42.5
	54.0	**55.5**	**54.5**	**0.0**	**54.5**

By State Category	FY11 Actual	FY12 Actual	FY13 Actual	FY13 Budget	13-14 Change	FY14 Budget
FTE: 32.0						
ADMINISTRATIVE SERVICES						
Salaries						
1 MAINTENANCE/MECHANICS/TECHS Printing Services 101-XXX-022-025 51120 FTE: 4.0	$0	$0	$167,449	$168,673	$(748)	$167,925
2 OTHER Printing Services 101-XXX-022-025 51170 FTE: 0.0	$130,581	$145,872	$0	$0	$0	$0
3 PROFESSIONAL Office of Technology 101-XXX-023-045 51100 FTE: 5.0	$316,193	$318,068	$485,973	$485,856	$0	$485,856
4 CLERICAL Office of Technology 101-XXX-023-045 51110 FTE: 2.0	$89,918	$91,168	$91,696	$90,810	$2,273	$93,083
5 MAINTENANCE/MECHANICS/TECHS Office of Technology 101-XXX-023-045 51120 FTE: 21.0	$1,582,739	$1,587,802	$1,384,248	$1,429,906	$0	$1,429,906
6 TEMPORARY HELP Office of Technology 101-XXX-023-045 51140 FTE: 0.0	$0	$548	$4,227	$3,200	$0	$3,200
7 MAINT./MECH./TECH. OVERTIME Office of Technology 101-XXX-023-045 51160 FTE: 0.0	$1,092	$3,991	$14,358	$16,222	$0	$16,222
Total Salaries	**$2,120,522**	**$2,147,449**	**$2,147,951**	**$2,194,667**	**$1,525**	**$2,196,192**
Contracted Services						

By State Category	FY11 Actual	FY12 Actual	FY13 Actual	FY13 Budget	13-14 Change	FY14 Budget
ADMINISTRATIVE SERVICES						
Contracted Services						
8 OTHER Printing Services 101-XXX-022-025 52170	$0	$0	$5,554	$1,000	$0	$1,000
9 COPIER / MACHINE RENTAL Printing Services 101-XXX-022-025 52370	$316,887	$351,519	$333,555	$341,500	$0	$341,500
10 SOFTWARE MAINTENANCE Printing Services 101-XXX-022-025 52380	$4,357	$4,357	$5,035	$5,000	$0	$5,000
11 OTHER Office of Technology 101-XXX-023-045 52170	$193,300	$133,500	$151,544	$220,000	$0	$220,000
12 CONSULTANTS Office of Technology 101-XXX-023-045 52205	$77,348	$309,791	$152,426	$130,280	$0	$130,280
13 COPIER / MACHINE RENTAL Office of Technology 101-XXX-023-045 52370	$2,970	$2,943	$2,800	$8,000	$0	$8,000
14 SOFTWARE MAINTENANCE Office of Technology 101-XXX-023-045 52380	$439,697	$503,628	$549,936	$528,222	$35,500	$563,722
Total Contracted Services	**$1,034,560**	**$1,305,738**	**$1,200,849**	**$1,234,002**	**$35,500**	**$1,269,502**
Supplies						
15 OFFICE Printing Services 101-XXX-022-025 53440	$98	$780	$41	$500	$0	$500
16 PRINTING Printing Services 101-XXX-022-025 53445	$114,091	$116,929	$99,023	$135,000	$0	$135,000
17 REPAIRS-COMPUTERS Office of Technology 101-XXX-023-045 53320	$0	$0	$0	$3,000	$(3,000)	$0
18 OFFICE Office of Technology 101-XXX-023-045 53440	$8,540	$2,779	$3,720	$10,000	$0	$10,000
19 PRINTING Office of Technology 101-XXX-023-045 53445	$0	$532	$0	$5,000	$0	$5,000
20 POSTAGE/COURIER SERVICE Office of Technology 101-XXX-023-045 53450	$1,874	$727	$1,323	$0	$0	$0
Total Supplies	**$124,603**	**$121,746**	**$104,106**	**$153,500**	**$(3,000)**	**$150,500**
Other Charges						

By State Category	FY11 Actual	FY12 Actual	FY13 Actual	FY13 Budget	13-14 Change	FY14 Budget
ADMINISTRATIVE SERVICES						
Other Charges						
21 INSTITUTES, CONFERENCES, MTGS. Printing Services 101-XXX-022-025 54750	$0	$0	$14	$250	$0	$250
22 MILEAGE, PARKING, TOLLS Office of Technology 101-XXX-023-045 54720	$93	$256	$414	$0	$0	$0
23 INSTITUTES, CONFERENCES, MTGS. Office of Technology 101-XXX-023-045 54750	$14,304	$22,094	$17,476	$12,500	$0	$12,500
Total Other Charges	**$14,397**	**$22,350**	**$17,904**	**$12,750**	**$0**	**$12,750**
Equipment						
24 OTHER EQUIPMENT Printing Services 101-XXX-022-025 55170	$51,662	$11,762	$1,934	$8,596	$0	$8,596
25 OTHER EQUIPMENT Office of Technology 101-XXX-023-045 55170	$118,325	$70,131	$64,392	$53,833	$0	$53,833
26 SOFTWARE Office of Technology 101-XXX-023-045 55460	$4,058	$104,226	$504	$26,031	$0	$26,031
27 COMPUTERS/BUSINESS EQUIPMENT Office of Technology 101-XXX-023-045 55805	$43,401	$21,768	$16,044	$20,084	$0	$20,084
28 OFFICE FURNITURE/EQUIPMENT Office of Technology 101-XXX-023-045 55810	$840	$0	$0	$3,393	$0	$3,393
Total Equipment	**$218,286**	**$207,887**	**$82,874**	**$111,937**	**$0**	**$111,937**
Total ADMINISTRATIVE SERVICES	**$3,512,368**	**$3,805,171**	**$3,553,685**	**$3,706,856**	**$34,025**	**$3,740,881**
FTE: 0.0 **INSTRUCTIONAL SALARIES**						
Salaries						
29 PROFESSIONAL Staff Dev. - OTIS 103-XXX-009-550 51100 FTE: 0.0	$138,059	$172,966	$163,129	$186,158	$0	$186,158
30 PROFESSIONAL - SUBSTITUTES Staff Dev. - OTIS 103-XXX-009-550 51101 FTE: 0.0	$11,082	$4,278	$397	$0	$0	$0
Total Salaries	**$149,140**	**$177,244**	**$163,526**	**$186,158**	**$0**	**$186,158**
Total INSTRUCTIONAL SALARIES	**$149,140**	**$177,244**	**$163,526**	**$186,158**	**$0**	**$186,158**
TEXTBOOKS AND CLASS SUPPLIES						
Supplies						
31 MATERIALS OF INSTR.- SOFTWARE Technology 104-XXX-001-215 53460	$496,761	$589,766	$815,036	$677,693	$22,000	$699,693
Total Supplies	**$496,761**	**$589,766**	**$815,036**	**$677,693**	**$22,000**	**$699,693**
Total TEXTBOOKS AND CLASS SUPPLIES	**$496,761**	**$589,766**	**$815,036**	**$677,693**	**$22,000**	**$699,693**

By State Category	FY11 Actual	FY12 Actual	FY13 Actual	FY13 Budget	13-14 Change	FY14 Budget
OTHER INSTRUCTIONAL COSTS						
Other Charges						
32 INSTITUTES, CONFERENCES, MTGS. Staff Dev. - OTIS 105-XXX-009-550 54750	$0	$4,934	$2,887	$7,500	$0	$7,500
Total Other Charges	$0	$4,934	$2,887	$7,500	$0	$7,500
Equipment						
33 COMPUTERS/BUSINESS EQUIPMENT Other Instructional Costs, Technology 105-XXX-001-840 55805	$450,782	$360,746	$136,233	$137,322	$(27,000)	$110,322
34 OFFICE FURNITURE/EQUIPMENT Other Instructional Costs, Technology 105-XXX-001-840 55810	$0	$0	$0	$3,619	$0	$3,619
Total Equipment	$450,782	$360,746	$136,233	$140,941	$(27,000)	$113,941
Total OTHER INSTRUCTIONAL COSTS	$450,782	$365,681	$139,120	$148,441	$(27,000)	$121,441
OPERATION OF PLANT						
Other Charges						
35 COMMUNICATIONS Operations, Technology 110-XXX-031-840 54765	$504,878	$523,743	$525,981	$499,170	$0	$499,170
36 INTERNET ACCESS FEES Operations, Technology 110-XXX-031-840 54766	$203,796	$177,919	$167,333	$218,400	$0	$218,400
37 WAN Operations, Technology 110-XXX-031-840 54767	$537,527	$717,689	$861,080	$736,741	$0	$736,741
Total Other Charges	$1,246,201	$1,419,351	$1,554,394	$1,454,311	$0	$1,454,311
Total OPERATION OF PLANT	$1,246,201	$1,419,351	$1,554,394	$1,454,311	$0	$1,454,311
FTE: 22.5 **MAINTENANCE OF PLANT**						
Salaries						
38 PROFESSIONAL Technology - OTIS 111-XXX-990-840 51100 FTE: 1.0	$99,549	$100,174	$100,472	$102,355	$(1,883)	$100,472
39 MAINTENANCE/MECHANICS/TECHS Technology - OTIS 111-XXX-990-840 51120 FTE: 21.5	$1,038,809	$1,092,963	$1,136,986	$1,134,742	$(1,882)	$1,132,860
40 TEMPORARY HELP Technology - OTIS 111-XXX-990-840 51140 FTE: 0.0	$47,518	$31,276	$6,281	$21,985	$0	$21,985
41 MAINT./MECH./TECH. OVERTIME Technology - OTIS 111-XXX-990-840 51160 FTE: 0.0	$28,967	$23,664	$20,717	$31,118	$0	$31,118
Total Salaries	$1,214,843	$1,248,077	$1,264,456	$1,290,200	$(3,765)	$1,286,435
Contracted Services						
42 OTHER Technology - OTIS 111-XXX-990-840 52170	$65,606	$153,049	$177,478	$145,000	$(65,000)	$80,000

By State Category	FY11 Actual	FY12 Actual	FY13 Actual	FY13 Budget	13-14 Change	FY14 Budget
MAINTENANCE OF PLANT						
Contracted Services						
43 SECURITY & SAFETY Technology - OTIS 111-XXX-990-840 52270	$22,409	$4,545	$1,683	$32,000	$(5,000)	$27,000
44 P.A. SYSTEMS Technology - OTIS 111-XXX-990-840 52272	$405	$0	$0	$0	$0	$0
45 REPAIRS-COMPUTERS Technology - OTIS 111-XXX-990-840 52320	$0	$14,294	$12,500	$16,000	$0	$16,000
46 BUSINESS MACHINES Technology - OTIS 111-XXX-990-840 52361	$102,849	$94,571	$105,160	$92,000	$0	$92,000
47 HARDWARE MAINTENANCE Technology - OTIS 111-XXX-990-840 52375	$290,318	$337,491	$331,414	$396,874	$34,400	$431,274
48 SOFTWARE MAINTENANCE Technology - OTIS 111-XXX-990-840 52380	$433,765	$491,423	$423,667	$523,748	$20,000	$543,748
49 AUDIO VISUAL Technology - OTIS 111-XXX-990-840 52495	$1,967	$18,166	$17,670	$5,000	$0	$5,000
Total Contracted Services	$917,320	$1,113,540	$1,069,572	$1,210,622	$(15,600)	$1,195,022
Supplies						
50 P.A. SYSTEMS Technology - OTIS 111-XXX-990-840 53272	$0	$1,215	$0	$0	$0	$0
51 REPAIRS-COMPUTERS Technology - OTIS 111-XXX-990-840 53320	$47,018	$1,683	$5,993	$9,000	$65,000	$74,000
52 BUSINESS MACHINES Technology - OTIS 111-XXX-990-840 53361	$15,748	$21,874	$13,538	$18,000	$5,000	$23,000
53 OFFICE Technology - OTIS 111-XXX-990-840 53440	$898	$1,234	$690	$1,000	$0	$1,000
54 A/V Technology - OTIS 111-XXX-990-840 53495	$114,325	$205,945	$153,895	$184,259	$0	$184,259
55 TRAINING SUPPLIES Technology - OTIS 111-XXX-990-840 53580	$0	$7,165	$119	$0	$0	$0
56 COMMUNICATIONS Technology - OTIS 111-XXX-990-840 53765	$40,175	$54,631	$61,401	$90,000	$0	$90,000

By State Category	FY11 Actual	FY12 Actual	FY13 Actual	FY13 Budget	13-14 Change	FY14 Budget
MAINTENANCE OF PLANT						
Total Supplies	$218,164	$293,748	$235,636	$302,259	$70,000	$372,259
Other Charges						
57 MILEAGE, PARKING, TOLLS Technology - OTIS 111-XXX-990-840 54720	$13,516	$14,145	$14,553	$19,500	$0	$19,500
58 INSTITUTES, CONFERENCES, MTGS. Technology - OTIS 111-XXX-990-840 54750	$630	$968	$164	$375	$0	$375
Total Other Charges	$14,146	$15,113	$14,717	$19,875	$0	$19,875
Equipment						
59 OTHER EQUIPMENT Technology - OTIS 111-XXX-990-840 55170	$5,063	$2,383	$0	$0	$0	$0
60 P. A. SYSTEMS Technology - OTIS 111-XXX-990-840 55272	$0	$0	$0	$2,310	$0	$2,310
61 SOFTWARE Technology - OTIS 111-XXX-990-840 55460	$18,646	$10,091	$0	$6,786	$0	$6,786
62 COMMUNICATIONS Technology - OTIS 111-XXX-990-840 55765	$23,160	$11,620	$0	$15,155	$0	$15,155
63 COMPUTERS/BUSINESS EQUIPMENT Technology - OTIS 111-XXX-990-840 55805	$23,873	$3,669	$2,347	$5,046	$0	$5,046
64 OFFICE FURNITURE/EQUIPMENT Technology - OTIS 111-XXX-990-840 55810	$0	$0	$573	$500	$0	$500
Total Equipment	$70,743	$27,762	$2,920	$29,797	$0	$29,797
Total MAINTENANCE OF PLANT	$2,435,215	$2,698,240	$2,587,300	$2,852,753	$50,635	$2,903,388
Report Total:	$8,290,467	$9,055,451	$8,813,062	$9,026,212	$79,660	$9,105,872