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.

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.

Accomplishments – FY 2013

Application Development:

- **eSchoolPlus: Student Information System Replacement**
  eSchoolPlus is the first **significant** student information system change in 12 years. Project completed July 2013 and online to support school year 2013 - 2014.
- **eValuation – Support Staff evaluation system**
  Developed (in-house) a web based employee evaluation software package.
- **Online Employee Handbook**
  Digitized content and employee acknowledgement via (in-house) web based solution to improved HR process and eliminated manual labor.
- **Use of Facilities**
  HCPS.org web based application developed (in-house) to standardized process and eliminated manual labor for schools and Operations.
- **Partnership Network**
  HCPS.org web based application developed (in-house) to manage school / business sponsored partnerships.
- **Cognos 8 Migration**
  Wrote more than 1,000 reports used by schools to access student information and support academic processes.
- **Complied with MSDE RTTT mandated initiatives**
  Implemented the MSDE mandate to transmit student transcripts via the Univ. System of MD data interchange. Accommodated multiple changes to Student Course Grade Teacher data collection.
- **Lawson 9.01 Upgrade**
  Performed upgrades necessary to maintain operational warranty support of Enterprise Resource Planning (ERP) system and fulfill next generation ERP prerequisites.

Office of Technology and Information Services

Application Development (cont.):
- **Additional accomplishments:**
  - Technical assistance for HCPS rebranding (hcps.org).
  - Enhancement to automated quarterly grade submission.
  - Email enabled job postings (hcps.org).
  - Teacher evaluation list.
  - Food & Nutrition employee training roster.
  - Planning & Construction content management (hcps.org).
  - Naviance school guidance counseling integration to eSchoolPlus.
  - Automated 5-Day Attendance data merges for school offices.
  - Moodle upgrade.
  - Developed importable academic calendar.
  - Crystal Reports 2012 upgrade.

Instructional Technology:
- Conducted 16,894 hours of technology literacy and integration professional development to 1,991 employees.
- Computer refresh of 3,161 units; total units deployed, 17,694.
- Refreshed uninterruptible power supply units (50 school-based).
- Installed 293 interactive whiteboards, total of 1,995 units deployed. Installed interactive white boards in every core content classroom of all middle schools.
- Collaborated with math, english, language arts, science, and social sciences department chairs to support core content lesson development supported with interactive technologies.
- Upgraded the computer digital print/graphics lab at Harford Tech HS.
- Reconfigured the piano lab at Fallston MS; 6 computer labs at Patterson Mill, and; science rooms at North Harford MS and Havre de Grace MS to enhance the teaching/learning experience.
- Deployed mobile device management system for tablet devices.
- Upgrade and reconfiguration to new topology of Alexandria Library Management System.
- Installation and implementation of Digital Signage server for school based announcements.

Print Services:
- Print Services printed 44 million impressions and 2,245 orders were placed by HCPS staff members in preparation of SY14.
- Printed approximately 22,000 student/teacher planners for 22 schools. HCPS' print shop created competition which resulted in a negotiated price reduction to $2.00/ planner from vendor.
- Printed all 11 high school graduation announcements saving money on external printing.
- Negotiated a cost saving contract ($1,700) on a new color production printer which increases both our color printing capacity and capabilities.

Technical Infrastructure:
- **Installation of Wireless Networks**
  Installed wireless networks (Wi-Fi) at C. Milton Wright HS, Fallston HS, Harford Tech, Aberdeen MS, North Harford MS, and William S. James ES.
- **Network Hardware Refresh**
  Refreshed network switches at C. Milton Wright HS, Fallston HS, Harford Tech, Aberdeen MS, North Harford MS, and William S. James ES to accommodate PoE requirements for Wi-Fi infrastructure.
- **Broadband bandwidth**
  Converted 16 school sites to an increased bandwidth connection via Harford County's Metropolitan Area Network.
- **Information/Network Security**
  Upgraded HCPS Wide Area Network firewalls onto new hardware and upgraded VPN appliance to provide a redundant configuration.

Office of Technology and Information Services

Technical Infrastructure (cont.):
- **Additional projects:**
  - Replaced 171 LCD projectors through the Performance Contracting project.
  - Refreshed 374 LCD projectors.
  - Upgraded capability to include video recording/streaming in BOE meeting room.
  - Installed public address system in the Aberdeen HS stadium.
  - Upgraded/enhanced 4 public address systems from repurposed systems.
  - Installed local sound system in the cafeterias at Roye Williams ES, North Harford HS, Fallston HS, Harford Tech and John Archer and in the gymnasium at Harford Tech.
  - Installed 12 sound reinforcement/amplification systems in classrooms (3 systems for ADA requirements).
  - Upgrade audio sound board in auditoriums of Fallston HS, Patterson Mill HS and Harford Tech.
  - Replaced theatrical lighting system control console at Aberdeen HS.
  - Refreshed and upgraded theatrical lighting and house sound system at Joppatowne HS.
  - Upgraded auditorium front of house sound system at Harford Tech and Fallston HS.
  - Realigned speaker in the Bel Air HS gymnasium.
  - Installed 'lecture mode' functionality at Edgewood HS and Patterson Mill HS.
  - Implemented Microsoft System Center Configuration Manager, replacing antiquated Altiris Notification Server for increased endpoint management of devices.

Technology Support:
- Received and completed 12,802 technology related work orders.

Goals – FY 2015

- Facilitate the development of digital curriculum, implement delivery/access, and conduct professional development in support of the curriculum.
- Accommodate Common Core curriculum and PARCC assessments.
- Successful operation of *eSchoolPlus* through a complete academic cycle.
- Strengthen security and implement enhancements to ERP system.
- Develop improvements to internal business processes.
- Expand server virtualization environment.
- Strengthen the HCPS telephony network to increase communication efficiency.
- Continue addressing Internet bandwidth.
- Maintain high level of operational performance of HCPS computer assets.
- Continue decreasing school's printing costs while increasing efficiency to meet volume growth.
- Expand use of on-demand learning for student and staff.
- Maintain alignment of technology resources with local, state and federal plans.

Objectives – FY 2015

- Accommodate unforeseen projects which require in-house development.
- Accommodate MSDE RTTT longitudinal data initiatives.
- Implement a learning management system for the delivery of digital curriculum.
- Implement 1 mobile device per 2 students for digital integration of curriculum and assessments.
- Implement Lightweight Directory Service, Lawson SmartOffice, and role-based security for ERP.
- Introduce Data Loss Prevention technology and upgrade HCPS log management system.
- Automate employee longevity computations.
- Integrate procurement card transaction detail with General Ledger.
- Enhance Special Admission software.
- Develop next generation Student Enrollment Options software.
- Collapse school based servers to the central office environment as HMAN develops.
- Expand the integration of Microsoft Lync.
- Cutover/upgrade sites to the HMAN as the network build-out finalizes.
- Re-establish computer and network refresh.
- Broaden the real-time instruction through video conferencing infrastructure.
- Develop 3 year Technology Plan aligned to MSDE's Technology Plan.

Office of Technology and Information Services

FY 2015 Funding Adjustments

The changes for fiscal 2015 include:

Wage and Benefit Adjustments of ($35,469):
- Align salary accounts based on actual expenditures, ($35,469).

Base Budget Adjustment net changes of $50,000:
- Reversal of year end transfer to software maintenance, $240,000.

- Reversal of year end transfer to hardware maintenance, $117,000.

- Reversal of year end transfer to audio/visual supplies, $75,000.

- Reversal of year end transfer to computer repairs, $55,000.

- Reversal of year end transfer to communications supplies, $53,000.

- Reversal of year end transfer for technicians, $50,000.

- Reversal of year end transfer to realign technology consulting account, $45,000.

- Reversal of year end transfer for administrative other contracted services, $25,000.

- Reversal of year end transfer to security and safety contracted service, $20,000.

- Reversal of year end transfer to purchase computer equipment using one time savings from other technology accounts, ($400,000).

- Reversal of year end transfer to communications equipment, ($140,000).

- Reversal of year end transfer to realign technology software maintenance account, ($70,000).

- Reversal of year end transfer for maintenance of plant - other contracted services, ($20,000).

- Transfer budget for Edline and Atomic Learning from administrative services software maintenance, ($278,000), to textbooks and class supplies, materials of instruction - software, $278,000.

- Funds were transferred from other contracted services, ($4,500), to textbooks and class supplies, materials of instruction - software, $4,500.

Cost Saving Measures of ($10,000):
- Reduce equipment rentals in the print shop, ($10,000).

Cost of Doing Business of $61,739:
- Annual license fee for Cognitive Tutor Instructional Software, $20,500.

- Increase in administrative services software maintenance, $19,939.

- Increase in annual license fee for I-Station Instructional Software, $19,000.

- Increase in WebCRD software maintenance for Print Shop, $2,300.

The net increase in expenditures from the fiscal 2014 budget for OTIS is $66,270.

Office of Technology and Information

By Object Code	FY12 Actual	FY13 Actual	FY14 Actual	FY14 Budget	14-15 Change	FY15 Budget
Salaries	$3,572,770	$3,575,933	$3,495,572	$3,653,791	$14,531	$3,668,322
Contracted Services	$2,419,278	$2,270,421	$2,078,241	$2,102,024	$86,739	$2,188,763
Supplies	$1,005,260	$1,154,778	$1,032,288	$1,035,452	$505,000	$1,540,452
Other Charges	$1,461,748	$1,589,902	$1,265,042	$1,498,936	$0	$1,498,936
Equipment	$596,396	$222,028	$761,864	$777,675	($540,000)	$237,675
Total:	**$9,055,451**	**$8,813,062**	**$8,633,008**	**$9,067,878**	**$66,270**	**$9,134,148**

Budgeted Full Time Equivalent Positions

	FY12	FY13	FY14	14-15	FY15
Administrator	0.0	1.0	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	4.0	4.0	4.0	0.0	4.0
Teacher/Counselor	2.0	1.0	2.0	0.0	2.0
Technology Prog/Analyst/Tech	43.5	42.5	41.5	0.0	41.5
	55.5	**54.5**	**54.5**	**0.0**	**54.5**

By State Category	FY12 Actual	FY13 Actual	FY14 Actual	FY14 Budget	14-15 Change	FY15 Budget	FY15 FTE
ADMINISTRATIVE SERVICES							
Contracted Services	$1,305,738	$1,200,849	$1,194,326	$1,264,002	$(270,261)	$993,741	
Equipment	$207,887	$82,874	$86,206	$93,937	$0	$93,937	
Other Charges	$22,350	$17,904	$16,320	$17,250	$0	$17,250	
Salaries	$2,147,449	$2,147,951	$2,135,514	$2,181,198	$59,006	$2,240,204	
Supplies	$121,746	$104,106	$123,987	$146,500	$0	$146,500	
TOTAL:	**$3,805,171**	**$3,553,685**	**$3,556,354**	**$3,702,887**	**$(211,255)**	**$3,491,632**	**32.0**
INSTRUCTIONAL SALARIES							
Salaries	$177,244	$163,526	$145,536	$186,158	$0	$186,158	
TOTAL:	**$177,244**	**$163,526**	**$145,536**	**$186,158**	**$0**	**$186,158**	**0.0**
TEXTBOOKS AND CLASS SUPPLIES							
Supplies	$589,766	$815,036	$718,394	$699,693	$322,000	$1,021,693	
TOTAL:	**$589,766**	**$815,036**	**$718,394**	**$699,693**	**$322,000**	**$1,021,693**	**0.0**
OTHER INSTRUCTIONAL COSTS							
Equipment	$360,746	$136,233	$503,929	$513,941	$(400,000)	$113,941	
Other Charges	$4,934	$2,887	$574	$7,500	$0	$7,500	
TOTAL:	**$365,681**	**$139,120**	**$504,503**	**$521,441**	**$(400,000)**	**$121,441**	**0.0**
OPERATION OF PLANT							
Other Charges	$1,419,351	$1,554,394	$1,230,679	$1,454,311	$0	$1,454,311	
TOTAL:	**$1,419,351**	**$1,554,394**	**$1,230,679**	**$1,454,311**	**$0**	**$1,454,311**	**0.0**
MAINTENANCE OF PLANT							

By State Category	FY12 Actual	FY13 Actual	FY14 Actual	FY14 Budget	14-15 Change	FY15 Budget	FY15 FTE
Contracted Services	$1,113,540	$1,069,572	$883,915	$838,022	$357,000	$1,195,022	
Equipment	$27,762	$2,920	$171,729	$169,797	$(140,000)	$29,797	
Other Charges	$15,113	$14,717	$17,468	$19,875	$0	$19,875	
Salaries	$1,248,077	$1,264,456	$1,214,522	$1,286,435	$(44,475)	$1,241,960	
Supplies	$293,748	$235,636	$189,908	$189,259	$183,000	$372,259	
TOTAL:	$2,698,240	$2,587,300	$2,477,542	$2,503,388	$355,525	$2,858,913	22.5
Grand Total:	$9,055,451	$8,813,062	$8,633,008	$9,067,878	$66,270	$9,134,148	54.5