

# Chapter 8

## Technology Support and Infrastructure

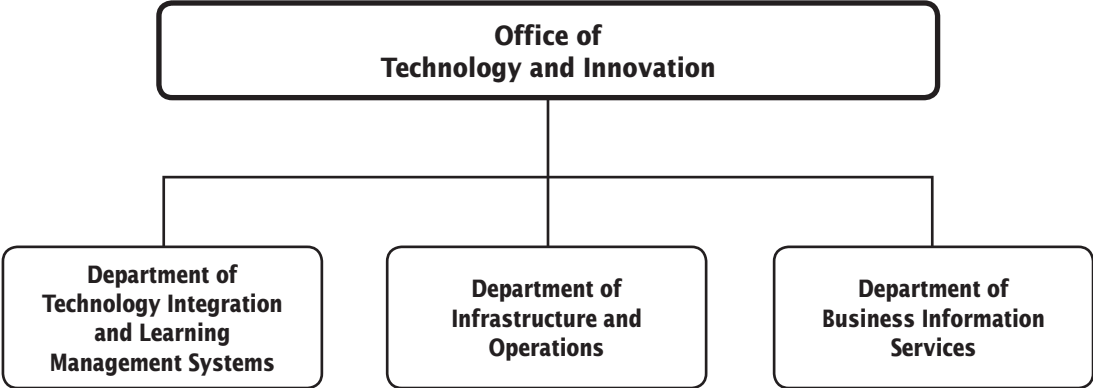
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**Technology Support and Infrastructure**  
**Summary of Resources**  
**By Object of Expenditure**

OBJECT OF EXPENDITURE	FY 2020 ACTUAL	FY 2021 BUDGET	FY 2021 CURRENT	FY 2022 BUDGET	FY 2022 CHANGE
<b>POSITIONS</b>					
Administrative	12.000	12.000	12.000	12.000	
Business/Operations Admin.	9.000	9.000	9.000	8.000	(1.000)
Professional	8.000	10.000	10.000	10.000	
Supporting Services	104.000	103.500	103.500	104.500	1.000
<b>TOTAL POSITIONS</b>	<b>133.000</b>	<b>134.500</b>	<b>134.500</b>	<b>134.500</b>	
<b>01 SALARIES &amp; WAGES</b>					
Administrative	\$1,728,555	\$1,770,675	\$1,770,675	\$1,770,675	
Business/Operations Admin.	1,265,112	1,074,343	1,074,343	979,361	(94,982)
Professional	1,012,536	1,256,388	1,256,388	1,256,388	
Supporting Services	9,313,542	9,947,487	9,947,487	9,994,328	46,841
<b>TOTAL POSITION DOLLARS</b>	<b>13,319,745</b>	<b>14,048,893</b>	<b>14,048,893</b>	<b>14,000,752</b>	<b>(48,141)</b>
<b>OTHER SALARIES</b>					
Administrative					
Professional	117,567	515,226	515,226	515,226	
Supporting Services	147,540	721,736	721,736	721,736	
<b>TOTAL OTHER SALARIES</b>	<b>265,107</b>	<b>1,236,962</b>	<b>1,236,962</b>	<b>1,236,962</b>	
<b>TOTAL SALARIES AND WAGES</b>	<b>13,584,852</b>	<b>15,285,855</b>	<b>15,285,855</b>	<b>15,237,714</b>	<b>(48,141)</b>
<b>02 CONTRACTUAL SERVICES</b>	<b>16,271,862</b>	<b>14,620,271</b>	<b>14,620,271</b>	<b>14,828,930</b>	<b>208,659</b>
<b>03 SUPPLIES &amp; MATERIALS</b>	<b>554,201</b>	<b>616,950</b>	<b>616,950</b>	<b>616,950</b>	
<b>04 OTHER</b>					
Local/Other Travel	12,159	54,286	54,286	34,286	(20,000)
Insur & Employee Benefits					
Utilities	3,829,848	3,286,423	3,286,423	3,715,220	428,797
Miscellaneous	851,745	597,347	597,347	1,028,073	430,726
<b>TOTAL OTHER</b>	<b>4,693,752</b>	<b>3,938,056</b>	<b>3,938,056</b>	<b>4,777,579</b>	<b>839,523</b>
<b>05 EQUIPMENT</b>	<b>575,843</b>	<b>323,176</b>	<b>323,176</b>	<b>187,032</b>	<b>(136,144)</b>
<b>GRAND TOTAL AMOUNTS</b>	<b>\$35,680,510</b>	<b>\$34,784,308</b>	<b>\$34,784,308</b>	<b>\$35,648,205</b>	<b>\$863,897</b>

# Technology Support and Infrastructure—Overview



F.T.E. Positions 134.5

In addition, there are 18.5 positions funded by the Capital Improvements Program Budget, and a 0.5 position funded by the Employee Benefits Trust Fund.

**MISSION** The Office of Technology and Innovation (OTI) provides transformative blended learning models, information systems and services essential to teaching and learning, and infrastructure for critical business operations. OTI is committed to excellence in providing technology solutions that support teachers, motivate and engage students, and sustain new-age technologies and operational resources throughout Montgomery County Public Schools (MCPS). These solutions are implemented following best practices for project management and with continuous collaboration with MCPS staff and the community.

to support technology implementation strategies and training. The department provides instructional and information systems that enhance the education of students through the innovative application of technology; facilitates the design of connected systems, processes, and information; increases the efficiency of the educator; and transforms access to information in support of teaching and learning for staff, students, parents/guardians, and the community.

## MAJOR FUNCTIONS

### **Business Information Services** (*Operational Excellence*)

The Department of Business Information Services (DBIS) plans, develops, implements, and supports quality business solutions contributing to the efficient and streamlined management of human, fiscal, and operational resources across all aspects of the school system.

### **Infrastructure and Operations** (*Operational Excellence*)

The Department of Infrastructure and Operations manages the enterprise-wide technical systems, including the data center, network connections, e-mail, and telephones; and facilitates the implementation of effective, secure, and reliable hardware and software solutions.

### **Technology Integration and Learning Management Systems** (*Operational Excellence*)

The Department of Technology Integration and Learning Management Systems leads the selection, integration, training, and support of innovative technologies for our schools and offices to ensure operational excellence and staff productivity. The work of the department encompasses full technology life cycle from research, design, and procurement to implementation and training supports. Staff work closely with schools and offices

# Office of Technology and Innovation

Associate Superintendent of Technology	1.0
Assistant to the Associate Superintendent (N)	1.0
Fiscal Specialist II (25)	1.0
Administrative Services Manager 1 (17)	1.0
Fiscal Assistant III (16)	1.0

## Office of Technology and Innovation - 411

Description	FY 2020 Actual	FY 2021 Budget	FY 2021 Current	FY 2022 Request	FY 2022 Change
<b>01 Salaries &amp; Wages</b>					
Total Positions (FTE)	5.000	5.000	5.000	<b>5.000</b>	
Position Salaries	\$578,646	\$574,324	\$574,324	<b>\$574,324</b>	
<b>Other Salaries</b>					
Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time					
Other					
Subtotal Other Salaries					
<b>Total Salaries &amp; Wages</b>	578,646	574,324	574,324	<b>574,324</b>	
<b>02 Contractual Services</b>					
Consultants					
Other Contractual		1,071,655	1,071,655	<b>1,150,455</b>	78,800
<b>Total Contractual Services</b>	890,528	1,071,655	1,071,655	<b>1,150,455</b>	78,800
<b>03 Supplies &amp; Materials</b>					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		10,799	10,799	<b>10,799</b>	
Other Supplies & Materials		30,000	30,000	<b>30,000</b>	
<b>Total Supplies &amp; Materials</b>	32,473	40,799	40,799	<b>40,799</b>	
<b>04 Other</b>					
Local/Other Travel		7,026	7,026	<b>7,026</b>	
Insur & Employee Benefits					
Utilities		3,286,423	3,286,423	<b>3,715,220</b>	428,797
Miscellaneous		597,347	597,347	<b>1,028,073</b>	430,726
<b>Total Other</b>	4,681,879	3,890,796	3,890,796	<b>4,750,319</b>	859,523
<b>05 Equipment</b>					
Leased Equipment					
Other Equipment					
<b>Total Equipment</b>					
<b>Grand Total</b>	<b>\$6,183,526</b>	<b>\$5,577,574</b>	<b>\$5,577,574</b>	<b>\$6,515,897</b>	<b>\$938,323</b>

## Office of Technology and Innovation - 411

CAT	DESCRIPTION	10 Mon	FY 2020 ACTUAL	FY 2021 BUDGET	FY 2021 CURRENT	FY 2022 REQUEST	FY 2022 CHANGE
1	Chief Technology Officer		1.000				
1	Associate Superintendent			1.000	1.000	<b>1.000</b>	
1	N Asst. to Assoc Supt		1.000	1.000	1.000	<b>1.000</b>	
1	25 Fiscal Specialist II		1.000	1.000	1.000	<b>1.000</b>	
1	17 Admin Services Manager I		1.000	1.000	1.000	<b>1.000</b>	
1	16 Fiscal Assistant III		1.000	1.000	1.000	<b>1.000</b>	
	<b>Total Positions</b>		<b>5.000</b>	<b>5.000</b>	<b>5.000</b>	<b>5.000</b>	

# Department of Technology Integration and Learning Management Systems

435/428/442/445

**MISSION** The Department of Technology Integration and Learning Management Systems (DTILMS) leads the selection, integration, training, and support of innovative technologies for our schools and offices; and manages learning management systems, including the student information system, gradebooks, and adult and student learning platforms, to ensure operational excellence and staff productivity. It provides instructional and information systems that enhance the education of students through the innovative application of technology; facilitates the design of connected systems, processes, and information; increases the efficiency of the educator; and transforms access to information in support of teaching and learning for staff, students, parents/guardians, and the community.

## MAJOR FUNCTIONS

DTILMS leads the selection, integration, training, and support of innovative technologies for our schools and offices; and manages learning management systems, including the student information system, gradebooks, and adult and student learning platforms, to ensure operational excellence and staff productivity. The work of the department encompasses the full technology life cycle from research, design, and procurement to implementation and training supports. Staff work closely with schools and offices to support technology implementation strategies and provide training.

### **Systems Engineering and Integration** (*Operational Excellence*)

The department is charged with designing, developing, integrating, and maintaining the systems ecosystem and architecture for MCPS applications and systems. Staff responsibilities include providing technical assessments of new digital platforms, integrating new systems into the MCPS environment, and connecting systems

together to create a coherent experience for staff, teachers, and parents. This team leads the research and development of new learning technologies and platform configurations to optimize student learning.

### **Technology Innovation, Modernization, and Management** (*Operational Excellence*)

The department oversees the research, purchasing, configuration, deployment, and implementation of mobile computers (Chromebooks, iPads, tablets, and laptops), desktop computers, and interactive whiteboard technologies as well as a wide range of other hardware and software technologies to redefine 21st Century learning spaces that support new uses of technology in teaching and learning. The deployment of new learning technologies provides equity of access to digital content and resources that enable anywhere, anytime access to learning for students and staff. These technologies increase opportunities for learning and directly support the superintendent's strategic priority for high academic achievement for all students. These systems fully support present and future virtual learning models.

### **Technology Implementation** (*Operational Excellence*)

The department works closely with offices and individual school leadership teams in order to design, develop, and deliver high-quality professional development on the integration of technology into teaching, learning, and business operations. There is an increased focus on designing professional learning opportunities that can be accessed anytime, anywhere. These resources enable staff to learn independently through a self-paced format to address the varied and growing demands of staff as well as ensure opportunities to reach a broader audience.

### **Learning Management Systems and Development** (*Operational Excellence*)

The department collaborates with offices, schools, and local government agencies to develop, implement, and continuously improve MCPS' student applications and services. Based on goals and priorities, the department implements and supports instructional technology solutions for students, parents/guardians, schools, and offices. These solutions support data-driven decision-making and planning; dissemination of accurate and timely information; and operational effectiveness that streamline and enhance the management of teaching and learning, as well as compliance with state and federal regulations. The department focuses on providing and managing student systems to support greater accountability and sharing of knowledge among staff, students, and parents/guardians. Systems include the



# Department of Technology Integration and Learning Management Systems

435/428/442/445

student information system, gradebooks, learning management systems, professional development platforms, and the parent portal.

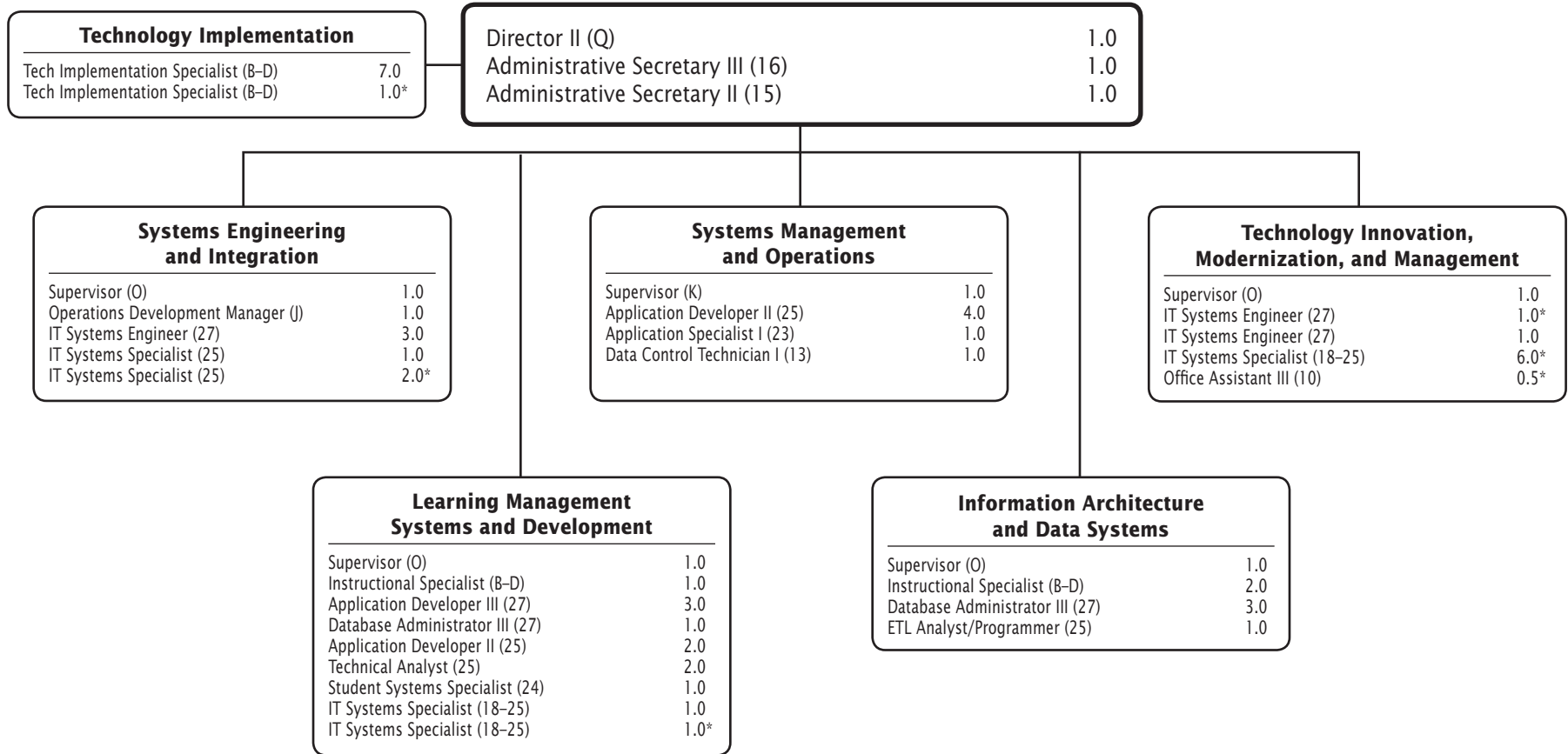
## **Systems Management and Operations** (*Operational Excellence*)

The department supports offices and schools by overseeing the daily operations of student applications and technology systems for the purposes of managing all student administrative information including enrollment, attendance, report cards and transcripts, scheduling, course management, and assessment information within the SIS platform. The department manages the myMCPS Staff Portal.

## **Information and Architecture and Data Systems** (*Operational Excellence*)

The department provides data management services and system integrations in support of MCPS applications and operational reporting systems. Staff responsibilities include monitoring and supporting the infrastructure needed to integrate external systems such as Performance Matters, Naviance, Northwest Evaluation Association, and others. These applications and reporting solutions provide current and historical reports to support both detail and summary-level data analysis for strategic decision making.

# Department of Technology Integration and Learning Management Systems



F.T.E. Positions 44.0

\*In addition, there are 11.5 positions funded by the Capital Improvements Program Budget.

**Department of Technology Integration and Learning Management Systems -  
435/428/442/445**

Description	FY 2020 Actual	FY 2021 Budget	FY 2021 Current	<b>FY 2022 Request</b>	FY 2022 Change
<b>01 Salaries &amp; Wages</b>					
Total Positions (FTE)	42.000	43.000	43.000	<b>44.000</b>	1.000
Position Salaries	\$4,493,491	\$4,784,534	\$4,784,534	<b>\$4,808,811</b>	\$24,277
<b>Other Salaries</b>					
Summer Employment					
Professional Substitutes					
Stipends		418,459	418,459	<b>418,459</b>	
Professional Part Time		96,767	96,767	<b>96,767</b>	
Supporting Services Part Time		2,711	2,711	<b>2,711</b>	
Other					
Subtotal Other Salaries	120,267	517,937	517,937	<b>517,937</b>	
<b>Total Salaries &amp; Wages</b>	4,613,758	5,302,471	5,302,471	<b>5,326,748</b>	24,277
<b>02 Contractual Services</b>					
Consultants		283,122	283,122	<b>283,122</b>	
Other Contractual		5,679,987	5,679,987	<b>5,679,987</b>	
<b>Total Contractual Services</b>	5,589,974	5,963,109	5,963,109	<b>5,963,109</b>	
<b>03 Supplies &amp; Materials</b>					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		14,204	14,204	<b>14,204</b>	
Other Supplies & Materials		67,579	67,579	<b>67,579</b>	
<b>Total Supplies &amp; Materials</b>	53,236	81,783	81,783	<b>81,783</b>	
<b>04 Other</b>					
Local/Other Travel		8,413	8,413	<b>8,413</b>	
Insur & Employee Benefits					
Utilities					
Miscellaneous					
<b>Total Other</b>	2,483	8,413	8,413	<b>8,413</b>	
<b>05 Equipment</b>					
Leased Equipment					
Other Equipment					
<b>Total Equipment</b>					
<b>Grand Total</b>	<b>\$10,259,451</b>	<b>\$11,355,776</b>	<b>\$11,355,776</b>	<b>\$11,380,053</b>	<b>\$24,277</b>

**Department of Technology Integration and Learning Management Systems -  
435/428/442/445**

CAT	DESCRIPTION	10 Mon	FY 2020 ACTUAL	FY 2021 BUDGET	FY 2021 CURRENT	FY 2022 REQUEST	FY 2022 CHANGE
	<b>435 Dept. of Techn Integration and Learning Mgmt.</b>						
2	Q Director II		1.000	1.000	1.000	<b>1.000</b>	
1	O Supervisor		1.000	1.000	1.000	<b>1.000</b>	
1	J Operations Development Manager		2.000	2.000	2.000	<b>1.000</b>	(1.000)
3	BD Technology Implementation Spec		5.000	7.000	7.000	<b>7.000</b>	
1	27 IT Systems Engineer		1.000	1.000	1.000	<b>3.000</b>	2.000
1	25 IT Systems Specialist		1.000	1.000	1.000	<b>1.000</b>	
2	16 Administrative Secretary III		1.000	1.000	1.000	<b>1.000</b>	
1	15 Administrative Secretary II		1.000	1.000	1.000	<b>1.000</b>	
	<b>Subtotal</b>		<b>13.000</b>	<b>15.000</b>	<b>15.000</b>	<b>16.000</b>	<b>1.000</b>
	<b>428 Techn Innovation, Modernization, and Mgmt.</b>						
1	O Supervisor		1.000	1.000	1.000	<b>1.000</b>	
1	27 IT Systems Engineer					<b>1.000</b>	1.000
1	25 IT Systems Specialist		1.000	1.000	1.000		(1.000)
	<b>Subtotal</b>		<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	
	<b>442 Learning Mgmt. Systems &amp; Development</b>						
1	O Supervisor		1.000	1.000	1.000	<b>1.000</b>	
1	BD Instructional Specialist		1.000	1.000	1.000	<b>1.000</b>	
1	27 Applications Developer III		1.000	3.000	3.000	<b>3.000</b>	
1	27 Database Administrator III		1.000	1.000	1.000	<b>1.000</b>	
1	25 Applications Developer II		3.000	2.000	2.000	<b>2.000</b>	
1	25 IT Systems Specialist		1.000	1.000	1.000	<b>1.000</b>	
1	25 Technical Analyst		1.000	2.000	2.000	<b>2.000</b>	
1	24 Student Systems Specialist		1.000	1.000	1.000	<b>1.000</b>	
	<b>Subtotal</b>		<b>10.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	
	<b>445 Systems Mgmt. and Info Architecture</b>						
1	O Supervisor		1.000	1.000	1.000	<b>1.000</b>	
1	K Supervisor		1.000	1.000	1.000	<b>1.000</b>	
1	BD Instructional Specialist		2.000	2.000	2.000	<b>2.000</b>	
1	27 Database Administrator III		3.000	3.000	3.000	<b>3.000</b>	
1	25 Applications Developer II		5.000	4.000	4.000	<b>4.000</b>	
1	25 ETL Analyst/Programmer		1.000	1.000	1.000	<b>1.000</b>	
1	25 Technical Analyst		1.000				
1	23 Applications Specialist I		1.000	1.000	1.000	<b>1.000</b>	
1	13 Data Control Technician I		2.000	1.000	1.000	<b>1.000</b>	
	<b>Subtotal</b>		<b>17.000</b>	<b>14.000</b>	<b>14.000</b>	<b>14.000</b>	
	<b>Total Positions</b>		<b>42.000</b>	<b>43.000</b>	<b>43.000</b>	<b>44.000</b>	<b>1.000</b>

# Department of Infrastructure and Operations

446/423/424/433/447/448/451

**MISSION** The Department of Infrastructure and Operations (DIO) manages the enterprise-wide technical systems, including the data center, network connections, e-mail, and telephones, as well as facilitates the implementation of effective, secure, and reliable hardware and software solutions.

## MAJOR FUNCTIONS

### **Database Administration** (*Operational Excellence*)

The department creates, maintains, backs up, recovers, and monitors enterprise databases including: Online Administrative Student Information System (OASIS); online student look-up; period-by-period attendance; grading and reporting; Financial Management System; and all student and business systems.

Staff improves the security and performance of enterprise databases through the installation of updates and ensuring operational efficiencies with their front-end/application counterparts. Additionally, staff continues to consider ways to expand the accessibility of the data through opportunities in the cloud. The department continues to procure more robust server hardware as well as the migration of critical databases to improved database operating systems. This work helps to fortify the data infrastructure to strengthen and support parent and community engagement efforts.

### **Data Center** (*Operational Excellence*)

The department operates, monitors, and provides technical support for MCPS central servers and related equipment. Staff responsibilities include configuring high-speed printers and scanners; providing 24-hour access to essential student and administrative databases and applications including payroll, student attendance, student enrollment, retirement, asset management, financial management, report cards, and online materials ordering application systems; and maintaining the data center facility. Staff support the nucleus of all of the core technologies that serve as host to nearly all of the MCPS applications and network connections.

### **Telecommunications** (*Operational Excellence*)

The department designs, installs, monitors, and supports local- and wide-area networks (LAN/WAN), which

include wired and wireless networks in schools and offices. As part of this work, staff monitor the connection to the Internet and county government, the security firewall, and the intrusion detection/prevention equipment. Staff are responsible for invoicing, maintaining, and supporting all telephone and combined telephony systems (wired, wireless, cellular) encompassing school and office voice mail systems, data transmission lines, and voice circuits. Staff research, plan, expand, and modernize existing systems as both technology and location needs evolve.

### **Information Security** (*Operational Excellence*)

The department is responsible for the Internet protection systems required by the *Children's Internet Protection Act* (CIPA) and *Protecting Children in the 21st Century Act*. Staff responsibilities include monitoring and investigating all violations of MCPS Regulation IGT-RA, User Responsibilities for Computer Systems, Electronic Information, and Network Security; processing all legal eDiscovery requests; ensuring business continuity of the Data Center functions and maintaining an off-site recovery location; and maintaining the E-Rate Program funded under the *Telecommunications Act* of 1996.

Significant improvements and upgrades in Information Security include firewalls that enhance intrusion prevention technology and act as a supplement to new cloud-based protections at the Domain Name System level, upgrades to web filtering to protect against potentially harmful online content, and e-mail upgrades that protect against malware and harmful attacks when a user is compromised.

### **Enterprise Systems Administration** (*Operational Excellence*)

The department designs systems architecture for new or upgraded applications and installs, manages, and supports enterprise servers that house the technology systems used by staff and students as well as parents/guardians. Staff responsibilities include ensuring the efficient operation of systems, as well as preventive security measures; managing enterprise-wide user accounts for the MCPS network and all application systems; managing the MCPS e-mail system operations and upgrades; operating and maintaining of Storage Area Networks; managing enterprise-wide data backup solutions and disaster recovery technology support; and researching emerging industry trends and standards and recommending enhancements to systems.

Significant improvements include an upgraded storage area network and an increased commitment to virtual servers to reduce the physical footprint and energy

# Department of Infrastructure and Operations

446/423/424/433/447/448/451

consumption from significant number of required servers; performance enhancements to the e-mail platform by localizing some of the high-volume and high-demand content; and major improvements to optimize user management through the rebuilding of servers that maintain data for staff and students.

## **IT Help Desk** *(Operational Excellence)*

The department supports a wide range of technology infrastructure, hardware, and more than 100 enterprise-wide and school- and office-based applications. Staff responsibilities include participating in ongoing operational and application training in order to resolve basic network issues; supporting new application inquiries, responding to software questions, and keeping abreast of current MCPS technology; collaborating with other technologists in order to communicate useful information and timely solutions to frequently asked questions on the Help Desk website; and collaborating with appropriate staff and departments to create support plans for all MCPS enterprise applications.

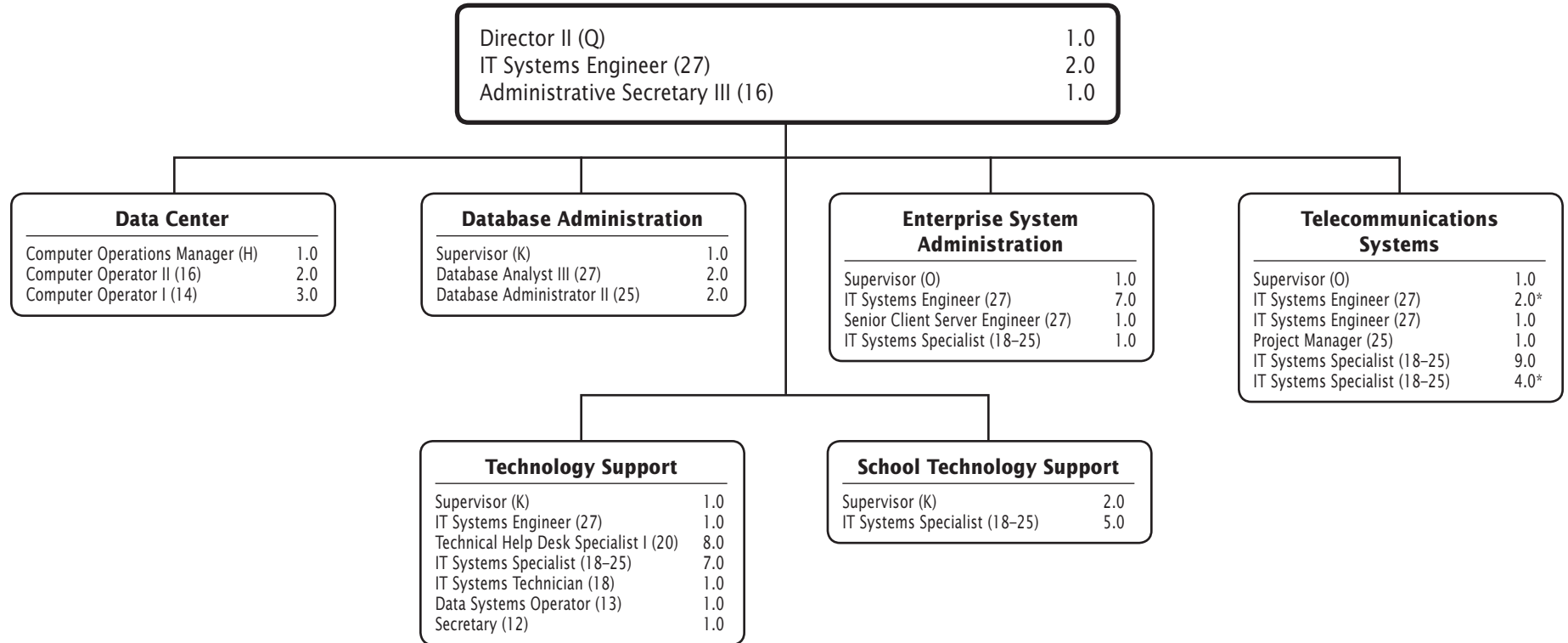
## **Technical Services and Support** *(Operational Excellence)*

The department is responsible for computer software and hardware support in non-school-based offices. Staff responsibilities include maintaining the closed-circuit security camera systems and access control systems; providing integration services, application deployment, network administration, computer image support, on-site equipment repair and upgrades; maintaining a database and inventory for both warranty and non-warranty maintenance of supported equipment; providing warranty repair of procured equipment; providing technical support for computers and multimedia equipment; and collaborating with the Procurement Unit and MCPS Television staff to review and make recommendations on all multimedia equipment.

## **School Technology Support** *(Operational Excellence)*

The department provides technical support to schools while maintaining the operational readiness of new and existing hardware and software. It is responsible for ensuring that all school-based technologies are in working order or is entered into a repair or replacement process. The department is also responsible for network administration—servers, workstations, printer maintenance and repair, and software installation and upgrades. The department partners with administrators, teachers, media specialists, and central services staff to prepare for distance learning, online testing, and other events requiring technical assistance.

# Department of Infrastructure and Operations



F.T.E. Positions 64.0

\*In addition, there are 6.0 positions funded by the Capital Improvements Program Budget.

## Department of Infrastructure and Operations - 446/423/424/433/447/448/451

Description	FY 2020 Actual	FY 2021 Budget	FY 2021 Current	FY 2022 Request	FY 2022 Change
<b>01 Salaries &amp; Wages</b>					
Total Positions (FTE)	65.500	64.000	64.000	<b>64.000</b>	
Position Salaries	\$6,221,159	\$6,468,660	\$6,468,660	<b>\$6,500,377</b>	\$31,717
<b>Other Salaries</b>					
Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time		13,976	13,976	<b>13,976</b>	
Other		7,831	7,831	<b>7,831</b>	
Subtotal Other Salaries	12,822	21,807	21,807	<b>21,807</b>	
<b>Total Salaries &amp; Wages</b>	<b>6,233,981</b>	<b>6,490,467</b>	<b>6,490,467</b>	<b>6,522,184</b>	31,717
<b>02 Contractual Services</b>					
Consultants		5,000	5,000	<b>5,000</b>	
Other Contractual		3,040,694	3,040,694	<b>3,132,153</b>	91,459
<b>Total Contractual Services</b>	<b>2,653,797</b>	<b>3,045,694</b>	<b>3,045,694</b>	<b>3,137,153</b>	91,459
<b>03 Supplies &amp; Materials</b>					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		10,040	10,040	<b>10,040</b>	
Other Supplies & Materials		427,831	427,831	<b>427,831</b>	
<b>Total Supplies &amp; Materials</b>	<b>194,743</b>	<b>437,871</b>	<b>437,871</b>	<b>437,871</b>	
<b>04 Other</b>					
Local/Other Travel		7,907	7,907	<b>7,907</b>	
Insur & Employee Benefits					
Utilities					
Miscellaneous					
<b>Total Other</b>	<b>3,871</b>	<b>7,907</b>	<b>7,907</b>	<b>7,907</b>	
<b>05 Equipment</b>					
Leased Equipment		218,676	218,676	<b>166,828</b>	(51,848)
Other Equipment					
<b>Total Equipment</b>	<b>473,767</b>	<b>218,676</b>	<b>218,676</b>	<b>166,828</b>	(51,848)
<b>Grand Total</b>	<b>\$9,560,159</b>	<b>\$10,200,615</b>	<b>\$10,200,615</b>	<b>\$10,271,943</b>	<b>\$71,328</b>



## Department of Infrastructure and Operations - 446/423/424/433/447/448/451

CAT	DESCRIPTION	10 Mon	FY 2020 ACTUAL	FY 2021 BUDGET	FY 2021 CURRENT	FY 2022 REQUEST	FY 2022 CHANGE
	<b>446 Dept of Infrastructure &amp; Operations</b>						
1	Q Director II		1.000	1.000	1.000	<b>1.000</b>	
1	27 IT Systems Engineer		2.000	2.000	2.000	<b>2.000</b>	
1	16 Administrative Secretary III		1.000	1.000	1.000	<b>1.000</b>	
	<b>Subtotal</b>		<b>4.000</b>	<b>4.000</b>	<b>4.000</b>	<b>4.000</b>	
	<b>423 Technology Support</b>						
10	K Supervisor		1.000	1.000	1.000	<b>1.000</b>	
10	27 IT Systems Engineer		1.000	1.000	1.000	<b>1.000</b>	
10	25 IT Systems Specialist		7.000	7.000	7.000	<b>7.000</b>	
1	20 Technical Help Desk Spec I		8.000	8.000	8.000	<b>8.000</b>	
10	18 IT Systems Technician		1.000	1.000	1.000	<b>1.000</b>	
10	13 Data Systems Operator		1.000	1.000	1.000	<b>1.000</b>	
1	12 Secretary		1.000	1.000	1.000	<b>1.000</b>	
	<b>Subtotal</b>		<b>20.000</b>	<b>20.000</b>	<b>20.000</b>	<b>20.000</b>	
	<b>424 School Technology Support</b>						
10	K Supervisor		2.000	2.000	2.000	<b>2.000</b>	
10	25 IT Systems Specialist		5.000	5.000	5.000	<b>5.000</b>	
	<b>Subtotal</b>		<b>7.000</b>	<b>7.000</b>	<b>7.000</b>	<b>7.000</b>	
	<b>433 Telecommunications Systems</b>						
10	O Supervisor		1.000	1.000	1.000	<b>1.000</b>	
1	27 IT Systems Engineer					<b>1.000</b>	1.000
10	25 IT Systems Specialist		10.000	10.000	10.000	<b>9.000</b>	(1.000)
1	25 Project Manager			1.000	1.000	<b>1.000</b>	
10	18 IT Systems Technician		1.000				
	<b>Subtotal</b>		<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	
	<b>447 Database Administration</b>						
1	K Supervisor		1.000	1.000	1.000	<b>1.000</b>	
1	27 Database Analyst III		2.000	2.000	2.000	<b>2.000</b>	
1	25 Database Administrator II		2.000	2.000	2.000	<b>2.000</b>	
	<b>Subtotal</b>		<b>5.000</b>	<b>5.000</b>	<b>5.000</b>	<b>5.000</b>	
	<b>448 Data Center</b>						
1	H Computer Operations Mgr		1.000	1.000	1.000	<b>1.000</b>	
1	16 Computer Operator II Shift 2		1.000	1.000	1.000	<b>1.000</b>	
1	16 Computer Operator II Shift 3		1.000	1.000	1.000	<b>1.000</b>	
1	14 Computer Operator I Shift 1		2.000	1.000	1.000	<b>1.000</b>	
1	14 Computer Operator I Shift 2		1.000	1.000	1.000	<b>1.000</b>	
1	14 Computer Operator I Shift 3		1.000	1.000	1.000	<b>1.000</b>	
	<b>Subtotal</b>		<b>7.000</b>	<b>6.000</b>	<b>6.000</b>	<b>6.000</b>	
	<b>451 Enterprise System Administration</b>						
1	O Supervisor		1.000	1.000	1.000	<b>1.000</b>	
1	27 Sr Client Server Engineer		1.000	1.000	1.000	<b>1.000</b>	
1	27 IT Systems Engineer		7.000	7.000	7.000	<b>7.000</b>	

## Department of Infrastructure and Operations- 446/423/424/433/447/448/451

CAT	DESCRIPTION	10 Mon	FY 2020 ACTUAL	FY 2021 BUDGET	FY 2021 CURRENT	FY 2022 REQUEST	FY 2022 CHANGE
	<b>451 Enterprise System Administration</b>						
1	25 IT Systems Specialist		1.500	1.000	1.000	<b>1.000</b>	
	<b>Subtotal</b>		<b>10.500</b>	<b>10.000</b>	<b>10.000</b>	<b>10.000</b>	
	<b>Total Positions</b>		<b>65.500</b>	<b>64.000</b>	<b>64.000</b>	<b>64.000</b>	

**MISSION** The Department of Business Information Services (DBIS) plans, develops, implements, and supports quality business solutions contributing to the efficient and streamlined management of human, fiscal, and operational resources across all aspects of the school system.

## MAJOR FUNCTIONS

### **Enterprise Resource Planning (ERP) Program Management and Support** (*Operational Excellence*)

The ERP program involves modernizing and upgrading Montgomery County Public Schools (MCPS) core business systems that have reached their end of life. This multi-year program was launched in FY 2019 and is projected to be completed by FY 2024. Once this program is brought forth in its entirety, schools and offices will be better served through advanced technologies, more efficient business processes, and an enhanced end-user experience.

FY 2021 saw the migration of the Financial Management System (FMS) to the Oracle Cloud Enterprise Resource Planning system and the Budget Management Application (BMA) to the Oracle Cloud Enterprise Performance Management system. These implementations are in alignment with the MCPS Strategic Planning Framework as part of the Enterprise Resource Planning Program.

In FY 2020, DBIS completed phase one of two of upgrading the Human Resources Information System (HRIS). This phase included an upgrade of the infrastructure and the fulfillment of a new reporting system that provides augmented operational excellence in human resource management. In FY 2021, phase two activities started with the development and release of a Request for Proposal (RFP) to identify and select ideal solutions to upgrade HRIS to a modern cloud-based technology. Both phases are in alignment with the MCPS Strategic Planning Framework as part of the Enterprise Resource Planning Program.

### **Human Capital Management** (*Operational Excellence*)

The department implements and supports human capital management solutions by providing applications and systems to facilitate operational excellence in the delivery of services for human resource management,

professional development, and career management. These systems include: Human Resources Information System (HRIS); Payroll Attendance and Collection System; School Allocations Execution; Employee Self-Service portal and applications; Professional Development Online; MCPS Careers/Applicant Tracking System; Extracurricular Activity salary processes; and the Substitute Employee Management System.

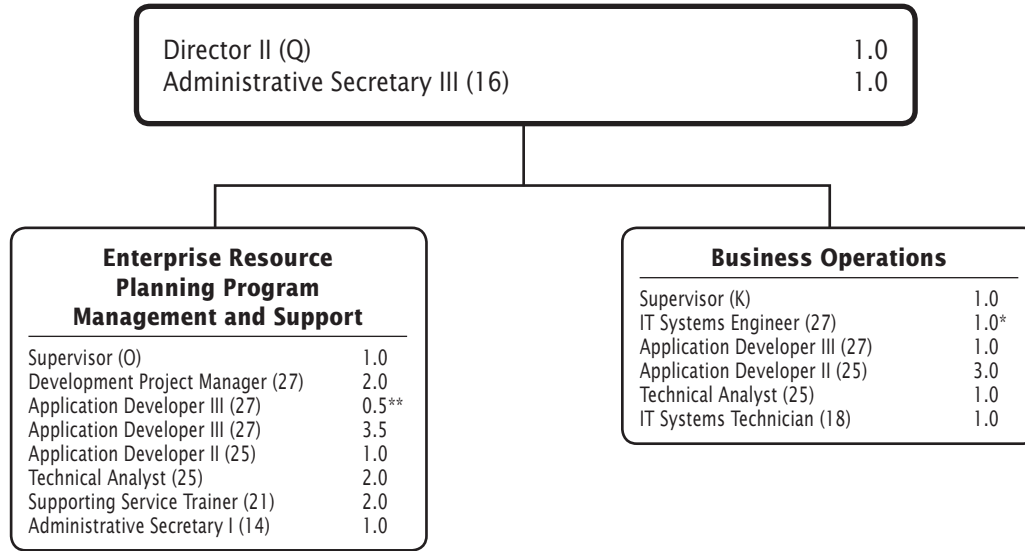
HRIS serves as the authoritative source for all personnel information by integrating demographic information, leave management, payroll, and employee benefit functions that are essential to the effective management of human capital. In collaboration with the Office of Human Resources and Development and the Employee and Retiree Service Center, staff streamlined operations for crucial business functions in schools and offices. Manual paper processes are replaced with online functionality that enables staff to enter and view data related to staffing allocations, process extracurricular activity assignments and salary verifications, and identify languages spoken by staff in schools. Online collection of such data eliminates multiple points of paper handling and expedites office processes. These processes ensure the most up-to-date information is provided for processing and recording each transaction for data analysis and response to inquiries.

### **Financial Management** (*Operational Excellence*)

The department develops, implements, and supports financial management solutions and integrated enterprise systems. These systems include the following: Oracle Cloud Enterprise Resource Planning (ERP); Oracle Cloud Enterprise Performance Management (EPM) system; School Funds Online; Online Independent Activity Funds collection system; and Budget Management Application.

The Financial Management System integrates supply chain, financial, and budgeting functions, providing access to essential information and streamlining financial processes for schools and offices as well as service providers and external agencies.

# Department of Business Information Services



F.T.E. Positions 21.5

\*1.0 position funded by the Capital Improvements Program Budget

\*\*0.5 position funded by the Employee Benefits Trust Fund

## Department of Business Information Services - 421/429

Description	FY 2020 Actual	FY 2021 Budget	FY 2021 Current	FY 2022 Request	FY 2022 Change
<b>01 Salaries &amp; Wages</b>					
Total Positions (FTE)	20.500	22.500	22.500	<b>21.500</b>	(1.000)
Position Salaries	\$2,026,449	\$2,221,375	\$2,221,375	<b>\$2,117,240</b>	(\$104,135)
<b>Other Salaries</b>					
Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time		697,218	697,218	<b>697,218</b>	
Other					
Subtotal Other Salaries	132,018	697,218	697,218	<b>697,218</b>	
<b>Total Salaries &amp; Wages</b>	2,158,467	2,918,593	2,918,593	<b>2,814,458</b>	(104,135)
<b>02 Contractual Services</b>					
Consultants		333,959	333,959	<b>372,359</b>	38,400
Other Contractual		4,205,854	4,205,854	<b>4,205,854</b>	
<b>Total Contractual Services</b>	7,137,563	4,539,813	4,539,813	<b>4,578,213</b>	38,400
<b>03 Supplies &amp; Materials</b>					
Textbooks					
Media					
Instructional Supplies & Materials					
Office					
Other Supplies & Materials		56,497	56,497	<b>56,497</b>	
<b>Total Supplies &amp; Materials</b>	273,749	56,497	56,497	<b>56,497</b>	
<b>04 Other</b>					
Local/Other Travel		30,940	30,940	<b>10,940</b>	(20,000)
Insur & Employee Benefits					
Utilities					
Miscellaneous					
<b>Total Other</b>	5,519	30,940	30,940	<b>10,940</b>	(20,000)
<b>05 Equipment</b>					
Leased Equipment					
Other Equipment		104,500	104,500	<b>20,204</b>	(84,296)
<b>Total Equipment</b>	102,076	104,500	104,500	<b>20,204</b>	(84,296)
<b>Grand Total</b>	<b>\$9,677,374</b>	<b>\$7,650,343</b>	<b>\$7,650,343</b>	<b>\$7,480,312</b>	(\$170,031)

## Department of Business Information Services - 421/429

CAT	DESCRIPTION	10 Mon	FY 2020 ACTUAL	FY 2021 BUDGET	FY 2021 CURRENT	FY 2022 REQUEST	FY 2022 CHANGE
	<b>421 Dept of Business Info Services</b>						
1	Q Director II		1.000	1.000	1.000	<b>1.000</b>	
1	K Supervisor		1.000	1.000	1.000	<b>1.000</b>	
1	27 Applications Developer III		1.000	1.000	1.000	<b>1.000</b>	
1	25 Applications Developer II		3.000	3.000	3.000	<b>3.000</b>	
1	25 IT Systems Specialist		1.000	1.000	1.000		(1.000)
1	25 Technical Analyst		1.000	1.000	1.000	<b>1.000</b>	
1	18 IT Systems Technician		1.000	1.000	1.000	<b>1.000</b>	
1	16 Administrative Secretary III		1.000	1.000	1.000	<b>1.000</b>	
	<b>Subtotal</b>		<b>10.000</b>	<b>10.000</b>	<b>10.000</b>	<b>9.000</b>	<b>(1.000)</b>
	<b>429 Enterprise Resource Planning Program</b>						
1	O Supervisor		1.000	1.000	1.000	<b>1.000</b>	
1	27 Applications Developer III		3.500	3.500	3.500	<b>3.500</b>	
1	27 Development Proj Manager		2.000	2.000	2.000	<b>2.000</b>	
1	25 Applications Developer II		2.000	1.000	1.000	<b>1.000</b>	
1	25 Technical Analyst		1.000	2.000	2.000	<b>2.000</b>	
3	21 Supporting Service Trainer			2.000	2.000	<b>2.000</b>	
1	14 Administrative Secretary I		1.000	1.000	1.000	<b>1.000</b>	
	<b>Subtotal</b>		<b>10.500</b>	<b>12.500</b>	<b>12.500</b>	<b>12.500</b>	
	<b>Total Positions</b>		<b>20.500</b>	<b>22.500</b>	<b>22.500</b>	<b>21.500</b>	<b>(1.000)</b>