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OFFICE OF THE STATE AUDITOR'S REPORT ON THE EXAMINATION OF INFORMATION TECHNOLOGY-RELATED CONTROLS AT THE BRIGHTON DIVISION – BOSTON MUNICIPAL COURT DEPARTMENT

July 1, 2005 through February 8, 2007

OFFICIAL AUDIT REPORT JUNE 20, 2007

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INTRODUCTION

The Massachusetts Trial Court was created by Chapter 478 of the Acts of 1978, which reorganized the courts into seven Trial Court Departments: the Boston Municipal Court, the District Court, the Housing Court, the Juvenile Court, the Probate and Family Court, the Superior Court, and the Land Court. Chapter 211B of the Massachusetts General Laws authorized the District Court to establish 62 Divisions, each having a specific territorial jurisdiction to preside over civil and criminal matters that are brought before it. The organizational structure of the Brighton Division of the Boston Municipal Court Department consists of three separately managed offices: the Judge's Lobby, the Clerk Magistrate's Office, and the Probation Department, headed by a First Justice, a Clerk Magistrate, and a Chief Probation Officer, respectively. Although the First Justice is the administrative head of the Division and is responsible for preparing the Division's budget and accounting for its revenues, the Clerk Magistrate and the Chief Probation Officer are responsible for the internal administration of their respective offices.

The Brighton Division of the Boston Municipal Court Department (BD-BMCD or the Court) presides over civil and criminal matters falling within its jurisdiction for the districts of Allston and Brighton. The Court received appropriated state funds of \$326,154 and collected revenue of \$849,172 from sources such as cash bail receipts, fines, fees, and penalties for fiscal year 2006.

At the time of our audit, the IT operations at the Court's offices were supported by 36 microcomputer workstations through a router and connected by a T1 line to file servers at the Administrative Office of the Trial Court's (AOTC) wide area network and their IT Department's data center in Cambridge. There were seven workstations assigned to the Judge's Lobby and 13 assigned to the Probation Department. There were also 11 workstations in the Clerk Magistrate's Office, one in the facilities department, one in the conference room, one in the computer room, and one in each of the two courtrooms. From an information technology (IT) perspective, AOTC supports the mission and business objectives of the District Courts by administering the IT infrastructure, including mission-critical application systems installed on the mainframes and file servers located at the AOTC's data center in Cambridge. The Court utilizes the Warrant Management System (WMS), the Basic Court Operation Tools (BasCOT), and the MassCourts Lite System (MCL), which are maintained by AOTC, and the Probation Receipt Accounting System (PRA) and Criminal Activity Record Information System (CARI), which are maintained by the Office of the Commissioner of Probation. The Court also uses the Human Resources Compensation Management System (HR/CMS) payroll system maintained by the State Comptroller's Office.

The Clerk Magistrate's Office uses MCL and WMS to track warrants issued from all courts under the jurisdiction of the AOTC. The Probation Office uses the CARI system and MCL to access information on all dispositions from courts regarding offenses and restraining orders, and uses the PRA system to

account for fines and fees. The Basic Court Operation Tools system is used to record docket information for all civil cases and to generate various standard civil forms.

The Office of the State Auditor's examination focused on an evaluation and review regarding certain IT-related general controls.

AUDIT SCOPE, OBJECTIVES, AND METHODOLOGY

Audit Scope:

In accordance with Chapter 11, Section 12, of the Massachusetts General Laws, we performed an examination of IT-related general controls at the Brighton Division of the Boston Municipal Court Department (BD-BMCD, or the Court), covering the period July 1, 2005 through February 8, 2007. The audit, which was conducted from August 15, 2006 through November 2, 2006 and January 8, 2007 through February 8, 2007, focused on issues regarding physical security, environmental protection, and inventory control of computer equipment. In addition, we assessed the level of user satisfaction with the MassCourts Lite application system.

Audit Objectives:

Our primary objective was to determine whether adequate controls were in place and in effect for selected functions in the IT processing environment. We sought to determine whether the Court's IT-related internal control framework, including policies, procedures, practices, and organizational structure provided reasonable assurance that IT-related control objectives would be achieved to support business functions. We sought to determine whether adequate physical security and environmental protection controls were in place and in effect to prevent unauthorized access, damage to, or loss of, IT-related assets. We sought to determine whether adequate controls were in place and in effect to provide reasonable assurance that the Court's computer equipment was properly recorded and accounted for, and was safeguarded against unauthorized use, theft, or damage. We also sought to assess the level of user satisfaction of the MassCourts Lite application system.

Audit Methodology:

To determine the audit scope and objectives, we conducted pre-audit work that included obtaining and recording an understanding of relevant operations, performing a preliminary review and evaluation of certain IT-related internal controls, and interviewing senior management. To obtain an understanding of the internal control environment, we reviewed the Court's primary business functions and selected IT policies and procedures. We performed a high-level risk analysis and assessed the strengths and weaknesses of the internal control system for selected activities. Upon completion of our pre-audit work, we determined the scope and objectives of the audit.

Our review of physical security included the completion of a risk analysis questionnaire. We interviewed management personnel from the Clerk-Magistrate's Office and the Probation Office and

interviewed the Regional Facilities Manager and security personnel assigned to the Court. We conducted walkthroughs, observed security devices, and reviewed procedures to document and address security violations and/or incidents. We requested a list of key holders to the courthouse. We verified whether the individual key holders were current employees and reviewed their authorized access. Through observation and consideration of risk of unauthorized entry, we determined the adequacy of physical security controls over areas housing IT equipment. We examined controls such as office door locks, remote cameras, and intrusion alarms. We determined whether individuals identified as being authorized to access areas housing computer equipment were current employees of the Court.

To determine whether adequate environmental controls were in place to properly safeguard automated systems in the server room and areas housing workstations from loss or damage, we conducted walkthroughs and checked for the presence of smoke and fire detectors, fire alarms, fire suppression systems (e.g., sprinklers and fire extinguishers), an uninterruptible power supply (UPS), and emergency lighting. To determine whether proper temperature and humidity controls were in place, we reviewed the presence of appropriate dedicated air conditioning units in the room housing the routers. In addition, we reviewed general housekeeping procedures for the room housing the routers, areas housing microcomputer workstations, and telecommunication closets.

To determine whether adequate controls were in place and in effect to properly account for computer equipment located at the Court, we reviewed the updated inventory control policies and procedures promulgated by AOTC and requested a copy of the Court's inventory record of computer equipment. We determined whether the Court performed an annual physical inventory and reconciliation. To assess the reliability of the inventory record, we traced 100% of the Court's computer equipment inventory to the items on the floor and compared information regarding the equipment's serial number, tag number, location, and description of the item to what was recorded on the inventory system of record. We further reviewed the Court's reconciliation of its inventory of computer equipment to AOTC's system of record.

We conducted a user satisfaction survey of the recently-installed MassCourts Lite application system to determine whether the system was meeting user needs with respect to functionality and ease of use and assessed whether training provided by the AOTC was adequate. We accomplished this through interviews and user surveys with a total of ten employees from the Clerk-Magistrate's Office and the Probation Department.

Our audit was conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS) issued by the Comptroller General of the United States through the U.S. Government Accountability Office and generally accepted industry practices. Audit criteria used in the audit included management policies and procedures and control guidelines outlined in Control Objectives for

Information and Related Technology (CobiT), as issued by the Information Systems Audit and Control Association, July 2004.

AUDIT CONCLUSION

We found that controls were in place to provide reasonable assurance that control objectives regarding physical security, environmental protection, and the proper accounting of computer equipment would be addressed. In addition, our user satisfaction analysis found that users of the MassCourts Lite application system were generally satisfied with the system, training, and support provided by AOTC.

We determined that adequate physical security controls were in place and in effect at the Brighton Division of the Boston Municipal Court Department. Our examination determined that the room housing the routers that allow the Court's computer workstations to communicate with the Department's central systems was secured against unauthorized access. Access to areas housing computer workstations were secured by locked doors. We found that physical security controls over office areas housing computer workstations provided reasonable assurance that only Court personnel would have access to the workstations. In addition, we found that security cameras were used to monitor activity inside and outside of the Court building and that all personnel assigned keys were authorized to access secure areas and were current employees of the Court.

We found that adequate environmental protection, such as fire prevention and detection controls, smoke and fire detectors and alarms, and fire suppression systems, such as sprinklers and fire extinguishers, were in place throughout the Court building. In addition, we found that an uninterruptible power supply was in place for areas housing computer workstations, printers, and the routers to help prevent data loss or damage to computer equipment. Our audit disclosed that the room housing the routers was neat and clean, general housekeeping procedures were adequate, and temperature levels within the room were appropriate. Our examination also disclosed that the Court has a computer-controlled Heating, Ventilation, and Air Conditioning (HVAC) system that provides temperature and humidity control throughout the courthouse. We also noted that there was emergency lighting throughout the Court.

We found that the Court maintained an inventory record of computer equipment that was reconciled annually and forwarded to the Administrative Office of the Trial Court (AOTC) for update to AOTC's centralized inventory system of record. We found that the Court's inventory record of computer equipment was up-to-date and contained proper fields of information pertinent to the Court. We found that the Court maintained documentation of the annual reconciliation of their inventory record. Although the Court's inventory record did not contain historical cost, we noted that the AOTC system of record contains a data field for equipment cost.

We found that Court users were generally satisfied with the functionality, criminal identity database, training, and support for the newly-implemented MassCourts Lite application system at the Court. We

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have reviewed the use of the MassCourts Lite application system at the Brighton Division of the Boston Municipal Court. The MassCourts Lite System allows users to perform case entry, docketing, scheduling, notices, forms, and storage of electronic documents. The results of our user satisfaction survey indicated that the system has improved the Court's processing capabilities. Both the Clerk Magistrate's Office and the Probation Department were satisfied with MassCourts Lite. Based on our interviews, concerns were raised by Court staff regarding the consolidation of identities and the occurrence of multiple probation case file numbers. We noted that, although training has been offered, not all Court staff who would be expected to use the system had been trained.

Auditee's Response:

The findings of this audit have been found to be accurate. The Brighton Court has made every effort to insure that adequate physical security, environmental protection and physical security controls are in place to protect unauthorized access, damage to or loss of IT-related access. The Users have been thoroughly trained and will continue to attend training sessions as new technology warrant this training. Since the audit, all new employees have been trained so that she/he is proficient in IT-related applications. Training will be provided to all future employees so that they will be competent in the use of IT-related operations. Annually, an inventory audit of all computers and their users will be compiled and sent to the IT Department. The Clerk Magistrate Office and the Probation Office are working together in regards to the consolidation of identities and the merging of the PCF numbers of defendants. The MassCourts Lite system has improved these processing capabilities.

Auditor's Reply:

We acknowledge the Court's efforts to ensure that staff are properly trained in the use of the MassCourts Lite application and any other IT-related functions. We suggest that the Court's inventory records of computer equipment be maintained on a perpetual basis such that the inventory would be updated in a timely manner as changes to computer equipment are made. Notifications of the changes to the inventory could then be forwarded to AOTC's IT Department.