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Metro

SYSTEM SAFETY, SECURITY & OPERATIONS COMMITTEE
MARCH 19, 2015

SUBJECT: INFORMATION SECURITY IMPROVEMENT PROGRAM

ACTION: APPROVE LIFE OF PROJECT BUDGET

RECOMMENDATION

Establish a life of project budget for the Metro Information Security Improvement
Program in the amount of $7,814,000. The FY16 portion is $860,000.

ISSUE

Per Metro's financial stability policy, capital projects in excess of five million dollars shall
be presented separately for life-of-project approval by the Board. This project request is
being proposed by staff in conjunction with the FY2016 capital budget cycle.

As unauthorized access and use of misappropriated information increases throughout
the world, Metro has an obligation to ensure the integrity and security of the personal,
medical and financial data of our patrons and employees. In addition, if operational
systems are compromised it could be a risk to safety. Implementing the Metro
Information Security Improvement Program will be a three-year project beginning in
FY16. However, maintaining this program will be an ongoing effort. This program is
designed to enhance Metro's information systems security, adopt more stringent
procedures for authorizing and monitoring access by implementing security tools and
fraud protection in line with President Obama's cyber-security initiatives.

DISCUSSION

Cyber threats are increasing significantly and security exploits are becoming more
sophisticated. Recently, the Agency's health insurance company Anthem, Inc. was the
victim of a highly sophisticated cyber attack. Sensitive information such as member
names, social security numbers, dates of birth, addresses, telephone numbers, email
addresses and other personal data were all accessed. Other recent cyber-attack

events involving major database breaches included companies such as Sony, Target and Home Depot.

The objectives of this program are to strengthen cyber security safeguards by implementing robust network security blocking, monitoring, logging and reporting tools to better secure Metro's networks. The requested funding is for the procurement of new data security monitoring, logging and reporting equipment, professional services and in-house labor to secure and protect the networks, systems and applications from unauthorized access and use of sensitive data.

The program involves adding new tools and services in the Metro data center environment to control, monitor, record and report access to: data systems, change management of those systems, data in transit between systems and data in storage throughout all Metro networks (Universal Fare System, Supervisory Control and Data Acquisition, Advanced Transportation Management System, and Enterprise Network), facilities and locations. Additional effort is required to establish procedures and implement mandated user and administrator training throughout the agency. Metro's information assets include sensitive data stored by and for Accounting, Finance, Risk Management, Records Management, TAP/UFS, Express Lanes, Transit Court, Travel, and Human Resources.

As this program is implementing a new layer of security technology and infrastructure it will require in-house labor for support. The need for this resource increase was also echoed during the recent APTA-sponsored ITS Peer Review conducted in April 2014. One of their recommendations during their review of ITS Structure and Staffing was to *"add resources for some critical functions, such as cyber security, PCI compliance, and Operations 24X7 support."*

ITS will need two additional FTE positions to implement, manage, and maintain these systems as well as to respond to any security violation incidents revealed by these tools. The recommended positions and corresponding costs are identified in the table.

Safeguarding Metro Information Assets from Cyber Threats	Number	Avg. Wage	Avg. Wage/Year with Benefits	Total Cost/Year
ITS Supervising Engineer	1	$90,000/year	134,640	134,640
ITS Information Security Engineer	1	$80,000/year	119,680	119,680
Total	**2**			**$254,320**

The projected cost to implement this program is based on available industry standards for equipment, software and estimates for professional services to configure the new systems and reports. Additional project costs include in-house engineering and labor requirements for network integration.

DETERMINATION OF SAFETY IMPACT

Approval of this project will reduce safety risks to Metro's patrons and employees by virtue of the added network security protection provided to our operational control systems such as SCADA.

FINANCIAL IMPACT

If this action is approved, LOP and FY2016 budget will be established under a new project number with budget allocated to Cost Center 9240 Account 50316. Since this is a multiyear project, the Chief Information Officer will be responsible for future fiscal year budgeting. A detailed financial plan is included in Attachment A.

Impact to Budget

If approved, the funding will be added to the FY16 Capital Program Budget request which will be presented to Board in May 2016. The FY16 funding of $860,000 will be used for assessing and preparing a design to enhance the Agency's network and data security infrastructure. Future year FY funding will be used for implementing the advanced security systems. Funding source for this recommendation will come from a combination of Federal and local funding sources eligible for bus or rail operating and capital expenses.

ALTERNATIVES CONSIDERED

Maintain current practice without any enhancements. As cyber-attacks increase in intensity and sophistication, not enhancing Metro's data security capabilities and implementing the tools and procedures necessary to prevent unauthorized access and obtain compliance would leave Metro's systems increasingly vulnerable to breach and data theft. This could potentially result in fines, unwanted publicity, and fraud-protection costs for each customer and employee whose data is compromised.

NEXT STEPS

Upon Board approval, the project will proceed with initiating the assessment and design phases.
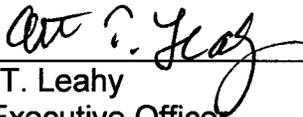
ATTACHMENT A

A. Financial Plan

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FINANCIAL PLAN

Project Costs	FY 2016	FY 2017	FY 2018	3 Year Total
Labor	150,000	300,000	300,000	$750,000
Equipment Acquisition	400,000	600,000	400,000	$1,400,000
Material & Supplies	10,000	34,000	20,000	$64,000
Professional Services	300,000	2,875,000	2,425,000	$5,600,000
Project Total	**$860,000**	**$3,809,000**	**$3,145,000**	**$7,814,000**