Information Technology Update

Tricia L. Foster, CPM, ACoM
Director DTMB

House Appropriations
Feb. 26, 2020

DTMB

DTMB IT Overview

- The state of Michigan takes an enterprise-wide approach to providing IT services to agencies

- DTMB IT is comprised of four divisions:

  – Chief Technology Office

  – Cybersecurity & Infrastructure Protection

  – Agency Services

  – Center for Shared Solutions

- DTMB's Central Procurement Services has a division solely dedicated to IT sourcing

Chief Technology Officer
Jack Harris, Director

- Manages and operates IT infrastructure for state of Michigan executive branch agencies:
  - Network
  - Internet
  - Telephony
  - Hosting centers
  - Servers
  - Storage
  - End-user devices (PC, laptop, tablets, smart phones)
  - Back office IT (email, file, and print)
- Provides enterprise architecture guidance and standard IT design patterns

Cybersecurity & Infrastructure Protection
Chris DeRusha, Director

- Michigan Cybersecurity provides cybersecurity services and protections for state of Michigan executive branch agencies:
  - Forensics and eDiscovery
  - Vulnerability management
  - Threat analytics
  - Security operations
  - Incident response
  - Risk management and compliance
  - Application security accreditation
  - Awareness and training
- The Office of Infrastructure Protection provides physical security measures and emergency management for DTMB-managed buildings:
  - 24/7 systems monitoring
  - Emergency response coordination
  - Employee ID and access card services
  - Surveillance camera systems
  - Security guard services

Agency Services
Cindy Peruchietti, Director

- Key liaison to all state agencies
- Provides both strategic and operational technology support
  - Strategic planning
  - Application development and support
  - Database support
  - Project execution
  - Issue resolution and escalation
- Organized into seven service areas led by general managers and 26 business relationship managers

Center for Shared Solutions
Eric Swanson, Director

- Responsible for vision, development and design of Michigan's "digital imprint"
- Provides support for over 50,000 state of Michigan employees when they experience computer and technology issues
- Responsible for statewide public safety land mobile radio communication solutions for 1,782 state, local, federal, tribal, and private public safety agencies across Michigan's 83 counties
- Oversees the enterprise identity management (MiLogin single sign-on) solution
- Oversees investments to deliver projects that realize enterprise value

Support approximately **50,000** workstations, including desktops, laptops, and tablets

Support approximately **17,000** mobile devices

Facilitate over **500,000** customer interactions annually, including help desk tickets and phone calls
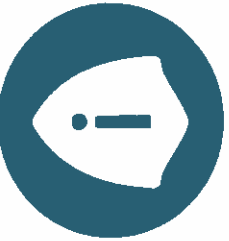
DTMB

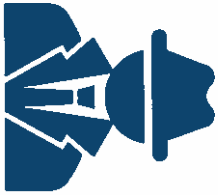Maintain statewide network with over **106,000** radios for first responders

Repel over **90 million** potentially malicious cyber-probes and actions every day
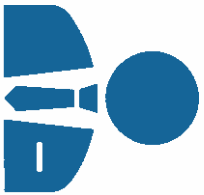
Over **1,650** applications are maintained and secured across every state agency each day
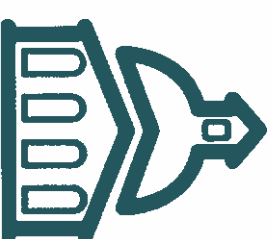
Cybersecurity Threats and Targets

Cybercriminals, Nation-States, and Hacktivists

Employees, contractors, and business partners

Logins and passwords
Credentials and identifying information
Documents and emails
Internal communications
Browsing history
Photographs
Instant messages
Anything that they can use

Access to the greater state of Michigan network and other valuable information

Texas Cyber Attack Has Taken 23 Government Agencies Offline

48:69 xcm3 | Aug 19, 2019, 04:09am

Davey Winder Senior Contributor ⊙
Cybersecurity
I report and analyze breaking cybersecurity and privacy stories

Louisiana Declares State Emergency After Malware Attack

BY LUCAS ROPEK / JULY 25, 2019

The malware attacks, which were directed at school systems, affected phones and computers in at least three different communities, and the threat is still active, according to the Governor's Office.

A Cyberattack Hobbles Atlanta, and Security Experts Shudder

By Alan Blinder and Nicole Perlroth
March 27, 2018, NY Times

Municipal employees in Atlanta were able to use computers again on Tuesday as the city worked to recover from a cyberattack, but some digital services for residents remained unavailable.*Credit...David Goldman/Associated Press*

After an Initial Ransomware Attack, Colorado DOT Gets Hit Again

BY TAMARA CHUANG, THE DENVER POST / MARCH 2, 2018

The original attack in late February has morphed and re-infected a portion of the transportation agency's remaining computers, according to officials.

DTMB

- Cyber espionage is growing
  - Russia **9.4 billion** actions (2019)
  - China **2 billion** actions (2019)

- DTMB security personnel combats cybersecurity incidents every day including:
  - Digital blackmail attempts
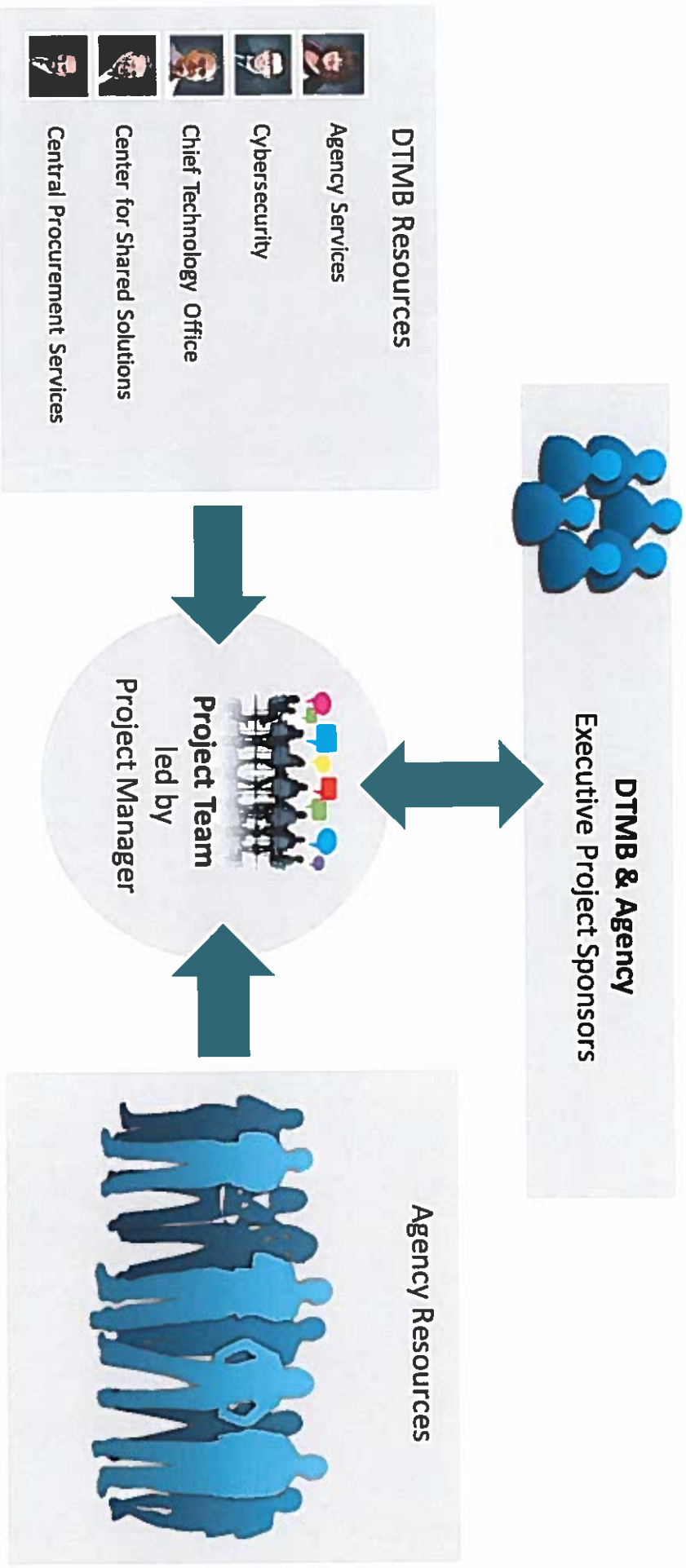 - Phishing incidents
  - Social engineering

The Enterprise Portfolio Management Office (EPMO) applies standardized IT portfolio management practices to IT projects, applications, and investments as well as providing professional project management services to oversee all IT Investments of the executive branch.

The EPMO is responsible for

- Transparency of all IT projects

- Oversight of the IT investment portfolio for the executive branch

- Consistent and effective project management

- Continuous improvement and quality assurance

DTMB Resources

- Agency Services
- Cybersecurity
- Chief Technology Office
- Center for Shared Solutions
- Central Procurement Services

Project Team
led by
Project Manager

DTMB & Agency
Executive Project Sponsors

Agency Resources

- Developed the **DTMB Toolbox** that includes over **1,650** applications

- **5 straight "A" ratings** from the Center for Digital Government for IT best practices since 2013

- **Ranked number one** in the 2019 Governing Institute Procurement Survey

- Developed new strategic plan with focus on customer service and organizational excellence

- Created new civil service designation for IT analyst to assist the state in attracting the right person with the right skills for the job

- Solidified IT leadership team through hiring of CTO and CSO

- Hosted the 8th North American International Cyber Security Summit

- Re-energized the Director's CIO Kitchen Cabinet

- Rollout of several successful IT projects including CARS for MDOS and FileNet for Treasury

The DTMB Toolbox is an inventory of all 1,650 systems and applications the state of Michigan owns, across all departments. It provides agency customers with a menu to review when looking to solve a business problem with an IT solution. The toolbox is designed to make a difference when it comes to customer service and raises the bar for the efficient use of taxpayer dollars.

ALL SOM APPS

DNR

DHHS

Treas

EGLE

LARA

DTMB
Toolbox

Focusing on the Future

- Eliminating the long-time understanding that certain agencies could continue to operate outside of the enterprise-wide system for IT and procurement

- Leading the change at DTMB to be more proactive enterprise-wide and to become a more nimble organization

- Continuing to build strong relationships with our partners

- Working within the constraints of a one-year budget cycle to address aging legacy systems

- Seeking talented IT individuals interested in public service

- Taking what we've learned from the early days of the EPMO and continuing to update our processes and procedures to make us more effective and efficient in project management

House IT Task Force

House IT Task Force

- Hosted the House IT Task Force for a 3-hour meeting at DTMB on 08/08/19

  – Topics presented: Agency Services, DTMB Central Procurement, and EPMO

- Provided feedback to Chairman Huizenga on the short-term findings by the House IT Task Force

- Recently have worked with staff on potential legislation as a result of the task force findings

Service Level Agreements (SLA) in IT Contracts ("claw backs")

"During procurement, clawback provisions are generally included to ensure accountability of the vendor. A clawback provision provides a penalty when projects are not on track or the vendor has failed to meet the requirements set in the contract. The Task Force discovered that clawback provisions have not always been included in past contracts."

- DTMB agrees vendors must be held financially accountable for their performance
- The Central Procurement Team includes SLAs in IT contracts to exert pressure on vendors as well as provide flexibility to meet each contract need
- Contract compliance roles have been clearly defined, and automated contract compliance reporting has been implemented to accurately track vendor performance
- In the past, at the request of an agency, SLAs could be excluded from a contract

Billing Timelines

"The House IT Task Force report states "DTMB bills its vendor contracts monthly, but has a lag time with getting the bill to DHHS. While DTMB is paying the vendor, DHHS does not receive that bill from DTMB in a timely manner. This especially causes problems if it occurs at the end of a fiscal year. DTMB should give departments notice on payment of contracts within 15 days of receiving and paying a procurement contract, to prevent accounting errors and over-runs."

- Our process following an invoice being received from a vendor involves steps to verify that the service or good has been provided to the agency before payment

- The invoice is sent to the agency representative for review and is paid upon agency authorization

- Delays sometimes occur during the agency approval, but they are always notified of the cost upfront

MiDAS Data Breach

"In 2017 DTMB announced that an October 2016 software update to the Michigan Integrated Data Automation System (MiDAS), a $47 million system used by the Unemployment Insurance Agency (UIA), exposed sensitive information that users of the program were not authorized to view. Information exposed in this large scale data breech [sic] included names and social security numbers of an estimated 1.87 million residents."

- The characterization that DTMB had a data breach is not accurate. The incident in question was thoroughly investigated by the Michigan State Police, who determined no evidence existed that personal identifiable information was exfiltrated. DTMB takes the security of user data seriously and a characterization of a major data breach, when one did not exist, can erode the trust of the public.

Additional recommendations from the task force:

- Improved oversight and reporting

  - DTMB provides reports/answers to the legislature on any information requested or required through boilerplate/statute

  - DTMB complies with all Office of the Auditor General requirements during audits of projects

- Improved communication

  - DTMB leadership meets with sister agency leadership on a regular basis, as well as with agency designated IT staff at quarterly intervals

  - DTMB's Agency Services provides each department with a general manager and business relationship managers to ensure communication is free flowing between agencies

  - DTMB looks forward to working in tandem with our legislative partners

Additional recommendations from the task force:

- Overly restrictive RFPs

  – DTMB agrees crafting RFPs to allow for innovation and potential cost savings is important. When RFPs are developed for products and services we work in conjunction with the "business owners" (the agencies) to ensure their needs are met, however there is room to grow in this area and the opportunity to rethink how we write RFPs.

DTMB/MDHHS Update

DTMB

- During mid-year FY19 MDHHS forecasted a GF/GP overexpenditure in its major IT accounts

- SBO, DTMB, and MDHHS re-examined how we administer and finance IT systems as well as applications, including:

  – A review by Office of Internal Audit Services (OIAS)

  – Closing the FY19 shortfall

  – Initiating LPI

  – Reporting IT spending data

Factors included:

- Contract adjustments to fund development projects

- Change notices to fund IT projects vs. competitive procurement

- Not fully incorporating recent spending and revenue history into projections of DTMB charges and federal revenues

- Previous organizational structure and oversight

Solving the Shortfall

- DHHS freeze on non-essential development & hiring
- $12m in GF vendor concessions in 2019; $6.8m YTD in 2020
- $12m in GF admin. savings to close 2019; $6m budgeted in 2020
- 50 contract staff reductions in 2019
- Cost allocation adjustments, revenue adjustments, and expenditure reclassifications occurred
- Accrued and paid all 2019 costs in 2019 ($8m)
- Program reductions
- Further review of open purchase orders for FY19 costs
- Reorganized DHHS areas to shift IT financial oversight to Financial Operations
- DTMB staff reduction

Contract Management & Procurement

- Before:
  - Contracts managed in MDHHS with no visibility or transparency
- After:
  - PM staffing contracts moved to DTMB EMPO
  - IT contracts moved to DTMB Central Procurement

Roles & Responsibilities Delineated

- Before:
  - Roles and responsibilities unclear or redundant
- After:
  - Realigned roles and responsibilities between MDHHS, DTMB, and contractors

Appropriate Resourcing

- Before-
  - Contracts for roles that are more appropriate for civil servant oversight
  - Projects being under or overstaffed

- After-
  - Established criteria defines when to use state employees vs. IT contract employees
    - Assumes roles are contracted in a fiscally responsible manner

Financial Management

- Spend Approval & Monitoring
  - Before:
    - Business need drove spending
    - Reactive vs. proactive process
  - After:
    - Spend plans for each service area and related training
    - Process monitoring and checkpoints

- Billing & Budgets
  - Before:
    - Task orders not aligned with spend plans, resulting in inaccuracies
    - Invoices not tracked and delays, resulting in costs
  - After:
    - New task orders align with spend plans
    - Review of billing detail to assist with accuracy, timeliness, and projecting costs
    - Monitoring of vendor invoice approval

M&O Spend Criteria

- Before:
  - Overspending in projects
- After:
  - Defined criteria to reduce overspending

Tracking & Accountability Tools

- Before:
  - Disconnect in tools used for project intake, IT configuration, testing & tracking
- After:
  - Adopted standard tools

DTMB

Driving Better Outcomes with Limited Resources

- Agile Transformation
- Human Centered Design
- Tighter vendor management

Questions?