



# EQUIPMENT AND NON-DATABASE TECHNOLOGY ASSESSMENT REPORT

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Prepared for the City of  
Minneapolis and the  
Minneapolis Police Department

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## ABOUT THE CONSORTIUM

The Consortium for Health, Justice, and Safety is a unique blend of interdisciplinary expertise, uniting professionals from policing, prosecution, public safety, the judiciary, healthcare, communications, education, public policy, analytics, and diversity, equity, and inclusion. A holistic perspective defines our methodology as we tackle the broad spectrum of public safety and health issues. What sets us apart is our commitment to bringing together leading minds in the sector and fostering a unified, comprehensive approach to tackle some of the most significant challenges organizations face. We engage in various activities, from research and data analysis to policy development and technical assistance. By addressing common issues, facilitating collaboration, and supporting agencies in meeting their objectives, we strive to innovate and succeed in our mission.

At the Consortium for Health, Justice, and Safety, our mission is to unify interdisciplinary expertise to address the critical facets of public policy, safety, and health. We are committed to fostering connections between professionals in public safety. We aspire to research, analyze, develop policies, and provide technical assistance to tackle organizations' significant challenges. We are dedicated to facilitating collaboration, supporting agencies in meeting their objectives, and pioneering innovative solutions for a safer, healthier, and just society.

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## INTRODUCTION

On June 1, 2020, the Minnesota Department of Human Rights (MDHR) filed a discrimination charge against the City of Minneapolis and the Minneapolis Police Department (MPD). The charge alleged that the City and MPD were involved in a pattern or practice of race discrimination. After investigating the allegations, the Commissioner issued Findings on April 27, 2022. As a result, the City of Minneapolis and MDHR entered a court-enforceable settlement agreement, necessitating a review of operations, including the review of equipment and technology. As part of this agreement, the MPD is obligated to complete an assessment of current equipment and technology and to develop a plan for changes, upgrades, or additional procurement. This assessment adhered to the requirements in *Section II: Resource Support for MPD Employees*, paragraphs 246-250. The recommendations included in this report are intended to support the requirement for MPD to develop a plan (“Equipment Technology, and Facilities Response Plan”, para. 248) and schedule for periodic equipment assessments (para. 250).

To fulfill this requirement, the City of Minneapolis selected The Consortium for Health, Justice, and Safety (referred to as The Consortium) to conduct this assessment. The goal of this assessment is to ensure that the MPD is leveraging modern and emerging technologies that support public safety, transparency, officer safety, and assessment of the operational viability of equipment and technology. This assessment requested the following efforts to be performed by the assessment team:






1. Solicit pertinent information from MPD employees.
2. Inspect sufficient examples of non-database technology to produce accurate analysis that identifies all components and elements requiring upgrades or new non-database technology.
3. Evaluate current conditions and effectiveness of non-database technology; identify current conditions.
4. Evaluate functionality and performance meets operational needs, reliability, speed, and vendor support.
5. Evaluate user experience and training; identify usability and intuitiveness, and additional needs for training and/or support.
6. Evaluate compatibility and integration (performance with other systems and programs).
7. Evaluate data security and privacy (e.g., security protocols, protection against unauthorized access, data breaches, and potential misuse)
8. Evaluate scalability and futureproofing.
9. Recommend corrections.
10. Provide suggested priority list and timeline for replacement/repair work.

In October 2023, the Consortium for Health, Justice, and Safety was selected as the entity to perform such assessments, completing all work in January 2024.

## The Consortium's Methodology & Approach

The Consortium performed this assessment in a three-phased approach of discovery, site visit interviews and observations, and analysis and reporting. The Consortium leveraged IDEA Analytics' Building Analytical Capacity™ (BAC) framework as the objective and evidence-based process to guide review of relevant MPD policies and procedures, conduct interviews, and identify any gaps or deficiencies (see Figure 1). IDEA's BAC framework examines five domains which describe the characteristics and processes which are essential for an organization to effectively use all equipment, technology, and data for operations. These domains guided questions during interviews to gain insights into MPD's management and decision making around equipment and non-database technology uses. Insights gleaned in each of these areas formulated the recommendations outlined in this report.<sup>1</sup>

Figure 1. IDEA Analytics' Building Analytical Capacity™ Framework

<b>IDEA Analytics' Building Analytical Capacity™ Framework</b>	
	<b>Organizational Commitment &amp; Leadership</b> Identifies priorities of the organization and personnel that champion the mission and desired outcomes
	<b>Analytical Expectations</b> Understanding the data and technology needs of the organizations' leaders and stakeholders to align all people and technology resources
	<b>Technology</b> Mapping of hardware, software, and data storage resources; Considers interoperability, replacements and needs to support business operations
	<b>Data Access &amp; Quality</b> Explores formal and informal access to information (e.g., data sharing agreements) and quality of information to support decision making
	<b>People Resources</b> Examines personnel that contribute to technology and analytical inputs, processes, and outputs

<sup>1</sup> IDEA Analytics' BAC Framework has supported organizational digital transformation projects for public safety in over 80 cities. This framework enables agencies to identify gaps in their procedures and performance, while developing strategic plans for improvement and transformation.

*Policy Reviews.* The Consortium reviewed the publicly released Minneapolis Police Department Policy and Procedure Manual.<sup>2</sup> The review of these policies and procedures with the MPD staff was conducted throughout the discovery phase and led to additional documentation requested regarding specific technology and equipment use. The Consortium received documentation on procedures, policies, and training from MPD leadership from the Forensic Division, Strategic Intelligence Center, Special Operations Bureau, Business Technology Unit, Training Division, and the City of Minneapolis Information Technology (IT) Department throughout November 2023. The evaluation of these policies is based on other industry standards, best practices, or other technical requirements and/or practices related to information security.

*Training and Inventory Documentation.* MPD provided equipment inventories and training manuals or course materials from various units and divisions. The Consortium also requested and received documentation on procurement processes, data security, and protection information from MPD Business Technology Unit and City IT Department.<sup>3</sup>

*Interviews.* The Consortium conducted in-person or virtual interviews with personnel from MPD, including officers, sergeants, lieutenants, MPD Commanders, and City IT (n=29) in November and December 2023. Virtual interviews were conducted with operational staff to accommodate shift schedules or staffing restraints. These interviews further explained policies and procedures on common equipment and/or identified additional equipment and technology needs. The Consortium conducted a site visit to Minneapolis, MN on December 5-6, 2023, to conduct further interviews with staff, and to observe the operation of equipment and technology for all divisions.

During this site visit, The Consortium visited the following locations and observed equipment and non-database technology functions as applicable:

- Public Service Building (PSB), located at 505 4<sup>th</sup> Ave. Minneapolis, MN 55415
  - MPD Business Technology Unit
  - MPD Forensic Division Lab, including firearm testing and reference collection rooms.
  - City Information Technology Department
- MPD Garage for Special Operations, located at Haaf Memorial Ramp, 424 South 4th St. Minneapolis, MN 55415
- City of Minneapolis Public Works Garage, Royalston Maintenance Facility, located at 661 N 5th Ave. Minneapolis, MN 55405
- MPD K9 Unit Kennels, located at 15 37<sup>th</sup> Ave. Minneapolis, MN 55418

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<sup>2</sup> Policy manual dated September 15, 2023.

<sup>3</sup> Fulfillment of Assessment Requirements 4 – Functionality and Performance, 5 – User Experience and Training, and 7 – Data Security.



- MPD Hamilton Special Operations Center, located at 4131 Dupont Ave. N. Minneapolis, MN 55412  
MPD Strategic Information Center within the Emergency Operations Training Facility located at 25 37<sup>th</sup> Ave. N.E. Minneapolis, MN 55421

## How this Report is Organized

This report presents our assessment and recommendations using the by IDEA Analytics' BAC Domains noted above, Organizational Leadership and Commitment & Analytical Expectations; Technology & Data Access; and People. Each domain details the observations to support the customized recommendations for MPD to enhance their capacity to use equipment and technology. The additional assessment requirements, per the Agreement, for topics outside of the BAC Domains, Data Security and Practices, and Scalability and Futureproofing, are listed in the following section and provide a summary of our observations on the related policies and practices and recommendations for further improvements. The report concludes with an Appendix that summarizes the equipment and hardware reviewed by the Consortium.

## Successful Implementation of Recommendations

Equipment and non-database technology impacts all MPD divisions and requires collaboration among city stakeholders and vendors. The current relationships and partnerships demonstrated during this assessment suggest a strong momentum toward a strategic technology plan. The Consortium emphasizes the importance of enhancing the current processes with the priority recommendations listed in Organizational Leadership & Commitment & Analytical Expectations (pg. 13).

The common pain points and challenges expressed throughout interviews regarding the technology and equipment lifecycle will be alleviated with the implementation of these priority recommendations. Further, the Consortium stresses that implementing the recommendations in this report will serve as the foundation for other implementation steps provided across assessments. In its work on other Consent Decrees, The Consortium has found that recommendations related to Information Technology and Equipment to be at the center of a department's ability to successfully implement reforms in all areas of the Agreement. A department's ability to achieve operational compliance rests in its ability to demonstrate that the reforms are in practice and doing such rests on the department's capacity and success of its IT governance and implementation support.

### *Timeline and Establishing Priorities*

We encourage the City of Minneapolis to consider the implementation of the recommendations in this report in conjunction with those identified in the other assessments conducted in accordance with the agreement. In several cases recommendations here will coincide with those made in other assessments; for example, facility improvements may overlap with the recommendations made by the assessment team examining MPD and City facilities. A matrix illustrating the overlap between recommendations will allow the City and MPD to identify a timeline and prioritize the implementation of recommendations more accurately. The Consortium welcomes the opportunity to work with the City and MPD in developing this matrix and establishing a timeline and the prioritization of recommendations.

# ASSESSMENT OF MPD EQUIPMENT AND NON-DATABASE TECHNOLOGY

Equipment, tools, and technology are the conduits that allow for a police department's most precious commodity – its personnel – to be efficient and effective. In that same vein, the equipment, tools, and technology of a police department must constantly be updated and refreshed to stay relevant with the ever-evolving landscape of both law enforcement responses and technology systems. The ongoing pursuit of innovation within police is underlined by the commitment to leveraging state of the art equipment and technology to ensure public safety and effective crime prevention. To successfully manage these changes, police organizations need strong program management skills and support staff to handle the procurement lifecycle, ongoing skills training for staff, implementation and maintenance of all equipment and technology.

The following sections summarize The Consortium's observations, insights, and recommendations to the each of the five domains illustrated in Figure 1. For the purposes of this report, the domains Organizational Leadership and Commitment & Analytical Expectations were combined, as well as Technology and Data Access.

## Organizational Leadership and Commitment & Analytical Expectations

*Assessment Requirements 3-6 -Current State, Functionality and Performance, User Experience and Compatibility and Integration*

### Observations

**Methods of Procurement and Management of Technology.** MPD leadership express two methods to managing equipment and technology. First, technology purchased by the City is primarily managed through the MPD's Technology and Support Services Division's Business Technology Unit (BTU). The BTU is responsible for liaising between MPD and the City IT to provide:

- coordination, leadership, and information technology (IT) knowledge for MPD IT projects;
- provide user support for MPD-specific network-based applications; and
- coordination of access to MPD applications for department users and external agencies.

The BTU, despite its shortages in staffing, are known as the "go to" group for MPD technology needs. This includes minor help-desk style requests (e.g., password reset), evaluation of new equipment or technology, and implementation of new technology or equipment. The BTU is also the primary contract and liaison between the MPD and City IT, resulting in ongoing collaboration and communication for network-based projects and shared resources for project management. The BTU and City IT expressed a strong working relationship on projects led by the city. Both teams voiced strong program management practices to define business needs,

evaluate potential solutions, procure, and implement new equipment and technology. For equipment and non-database technology provided by the city (e.g., laptops), repair and replacement lifecycles were documented and routine. Effective projects within this collaboration include, but are not limited to:

- The use of some equipment through vendor rentals (e.g., Toshiba printers) or supply (e.g., video camera trailers, Axon video and Taser) contracts were voiced as ideal for many MPD users. The ease to receive, replace, and adjust resources based on needs with these vendors was routinely used as an example of how things should work. Specific points of contact for divisions and/or MPD's BTU staff manage these processes, which enable accountability and procedural commitments.
- The procurement of some of the MPD technology equipment (e.g., laptops, desktops).
- The implementation of ServiceNow and collaboration with City IT has demonstrated a structured process to replace and/or refresh aging computer purchases.

A second method to procure and maintain technology and equipment is based on MPD divisional leadership and budgets. These processes may include some advising or support by BTU or City IT; however, the overall responsibility of managing technology and equipment is based on division leaders.<sup>4</sup> This dispersion of responsibility has shown both effective and ineffective management. An example of successful management of equipment and non-database technology at the division level is the investment in the Forensic Lab. The Forensic Lab includes industry-standard equipment (e.g., alternative light sources, DNA testing), in addition to equipment that supports more advanced efforts in forensic technology (e.g., trace processing) and firearm processing (e.g., reference library, test fire tanks and range). The documentation for this division was well established, structured, and consistent to support the routine practices of quality assurance and control by technicians and lab certification requirements.

Several interviews across stakeholders voiced challenges to the management of technology and equipment. The reliance on MPD operational staff for technology and equipment implementation and maintenance often resulted in process and management inefficiencies that hinder staff training, skill development, timely replacement, and/or repairs. Examples of these inefficiencies identified by The Consortium include the MPD Hamilton Special Operations Center (Training Division):

- Lack of an ability for remote learning opportunities from subject matter experts outside of the area (i.e., remote teaching facilitated through a Microsoft Teams-enabled room with cameras, microphones, and high-quality television/monitors).
- Absence of modern learning technology such as simulation training, virtual reality, or other artificial intelligence gaming/training equipment to support decision making for complex public safety incidents.

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<sup>4</sup> This may be at the Commander rank, or delegated to Team Leads within specialty units.

- Large classrooms with poor acoustics, like the gym, require voice amplifiers for effective instruction.
- Inadequate projectors in large learning areas hinder modern learning practices, including the use of video examples.
- Frequent conflicts (occurring approximately 24 times a year) arise within the inflexible computer labs, suggesting the need for cadets to have laptops or tablets for mobility and flexibility.

Similar commitment and organizational shortfalls were observed in Fleet Management procedures, such as:

- Bureaucratic processes for simple warranty fixes delays repairs for several months. The lack of and/or inconsistent use of other repair locations that are warranty certified results in vehicles being out of service for a significant period.
- Lack of dedicated mechanics for public safety to support specifications of police vehicles or warranties.
- Lack of priority repair status or other triage process for public safety vehicles
- The scheduled refresh rate for non-pursuit fleet vehicles may be too frequent for observed daily usage by rank and role (11,000 miles/year).
- The scheduled refresh rate for pursuit fleet vehicles may be infrequent for observed daily usage by patrol (running/idling 20-hours/day every day).<sup>5</sup>

While outside of the scope of this assessment, The Consortium finds it prudent to note the database tracking and managing of MPD's fleet for maintenance and applicable technology and equipment is on an unsupported and unstable program (i.e., Access) with only a single point of contact for access and maintenance. Since fleet management is a critical business operation, the instability of this data and process is a risk for MPD. Furthermore, the exclusion of fleet management requirements in the consideration of other technology systems (e.g., Training Division records) demonstrates the lack of strategic technology procurements.

Another example of gaps in leadership and commitment was observed during interviews and observations for Special Operations. Current and past leaders of the Special Operations Division expressed routine challenges for updating equipment and/or the informal procedures for potential new technology procurements and implementation. Interviews and documents provided to The Consortium highlighted the following:

- Informal relationships among leadership and decision makers for procurements appear to further some purchases for new equipment and technology, which has caused

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<sup>5</sup> There is great variation across the country on fleet management based on vehicle types, area of a jurisdiction, and weather. While the harsh weather of Minneapolis may contribute to the refresh schedule established, The Consortium heard much insight from staff across divisions regarding the availability of viable cars and/or delays waiting for vehicles.

inconsistent replacement and/or repair schedules for essential equipment. While the relationship among staff is beneficial, the informal process creates inconsistencies as MPD staff get transferred to other assignments.

- Some staff demonstrated understanding on how to create business justifications for new equipment and technology to MPD leadership and/or nonprofit leadership to ensure procurement occurred; while other staff express that technology requests go into a “black hole” without communication on what is needed and/or status of requests and/or needs.
- The use of grants, private funding (e.g., fundraising, foundations), or one-time purchases supports the purchase and/or replenishment of supplies for core equipment for bikes, emergency response vehicles, or other equipment (e.g., video, breaching tools). While one-time funding needs like grants or donations can be excellent for one-time payments for equipment, several pieces of equipment identified during interviews is essential for everyday use. Examples include:
  - K9 vests – purchased over 10 years ago through donation initiative, these vests are not supported by MPD for new dogs and/or have not been replaced since the initial purchase.
  - The mounted unit purchases universal saddles at one time, but replacements are not included in the budget for the unit. This results in repeated requests and denials, due to funding not planned or allocated. Another example is the purchase of the five-horse trailer over 10 years old that needs to be replaced; however, there is not a dedicated replacement budget for this either.
- Lack of mobile access to key databases and/or information hinders emergency response teams. This has resulted in variations of officer procedures for callouts, communicating information during response, etc., to compensate. For example, it was reported that it would be a “huge gamechanger” if the Axon suite (axon air, body, fleet) would be available in a centralized location to see everybody’s location on a map during operations. Recording the location of when and where somebody is at each moment in time.

**Consistency of Practices.** The variations above based on procurement and management also highlighted differences in practice by MPD leadership on how to approach the procurement lifecycle and the ongoing management and maintenance of equipment and technology. MPD employs informal procedures for requesting and receiving technology. Some individuals have expressed concerns about the persistence of relying on requests rather than adhering to business justification procedures. MPD personnel have indicated that the informal request process, often successful due to institutional knowledge and strong relationships with procurement decision-makers, is the usual method for obtaining new equipment.

However, The Consortium has noted instances where these informal processes break down, particularly for less tenured officers unfamiliar with the “informal process.” This breakdown can favor those with established relationships with decision-makers or those who persistently request, rather than being based on actual need. Additionally, a noticeable contrast exists in

the ease of equipment procurement among units. The reason behind this contrast, whether institutional knowledge or unit nature, is unclear. Nevertheless, the significant disparity in experiences with acquiring new technology and collaborating with BTU between different units is noteworthy.

In a similar vein, the communication channels for early career MPD officers are muddy as it relates to working with Property Services and other City entities. Because of the lack of formalized procedures, it takes several communication attempts and “asking around” by less tenured officers to eventually find the person they hope to speak to from inter-City departments. MPD contributes this communication process ambiguity to high turnover within the Department and that depletion of institutional knowledge.

The procurement process at MPD reveals some gaps in ensuring uniformity and standardization in additional devices or accessories that complement or support the main computer or technology equipment across departments. While individual units or teams are responsible for purchasing peripheral equipment like monitors, computer stands, and keyboards, there is no centralized approach to ensure consistency. This decentralized purchasing leads to a wide array of brands and styles within the organization, complicating agency-wide initiatives for uniform technology deployment. Although there are measures in place, such as a curated hardware catalog and a purchasing portal, to guide departments in selecting IT-approved devices, there is limited control over purchases made outside of this process. Despite efforts to encourage adherence to the IT purchasing process, including collaborative projects with IT for holistic technology refreshes, the lack of complete control over peripheral purchases undermines efforts to standardize technology across the board. Additionally, while technology refreshes are managed by City IT, building furnishings are overseen by Property Services, further complicating the procurement landscape. Although requests for items beyond the standard offerings are channeled through a centralized system, ensuring a certain level of standardization in workstations, there remains a gap in achieving consistent technology deployment and supportability agency-wide.

***Alignment Technology and Equipment to Operational Goals.*** Throughout this assessment, The Consortium observed that the lack of clarity on the intention or purpose of technology, or how it fit into operational procedures, challenged staff throughout several divisions. For example, the SIC is responsible for providing information to Fleet Management to move around camera trailers to locations of high crime/concern or based on citizen/business requests. The location of these trailers changes frequently enough that MPD has a dedicated vehicle and staff member that moves and maintains these trailers across the city every day. The evidence base for crime and community concerns has routinely demonstrated that specific locations within a city have a higher persistence of crime and disorder over time.<sup>6</sup> If it is the intention of

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<sup>6</sup> Consider the resources: Sherman, L. W., Bursik, R. J., & Grasmick, H. G. (1994). Neighborhoods and Crime: The Dimensions of Effective Community Control. *Contemporary Sociology*, 23(1), 112; see also

MPD to have non-invasive monitoring technology to support a goal to monitor places of high crime/concern, accurate analysis of place-based dispersion of crime would support a more strategic use of technology and use of that technology to decrease crime.

Additionally, the current technology at the SIC presents both opportunities and challenges for the MPD's operational efficiency. Due to turnover in leadership at the SIC and not leveraging the full capacity of the technology in some time, the knowledge of how to use some of the equipment in the SIC was unknown. After working with IT, the leadership at the SIC has been informed on how to use the technology to not disrupt the operations of the analysts. This issue, while resolved, highlighted the gap in documentation and procedures within the SIC to leverage the equipment to its fullest capacity. Despite efforts to address technological limitations through collaboration with IT, there's also a disconnect between how the current staffed investigative analysts should be leveraging the SIC's technology within their roles, as this technology would be more suited for real-time operations vs investigative case support. Furthermore, there seems to be a gap in understanding among SIC staff regarding the goals of emerging technology, such as drones, for MPD operations. While the system's capability to display multiple items simultaneously is commendable, there's a need for clearer delineation of roles and responsibilities within the SIC to effectively utilize emerging technologies for operational success.

Similar gaps in leadership expectations and available equipment exist in the Training Division. The lack of video conferencing or other audio/visual equipment prevents the Division from recording training, accessing live remote training subject matter experts, or allowing for public observation. Furthermore, interviews conducted by The Consortium revealed that the Training Division expressed a need for eight to ten new vehicles to facilitate comprehensive Emergency Vehicle Operations Course (EVOC) training for cadets. The vehicles used in the course are reportedly in bad condition and should closely replicate the technology and conditions found in real-world field equipment. The gap in training equipment emulating the field slows the readiness of cadets. As an example, computers in the Training Division are reportedly only used to practice report writing. There is not an academy portion that does any CAD simulation (e.g., running individuals). Due to technology restrictions, these procedures are left to be covered during field training, which opens the possibility of officers receiving slight variations in training depending on their assigned field training officer. This slight variations in data collection procedures could lead to major data quality and integrity issues down the data life cycle for

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Weisburd, D. (2015). The law of crime concentration and the criminology of place. *Criminology*, 53(2), 133–157; and, Herbert, D. (2015). Geography of Crime. In *International Encyclopedia of the Social & Behavioral Sciences (Second Edition)* (Vol. 2); and Weisburd, D., Wyckoff, L. A., Ready, J., Eck, J. E., Hinkle, J. C., & Gajewski, F. (2006). Does crime just move around the corner? A controlled study of spatial displacement and diffusion of crime control benefits. *Criminology*, 44(3), 549–591; and Schnell, C., Braga, A. A., & Piza, E. L. (2016). The Influence of Community Areas, Neighborhood Clusters, and Street Segments on the Spatial Variability of Violent Crime in Chicago. *Journal of Quantitative Criminology*.



analysis. The improvement in the available technology and equipment in the training division would further ready newly trained staff for operations in the field.

### *Recommendations*

***MPD leadership should establish an IT governance structure that allows leadership to define operational goals and objectives and ensure that all IT initiatives directly support those goals.*** A proper IT governance structure is established by the Police Chief and adopted throughout the leadership ranks for a department. This plan should enable sound IT decision making, ensure silos are not created or occurring, advocate for proper funding, support the procurement of equipment, plan for ongoing training and education, develop proper policies, and routinely evaluate the needs and requirements of end users. This governance structure should also enable leadership to reprioritize initiatives as new or unexpected priorities arise. Actions to move this forward should include, but not be limited to:

- Establishing a strategic IT plan and governance structure with MPD leadership that sets the vision and mission on technology and equipment for the department.
- The governance structure should allow the MPD to set IT priorities based on operational goals and objectives. This should include an Executive Steering Committee (ESC) comprised of MPD leadership from across all areas of the Department (patrol, specialized, detectives, Fleet Services, and IT, etc.).
- Establishing a working group comprised of designees of ESC members from both the business/end-user side and IT that can work to develop detailed plans based on the priorities set by the ESC.
- Developing a program management office structure within the MPD to lead the MPD technology projects. This may be within the BTU and should clearly define the role of MPD-led technology projects and how to collaborate with City IT PMO.

***The ESC should assemble the correct business owners from each division and/or unit to identify and [re]define the mission, goals, and objectives of division/unit operations and map to technology and equipment needs.*** Special Operations teams require the use of specific technology to assist with rapid responses; however, the equipment and technology used is not fully adopted into the budget and/or replacement cycle to ensure consistency. Furthermore, the advancements of the technology for responses require support from the SIC and/or analytical units; however, the progress of projects that may impact responses are not shared (e.g., drone as a first responder program). The silo effect of these activities and projects hinders MPD's growth as a data-driven, modern policing agency.

This same recommendation applies to the SIC, Training Division, and Investigations. For the SIC, the lack of clarity on the mission and purpose of the SIC to support operations prevents the identification of equipment and technology needed. For example, if the mission of the SIC is to support patrol during responses (e.g., acting as a real-time crime center), the inability to access cameras, the delay of information queries and dispatching, and the lack of procedures toward this goal prevent the unit from appropriate support. For the Training Division, the need

for computers, projection equipment, and video or simulation training equipment is significantly lacking. If the goal of the training division is to provide basic and in-service training for officers to use the equipment available to them in the field, the lack of equipment for the training academy and/or inclusion of equipment in training procedures prevents instructors' ability to produce a trained officer. For Investigations, or other operational officers, at the time of the site visit, The Consortium identified gaps in the knowledge of staff on the use of recording equipment for interviews or call out communications. Since the site visit, MPD researched the issue and indicated that MPD investigators have access to standardized interview room recording systems, the ability to record on AXON Capture, and digital recorders that upload statements and recordings into the Winscribe system. Additionally, for call out communications, MPD has a Business Paging App from FirstNet that could be used for call outs to a city iPhone.

For each of these units, MPD ESC should collaborate with workgroups from each division to:

- Conduct a mission analysis for identified units (SIC, Training Division, Investigations, etc.).
- Establish clear goals and objectives.
- Identify what equipment and technology is needed to support these goals and objectives.
- Develop a strategic plan that aligns the units' mission, leadership, people, and technological needs.
- Determine applicability of current equipment v. additional equipment needed to perform.
- Collaborate with City IT, BTU, and other technology experts to ensure appropriate integration and interoperability of new technology.
- Deconflict these technology requests with cross-divisional technology and equipment to minimize variety and/or variations that would complicate staff training, uses, and/or interoperability.<sup>7</sup>
- Develop annual training protocols for new technology acquired and integrated.
- Collaborate with BTU for annual assessments of technology deployment and efficacy.
- Develop an IT modernization strategy and roadmap based upon the priorities set by the ESC.

***MPD should consider additional staffing for BTU to support current management of MPD technology and future growth.*** The need for BTU to support more than the initial roll out of technology and equipment is essential for the future of MPD. Based on the current

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<sup>7</sup> It is common for police departments to purchase different software platforms that are duplicative in function. Sometimes these redundancies are necessary and/or preferred for operations; however, sometimes these redundancies result in financial and/or technology waste. For example, MPD currently uses SharePoint, OneDrive, and Smartsheet for very similar functions. Microsoft platforms are supported by the city, whereas Smartsheet is a second vendor.

organizational structure and the “go-to” reputation of BTU, MPD should consider investing in resources to include, but not be limited to:

- Business analyst role(s) to support documentation and procedural development for the unit.
- Dedicated staff with IT program management and/or implementation experience to build PMO capacity.
- Train MPD staff in PMO functions to support succession planning and collaboration projects.
- Additional staffing from sworn or professional ranks to support the lifecycle (e.g., evaluation, procure, implement, test, train) for priority projects based on the IT governance and modernization strategy developed by ESC.

## Technology & Data Access

*Assessment Requirements 4-6 - Functionality and Performance, User Experience and Compatibility and Integration*

### *Observations*

The viability of technology relies upon several factors. Hardware and data storage may be ideal until the requirements of software, end users, and mobility for access are considered. Throughout this assessment, The Consortium heard examples of inconsistent or unreliable connection to network resources (e.g., SharePoint, specific databases). Several officers and leadership reported challenges in accessibility and/or performance of their hardware when processing network-accessible data through specific software. The described challenges included “will not load” or “very, very slow” to work within the software. In most of these circumstances, the interviewee expressed being on City Wi-Fi, located at a city building farther from downtown, and/or being on a laptop or mobile device. Without the scope of software within this assessment, The Consortium was unable to determine if these functionality issues were related solely to equipment or if they were contributed to the city infrastructure.<sup>8</sup> City IT confirmed once the interviews and site visits concluded, they were made aware of an issue impacting performance speed when connecting MPD computers to the network and that issue has since been resolved and verified by MPD.

The Consortium heard some MPD staff, typically those stationed outside of the PSB, report several instances of their non-database technology being outdated, needing to be refreshed, or not usable.<sup>9</sup> For example, identified within the MPD Hamilton Special Operations Center for the Training Division, some projector screens were only able to project stagnant PowerPoint slides because the resolution was too poor to clearly see instructional videos. Additionally, the

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<sup>8</sup> Software evaluation was excluded from the contractual scope of this assessment.

<sup>9</sup> It unknown whether the equipment the officers were referring to were unusable due to hardware issues or lack of training on the equipment.

Training Division reported a need for a cadet breakroom refresh, that includes better ironing boards and changing rooms for both genders.

It was communicated and clear to The Consortium that the training rooms in the Minneapolis Emergency Operations and Training Center (EOTF) were high quality and fully functional, which included state of the art web cameras and projectors. However, it was noted that these state-of-the-art training rooms were not available to be regularly used by the Strategic Information Center (SIC) officers and civilians. For example, there were two impressive Teams rooms within the EOTF that were indicated to be unavailable to the SIC Unit.

The Consortium noted that the large video walls in SIC Room 131 were impressive and can be seen to be extremely valuable in emergency situations; however, the screens were reportedly not useful for the role that the investigative analysts of the SIC require on a day-to-day basis. According to staff, the video wall should result in a 10' high by 40' front-project video wall that can show a detailed panorama of areas across the city or instantly zoom in on one video camera; however, staff claims the results of technology changes have only allowed for the wall to be used for screen projections, using a single screen or application. This issue has been since resolved and identified as a documentation / training issue resulting from role changes at the SIC. Please see the [Analytical Expectations](#) for more details.

Finally, leadership for the SIC and staff suggested that there are notable latency issues when accessing databases through the network for researching case information as well as using specialized software for processing data for geospatial mapping. While the SIC and EOTF reportedly have adequate internet speeds of upwards 200 mb/s, it may be worth further investigation to identify whether the user experienced latency is a network, hardware, or another issue for the SIC.

**Mobility Support.** Modern policing today requires police officers to have reliable access to important information in the field. Routine patrol operations, investigation procedures, or other emergency responses (e.g., SWAT, Hostage Negotiation) mandate access to information from secure platforms (e.g., RMS, CAD) and cloud-hosting websites (e.g., TLO) to gather essential information for responses. Throughout interviews, concerns about mobile access and/or equipment were voiced. The following are examples provided:

- Some personnel and/or units expressed not being issued a mobile data computer (MDC) to have access to information during responses. Personnel not issued MDC was most common for lower ranks, even if their secondary assignment required mobile connections. Middle or upper rank staff may have been issued desktops; however, their primary or secondary role required mobility, resulting in workforce inefficiencies (e.g., waiting to return to a dedicated location with full computer access).
- Other personnel acknowledged that their role required them to be away from their MDC to perform their duties; therefore, access to smaller mobile devices is ideal (e.g., mini tablet, smart phone).

- Department-issued smartphone devices do not allow the user to access department systems such as computer aided dispatch, records management systems or property management systems. MPD staff either believed that access to this was not possible, that they did not know who to ask to make this request, or that “someone” must have looked at it and decided its cost was too high and a security risk. In any case, this added to the frustration of the MPD staff feeling that they were underutilizing the equipment issued to them.
- Computing equipment located at precincts enables personnel with MDCs to connect; however, other staff are unable to use workstations due to lack of MDC and/or lack of unassigned computer stations for roving roles (e.g., bike response, SWAT). Without access to workstations, staff members in roving roles may face obstacles in accessing important information, communicating with colleagues, or performing necessary tasks efficiently. This could hinder their ability to respond effectively to incidents or carry out their duties.
- Another mobility concern is related to printers and/or automated fingerprint identification systems (AFIS). While this technology allows officers to operate efficiently in the field to print tickets and/or accurately identify someone, this equipment is not available and/or there are city ordinance restrictions on emerging technologies.

MPD has recently issued department iPhones for all staff, primarily to support the body-worn camera program. Staff expressed a great improvement in their communications with these dedicated phones, regardless of the previously mentioned barriers to primary data sources. All cellular connections deployed by a police agency (e.g., phones, camera trailers, vehicles) should be managed through a mobile device management (MDM) system to ensure security protocols and compliance (e.g., city policy, CJS requirements). MPD staff indicated that they are using the MDM AirWatch; however, to best comply with security requirements, the use of this tool should be evaluated with the future mobility strategy (see Recommendations). Collaboration with City IT on the further implementation of this tool as other security procedures (e.g., SSO) may be impacted.

Additional observations worth noting on mobile devices include:

- Although the iPhone features a recording application, it is deactivated during phone calls, hindering investigators from capturing conversations during interviews or other conversations that are essential for cases. Since the conversation regarding this possible issue during the site visit, MPD researched the issue and indicated that MPD investigators have access to standardized interview room recording systems, the ability to record on AXON Capture, and digital recorders that upload statements and recordings into the Winscribe system.
- City IT oversees all other city cell phones; however, the MPD cell phones are managed by BTU. This is a historical practice, and it is unclear if it serves the current demands of MPD and/or the capacity of the BTU.
- The use of cellular or Wi-Fi equipment for mobile surveillance trailers creates additional challenges for equipment maintenance, downloading/acquiring information,

and/or effective operations. Trailers with cameras are sometimes vandalized resulting in repairs and/or loss of information. Additionally, The Consortium heard in interviews that some trailers only allow information collection to occur when in proximity to the device, rather than remote download to protected servers due to Wi-Fi connection only. This issue will be remedied as MPD upgrades to cellular on all trailers.

**Vehicle Equipment.** The City recently mandated that a number or percentage of city vehicles need to be fuel efficient (e.g., electric or hybrid). However, the requirements of technology within police vehicles require space and/or energy that is incongruent with the city ordinance. Compliance with this has created challenges in vehicle purchases (e.g., only Ford options but Ford has canceled orders for the past year), resulting in an aging fleet.

**Emerging Technology in MPD.** At the time of this assessment, the MPD had been successful in gaining traction for starting a drone program for emergency response. The goal is to potentially use the drone for non-emergency and/or first responder programs. This is a valuable technological advancement to use people resources and ensure officer and public safety more effectively. However, MPD staff, including BTU, were largely unaware of the status of this effort and how it would fit into other divisional operations (e.g., drones to inform SIC operations). This challenges interoperability and/or procedural workflows and further demonstrates the silo-default of MPD technology procurements and operations.

### *Recommendations*

***Enhance Training Division classroom equipment and technology infrastructure.*** If MPD was to further invest in the facility used for training, The Consortium suggests the following minor equipment and/or technology solutions to enhance training experiences:<sup>10</sup>

- Invest in voice amplifiers and/or other speaker configurations for large classrooms with poor acoustics, such as the gym, to ensure effective instruction and communication during training sessions.
- Upgrade projectors in large learning areas to support modern learning practices, including the integration of video examples, promoting interactive and engaging training sessions.
- Include video conferencing technology to facilitate additional training options from remote subject matter experts or other adult learning options.
- Equip cadets with portable devices to enhance their ability to access resources, participate in interactive exercises, and collaborate on projects without constraints posed by fixed computer lab setups.

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<sup>10</sup> The Consortium recognizes that an additional assessment from separate consultants regarding capital projects and facilities was occurring during this performance period. Since MPD does not own the training facility building, there are very limited suggestions to reimaging the space and/or adjust the environment from an elementary school to a modern police training facility.

**Consider the adoption of a learning management system and/or video management system to support end-user led training.** Informal training within each police unit or division is normal and valuable within a policing agency. Investigators, forensic staff, crime analysis staff, and many other roles often have specific processes necessary for onboarding new staff. This informal training and effort should be managed by the organization, rather than by individual perspectives, to ensure accuracy and best practices. MPD may consider a learning management system like Canvas or Adobe Learning Manager to accommodate both formal (e.g., SCORM, state POST courses) and informal (e.g., short video content) training to support the end-user.

**Certify city mechanics with Ford (or other vehicle maker) to streamline repairs.** The MPD and/or City should require mechanics to undergo Ford warranty certification training to enable on-site repairs for Ford vehicles by Ford certified mechanics, preserving the warranty integrity, and expediting vehicle availability.

**Consider adjustments to the vehicle refresh rates for fleet based on usage and role.** Analyze existing fleet information<sup>11</sup> to better inform the Fleet Manager and/or MPD leadership on current fleet operations and project for future refreshment or purchase impacts. This analysis could include data models to:

- Tailor the refreshment schedule based on the distinct usage patterns of each vehicle within the fleet.
- Move away from a uniform refresh rate for all vehicles, considering the specific roles and needs of each in the fleet.
- Optimize the overall fleet management strategy for better performance and cost-effectiveness.

**Conduct site surveys and review network traffic.** The lack of or interrupted connection to network resources suggests the MPD facilities and/or mobile operations need additional network support. While IT proactively monitors all City facilities for network performance using multiple tools that provide alerts to address issues, it may consider distributing surveys to users to help direct manual. Site surveys and/or tests of network traffic should include, but may not be limited to:

- Conducting department-wide surveys to identify locations of high latency.
- Performing on-site surveys in the areas experiencing connectivity issues to assess the physical environment, potential obstructions, and interference sources.
- Analyzing network traffic and utilization patterns to identify any spikes or bottlenecks that may be causing connectivity issues. Use network monitoring tools to gather data on bandwidth usage.

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<sup>11</sup> Based on the samples provided by Fleet Management within the unsupported database, this evaluation would be possible within existing data. Future reporting should be a consideration for requirements in a database upgrade.

***Initiate a project to establish Local Area Network (LAN) access through MPD-issued iPhones and tablets.*** To further enhance mobility connection needs, the MPD should:

- Establish working group to identify requirements.
- Develop security protocols to allow access to systems within MPD LAN (RMS, CAD, etc.).
- Establish Single Sign-On (SSO) and Multi-Factor Authentication (MFA) compliant with Criminal Justice Information Services (CJIS) standards.
- Develop a deployment and training plan and ongoing Level 1 (basic) support.
- Elect to bring their mobile devices and tablets under the enterprise mobile device management program to allow for access to the City's LAN.

***Consolidate the management of MPD cell phones from BTU to City IT.*** Align the management of MPD cell phones with the rest of the city's devices under City IT's enterprise mobile device management program that offers a logical and coherent strategy; streamlines operations; fosters a more unified and efficient technology infrastructure for the City; allows for consistent implementation of best practices, security measures, and performance optimization across the entire fleet; and removes the burden of MDM from BTU.

## People

*Assessment Requirements 4-6 - Functionality and Performance, User Experience and Compatibility and Integration*

### *Observations*

People throughout an organization contribute to the success of technology identification, implementation, uses, and changes. While the BTU is a strong liaison on technology projects, there is a significant resource restraint within the unit to support the volume and complexity of MPD technology projects. Current BTU staff is heavily reliant on one individual with the most institutionalized knowledge. The creation of formal business processes for the BTU have not historically been prioritized and documentation for formal processes and/or oversight on MPD technology hasn't been developed due to current resource restraints. As MPD continues to adopt technology, the investment in this unit, or considerations for additional organizational support will be necessary.

A key to the equipment and technology processes for current operations and the future, is the relationship between BTU and City IT. Based on interviews and group meetings, this relationship appears to be collaborative and supportive. It is clear City IT requires a certain level of information from the MPD BTU to ensure compatibility and BTU understands the necessary time and testing required for a new technology to be implemented within the confines of the City network. The recent implementation of Service Now and other processes for new or replacement of equipment or technology appears to support end users and allows for supervisors to discuss the suggestions on a weekly basis to determine the feasibility of the



integration within the infrastructure. These recent successes indicate proven successes and should be considered as common practice for future efforts.

Despite the excellent working relationship between BTU and City IT, there was some reported duplication or conflicting responsibilities amongst the two entities. Consistent themes in interviews included that while initial purchases for equipment and technology were possible with this partnership, the ongoing support needed for roll out, refresher training, or additional support was largely reliant on the individual unit to “figure it out”. The theme of positive procurements for new items was clear throughout all interviews, shadowed by the theme that training, implementation, maintenance, and replacement support was severely lacking. This theme was discussed with the Training Division, where staff acknowledged that the use of technology in training, appropriate levels of training (e.g., Admin System v. End-User training), or ongoing training for skill refinement was insufficient.

**Training for Personnel.** Personnel in several divisions or units reported the lack of technology training provided within the MPD basic training, in-service training, or job transition periods. Training Division staff expressed their support of including technology and equipment within training courses; however, they reportedly were restricted by the underinvestment in the facility and/or equipment provided to implement more modern training approaches.

Staff across all interviews expressed issues with basic computer knowledge and usage, such as Microsoft Suite (e.g., Outlook, Word, Teams), SharePoint, and basic iPhone cell phone usage like messaging, application downloads, voice recording, etc. While some personnel mentioned the use of online courses via city resources, other personnel had never heard of this training and/or new how to access it. The Training Division confirmed that these resources are not required during basic or in-service training. When vendor equipment training is available, it is encouraged to prevent duplicative efforts in designing in-house training; however, vendor training on equipment did not seem fully leveraged by Department staff.

To compensate for the lack of agency-wide commitment to these standards, several officers and leadership expressed that they have created additional training or on-the-job processes to support personnel transferred to their unit. These trainings are managed by the creator and, while deemed important for operations, are not included in agency-wide systems, nor are they tracking to demonstrate these efforts for the assessment team and/or future reviews. Speaking to the problem-solving nature of public safety officers, several persons expressed that they have taken the lead to create their own videos (on iPhone) or document procedures just to support the day-to-day efforts. Special Operations Division expressed the most consistent training occurring among team leads for all units to ensure skill efficiency, equipment usage, and/or operational responses. Some of this training is mandated by federal departments (e.g., ATF Bomb Training) or national associations (e.g., National Police Canine Association) and is well documented and tracked for each officer to maintain their position on teams.

Descriptions of any computer training ranged from “there are none” to a lack of awareness of online training made available by the City. Technology learning modules that were available reportedly lacked appropriate adult learning techniques. Online training that was provided or available to staff on its technology and equipment was reportedly one-hour long and available for employees to take at their desks. There was limited in-person, hands-on equipment in-service training for tenured officers.

Specific units and/or informal leaders within a division expressed their approaches to developing training. Specific for Special Operations, the training on equipment occurs weekly (i.e., K9) or monthly (e.g., Bike Rapid Response, SWAT) and includes officer-developed training specific to the team(s).

Due to the nature of revolving sworn staff role transitions, training on hardware and equipment in some facilities are dependent on the prior individual to proactively document how to work certain equipment or back-fill their replacement during the role transition. This proactive approach and backfilling activities are reportedly rare, leaving transitioning sworn staff in a difficult position in using technology and equipment in their new role. In one instance, a commander was unable to cast their screen to a larger wall-mounted television because they were new and hadn’t “figured it out yet”.

### *Recommendations*

***Leverage current cloud-based organizational technologies to develop and update role-specific procedural documentation.*** Several MPD staff have consistent templates in Smartsheet or SharePoint to support equipment inventory, quality assurance, or other procedures. This demonstrates adoption by MPD for shared resources; however, these practices are varied by each leader and do not adhere to a consistent deployment. Furthermore, these data and information practices are not managed by BTU or other data governance practices. While the MPD should continue to leverage these platforms, the following is recommended for MPD to minimize duplication, variation, and risks to data management:

- Assign at least one business analyst to BTU.
- Set goals for the business analyst to catalog all uses of shared spreadsheets and identify common requirements to develop templates for agency-wide use.
- Identify the platform most viable for the sharing of templates and consistent use among end-users to support reviews, analysis, and evaluation efforts.<sup>12</sup>
- Develop agency-wide templates for inventory, technology uses, and reviews.
- Conduct staff training for all supervisors to use agency-wide templates and best practices for data management on the selected platform.
- Create a bi-annual review process for these documents to refine uses and/or demonstrate performance metrics for each unit.
- Establish analytical processes from all templates to quickly identify uses, changes, and other efficiencies for BTU monitoring.

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<sup>12</sup> Refer to previously mentioned redundancies of using SharePoint and Smartsheet.

**Implement a transparent evaluation and procurement process for all equipment and technology requests with a standardized business justification form.** Introducing a set business justification form would not only streamline the request process, but also would contribute to a more objective evaluation of the proposed technologies, ensuring that decisions are based on clear justifications and measurable impacts on operations. This alignment with standardized procedures is essential for compatibility and integration within the financial and budgetary aspects of technology implementation. This form should be used for all new and emerging technology that would be beneficial to operations. Steps should include, but not be limited to:

- Developing a form in ServiceNow or other applicable platform<sup>13</sup> for leadership of specific units to demonstrate requirements, market/vendor analysis, financial obligations, and impacts to MPD operations.
- All forms should be reviewed by the ESC to determine viability, priority, interoperability, and timeline.
- Creating a procedural document to evaluate these requests within existing operations and/or across multiple unit requests to have strategic technology acquisition plans.

Furthermore, the ESC/BTU should work to develop clear steps to evaluate technology and equipment procurements and be transparent to end-users and requestors during that process. ESC/BTU should ensure that the evaluation process considers the standardized business justification form, making decisions based on clearly defined criteria rather than relying solely on interpersonal relationships or pure persistence.

**Explore additional equipment and technology rental opportunities for department-wide implementation.** For the additional equipment like video wall, camera equipment, and other foundational technology, MPD should consider enhancing vendor-supported rental contracts. This may require additional support by BTU and/or expansion of BTU resources from IT professionals to manage the array of equipment.<sup>14</sup>

**Consider enhancing remote learning opportunities throughout the MPD.** This should include, but not be limited to:

- Leveraging existing resources available (e.g., Virtual IT training with City) within MPD training standards.

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<sup>13</sup> This form could be developed in ServiceNow; however, a business justification document is often 3-5 pages in length for initial requests and requires the end user to routinely access and adjust information as vendor/market assessments and other impact measures are developed. MPD may find that the ideal technology platform to support this business process exists in Microsoft Forms/SharePoint or in Smartsheet's.

<sup>14</sup> The proof-of-concept with printers and Axon demonstrates the feasibility and advantages of renting equipment, which ensures uniformity, consistent maintenance, and reliable performance.

- Establishing a dedicated Microsoft Teams-enabled room with cameras, microphones, and high-quality television/monitors to facilitate remote teaching by subject matter experts outside the local area for the Training Division.
- Designing an adult-centric training curriculum utilizing pre-existing training content via open-source or vendor tailored to the gaps and working knowledge of the department.
- Introducing incentives or recognition programs to motivate personnel to enhance their technology skills.
- Recognizing and rewarding officers who excel in the utilization of technology for improved efficiency and effectiveness.

**Implement in-service training courses with adult learning strategies.** Modern police training requires an integrated curriculum to introduce new concepts and knowledge and reinforce learning for officers over time. MPD Training Division should collaborate with training consultants and other staff to develop a technology-centric curriculum that includes relevant learning objectives that are defined, measurable, and aligned with sworn and civilian staffs' daily tasks and challenges. This curriculum should be used to:

- Promote active engagement through discussion boards and collaborative learning.
- Encourage peer-to-peer learning and experience-sharing exercises.
- Deliver the training in flexible, online modules that are short in length that track overall progress.
- Recognize and reward staff for completing in-service trainings by certain dates.
- Track staffs' progress publicly and incite friendly intra-departmental competition.

## ADDITIONAL ASSESSMENT REQUIREMENTS

In addition to providing observations and recommendations outlined in five domains listed in Figure 1. The Consortium also made observations on two additional assessment requirements, Data Security and Privacy and Scalability and Futureproofing.

### Data Security and Privacy

#### *Assessment Requirement 7*

The Consortium reviewed documentation and conducted interviews about current data security and privacy practices. Publicly available documents demonstrated consistency with industry practices and the right amount of granularity for practices. In addition, MPD is required to comply with state laws or local ordinances to ensure citizen privacy during the use of equipment and technology. MPD has robust policies related to these practices and procedures which appear to align with industry standards and best practices in information security.

The balance of securing and sharing information is a careful balance for every organization. Information dissemination is difficult in law enforcement agencies, especially those as large as MPD. The current solution, like many agencies, is email. Per MPD policy, email must be checked at least once per day. Despite the policy's attempts to help ensure information is

flowing through the MPD, email has many shortfalls such as information overload, lack of targeting, limited interactivity, inefficiency for urgent communication, and business email compromise (BEC). While other staff identified the use of Smartsheet (vendor product) or SharePoint (refer to previously mentioned connectivity challenges), both platforms require designated management to standardize folders, templates, user permissions, and uses (see prior recommendations re: governance).

MPD should ensure that every employee, whether working in the field or at a desk, receives the following training on SharePoint on desktop and mobile devices:

- Digital document management
- Asynchronous communication and collaboration
- Resource searching techniques.
- Automatic announcement notification settings

During interviews and site visit observations, The Consortium noted several practices that may cause risk to MPD and/or City IT practices:

- Several staff mentioned two factor authentications (2FA); however, described procedures were not consistent with best practices. No end-user interviewed understood what, if any security measures were in place to access MPD in-network systems. Others were frustrated that they had limited access to basic systems but not access to systems such as CAD and RMS. Additionally, users felt they had to sign-in to multiple applications in order retrieve the information they needed. MPD BTU and City acknowledge current efforts to deploy SSO to further minimize the circumvention of 2FA.
- MPD expressed the preference to use cloud-based software due to connectivity to the City network for internal resources (e.g., SharePoint, intranet). This places the responsibility of user permissions, access, training, and processes onto multiple vendors. Compliance and/or oversight may be limited by MPD and/or City IT. City IT confirmed their agreement with the use of cloud-based software if it provides the necessary usability and security for the business.
- Though MPD utilizes multiple pieces of equipment that leverage cellular connectivity, it was unclear how many of these pieces take advantage of a virtual private network (VPN) to increase the security of data being collected.
- Reportedly, when City Wi-Fi or in-vehicle routers are not available or have connection issues (e.g., MPD units that do not have vehicles such as BRRT, Mounted Unit), several MPD officers state the use of their phones as hotspots for accessing information on the network and/or other data.

### *Recommendations*

**Update the “Covert use of social media sites” policy (5-108-IV-C).** The use of covert profiles on social media can induce risk to the operating individual/organization as some websites do

proactive “offensive monitoring” of connecting individuals. MPD should collaborate with City IT and the City Attorney’s Office to:

- Examine operational purposes for using covert profiles for investigations or other police procedures.
- Redefine the requirements for infrastructure (e.g., off network computers, backstopped profiles) needed for conducting online investigations. IT should be included in this process as they may have safeguards or specialized equipment to aid in the creation and/or use of covert profiles on social media sites that can shield/anonymize the individual/organization from being identified.
- Establish what the rules of engagement (ROE) are when operating a covert profile. Are individuals allowed to interact with others under the crafter person? Is it passive observation only? How are individuals identified so any/all information collected is useable in the pursuance of law enforcement?
- Create a training program for this function to be included in investigations and/or forensic staff training. Include research on state and federal regulations on these activities for the purpose of criminal investigations (e.g., 28 CFR, MN State Law 13.82)
- Identify personnel responsible investigations (e.g., digital forensics, detective) for security training.

***Establish a Data Classification and Handling Policy.*** The purpose of this policy is to establish standards that all employees and contractors should follow in labeling and handling information and records in the possession of MPD. This policy should include data classification labels for law enforcement aligned data (e.g., Law Enforcement Sensitive) and “standard” corporate data (e.g. employee HR data, payroll information, etc.). The policy should address or align with existing policies, related to provisioning, data transfer, or information sharing and destruction.<sup>15</sup>

***Establish a Data Backup/Disaster Recovery Policy.*** The Consortium did not receive a policy that addresses this topic; however, City IT confirmed the existence of a data recovery plan, standard policy for backing up data, and the Office of Emergency Management possesses the Continuity of Operations (COOP) plan. The public policy manual for MPD does not address this topic, as it may be firmly within operations for City IT. In addition, this type of policy would not be required nor recommended to be available to the public for security purposes.<sup>16</sup>

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<sup>15</sup> The Consortium acknowledges that this recommendation and the subsequent recommendation regarding data backup and disaster recovery is within the scope of the requested assessment but may also overlap with another assessment from another team regarding data practices. Our intention is not to conflict with another assessment but recommend industry practices for MPD.

<sup>16</sup> Release of this information for common public consumption would give cyber adversaries intelligence on MPD and/or City IT security monitoring and response capabilities which would increase risk and threat positioning.

**Establish security policies/playbooks for cyber security incidents.** The Consortium did not receive a policy that addresses this topic; however, it was later noted by IT that the IT Incident Response Manual is detailed and comprehensive. The Electronic Communications Policy mentions other policies and/or monitoring that may interact with this topic. Typically, this type of policy would not be required nor recommended to be available to the public for security purposes.<sup>17</sup>

According to 2023, Verizon Data Breach Investigations Report, "...74% of all breaches include the human element, with people being involved either via Error, Privilege Misuse, Use of stolen credentials or Social Engineering".<sup>18</sup> Given the observations and information regarding MPD users' capability of operating email and other computer resources, MPD should consider collaborating with IT to confirm:

- Policies/playbooks are created, maintained, and practiced that outline responses to common attacks against the cyber landscape to test preparedness.
- Routine network monitoring is established within LE systems to identify network security concerns.
- Common playbooks including responding to ransomware infections, business email compromise (BEC) via phishing, and data loss/exposure are developed.

## Scalability and Futureproofing

### *Assessment Requirement 8*

The scalability and futureproofing of MPD equipment and technology will be significantly reliant on MPD's ability to formalize, standardize, and adhere to the commitment of an IT governance model. This model will ensure the shared vision and prioritization for technology and equipment. Furthermore, further investment by MPD into current resources, collaborations, and processes will support the advancement of MPD's IT governance.

As previously mentioned, the BTU collaborates closely with City IT leadership to facilitate the identification, procurement, and deployment of non-database technology available through the city's hardware market, essential for MPD operations.<sup>19</sup> This partnership primarily focuses on

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<sup>17</sup> Release of this information for common public consumption would give cyber adversaries intelligence on MPD and/or City IT security monitoring and response capabilities which would increase risk and threat positioning.

<sup>18</sup> Refer to the report for additional details on data breaches here:

<https://www.verizon.com/business/resources/reports/dbir/>.

<sup>19</sup> The hardware market includes computers, laptops, and other core computing equipment. Peripheral technology equipment (e.g., keyboard, monitor stands, computer mouse) and other equipment (e.g., desk, chairs) are not included.

MPD equipment related to computing and data storage for general users.<sup>20</sup> The priority of City IT seems to be network-connected items only and computer refreshes. The requirement for MPD to have a PMO function to prioritize their own technology projects that are not within network-connected items will be essential for the future.

Several officers have emphasized BTU's significance as a major asset for the MPD. It excels in voicing officers' needs and integrating technology within the City IT infrastructure promptly. While the transition of the Service Now Help Desk aims to streamline requests, this tool perhaps only highlights the challenges to BTU staffing. The ServiceNow platform can assist in identifying types of requests and needs by end-users and additional metric collection via the Service Now Help Desk and can allow the BTU to reshape their resources. BTU is described as a reactive entity within MPD, as acknowledged by BTU staff. However, plans are in place to transition towards a more proactive approach through the development of standardized operating procedures (SOP). According to BTU, these SOPs will be finalized after the delivery of various assessment reports.

The historical knowledge of BTU staff needs to be captured and documented and additional staff need to be included to support future growth and current gaps in technology and equipment implementation. Furthermore, standardizing BTU processes will enhance scalability and futureproofing, considering its evolving role as a critical channel between City IT and MPD.

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<sup>20</sup> MPD Forensic Lab is responsible for specific computer builds and equipment related to digital forensic procedures. These computers (in part or in whole) are procured by the Forensic lab budget and are not on the City IT network.



## GENERAL EQUIPMENT NEEDS IDENTIFIED

The following information is a list of general equipment needs organized by potential impact and difficulty to implement. These items were gathered The Consortium during this assessment and would support the initial efforts of an Executive Steering Committee and working groups to support a strategic IT governance plan.

The Consortium offers the list below for the potential for both financial support as necessary and what allows the department to build confidence and traction with the line staff of MPD as well as its alignment with concurring assessments and project management change considerations.

Division / Unit	Technology / Equipment Need	Assessment Team Note	Immediate Impact	Difficulty
<b>Special Operations</b>	Breach tools	Needed at each precinct	Medium	Low
	Medical kits	Additional kits on hand in all precincts and all special operations vehicles	Medium	Low
	Nonlethal response options (e.g., BolaWrap, Pepperball)		Low	Low
	Additional car batteries	Constant flow of on-hand batteries for emergencies	Low	Low
	Smart board(s)	Use of interactive board to display content, write operations on, and present from (e.g., Smart Board, Vibe)	Medium	Medium
	Live and recorded personnel tracking capability for operations in centralized location	Reportedly the technology would be a gamechanger to have a record of when and where someone was during an operation in a centralized center/location	Low	High
	Microsoft Teams Room	Teleconference / remote learning capability	Medium	Medium
<b>Training</b>	Projector(s)	Large classrooms / auditoriums	Low	Low
	Voice Amplifiers	Simple microphone solution for larger training rooms with poor acoustics	Low	Low
	Updated Patrol vehicles for EVOC	Vehicles must emulate the same equipment, condition, and working order as the field	High	Medium

<b>Division / Unit</b>	<b>Technology / Equipment Need</b>	<b>Assessment Team Note</b>	<b>Immediate Impact</b>	<b>Difficulty</b>
<b>Forensics</b>	Laptops / Tablets	Mobile devices for police cadets	Low	Low
	Digital Notebooks	Designated for Lead Instructors	Low	Low
	Mobile barcode scanners	Used when evidence is transferred from precincts to the PSB	High	Low
	Portable monitors		Medium	Low
	Currency/money counting machines		Medium	Low
	Digital scales		Medium	Low
	Temperature & humidity controls/sensors	In evidence rooms	High	High
	NIBIN technician scope		Low	Low
	Fingerprint scanner		Medium	Low
	Comparison microscope		Medium	Low
	Cataloging technology (tablet)	Firearm safe for proper inventory organization and sorting	Low	Medium
<b>Property &amp; Evidence</b>	Backup generator	Refrigeration units	High	Low
	CCTV Cameras	Located at Property Division	High	High
	High-density shelving units / Rack Storage		Medium	Low
	Cordless Scanner	Inventory and bar code scanning	Low	Low
	Tablets	Supports scanning and property management system	Low	Low
	Heavy vehicle/ equipment replacement program	Specialized items such as tommy lift, pallet jacks, and box truck with wench	Low	Low
<b>Mounted Unit</b>	Saddle replacement (x13)		High	Low
	Electro-magnetic therapy Bemer Horse Set Blankets (x2)		High	Low
	Horse protective gear (face shields, neck, and hoof guards)		Medium	Low
	iPad replacement		Medium	Low

<b>Division / Unit</b>	<b>Technology / Equipment Need</b>	<b>Assessment Team Note</b>	<b>Immediate Impact</b>	<b>Difficulty</b>
<b>City IT / PD on Prem Sites</b>	City Wi-Fi Extender	Must reach facility club house area	High	Low
	Dedicated city desktop computer with printer		High	Low
	CCTV	Horse stall monitoring	Low	High
	Platinum 5-Horse Trailer (replacement)		Low	Low
	Utility task vehicle	Side-by-side / Polaris	Low	Low
	Access control devices	Restricted personnel access to rooms in which City IT production hardware is located at the MPD Hamilton Special Operations Center	Medium	High
	Humidity & temperature sensors/controls	Installed where City IT hardware is installed on MPD premises	Medium	High