Staff Report

Report To: Service Review Implementation Ad Hoc Committee

Report From: Mark Giberson, Manager Information Technology

Meeting Date: July 9, 2025

Report Code: CR-25-080

Subject: Project 2b1: Review mobile technology options to inform the IT Needs Assessment when determining cloud-based software to ensure compatibility and integration

Recommendations:

THAT in consideration of Staff Report CR-25-080 respecting Project 2b1: Review mobile technology options to inform the IT Needs Assessment when determining cloud-based software to ensure compatibility and integration, the Service Review Implementation Ad Hoc Committee recommends that City Council receive the report for information purposes.

Highlights:

- This project reviews current procurement cycle and technology requirements.
- The project will not involve the actual acquisition of mobile technology but will provide detailed recommendations and findings to guide future decisions.

Strategic Plan Alignment:

Strategic Plan Priority: Service Excellence.

Climate and Environmental Implications:

There are no anticipated climate or environmental impacts.

Previous Report/Authority:

- Service Review Adoption (July 2023) CM-23-012
- Service Review Website Service Review Actions | City of Owen Sound
- Information Technology Need Assessment Project – Conclusion and Next Steps – CR-22-067
- Information Technology Needs Assessment Status Update – CR-24-045

Background:

Service Review Project 2b1 was initiated following the IT Needs Assessment and MNP Service Review, which identified a gap in the City's approach to mobile technology. Historically, mobile devices were acquired based on division-specific needs without consistent standards, lifecycle planning, or centralized oversight.

The goal of this project is to develop a unified and sustainable mobile technology strategy that supports secure, compatible, and efficient field operations, particularly in alignment with future upgrades to systems such as Work Order Management and Human Resources Information Systems (HRIS), and implementation of digital timesheets across all work units.

This project does not include the acquisition of hardware but instead provides the groundwork for a standardized approach to future procurement, compatibility, and management.

Analysis:

Current State Observations

The current state of mobile technology across City departments is fragmented and inconsistent. Devices in use vary by division, with many being outdated or poorly inventoried. Procurement of mobile devices has been largely reactive, occurring in response to immediate needs rather than through a planned lifecycle approach. As a result, there are no standardized expectations regarding device longevity, environmental suitability, or system compatibility.

Additionally, the City has limited capacity for centralized mobile device management. Many devices are not enrolled in a Mobile Device Management (MDM) solution, which presents challenges in tracking, securing, and supporting devices remotely.

Technology Review Findings

Mobile technology plays a crucial role in enhancing workforce efficiency, reducing administrative overhead, and providing real-time access to operational data. However, several challenges were identified:

- **Lack of ruggedness**: Many current devices are not designed for field use. They are vulnerable to environmental conditions such as moisture, dust, and drops, and are difficult to operate with gloves or in wet conditions.
- **Battery and performance limitations**: Devices often do not last through an entire work shift without recharging and may experience lag when running essential apps.
- **Security and management gaps**: There is an inconsistent implementation of MDM tools for secure remote management, software updates, or lost/stolen device handling.
- **Data access and synchronization**: Devices frequently lack reliable offline functionality and secure, seamless integration with back-end systems.
- **User adaptability**: Staff vary in their familiarity with mobile technology, and training or support resources are inconsistently provided.

Functional Needs for Mobile Technology

To address the challenges identified, future mobile technology deployments must meet the following functional requirements:

- **Ruggedization**: Devices should be IP67/68* rated and MIL-STD-810G compliant to withstand field conditions.
- **Display and input usability**: Screens must be viewable in direct sunlight (500+ nits) and usable with gloves or wet hands.
- **Power resilience**: Devices should support swappable batteries or external charging solutions to sustain full-day operations.
- **System integration**: Full compatibility with enterprise platforms, including Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), Geographic Information System (GIS), and Human Resource Information System (HRIS), is essential.

- **Device management**: Integration with enterprise Mobile Device Management (MDM) platforms, such as Microsoft Intune, is critical for security and lifecycle management oversight.
- **Connectivity**: Devices should provide both real-time sync capabilities and robust offline functionality for remote areas.

* IP ratings are an international standardized system created by the International Electric Commission to determine or label how resistant an electrical device is to common solid materials (first digit) and water (second digit). For an IP with the first digit of 6, this means that the device would be protected from harmful dust when in contact with that material for 8 hours. The second digit, being moisture, represents anything from drips to immersion. A second digit of 6 means full immersion up to 1 metre for 30 minutes. 7 means full immersion to a depth greater than 1 metre for 30 minutes, the depth to be provided by the manufacturer. So, IP67 means the unit can be dropped into a body of water up to a meter deep for half an hour, while IP68 guarantees protection in water beyond 1m deep for the same period of time; both are resistant to dust.

**MIL-STD-810 is a standardized testing method developed by a partnership between the USA Army, Navy and Air Force to ensure that materials and equipment will withstand the environmental conditions to which they are likely to be subjected over the duration of their service life.

** Nits are a unit of measurement for how bright a display is, based on the brightness of a candle per square meter.

Strategic Impact

A standardized and sustainable approach to mobile technology across the City is expected to generate substantial operational benefits, including:

- **Increased staff mobility and responsiveness**, enabling real-time service delivery and field reporting.
- **Reduced duplication of work**, particularly in manual data entry or redundant paperwork.
- **Lower long-term support and replacement costs** by aligning procurement with standardized lifecycle management.
- **Improved security, compatibility, and scalability**, positioning the City for upcoming cloud-based system transformations and digital service enhancements.

Next Steps

To move from assessment to action, the City will take the following steps to establish a more coordinated, secure, and future-ready mobile technology environment. These actions are recommended for completion by **year-end** to support 2026 operational planning:

- **Conduct a City-wide Mobile Device Audit**
  Perform a comprehensive inventory of all mobile devices currently in use across departments to assess condition, usage, and MDM enrollment status. This will establish a baseline for future planning.
- **Standardize Mobile Device Specifications**
  Develop and approve a set of standardized technical and environmental criteria (e.g., ruggedization, battery life, compatibility) for all future mobile device procurements to ensure consistency and field readiness.
- **Expand Mobile Device Management (MDM) Capabilities**
  Ensure all City-issued mobile devices are enrolled in a centralized MDM platform such as Microsoft Intune to enable secure remote management, updates, and support.

Financial Implications:

There are no direct financial impacts from this report. However, the recommendations will inform future capital budget decisions and operational planning for technology investment and support.

Communication Strategy:

Internal communication will be managed through staff briefings and cross-department collaboration. Public information will be shared via committee agendas and minutes.

Consultation:

Service Review project 2b1 team members:

- Mark Giberson
- Kayla Hyndman
- Riley Brugess
- Greg Nicol

- Mark Hill
- Karl Rennick

Attachments:

None.

Recommended by:
Project Lead: Mark Giberson, Manager of Information Technology
Project Sponsor: Lara Widdifield, Director of Public Works and Engineering

Submission approved by:
Tim Simmonds, City Manager

For more information on this report, please contact Mark Giberson, Manager of Information Technology at mgiberson@owensound.ca or 519-376-4440 ext. 1284.