



**SUBJECT: Fire computer aided dispatch system replacement**

**TO: Committee of the Whole**

**FROM: Fire Department**

Report Number: BFD-01-18

Wards Affected: All

File Numbers: 755-01

Date to Committee: June 4, 2018

Date to Council: June 18, 2018

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**Recommendation:**

Direct the Fire Chief to replace the City of Burlington's computer aided dispatch system using a one-time capital investment from the fire Vehicle Depreciation Reserve Fund; and

Direct the Manager of Procurement Services to issue a purchase order and/or sign any associated agreements related to the system, subject to the satisfaction of the City Solicitor.

**Purpose:**

- An Engaging City
- Good Governance
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**Executive Summary:**

The Computer Aided Dispatch (CAD) system being used by the Burlington Fire Department is a critical system in the overall ability to provide effective and timely emergency response.

Staff are recommending that the existing CAD system be replaced by an enhanced CAD system. This opportunity is an option due to an existing vendor contract that was awarded through a full RFP process that Burlington can leverage.

The benefits that will be realized with this recommendation are as follows: time and cost saving efficiencies, enhanced CAD product, readiness for upcoming legislation, future enhancements, improved support and maintenance, increased security and protection of privacy, and supports improved emergency response capabilities.

The CAD system replacement is supported by all key stakeholders.

The details of this staff recommendation are provided in the body of this report and the attached confidential Appendix A, for councils' consideration.

### **Definitions and Acronyms**

- CAD (computer aided dispatch) A CAD system provides fire incident information including the location, incident type and any other pertinent information for emergency responders to mitigate an emergency, this includes mobile CAD.
- CRTC (Canadian Radio-television and Telecommunications Commission).
- NFPA (National Fire Protection Association).
- NG9-1-1 – Next Generation 911 “is the modernization of 911 networks to meet the public safety needs of Canadians, this is a transition to Internet Protocol (IP) technology. This will enable Canadians to access new, enhanced, and innovative 9-1-1 services with IP-based capabilities.
- OFMEM (Office of the Fire Marshal and Emergency Management).

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### **Background and Discussion:**

As part of a related project it was realized that there is a benefit that Burlington can take advantage of to replace its existing CAD system sooner than planned (2019 capital budget forecast). Due to the one-time opportunity that has presented itself, along with the ongoing issues and concerns with the existing CAD system, and the efficiencies that will be gained due to the timing of the related project, staff are highly recommending that the existing CAD system be replaced in conjunction with the work that is currently underway with the related project.

The existing CAD system that Burlington operates to provide fire dispatch services was implemented in 2009 (reference BFD-02-09). There are some issues and concerns with the current CAD system's functionality that has a ripple effect on the emergency response process. Due to the ongoing issues and concerns, \$2M was included in the capital forecast for the replacement of the existing CAD system.

If the CAD system is not replaced as part of the related project this one-time opportunity will be missed. It would also equate to key functional needs of stakeholders either being further delayed or no longer provided due to current limitations or missing system functionality. In addition, a delay in CAD replacement will require staff to mitigate risks

for another 18 to 24 months until a new CAD system is ready for use, sometime in 2020 – 2021 (pending budget approvals).

### **Strategy/process**

A significant amount of work was completed prior to making this recommendation. Staff conducted a complete needs assessment of key stakeholders, this included current gaps and risks, future needs, CRTC (NG9-1-1) legislative requirements, and NFPA performance objectives. In addition, a workshop was conducted in 2017 with end-users to identify the key functional requirements that they require in a CAD system. The CAD system being recommended in this report provides all the key functionality that was identified and the proposed vendor has confirmed that they are also NG9-1-1 ready.

In addition, the CAD system being recommended includes a mobile CAD solution (in vehicle software). This mobile CAD solution will provide firefighters with increased access to information and will provide the fire dispatch centre with displayed live vehicle locations. This is instrumental in determining the fire apparatus that are closest to an incident and supports improvements in emergency response times. Closest unit to an incident location is a functional requirement that a key stakeholder has desired to implement since 2015; however, is not achievable with the existing CAD system.

The proposed CAD system that is being recommended also provides for a volunteer firefighter responder application. This application dispatches volunteer resources and then allows the volunteer firefighter to notify if they are or aren't responding. This in-turn allows fire dispatch to know who is responding to an incident, the number of volunteer firefighters that are responding and the estimated time of arrival (ETA) to an incident.

Furthermore, to ensure that the proposed CAD vendor and its system is a credible option, an environmental scan was conducted with other fire departments that currently use this CAD system. This included a site visit to a fire department that provides fire dispatch services for more than 20 fire departments and also a reference check with other fire departments. The reference check included questions about system functionality, system customization, ease of use, vendor support and overall satisfaction to mention a few. The overall feedback was extremely positive. Another consideration that was influential in staff making this recommendation is that the majority of these fire departments have been using the proposed CAD system for 10 or more years, and have no desire to change due to their overall satisfaction with the product.

### **Options considered**

Reference confidential Appendix A.

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## **Financial Matters:**

The total cost to implement the recommended CAD system is \$540K, excluding applicable taxes.

To fund this project staff are recommending advancing the City of Burlington's portion of the project cost to 2018 funded from the fire Vehicle Depreciation Reserve Fund (VDRF). The net cost to the City of Burlington is \$270K. The fire VDRF is in a healthy position to fund this request and has a current balance of \$1.5M (Dec. 31, 2017).

The replacement of the CAD system is currently identified in the 2019 capital forecast at \$2M, with a net cost of \$1M for the City of Burlington's portion. This amount is based on past vendor provided cost estimates for the replacement of a CAD system.

Staff will reevaluate their needs and adjust the 2019 capital budget requirement as part of the 2019 capital budget process.

Cost recovery for this project will be provided by key stakeholders. A capital project will be established in SAP to outline the total project cost and associated cost recovery. Cost recovery will be billed back to key stakeholders when the project is completed, which is past practice for capital project cost recovery.

The operating impacts for this recommendation are accommodated under computer support and maintenance in the existing operating budget.

## **Procurement**

This opportunity is an option due to an existing vendor contract that was awarded through a full RFP process that Burlington can leverage. A full competitive process was conducted to award the RFP.

## **Source of Funding**

Fire VDRF and cost recovery.

## **Other Resource Impacts**

- Legal
- Information Technology

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## **Connections:**

All key stakeholders have been consulted and support this recommendation to replace the existing CAD system earlier than planned.

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## **Public Engagement Matters:**

Not applicable.

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## **Conclusion:**

Due to the issues and concerns with the existing CAD system and the opportunity that has presented itself with another related project, staff are recommending that council authorize the Fire Chief to replace the CAD system being used in Burlington sooner than was previously planned.

As outlined, there are many benefits that will be realized by replacing the CAD system at this time; including time and cost efficiencies, support of NFPA performance measures, eliminates current issues and concerns, provides NG9-1-1 readiness, delivers an enhanced CAD solution and supports improved emergency response capabilities.

Staff are highly recommending council approve the recommendations outlined in this report.

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Respectfully submitted,

Dawn Jarvis / Alex Panicker

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## **Appendices:**

A. Confidential appendix

## **Report Approval:**

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.