Executive Summary

An innovative project that installed Mobile Data Terminals (MDT) into front line, first responding apparatus to give responding firefighters access to the Mobile for Public Safety system (MPS). The MPS system includes real time access to the Computer Aided Dispatch (CAD) software that provides critical dispatch data from 911 Fire / Police Communications, Tactical pre-Incident plan information from our records management system (Firehouse), Occupancy Risk data (C.O.R.E. Tool), GroupWise email (CGS), GPS location data, and relevant Internet access. Fire Services utilizes MDT's to provide instant updates between Fire 911 Dispatch and responders through a cellular link that is off air (off digital radio), secure, and rapid. MDT units provide the CAD system with Fire apparatus GPS location data for closest unit responses to emergencies and give the user an ability to monitor the exact location of other responding units thus determining arrival times and beginning the building blocks of determining number of first responders available (through future Fire Services Mobile Responder plans). Further, MDT's allow real time data entry into Firehouse when fire crews are performing Tactical Preplans, Fire Safety Walk-through's, and Fire Education site visits.

Background

Greater Sudbury Police Services currently manages Fire Dispatch using a state of the art Computer Aided Dispatch (CAD) system called Hexagon CAD. This CAD uses a sophisticated network of computer hardware and software that also supports Police Service's own Mobile Data Terminal solution, Mobile for Public Safety (MPS). In order to utilize the CAD system and leverage its extensive capabilities, Fire Services manages it's MDT / MPS project with our partners in Policing Services who, in turn, own and manage the CAD. The Greater Sudbury Police Service's Information Technology department is responsible to work with Fire Services during any implementation, service, or support of this mobile software and ensures the current Police network can support the addition of any additional Fire Services MDT installs.

Fire Services has initially installed thirteen Mobile Data Terminals on strategically selected fire apparatus that exercise the functions and features of the system based on call volume. Each MDT is equipped with cellular data access through the CGS corporate cellular data plan, managed by the CGS Information Technology department.

Hexagon Safety and Infrastructure along with both the Greater Sudbury Police and Greater Sudbury Information Technology Departments have ensured the Mobile for Public Safety (MPS) software solution allows all functions and features described above to operate on the MDT in a safe and secure mobile environment.

Analysis

Working with Hexagon Safety and Infrastructure, the Greater Sudbury Police Information Technology department, and the City of Greater Sudbury Information Technology department, MPS software and hardware that runs the system in each apparatus has been prepared and the MDT units are configured for use under established corporate and departmental policies.

Hexagon Safety and Infrastructure provided training on MPS to Fire Services personnel in addition to providing MPS customization tools. The MPS software has been setup to Fire Services custom needs and circumstance based on input from administration and suppression staff during field testing.

Thirteen (13) Mobile Data Terminals (MDT) having the Mobile for Public Safety (MPS) software are installed into six front line fire units (Engine 1 – Main Station, Engine 2 – Minnow Lake, Engine 3 – New Sudbury, Engine 4 – Long Lake, Engine 16 – Val Caron, Ladder 1 – Main Station), the Platoon Chief unit, the Fire Chief unit, the Assistant Deputy units (ADC 1 – Jesse Oshell, ADC 2 – Brian Morrison), two Volunteer units (Engine 11 – Chelmsford, Engine 20 – Garson), and one spare/test unit. The MDT / MPS system is continuously being evaluated and monitored for accurate GPS location data reported in CAD, the data transfer time between MDT and CAD, cellular strength and availability across the geographic response area, and chute / response time comparisons (pre and post implementation of MPS).

Financial Implications

Greater Sudbury Police Services currently assumes financial responsibility for all Computer Aided Dispatch hardware, software, and upgrades. Fire Services is solely responsible for the initial MPS server software and licensing, initial MDT hardware, annual MPS licensing, and annual cellular data.

A capital request for implementation of the MDT system in the remaining fifteen (15) Volunteer first responding units will be presented as part of the 2020 Budget Process. This report is for information only there are no financial implications.

Future Development

The success the MPS system has demonstrated now drives a desire for additional Mobile Data Terminals (MDT's) having the Mobile for Public Safety (MPS) software to be installed into the remaining fifteen (15) Volunteer first responding units. (Pumper 5 – Copper Cliff, Pumper 7 – Lively, Engine 8 – Whitefish,

Pumper 9 – Beaver Lake, Engine 10 – Azilda, Engine 12 – Dowling, Pumper 13 – Vermillion, Pumper 14 – Levack, Pumper 15 – Val Caron, Pumper 17 – Hanmer, Engine 18 – Capreol, Pumper 21 – Falconbridge, Pumper 22 – Skead, Pumper 23 – Coniston, Engine 24 – Wahnapitae) Once installed the MDT / MPS systems would then be monitored and utilized in the same manner as existing units with continued positive outcomes expected.

Conclusion

The operation of the current MDT / MPS systems has been successful and now allow Fire Services access to real time data placed in the hands of first responders who can perform their duties more effectively and safely. Further, the system as implemented is designed to also allow for rapid and flexible expansion of MDT units into additional apparatus as required.

The MDT / MPS systems aide in decreasing response times, increasing meaningful pre-incident plan information to responding crews, and allow for a safer work environment for all firefighters. It additionally has been successful in GPS tracking of apparatus in the CAD system which assists in deployment considerations / responding resource allocations and it continuously provides vital incident details in a rapid manner to any responders using the system.

This continued success of the MDT / MPS systems are one of the factors in leading better response times, increased firefighter safety, and better overall outcomes at fire incidents.