Fire Services Dispatch and Enhancements

Background

Greater Sudbury Police Services provides 911 call taking, Computer Aided Dispatch (CAD), and Harris P25 voice radio and pager communications to Greater Sudbury Fire Services as a single source provider. An annual allocation is forwarded to the Greater Sudbury Police Service as a normative process for these services in the amount of $190,000. Fire Services utilizes dispatch as not only an integral part of the incident response process for public safety but for employee safety during both emergency and non-emergency incidents. Greater Sudbury Police Services and Greater Sudbury Fire Services are currently working towards a service level agreement related to dispatch that will specifically outline the delivery of these services.

Fire Services staff are recommending continuation of the single sourcing of dispatch services from the Greater Sudbury Police Service as they provide sophisticated and modern CAD technology, data security and privacy sensitivity, maintained minimum staffing levels in the Police Communications Center, and allow for a seamless model of fire dispatching across the entire geography of Greater Sudbury.

Greater Sudbury Police Services (GSPS) currently manages fire dispatch using a state of the art computer aided dispatch (CAD) system provided by Hexagon Safety and Infrastructure. This system 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 will be managing the MDT / MPS project while working with our partners in Police Services who own and manage the CAD. Greater Sudbury Police Services' Information Technology department will be responsible for working with Hexagon Safety and Infrastructure and Fire Services during the implementation of this mobile software into the current police network in order to support the addition of Fire Services MDT / MPS installs.

Fire Services has acquired, through current approved budgets and using the approved CGS purchasing policy, eight Mobile Data Terminals (Panasonic FZ-G1 Tablets) and have installed them in identified fire vehicles for Phase 1 of the project. Each MDT is equipped with cellular data access through the CGS corporate cellular data plan, managed by the CGS Information Technology department, with all usage billed to Fire Services.

Hexagon Safety and Infrastructure, along with Greater Sudbury Police Services and Greater Sudbury Information Technology Departments, will provide the Mobile for Public Safety (MPS) software solution that will allow all functions and features described above to operate on the MDT in a safe and secure mobile environment. Hexagon Safety and

Infrastructure outlines the eleven deliverables to be completed for this portion of the project, which is estimated to require six months from the anticipated start date of July 1, 2017.

Analysis

Year One – Phase One

As outlined by Hexagon, server software and hardware will run the MPS system in each identified fire vehicle. It will be implemented and tested using the current computer aided dispatch environment at Police Services HQ. Fire Services current has funding allocation in approved budgets for phase one of the project.

CGS IT department will prepare the MDT units for use under established department policies and procedures.

Once CGS IT, Police Services IT and Hexagon have completed these tasks and all deliverables for this phase have been accomplished, this phase of the project will be complete.

Hexagon Safety and Infrastructure will provide one full day training session on MPS to eight Fire Services personnel in addition to two and one half days of MPS customization sessions. MPS will be setup to Fire Services custom needs and circumstance based on input from administration and suppression staff.

Eight (8) Mobile Data Terminals (MDT), having the Mobile for Public Safety (MPS) software, will be installed:

Engine 1 – Main Station	Engine 4 – Long Lake	Platoon Chief vehicle
Engine 2 – Minnow Lake	Engine 16 – Val Therese	Assistant Deputy vehicle
Engine 3 – New Sudbury	Engine – Volunteer Station	

The MDT / MPS system will then be tested on the following eight key performance indicators (KPI's);

1. Accurate GPS location data reported in the CAD
2. Incident data transfer between unit and dispatch
3. Ability to self en-route / arrive / clear to each incident
4. Tactical Preplan availability while en-route
5. Accurate Fire apparatus listing and reporting on the mapping layer

6. Off air communication between unit and dispatch
7. Cellular signal strength and availability across response area and CGS geography
8. Reaction and Response time comparisons pre and post MPS installation

These key performance indicators will be measured daily and reported on monthly to Fire Administration to gauge the effectiveness and operational abilities of the system. The generated reports will also be shared with staff in order to develop further training or create new opportunities to utilize the MPS system.

Hexagon will not deem the project complete until Fire Services achieves satisfactory results for the eight KPI's and the Greater Sudbury Police Information Technology department agrees all testing criteria and the eleven deliverables identified by Hexagon have been met.

Year One – Phase Two

Hexagon is including a complimentary 90-day software test license for Hexagon Mobile Responder (MR). MR is a cellular-based notification and responder tool that would be used by volunteer firefighters, and is a prospective substitute for the current paging system. This tool works with the CAD and MPS systems in harmony to provide two way location-based dispatch and incident notification.

There is no requirement to continue the evaluation or purchase the product after the 90 day period nor does it add any subsequent costs or time to the project. Taking advantage of this complimentary license will allow Fire Services to test a new technology for incident notification which will be reported on in a future Mobile Responder Plan report.

Year Two – Phase One

Contingent on success of the system, the budgetary constraints for implementation and maintenance costs, additional units will be installed into front line, first responding fire vehicles in the remaining stations with the highest call volumes.

Year Two – Phase Two

Contingent on success of the system, the budgetary constraints for implementation and maintenance costs, the units will be installed in the remaining stations, first responding vehicles in the volunteer response areas. The MDT / MPS systems will then be tested on

the eight identified key performance indicators (KPI's) and added to the daily and monthly reporting structure.

Conclusion

Continued single sourcing of fire dispatch services through Greater Sudbury Police Services will strengthen our service delivery and aid in providing a high level of satisfaction with all stakeholders.

Additionally, successful completion of the MDT / MPS project will provide Fire Services access to real time data that is placed in the hands of first responders allowing them to more effectively and safely perform their duties, and thus protect the safety of residents and businesses in the community. This project will also allow for the expansion of MDT systems into additional vehicles, such as administration, prevention or training apparatus with integrated key performance indicators for utilization.

The MPS project will allow for greater communication between 911 Fire Dispatch and responders, between different responding vehicles, between volunteer firefighters and the on-route units, and between the on duty Platoon Chief and the entire front line fleet.

These technological advancements will aide in decreasing response times, increasing meaningful information to responding crews and allow for a safer work environment for all firefighters.

The success of this project may lead to future implementation of additional MDT units in other Fire Service vehicles as an expansion to the overall system.