
HALDIMAND COUNTY

Report EMS-02-2020 AVL/GPS Provider Change

For Consideration by Council in Committee on September 15, 2020



OBJECTIVE:

To obtain approval for the re-purchase, installation and operating costs associated with Automatic Vehicle Locator/Global Positioning System (AVL/GPS) for all County owned ambulances and emergency response units due to our current vendor no longer offering this service, as of December 31, 2020.

RECOMMENDATIONS:

1. THAT Report EMS-02-2020 AVL/GPS Provider Change be received;
2. AND THAT the one time start-up capital costs associated with the purchase of new hardware to outfit 7 ambulances, and 2 emergency response units be approved;
3. AND THAT the ongoing operational costs associated with the AVL/GPS system moving forward to be able to meet service requirements be approved;
4. AND THAT the capital budget amendments as outlined in Report EMS-02-2020 be approved.

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Approved: Craig Manley, MCIP, RPP, Chief Administrative Officer

EXECUTIVE SUMMARY:

In October 2004, in order to meet Provincial reporting requirements, Haldimand County Council approved the purchase of equipment and operating costs associated with the implementation of Automatic Vehicle Locator/Global Positioning Systems (AVL/GPS). Since 2004, our current provider has been sold and re-purchased by numerous vendors, and recently, Haldimand County Paramedic Services was notified by our current vendor that all Emergency Services (EMS) in the province of Ontario currently using this product will have their agreements terminated no later than December 31, 2020. Based on this, a new provider must be secured and new equipment must be purchased in order to continue with this necessary service support in the County's EMS.

BACKGROUND:

Since 2004, most ambulance services in the province of Ontario implemented Automatic Vehicle Locator/Global Positioning Systems to their fleet of ambulances and emergency response vehicles. The initiative allowed for vehicle tracking, quality assurance, vehicle performance reporting, and has improved dramatically over the years for ambulance operations.

AVL/GPS is a key asset for Paramedic Services in the province of Ontario. It allows for live up-to-date information to be accessed by Service Providers as well as Ambulance Dispatch Centres in order to track ambulances, assisting Deputy Chiefs and Ambulance Dispatch with ambulance utilization, and ensuring ambulances are using the most direct route to ambulance calls. Supervisors also use the tracking information for ensuring correct speeds as per the *Highway Traffic Act* (HTA), internal policies are being followed during emergency responses, as well as the use of emergency warning systems at the time of the call. The vehicle tracking is also important if a paramedic crew is in danger and requires police assistance, and are unable to communicate, and only activation of their emergency alarm is available. The supervisor as well as our dispatch center will be able to provide the most current location to responding officers.

As per the Ministry of Health's (MOH) mandatory requirements of an ambulance service in the province of Ontario, each Service Provider is required to have a Quality Assurance Program, which includes the review of response times, routes to calls and destinations, speeds, use of emergency warning systems, and vehicle history for both Ambulances and Emergency Response Vehicles. Historically, we have only had our 7 ambulances outfitted with the AVL/GPS hardware and software, however, due to mandated reporting for all service vehicles, including Emergency Response Vehicles (ERV), we will require 2 additional systems in order to meet our full requirements. AVL/GPS is the tool that allows EMS to meet these requirements. If Haldimand County could not provide this information, then we would not meet the mandatory requirements of the MOH. The AVL/GPS data is also instrumental in investigating accidents that involve Haldimand County Ambulances. All quality assurance aspects allow the Deputy's to work with the paramedics to improve the overall delivery of the service.

AVL/GPS can also assist with Fleet tracking. Maintenance schedules can be inputted to automatically notify the Deputy Chief in charge of Emergency Fleet when to book the ambulance in for maintenance. It can also be used to determine if ambulances are being overdriven by paramedics, e.g. hard braking, steering, which will assist in maintaining ambulances in working order.

With the increase in technology, Wi-Fi is also available which is a benefit with mapping, and the ability for paramedics to complete the necessary paperwork on scene, where currently they must return to base to complete. In many cases crews cannot return to base until the end of shift, due to call volume and therefore, overtime costs could increase depending on the amount of paperwork required to be completed and uploaded to the network at the end of the day.

This original initiative was funded 50/50 by the Ministry of Health Emergency Services Branch, (MOHESB) for the purchase of all hardware associated, as well as operating costs moving forward. Since 2004, operating costs are continued to be paid by both the municipality and the MOHESB as per the grant agreement for operational funding. All capital costs to replace equipment are the municipality's responsibility. These costs range from \$8,110 to \$51,365 (including annual operating costs) depending on the vendor.

In February of this year, Haldimand County Paramedic Services was contacted by our current vendor BSM that they have been purchased by a sister company Geo Tab, and their services could be affected due to re-alignment of company priorities. In effect, the service provided relating to the AVL/GPS would be impacted and the County should begin assessing alternative providers to ensure seamless delivery and supports. Although a final date has yet to be determined, we were notified by e-mail on June 19, 2020 that Geo Tab will cease to offer services to Ambulance Operators before the end of 2020. They can no longer meet the needs of their clients and will no longer be offering their interface to the dispatch centres which dispatch ambulance services throughout the province.

Due to this communication, Haldimand County Paramedic Services has been actively seeking new vendors to provide AVL/GPS services. The existing hardware is outdated and cannot support the programs of the existing vendors in the Province and thus, a full package must be purchased, i.e. the hardware and the service.

ANALYSIS:

Currently, Haldimand County Paramedic Services uses BSM/Geo Tab for the delivery of their AVL/GPS purposes. As noted in the Background section, this company has been purchased and will no longer be offering this service. Based on this, and the necessity for the service in EMS, a new vendor must be secured. An assessment of the available vendors in Ontario is included in the tables that follow along with a recommendation for a preferred vendor. As a starting point, the County's current costs (with BSM/Geo Tab) are provided immediately below to offer a comparison of current and new requirements. Of note, Haldimand County currently does not own the hardware and is part of the current costs, as we rent the hardware. New hardware must be purchased in connection with the service of the preferred vendor to ensure it can be supported in the County's EMS fleet. Costs for our current monthly services (not including applicable taxes) are as follows:

| Item | Amount Per Vehicle | Current Number of Vehicles Serviced | Total Cost |
|----------------------|--------------------|-------------------------------------|-----------------|
| | | | |
| Vehicle monitoring | \$2.00 | 7 | \$14.00 |
| 10mb Portal Usage | \$10.00 | 7 | \$70.00 |
| Fleet Management | \$27.95 | 7 | \$195.65 |
| Monthly Total | \$39.95 | 7 | \$279.65 |

Currently, there are 3 other vendors used by Paramedic Services in the province of Ontario, below outlines the options presented by Sky Hawk, PRAN and Acetech.

Option 1 - Sky Hawk: Is currently used by Hamilton, Chatham/Kent, Perth, Bruce and Waterloo. Reports are customizable, many programs offered by other vendors are still in development and there is no date for implementation. Odometer readings are not reliable and no Wi-Fi availability. This vendor does not provide vehicle diagnostic information, which our current vendor does. This vendor does not meet the needs of Haldimand County Paramedic Services as many of our current options are not offered by this vendor. This would lead to issues for the service in meeting its MOH reporting obligations. Start up costs as well as monthly charges (not including applicable taxes) for a 36 month lease are referenced below:

| Item | Amount Per Vehicle | Revised Number of Vehicles | Total Cost |
|---|--------------------|----------------------------|----------------|
| AVL Module, Harness (Ambulances) | \$580.00 | 7 | \$4,060 |
| AVL Module, Harness (Emergency Response Vehicles) | \$595.00 | 2 | \$1,190 |
| System Install | \$277.78 | 9 | \$2,500 |
| Removal of existing AVL equipment | No Charge | | \$0.00 |
| Total Start up Costs | | | \$7,750 |

| Item | Amount Per Vehicle | Revised Number of Vehicles | Total Cost |
|-------------------------------------|--------------------|----------------------------|-----------------|
| Vehicle Monitoring | \$22.50 | 9 | \$202.50 |
| Install | \$7.72 | 9 | \$69.48 |
| Hardware (Ambulances) | \$9.67 | 7 | \$67.69 |
| Hardware (FRV's) | \$9.92 | 2 | \$19.84 |
| Total Monthly Operating Cost | | | \$359.51 |

Option 2 - PRAN: is currently used by York, Huron, Prescott/Russel, and Durham. Reports are customizable, clear mapping. System is same computer hardware installed in current ambulances and emergency response vehicles, so integration is just “plug and play”. Would be part of the regular vehicle replacement costs, therefore newest ambulances would have the newest technology. Other features are full diagnostics, Wi-Fi availability and flexibility with provider, meaning County can provide SIM card if a better plan is available. Current relationship with vendor and their knowledge of our fleet also exists and there is easy access to technical support. Maintenance is provided from Brampton and there is full vehicle system reports and monitoring. This system will allow the service to meet its MOH reporting obligations in full. Start up costs as well as monthly charges (not including applicable taxes) are referenced below:

| Item | Amount Per Vehicle | Revised Number of Vehicles | Total Cost |
|-----------------------------------|--------------------|----------------------------|--------------------|
| AVL Module, Harness | \$2,110.00 | 9 | \$18,990.00 |
| Modem with Wi-Fi | \$795.00 | 9 | \$7,155.00 |
| System Install | \$749.00 | 9 | \$6,741.00 |
| One Time Setup Fee | N/A | N/A | \$2,000.00 |
| CADLink Cable/Install | \$190.00 | 9 | \$1,710.00 |
| Removal of existing AVL equipment | No Charge | | \$0.00 |
| Total Start up Cost | | | \$36,596.00 |

| Item | Amount Per Vehicle | Revised Number of Vehicles | Total Cost |
|---|--------------------|----------------------------|-----------------|
| AVL Site Access | \$25.00 | 9 | \$225.00 |
| SIM Card with Data 1GB (Average for other services is between 2-5GB) | \$27.50 | 9 | \$247.50 |
| Additional Data/GB/Fleet | | | \$10.00/GB |
| Total Monthly Operating Cost | | | \$482.50 |

Option 3 - Acetech: Is currently used by Cornwall, Muskoka, Essex-Windsor, Niagara, Parry Sound, Kawartha Lakes, Norfolk, and Ornge (Ontario's air ambulance services). Strong Emergency Service customer base in Ontario and Worldwide. The service produces good reports and there are many variations available. This vendor offers many of the features that PRAN offers in regards to reports and data, however, has multiple other options and technologies available that would not meet our needs,

and therefore increased costs. Start up costs and monthly charges (not including applicable taxes) are referenced below:

| Item | Amount Per Vehicle | Revised Number of Vehicles | Total Cost |
|-----------------------------------|----------------------------------|----------------------------|--------------------|
| AVL Module, Antenna, Harness | \$2,500.00 | 9 | \$22,500.00 |
| Installation (+ Travel) | \$350.00 | 9 | \$3,150.00 |
| Wi-Fi Hardware | \$2,200.00 | 9 | \$19,800.00 |
| Installation | \$200.00 | 9 | \$1,800.00 |
| Removal of existing AVL equipment | \$125 | 7 | \$875.00 |
| CADLink cable and Activation | \$175.00 | 9 | \$1575.00 |
| Install of cable | \$95.00 | 9 | \$855.00 |
| Total start up cost | With Wi-Fi (with CADLink) | | \$50,555.00 |

| Item | Amount Per Vehicle | Revised Number of Vehicles | Total Cost |
|-------------------------------------|------------------------------|----------------------------|-----------------|
| Vehicle monitoring | \$60.00 | 9 | \$540.00 |
| Wi-Fi if equipped | \$30.00 and up pending usage | 9 | \$270.00 |
| Total Monthly Operating Cost | | | \$810.00 |

Following a review of all options, staff believe that Option 2, as offered by PRAN, would best meet the requirements and needs of our service. It is an affordable option and the technology is the same as the current systems in our ambulances. Going forward, it would also be beneficial with the changing technology we are seeing with ambulance manufacturers today and into the future. Lastly, it allows Haldimand County EMS to meet its reporting obligations of the Ministry of Health.

FINANCIAL/LEGAL IMPLICATIONS:

For the above noted reasons, staff propose that a new capital project for the one time start up costs for the purchase of Hardware, and Installation be approved. The new project will require an amendment to the 2020 Tax Capital Approved budget, in the amount of \$37,300 (Including non-rebateable HST), to be funded from CRR General.

| | Current Approved Budget | Revised Budget |
|--|-------------------------|-----------------|
| Expenditures: | | |
| New Capital Project – Purchase of Hardware and Installation of new AVL/GPS | \$0 | \$37,300 |
| Total Expenditures | | \$37,300 |
| Financing: | | |
| CRR - General | \$0 | \$37,300 |
| Total Financing | | \$37,300 |

As outlined in option 2, there will be an increase in the monthly operating costs, leading to a negative variance within the contracted services line for the Paramedic Services Administration cost centre for 2020. A revision will be reflected in the 2021 Tax Supported Operating budget increasing the current budget of \$3,500 by \$2,400 to a total of \$5,900 (including non-rebateable HST). Since the date for the new provider has not yet been determined, the final 2020 operating cost is unknown at this time, but the variance is expected to be minor. The subsidy received from the Ministry of Health although 50/50 it is based on a one year delay, therefore, given the timing, there would be no additional subsidy for the 2021 operating costs, leaving the Net Levy impact for 2021 as \$2,400.

STAKEHOLDER IMPACTS:

Not applicable.

REPORT IMPACTS:

Agreement: No

By-law: No

Budget Amendment: Yes

Policy: No

ATTACHMENTS:

1. None.