



**CITY OF HAMILTON**  
**COMMUNITY AND EMERGENCY SERVICES DEPARTMENT**  
**Hamilton Paramedic Service**

<b>TO:</b>	Chair and Members Emergency & Community Services Committee
<b>COMMITTEE DATE:</b>	December 12, 2016
<b>SUBJECT/REPORT NO:</b>	Electronic Ambulance Call Reporting System for Paramedic Service Standardization/Agreement Approval (CES16057) (City Wide)
<b>WARD(S) AFFECTED:</b>	City Wide
<b>PREPARED BY:</b>	Ben Roth 905-546-2424 ext. 7743
<b>SUBMITTED BY:</b>	Michael Sanderson Chief, Hamilton Paramedic Service Community & Emergency Services Department
<b>SIGNATURE:</b>	

**RECOMMENDATION**

- (a) That the Interdev Technologies Inc. (Interdev) “iMEDIC” Electronic Ambulance Call Reporting System program (iMEDIC) be designated a standardized product pursuant to City Procurement Policy, Section 4.14, Policy # 14 Standardization, with this designation to be reviewed in 2021;
- (b) That the iMEDIC program and its associated products including new modules if any, as well as support and professional services be procured on a single-source basis from Interdev for a five (5) year time period extending through to December 31, 2021; and,
- (c) That the Chief of the Hamilton Paramedic Service (HPS), or his designate, be authorized and directed to enter into and sign, on behalf of the City of Hamilton, all negotiated agreements and all necessary associated documents with Interdev, with content acceptable to the General Manager of Community and Emergency Services, and in a form satisfactory to the City Solicitor for the iMEDIC program and its associated products including new modules if any, as well as support and professional services, subject to Procurement Policy, Section 4.2, Policy # 2 Approval Authority.

**EXECUTIVE SUMMARY**

The Electronic Ambulance Call Reporting System for Emergency Medical Services Standardization/Agreement Approval Report CES14016 previously approved by Council on June 11, 2014 designated the iMEDIC system as a standardized product, with the

designation to be reviewed at the end of term of any new agreement; and authorized the General Manager of Community and Emergency Services to negotiate a single-source agreement with Interdev for provision of the iMEDIC program and associated products, support and professional services through the end of 2016.

Ambulance call reporting is a legislated requirement under Ontario Regulation 257/00 and is governed by the Ontario Ambulance Documentation Standards. Legislation permits reports to be written or electronic, but electronic ambulance call reporting (eACR) facilitates data capture and aggregation for use in trends analysis and business process improvement, and more than 90% of Ontario Paramedic Services now use and benefit from eACR.

iMEDIC, the Interdev trade name for its eACR program, is a proprietary, specialized electronic medical record software application used by the HPS and most other Ontario services which use electronic call reporting. iMEDIC was obtained from Interdev in 2009 through a competitive process (RFP C3-02-09), with the resulting contract having been subsequently renewed through the end of December, 2016.

While two other vendors offer electronic medical record systems for ambulance services in Ontario, a substantial majority of Ontario services have found iMEDIC to be superior, offering tools, functionality and features that are not available from the alternative products. After initial implementation, Interdev has worked collaboratively and diligently with the HPS and others to further enhance iMEDIC capabilities. The Service has made a significant investment in iMEDIC software, staff training and procedures development and realized significant benefit from data analysis using program tools. Change to an alternative program would negate the investment already made in iMEDIC, would incur significant cost for staff retraining and procedural changes, and result in the loss of the capability to easily analyse multiple years of data collected on a common system using a known process.

To support improvements in operational effectiveness, enable product improvement and facilitate the potential integration of future capability enhancements, it is recommended that iMEDIC continue to be designated a "Standard" system pursuant to Procurement Policy #14 for the duration of any contract term. As the iMEDIC product can only be obtained from Interdev, standardization will result in single-source purchase, and single-source procurement approval is therefore also recommended.

As iMEDIC is a mature, proven system, renewed approval for a five (5) year time period is recommended, with the designation to be reviewed in 2021. A longer term contract will enable any required changes, modifications or enhancements to maintenance and support arrangements to be made within the scope of the established contract, subject

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to established budget allocations. Acquisition of new modules or new or additional licenses will continue to require approval pursuant to Procurement Policy.

***Alternatives for Consideration – See Page 5***

## **FINANCIAL – STAFFING – LEGAL IMPLICATIONS**

Financial: The contract costing structure is complex, with costs for various functional products being based on the quantity of computers in use, the number of full-time equivalent (FTS) users, the quantity and value of licenses in use or other factors. Total annual contract cost per year for each of 2014 and 2015 was \$ 112,848, and for 2016 is \$120,484. The 2016 cost is higher because it includes additional licensing and support costs for systems acquired as part of the 2015 Council-approved enhancement of additional staffed ambulances.

Future costs cannot be determined until approval is granted to negotiate new contract pricing with Interdev. Based on recent pricing negotiated with a comparable municipal Paramedic Service for 2017 however, an increase year over year of about 3% annually can be expected. Past experience would indicate that this increase is reasonable, given the consistent delivery of value-added improvements to the product.

Funding for the iMEDIC program, including the anticipated cost changes, is included in the annual Paramedic Service operating budget.

Staffing: There are no staffing implications associated with Report CES16057.

Legal: Ambulance call reporting is a legislated requirement under Ontario Regulation 257/00 and is governed by the Ontario Ambulance Documentation Standards. Any new agreement with Interdev will be in a form satisfactory to the City Solicitor.

## **HISTORICAL BACKGROUND**

Faced with ever-increasing call volume and a need for automated record keeping and data management support, the HPS allocated funding through project CAP-7640951101 for a Request for Proposals (RFP) for an “Electronic Ambulance Call Reporting (eACR) Solution” to be issued in 2009. The successful proponent, Interdev, was awarded Contract C3-02-09 to “supply, install and configure a fully functional solution for eACR mobile and fixed workstation data entry, database design and implementation and reporting, and be able to support future CAD integration and future hospital integration”. The initial contract was for a five-year period, ending in December 2014.

Various changes were made to contracted services between 2010 and 2014, including acquisition of new modules, transfer of the application to new ruggedized computers

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and a change to vendor-hosting rather than having the application and data residing on (or being “hosted” by) City servers. On June 11, 2014, Council approved standardization and negotiation of a new single-source agreement with Interdev through the end of 2016 (Report CES14016) which included full detail on all changes prior to 2014.

Transition from paper reports to the electronic system occurred over several years, being fully completed in 2015, and the benefits of the automated system are now being realized. Some of these include:

#### Ambulance Call Reporting (ACR) Documentation Quality Review

Report detail and accuracy is very important because the ACR is used by hospital staff in performing preliminary patient diagnosis. Handwritten reports are challenging to read and occasionally lack detail, and the 2013 MOHLTC Ambulance Service Review Team review of HPS manual reports specifically noted that “Documentation of ACRs ... did not meet legislated standards.” The iMEDIC program incorporates automated edits and tools to assist paramedics in completing documentation, and this year the Ambulance Service Review Team stated “From the two hundred and sixty-six ACRs reviewed by the review team, the Service Provider captured 14,920 of 15,853 possible data points, or 94.1% of the Ambulance Call Report information requirements. The Service Provider is to be commended for this documental observation.”

#### Data Analysis for High User Identification - Community Paramedicine

Analysis of eACR using iMEDIC tools enabled the Service to identify more than 2,000 patients who had called for an ambulance more frequently than four times per year. Working within the “Circle of Care”, Community Paramedics used this information to assist willing participants from this group to find alternatives to emergency ambulance transport, and several patients have never called for paramedic services again, thereby eliminating unnecessary calls.

#### Data Support for Decision Making

In the past, staff were required to prepare custom query programs to extract information from available fragmentary historical data, but now the iMEDIC program offers instant access to real-time data (including non-confidential consolidated data from all iMEDIC users), numerous standard electronic reports and a variety of powerful analysis and decision support tools. Data from iMEDIC has been used to inform decisions on the positioning of ambulances to optimize response times, to select specific clinical protocols for emphasis during refresher training and to provide quality feedback to paramedics regarding the treatment provided to patients suffering sudden cardiac arrest. Council too has realized direct benefit, with the recommendations in Epinephrine Auto Injectors on Hamilton Fire Apparatus (Report CES16019/BOH16029), being based in part on iMEDIC data analysis.

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## **POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS**

Call reporting is a legislated requirement under Ontario Regulation 257/00 and is governed by the Ontario Ambulance Documentation Standards. Legislation allows reports to be written or electronic, but electronic ambulance call reporting facilitates data capture and aggregation for use in trends analysis and process improvement, with significant benefit to the Service.

Except for the \$1,200 annual cost for aggregation and download of Ministry Ambulance Dispatch Reporting System (ADRS) data, all services provided by Interdev are “Maintenance fees for software and computer hardware for information systems previously acquired” and are therefore exempt from the Procurement policy pursuant to Schedule B, (6) (b). As the system is costly and alternatives exist however, periodic review is warranted; so standardization and single-source approval is sought prior to the commencement of each contract term.

## **RELEVANT CONSULTATION**

**Corporate Services, Procurement Section** – Consultation with Procurement staff regarding the interpretation and application of Procurement policy.

**Corporate Services, Finance** – Consultation with Finance to verify financial information.

## **ANALYSIS AND RATIONALE FOR RECOMMENDATION**

The advantages of designating iMEDIC as a “Standard” system obtained on a single-source basis from Interdev include continuity of a proven capability, facilitation of ongoing and future integration with other systems and the ability to leverage the significant investment already made in software, hardware, procedures development and training.

While two other vendors offer electronic medical record systems for ambulance services in Ontario, the Hamilton Paramedic Service and the majority of Ontario services (44 out of 59 in 2015) have found iMEDIC to be superior, and selected it through open competition in preference to other systems. Conversion to an alternative system would forego the investment already made in iMEDIC and incur costs for new training, development of operational procedures and integration with other systems.

## **ALTERNATIVES FOR CONSIDERATION**

The alternative to the recommended approach is to conduct a new competitive process for the Electronic Ambulance Call Reporting System.

**Pros:**

The advantage to this approach is that it would confirm that the selected vendor is indeed offering an acceptable product at the best price, with no difference in staffing or legal considerations.

**Cons:**

There are currently only three vendors offering a suitable system within the Ontario market. This is a specialized service with limited competition. Of the 59 ambulance services in Ontario which use eACR, 75% (44 services) use the Interdev iMEDIC product. Further, a shift to a different system would necessitate additional training and process management, and result in the loss of the capability to easily analyse multiple years of data collected on a common system using a known process.

**Financial:** Selection of a different system would forego the considerable investment already made in iMEDIC, and incur additional costs for development and evaluation of an RFP, carry out retraining of all staff as the alternative systems operate differently, re-do system integration, and draft new detailed procedural documentation. The training cost alone, based on a minimum of four hours per paramedic, would likely exceed \$60,000, or about 35% of the initial acquisition cost of the iMEDIC system.

**Staff:** There would be no staffing implications associated with this alternative in Report CES16057.

**Legal:** There are no legal implications associated with this alternative in Report CES16057 as all three available systems comply with legislated requirements.

## **ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN**

### **Healthy and Safe Communities**

*Hamilton is a safe and supportive city where people are active, healthy, and have a high quality of life.*

### **Built Environment and Infrastructure**

*Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.*

### **Our People and Performance**

*Hamiltonians have a high level of trust and confidence in their City government.*

## **APPENDICES AND SCHEDULES ATTACHED**

None

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