SUBJECT: Corporate Standard for Ruggedized Mobile Computer Devices (FCS09119) (City Wide)

RECOMMENDATION:

(a) That the City of Hamilton establish the Panasonic ToughBook Notebook Computer as the Corporate Standard for all City staff requiring a fully ruggedized mobile computer.

(b) That the Corporate Standard be reviewed in 2013 when the Desktop and Mobile Computer contract will be reviewed.

(c) That the Panasonic Toughbook be acquired directly from the Manufacturer.

EXECUTIVE SUMMARY:

The Information Services Division of the Corporate Services Department is responsible for setting Corporate technology standards for desktop and mobile devices and for providing ongoing support for these standard devices. The Information Services Division requires equipment standards in order to provide an appropriate level of technical support and service to staff. Standardizing on specific models allows staff to gain expertise on each model and therefore provide a more effective and efficient level of service.

The purpose of this report is to obtain approval to standardize on the equipment being used by staff in environments which regular notebooks are not designed for.
In 2005 the City reviewed the ruggedized mobile devices available and conducted a Pilot within Hamilton Emergency Services, Emergency Medical Services (EMS) Division with 2 different manufacturers’ devices. The result of this evaluation based on specific criteria resulted in the selection of the Panasonic ToughBook as the product that best met the needs of EMS staff. Over the past 4 years the EMS Division has purchased over 54 of these units for use in the Ambulances. These ruggedized devices have performed very well and met the needs of EMS over the past 4 years and EMS is very comfortable with the Panasonic Toughbook becoming the Corporate Standard.

In 2007 the Building Services Division purchased approximately 40 of these same units for the Building Inspectors. The ToughBooks are used in extreme environments where a standard notebook would not meet the needs. These devices are designed and built to military specifications to withstand extreme weather conditions, vibrations, dust, dirt, rain, snow etc. Hamilton Police Services conducted an evaluation of ruggedized mobile devices and has standardized on the Panasonic Toughbook for use in all police vehicles. In the past these devices have been purchased via a Policy 11 Sole Source form. The EMS Division currently has a need to purchase 10 additional ToughBooks and the Province of Ontario is prepared to provide 50% of the funds required. Establishing a standard for Ruggedized Notebooks will eliminate the need to process Policy 11 Sole Source forms in the future.

This standardization request is strictly for fully ruggedized mobile devices. Any need for semi-ruggedized and business rugged equipment would require a separate evaluation before a standard would be selected.

Until recently Panasonic has been a direct sales distributor of the ToughBook product. All devices purchased by the City have been purchased directly from Panasonic. There are now a limited number of distributors, however, a recent RFQ resulted in only 2 responses. As per the Purchasing Bylaw, 3 responses are required from an RFQ before a vendor can be selected, in the absence of 3 responses a Policy 11 form must be processed. The intent of this report is to standardize and eliminate the need for a Policy 11 and therefore it is being recommended that the City continue the current practice of buying this equipment directly from the manufacturer.

**BACKGROUND:**

In 2003-2004 EMS Division installed standard notebooks into the Supervisors’ vehicles to meet the needs of these mobile workers. The notebooks with wireless air cards allowed supervisory staff to access all information that was normally only available while in the office. During 2003 and 2004 a number of these devices required expensive repairs to be undertaken due to the environment they were being used in. The major issue was cracked screens from taking the units in and out of the vehicles. To alleviate this problem staff conducted a pilot with 2 manufacturers that offered ruggedized mobile devices. This pilot clearly indicated the Panasonic ToughBook was the preferred product to meet the needs of EMS staff. Since then EMS has purchased over 54 of the Panasonic Toughbooks for mobile staff working in less than ideal conditions for computer equipment. The Building Division has also purchased approximately 40 ruggedized devices to meet the mobile needs of the Building Inspectors who also work in less than ideal conditions for computer equipment.
Current Situation

The EMS Division has a need for 10 additional ruggedized devices and the Province of Ontario is offering to cover 50% of the cost if the equipment is purchased prior to year end 2009. In the past a Policy 11 Sole Source form has been processed to allow for the purchase of any ruggedized computer equipment. This is not the purpose of the Policy 11 Sole Source form and to correct this situation an approved standard is required.

ANALYSIS/RATIONALE:

In 2005 a pilot was conducted to test the ruggedized devices available on the market at the time. This in-vehicle and field testing evaluation included:

- Ensuring the device included shock resistant hard drives which protect the hard drive and the data from the impact of a fall, a jolt or standard driving conditions.
- Ensuring the device was spill and dust resistant to avoid liquid and dust from getting through the cracks in the keyboard and touchpad.
- Ensure the casing was adequate to withstand bumps, knocks and falls.
- Ensure all computer Ports and Slots are covered to protect vulnerable areas where dust and liquid could easily enter.
- Ensure the screens are readable in the outdoors. Standard notebook screens are very difficult to view outdoors and this was of specific importance in the selection criteria.
- Ensure there are no fan vents. Internal fans are designed to cool notebooks however, having a fan on a ruggedized device is a concern as they would allow dust and dirt into the unit.
- Ensure the device docks and undocks easily, securely and safely in the vehicle.
- Ensure battery life was adequate for each shift.

The Panasonic ToughBook met all of the above criteria and well outperformed the 2nd unit that was being tested. The Panasonic device is built to U.S. Government military specifications and is tested against drops, shock, moisture, dust, exposure to extreme temperatures, and more which makes it an appropriate device for the City’s mobile workforce whose job requires the equipment to work in these types of conditions.

ALTERNATIVES FOR CONSIDERATION:

The alternative would be to conduct this evaluation again with any additional devices that may have come on the market. Conducting this evaluation at this point in time would not allow the City to take advantage of the funding opportunity being made available by the Province of Ontario for equipment purchased prior to year end 2009. Conducting this evaluation may result in a new standard which would introduce additional technology
needing support by Information Services staff. The purpose of standardizing is to minimize the number of devices.

**FINANCIAL/STAFFING/LEGAL IMPLICATIONS:**

The Emergency Medical Services Division currently has a need for 10 additional devices. Standardizing and purchasing these devices prior to January 1, 2010 will provide us with access to a 50% funding grant from the Province of Ontario which equates to a savings of $22,475.

**POLICIES AFFECTING PROPOSAL:**

Purchasing Bylaw

**RELEVANT CONSULTATION:**

- Information Services
- Hamilton Emergency Services – Emergency Medical Services Division
- Hamilton Police Services
- Hamilton Building Services
- Purchasing

**CITY STRATEGIC COMMITMENT:**

By evaluating the “**Triple Bottom Line**”, (community, environment, and economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

- Community Well-Being is enhanced. ☑Yes ☐No
- Environmental Well-Being is enhanced. ☑Yes ☐No
- Economic Well-Being is enhanced. ☑Yes ☐No

Does the option you are recommending create value across all three bottom lines? ☑Yes ☐No

Do the options you are recommending make Hamilton a City of choice for high performance public servants? ☑Yes ☐No