

Internet Voting Option in City of Edmonton General Elections

Recommendations:

1. That an internet voting option for the 2013 General Election be approved, subject to the necessary *Local Authorities Election Act* regulation changes.
2. That Administration request that Alberta Municipal Affairs make the necessary regulation changes to allow implementation of an internet voting option.
3. That Administration bring forward amendments to Election Bylaw 15307 to address legislative requirements for internet voting.

Report Summary

This report seeks Council's approval for Administration to take the necessary steps to implement an internet voting option in the 2013 General Election.

Report

Administration provided an information report (2011COC106) to the December 14, 2011, City Council meeting outlining electronic voting options.

Two key questions required resolution prior to recommending an internet voting option. They were:

1. What is the level of public readiness for internet voting?
2. Does the maturity of the current technology surrounding internet voting meet, or exceed, Administration's requirements for

security, reliability, auditability and ease of use?

To answer these questions, Administration conducted a test which was called the 2012 Jellybean Internet Voting Election ("Jellybean Election") in October/November 2012. The Jellybean Election was partially funded by a grant from Municipal Affairs.

Public Involvement Processes – Gauging Public Readiness

Administration collaborated with the Centre for Public Involvement (the Centre) to facilitate the public involvement processes. The Centre sought the public's opinion on internet voting through three distinct activities:

- a Citizens' Jury comprised of 17 individuals who represented the views and recommendations of informed members of the public on internet voting in Edmonton
- an on-line survey open to all members of the public comprised of 37 questions
- three citizen roundtable sessions in which any interested members of the public heard short presentations on internet voting

The consensus decision of the Citizens' Jury resulted in support of internet voting as an additional voting option. Attachment 1 (including 1A, 1B and 1C) contains the Centre's Citizens' Jury preliminary recommendations and outcomes of the roundtables and online survey.

Further, Administration made presentations to various stakeholders, which included Canadian National Institute for the Blind, Person's With Disabilities, Edmonton Public School

Please retain this report for future meetings.

Board and Edmonton Separate School Board, City of Edmonton Corporate Leadership Team, Members of City Council, and Centre High School.

Individuals who voted in the Jellybean Election were invited to complete a Voting Exit Survey (Attachment 2) and to provide additional written comments (Attachment 3).

Overall, the responses from those who participated in all of the public involvement processes indicated support for the use of internet voting as another voting option. The responses were qualified with an expectation that the City ensure that the voting option provide auditability, security, reliability, be user friendly and be provided at a reasonable cost.

It is clear from the tests that internet voting helps reduce barriers by providing another voting option for all citizens.

Gauging the maturity of existing Internet Voting Technology

Administration tested current internet voting technology to see if it was sufficient enough to meet the elector's and the province's expectations of democratic processes, auditability, security and privacy.

The City entered into a contract with Election Systems and Software LLC to provide an internet voting solution for testing. Election Systems and Software LLC is the City's current election contractor.

Election Systems and Software LLC contracted with Scytl Canada to provide an internet voting solution for testing. The internet voting system provided by Scytl could be integrated into the City's existing voting systems. Scytl's internet

registration and voting systems functioned as expected. Scytl has provided internet voting for elections all over the world including France, Madrid and Halifax.

Voting and Registration Authentication

Scytl's registration system allows a voter to register and upload an image of a voter's approved identification (e.g. driver's license). A City Registration Officer then reviews the registration and identification and either approves or rejects access to a ballot.

During the Jellybean Election, attempts were made by individuals to register more than once. Registration Officers were able to detect and rejected a number of duplicate registrations.

An independent internet security firm, Seccuris, was hired to conduct unbiased vulnerability and penetration testing of Scytl's internet voting system during and after the Jellybean Election. Scytl's registration system worked as expected. Attachment 4 outlines Seccuris' findings as well as a review of the City's related business processes.

Security

The registration and voting systems were attacked by hackers using '*Denial of Service*', '*Web Scanning*', '*Brute Force*' and other tactics to break into the system, but the system was not breached. Seccuris' testing and report indicates that registration and voting systems were secure.

Transparency of the Voting Process

The electronic ballot box is secured and has protection protocols. An Electoral Board was comprised of seven individuals (three from City

Administration, two City Auditors and two members of the Centre for Public Involvement).

Each member of the Electoral Board is issued a digital key card. At least four members of the Board must present their individual keys and enter their personal passwords to open or close the ballot box.

The system also creates audit logs which confirm whether or not the ballot box was opened before election night.

Should a recount be required, the voting system can, in the presence of election officials, candidates, potential internal or external auditors, and/or scrutineers, produce a report that can be read by appropriate software.

Legislation

Currently, legislation does not permit an Alberta municipality to provide internet voting during an election. However, the *Local Authorities Election Act* gives the Minister the power to pass regulations permitting a municipality to provide this voting option.

A letter from Municipal Affairs, dated October 19, 2012, (Attachment 5) advises that such regulations could be passed if the conditions outlined by the Minister are addressed. Administration can provide responses to the Minister's concerns. If regulatory changes are approved, changes to the City's Election Bylaw will be required.

Cost of Internet Voting

It is projected that it will cost \$400,000 to implement the solution for the 2013 General Election. A portion of these expenditures will be funded by the City's \$245,100 share of the provincial grants for internet voting. The balance of the

expenditure will be funded through the approved 2013 Election budget.

Conclusion

Edmontonians who participated in the public involvement processes indicated support for the use of internet voting as an additional voting option.

Based on the Seccuris report, Administration believes that the security and protection of this voting system meets expectations and requirements. Business enhancements recommended by Seccuris will be undertaken by Administration prior to implementation.

Privacy of registration and voting processes are key to conducting a democratic election. Through education, communication, and the use of system generated personal identification numbers and passwords, voters should have confidence that their registration and voting are secure, the ballot will be read as cast, and that their vote will remain private.

Corporate Outcomes

Providing voters with secure voting options enhances the democratic process and our citizens' connection to their community, and supports the goals of the Way We Live.

Public Consultation

Administration partnered with the Centre for Public Involvement to gauge public opinion about internet voting and various stakeholder groups as outlined in this report.

Legal Implications

Internet voting will require legislative change to the *Local Authorities Election Act* regulations and changes to the City

of Edmonton's Election Bylaw.

Justification of Recommendation

1. The Citizen Jury's consensus verdict was for the City to implement internet voting. The Jellybean Election demonstrated that the technology was successful and the public involvement processes resulted in participants supporting an internet voting option for the 2013 General Election.
2. Regulation changes must be made by Alberta Municipal Affairs before an internet voting option can be offered to Edmontonians.
3. Amendments to the City of Edmonton's Election Bylaw 15307 must be made in order to ensure compliance with legislative requirements for internet voting.

Information Available upon Request from the Department

1. Detailed Results of Online Survey on Internet Voting

Attachments

1. Outcomes of the Centre for Public Involvement Processes
 - 1A – Citizens Jury – Preliminary Recommendations
 - 1B – Centre for Public Involvement Online Survey on Internet Voting
 - 1C – Summary Report - Centre for Public Involvement Citizens Roundtable
2. City of Edmonton 2012 Jellybean Internet Voting Election - Exit Survey Results
3. 2012 Jellybean Internet Voting Election - Exit Survey Comments
4. Seccuris - Executive Summary Business and Technical Threat Risk Assessment: Electronic Voting
5. Letter from Municipal Affairs dated October 19, 2012