

Internet Voting for the 2022 Municipal Election

Office of the City Clerk
Committee of the Whole (Working Session)
December 1, 2021



Role of the City Clerk

The *Municipal Elections Act, 1996* (MEA), Section 11(1), identifies that the clerk of the municipality is responsible for conducting elections within the municipality

The City Clerk has statutory and independent authority over areas such as:

- Dates, times and locations for Advance Vote
- Voting Day locations, earlier opening for select locations, and reduced hours for institutions or retirement homes
- Production of procedures and forms for the election
- Procedures for voting technologies such as tabulators and internet voting

Background

- At its April 19, 2017 meeting, Council adopted recommendations including:
 - “That the City Clerk report back no later than 2020 on security and other implementation measures related to internet voting that may support consideration of this option for the 2022 municipal elections.”*
- To assist the Election Services Division in making an informed and factual recommendation to Council in this matter, two consulting firms were engaged to analyze internet voting

Background

- MNP was retained to conduct a business review and analysis for the City, focusing on: the experience of other municipalities already conducting internet voting, an analysis of existing election processes and procedures for the City of Vaughan, and a transition plan to implement internet voting in Vaughan.
- iSecurity was retained to conduct the technical and security analysis of the current internet voting landscape from jurisdictions to vendors. They also identified risks, gaps and opportunities in internet voting solutions and to develop evaluation criteria.

Background

- At the meeting of December 15, 2020, Council approved the recommendations:
 1. *“That internet voting be authorized for the Advance Vote period for the 2022 Municipal Election, in principal, subject to the successful completion of testing and remediation of the City’s internet voting solution;*
 2. *That the City Clerk / Returning Officer report back in 2021 on the outcome of the testing and remediation of the internet voting solution;”*

Internet Voting in Practice

- According to AMCTO's 2018 Post-Election Survey of Ontario Clerks, 49% of Ontario municipalities have adopted internet voting for Advance Vote and/or Voting Day
- In 2018, Markham, Aurora and Newmarket all made use of internet voting
- In October 2020, Richmond Hill adopted internet voting to conduct a YRDSB Trustee by-election
- Aurora, East Gwillimbury, Georgina, Markham, and Newmarket will be using internet voting for the 2022 Municipal Election

Internet Voting in 2022

- Remote internet voting continuously during the Advance Vote period ONLY
- Electors will be required to register to vote online, and multi-factor authentication will be used to ensure secure access to vote
- Voter Assist Centres (VACs) will be run during daytime hours to support electors wishing to participate in the internet voting method but who require assistance or internet access
- Trained City of Vaughan staff will be present at the VACs to help electors access the online voting portal and complete the process independently

Internet Voting in 2022

- No use of internet voting on Voting Day
- Voting Day will remain substantially the same as previous elections, with community voting places and use of paper ballots and tabulators

Analysis and Options

- Based on the work conducted by the consultant teams in 2020, Election Services prepared an RFP for internet voting services including requirements for proof of testing and assessments on the system to ensure they meet the necessary security standards as recommended by the consultants
- Over 100 technical requirements were detailed in the document, covering areas such as the voting process, accessibility and useability, voters' list integration, integrity, secrecy, security, auditing, testing and acceptance, and training and knowledge transfer,
- Reflects the most comprehensive internet voting RFP issued by an Ontario municipality to date

Analysis and Options

- **Voting process:** language in which information is provided online, a minimum two-factor authentication for voters to access the system, and voter verification
- **Accessibility and useability:** system to be user-friendly, be compatible with common assistive technologies and programs, and compliance with current accessibility legislation and standards
- **Voters' list integration:** requirements for seamless integration with the City's voters' list management application (Datafix), the ability to provide individual PINs for each eligible voter, and to ensure that voters are presented with the correct and appropriate ballot when voting online
- **System configuration:** requirements to provide virtual ballots that mirror the in-person paper ballot experience, listing candidates and offices correctly and the ability to customize the experience for the City of Vaughan

Analysis and Options

- **Integrity:** requirements for proof and support for a range of security assessments including privacy impact assessments, threat and risk assessments and vulnerability assessments, and ensuring compliance with legislation such as ensuring voters can only cast their ballot once
- **Secrecy:** ensures that the ballot cast by an elector is secure and confidential - that nobody may view the ballot until the results are decrypted following the close of voting
- **Security:** protections and protocols to prevent tampering or hacking of the system, viruses and malware, limiting access from IP addresses located in countries flagged by the Government of Canada, and that marked ballots are secure from tampering or alteration during the voting process
- **Reporting and results:** the ability to verify prior to the start of voting that no ballots have been cast and that no votes were cast after the internet voting period has ended, and the ability to report on ballots cast, election results and declined ballots

Analysis and Options

- **Auditing:** measures to track all administrator activities throughout the election, production of an audit trail which protects elector privacy, and to allow for periodic auditing to ensure the system is functioning as intended
- **Third-party providers:** disclosure of any third-party providers supporting the internet voting service, and that they maintain security and privacy of elector data and that such providers have necessary physical and virtual security protocols in place
- **System administration:** the ability for election officials to be able to monitor and control a variety of functions and tasks as required to administer the election
- **Data:** ensuring the proper handling, protection and storage of internet voting systems including software and results
- **Performance/scalability:** ensuring that the internet voting system would be able to scale performance to meet peak demands from electors

Analysis and Options

- **Testing and acceptance:** the ability to test the system prior to actual implementation during the Advance Vote, and acceptance that the system is working as intended
- **Training and knowledge transfer:** requirements for sufficient training of City of Vaughan employees and election workers in their administration or support of the internet voting process
- **Upgrades:** requirements for maintaining current software and providing upgrades to keep them current and secure as needed
- **System support & Maintenance and support services:** requirements for customer service from the vendor, insurance and warranties, and issue response and resolution

Conclusion

- A comprehensive set of technical requirements were developed based on the recommendations of the City's security consultants and industry best practices
- Based on the results of the process, the City Clerk / Returning Officer is confident that the necessary security requirements, including certifications, assessments and testing have been taken to proceed with internet voting implementation for the 2022 Municipal Election

Conclusion

The City Clerk / Returning Officer recommends:

1. **That Council authorize the use of internet voting for the 2022 Municipal Election; and**
2. **That the City Clerk / Returning Officer report back in 2023 on the outcome of the use of internet voting for the 2022 Municipal Election.**