


# Internet Voting – Lessons Learned

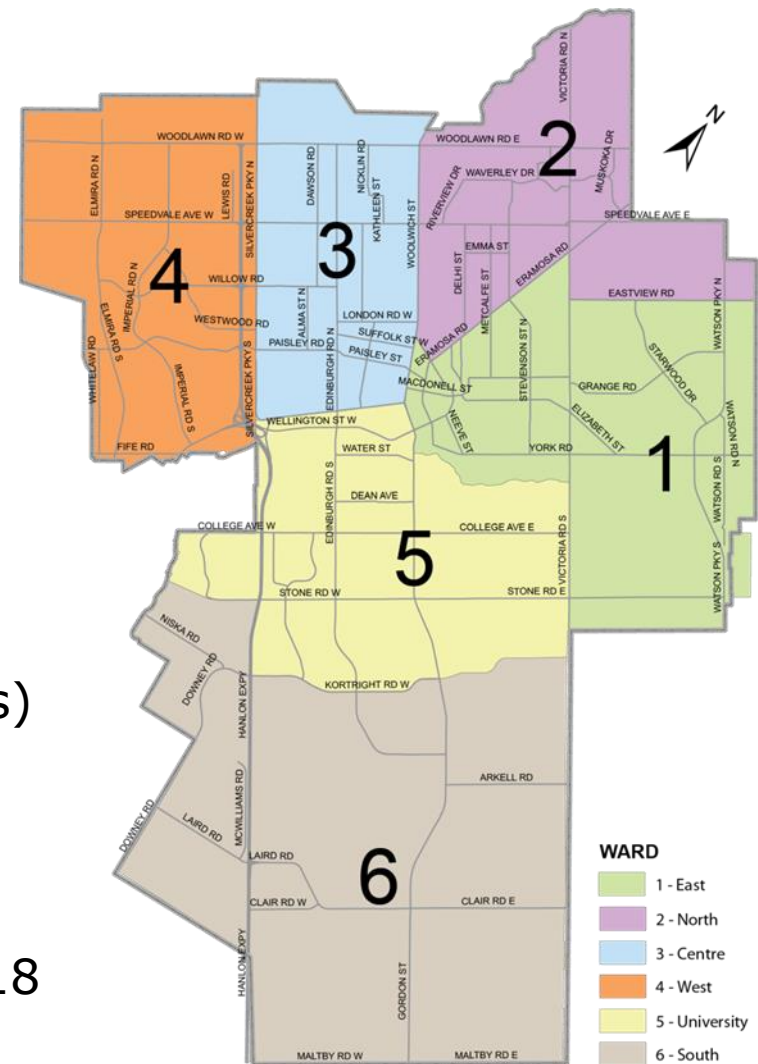
Stephen O'Brien, City Clerk  
October 20, 2016  
AMCTO Zone 2 Fall Meeting

# Agenda

- Guelph's 2014 Model
- Guelph's Internet Voting Journey
- Pre-Election Community Survey
- Guelph's Internet Voting Statistics
- Post-Election Survey
- Costs
- Addressing the Concerns
- Questions

# Guelph's 2014 Model

- Single-tier/separated City
  - Ward structure (6 wards)
  - Population ~ 125,000
  - Electors in 2014 ~ 90,000
- Combined model
  - In-person (paper)
  - Remote (internet) 
- In-person voting
  - Electronic voter strike off
  - Advance – October 15 – 19 (5 days)
    - Vote anywhere within the City
  - Election Day – October 27
    - Vote anywhere within the Ward
- Internet voting from October 7 – 24 (18 days)
  - Two-step process

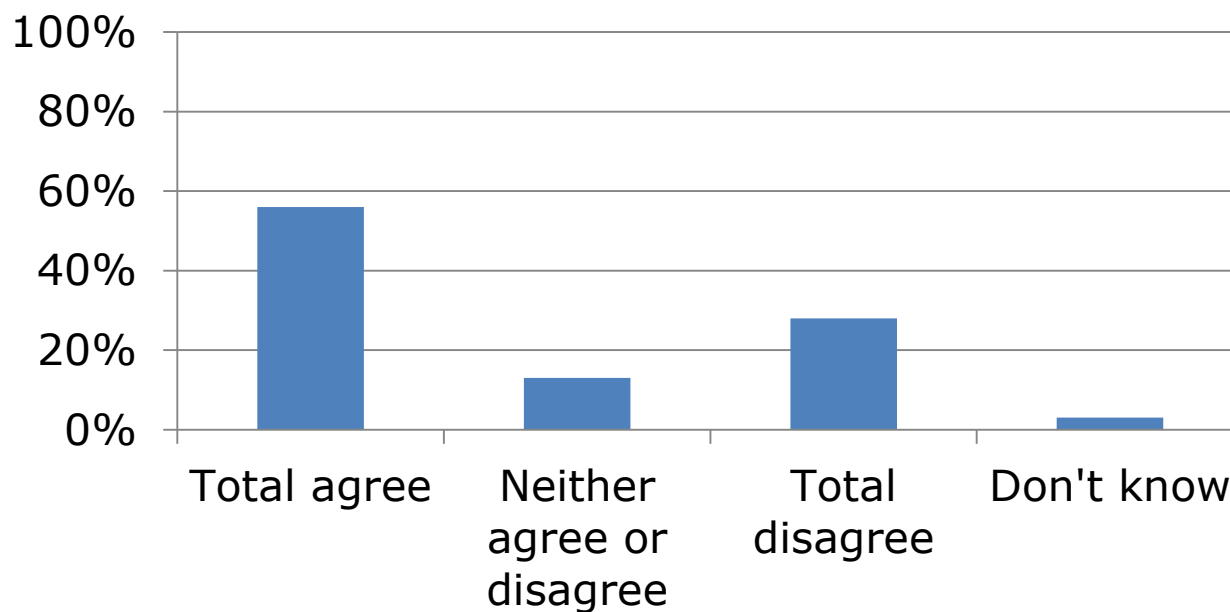


# Guelph's Internet Voting Journey

- 1994 – Central count tabulators implemented
- 2006 – Poll based tabulators implemented
- Jun 2013 – Community survey (Oraclepoll)
- Jun 2013 – Committee/Council report re: alternative voting options
- Jul 2013 – Council approval of internet voting
- Oct 2014 – Implementation of internet voting during advance vote period (17 days)

## Pre-Election Community Survey (Jun 2013)

- 56% of respondents would vote in municipal election if internet voting was available.



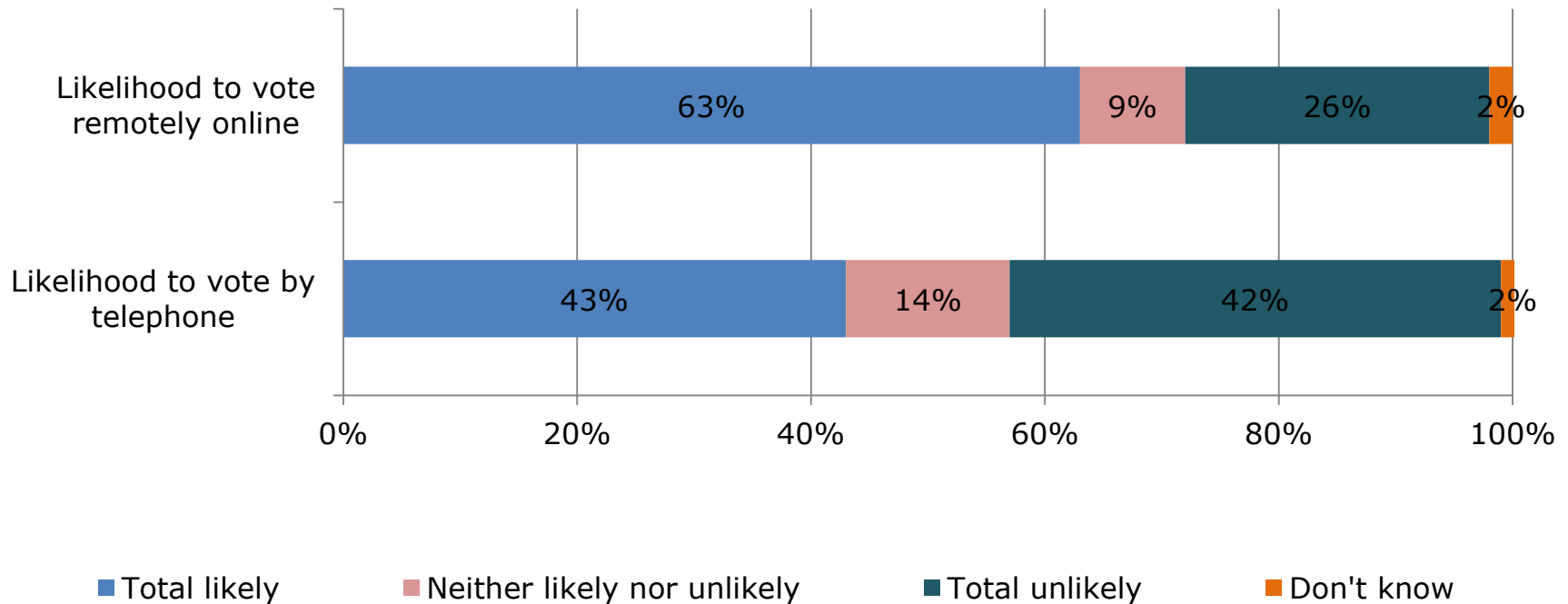
## Pre-Election Community Survey (Jun 2013)

- Among respondents with an opinion, online or telephone voting was named as a way to increase the number of voters.

How do you feel the City can increase the number of Municipal voters that cast a ballot in the next election	Percent
Don't know	30%
Online/Telephone voting	20%
None/Nothing	14%
Have to reach young people	7%
More awareness/advertising	7%
More accessible locations	3%
Having good candidates	3%

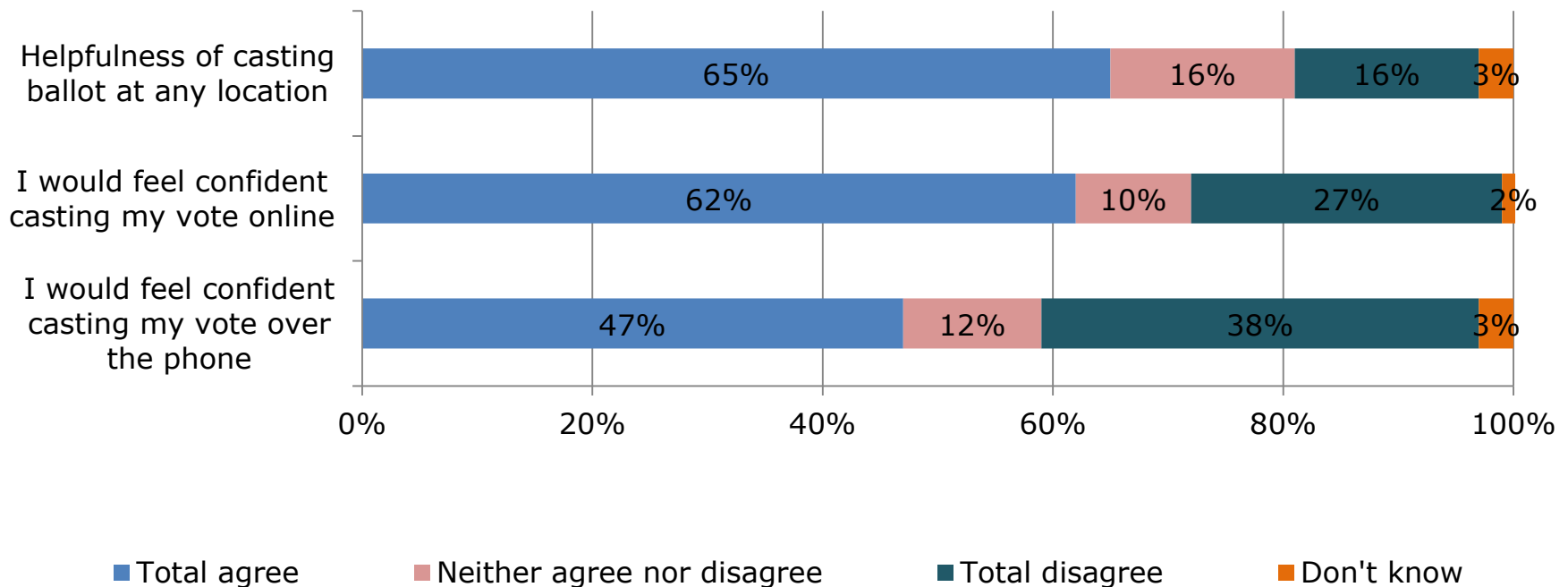
## Pre-Election Community Survey (Jun 2013)

- Online voting preferred choice of 63% of respondents when asked about two scenarios for alternative voting.



## Pre-Election Community Survey (Jun 2013)

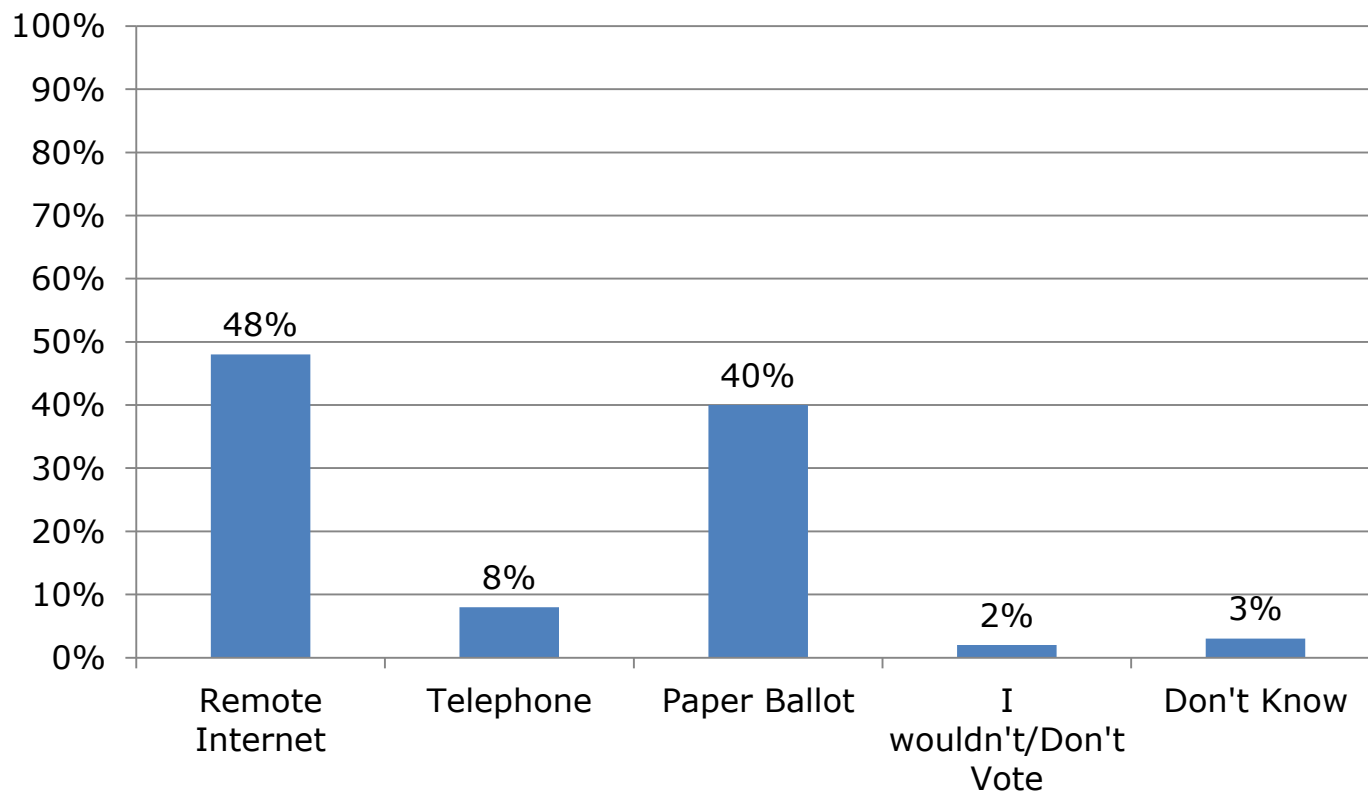
- Residents asked to rate their level of agreement with each statement.





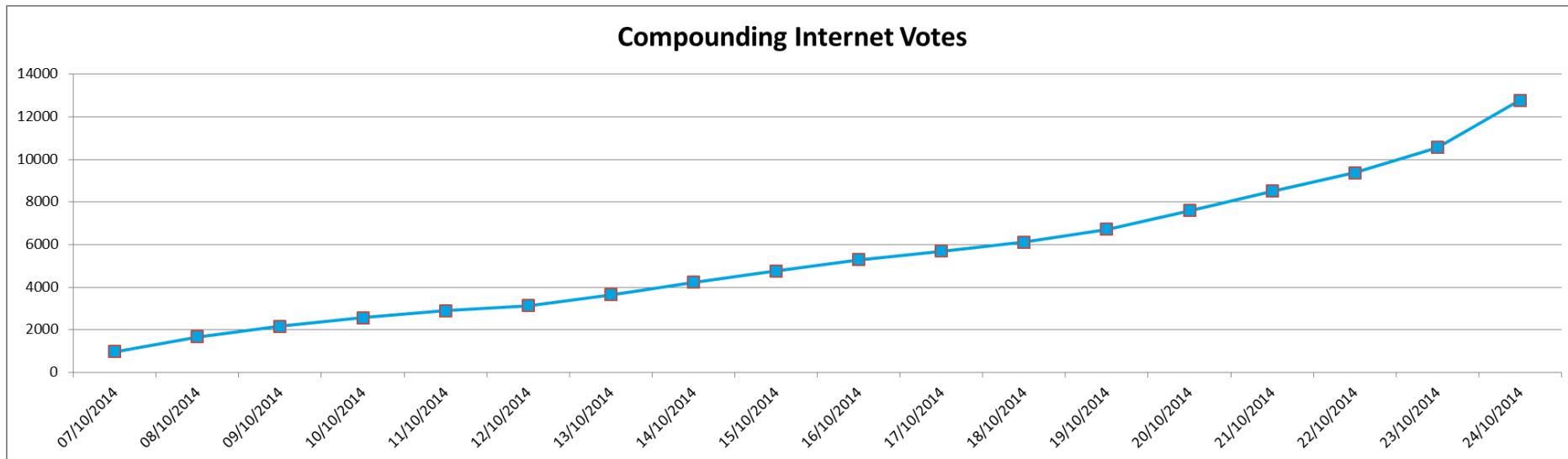
## Pre-Election Community Survey (June 2013)

- Residents were asked about their preferred method of voting (traditional versus alternative).



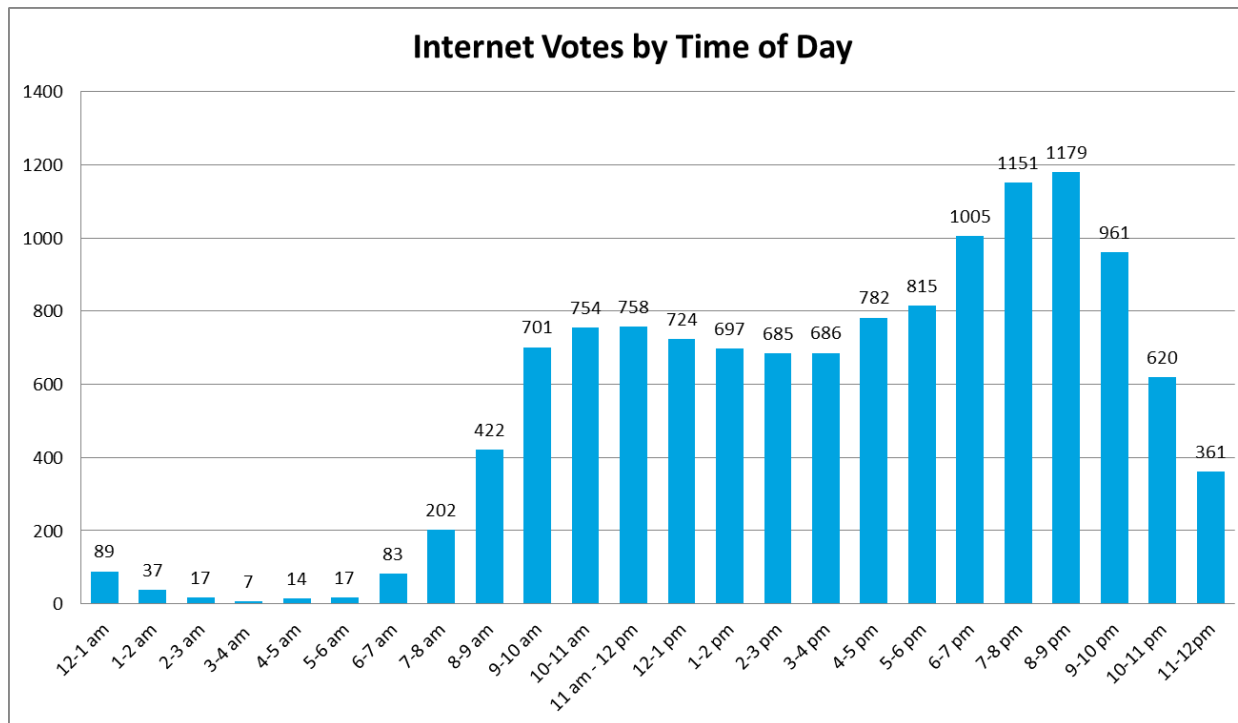
# Guelph's Internet Voting Statistics

- With 432 hours of internet voting, approximately 13,000 votes were cast online (approx. 30 votes/hour). The following charts the volume of votes over that period of time.



# Guelph's Internet Voting Statistics

- Internet voting provided flexibility to electors allowing them to vote at times that fit their schedule – in line with our Open Government approach to provide services to meet expectations of the busy lives of our residents.



## **Post-Election Survey (Nov 2014)**

- 84% of those who voted online were confident in the security surrounding the voting process, with 64% being very confident
- 58% of voters would vote online in 2018 if it was offered
- 54% found the 2014 municipal election easier, more accessible and convenient than the 2010 municipal election.

## Costs

- \$62,250 spent on internet voting component (approx. \$0.75/elector)
- Same vendor for both paper and internet voting components
- Contract included consumables, results reporting system, accessible voting equipment and support

# Addressing the Concerns: Security

- DDoS attacks, trojans, viruses and spoofing all identified as potential threats.
- Procedures to address potential risks by employing technical and process related measures to support system administration and control user access.

## **How Guelph Addressed the Concern**

- Firewalling, user authentication (two-step PIN), failover connectivity and server redundancy.
- Same access methodologies and encryption principles that protect internet banking and electronic medical records systems.
- Participated with Burlington, Kingston, Cambridge, Peterborough, Belleville, Port Hope, Prince Edward County and Chatham-Kent in securing a third-part (Digital Boundary Group) to conduct security audit of the system.

# Addressing the Concerns: Coercion

- In theory, unsupervised voting enhances accessibility at the expense of oversight in relation to verification of voter identity and behaviour
- Impersonation, coercion and fraud are mitigated through the design of any voting system, regardless of whether it is a supervised or unsupervised model

## **How Guelph Addressed the Concern**

- Individual voter notification cards (not one combined mailing)
- Two step verification (register online to vote with DOB information)
- Staff had the ability to cancel and/or re-issue PINs, flag voter IDs and we spent time educating electors on process and what to expect
- Section 89 of the MEA places responsibility with voter to ensure they are entitled to vote and that they do not vote more times than allowable – onus is on the voter from a legal perspective

# Addressing the Concerns: Role of Candidates & Scrutineers

- Candidate role remains similar, however more emphasis should be placed on assisting with elector education
- Role of scrutineer necessarily changes – no ability to observe at the “voting location”

## **How Guelph Addressed the Concern**

- Candidate information session that focused on usual topics but also a significant portion on the on-line voting process (mock vote)
- Provided, upon request, weekly reports on on-line voting statistics
- Invited scrutineers to be present during final tabulation, including uploading of internet voting file



Questions?