Office of the Associate Minister of Local Government

Cabinet Economic Growth and Infrastructure Committee

Trialling online voting in local elections

Proposal

1. I propose the Cabinet responds to requests from the local government sector to trial online voting for local elections, by agreeing to proceed with work towards enabling a small number of local authorities to trial online voting in the 2016 local elections. The implementation of any trial would be subject to confirmation that any voting technology solution(s) developed can operate in a secure and accessible way.

Executive summary

2. Several local authorities have asked to trial online voting for local elections. The international evidence on whether online voting increases voter turnout is inconclusive, but local authorities consider that online voting:

   • has the potential to assist certain groups of electors like the visually impaired or those living in remote areas or overseas, who have struggled to vote by post;

   • provides opportunities to make the act of voting easier and more accurate, for example by ensuring voters select the right number of candidates per election.

3. I propose to enable selected local authorities that wish to trial online voting at their local elections to do so. These trial authorities will be responsible for funding the costs of delivering any trial. I note that the final go-ahead for any live trial will be subject to confirmation that the proposed voting technology solution(s) can operate in a secure and accessible way.

4. Online voting is fairly new internationally. As with any IT-enabled process it has security risks which, if realised, could undermine public confidence in the electoral system and thus in the elected bodies they vote for.

5. I therefore propose that central government should maintain some oversight, for example, by working with local government to establish the security requirements for an online voting technology solution. I also consider that the Government Chief Information Officer (GCIO) should review and provide an endorsement that the assurance plans developed and implemented by any trial councils are fit for purpose. This will help ensure any risks are identified and appropriately managed.

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1 Online voting refers to remote access voting by a voter, who can use their own computer, tablet or other internet-enabled device from any location, to cast their vote over the internet.
6. This paper relates to online voting as a method for local elections. It does not consider the use of online voting for national elections, because the context is different. National elections have a different legislative framework (the Electoral Act 1993) and use supervised booth voting, whereas local elections are conducted by unsupervised postal voting.

7. Subject to the Cabinet's agreement to proceed with further work towards an online voting trial, I propose that officials from the Department of Internal Affairs work with local government stakeholders to undertake an Evidence of Identity risk assessment to understand and identify the level of identity-related risk associated online voting for local elections and whether the level of risk warrants requiring the use of RealMe.

8. Should the risk assessment process find that an online voter identity authentication solution such as RealMe is warranted, I consider that use of RealMe should be established as a requirement for any online voting trial; other proprietary services would not be an acceptable substitute for RealMe.

Background

**Local elections are distinct from national elections**

9. Although both are a vital part of democracy in New Zealand, local and national elections are distinctly separate processes with key differences in terms of election processes, and in terms of the associated risk profiles\(^2\).

10. National elections are run by the Electoral Commission under the Electoral Act 1993. Responsibility for running local elections lies with local authorities, under the Local Electoral Act 2001 (the Act). This paper is for consideration a trial of online voting in local elections only; the discussion does not apply to any consideration of online voting for national elections, and has no implications for the work of the Electoral Commission.

**Central and local government have a role in maintaining the local electoral framework**

11. Under the Act, each territorial or unitary authority is responsible for running the elections of elected authorities within its district. Local elections have been conducted entirely by postal ballot since 1995. The Act provides local authorities with some flexibility to choose the electoral arrangements that suit their communities. It also anticipates the use of new technologies and processes in the future.

12. Central government has a responsibility to maintain public confidence in the electoral system. It is responsible for providing a robust regulatory framework to ensure the local electoral system provides fair and effective representation for individuals and communities and allows voters a reasonable and equal opportunity to participate.

**The Online Voting Working Party found an online voting trial in 2016 is feasible**

13. In September 2013, Cabinet agreed to the Department of Internal Affairs (the Department) establishing an Online Voting Working Party (the Working Party) to consider the options, costs and security issues of online voting in local elections [Cab Min (13) 29/7 refers].

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\(^2\) Whereas national elections generally require booth voting, in practice, all local elections are conducted by post. In this respect the local election system accepts a greater level of risk, than national elections.
14. Cabinet considered the Working Party’s report in July 2014, and noted its finding that trialling online voting in the 2016 local elections is feasible [Cab Min (14) 405 refers]. The Working Party suggested the Department should lead the development of a trial. However, the July Cabinet paper indicated it may be more appropriate for local government to lead the trial, as the request for online voting comes from the sector.

15. Cabinet sought further information on whether or not to proceed with a trial in 2016, including any proposed legislative amendments and governance and funding arrangements for a trial [Cab Min (14) 405 refers]. This paper provides this further advice.

Why do local authorities seek to trial online voting for local elections?

16. It is worth noting from the outset that online voting may not overcome low voter turnout in local elections. Online voting has not been used in enough countries, for enough elections to identify its impacts on voter participation. The limited international data from countries that have trialled or used online voting is mixed. Some found no change or a small increase in turnout, while in other cases there was a small decrease. However, these changes cannot be attributed to the availability of online voting; a variety of factors will affect whether an elector decides to vote.

Online voting could make voting easier and more accessible

17. Online voting may assist certain groups of electors, such as the visually impaired, or those living in remote areas or overseas, who can struggle to vote by post. It also enhances opportunities to issue voting documents in other languages to assist non-native English speakers.

Online voting could help ensure voters’ intentions are correctly expressed

18. Local elections usually involve several different elections, and voters often need to use two different voting systems (First-Past-the-Post and Single Transferable Voting (STV)) on the same ballot paper. This can lead to inadvertent spoiling of ballot papers. Online voting could help by, for example, ensuring that voters do not invalidate their vote by using non-sequential numbers for candidates in STV elections.

Online voting is seen as the modern equivalent of postal voting

19. New Zealand Post has signalled future reductions in delivery services are inevitable, as letter volumes decline. This will mean increasing costs for local government in running elections by post, to pay for a priority delivery service. This reliance on the postal infrastructure may present some risks to the future viability of postal voting.

20. A cultural shift toward digital communication is reflected in the declining relevance of postal mail for many New Zealanders. This may impact on the perceived accessibility of local elections conducted through postal ballot. Some local authorities consider online voting as the modern equivalent of the postal ballot, and so it is part of their broader strategic direction to ‘go digital’.
Comment

21. I have no in-principle objection to a trial of online voting for local elections. However, I consider local government would have to take responsibility for developing, funding, and delivering a trial of online voting for local elections. Local government would also need to demonstrate that any voting technology solutions developed can meet security expectations and the requirements of the Act.

22. Maintaining the integrity of the electoral system is important to maintaining public confidence in the elected bodies they vote for. As the Working Party noted, this means ensuring that voters perceive that they can vote securely, that the secrecy of their vote is maintained, and that their voting intentions are accurately accounted for at all stages of the process. It is important that all necessary measures are taken to ensure that the underlying online voting technology is able to operate securely, and that online voting is accessible for voters.

23. I propose the Cabinet responds to requests from the local government sector to trial online voting, by agreeing to proceed with work towards enabling a small number of local authorities to trial online voting in the 2016 local elections.

A trial approach would help manage the inherent risks of online voting

24. Online voting cannot be made risk-free, as any IT-enabled system or process always involves some risks. Many of these risks can be mitigated, but not entirely removed. The key risks, and some possible mitigations, are summarised in the table below.

Table 1: Summary of potential online voting risks and mitigations

<table>
<thead>
<tr>
<th>Potential risks include:</th>
<th>Possible mitigations include:</th>
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<tbody>
<tr>
<td><strong>Security of the online voting system</strong></td>
<td><strong>Development of robust operating protocols</strong></td>
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<tr>
<td>There is always a possibility of malicious intervention or sabotage with the use of remote-access IT. This includes risk of voter fraud.</td>
<td>Central government, in consultation with local government and other stakeholders, needs to establish robust technical and operating requirements for online voting technology solutions(s). This includes determining what voter authentication requirements need to be put in place to prevent voter fraud, which could potentially include requiring the use of RealMe.</td>
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<tr>
<td><strong>Integrity of the online voting system</strong></td>
<td><strong>Staging the development on online voting and limiting the extent of any trial</strong></td>
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<td>Any failure concerning the accuracy with which votes are recorded could undermine the outcome of an election.</td>
<td>The Working Party recommended that any online voting system should be trialled in a few areas before any nationwide roll-out. The Justice and Electoral Commission’s report into the 2013 local elections contained similar recommendations.</td>
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IN CONFIDENCE

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<tr>
<th>Accessibility of the online voting system</th>
<th>Setting of design requirements</th>
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<tr>
<td>Restrictions in the technology platforms used to host online voting could mean online voting is not as accessible as voters assume.</td>
<td>These risks will largely be addressed through trial design and user testing, to ensure online voting is accessible on the most common old and new technology platforms.</td>
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<table>
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<tr>
<th>Availability of the online voting system</th>
<th>Testing, and provision of alternative voting methods</th>
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<tbody>
<tr>
<td>Service interruption or major failure in the system, due to breakdowns in infrastructure, such as a power outage, or a hostile attack.</td>
<td>Capacity and capability testing will be needed to test overload. Postal voting (including special voting) will remain available alongside online voting; this provides an alternative method of voting if necessary.</td>
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25. The consequences of any of these risks being realised in an online voting trial would depend, in part, on the impact on the election result. The worst case scenario would be that a significant failure of online voting in a trial area undermines the election result to such a point that the local authority has to run the election again. Such an outcome could undermine public confidence in both online voting and the electoral system, at local and parliamentary level, in New Zealand and also internationally.

26. As with the current postal voting system for local elections, there is a risk of voter fraud associated with online voting. With postal voting, this risk is mitigated by back-end security processes to identify fraudulent activity. Further work on determining the detailed policy settings for a trial would seek to identify what the appropriate mitigations are for the risk of voter fraud in the online voting context.

27. In light of these potential risks, it is critical that any changes introduced to the local electoral system are managed in a transparent and open way, to maintain the public confidence and trust that New Zealand’s democratic system enjoys.

Proposed approach an online voting trial

28. Since July 2014, the Department has been working closely with the local government sector and other key stakeholders, to develop a possible working model for trialling online voting. This drew on insights from the Working Party’s report on the technical feasibility of online voting.

29. The proposed approach that has been developed has two guiding principles:
   - Local authorities should develop and led any online voting trial, because they are responsible for running and funding local elections.
   - Online voting should integrate with the existing local electoral system.

Local government should lead any trial of online voting

30. As local authorities are responsible for running local elections, an online voting trial for local elections should be developed by local authorities. This includes leading the development of online voting technology solutions, and providing the governance arrangements. Local authorities would also be responsible for educating electors on use of the online voting method and any promotion necessary for a trial. Before trialling online voting in their area, trial authorities would also need to consult with their communities on the decision to do so.
31. Each trial authority would be responsible for funding the development or procurement of their online voting technology solution, in line with current local electoral responsibilities. Most local authorities contract-out the running of their elections to a commercial election service provider, either in full or in part.\(^3\) That arrangement is supported by this model. The commercial providers would be responsible for developing an online voting product that is both cost-effective and uses an acceptable technology solution, by either enhancing an existing product or procuring new software.

32. The proposed approach does not attempt to control who develops an online voting technology solution that meets the prerequisite standards, so a local authority could develop an in-house system, rather than use a commercial provider. However there is no apparent demand from authorities to do so.

**Central Government’s role is to enable and safeguard**

33. Central government would need to provide a robust regulatory framework for online voting. Under the proposed approach, central government would be responsible for setting the policy parameters for an acceptable online voting trial, and agreeing minimum requirements for voting technology solutions.

34. Although trial authorities would be responsible for governing their own trials and undertaking independent project assurance on the development of their technology solution, I consider some governance oversight would be desirable to maintain public confidence. The Government Chief Information Officer (GCIO) is well placed to query whether trial councils’ assurance plans are fit for purpose.\(^4\) GCIO oversight will ensure any risks are identified and appropriately managed. However, I note that a GCIO endorsement, in itself, is non-binding.

35. In recommending any regulations, central government would agree which local authorities should be enabled to participate in a trial.

**A trial can be enabled under the Local Electoral Act 2001**

36. A trial of online voting can be enabled within the framework and regulation-making powers of the Act. I propose that any trial should be authorised using these existing powers.

37. However, I note that using the existing regulation-making powers will have certain implications for the way a trial is designed and conducted. For example, the current wording of the regulation-making powers mean a trial must include all eligible voters in the relevant election. It is not possible to limit a trial to a selected sub-group of electors, such as the visually impaired. These constraints may not fit with some councils’ preferred trial design, or risk mitigation strategy.

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\(^3\) There are two main providers operating in the New Zealand market at present; between them they run the elections for nearly 90 per cent of local authorities. Both also run elections and polls for non-government groups, for which they often offer online voting.

\(^4\) The GCIO is mandated to provide government and the public with assurance and confidence that ICT-enabled projects and programmes within the State services are effectively managed to deliver expected outcomes, and that ICT risks and processes in the State services are identified and managed effectively.
38. Auckland Council has expressed a keen interest in taking part in any trial of online voting. However, a trial for over one million electors is not appropriate, as it would be harder to mitigate any risks from trialling with such a large number. Auckland Council has indicated it would like to restrict a trial to a smaller subset of voters, such as those living overseas. This cannot be done under the existing regulation-making powers. So Auckland Council, or any other council which is not willing or able to trial across its entire electorate, could not trial under the existing regulation-making powers.

**There is a proposed programme of work for an online voting trial in 2016 local elections which includes further Cabinet approvals to proceed**

39. Should Cabinet agree to proceed, there are some detailed policy settings to be developed. Detailed policy settings include, for example, policy on voter authentication and on pre-registration. I propose that this work is carried out over the next three months. I propose to report back to this Committee in March 2015 with further detailed policy and process proposals.

40. As part of that report-back, I may seek a decision on whether to proceed with further work with the local government sector, to develop minimum operating requirements that ensure security and accessibility of any voting technology solutions to be used in a trial. Those minimum operating requirements would be developed within the parameters of the policy settings agreed in March 2015.

41. Once those requirements are established and if I am satisfied that online voting, as a new voting method, would be able to operate in a manner consistent with the principles of the Act, I would seek the Cabinet’s agreement to regulations enabling a trial of online voting for local elections. For a trial in 2016, agreement to make the enabling regulations would need to be in place by the end of 2015.

**There is potential for a requirement to use RealMe’s login and verified identity services**

42. RealMe login is a secure all-of-government online authentication service that lets customers access multiple online services across agencies with the same username and password. The service is designed to protect privacy and security. It is officially backed by the government as a secure common capability, and is mandatory for central government. It is not mandatory for local government, however councils are welcome to sign up and use RealMe.

43. As work on the detailed policy settings for a trial has not begun, it is still to be determined what voter authentication requirements should be put in place to provide security and usability for online voting for local elections. This matter would need careful consideration as part of the next phase of work.

44. Subject to the Cabinet’s agreement to proceed with further work towards an online voting trial, I propose that officials from the Department work with local government stakeholders to undertake an Evidence of Identity risk assessment. This assessment needs to be carried out understand and identify the level of identity-related risk associated with online voting for local elections and whether the level of risk warrants requiring the use of RealMe. This is the same process undertaken by public service departments and crown entities to ascertain if they will need RealMe, and if so, whether a login or verified identity would be needed. These risk assessments help guide the technical design of online services and would inform a future Cabinet paper setting out detailed policy settings.
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45. Should the risk assessment process find that an online voter authentication solution such as RealMe is warranted, I consider that use of RealMe should be established as a requirement for any online voting trial; other proprietary services would not be an acceptable substitute for RealMe.

Consultation

On proposed trial approach

46. The Department has consulted with a range of external stakeholders, including the representatives of nine interested local authorities, the Society of Local Government Managers and Local Government New Zealand. These latter organisations have indicated their support for trialling online voting in2016.\textsuperscript{6}

47. A roundtable discussion was also held with IT and security experts. In addition, the Department has engaged with several existing election service providers in New Zealand and Australia, to develop an understanding of the online voting market.

48. Departmental officials also met with the Electoral Commissioner for New South Wales, Australia, where online voting has been available to some classes of voters since 2011, and discussed their operational experiences.

On Cabinet paper

49. This paper was prepared by the Department of Internal Affairs. The Treasury, the Ministry of Justice, the Ministry of Health, the Office of the Privacy Commissioner, the Electoral Commission, the Office of Ethnic Affairs, the Office for Disability Issues and the Office for Senior Citizens were consulted during the drafting this paper, and their feedback has been reflected in this final paper. The Department of the Prime Minister and Cabinet was informed.

50. The Minister of Local Government has agreed to the submission of this paper.

Financial implications

For central government

51. There are no financial implications arising from the proposals in this paper. Should there be agreement to proceed to a trial, there would a small cost to central government, as part of its role in ensuring robustness of minimum requirements for voting technology solutions. These costs have not been able to be identified at this stage but will be investigated, should there be Cabinet agreement to proceed. The Department will also investigate whether those costs can be met from its existing baseline funding. Cost and funding information will be canvassed in the proposed report-back in March 2015.

For local government

52. The costs of developing a trial would be borne by local authorities. The Online Voting Working Party’s high-level estimate was a combined cost (for both trial and implementation of online voting) of $8–10 million.\textsuperscript{6} This figure was based on a model where central government procures a technology solution and makes it available to local authorities.

\textsuperscript{6} This indicative cost includes an awareness-raising component.
53. Commercial electoral service providers have indicated that the cost of developing a technology solution under the proposed local government-led approach would be significantly less, but the cost is not yet able to be quantified. The true cost of any trial would depend on the operating requirements for online voting, which have not yet been determined and require detailed policy and minimum requirements to be set.

54. Because postal voting will still need to be available, any trial costs will be an additional election cost for local authorities. Each council will need to consider funding arrangements as part of their consultation with their communities about online voting.

Legislative implications

55. There are no legislative implications arising from the proposals in this paper. The legislative implications of any policy decisions arising from the report-back in March 2015 will be canvassed in that paper.

Regulatory impact analysis

56. A Regulatory Impact Analysis is not required at this time.

Human rights, gender and disability perspective

57. There are no human rights or gender implications arising from the proposals in this paper. The development of online voting as a voting method could assist the visually impaired and other disabled people to vote independently.

Publicity

58. I propose to issue a media release following Cabinet’s decision, noting the intention to enable local government to develop an online voting for a trial at the 2016 local elections. As part of this release I also propose to include details of the Government’s response to the Justice and Electoral Committee’s report on their inquiry into the 2013 local authority elections. This proposed response is set out in a separate Cabinet paper being considered by this Committee today.

59. I also seek Cabinet’s agreement to publish both this Cabinet paper, and the 28 July Cabinet paper (CAB (14) 405), which discussed the Working Party’s report, together with the related Cabinet Minutes, on the Department’s website.

Anticipated reactions

60. Several local authorities are keen to proceed with a trial in 2016. They are likely to welcome these proposals. However, the constraints of the regulation-making powers (discussed at paragraph 37), may not suit the preferred trial design of some councils.

61. Other local authorities have been concerned about cost. For example Nelson City Council, who had expressed an interest in trialling online voting, recently voted against it, mostly for cost reasons. There may be comment about the lack of proposed government funding in the working model.

62. It is likely that an announcement of any decision to enable some local authorities to trial online voting for local elections will lead to some media comments about its future application at both local and national level. I note that a trial of online voting for some local elections does not necessarily mean a future rollout for future local elections. National elections have an entirely different context; any trial at local elections cannot be regarded as a precursor to online voting at national elections.
Recommendations

63. The Associate Minister of Local Government recommends that the Committee:

1. note that on 28 July 2014, Cabinet:
   1.1 considered the report of the Online Voting Working Party, which found that that trialling online voting in the 2016 local elections was feasible;
   1.2 noted that the Department of Internal Affairs will engage with local government and central government stakeholders to discuss any required governance and funding arrangements in the event it is decided to proceed with an online voting trial in the 2016 local elections; and
   1.3 invited the Associate Minister of Local Government to report to EGI by 30 November 2014 with advice on whether or not to proceed with a trial of online voting in the 2016 local elections including, as appropriate, advice on any proposed legislative amendments, governance and funding arrangements [CAB Min (14) 405 refers];

2. note that a number of local authorities have requested the ability to trial online voting in local elections, and that the Society of Local Government Managers and Local Government New Zealand have indicated their support for trialling online voting, as did the Justice and Electoral Committee in its inquiries into the 2010 and 2013 local elections;

Advice on a trial of online voting in 2016 local elections

3. note that the Local Electoral Act 2001 (the Act) allows regulations to be made to authorise online voting but using these regulation-making powers to enable a trial will place some constraints on the trial design and the councils that can participate;

4. note that under the regulation-making powers referred to in recommendation 3, a trial cannot be authorised until I am satisfied that the new voting method will be able to operate in a manner consistent with the principles of the Act;

5. note that before I can be satisfied that the new voting method will be able to operate in a manner consistent with the principles of the Act, further work needs to be carried out, including, firstly, determining the detailed policy settings that ensure a secure and accessible trial and, secondly, developing the minimum operating requirements of any voting technology solutions to be used as part of a trial;

6. note the proposed approach for any trial of online voting in local elections is that:
   i. local government leads the development or procurement of secure and accessible online voting services as well as any associated promotion and voter education, and provides the necessary governance arrangements, and funding for the trial, in line with current local electoral responsibilities, and
   ii. central government provides an enabling regulatory framework that ensures the process meets the requirements of the Act and maintains public confidence in the electoral system overall, in line with its existing role;

7. agree that any trial of online voting proceed on the basis of the model proposed in recommendation 6;

8. agree that, based on the model outlined in recommendation 6, there is no principled objection to enabling local government to trial online voting for local elections in 2016 or as reasonably practicable thereafter;
9. agree that for a trial of online voting to be enabled, the local government sector must demonstrate that any voting technology solution(s) developed can operate securely and the requirements of the Act can be met;

10. invite the Associate Minister of Local Government to report to the Cabinet Economic Growth and Infrastructure Committee by 31 March 2015 with proposals on detailed settings for a trial, and seek a decision on whether to proceed with further work with the local government sector, to develop minimum operating requirements that ensure security and accessibility;

11. note that, following on from the programme of work referred to in recommendation 10, there would be a subsequent report-back by the end of November 2015, if at that point I am able to advise that I am satisfied that the new voting method will be able to operate in a manner consistent with the principles of the Act;

Potential for a requirement to use RealMe as authentication service

12. note that the report-back referred to in recommendation 10 will include an Evidence of Identity risk assessment, which will identify the level of identity-related risk associated with the provision of online voting for local elections;

13. note that if the assessment referred to in recommendation 12 identifies that the identity-related risk warrants the use of RealMe, the use of Realme will be required for any online voting trial in local elections;

Financial Implications

14. note that the costs of developing an online voting trial for local elections will be the responsibility of the local government sector;

Next steps

15. agree that the Associate Minister of Local Government may publish both this Cabinet paper, and the 28 July Cabinet paper [CAB (14) 405], which discussed the Online Working Party’s report, together with the related Cabinet Minutes, on the Department of Internal Affairs website; and

16. agree that the Associate Minister of Local Government may make public announcements about the decisions sought in this paper at the relevant time.

Hon Louise Upston  
Associate Minister of Local Government

02/12/2014