PARLIAMENT OF AUSTRALIA
DEPARTMENT OF PARLIAMENTARY SERVICES

DPS ref: 14/2706/78

Dr Andrew Southcott MP
Chair
House of Representatives Standing Committee on Procedure
Parliament House
CANBERRA ACT 2600

Dear Dr Southcott

INQUIRY INTO PROCEDURES FOR COUNTING AND REPORTING THE VOTE IN A DIVISION

I refer to your letter of 8 February 2016 inviting the Department of Parliamentary Services (DPS) to make a submission to the Standing Committee on Procedure's inquiry into procedures for counting and reporting the vote in a division in the House of Representatives.

DPS has examined a number of options in brief and they are outlined below for the Committee's consideration.

Options

The following options were considered:

1. The use of portable devices that members could use from any location across the chamber to register a vote.

2. The installation of in-place voting panels attached to desks to register a vote.

3. The development of a voting application or "app" for use by members on their mobile tablets and smartphones to enable voting.

4. The implementation of a facial biometric voting solution, using cameras to identify the vote of a member based on their location within the chamber.

5. The use of portable kiosks across both sides of the chamber with either:

    a) Each having an "aye" or "no" option; or

    b) Dedicating a kiosk to either an "aye" or "no" vote based on their location within the chamber.

6. The implementation of a voting administration system for use by Tellers and Clerks, digitising the current paper based process.

The attached options paper has been developed and outlines the key benefits, issues and indicative costs of each option.

Impacts on the procedures for counting and reporting votes

Options including mobile devices, in-place voting panels, the voting app and facial biometrics would reduce the time taken for members to conduct the vote, simplify the counting and make information immediately available for the reporting of votes.

Options including mobile devices, in-place voting panels, the voting app and kiosks would require members to authenticate their identities on the devices prior to voting to maintain the integrity and security of the voting process.

In regard to kiosks, the requirement to walk to a kiosk, wait in line, register their identity and conduct the individual vote would negatively impact on the timeframe taken to conduct a vote.

The implementation of a voting administration system for Tellers and Clerks would simplify the counting and make information immediately available for the reporting of votes but would not reduce the time taken for members to conduct the vote. A voting administration system will be required by all options.

Options including in-place voting, the voting app and facial biometrics may require kiosks to be implemented as a backup solution.

Costs

Indicative costings have been developed for each of the options but should be taken as a rough guide only. A more accurate costing could be obtained once a clear scope of requirements is ascertained. Implementation costs include:

- Procurement of the voting capability;
- Development of a voting administration system;
- Reporting of the votes via "tally" screens; and
- Publishing of the results across current channels including the internet, media streaming and statistical analysis and ongoing yearly support costs.

The following table outlines the indicative costs of each of the options.

#	Option	Implementation	Yearly Support
1	Portable devices	$2.3m to $2.8m	$0.25m
2	In-place voting	$3.3m to $3.8m	$0.25m
3	Voting app	$2.6m to $3.1m	$0.35m
4	Biometrics	$3.3m to $4.6m	$0.40m
5	Kiosks	$3.0m to $3.5m	$0.36m
6	Voting administration app	$0.9m to $1.4m	$0.10m

Other considerations

Other key considerations include:

- Mobile devices, the voting app, facial biometrics voting and the voting administration app would allow the House to maintain its tradition of members physically dividing, as well as those for members voting in their place;
- In-place voting would require an alternative solution for frontbenchers;
- Various implementation approaches for both in-place voting and kiosks are available that would minimise their impact on the fabric of the chamber; and
- It would be very difficult to ensure a voting app provided to members via their smartphones and tablets could only be used from the floor of the chamber.
- While the costs of biometric technologies have decreased and their use is becoming more widespread, they have not been implemented in the context of voting within a parliamentary chamber and subsequently have an implementation risk profile which is higher than the other options considered.

Should any of these options be preferred by the Committee for further analysis, I will be happy to assist the Committee with more detailed research and evaluation of technology.

Yours sincerely

Rob Stefanic
Secretary

17 March 2016

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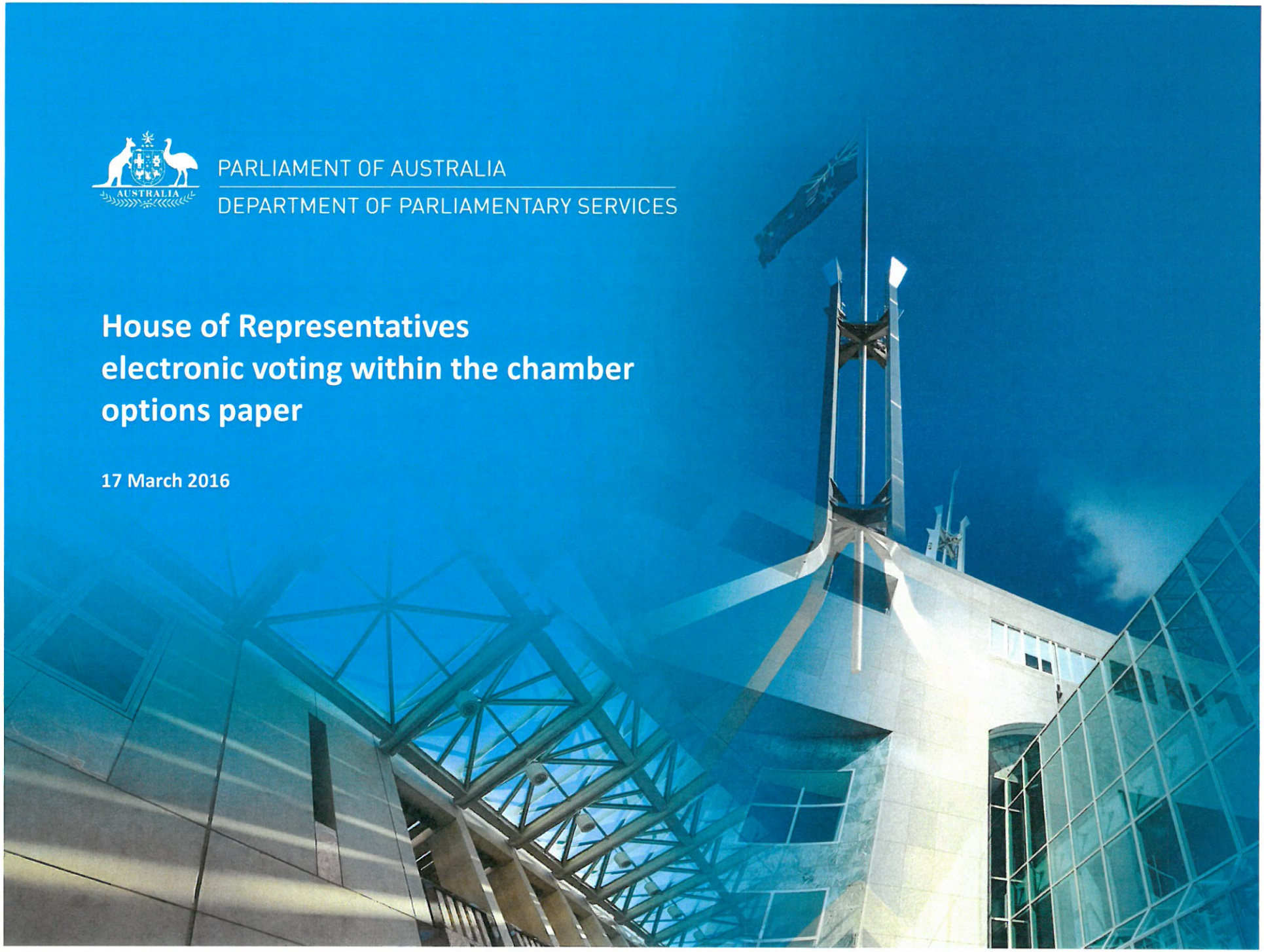
House of Representatives electronic voting within the chamber options paper

17 March 2016



Introduction

This document outlines:

- Possible technical solutions and associated costs for the provision of electronic voting in the House of Representatives chamber
- benefits or otherwise to the work of the House and the conduct of divisions by the use of electronic voting including:
    - procedures for counting and reporting votes using an electronic voting system
    - costs of establishing and providing such a service
    - efficiencies to be gained in counting and reporting the vote in a division.

Consideration is also given to solutions that would allow the House to maintain its tradition of Members physically dividing, as well as those for Members voting in their place. However, it is not contemplated that Members would be permitted to vote from any place other than the chamber

This paper:

- Creates a three-point model for the classification of the benefits associated with electronic voting
- Outlines the key options and their dependencies
- Provides a detailed analysis of the benefits and issues associated with each option
- Provides a cost comparison of each of the options

Three-point electronic voting model & key benefits

Benefit 2
Reduction in the number of recounts

Benefit 1
Reduction in the time taken to conduct a vote

Benefit 10
Improved integration of information with media streaming services

Benefit 9
Improved information sharing on the aph.gov.au website

Improvements to the Members' voting process

Improvements to counting and reporting process

Improvements to the publication of voting results for use by the Parliament and the public

Integrated across digital, multimedia and information sharing channels

Benefit 3
Streamlined administration of voting information

Benefit 4
Detailed data would be available for publishing immediately

Benefit 5
Foundation for future innovation in relation to chamber information management

Benefit 6
Improved integration of the results with the official record of proceedings

Benefit 7
Further promotes openness of parliament through Improved information sharing with the public

Benefit 8
More timely information available for statistical analysis

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Options and dependencies

Improvements to the Members' voting process

1. Portable devices*
Portable mobile devices provided to members upon entry to the chamber

Members would be required to register their identity on the portable voting device prior to voting

2. In-place voting*
Fixed voting panels attached to desks

Will require kiosks to be installed for frontbenchers who don't have a desk.

3. Voting application (app)*
Provided as a mobile device app*** on Members existing devices

4. Biometrics**
Facial Biometric voting, using existing camera locations to identify the vote of each parliamentarian from their location within the chamber

5. Kiosks*
Installation of portable kiosks located in key positions across the chamber

Kiosks as a backup option
Portable kiosks could be installed as a secondary backup capability in the event that the primary system does not operate for either an individual or the entire chamber

Improvements to counting and reporting process ****

Voting administration system
Tellers (Whips) and Clerks are provided with a mobile app and device to digitally count and report the vote

Voting administration system user interface
The voting app will include an interface for displaying the live results of a vote to Tellers (Whips) and Clerks

Tally screens
Installation of "tally" screens within the chamber to display the results of a vote
May not be required for members voting options 4 and potentially 5

Improvements to the publishing of voting results

Media streaming
Integration of the results within existing streaming and on demand video feeds

APH.GOV.AU
Publishing of the digitised results on the internet

eParliament
Provision of the results for use by the public for statistical analysis

Notes:
* Will require additional identity verification, either smartcard, pin or biometrics.
** Biometrics can be considered as a stand alone option, or as an identity authentication option with any one of the other electronic voting options.
*** Provided as an application to run on members mobile devices including smartphones and tablets.
**** A 6th option also exist to install the voting administration system for Tellers (Whips) and Clerks, but not install electronic voting tools for members.

Options & benefits summary (1 of 3)

Option	Benefits	Issues	Supports the traditional voting process
1. Portable devices Dedicated mobile devices provided to members upon entry to the chamber	Can be restricted to the floor of the chamber Facilitates parliamentarians to be able to vote from any location within the chamber Will speed the voting process up No impact on the fabric of the chamber	Parliamentarians will be required to carry an additional device whenever they are in the chamber Parliamentarians will be impacted both upon entry to and exit from the chamber through a process to allocate and retrieve mobile voting devices Identity management issues will need to be managed through two factor identification, requiring a smart card, swipe card or security card to be provided to members Tally screens will need to be installed as the primary method to display how parliamentarians have voted	Partially Voting from anywhere within the chamber will be able to occur It will facilitate the current voting process The need for "tally" screens will, over time, change the traditional voting process
2. In-place voting Fixed voting panels attached to desks	Can be restricted to the floor of the chamber	Implementation options will need to consider the impact on the fabric of the chamber Portable "kiosk" capability will need to be created and managed as there is no location to install voting panels for frontbench members Does not support the current voting process Tally screens will need to be installed as the primary method to display how parliamentarians have voted	Partially Voting from desks will be able to occur, but frontbenchers will need to be supported through "kiosk" capability The need for "tally" screens will, over time, change the traditional voting process

Options & benefits summary (2 of 3)

Option	Benefits	Issues	Supports the traditional voting process
3. Voting application (app) Provided as a mobile device app* on Members existing devices	Facilitates parliamentarians to be able to vote from any location within the chamber Will reduce the time taken to undertake a vote Will support the current voting process No impact on the fabric of the chamber	Voting cannot be restricted to the floor of the chamber Backup solutions will need to be implemented to support parliamentarians with no mobile device, situations where the device does may not have adequate battery power or technical issue with the device arise	Partially Voting from anywhere within the chamber will be able to occur The need for "tally" screens will, over time, change the traditional voting process
4. Biometrics Facial biometric voting using existing camera locations to identify the vote of each parliamentarian from their location within the chamber	Facilitates parliamentarians to be able to vote from any location within the chamber Voting can be restricted to the floor of the chamber May be able to leverage current camera capabilities implemented across the chamber No impact on the fabric of the building	Parliamentarians will need to be enrolled and may be impractical for some members Technology has not been used in this context previously	Fully The current voting process will be able to be supported, including using the location of the parliamentarians in the chamber as the formal representation of their votes

Options & benefits summary (3 of 3)

Option	Benefits	Issues	Supports the traditional voting process
5. Kiosks Installation of portable kiosks located in key positions across the chamber	Voting kiosks could be positioned to support the current voting process	Identity management issues will need to be managed through two factor identification, requiring a smart card, swipe card or security card to be Tally screens will need to be installed as the primary method to display how parliamentarians have voted The design of the chamber and the minimisation of the impact of kiosks on the voting process will need to be carefully considered All members will need to stand and walk to a kiosk to vote Will increase the time taken to undertake votes	Partially Kiosks dedicated to voting "aye" or "no" can be implemented on opposite sides of the chamber to support the current voting process
6. Voting administration application (app) Tellers (Whips) and Clerks are provided with a voting application accessed from tablets from which they digitally enter the tally	Improved information sharing with parliamentarians and the public Facilitates the current process Tally screens will not need to be installed Can form the foundation of an electronic voting solution (possibly biometrics in future years) Could be deployed independently of voting devices and would still introduce benefits in regard to the counting and reporting process	Will not fully achieve benefits in relation to the actual counting of votes	Fully The current voting process will be able to be supported, including using the location of the parliamentarians in the chamber as the formal representation of their votes

Comparison of estimated costs

Key considerations

- Prices are indicative only
- Options 2, 3 and 4 may require the implementation of kiosks as a backup voting system for members (the cost could be in the vicinity of an additional $1m). This has not been included in the indicative costs
- Although the cost of voting equipment has decreased, both the integration with other systems and the impact of implementing a solution within the fabric of the building will have an impact on the implementation cost
- A market test of a shortlisted set of solutions should be undertaken to validate costs prior to proceeding
- The cost of biometric solutions has dramatically reduced in other industries, however no benchmarks exist for the implementation of biometrics in a parliamentary context