

# Vermont Legislative Research Service

<http://www.uvm.edu/~vlrs/>

## Electronic Legislative Voting Systems

This is a report about current electronic roll call systems in state legislatures in response to H.545, "An act relating to the implementation of an electronic roll-call system in the Vermont House of Representatives,

name of each member and manually records an affirmative or negative response. This process is repeated to account for any members who were absent during the first reading of the roll call. Votes are then tallied and recorded in the House Journal.<sup>9</sup> After a roll call vote is completed, members can

## Roll Call Systems in the 50 States

In 2014, the NCSL updated its 2008 research on state legislative voting systems. Ninety-nine principal clerks and secretaries were surveyed and sixty-seven responses were collected.<sup>14</sup>

Roll calls in legislative chambers may be conducted through manual, electronic, or combination systems. In manual systems, roll calls are conducted through calling out a member's name and recording responses on paper.<sup>15</sup> The same process occurs in combination systems, but these results are also entered into a legislature's bill tracking software.<sup>16</sup> Electronic roll call machines facilitate roll calls by al

The electronic roll call system used in the New Hampshire House was installed by the company International Roll Call (IRC), with its latest software upgrade in 2016.<sup>25</sup> It costs approximately \$500,000 to install and about \$10,000 per year to maintain, with its latest software upgrade in 2016.<sup>26</sup>

The New Hampshire electronic voting system includes a number of integration features. The system can be activated and controlled by House leadership or voting system staff.<sup>27</sup> Members vote through push buttons at their seats, and the results are displayed on screens in the chamber. The operators are also able to use the system to activate a chime in the State House when a roll call vote is initiated.<sup>28</sup> The chime system notifies representatives that a roll call is about to proceed.

In the House, New Hampshire's roll call system allows its 400 members to complete a vote in 30 seconds. Results are displayed immediately when the Speaker updates the display board and are uploaded to the House website within 20 seconds.<sup>29</sup>

Although the New Hampshire House of Representatives experienced an initial increase in roll calls when the system was implemented in 2011, they have since declined. The number of roll calls, as seen in Table 1, peaked at 289 in 2012, but by 2017 had dropped to 152, a figure more closely resembling the 154 roll calls that took place in 2007.<sup>30</sup> In the long term, the number of roll calls in the New Hampshire House of Representatives has not changed in any significant way after the electronic roll call system was implemented.

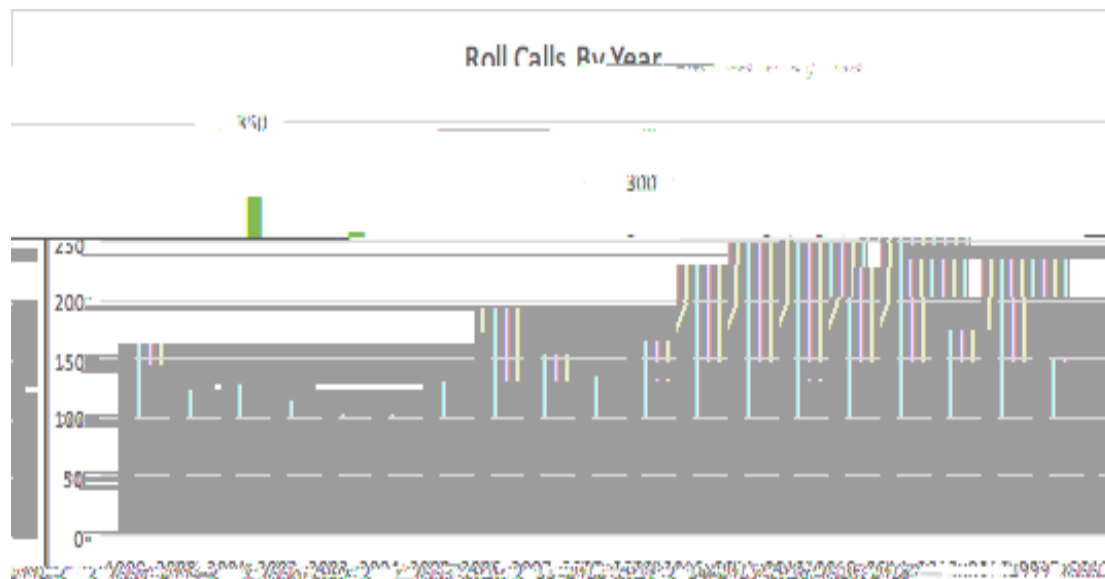


Figure 1: Roll Calls by Year, New Hampshire House of Representatives. Scott Rupp, email, March 1, 2018.

<sup>25</sup> Scott Rupp (Manager New Hampshire General Court Information Systems), in discussion with authors, February 27, 2018.

<sup>26</sup> Scott Rupp, in discussion with authors, February 27, 2018.

<sup>27</sup> Scott Rupp, in discussion with authors, February 27, 2018.

<sup>28</sup> Scott Rupp, in discussion with authors, February 27, 2018.

<sup>29</sup> Scott Rupp, in discussion with authors, February 27, 2018.

<sup>30</sup> Scott Rupp, in discussion with authors, February 27, 2018.

## Illinois

The Illinois Legislative Information System Agency installed an electronic voting system in both chambers of the Illinois General Assembly in 2007.

companies, Daktronics, Televic, and Primus, for hardware and software. According to IRC, in 2009, 44 states had purchased its patented software or contracted them for installations of display boards and/or voting systems.<sup>42</sup> Vermont was the first state to purchase IRC's latest version of "xmLegislator," a legislative management software that operates in tandem with IRC's ".NET" voting software for voice votes.<sup>43</sup>

Propylon, a competing company, offers similar services in legislative management software but does not provide display board or voting system hardware. Instead, the "Legislative Workbench" software is accessible on personal, secure tablets.<sup>44</sup> Propylon was founded in 1999 in Ireland and supplied the House of Oireachtas with its first electronic drafting system, "Parliamentary Workbench."<sup>45</sup> In 2005, Propylon began operating in the United States with a contract for Pennsylvania's legislature. Since its introduction in the United States, legislatures in Kansas, North Dakota, Indiana, Michigan, Ohio, and Montana have also contracted with Propylon for software.<sup>46</sup>

### Features of Electronic Roll Call Voting Systems

According to the NCSL, electronic roll call systems aid legislators in expediting their work because they transfer, store, and publish voting data without requiring an individual to re-enter this data.<sup>47</sup>

Voting machines are most commonly installed at each member's desks, but they can also be positioned at different locations within the chamber. To increase the security of these systems, some are now programmed to function with a representative's personalized voting card.<sup>48</sup> To promote further security measures, New York and Oregon use fingerprint recognition software to activate the voting system.<sup>49</sup> Wireless voting systems are less common. IRC offers a Televic Conferencing System with wireless voting technology.<sup>50</sup> Propylon specializes in wireless roll call systems through their tablet-based voting products.<sup>51</sup>

Most chambers use display boards in varied capacities. Display boards are most often used to advise the members on the reading of a bill, the order of business, or a running or final vote total.<sup>52</sup> Because display boards can detract from the historical decorum of chambers, some legislatures have invested in creative measures to allow the display boards to be disguised or hidden when not in use. As of 1996, eight chambers reported using display boards that retract into the chamber wall

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<sup>42</sup> "Customer Listing," International Roll Call, accessed March 19, 2018, <http://www.roll-call.com/about-irc/customer-listing/united-states.aspx>.

<sup>43</sup> "Products-Legislative Management," International Roll Call, accessed March 19, 2018, <http://www.roll-call.com/products/legislative-management.aspx>.

<sup>44</sup> Propylon, "The Propylon Story Through Key Points In Time," accessed April 2, 2018, <https://www.propylon.com/propylon-story-key-points-time/>.

<sup>45</sup> Propylon, "The Propylon Story."

<sup>46</sup> Propylon, "The Propylon Story."

<sup>47</sup> Erickson, "Roll Call Voting Machines," 19-37.

<sup>48</sup> Erickson, "Survey on Voting Machines," 1-67.

<sup>49</sup> Erickson, "Survey on Voting Machines," 1-67.

<sup>50</sup> International Roll Call, "International Roll Call introduces Televic Wireless Voting Conference System," accessed March 22, 2018, <http://legisweb.state.wy.us/InterimCommittee/2014/5-ElectronicVotingShortReport.pdf>.

<sup>51</sup> Propylon, "The Propylon Story."

<sup>52</sup> Joy Hill, "Short Report: Electronic Voting," (Cheyenne, Wyoming: Wyoming Legislative Service Office, 2008), 1-79, accessed March 29, 2018, <http://legisweb.state.wy.us/InterimCommittee/2014/5-ElectronicVotingShortReport.pdf>.

when inactive.<sup>53</sup> IRC also advertises the possibility of displaying artwork within a framed display when the board is turned off for aesthetic purposes.<sup>54</sup>

The costs of these features vary from state to state. Estimates should be comparable between state legislatures of similar size. Maine's 151-member House of Representatives is a similar size to Vermont's 150-member House of Representatives. Maine uses an electronic roll call system that costs \$20,000 per calendar year. The installation of this system for both the House and Senate in 1994 cost \$310,000.<sup>55</sup> The New Hampshire House of Representatives, with 400 members, installed an electronic system for \$500,000, with annual maintenance fees of \$10,000.<sup>56</sup> Both of these systems were installed by IRC.

### Pros and Cons

Electronic roll call systems cut down on the time-consuming practice of traditional roll calls. This can allow legislators to focus on other issues and tasks at hand and reduce the time dedicated to administrative tasks associated with roll call votes.

Some clerks have commented that states have witnessed a significant upturn in the use of roll calls after the electronic roll call system was installed, with some states reporting a five to six percent increase in roll calls per session.<sup>57</sup> This makes the justification of electronic roll calls as time and money saving investments weaker. This trend does not apply to every state, as highlighted by New Hampshire's recent roll call trends.<sup>58</sup>

Clerks have also reported issues with a lack of debate on the floor after the implementation of electronic roll call systems. Based on these clerks' observations, legislators may be choosing to put bills to roll call before sustaining sufficient deliberation. Electronic roll call systems also require periodic updates and replacements.<sup>59</sup> Depending on the system, these upgrades vary in cost.

### Conclusion

There are many options the Vermont General Assembly could pursue to change the state's current roll call system. Like many states in the country, Vermont could upgrade to an electronic roll call system. With at least two companies that offer customizable services, there are a multitude of features the Vermont General Assembly could choose to install. These features may improve the speed of roll call voting, which could have potentially positive and negative implications for the legislature. If such time savings were realized, that could mean reducing session length and increasing the time legislators have to research, draft, and debate legislation and to interact with constituents. But the costs associated with installation of electronic roll calls are substantial, and although potentially cost-effective in the long run, implementation would require a large initial investment and potential changes to the State House's physical infrastructure.

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<sup>53</sup> Erickson, "Roll Call Voting Machines," 19-37.

<sup>54</sup> International Roll Call, "Paint or Pixels? Concealing LED Displays in the Chamber Environment," accessed April 2, 2018, <http://www.roll-call.com/what's-new/march-2015/paint-or-pixels-concealing-led-displays-in-the-chamber-environment.aspx>.

<sup>55</sup> Rob Hunt (Maine House Clerk), in discussion with authors, March 19, 2018.

<sup>56</sup> Scott Rupp, in discussion with authors, February 27, 2018.

<sup>57</sup> Discussion with State House Clerks, March, 2018.

<sup>58</sup> Discussion with State House Clerks, March, 2018.

<sup>59</sup> William M. McGill (Clerk of the Vermont House of Representatives), in discussion with authors, March 19, 2018.

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This report was completed on April 27, 2018, by Rosie Contompasis, Erin Thorndike, and Eric