

GA Touchscreen Cost Review

INTRODUCTION

In May 2002, Georgia became the first U.S. state to commit to a statewide DRE (direct recording electronic) touch screen voting system. The advertised cost of installing and operating the Diebold Election Systems equipment was \$54 million – at the time, an unprecedented sum for any state to spend on voting equipment.

This was not, however, the end of Georgia’s major expenditures. By the end of 2002, by which time the state had carried out just one all-electronic election, contract records show that the state had committed to paying Diebold at least \$10 million and as much as \$20 million more to cover an extension of the service warranty, various software upgrades and costs associated with having the upgrades federally certified.

By the end of 2004, the state had purchased a further 955 Accuvote touch screen terminals with a retail value of more than \$2.5 million (the exact purchase price is not known). It had committed to another \$1.5 million to secure a further warranty extension. And it was becoming liable to an escalating scale of service and maintenance costs which, if applied to the state’s full inventory, would amount to almost \$2 million in 2006.

The original \$54 million was raised, with legislative approval, via a bond measure which was introduced as a supplemental item to the 2002 budget. There was little, if any discussion of significant additional costs down the road. When Georgia’s Secretary of State, Cathy Cox, announced the contract with Diebold at a news conference on May 3, 2002, she said Diebold would provide the equipment and also “training and support to election offices in every Georgia county”. What she did not say is that the bulk of those services were covered only up to the end of the November 2002 election, and that the contract signed by the state laid out a schedule of significant further expenditures thereafter to keep those services going.

The document trail unearthed by the Election Science Institute demonstrates clearly that an ambitious DRE system like Georgia’s carries with it significant ongoing costs, not all of which may be apparent to legislators and election officials when the initial purchase is made. As is made explicit in the contract and in the flurry of six amendments signed between July 2002 and December 2004, Georgia faced a number of difficulties with its Diebold system, some of which might be regarded as typical of all jurisdictions and all equipment vendors – for example, the ongoing need for in-precinct training over the span of more than one election cycle – while others might be seen as more specific to Georgia, its choice of vendor and its role as a pioneer in the field of touch screen voting systems – notably, the documented failure of Diebold to meet legally mandated deadlines for the certification of software upgrades and patches.

Although the contract and contract amendments list specific expenditures and payment schedules, some of the text is open to differing interpretations. What follows is a documented, but necessarily less than complete, account of the financial liabilities incurred by Georgia over the first three years of its association with Diebold Election Systems. The document trail demonstrates clearly that the state incurred significant, apparently unanticipated or at least unannounced, extra costs over and above the advertised \$54 million initial purchase price. An account of those extra costs and the manner in which they came about may be instructive to other jurisdictions, whether at city, county or state level, considering a similar purchase of electronic voting systems.

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I. INITIAL PURCHASE

In her news conference announcing the acquisition of voting machines from Diebold Election Systems, Secretary of State Cathy Cox said the contract was worth \$54 million. This figure, she said, covered the purchase of 19,015 touchscreen voting units as well as 400 optical scan ballot readers for absentee balloting. The \$54 million also covered the operation and management of Global Election Management (GEMS) software. And it covered training and support by Diebold for election offices in every Georgia county. Secretary Cox gave no indication of any time limit on these services.

Appendix C of the contract makes clear, however, that the contract price (actually, \$53,950,000) is designed to cover only “first year deployment”. The payment schedule (Appendix M) appears to make some provision for election support services in 2004, because \$2,752,238 is set aside to that effect. But this represents only 5 per cent of the total contract value. Paragraphs 3.5.3 – 3.5.7 of the contract stipulate that the deadline for “final acceptance” of the statewide system is the election of November 5, 2002, and that payment for all but the \$2,752,238 set aside for 2004 falls due on that date.

Thus it appears that “first year deployment” refers only to the period between the contract signing (May 2002) and the election, barely six months later.

Appendix C lays out a schedule of escalating costs for training, maintenance and other costs in subsequent years. In year two, for example, training of top county election officials is priced at \$3,150 per county (\$500,850 for all 159), poll worker training at \$54.85 per precinct (\$153,470 for all 2,798) and \$405.95 for onsite support per precinct (\$1,135,848 for all 2,798).

Appendix C also lays out a number of pricing options that would extend the training, maintenance and other services into a second or third year. A two-year service contract would come to a total of \$55,172,102.21 (roughly \$1.2 million more than the contract as signed); a three-year contract would come to \$56,385,689.55 (roughly \$3.4 million more).

It is clear from both the signed contract and Secretary Cox’s public statements that Georgia went for the one-year option, at least in the first instance. The contract also makes provision for a warranty on the goods and services provided. But paragraph 6.1 of the contract states that this warranty lasts only for one year after the final statewide acceptance of the voting system – one year after the November 2002 election.

2. MAJOR NEW COSTS – DECEMBER 2002

The documentary record makes clear that by the end of 2002, Georgia had encountered significant difficulties in the implementation of its electronic voting system. The first amendment to the contract, signed less than three months after the contract itself, modified the training schedule and mandated Diebold to fulfil a new function, the creation of county election databases. The second amendment, signed on December 31, 2002, and its attachments, indicate that certain patches and upgrades have been added to the software and require federal certification. This dovetails with numerous media reports that the patches were ordered to correct machine malfunctions in the run-up to the November 2002 election. The problems also appear to have had a knock-on effect on the financial arrangements.

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The second amendment triggered a whole new schedule of payments to Diebold starting with \$10 million payable on signature of the amendment. The state agreed to pay another \$5 million once Wayle Laboratories and CIBER – testing labs engaged in testing voting machinery software – wrote to confirm that all certification testing had been successfully completed on the software upgrades. The state agreed to pay a further \$1 million once it received final certification reports, including officially assigned certification numbers. The state agreed to pay a further \$3,548,607.42 once the upgrades and a new software patch had been successfully installed and all equipment had been inventoried and accounted for. And the state agreed to pay another \$500,000 for completion of new manuals and training manuals. The expenditures, taken together, amount to more than \$20 million.

It is not clear from the second amendment and the new payment schedule whether all of these items represent new expenditures, or whether some of them represent deferrals from the original payment schedule laid out in Appendix M to the original contract. The second amendment defers “final acceptance of the statewide voting system” until all items in the new payment schedule have been fulfilled. However, only one item on the new payment schedule, a training fee of \$430,560.23, is mentioned in the earlier documents as having been specifically withheld. And Diebold is clearly providing a number of new items – software upgrades, patches and so on – and incurring new expenditures of its own, notably in its attempt to secure federal certification for the software changes. The second amendment also extends the warranty until the 2004 presidential primary election.

It seems impossible to account for the \$10 million payment without seeing it as a new expenditure, possibly to cover the warranty extension. The payment schedule does not say one way or the other what occasioned it. Likewise, it is hard to see how the other expenditures relate to items previously contained in the original contract. In the absence of more detailed accounting, it seems reasonable to conclude that the second amendment represents a further outlay by the state of Georgia of at least \$10 million and possibly as much as \$20 million – close to 40 per cent of the value of the original contract.

3. FURTHER EXPENDITURES

Georgia and Diebold signed a third amendment in March 2003, largely to reflect the fact that federal certification for the new software was still not forthcoming. According to this amendment, Georgia agreed to release funds previously held up pending full certification. The amount of money involved is not mentioned – the amendment refers only to an unpaid invoice, without giving further details.

The fourth amendment, signed on August 25, 2003, indicates that Georgia paid \$75,159 for three software licenses relating to its GEMS server. The amendment also refers to an “annual maintenance fee” as laid out in Appendix C of the original contract, suggesting that the extended warranty agreed in December 2002 no longer covered maintenance of these items, and perhaps no other items either. Appendix C states that the maintenance charge on GEMS software is 13 cents per registered voter per year. Since Georgia has roughly 4.7 million registered voters, that implies an annual maintenance fee of more than \$600,000.

The fifth amendment, signed on September 16, 2004, relates once again to uncertified software – this time to a so-called Security Adjustment covering Ballot Station firmware, voter card encoder firmware and a new version of GEMS which appears unready for state certification before the November general election. (The amendment offers a window for certification between December 2, 2004, one month after election day, and April 29, 2005.) No financial implications are mentioned in the amendment, however.

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The sixth amendment is contained in a letter from Diebold Election Systems, dated December 7, 2004, in which the following become apparent:

1. The state bought an additional 955 AccuVote touch screen voting machines in September 2004. Since these machines are listed in the original Appendix C to the contract as costing \$2,769.91 each to deploy, one can conclude this represents a new outlay of at least \$2.6 million.
2. Under the terms of the amendment, the state extended the warranty on its Diebold equipment through December 31, 2005, at a cost of \$1,594,300. This represents a discount of \$15 per machine on the normal servicing rate of \$95 per touch screen and \$150 per optical scanner.
3. Warranty services will be available for calendar year 2006, but at the normal rate – closer to \$2 million than the \$1.6 million charged for 2005.

CONCLUSION

The \$54 million figure cited as the value of the contract Georgia signed with Diebold Election Systems in May 2002 does not accurately reflect the full extent of public expenditure on touch screen voting systems over multiple election cycles.

Even without the introduction of new software upgrades or emergency patches, the service and maintenance costs run into millions of dollars each year. Georgia appears to have encountered a major hiccup within six months of its purchase, leading to the expenditure of as much as \$20 million over and above the already considerable original outlay.

No doubt other states and smaller jurisdictions will be able to learn from this experience and negotiate more advantageous contracts without these sorts of liabilities. But it is also important to understand the kind of ongoing expenses incurred by DRE systems. Machines will break down or become superannuated, and software will need to be upgraded on a regular basis. The costs incurred as a consequence need to be factored into budget considerations from the very beginning.