



September 24, 2015

Michael Irvin
Dallas County Purchasing Department
Records Building
509 Main Street
Dallas, TX 75202

Dear Mr. Irvin:

Attached is the requested EPB Cost Sheet, about which we would like to offer comments for clarity.

Galois's primary goal is to increase the trustworthiness and verifiability of all democratic elections worldwide, while also reducing their costs. With that goal, our business model is unlike those of our competitors, so our pricing model is outside the norm.

Our licensing and support model is also unique in the industry and is based upon our technical capabilities and ability to guarantee defect-free products. We offer a permanent license for a product that you own, with optional annual support contracts for software and hardware. If anyone ever finds a correctness or security flaw in the system, we will fix it for free.

With regards to your EPB Cost Sheet, line items 1.1.1, 1.2, 1.4, and 1.8 are ambiguous given our licensing model. Consequently, please carefully consider the following.

The cost of item 1.1 is a license-for-ownership for your county and includes lifetime maintenance, warranty, and support in the form of defect fixes.

The (purely optional) cost of a software support contract (e.g., 1.8.1–1.8.3) is fixed and unchanging. That contract includes training, remote and on-site support for your elections, and updates to your software necessitated by changes in law. You are also welcome to contract with any other firm to provide that support, as you will have all the source code and development documentation for the entire system that you own.

Since we exclusively use COTS hardware, our hardware costs are passed straight through to you with no overheads. Our cost estimates do not include potential discounts available to you as a large-scale government purchaser, so they are conservative. Moreover, if you have existing hardware compatible with our software system, you can provision and use it in elections. It is also well within your rights and interest, if you wish, to use the COTS hardware purchased for elections for other purposes outside of the election calendar. Complementing our optional software support contract, if you wish to purchase a yearly hardware support license from us, we are happy to provide one.

Finally, while it is likely that the total cost of ownership for your EPB over even a short (e.g., three year) timeframe is likely to be lower with our business model than with our competitors', the fact that our software systems have an effectively arbitrarily long shelf life (because they are guaranteed bug-free and run on whatever platform you decide) means that your per-election costs for EPBs effectively trend to zero in the long term.

Best regards,

Dr. Joe Kiniry & Dr. Dan Zimmerman
Galois, Inc.

Electronic Poll Book Cost Sheet

Item	Cost
1. Software	
1.1. License	\$2,500,000
1.1.1.Maintenance	\$0 (included in 1.1)
1.1.2.Warranty	\$0 (included in 1.1)
1.1.3.Support	\$0 (included in 1.1)
1.2. Maintenance Support	\$0 (included in 1.1)
1.3. Data Conversion	\$0 (included in 1.1)
1.4. Maintenance Support	\$0 (included in 1.1)
1.5. Hosting Services fee/Server Cost	\$0 (not necessary in our system)
1.6. Administration Dashboard/Command Center	\$0 (included in 1.1)
1.7. Custom Software Development/ Reports	\$0 (included in 1.1)
1.8. Annual Maintenance	\$750,000 (total for 3 years)
1.8.1. 1 st Year	\$250,000
1.8.2. 2 nd Year	\$250,000
1.8.3. 3 rd Year	\$250,000
Total:	\$3,250,000
2. Hardware (Quantity 2000)¹	
2.1. Unit (tablets, laptops, etc.)	$\$400 \times 2,100^2 = \$840,000$
2.2. 2D Barcode Scanners/ Magnetic Reader	\$0 (use tablet camera)
2.3. Receipt Printers (4" paper roll) – Bluetooth/Wireless ³	$\$250 \times 630^4 = \$157,500$
2.4. Label Printers – Bluetooth/Wireless	\$0 (not in proposed system)
2.5. Signature Pad	\$0 (use stylus on tablet screen)
2.6. Burner/Duplicator/Replicator	\$0 (not in proposed system)
2.7. SD Card/External Memory	\$0 (not in proposed system)
2.8. Server	\$0 (not in proposed system)
2.9. Stand	\$0 (integrated in tablet case)
2.10. Stylus	$\$20 \times 2,100 = \$42,000$
2.11. Case	$\$20 \times 2,100 = \$42,000$
2.12. Back-up Battery	$\$20 \times 1,050^5 = \$21,000$
2.13. Paper	\$0 ⁶ (standard paper)
2.14. Cables	\$0 (included with units)
2.15. Hubs/Routers/WiFi jetpack	$\$200 \times 630 = \$126,000$
2.16. Shipping	\$4,000 (approximate)
Total:	\$1,232,500

Electronic Poll Book Cost Sheet

3. Professional Services	
3.1. Implementation	\$713,125
3.2. Data Conversion per Election	\$0 ⁷
3.3. Data Loading per Election	\$0
Total:	\$713,125
4. Training	
4.1. In Person	\$0 (included in implementation)
4.2. Webinar	\$0 (included in implementation)
Total:	\$0
5. Onsite Support (per Election)	
5.1. Early Voting	\$0 (included in 1.8)
5.2. Election Day	\$0 (included in 1.8)
Total:	\$0
6. Discount	
6.1. Large quantity	\$0
6.2. Other	\$0
Total:	\$0
7. Other	
7.1. LTE Data Usage, Per Polling Place, Per Election	\$30 x 630 = \$18,900
7.2. Printer Ink, Per Polling Place, Per Election	\$10 x 630 = \$6,300
7.3. Hardware Maintenance, Per Year (optional)	\$64,000
Total:	\$25,200 Per Election + \$64,000 (optional) Per Year
Grand Total for 3 Years Not Including Hardware Maintenance:	\$5,195,625 Fixed Cost + \$25,200 Consumables Per Election
Grand Total for 3 Years Including 3 Years Hardware Maintenance:	\$5,387,625 Fixed Cost + \$25,200 Consumables Per Election

Electronic Poll Book Cost Sheet

¹ This estimate reflects current retail pricing for COTS hardware. Government and quantity discounts will likely be available from hardware suppliers at time of purchase, which would reduce the prices shown here. We do not charge a markup, beyond the actual shipping and handling costs, on COTS hardware procured for our clients.

² We assume 2000 units, with 5% spare units available in case of hardware failures or other contingencies, for a total of 2100 units. The specific number of units will be determined by the County during final negotiations. We similarly assume 5% spare units for styli, cases, backup batteries, LTE networking devices, printers, and consumables.

³ This estimate is for portable inkjet printers with integrated batteries, for use in printing maps and directions to polling places if the County desires that capability. No other printers are included in our system design.

⁴ We assume deployment at 600 polling places, which was the highest number of polling places indicated in the RFP.

⁵ One backup battery pack is capable of charging two tablets, in the unlikely event that a tablet battery does not last an entire day. We anticipate that some tablets may be plugged in to their chargers during use or at other times during a day, as polling place layout and activity permits.

⁶ Because the printers are standard printers and are to be used only for printing maps and directions, they do not require special paper. They can be supplied with standard paper from the County's typical office supply sources at the County's typical paper costs.

⁷ The system will accept data in simple CSV format, and we will supply conversion software to be used with the County's existing voter registration database; thus, there is no ongoing per-election cost for data conversion or data loading.