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THE USE OF COTS PRODUCTS IN EAC CERTIFIED VOTING SYSTEMS
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Requested statement from
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Good afternoon Chairwoman Beach, commissioners, members of the EAC, ladies and gentlemen. I am pleased to be here not only to represent the MicroVote General Corporation, but also as a citizen interested in the continued viability of voting systems in the United States.

I have handed out a photo of a device invented by Thomas Edison in 1869. It is not widely known, but Edison's first patent was for a vote recorder, which is now located in the Edison Museum in Fort Myers, Florida. The machine was rejected by both the Congressional and Massachusetts legislative committees. I find it interesting that after this experience Edison decided to confine his efforts to inventing products that were certain to be of "commercial value." 140 years later we are still confronted with the same challenge.

MicroVote has been an industry leader for almost three decades, known throughout the election community for innovative, electronic voting solutions and superior customer service. Although we have at times had voting product in more than a dozen states, when you call our company for support on Election Day, you are connected to people you've known for years – names like Mandy, Bill, Dennis, and Jim. These are some of the most experienced election workers on the planet. Although we are a small company we have large ideas. We are proud to not only have been the first to achieve federal certification by the EAC, but we remain the only election system in the United States to be certified to the latest 2005 voluntary voting system guidelines. But this outstanding accomplishment has come at too great a cost, and like Edison, we find ourselves at the top of the mountain grasping a superior product with too little certainty of commercial value.

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Examples have been used comparing the use of COTS products in voting systems to those in the Department of Defense, with lessons learned and possible strategies mentioned to lengthen the viability of certified systems. The elephant in the room is that unlike the heavily funded US military industrial complex, the handful of voting vendors that are left comprises little more than a cottage industry, dominated by small stand alone companies like ours and a few relatively small subsidiaries. Where only a few years ago there were over a dozen healthy companies vying for business, now back door politics, regulatory burdens, and economic hard times have driven all but the most resilient players from the table and into more profitable ventures.

Those few of us that are left are not grabbing bigger pieces of the pie that remains, for the pie has disappeared. Counties and states cannot afford new systems or justify fixing systems in place that are not now broken and never have been in any major, significant way, although like all of us, their equipment is aging at an alarming rate. Yes, incremental improvements have been made. Certainly operations are faster, more secure, better audited, and functionally superior. And we have reams of documentation, comments and reports that few will read to back up our claims. Our certified system is better than the ones we seek to replace in many ways. But the plain truth is that we as Americans pride ourselves on conducting free, open, secure elections where every vote counts – and with few exceptions, whether it's paper and pencil or computer and smart cards every vote does count and has counted. But elections dominate the news for a few weeks or months and then we pile the paper in boxes, put the equipment away and mostly forget about it for another four years. We are so burdened with paying our mortgages and healthcare costs, and so fearful of increased taxes, that the last thing we think we really need is new and improved voting equipment, despite our public outcries and posturing politicians.

Congress allocated funds for HAVA which certainly provided a shot in the arm, but overall has been much too little, and much too late. Where is the direct funding of election equipment research and development, buried in the HAVA bill? Significant funding is routinely given to military equipment research and

development. We as an industry are expected to design and build equipment that is subjected to similar levels of testing and scrutiny. Products that once took months or a year or two to reach the market are now taking 4-5 years if they make it at all, and at a cost that's 15-20 times what it was before. It should come as no surprise to anyone in this room that counties have not budgeted enough money to support the increased cost of certification, which must be eventually passed on to the American people, and private investors are not willing or able to take considerable risks on a perilous financial future.

So the reality we face today is that the voting public will be voting on existing old obsolete equipment with limited replacement parts availability, or highly expensive new obsolete equipment with limited replacement parts availability. The choice is less than ideal. We must have changes in public priorities with direct research and development funding and grant initiatives, as promised by HAVA. There needs to be a fundamental change towards expediency and common sense in the testing and certification process. Speaking as a simple American with some extensive inside information, the situation needs to change quickly.

This brings us to the subject of today's hearing - the use of COTS hardware and software in voting systems, with an emphasis on PC's. The topic is of intense interest to MicroVote, because we are not only the first and only company to achieve 2005 certification, but we are currently the first company to attempt a revision to an EAC certification. We obtained a quote from iBeta, which almost lead to a seizure. Then we turned to our good friends at Wyle Labs. At least I thought we were good friends. Then I saw their quote. Seriously, the extraordinary cost and time to independently test and certify 300 lines of minor code changes in our management software and a few insignificant document revisions is unprecedented and in my opinion, unwarranted. I can't blame Wyle. They're doing their best to efficiently test our system under the present circumstances at the going rate for their services. And I can't blame the EAC. They're carrying out their duty as they understand it to bring credibility and transparency to the certification process.

Keep in mind these 300 lines of code changes took a single individual (me), about one week to modify and test. Most of the modifications were simple fixes or

enhancements to existing functionality. This type of ongoing coding is a routine and necessary part of the development cycle of most software applications. We understand the need for independent testing and verification of changes made to insure the integrity of the system, but fail to see the value in requiring what has become months of further review and paper pushing. By the time our minor revision is re-certified the opportunity will have passed to use it. Instead of improving our system, the process will have impeded innovation and prevented much needed, identified fixes and enhancements from reaching our customers.

One such change to our system that we seek will allow the use of an equivalent or better COTS PC to manage the election. The Dell desktop and laptop PCs chosen to test and certify were top sellers two or three years ago when certification began. By now they have been replaced by several generations of improved models, all with more RAM and storage, and faster processors. Our system was certified with the Windows XP operating system, but soon Windows 7 will be the standard OS shipping with most COTS PCs. We have no objection to reasonable and common sense regression testing when necessary. We have every objection to testing that quadruples the cost of a system and delays or prevents implementation, while adding very little value.

We employ COTS hardware and software products throughout our system, some of which are many generations removed from current offerings. It distresses us that the simplest of changes to our system couldn't be certified in a month, much less three, four or five. We do not dare introduce a new operating system, or even a simple service pack, for fear the additional time and money to test and certify will crush any hope of implementation and viability as a business venture.

In short, ladies and gentlemen, despite the good intentions that will be expressed in today's hearing and strategies proposed to extend the useful life of our products, our experience of the past several years has taught us to be highly skeptical. It is the position of MicroVote that the current environment is not conducive to invention and innovation, and like Edison, we realize that our superior product and efforts may yield little commercial value. We are at the pinnacle of success, yet we stand facing a great precipice. We realize and propose that there needs to be a

fundamental change in thinking as a community, not just about commercial off the shelf products, but about our voting systems as a whole.

Thomas Edison was one of the world's greatest inventors and a personal hero of mine. He quickly came to realize a truth that we too need to grasp. One must invent things of commercial value. We will emerge from this time stronger and more prosperous if we have the courage to go forward. As a commercial pilot I sometimes like to say "we must expedite our climb." We must maintain our high ethical standards while expediting the testing and certification process. We desperately need significant public or private funding to continue our research and development of current and new products. In order to do that all of us in this room must start thinking more like Edison, stop pushing paper around, and get to work for the American people.

Thank you.