U.S. ELECTION ASSISTANCE COMMISSION

1201 New York Avenue, NW, Suite 300

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Roundtable Discussion on COTS Questions:

1. What is COTS?
    a. Commercial- Off-The Shelf (COTS) components (both hardware and software) are used in virtually every commercial application development project. Do we have a precise, acceptable definition of COTS? How would you define COTS in the context of voting systems?
2. Voting System Manufacturers & COTS Suppliers:
    a. An assumption with COTS products is that the quality of the product is known to the industry. Are manufacturers actively investigating their COTS suppliers and making sure they are receiving the quality they require?
    b. Since the voting system industry is relatively small, how do manufacturers leverage COTS providers in order to receive the desired level of quality assurance?
    c. Does having only a single source for a COTS component affect the quality of the product?
    d. Should refurbished parts be considered equal in quality to a new part?
    e. Are there existing models for managing B2B relationships between COTS suppliers and system integrators that may be relevant to the voting system industry?
3. Does the use of COTS components impact the intellectual property strategy of voting system vendors? Testing COTS components
    a. How does reliance upon COTS components impact the internal testing protocols of a voting system manufacturer?
    b. How does the inclusion of COTS components impact the design and implementation of test protocols at a voting system test lab (VSTL)?
4. The pros and cons of COTS:
    a. What cost savings are realized by manufacturers and end users as a result of using COTS components?

b. Are there any extra/hidden costs experienced due to the use of COTS?

c. How does the use of COTS impact the maintainability and sustainability of systems?

d. Does the use of COTS in voting systems pose a security benefit or risk?

5. COTS and the product life cycle:

    a. What challenges do COTS assemblers (e.g. HP/Dell) face when dealing with component suppliers?

    b. How does the use of COTS components impact the development cycle of products i.e. voting systems?

    c. How does COTS impact the life cycle of a system and how has that affected the end user of the system?

    d. Voting system manufacturers are required to disclose known anomalies that manifest themselves over the life cycle of the voting system. Do COTS manufacturers reciprocate this level of transparency and disclosure?

    e. If the life cycle of a COTS component is significantly shorter than that of the voting system that contains it, are there ways to mitigate this difference?

6. Maintainability and Sustainability:

    a. A voting system typically has a life cycle of between 8-15 years. How does COTS impact this life cycle? How are these systems including their COTS components maintained? Is this a reasonable life cycle from an end users stand point? What approaches have you seen for certifying systems that involve COTS components?

    b. What level of testing and certification is reasonable to provide the proper level of assurance of COTS components and their interaction with a system while keeping the cost savings that COTS is designed to offer.

    c. What approach do you suggest for maintaining a static certification in an ever developing COTS environment?

7. Open source software and modified COTS

    a. Given that the level of customizability for most open source programs is very extensive, should customizable programs or operating systems (Linux) be considered COTS?

    b. Are there known risks associated with the use of open source components in voting systems?

8. Research and pilot projects

a. What recommendations would you make regarding the design of a research agenda for improving the design, testing and maintenance of COTS components in a voting system?

b. What pilot projects might be designed to identify methods of improving industry standards and practices for the inclusion and management of COTS components in voting systems?