



## U.S. ELECTION ASSISTANCE COMMISSION

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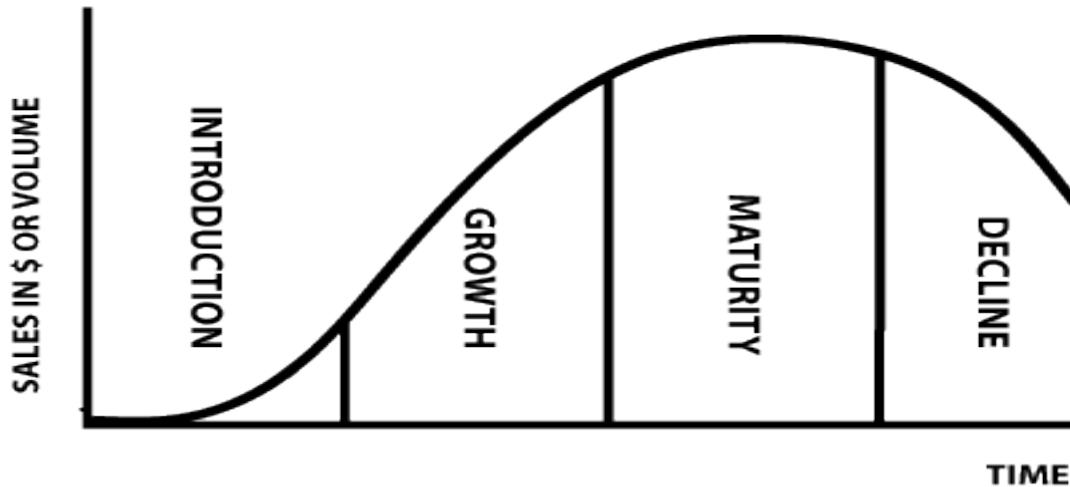
# EAC Voting System Lifecycle/Sustainability Roundtable May 5, 2011

In the years 2002-2005, there was an unprecedented surge in the acquisition and deployment of voting systems. Old and antiquated systems were replaced with newer technologies. Now, as we approach the 2012 election cycle, the states are facing the challenge of managing ageing voting systems in an environment of sharpened public awareness and heightened public expectations of the security and performance of voting systems. This Roundtable seeks to explore the issues associated with the sustainability of the nations' voting systems.

### Discussion Questions:

1. **The Voting System Product Lifecycle:** How are voting systems different than commercial products?
  - a. Who bears the cost of introducing new technologies into the market space?
  - b. Once a product enters the maturity phase, it often becomes a cash cow – needing only maintenance marketing to sustain it. The goal of most firms is to flatten out and extend the maturity phase as long as possible. This permits recovery of R&D cost and exploitation of economies of scale.
  - c. When a product enters decline, it can be replaced or “refreshed” by re-injecting it into the introductory phase. Does this apply to voting systems?
  - d. Can voting system manufacturers learn from other industry models?

- e. Kotler's Product Life Cycle (PLC) is useful for planning marketing efforts across the lifecycle of a product. Can it also be used to explain sustainability issues in voting systems?



2. **Useful Life:** What is the useful life of a voting system? Can we extend the life of a voting system indefinitely for a reasonable cost? If not, when does it become more cost-effective to simply purchase a new voting system?
- When does a voting system enter its decline? What are the predictors? Can these be anticipated?
  - If the LEO is extending the life of the system, where do the risks and responsibilities lie? (Manufacture warranty may be voided by self maintenance or outside vendor maintenance)
  - If it is not reasonable to expect a deployed voting system to function indefinitely, what are some strategies for extending the useful life of the system as long as possible? What role do each of the following play?
    - Federal testing and certification
    - State election officials
    - Local election officials
    - Vendors/Contractors
  - How is the maturation and sustainability of the voting system contemplated in contracts between vendors and jurisdictions? Are there examples or lessons-learned that would be instructive?
  - Identifying the cost to change out or replace a voting system is complicated. There are explicit costs: hardware, software, etc. There are hidden costs: infrastructure and opportunity costs (could the money be better used elsewhere to support voting in the jurisdiction). There are ongoing costs: training, maintenance, printing, licenses, etc. There are tangential costs: inefficiencies in cut-over, lost expertise, etc., Can you describe a cost/benefit model that is appropriate to voting system replacement decision-making?

3. **Our Maturing Systems:** What do aging systems mean for the 2012 election and beyond?
  - a. Practical implications.
  - b. Unintended consequences of attempting to extend system life.
4. **2012: Are We Ready?**
  - a. What did we learn in 2000, 2004 and 2008 about aging voting systems and their impact on elections?
  - b. What have voting system vendors learned in the past 12 years?
  - c. What have jurisdictions learned?
  - d. What have testing labs learned?
  - e. What has the EAC learned?
  - f. Where are the voting system vulnerabilities in the upcoming election cycle?
  - g. Can we avoid a large scale election disaster, or disasters?
    - i. What CAN be done?
    - ii. What SHOULD be done to address these issues?