



2006 DoD Diminishing Manufacturing Sources & Material Shortages Conference



Subject: Solving Obsolescence in the Army Communications Electronics Inventory

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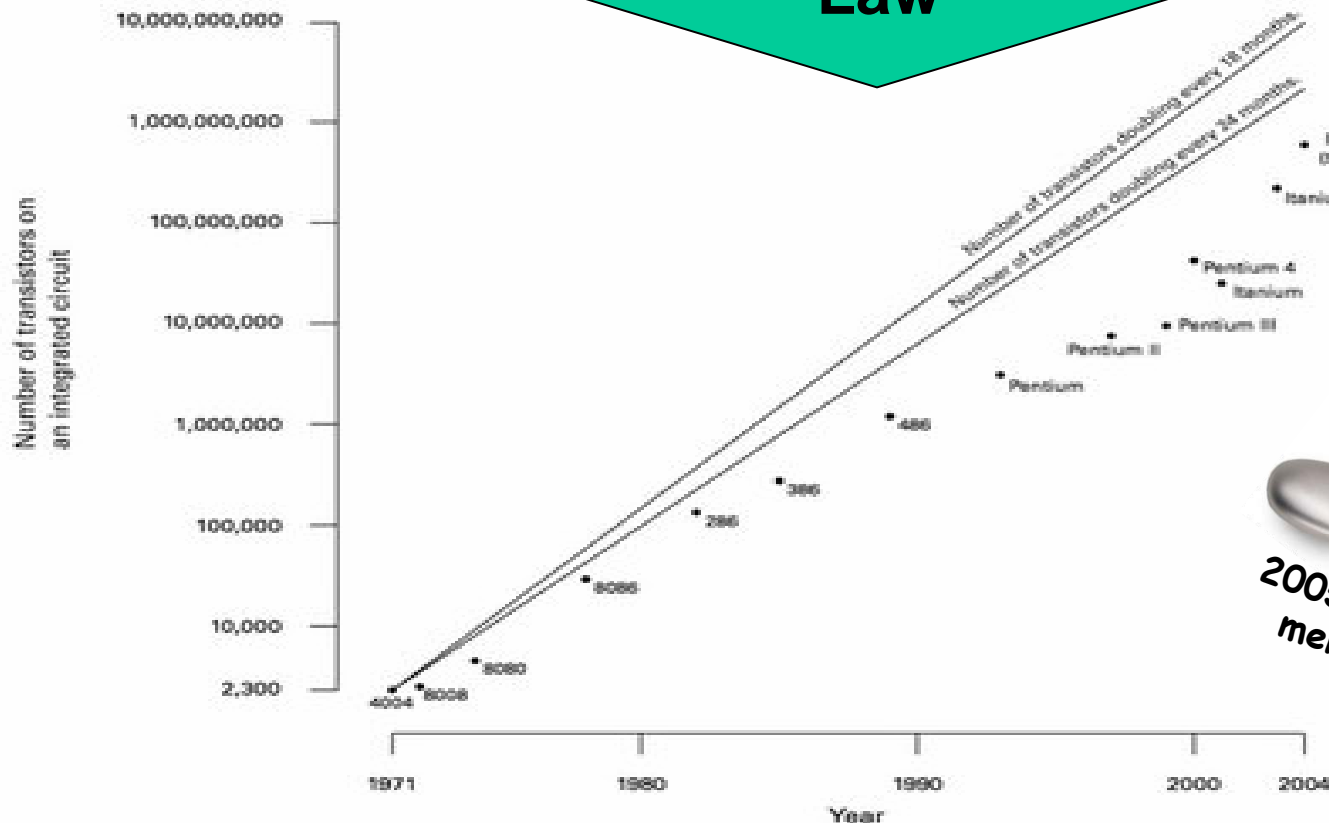


Agenda

- Technology as a Cost & Schedule Driver
- Communications-Electronics Life Cycle Management Command (CE LCMC) Case Study:
SINGARS Radio
- A Proactive Life Cycle Solution
 - Risk Mitigation
 - Pricing Structure
- Results to Date

Obsolescence within the Communications-Electronics inventory today occurs because the physical equipment becomes outdated faster than it can be procured.

Moore's Law



2006:



8Gig memory!



2005: 2Gig memory!

Considering "Cost per Transistor" as an end item cost driver, and Moore's Law as a obsolescence driver, we need a **proactive DMS/MS management solution!**



CE LCMC Case Study: SINGARS Radio

- Obsolete components/part impacting readiness
 - An inventory “ICON” of 300,000+ fielded assets

- Long lead times for redesign & production
 - Not just SINGARS...

- Army Working Capital Fund (AWCF)
 - Lack of obsolescence funding to pursue redesigns of system components



CE LCMC DMS/MS Management Plan

- Develop a usable DMS/MS life-cycle solution
 - Initial effort: SINGARS radios
 - All variations
- Factor obsolescence cost in unit price
 - Contractor assumes configuration control
- Fund for obsolescence engineering efforts
 - IDIQ contract – no guarantees
 - Maximum government flexibility



Two Part Solution:

Part One - SINCGARS Omnibus Contract (SOC)

- SOC is Firm Fixed Price – IDIQ range pricing
 - 5 years with up to 2 one year options
 - T&M for engineering services and repairs
 - 165 hardware stock numbers - domestic
 - Foreign Military Sales requirements (40 stock numbers, training)
- Total estimated value = \$2.5B
 - Combined value of SINCGARS DOD inventory and foreign military sales projections
- Competitively solicited



Two Part Solution:

Part Two - Legacy SINCGARS Omnibus Contract (LSOC)

- LSOC total estimated value = \$80M
 - Spares for the General Dynamics Land Systems version of SINCGARS
 - Firm fixed priced – IDIQ range pricing
 - 5 year FLTC
 - Firm fixed price repairs
 - 43 component spares stock numbers

- Competitively solicited



Early Assessment: Right Direction, High Cost

- SOC – sole offeror
 - ITT industries
- LSOC - sole offeror
 - Tallahassee technologies (Talla-tech)
- **Early Results - unaffordable solution**
 - Worst case scenario assumed
 - Many unknowns for IDIQ contracts
 - Obsolescence “insurance” cost high



Management Solution: Innovative Pricing!

- Utilization of unique contracting characteristics
 - Implement a dual pricing structure
 - Set up an internal risk reserve fund
 - Controlled by special “H” clause
- Risk mitigation within CE LCMC & industry Partners
- Acquisition Center, Logistics Readiness Center, and Program Manager concur with pricing solution



Dual Pricing Structure

- Main contract pricing solution
 - Base price “loaded” with obsolescence
 - Obsolescence portion flows into fund
 - SOC - 12% for ASIP - 20% for non-ASIP
 - LSOC – 25% for all items and set dollar values for repairs
 - Percentage dependent upon program requirements
- Alternate contract pricing solution
 - Base production price only
 - “Switched on” when “ceiling” is reached
 - “Switched off” when “floor” is reached



Internal Risk Reserve Fund

- Internal to the contractor, controlled by special “H” clause
 - Flexible min / max (floor/ceiling) fund levels
 - SOC - \$4M/\$18M, LSOC - \$2M/\$8M
 - Dependent on program requirements

- Funds used for obsolescence redesigns
 - Collaboratively managed – partnership
 - DMS/MS related efforts
 - Life-time buys
 - Pre-approved expenditure limit (optional)
 - CDRL reporting
 - actuals billed to fund



Strategic Advantages

- Reduces government cost
- Reduces contractor risk
 - Funds obligated on contract
 - Proactive DMS/MS management
 - Database of obsolete parts
 - Reduces lead times
 - Pays for obsolescence as needed
- Shared obsolescence cost
 - Obsolescence cost recovered through working capital fund sales
 - Normal AMDF pricing cycle update

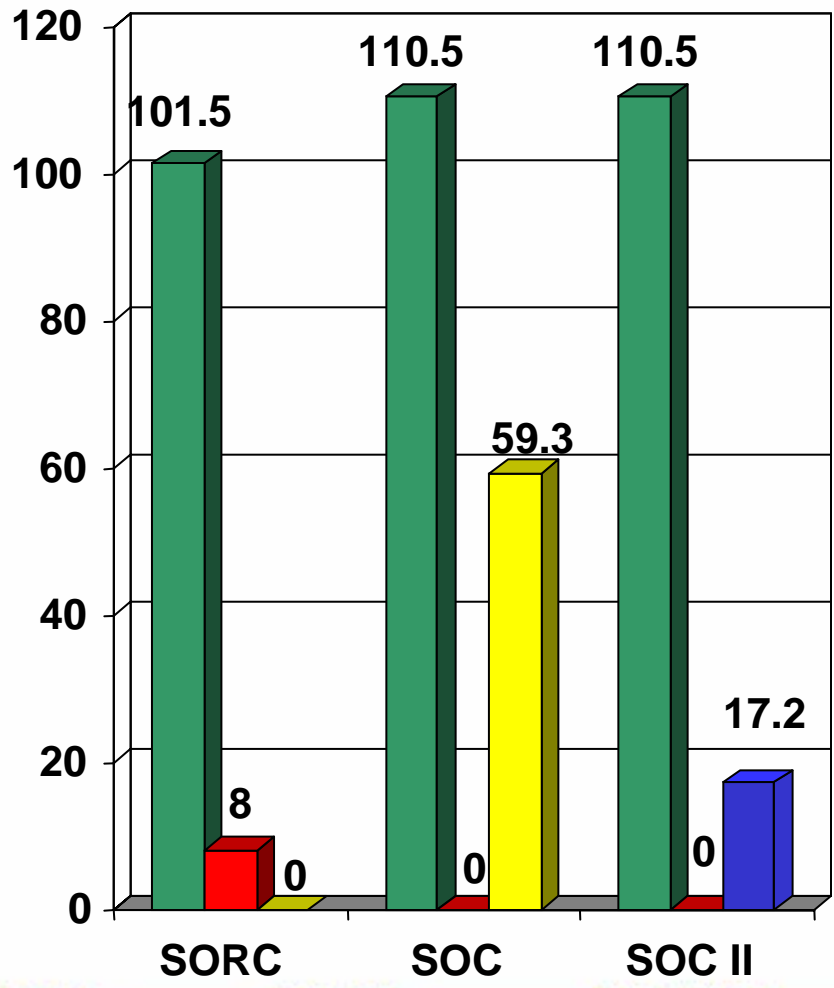


SOC Solution In Action

SORC – SINGGARS OMNIBUS REQUIREMENTS CONTRACT (SHOWS ACTUAL ORDER)

SOC – AS PROPOSED BY ITT (RECURRING WITH EACH ORDER)

SOC II – ALTERNATE SOLUTION (ACTUAL SPENDING – FLEXIBLE)



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- **PRODUCT**
- **ECP DOLLARS**
- **OBSOLESCENCE COST**
- **RESERVE FUND**



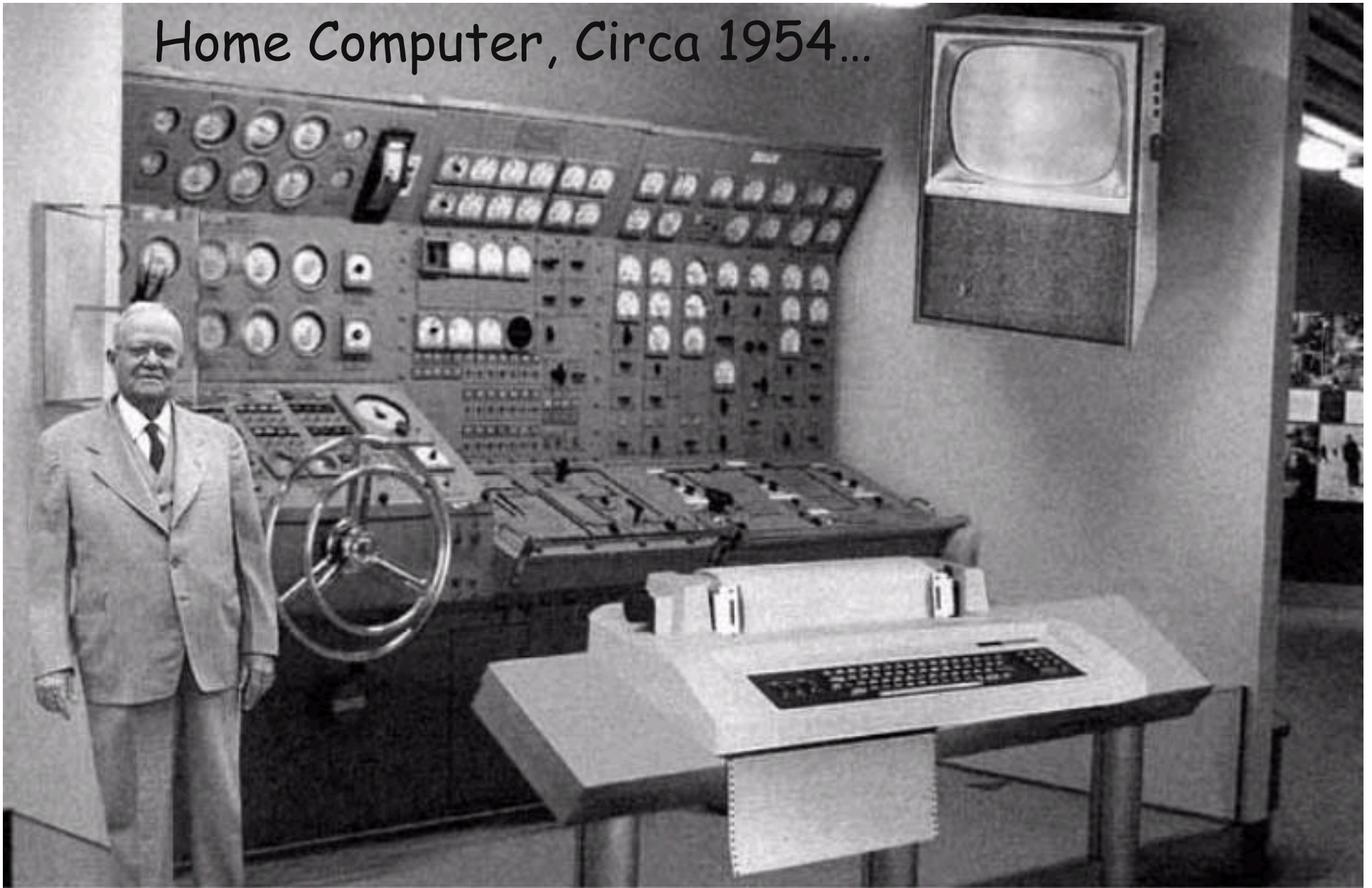
Current Status

- Obsolescence reports received from both contractors

- ITT SOC fund level - \$20M
 - 37 items identified as having obsolete components
 - Lifetime buys / redesign initiated
 - 9 redesigns completed
 - \$1.8m lifetime buys with \$1.7m credited back to pool

- Talla-tech LSOC fund level - \$9M
 - 26 items identified as having obsolete components
 - 9 redesigns completed
 - Task execution plan submitted and approved for RT-1523D block upgrade to eliminate obsolescence

Home Computer, Circa 1954...



Scientists from the RAND Corporation have created this model to illustrate how a "home computer" could look like in the year 2004. However the needed technology will not be economically feasible for the average home. Also the scientists readily admit that the computer will require not yet invented technology to actually work, but 50 years from now scientific progress is expected to solve these problems. With teletype interface and the Fortran language, the computer will be easy to use.