CAIV PROCESS INTEGRATION AND IMPLEMENTATION

Prepared For:
SCEA CAIV CONFERENCE

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CAIV PROCESS (1)

- **No "best" process nor DoD recommended process**
  - **Challenge is to move CAIV from a philosophy to an effectively integrated and implemented process**
- **CAIV encompasses aspects of numerous detailed processes**
  - **Processes include but are not limited to:**
    - **Design synthesis**
    - **Life cycle cost analysis**
    - **Manufacturing**
    - **Requirements flowdown**
    - **Risk management**
    - **Schedule analysis**

CAIV PROCESS (2)

- **CAIV must also be integrated into top-level program processes**
  - **Program management and systems engineering**
- **CAIV implementation also challenges typical DoD ways of doing business**
  - **Requires a behavioral paradigm shift to be successful**
    - **Much closer daily working relations among people from diverse disciplines**
    - **Strong involvement of non-traditional disciplines in the design process**

CAIV AND PROCESS INTEGRATION

- **Ability to integrate CAIV with other processes can be adversely affected**
  - **Top-level processes that lack "vision"**
    - **Is CAIV used in "day to day" decision making?**
  - **Weak or inadequate detailed processes**
    - **Cost analysis not focused on the life cycle**
    - **Ineffective risk analysis**
    - **"Ad hoc" or unstructured design trades**
  - **Appropriate metrics aren't used**
    - **May be subjective or not cover appropriate disciplines**
    - **Information may not be used by decision makers**

CAIV IMPLEMENTATION (1)

- **Ability to implement CAIV can be adversely affected**
  - **Lack of focus on program's life cycle**
    - **Development decisions typically have considerable impact on production and O&S costs**
  - **Limited participation from necessary parties**
    - **Acquirer, sustainer, user, prime contractor, major subcontractors, lower tier subcontractors should be represented**
    - **"Buy-in" from other key stakeholders**
  - **Insufficient management and worker attention**

CAIV IMPLEMENTATION (2)

- Insufficient parallel interaction between cost, design, requirements, risk and schedule personnel
  - Historically, level of interaction has often been both limited and serial in nature
- Lack of suitable program structure
  - Effective IPTs, etc.
- Lack of suitable training
  - Process characteristics and interactions
  - Team building from diverse disciplines
- Lack of suitable, available documentation
  - Design trades, etc.