



USAF Digital Engineering Strategy to Implementation



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Overview

Digital Enterprise Environment– A quick Recap

- Data, Tools and People

Current Activities

- Digital Enterprise Office

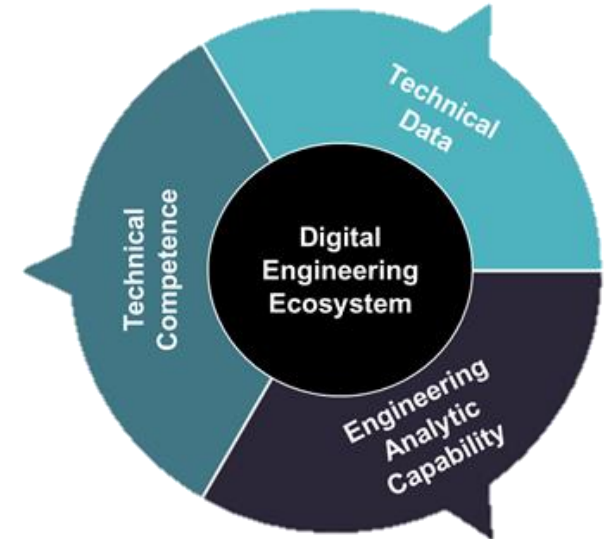
Digital Engineering in Action

- Projects



Digital Enterprise Environment

- Implementation of a Digital Enterprise Environment framework which integrates models, data, and artifacts to:
 - Provide traceability of system requirements across the system's lifecycle
 - Create an environment that fosters innovation, experimentation, and demonstration from concept development to fielding
 - Enable rapid prototyping to deliver capabilities faster and quickly respond to changing threats and requirements
 - Facilitate collaboration to improve integration of system of systems to meet the mission needs
 - Develop a platform and process to support Air Force modernization efforts across multiple functional areas; e.g. agile development and Modular Open Systems Architecture



Authoritative models, data, and architectures allow the Air Force to rapidly respond to changing threats, field advanced capabilities, and engineer dominant systems *FASTER*



Current Activities

- AF Digital Enterprise Office Established
- Engineering Enterprise Roadmap Update
 - Strategic AF Response to OSD DE Strategy
- Action Plan
 - Tactical plan to transform the Air Force engineering and acquisition process.
- SBIRs Informing Enterprise Strategy
- AcqNet - DREN , AO assigned, building process
- DE Guidebook Build-out
 - https://www.milsuite.mil/wiki/Portal:Digital_Enterprise_Guidebook
- Experiments and Implementations
 - CDRLs, DIDs, PK Language
 - Program successes -> AFLCMC ACE Office
 - DE Cloud Environment
 - Programs implementing DE, MBSE, MBE, ...

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Enlist an Army, Enable Action

Active Projects

Digital Engineering (DE)	MS&A	Logistics & Sustainment	Programs Implementing Digital Engineering	
Product Lifecycle Management Capability Initiative (PLM-CI)	ERS Pilot - HPC for JSTARS AoA	Rapid Sustainment Office	Ground Based Strategic Deterrent (GBSD)	Presidential & National Voice Conferencing (PNVC)
Air Force Systems Engineering Resource Center (AFSERC)	Enterprise Cost Estimation through Lifecycle Simulations (ELIS)	LogIT	Small Diameter Bomb II	GPS Systems Engineering and Integration
DEATHSTAR	DCGS for Digital Engineering	NLINE for NDI	E-3 AWACS 40/45	C-ABSAA
CREATE	Reinventing the Culture for a Digital Enterprise	Imaging Drone for Aircraft Inspection	Seek Eagle	MASIES
Technical Data Needs Determination Tool (TDNDT)	Air Force JEDMICS Business Process Automation Accelerator Program	Gearbox Repair - Additive Manufacturing	Agile Condor Pod	Ground Based Space Surveillance
3-n-1 Tool	Mapping Disparate Taxonomies of a Single Underlying System	Advanced Technology & Training Centers	Protected Tactical Enterprise Service (PTES)	Space Based Space Surveillance Program
Digital Engineering Environment Sandbox	Normalizing Management of Product Life Cycle Data	Product Innovation Platform	PEO ENGINES	Long Range Anti Ship Missile (LRASM) AGM-158C
MITRE Support to AF DE Implementation	SEAMS and SMARTUQ Alignment	Enabling the DLA Business Processes for AM	B-52 CERP	Space Fence
Engine Data Transformation	MATE Enterprise Tool Development	SBIRS	HC/AC/MC-130J	Battle Management Command and Control (BMC2)
MITRE Sprint I, II, III Engineering Tools and Data	Lifecycle Cost Modeling Tools for Elements of a DE Ecosystem	Data Card Effort	KC-46A Tanker	Next Generation Overhead Persistent Infrared (Next Gen OPIR)
Engine Health Management (EHM)	Integrated Dynamic Digital Engineering Ecosystem Cost-Model (IDEC)	Digital Greenhouse	JSTARS-R	Extending the Digital Thread from the A-10 SPO to the Shop Floor
		Sim Common Architecture Reqs and Standards (SCARS)	SMC Enterprise MBSE Framework	Architecture and Plans
		Advanced Framework for Simulation, Integration, & Modeling (AFSIM)	ISR Futures	B-52 RMP
		Model Based Systems Engineering MBSE (SBIR)	F-35 Systems Engineering Transformation Team	Long Range Stand Off (LRSO)
			Remote Sensor Engineering	A-10 Wing Replacement Program

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QUESTIONS?

