**Summary**: Mr. Sweet is a visionary IT leader with 25+ years of success serving as trusted advisor to some of the world’s largest and highest performing systems. Mr. Sweet is Senior Enterprise Architect (EA) proficient in Cloud, Data, and Security architectures. Mr. Sweet is expert in Business-Driven Enterprise Architecture (EA) using FEA and DoDAF including FEA Reference Models; FEA Segment Architecture Methodology; DoDAF views; EA transition planning. Expert in SOA including: Microservices; ESB Architecture; Web Services design; SOA security; SOA governance.

**Personal Information:**

Education: BA Economics, Swarthmore College, 1978

                   Graduate Courses: Computational Biology, George Mason University,

Clearance: Top Secret.

Patents: U.S. Patent # 7,949,606, Intellectual Property Brokerage System

Certifications:

* Advanced Writing, University of California, Irvine
* ITIL Foundation
* Satellite Communications, Institute Mines-Telekom
* Geospatial Information Systems, University of California, Davis
* Cyber Security, University of Maryland, College Park
* Space Mission Design and Operations, EPFLx - EE585x

**Professional Experience:**

**Symantisys Corporation 1/21 - Present**

**Principal Investigator (PI), USAF, 1/21 – 3/21**

Led feasibility study of novel network data link layer integration solution. Developed demo and analyzed operating costs of cloud-native architecture executing on Amazon Web Services.

<https://www.sbir.gov/node/1934991>

**MITRE Corporation 12/09 – 01/21**

**Enterprise Architect, Administrative Office (AO) of the US. Courts, 01/20 – 01/21**

# Developed Enterprise Architecture models of production system strategies and alternatives of moving on-premises infrastructure to a cloud architecture. indicating which components would move to the cloud and which would remain on-premises as part of a hybrid cloud architecture. Review alternative commercial cloud offerings and architectures.

**Enterprise Architect, Customs and Border Patrol (CBP) Facial Recognition System (FRS) 6/20 – 01/21**

Developed Magic Draw MBSE Reference Architecture for CBP expansion of FRS process from pilot phase to all-points-of-entry nation-wide operational phase. Enabled multiple machine-learning facial recognition algorithms and camera upgrades.

**Technical Lead, Army PNT RA, 10/18 – 01/21**

Architect promoted to Task Lead of 5-person team developing the Army PNT (Position Navigation & Timing) RA (Reference Architecture). Led MBSE MagicDraw development of PNT IoT device Reference Architecture. Update GPS 153 YAML Data Protocol. Implement Army Cyber Resiliency. Implement RMF Security including DoDI 8500.1, DoDI 8510, NIST 800-53r4, NIST 800-160 System Security Engineering

**Enterprise Architect, Army CERDEC CP&I Lab, 01/20 – 06/20**

Project Lead of Enterprise Architect team to develop business analytics model. Expanded project scope to determine the cause of performance differences between directorate labs.

**Enterprise Architect, FBI Accounting Division, 1/19 – 01/20**

Designed modernized Enterprise Architecture consolidating over 100 different systems. Comply with Federal CIO “Cloud First” policy to evaluate cloud architectures such as IaaS, PaaS, SaaS, FaaS implementing industry standard technologies including DevSecOps Kubernetes, Amazon Web Services. Developed Building Information Model (BIM) plans for the move to a new building. Set data flow diagrams to support activity from legacy to Oracle database. Specified Oracle Data Warehouse ETL data load-scripts. Specification of conceptual, logical, physical data architectures. Data Governance using UN/CEFACT Data Harmonization; ISO/IEC 11179 Metadata Registry, ISO 704 Terminology Work – Principles and Methods, ISO 1087 Terminology work – Vocabulary, ISO 860 harmonization of concepts and terms,

**Enterprise Architect, Department of Homeland Security (DHS) Immigration Control and Enforcement (ICE) Office of Enforcement and Removal Operations (ERO), Immigration Data Modernization (IDM**) **Program, 01/17 – 10/18**

Modernization of the ERO Deportation Officer (DO) mission planning processes for location, capture and removal of alien felons. Observed: ICE detention facilities and DO removal process workflow. Costing and Analysis of Alternatives (AoA) including cloud architectures, Amazon Web Services, Machine Learning, Natural Language Processing, multi-source, data fusion.

**Data Architect, FDA Food Safety Data Taxonomy, 02/17– 08/17**

Recommended and advised sponsor on how to improve web page information access and search through the application of lightweight ontology using Faceted Taxonomy

**Technical Lead / Data Architect, IRS CADE2 Shared Data Services, 01/16 – 01/17**

Development of Big-Data Services for IRS Data Delivery Service (DDS),120 terabytes, Integrated Production Model (IPM) Oracle Datawarehouse. Provided review of DDS Meta-Data strategy and XRDB XML strategy and supported advanced SQL for performing data analytics.

Provided analysis to service IRS Affordable Care Act and Health Exchange data hub queries

**Enterprise Architect, Army Contract Writing System (ACWS), 1/16 – 01/17**

Comply with Federal CIO “Cloud First” policy to evaluate cloud architectures such as IaaS, PaaS, SaaS, FaaS implementing industry standard technologies including DevSecOps Kubernetes, Amazon Web Services. Implementation of Oracle eBusiness Suite (EBS) within DevSecOps Amazon Web Services evaluation lab. EBS included Oracle SSO, Oracle IdAM Internet Directory. Training in DoD procurement process for porting of contract writing to EBS.

**SOA Architect, VA/DoD Integrated Electronic Health Care System (iEHR), 01/12 – 12/15**

Served as trusted advisor to the PM implementing an ESB for the $16 billion iEHR program integrating DoD and VA health records. Served on Business and technical governance review boards for review and approval of all aspects of ESB implementation. Author of: iEHR SOA Meta-Data standard; Transformation Section of the iEHR Data Strategy; Management Plan for implementation of IBM Message Broker. Big-Data integrating all DoD and VA Health records. Review of Big Data message caching design and NoSQL Data Federation design. Propose, develop, and lead immunization data modeling and Business Rules prototype. Acting Information Assurance resource implementing DIACAP. Review and approve vendor security architecture, including Layer 7 and Blockchain. IBM WSSR Service Registry security, Identity Management, SSO, ESB Secure Enclave, SAML. Implementation of Mirth HL-7 integration engine.

**SOA Architect, DHS ESB Procurement, 01/11 – 01/12**

SOA Architect for Department of Homeland Security (DHS), Transportation Security Agency (TSA), Transportation Threat Assessment and Credentialing (TTAC) modernization. TTAC authorizes access to the US transportation network, including no-fly passenger list, airport baggage screeners, port workers. Designed baseline SOA Service Catalog. Assessment of: DevSecOps Kubernetes and Amazon Web Services cloud architectures; Service-Oriented Infrastructure; and WebLogic NoSQL Database Solution.

**Enterprise Architect, IRS Director of Enterprise Architecture, 01/11 – 01/12**

Provided EA support to the IRS Director of EA. Supported IRS SOA Working Group, developed SOA Web Services requirements, design, and development process guidelines. Secure Web Services using WS-I service stack. Reviewed DevSecOps Kubernetes and Amazon Web Services environment for SOA development and governance. MBSE using IBM Systems Architect

**QinetiQ Corporation 1/08 – 12/09**

**Technical Lead, GSA Portal**

Lead GSA Portal upgrades strategy using ontology knowledge model, semantic search, and Web 2.0 capabilities. Assessment of modernization strategy for Customs and Immigration Service (USCIS) legacy systems. Developed EA models. Procurement evaluation of Service-Oriented Infrastructure (SOI) from Oracle, TIBCO, IBM. Implemented Information Assurance and security using WS-I, Layer 7, SAML, SSO. Implemented Amazon Web Services.

**SAIC 1/06 – 12/08**

**Lead Enterprise Architect,**Office of Secretary of Defense (OSD), Business Transformation Agency (BTA). Developed award-winning BTA Enterprise Architecture. Developed Federated Business Architecture joining DoD component architectures using OWL ontology enterprise data modeling. Trainer in BPMN for DoDAF OV-6C models for Vocabulary Driven Enterprise. DoD segment FEA self-assessment artifacts. Modeled BPMN process using Oracle. Analysis and review of SOA architecture roadmap and IBM Information Manager application. Supported EA transition plan for strategic enterprise planning. Supported submission of DoD FEA Self-Assessment, OMB 300, and exhibit 53 for performance-based acquisition SOA Systems Development Manager

**Systems Architect,** Led pre-award design of the Defense Transportation Coordination Initiative (DTCI) proposal. DTCI systems architecture consists of an event-driven, Business Process Management solution, orchestrating multiple EDI transactions. Managed a team of 4 in the design of a Web Methods SOA solution, Developed Data Architecture using Oracle RAC. Participation in analysis of DoD medical health system and VA VISTA health.

**Independent Consultant 1999 - 2005**

**Technical Lead, Internal Revenue Service - IRS End to End Prototyping Lab, 2002 - 2005**

Supported Director of the Architecture Review Board for the IRS Modernization Program. SOA governance. EA Compliance. Team lead for prototyping and performance engineering of industry ERP and SOA environments: Web Methods SOA; Siebel CRM; PeopleSoft HR, EPM. Developed prototypes for SOA integration with legacy Unix and Mainframe applications. Software modeling and performance engineering of multi-threaded, C++, CADE data warehouse architecture. Implemented enterprise messaging applications using WebSphere Integration Broker and IBM MQSeries Message Broker for message transformation, security, and legacy integration. Implemented Information Assurance and lab security using WS-I, SAML, SSO

**Technical Lead, U. S. Treasury – Cash Link II, 1999 - 2002**

Led a 6-person team for developing the J2EE reporting module of the Cash Link II Federal payments accounting system. Performed data modeling, database design, and schema development using Oracle Database WebLogic Server. Developed enterprise security architecture and services using Java APIs, including SSL, Java sockets, networking, cryptography, and security packages.

**Various Applications and Clients 06/78 - 10/99**

Numerous assignments including MIS Manager for a manufacturer

implementing ERP; Price Waterhouse staff management consultant; various

programming tasks in COBOL, CICS, Fortran, C, C++, Visual Basic; Unix Shell Scripts.

Skills/Technologies

\* Enterprise Architecture

\* Kubernetes

\* Amazon Web Services

\* DevSecOps

\* CPIC

\* IT Portfolio Management

\* FEA and DoDAF Frameworks

\* Service Oriented Architecture (SOA)

\* Web Services

\* Data Governance

\* Business Process Management (BPM)

\* Business Intelligence (BI)

\* Predictive Analytics

\* Business Process Engineering

\* Semantic Technology

\* Ontology Engineering

\* Software Engineering

Programming Languages

\* Java

\* J2EE

\* SQL Plus

\* C

\* C++

\* C#

\* COBOL

\* OWL

\* UML