Questions have arisen as to how many “Solutions” I have had a hand in. This is an informal list of all the systems I recall working on. I am sure there are more which I have left out.

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| --- | --- | --- | --- |
| System | Description | My Role | Years |
| SR-71 MDRDE | System monitored flight performance. | Maintain, operate | 77-81 |
| SR-71 EMR | Collected Electronic Intelligence. | Maintain, operate | 77-81 |
| Personal Computer | Z-80 computer. | Soldered it together, rewrote OS drivers, rewrote modem program. | 82 |
| *Infrared Remote Keyboard* | Prototype of an infrared keyboard for industrial applications. | Design & Prototype | 83 |
| *Wireless Speakers* | Prototype of wireless speakers. | Design & Prototype | 84 |
| CDC/Arbitron Distributed Monitoring System, overall | Nationwide television and radio audience monitoring system, to be installed in 20000 houses. | Member of 3-person architecture team. 2 Patents. Ran engineering team. | 85-87 |
| DMS Hub | Store and forward system for audience data, custom hardware, 80c186. | Electronics design. RTOS implementation oversight. | 85-87 |
| DMS Power Supply | Power supply board. | Design. Ran team. | 85-87 |
| DMS Controller Board | Controller board for general sensors, custom hardware, Z-80, | Design. Ran team. | 85-87 |
| DMS Set Top Box | Modified assembly level code to remove defects and establish interoperation. | Maintenance and upgrade. | 85-87 |
| DMS Wand Controller | Controller board for barcode wand used in installation, custom hardware, Z-80, | Design. Ran team. | 85-87 |
| DMS Modem | Patented modem transferred data upstream to head-end super-mini-computers (DG). Could detect homeowner use of line and relinquish. | Design. Ran team. | 85-87 |
| Perspay II | Massive distributed ATM system for US Navy. Put ATMs on docks and ships. Not built. | Preliminary design and analysis, esp. comms. | 89 |
| EDMICS | Worlds largest engineering document management system. | Member of 3-person architecture team. In charge of comms. | 90-93 |
| PERMS- BiPers | Huge ARMY personnel records system. | Architect of preliminary design for proposal | 91 |
| ELCADD | Early (one of the first) massive collaborative engineering system for General Dynamics Electric Boat. | Architecture team. Network installation and setup. | 92-3 |
| TC-AIMS | Huge ARMY logistics system. | Communications and database architecture SME | 93 |
| Seawolf WAN | Huge engineering support network to coordinate design and build. | WAN Architect | 93 |
| Sun Oil Seismic Data | System to track maps and seismic readings of potential oil and natural gas fields. | Architect. Manager of implementation. | 94 |
| Illinois Plats | System to store and manage images of real-estate property records. | Architect. Manager of implementation. | 94 |
| American Bureau of Shipping Engineering Data Repository | System to store and manage engineering documentation to support insurance underwriting of ships. | Architect of recovery. | 95 |
| Detroit Edison | System to store and manage nuclear power maintenance records. | Managed maintenance. | 93 |
| Wisconsin Gas and Electric Engineering Document Management | System to store and manage electric grid maintenance records. | Architect. Manager of implementation. | 94 |
| ATLASS-II | USMC Logistics management and supply system. | Comms Architect | 95 |
| FAA Backfile Conversion | Worlds second largest imaging backfile conversion system behind IRS. Ingested FAA medical and maintenance records.   * Film Subsystem * Paper Subsystem * Microfiche Subsystem | Architect. Manager of implementation. | 96-97 |
| Legal Evidence Document Management System | Massive system for discovery, tracking and analysis of legal records. | Architecture oversight, review. | 97 |
| IAIC-CAST | System for Y2K remediation of software. Stored and sorted software lines in a database, translated them. | Documented Architecture | 98-99 |
| FAA OpsNet | System to track flight status, late and early arrivals, nationwide and at small airports. | Architect. Manager of recovery. | 2000 |
| FBI DNA System | Early SAIC system to track DNA of criminals. | Review of architecture. | 2000-2002 |
| FBI Carpet Fiber System, Headlight & Window Glass System | Systems to take and track microscope images of forensic evidence from crimes. | Architect. Manager of implementation. | 2001 |
| Government Service Call Centers | Distributed database system to manage help desk calls for a government agency, concerning delivery of benefits and problems | Architecture team member. | 2001 |
| Secure Outreach | Worlds first system for secure email across Federal Law Enforcement agencies at FINCen. | Architecture team member. | 2001 |
| FinCEN Transaction Tracker | System to track international money laundering. | Architecture team member. | 2001 |
| Arcturus-Overall | System for document and content management. | Architect. Manager of implementation. | 96-03 |
| Arcturus Office Workflow Add-In | Added Arcturus workflow to MS Office products. | Architect. Manager of implementation. | 96-03 |
| Arcturus Desktop Explorer | Provided explorer style, drag and drop management of content and documents. | Architect. Manager of implementation. | 96-03 |
| Arcturus Web | Secure website using native Arcturus content management. Successfully survived Chinese Nation State DDOS attacks. | Architect. Manager of implementation. | 96-03 |
| Arcturus Server | Document database and secure, distributed, encrypted, compressed storage. | Architect. Manager of implementation. | 96-03 |
| Enterworks Workflow | Product to provide Business Process Management. | Architecture review and recommendations. | 04 |
| XACTA Workflow Pilot | Merged XACTA security software with Enterworks Workflow in a pilot for US Army | Architect. Manager of implementation. |  |
| NAVAir NALCOMIS Mobile Prototype | System to integrate NAVY NALCOMIS with cell-phones on flight decks and airfields. | Architecture and process SME | 04-05 |
| FEMA IPAWS | Integrated Public Alerts and Warnings, as in when your TV issues a tone… | Architecture & oversight. | 05-08 |
| FEMA TAV | FEMA disaster logistics asset tracking. | Architecture & oversight. | 05-08 |
| FEMA FNARS | Communications system of last resort in nuclear disaster scenario. | Architecture & oversight. | 05-08 |
| GNDA | The system of all nuclear detectors and interdiction mechanisms, worldwide, to counter nuclear terrorism. | Contributing architect. | 08-12 |
| DHS MCM Prototype | Prototype of Global Nuclear Detection System, designed to integrate C2 of GNDA. | Architect. Manager of implementation. | 2010-2011 |
| DHS MCM Pilot | Pilot of same. | Architect. | 12 |
| A Reference Architecture for Geospatial Situation Awareness | Thesis | Team of 3 | 11-12 |
| DHS SaaS Investment Tracker | DNDO system to track SBIR investments, implemented a SaaS with Johns Hopkins. | Contributing architect. | 09 |
| DHS JACCIS | System to support the Joint Analysis Center of DNDO | Architecture and systems engineering documentation and review. | 08-12 |
| DHS ASP | Advanced Spectroscopic Portal, sophisticated measurement of radiation threat signature at ports. | Architecture documentation. | 05-12 |
| DHS Marine Scanner | Scanner to detect nuclear threats on boats. | Contributing architect. | 09 |
| DHS Mobile Scanner | Improved scanner to detect nuclear threats. (Note- several other scanners like this entry) | Contributing architect. | 09 |
| DHS Exit Kiosks | Kiosks at airports to record that aliens have left the country. | Review of architecture and systems engineering. | 13 |
| DHS Port-of-Entry Systems | Systems and networks at port of entry. | Review of architecture and systems engineering. | 14 |
| DHS Data Center | One of 2 data centers at DHS. | Evaluated data center and enclave installation | 09 |
| SensorNet | Prototype system to detect and react to nuclear incident. Funded by DOE. | Architect | 04 |
| SensorWeb | Another DoE nuclear threat monitoring system. | Reviewer, Contributor | 04 |
| Security C2 System | Converted CAD to accept sensor input and project C2 data on the display. Added sensor subsystem. Integrated Lenel security system. | Architect. Manager of implementation. | 03 |
| Intergraph CAD C2 Adapter | Product version transformed Computer Aided Dispatch into Command and Control system with sensors. | Architect | 03-04 |
| DHS ICAM | DHS system merging controlled physical access, virtual access (Active Directory) and cards. | Documented some architecture. | 15 |
| FEMA LOGISTICS SYSTEM | Highly customized Manhattan software logistics system | Systems Engineering | 14? |
| 2020 Census | Architecture of systems for 2020 Census effort. | Documented some architecture. | 16 |
| Senate Data Center | Alternate site for Senate data operations. | Review of site. | 02 |
| Cloud Offering | Cloud product offering from a small vendor. | Architecture of attempted recovery. (They went bankrupt) | 16-17 |
| GEASR | Global Enterprise Architecture Staging Repository, a tool supporting EA delivery. | Architect. Manager of implementation. | 17-19 |
| ~ 20 Systems | As is architecture of about 20 DoD systems | Team lead | 17-19 |
| USDA Security Segment | Started USDA Security Architecture Practice | Team Lead | 20 |
| DoS Security Function | Created Security Domain Architecture | Lone Architect | 20-22 |