

# Curriculum Vitae

---



James J. Murray III, D. Sc.

---

**Mobile:**

**Email:** [jmurray8@gmu.edu](mailto:jmurray8@gmu.edu)

**Res:**

**City of Birth:** Buffalo, New York

## Objective:

Extensive experience in advanced cyber defense, advanced analytics, knowledge management, and malware analysis for cyber defense. Have managed cyber operations in the IC and federal government, and have worked in offensive, defensive and policy elements of cyber operations. Have extensive Software and hardware experience for engineering, operations, integration on a national scale across agencies. Integration of new high technology elements for architecture, implementation and operational systems is a key skill.

## Skills:

- Advanced Technology Integration
- Network Systems Engineering
- Applied Hardware assessment and tool development through Agile Methods
- Advanced Analytics
- Cyber and secure systems Strategic Planning
  - Advanced Cyber Defense
  - Enterprise Information Technology integration
  - Cyber forensic technology development
  - Interpersonal Communication
  - APT assessment and Business governance /Development
  - Proven Manager/analyst/operations leader across cyber secure systems at CIO, CISO, CEO & COO levels

## Education

<b>Doctorate of Science</b> Major: "Artificial Intelligence"	George Washington University	Year: 2000
<b>Masters of Business Administration (MBA)</b> Major: "Business Administration"	George Mason University	Year: 2003
<b>Masters of Science</b> Major: "Cyber Forensics"	George Mason University	Year: 2016
<b>Masters of Science</b> Major: "Cyber Security"	George Mason University	Year: 2014
<b>Master of Science</b> Major: "Data Analytics"	George Mason University	Year: 2020
<b>Masters of Science and Finance</b>	George Washington University	Year: 2005

Major: "Finance"

**Masters of Science**

George Washington University

Year: 1993

Major: "Information Systems"

**Masters of Science**

Rensselaer Poly Tech Inst.

Year: 1979

Major: "Computer Science"

**Bachelor of Science**

State University of New York

Year: 1975

Major: "Mathematics"

## Publications

- Contributing author to: The Psycho-social Dynamics of Cyber Security (applied psychology series) edited by Steven Zaccaro
- POMS conference Presentation on Agile Management and Government Impacts, June 2015
- POMS Conference innovative paper competition, Managing Risk in Federal Technology Projects; Does Process Maturity Matter?, June 2014 Contributing author
- Lockheed Martin Insight, Articles on Program Management and Financial Assessment, 2005 – 2007
- AIAA Delta Forum article and Presentation, An Agile Program Management Technique for Industry Assessment. AIAA Delta Forum, Reno Nevada, 2004
- AIAA Delta Forum article and Presentation, Program Management and Financial Assessment in Real Options Analysis. AIAA Delta Forum on Program Management, Reno Nevada, 2003
- Lockheed Martin Technical Trade studies and papers, Issues in Program Management and Business Management. Lockheed Martin Internal publications 2000- 2003
- Human Information Processing: Mental Models and the Expert System Interface Applied Across Task Domains. Doctoral Dissertation, August 2000, George Washington University

## Current Employment

### Chief Engineer:

Jim is a proven provider of information solutions, engineering and analytics for the U.S. Government. With more than 40 years of experience working in the defense, civilian and intelligence communities, Dr Murray has developed and delivers high impact, mission-critical services and solutions to overcome its customers most complex problems. The specialized in cyber technologies in cloud (C2S) and Gov cloud technologies. He has his certification in the CISSP, CCSP, CEH, and is a certified CND analyst. Jim is a senior member of the engineering organization at Vencore Inc.

Dr. Murray as a Vencore employee leads and engineering and integration team for a national center providing advanced engineering, cyber, systems, and analytical support to senior decision makers. Jim leads inter-organizational teams for advanced system development, including System and Solution Architecture; collecting secure mission needs, developing technical cyber and analytic requirements, integration and project management throughout the development cycle. The highly skilled engineering team enables secure multilevel security in virtual environments for C2s and Gov Cloud enabling, independent verification and validation, transition to operations, end-to-end requirements management and configuration management. This contract supports an Intelligence Community organization which is responsible for providing mission-specific applications in the fight against terrorism. His position requires a combination of extensive technical abilities, excellent communication and acute business acumen.

### Responsibilities:

- Serve as the Chief Engineer/Technical Lead for a diverse team of engineers and architects. Provide technical subject matter expertise and direction across all engineering aspects and tasks.
- Establish and execute Secure Systems Engineering processes specializing in security for the program, ensuring alignment with customer strategies and processes. Train other engineers and architects on program engineering processes. Recommend and implement improvements to all processes to include security processes on a continual basis.
- Evaluate government policies and requirements, system capabilities, architecture, design, risks and opportunities.
- Evaluate alternative solutions and makes engineering recommendations based on the results of cost, schedule and performance trade studies and other techniques.
- Provide solutions and recommendations to mission needs assessments, analysis of alternatives, designs, development, testing and maintaining software, systems and subsystems with respect to the engineering lifecycle and respective environments.
- Provide customers and other stakeholder's detailed and unbiased feedback and recommendations.
- Coordinate and facilitate working groups and integrated product teams.
- Assist in the development and execution of Integrated Master Schedules and Plans (IMS/IMP).
- Work independently and on a team consisting of other contractor and government personnel.
- Prepare and present briefs for senior government program managers and other stakeholders.

## **Qualifications:**

### **Required Skills, Knowledge and Qualifications**

- TS/SCI Clearance
- 18+ years demonstrated experience providing systems engineering, integration and test services including:
  - Systems Engineering and Architecture Support
  - Systems Integration
  - Test and Evaluation
  - Verification and Validation
  - Information Assurance, including Certification and Accreditation (C&A) or Assessment and Authorization (A&A)
  - Change and Configuration Management
  - Release Management
  - Operations/Implementation Support (knowledge of Tier II/Tier III Help Desk)
- BS in Computer Science, Systems Engineering or a related field.
- Demonstrated experience working with senior officials, managing teams and engineers, and executing solutions.
- Implement and evolve the designs of the architecture across the multiple systems and subsystems.
- Experience engineering complex systems that involve integrating COTS, GOTS and Open Source components
- Engineering knowledge of multiple types of endpoint devices, including thick, thin and zero clients, virtual client and mobile clients.
- Must be a team player and possess a strong ability to work collaboratively with a diverse team as well as work independently with minimal supervision.
- Strong written and oral communications.

### **Desired Skills, Knowledge and Qualifications:**

- Experience across multiple engineering disciplines.

- Experience performing strategic planning and program development for large scale government programs
- Experience in testing, evaluating and integrating solutions in a large, complex enterprise.
- AWS experience and certifications
- Certified Information Systems Security Professional certification (CISSP) or equivalent certification or experience.
- INCOSE certification

## **Work History**

### ***Director, Member of the Technical Staff and Subject Matter Expert (SME)***

#### ***HHB Systems LLC***

***2012 – 2016.***

- Dr. Murray led an Information Technology Performance Analysis team for a classified government customer assessing all aspects of IT services and performance management.
- Supported customer cyber analysis and forensic analyses through network, and virtualized systems analysis using all manner of network and systems assessments tools and methods
- Leading C2S cloud commuting programs for performance assessments.
- Regularly interacts with senior government, contractor, and vendor resources to respond to long term issues and immediate IT impacts of cloud architectures and analytics.
- Regularly consults on agile development methods and evolution into a Development Operations (DevOPS) environment.
- Dr. Murray serves across the IT community for small businesses and focusing in the Cyber Security area for IT evolution and advanced technology/architectures.

### ***Principle Specialist, Information Systems and Global Services,***

#### ***Lockheed Martin Corporation***

***2010 – 2012***

- Dr. Murray is responsible for the strategic secure systems development and expansion of the Spatial Solutions Business area and is leveraging government high technology programs into adjacent markets for DoD and DHS. Worked closely with cyber and network systems, policy, and operations for CIO, CISO, and engineering teams
- He performs strategic secure systems development with customers leveraging technology, functional and key approaches into adjacent markets and identifying synergies and mission optimization.
- Serving as consulting engineer across new and emerging programs for agile management methods, quality management, cyber security, and advanced technology initiatives focusing on process and technology integration.
- He regularly addresses strategic security planning, financial and ROI models to support management decision making and support development of business analytics.
- He has develop cyber and secure systems business plans, policy, procedures, and supporting roadmaps and documents. For major agencies to protect the national and international IC secure infrastructure

### ***Director, Geospatial Security Solutions (GSS), Information Systems and Solutions,***

#### ***Lockheed Martin Corporation***

***2005 – 2010***

- Oversaw business and strategy management for Secure IC Infrastructure Service Providers (ISPs) activities in the Spatial Solutions Line of business.

- Directed business plans and secure assessment/valuation and financial assessment of opportunities and proposals in the defense and intelligence community.
- Produced large-scale secure program modeling and simulation for cyber and multi-domain systems for business valuation and consulting for LMC Information systems and Global services. Served and SME and consultant to executive government operations in cyber engineering and analysis as required for an integrated business, finance and technology assessment of their systems. He has been responsible for the management and execution of the Information Technology Infrastructure modernization of a \$800 million program, “GeoScout” including all aspects of systems infrastructure
- Dr. Murray managed teams that were responsible for the development and fielding of nine (9) different products and services. The Infrastructure and application modernization included the delivery of a transformational strategy, new processes, and technology across two (2) main datacenters, four (4) other core sites and multiple remote locations in a multi-level secure environment consistent with government evolving security compliance policy/regulation.
- Directed and managed a number of subcontractor teams (10), to coordinate and fulfill the customer’s mission. This required collaborative and agile approaches with significant customer interaction and the ability to coordinate with multiple stakeholders departments.
- In GSS, Dr. Murray has fulfilled a number of roles to support the business area and the customer. He has served as Security Chief Mission Officer from the GeoScout Program to our main customer in the Enterprise Operations directorate. In this role, Dr. Murray has coordinated the delivery, implementation and transformational details for the integration of program capabilities into an operational baseline.

***Director, Intelligence Programs/ Enterprise Information Technology,  
Information Systems and Solutions, Lockheed Martin Corporation,  
2004 - 2005***

- Dr. Murray was responsible for management direction and profit/ loss for an \$80 million line of business encompassing a broad array of Enterprise Information Technologies. Directed an organization composed of approximately fifteen (15) contracts which consisted of nine (9) programs utilizing three-hundred (300) people including subcontractors. Develop Line of Business strategy and business objectives consistent with corporate governance guidance and goals. Worked as an integral part of the business unit management team supporting competitive pursuits and new initiative development.
- Dr. Murray provides support to other major initiatives as a management consultant and subject matter expert for management/governance/strategy development and specialized in advanced technologies. Dr. Murray has developed business models for competitive assessments and lead major financial efforts for key program pursuits for integrated cost, schedule and logistics relationships.

***Director, Programs and Technology, Systems integration Business Area,  
Lockheed Martin Corporation,  
1999- 2004***

- As a member of the Lockheed Martin corporate Chief Technology Officer team, James provided technical and managerial support, coordination, and oversight for nine Lockheed Martin Companies totaling over \$15 Billion in sales. His activities include program management and technology planning, performing baseline assessments and independent reviews, participating in contract status reviews, new business strategy reviews, and special assignments as required. He performed program reporting and executive briefings on program technical and process operations. He serve as program management focal point for developing new lean and agile process and practices consistent with Corporate Science and Technology, Lockheed Martin 21 process improvement initiative, and the

Engineering Process Improvement center. Served as corporate representative for engineering development with customer, industry, and educational organizations

***Technical Director, Chief Engineer,  
Lockheed Martin Corporation,  
1990 - 1999***

- James lead a team of fifteen (15) technologists and engineers providing technology and engineering leadership across highly advanced IT technologies (hardware, software, integrated electronics and advanced sensors). He worked in the advanced security and imagery architecture arena, architecting and implementing major programs. His team also performed numerous trade studies in the collection, processing and dissemination area. He participated as a member of the government team in support of national security agencies. Have participated in and lead parts of a multi-year survey of advanced space and ground assessment of secure capabilities in the areas of: computer hardware processing, software development methodologies, communications hardware and protocols, database technologies and Graphical User Interfaces (GUIs). The result of this effort was a new management approach for a multi-year system evolution architecture, a technology roadmap, an advanced operations concept document and was followed through to an systems-of-systems implemented set of national capabilities.

***Program Manager / Sr. Systems Engineer,  
Martin Marietta Corporation,  
1987 - 1990***

- James served as program manager for the development and installation of a cyber security and network management system developed by Martin Marietta with COTS hardware and constructed to be compliant with cyber and networking emerging standards. The system(s) utilized a custom and COTS based UNIX platforms and were developed in an Object Oriented methodologies using knowledge based expert agents. The management processes for the systems required the use of agile and spiral rapid prototyping methodology, and Computer Aided Software Engineering (CASE) tool suite. The systems lead to new cyber and communications lines of business to include a network management services capability.

***Sr. Systems Engineer,  
Martin Marietta Corporation,  
1984 – 1987***

- Mr. Murray was responsible for the management and Systems Integration of a multi-hundred million dollar broadband communications system to include a Local Area Network utilizing SUN high end graphics workstations. The National Imagery and Mapping Agency system provided support to over 10,000 users with a distributed client server environment with large COTS mainframe database processors serving as database servers. James was a lead engineer an architect of the communications and processing components, and followed the systems through integration, to full implementation.

***Principle Technical Telecommunications Specialist/ IT Program Manager,  
Federal Land Bank,  
1982 – 1984***

- Program manager and technical SME responsible for the management, design development, installation and maintenance of a corporate telecommunications network of 50 locations throughout the northeast US. Mr. Murray was responsible for the design, development and installation of a distributed computing system and network for the FLB system. James also, developed the business strategy and detailed plan for the architecture and installation of hardware and software capabilities to include voice, data, and video processing. Mr. Murray managed the installation and operations of the advanced information and telecommunications systems with a multidisciplinary team across all of NY, NJ, and the New England states.

***Sr. Software Engineer/ IT Manager,  
Digital Equipment Corporation,  
1980 – 1984***

- Manager responsible for the management of computing and communications resources for the Digital Equipment Corporation's Terminal Group, consisting of 5 major manufacturing plants located in three states. James was responsible to the upgrade and enhancement of 5 operating sites and their evolution to ERP and shop floor control system with the introduction of advanced robotics and automated manufacturing.

***Software Engineer,  
Aetna Life and Casualty,  
1977 - 1980***

- James was responsible for the development and maintenance of on-line real time Life and Casualty systems. He served and later led the technical services unit for real time operations.

***Jr. Software Engineer,  
Travelers Insurance Company,  
1975 – 1977***

- Developed advanced software programming systems for Property and Casualty systems, Responsible for the maintenance of Homeowners and property systems and served as technical operating system and product developer.

***Adjunct Professor, School of Business,  
George Mason University,  
2008-Present***

- Developed and delivered courses on: Agile methods and programs, Program management and advanced technology, Operations management, Business management, Financial management, Quality management, and Decision support. Courses have been presented at the graduate and undergraduate levels. Presented CAPM sessions for George Mason University undergraduate students for 3 years to assist them in the practical application and evolution of their management professional education. Have designed and delivered in-person and on-line courses in: Program Management, Telecommunications, Computer Science topics (Software languages, Database, Operating systems, etc.). Have led and participated in degree program development and course curriculum development. Served as advisor for student seminars and thesis committees for 20 years.

**Training:**

Martin Marietta New Program Managers course	1988
Martin Marietta Intermediate Program Managers course	1989
ITIL Foundation Certification	Aug 2011
SAFe Program Consultant Professional Training	June 2014
Architecting on AWS	March 2015
CISSP Certification	July 2016
Certified Ethical Hacker (CEH) Certification	July 2016
CompTIA Cloud Essential Certification (CEC)	August 2016
CompTIA Cloud + Certification	August 2016
Certified Network Defender (CND)	September 2016
Certified Cloud Security Professional (CCSP)	October 2016
AWS solutions Architect Associate	May 2017
CISSP/ISSAP course	May 2017
CISSP/ISSMP course	June 2017

**Instructor, Professor**

George Mason University School of Management	2008 – Present
Lockheed Martin Program Management Development	2000-2004
LMC Specialized Program Manager courses	2002-2004
Holyoke Community College, adjunct faculty	1980-1983
Westfield State College, adjunct faculty	1982-1984

**Recognition:**

Outstanding Achievement Award – General Electric	1986
Individual Achievement Award – Martin Marietta	1988
Exceptional Performance Award from the CIA	1996
Lockheed Martin Fellow	1997
M&DS Leadership Excellence Award	1998
M&DS Certified Information Systems Architect	1998
Technical Achievement Award	1999
General Dynamics Mission Success Award	2002
NGA Mission Achievement Award	2002