

ERNEST VASQUEZ, Participating Faculty

Education

- MS, Information Technology and Data Architecture, Capitol Technology University, Laurel, MD. (2003)
- MA, Human Resources Development, Webster University, St. Louis, MO. (1993)
- BS, Management Studies, University of Maryland, College Park, MD. (1991)
- Project Management Foundation Curriculum Certificate, USAA (2001)
- Client-Server and Wireless Devices Certification, Capitol Technical University, Laurel, MD. (2002)
- ITIL v3 Foundation Certification, Global Knowledge (2010)
- Lean Six Sigma Executive Leadership Certification, University of Tennessee (2014)
- Lean Six Sigma Green Belt Certification (2016)
- Data Analytics for Senior Leaders, Air Force Institute of Technology (2018)
- AWS Cloud Practitioner (2018)
- Tableau Server, University of California, Davis, CA (2018)
- Data Science for Business Graduate Certificate, Rice University, Houston, TX. (2019)
- Artificial Intelligence/Design Thinking Graduate Certificate, Massachusetts Institute of Technology, Cambridge, MA. (2019)
- Data Science Essentials Graduate Certificate, University of California, Berkley, CA (2019)
- Higher Education Teaching Certificate, Harvard University, Cambridge, MA (2020)
- CCNA – Security (Valid through Sept 2023)
- Data Governance Professional (Mastery Level Certification), Institute for the Certification of Computing Professionals, (Valid through Jul 2024)

Professional Background

Secretary of the Air Force Chief Data Office (CDO), Pentagon, Washington D.C. Deputy Chief Data Officer and Chief Platform Architect Mar 2018 – Present

Senior Leader (Colonel) for Air Force wide mission sets using data as a strategic asset. Deputy Chief Data Officer for the Department of the Air Force and Chief Data Platform Architect. Design and drive data management strategies including governance, quality, and data architecture. Drives innovation by shaping vision and industry best practices to execute new data driven insights, breaks down silos and challenges to ensure alignment across the enterprise. Builds relationships with counterparts to align data management strategies and investments that support data management leaders. Leverages artificial intelligence, human-machine teaming, quantum computing, virtual/augmented reality and other technological advancements to provide value to Air Force missions worldwide. Takes the lead in discovering new technologies to make use of data analytics, data science, data management and digital transformation. Chief Architect for the Air Force Data Platform in the AWS Govcloud.

Northside Independent School District (NISD), San Antonio, TX Director, IT Infrastructure, Operations and Cloud Platforms – Apr 2012 – Mar 2018

Led a staff of over 100 IT professionals for the fourth Largest K-12 Public School District in Texas. Managed a \$6 million yearly operations budget for IT Infrastructure Operations. \$50 million in infrastructure projects. Introduced new technologies, solutions, and alternatives to support changing business models and

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operational climate needs. Developed equipment specifications to support IT acquisitions and refresh cycles. Recommended and implemented Data Strategies and Governance. Lead evaluation of proposals, wrote business cases and presented briefings to Board leadership. Collaborated with District leadership, vendors, and other strategic partners. Chaired weekly meeting with Infrastructure/Data Management Team to review analytics, availability metrics, SLA's and opportunities for continuous improvement using agile methodologies.

Northside Independent School District (NISD), San Antonio, TX Assistant Director, Technology Services, Infrastructure – Oct 2004 – Apr 2012

Managed day-to-day IT Infrastructure Operations to include Network Services, Telecommunications, Wireless Management, Server Systems Administration, Help Desk/Network Operations Center, Data Center Management, Audio/Visual Support, Disaster Recovery/Business Continuity, Virtual environments and other information technology resources. Supported and served a user community of over 105,000 students and 14,000 staff. Directed the maintenance, repair, and support of over 100,000 computer systems and mobile devices, 14,000 node VoIP system, 10,000 network switches, multiple video systems, two Storage Area Networks centrally managed 14,000 AP Wireless infrastructure and two-Tier III Data Centers. Data Centers are supported 24X7X365. Availability consistently at 99.999%.

Highlights:

- Led \$25 million private fiber buildout for 120 geographically separated facilities.
- Led project to relocate Primary Data Center to a newly built facility with zero interruption to the business.
- Implemented Governance and standardization to the Enterprise; instituted rigorous IT Governance.
- Saved \$10 million in desktops, switches, peripherals & other infrastructure through skillful negotiation.
- Leveraged competitive pricing and built relationships with vendors for fair and competitive price points.
- Developed employee career paths; provided diverse opportunities for growth in current positions, while providing career channels and choices, resulting in increased staff retention and home-grown talent.
- Implemented DR exercises for Financial Services; exercised the Survivability and Recoverability of Business Ops, resulting in essential business processes being operational within 24 hours.
- Deployed the largest public educational centralized wireless infrastructure in the U.S; this \$7.3 million project was best-in-class and shared with other school districts nation-wide. Project was \$1 million under budget and completed on- time while delivering a World-Class Centrally Managed wireless solution.
- Streamlined Software deployment, automated account provisioning, implemented Single Sign on and Password Self-Service resulting in significant user experience improvement and reduced man-hours.
- Implemented a Storage Area Network and Cloud based E-mail System; served as Project Champion, resulting in a \$500K savings per year.
- Introduced Lean Six Sigma to Tech teams in order to add value, streamline processes and eliminate waste.
- Authored NISD Data Strategy and Governance.

Mundo Systems, San Antonio, TX Chief Technology Officer – Oct 2003- Oct 2004

Provided consulting, design, and development of e-commerce presence applications for local businesses.

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Responsible for all aspects of local businesses IT consulting, planning and infrastructure management.

- Supervised Engineers/Technicians.
- Developed dynamic e-commerce presence for small to medium sized businesses.
- Developed sites using latest technology. Developed dynamic menus, CRM tools to manage sales orders, inventory management, and online maintenance record for customers and marketing.
- Provided IT infrastructure direction and designed network and voice systems.

USAA Information Technology, San Antonio, TX

IT Systems Analyst, IT Operations Manager – Sept 1997- Oct 2003

Various positions: IT Systems Analyst (Financial Planning Network), IT Manager (EOPS/DMO). Planned and led development of Financial Planning Services FRM module and managed migration to open source, web-based system. Managed team of contractors in integrating applications with membership management system. Led development of proprietary customer relationship management application to forecast and prevent customer attrition. Directed 24/7 IT Data Center Operations. Led and mentored 60 personnel. Led several Disaster Recovery and Business Continuity Exercises at remote locations. Administered annual budget of \$5 million.

Technical Competencies

Apache Hadoop/Spark	Informatica/Axon	Kubernetes (K8s)
AI/Machine Learning	Jupyter Notebook	Docker
Cloud (AWS/Azure/GCP)	Python	Databricks
Data Lake Architecture	Hue/SQL	Zeppelin
Agile/Scrum	Linux	Elastic Stack
DevOps	Tableau	Kylo

Present Higher Education Teaching Experience:

Texas A&M University - San Antonio, Texas

Department of Computing and Cyber Security, San Antonio Texas

Palo Alto College - San Antonio, Texas

Department of Computer Science and Computer Information Systems

DoD Active Top-Secret Clearance w/SCI