Data & Analytics

Architectures and Analysis for the Competitive Edge

Modern Capabilities to Assure Outcomes

The amount of data available in today's world can be overwhelming, but when analyzed and used, data can be the key to drive actionable intelligence, rapid decision-making, and successful business outcomes.

Modern data analytics is powered by a robust IT stack, including cloud computing, streaming analytics, Artificial Intelligence (AI), Machine Learning (ML), highly automated Extract, Transform, and Load (ETL) processes, strong data governance, and the Internet of Things (IoT). A decrease in computational and storage costs, an increase in processing power, and the growth of big data have made data analytics and intelligence affordable and practical on a massive scale.

✕ Data Accessibility
✕ Data Science & Analysis
✕ AI/ML Algorithms
✕ Mission Data at the Edge
✕ Data Lake Implementation
✕ Data Pipeline Automation

Accessibility, security, and effective use of cross-organizational data supports rapid, accurate decision-making and system behavior predictions. However, organizations often struggle to extract meaning from their data and provide timely, effective decision support that steers organizational outcomes and outpaces the competition. SMX can help organizations overcome digital challenges to assure mission success. We provide exceptional value with our end-to-end digital solution architectures using proven data management practices to design (Blueprint), prepare (Groundwork), and execute (Foundation) legacy-system modernization and modern digital infrastructures. We leverage cutting-edge technology and tools to deliver solutions that work for emerging needs, including:

- Migrating data warehouse workloads into cloud data lakes
- Designing landing zones purpose built for data lakes, data hubs, and streaming analytics
- Deploying open-source commercial data platforms and warehouses in complex security environments
- Analyzing and visualizing data using open-source tools to provide targeted decision support for executive leadership teams
- ETL process automation
- Streaming analytics tools and technologies
- Providing end-to-end digital infrastructure and data management solutions that support big data analysis, AI, and ML algorithms to assure capability at the edge

Leading Workforce Transformation

As data-driven decision-making and the underlying digital strategies that enable transformation reshape organizations, SMX leads organizational change management and workforce re-purpose efforts. Our experienced team works with customers to re-balance and expand their workforce capabilities to achieve agility and dexterity for a rapidly changing digital environment. This transformed workforce helps organizations adapt and strengthen their core capabilities to address the shifting landscape of digital transformation and naturally migrate to their evolving mission needs.

Data Architectures and Analytics for Critical Tasks

SMX is an award-winning cloud solutions provider with Premier Partner status in all three hyperscaler cloud platforms (AWS, Microsoft® Azure, Google Cloud) and has achieved authority to operate one of DoD's first Defense Information Systems Agency (DISA) Impact Level-6 (IL-6) classified cloud-hosted environments. Our ability to deliver cloud-native solutions allows us to provide vendor-agnostic advanced data analytics. We create unique solutions, proven in DoD and commercial environments, leveraging our cloud expertise to empower customers with rapidly deployed, right-sized, scalable solutions and data networks to fit specific and unique needs and missions.
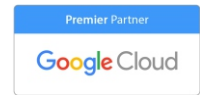
Cloud Hosting Enables Speed and Access to Data and Analytics

Real-time data streams and advanced edge computing environments have transformed data movement from a model of collection-storage-retrieval to instantaneous decision analytics reinforced by accessible models, tools, and AI/ML algorithms.

Cloud hosting enables speed and off-loading of critical infrastructure and provides access to world-class data models and analytics tools. Rather than locking customers into single vendors, licenses, and software platforms, cloud environments support subscription-style services that enable nodal access to hundreds of mission-appropriate applications and models. This relieves the management, configuration, and security burdens of traditional architectures. For edge assets, cloud architecture enables localized computing and processing resources for time-sensitive, tailored solutions to clients who are unable to maintain continuous connectivity to centralized, mission-critical repositories.
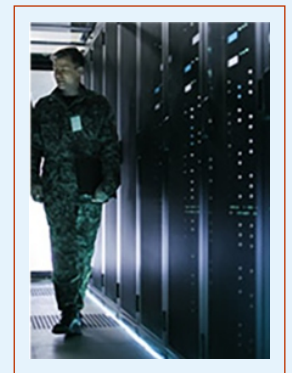
Client Solution Spotlights

Naval Aviation Enterprise (NAE) - In support of the NAE, to increase mission-ready aircraft on the flight line (for both Navy and Marine Corps platforms), SMX and HBM Prenscia (partnered with NAWCAD) are designing Naval aviation's first enterprise-wide Common Failure Reporting and Corrective Action System. The platform leverages more than five legacy logistical databases and allows eight statistical analysis tools to run against this cloud-hosted, aggregate dataset. NAE now has the power to identify reliability degraders and decrease unscheduled aircraft maintenance in a consistent, repeatable fashion. The digital platform combines terabytes of data that the toolset analyzes to identify chokepoints and failures, revealing systemic supply and part-failure issues, and predicting statistically accurate scheduled maintenance plans. Identical analyses previously required a multi-person team weeks to accomplish. The team can now use its time to investigate the causes of failures, rather than scoring and reconciling data. This analysis capability is critical to the NAE mission and to the success of our warfighters.

U.S. Rapid Response Accountability Committee - The U.S. Government pandemic response required a rich and immersive website to empower public engagement and provide insight into the use of Coronavirus Aid, Relief, and Economic Security (CARES) Act funds. The committee was established to promote transparency and oversight of the approximately $2.6 trillion in economic relief and other funding provided by the Federal Government to U.S. citizens, businesses, medical providers, and impacted industries as a result of the COVID pandemic. The SMX team helped the committee redesign and launch the new site in less than seven weeks. Our team wanted the data to be inviting and easy to use; and we brought in the best data visualization tools, Designers, Geospatial Experts, and Fraud and Analytics Reporting Experts to develop a robust platform that the committee can use to provide real-time information and tools to the public. The committee now has a robust data repository and a website to empower public engagement and provide insight into the use of CARES Act funds.

For more information, please contact our Digital Solutions Group: DigitalSolutions@smxtech.com

SMX harnesses the transformative power of technology to achieve mission success as a leader in digital and mission solutions, specializing in secure and advanced cloud, ISR, cyber, data analytics, engineering, space, and IT solutions. Operating in close proximity to our clients across the globe, the SMX team has a shared vision to deliver scalable and secure solutions to assure outcomes for the critical missions of our Government and commercial clients.

A few of our contracting vehicles: GSA ASTRO, GSA Alliant 2, GSA OASIS, GSA MAS IT, NITAAC CIO-SP3, SeaPort-NxG, and DIA SITE III.

Shared Vision.
Outcome Assured.®

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