# Napakiak Ventures

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Napakiak Ventures LLC (NV), an 8(a) Joint Venture of Alaskan Native-owned, SBA-certified 8(a) Napakiak Environmental & Construction (Napakiak E&C) and Advanced Technologies & Laboratories International (ATL) a PSI owned company, a Global Enterprise Technology Solutions provider. Our teams have provided our government customers with innovative, cost-effective solutions that solve today's complex challenges, improve operational

efficiencies, and meet challenges to our national security. Napakiak Ventures provides our Department of Defense and Intelligence Community with expertise across a broad spectrum of capabilities ranging from Cybersecurity to Cloud Migration, Systems Engineering and Integration, Digital Engineering, and Studies and Analyses supporting emerging technology.



# Cybersecurity

NV incorporates cybersecurity throughout the lifecycle of networks, systems, and applications that we design, develop, operate, and maintain for our customers. We leverage authentication at the device, user, application, and service levels to align with industry best practices for Zero Trust Architectures and consider other cybersecurity factors, such as access control, logging, data at rest and data in transit encryption, data protection through backup and disaster recovery, configuration management, patch management, and vulnerability management to ensure robust, resilient, and secure solutions.



#### Cloud Computing

NV has migrated on-premise applications to cloud service provider environments and deployed cloud-native applications, realizing benefits in performance, scalability, reliability, security, and cost effectiveness. We have utilized a variety of approaches, including lift-and-shift/rehosting, replatforming, refactoring, and repurchasing to establish cloud environments for our cus- tomers. For cloud-native deployments, we apply our agile methodology and DevSecOps implementation to realize a continu- ous integration/continuous deployment (CI/CD) application delivery pipeline with zero down time.



## Modeling and Simulation

NV designs, develops, deploys and integrates Live, Virtual, Constructive (LVC) and gaming-based simulations systems. Our expertise applies Local and Wide Area Network distributed computing, 3D and 2D rendering, and physics-based modeling which provides dynamic environments containing over a million active entities. We minimize simulation and drive user facing applications and services with native transports and protocols. Our goal is to provide simulation stimulus that is functionally equivalent to the substituted live system's interoperability and behavior and deliver the most representative user experience.



## DevSecOps

NV supports customers with the delivery of DevSecOps to support the development of new systems, the operation of existing systems, and the migration of legacy systems to the cloud. We utilize technologies and tool suites that fully containerize microservices with independent and flexible technology stacks, fully automated testing, and automated daily deployments to the production environment. Quality and security are built in and enforced by tools that perform static analysis, linting, and scans for security vulnerabilities and container security.



#### Systems Integration

NV's expertise working with and modernizing legacy systems enables us to help our clients achieve maximum performance atan accelerated pace. We provide a process that iteratively brings together disparate systems (COTs and GOTs) and components, whether complete or partial configurations, to deliver functionality and efficiencies as a customized system architecture. Our teams link diverse computing systems and software applications physically or functionally to operate as one.



#### Studies and Analyses

NV conducts studies and analyses, to identify, clarify, organize, integrate, transition, and otherwise support the development, operational and technical integration, fabrication and fielding of both hardware and software special products and prototypes Our teams conduct market surveys, provide design courses of actions and perform related analysis, systems analysis, operations research, engineering analysis, operational integration analysis and programmatic transition analysis which includes preparing technical data packages.



## Digital Engineering

NV offers our customers and partners a One-Stop Shop for Digital Engineering Solutions, enabling them to define and iterate requirements, build and ingest digital models of capability solutions, iterate on design using advanced model-based testing, and optimize solutions based on technological innovations that NV can provide or integrate from third-party providers.



401 Government Ave Valparaiso, FL 32580 SECRET SAFEGUARDING and PROCESSING

# Cyber Systems Integration Lab (SIL)



NV's Cyber Systems Integration Lab (SIL) located conveniently between Hurlburt Field and Eglin AFB FL, is designed to be an extension of the Systems Processing Integration Facility (SPIF) with a focus on networked systems. The Cyber SIL provides an offsite lab where changes to software and system configurations can be tested regularly throughout the development process without the need to reconfigure the SPIF. It also allows security testing to be performed without impacting the SPIF systems used for troubleshooting fielded systems. The SIL design is a highly virtualized environment operating on a closed-loop network. It leverages Software Defined Networking to facilitate traffic between internal systems and utilizes physical network equipment to simulate external interfaces between systems. This allows the SIL to

maintain a modular architecture that can facilitate targeted security testing, simulate, or test system-to-system communications, provide an attachment point for external monitoring tools or tools designed to simulate required inputs such as GPS, and allows the addition of portable system-in-a-box configurations.

# Model-Based Systems Engineering (MBSE)



Our teams implement the formalized application of modeling to support system requirements, design, analysis, verification, and validation activities beginning in the conceptual design phase and continuing throughout development and later life cycle phases. MBSE supports the existing products and processes to add consistency, clarity, and connectedness to both.

MBSE enhances the ability to capture, analyze, share, and manage the information associated with the complete specification of a product, resulting in the following benefits:

- Improved communications among the development stakeholders (e.g. the customer, program management, systems engineers, hardware and software developers, testers, and specialty engineering disciplines).
- Increased ability to manage system complexity by enabling a system model to be viewed from multiple perspectives, and to analyze the impact of changes.
- Improved product quality by providing an unambiguous and precise model of the system that can be evaluated for consistency, correctness, and completeness.
- Enhanced knowledge capture and reuse of the information by capturing information in more standardized ways and leveraging built in abstraction mechanisms inherent in model driven approaches. This in turn can result in reduced cycle time and lower maintenance costs to modify the design.

