EXPANXIA LLC

UEI: RYHBDK13U2G7 **CAGE:** 14FQ4

"Building secure, zero install web, low bandwidth, and scalable 3D systems for Digital Twin, AI and next-generation simulation anywhere."

CAPABILITIES STATEMENT

CORE COMPETENCIES

- Digital Twin Simulation (Browser-Based): High-fidelity, zero-install 3D environments running on WebGPU/WASM.
- Multi-Engine Interoperability: Seamless integration of Unreal Engine 5.5, Unity, VBS, and custom simulation frameworks.
- GPS-Denied Navigation Testing: Realistic indoor, subterranean, and contested-terrain modeling for precision navigation R&D.
- AI-Driven Autonomy: Universal API enabling AI agents to control actors, receive sensor feeds, and execute multi-agent behaviors.
- Secure Federated Simulations: QUIC/FIPS-aligned networking for multi-node, cross-domain distributed simulation.
- Training & Mission Rehearsal Environments: Real-time environments for warfighters, researchers, and autonomous systems.
- Rapid Scenario & Content Deployment: Instantly accessible on any secure device with no installation required.

KEY DIFFERENTIATORS

- Zero-Install Simulation: Full 3D digital-twin capability in a browser—no downloads, plugins, or thick clients.
- Semantic Interoperability Layer: Maintains behavior, logic, and semantic consistency across different game/simulation engines.
- AI-First Architecture: External AI agents control actors without engine-level integration.
- Open Compatibility: Works with Unreal, Unity, and any live 3D or data source
- Built in Memory-Safe Rust: Modern, secure codebase using WebAssembly for portable, sandboxed execution.
- FIPS-Aligned QUIC Networking: Secure, low-latency, modern transport optimized for contested environments.
- Veteran-Led, Mission-Driven: Led by U.S. veteran technologists with decades of simulation, gaming, and defense experience

TARGET GOVERNMENT AGENCIES

- U.S. Army (PEO STRI, DEVCOM, C5ISR, Futures Command)
- U.S. Air Force / Space Force (AFWERX, SpaceWERX, AFRL)
- U.S. Navy / USMC (NAVAIR, NAVWAR, ONR)
- DHS / FEMA (simulation & emergency training programs)
- DARPA (autonomy, AI, digital twin, simulation research)
- NASA (robotics, autonomy, and digital twin environments)

CERTIFICATIONS & QUALIFICATIONS

Service-Disabled Veteran-Owned Small Business (SDVOSB)

Veteran-Owned Small Business (VOSB)

Registered in SAM.gov

PRIMARY CONTACT

Royal O'Brien, CEO

Email: royal@expanxia.com

Website: www.expanxia.com

Phone: (904) 294-7200

4232 Ortega Forest Drive,

Jacksonville, FL 32210

NAICS CODES

- 541715 – Research and Development in the Physical, Engineering, and Life Sciences
- 541511 – Custom Computer Programming Services
- 541512 – Computer Systems Design Services
- 541618 – Other Management Consulting Services
- 541519 – Other Computer Related Services
- 518210 – Computing Infrastructure Providers, Data Processing, and Web Hosting
- 519190 - All Other Information Services

PSC CODES

- AC13 – R&D: Defense Services (Advanced Technology)
- AC21 – R&D: Artificial Intelligence
- AZ14 – IT & Telecom – IT Security
- D399 – IT Services, Other
- 7030 – ADP Software

U.S. Small Business Administration
VETERAN-OWNED CERTIFIED

U.S. Small Business Administration
SERVICE-DISABLED VETERAN-OWNED CERTIFIED