

Capability Statement



IN 4.0S

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Core Competencies

IN4.OS strategizes, designs, builds smart factories of the future, creates jobs and develops the workforce of the future. Our team of technologists, scientists, engineers, and subject matter experts work as partners to the American bedrock of manufacturing and make the transformation to Industry 4.0 seamless, with a focus on outcomes. We develop and deliver scalable solutions to strategic industries, by harnessing the power of AI, cyber-physical systems and talent development to secure Industry 4.0.

- Digital transformation and re-industrialization
- Workforce transformation
- Advanced quality system design and implementation for aerospace PRP and defense manufacturing

Differentiators

Our solutions have the following attributes:

- **Zero Trust:** We employ a zero-trust architecture, using advanced encryption for both data at rest and in transit, our solutions guarantee secure communication through supply chain source verification.
- **Cognitive:** By deploying artificial intelligence, machine learning, and deep learning (AI/ML/DL), we create a knowledge system for optimizing the delivery and quality assurance of fully automated production. We create a hybrid human-on-the-loop model bringing controlled cognitive capabilities to the remotest production.
- **Multi-modal and multi-material additive manufacturing (AM):** Our AM capabilities will be multi-modal, directed energy deposition (DEP), powder bed fusion (PBF), Hybrid (additive and subtractive), and multi-material. In addition to the manufacturing technologies, the systems would support various materials: metallics, inter-metallics, ceramics, polymers, and glass.
- **Edge computing enabled:** Our system relies on a cloud-edge computing architecture. This allows for real-time operation and control, as well as the ability to use asynchronous communication to the cloud for source of truth and system-wide optimization.
- **Source of truth (SOT) and knowledge base (KB):** A cloudbased secure platform that would serve as a source of truth of verified and tested parts manufacturing packages. An extensive knowledge base, meanwhile, will allow for AI enabled optimization for rapid part development.
- **Computer-aided design (CAD) on demand:** The ability to generate 3D data by reverse engineering, both through computed tomography and 2D to 3D conversion. Created and generated data will be verified and stored in an onsite knowledge base which will have access to and be updatable from other catalogs and sources from across the network.
- **Virtual warehouse:** Developed parts data will be stored and retrieved through on-demand manufacturing, precluding overhead investments in brick-and-mortar facilities, staffing, and physical warehouse equipment. On-demand manufacturing will preempt the need for inventory tracking and management of aging inventories.

Company Data

Since its inception in 2018, IN4.OS has been at the forefront of advanced manufacturing and Industry 4.0. With its core belief that a nation is as strong as its manufacturing capability, we have a singular mission to create the future of U.S. advanced manufacturing that is secure, resilient, elastic, cognitive and location agnostic.

DUNS Number: 108713856

Nontraditional, small business

CAGE Code: 9DJF9

UIE: CDTMCNVCTW17

NAICS:

- **541715** – Research & Development in the Physical, Engineering & Life Sciences
- **541330** – Engineering Services
- **54161**- Consulting Services
- Accept Credit and Purchase Cards

Past Performance

Due to the sensitive nature of our work, we will share information about specific projects following successful execution of a non-disclosure agreement.