A Trusted Partner for Enterprise AI Transformation

CTG NATIONAL

Cohesive Technology Group

Enterprises today are moving beyond AI experimentation to full-scale production, seeking to unlock significant gains in efficiency, decision quality, and competitive advantage. The rapid evolution of Generative, Agentic, and Physical AI presents a clear mandate to innovate, yet organizations face critical hurdles in harnessing these technologies securely and effectively. The promise of transformation is often challenged by the complexity of building secure data pipelines, managing the model lifecycle, and integrating AI into core business processes.

Successfully operationalizing AI requires more than just deploying the latest model; it demands a robust strategy for ensuring accuracy, security, and governance at scale. Without a proven framework, organizations risk stalled pilots, escalating costs, and compliance gaps that can undermine trust and expose the business to unforeseen risks. The key is to move from isolated use cases to a governed, scalable "AI factory" that consistently delivers measurable business value across the enterprise.

CTG National helps organizations navigate this complex landscape by delivering pragmatic, end-to-end AI solutions. We combine deep expertise in enterprise infrastructure with a proven delivery methodology to bridge the gap between AI potential and production reality. We partner with you to discover, design, pilot, and scale high-impact AI solutions—from intelligent document processing to autonomous systems—that reduce costs, increase revenue, and lower risk, ensuring your organization is prepared for the demands of tomorrow.

Our Core AI Solution Areas

GENERATIVE AI
We build secure solutions that allow you to generate and transform content by asking questions of your private enterprise data. Our Retrieval-Augmented Generation (RAG) suites for Text, Multimodal, and Agentic RAG enable use cases like policy Q&A, analysis of scanned forms, and automated compliance dossier creation—all while providing citations and enforcing strict data provenance and access controls.

AGENTIC AI
Beyond conversational AI, we deliver goal-seeking software agents that plan and execute complex, multi-step workflows. By securely integrating with your existing APIs for CRM, ERP, and ITSM systems, these agents automate mission-critical processes like claims coordination, supply chain planning, and client onboarding, all governed by robust operational and safety guardrails.

PHYSICAL AI (ROBOTICS & VISION)
We extend AI to the physical world with solutions for computer vision, autonomous robotics (AMRs/cobots), and edge inference. From intelligent warehouse automation and worker safety monitoring to autonomous inspections, our Physical AI solutions enhance operational efficiency and security at the edge, managed through a centralized fleet operations and safety stack.

HPC FOR AI/ML
Training sophisticated models and running complex simulations requires immense computational power. CTG National designs and deploys GPU-accelerated high-performance computing (HPC) clusters with high-throughput storage and fast networking, enabling demanding workloads like genomic sequencing, financial risk analysis, and digital twin simulations.

The CTG AI Factory: A Disciplined Path to Production

CTG National utilizes a structured, five-stage delivery model—the AI Factory—to ensure AI initiatives are predictable, measurable, and aligned with strategic goals. This disciplined approach de-risks innovation and accelerates the journey from concept to enterprise-scale impact.

1. DISCOVER

We begin by inventorying potential use cases, mapping them to a value tree, and assessing data readiness, feasibility, and risk to identify the highest-impact opportunities.

2. DESIGN

Our team blueprints the target architecture, defines security controls and acceptance criteria, and establishes clear operational roles and responsibilities for a successful deployment.

3. PILOT (6-10 WEEKS)

We execute a fixed-fee pilot focused on measurable metrics. With human-in-the-loop checkpoints, we validate the solution's performance and business value before scaling.

4. SCALE

The solution is hardened for high availability and disaster recovery. We tune for performance and cost, hand off to operations, and begin working on the next prioritized use case from the backlog.

5. GOVERN

We establish a framework for recurring evaluations of model fairness, accuracy, and robustness. Executive scorecards and regular ROI reviews ensure ongoing alignment and value realization.

Secure & Scalable Foundations

- Data readiness: pipelines, normalization, metadata, lineage
- Operational rigor: LLMOps, AgentOps, RoboticOps, MLOps
- Security & compliance: zero trust, encryption, monitoring, HIPAA, PCI, SOX, ISO 27001, SOC 2
- Cost controls: autoscaling, mixed precision, batching, spot GPU scheduling

Next Steps

1. Conduct an AI Readiness Assessment
2. Select 1–2 pilot candidates with clear ROI and compliance fit
3. Stand up reference architecture + pilot (6–10 weeks)
4. Scale through our AI Factory model with executive ROI reviews

Why CTG National?

CTG National stands out in the crowded field of value-added resellers because of our ability to earn the trust of our clients through our expertise, past performance, and unique approach to the way we do business. Our founders have all worked in the IT space for their entire careers. Their individual experiences and career paths have been varied and include work in contracting, IT service management, military service, and engineering for large systems integrators. We bring many perspectives to our practice that have served us and our clients well.

Contracts

DUN & Bradstreet: 080932836
UEI: G2D4Q7UKR5P5
CAGE Code: 7ZHE9
NAICS Code(s): 541519

CTG NATIONAL

Smart | Secure | Scalable

(703) 278-3885
contact@ctgnational.com
1818 Library Street, Suite 500
Reston, VA 20190

www.ctgnational.com