OCOLS

MSET SBC Forum

24 April 2024

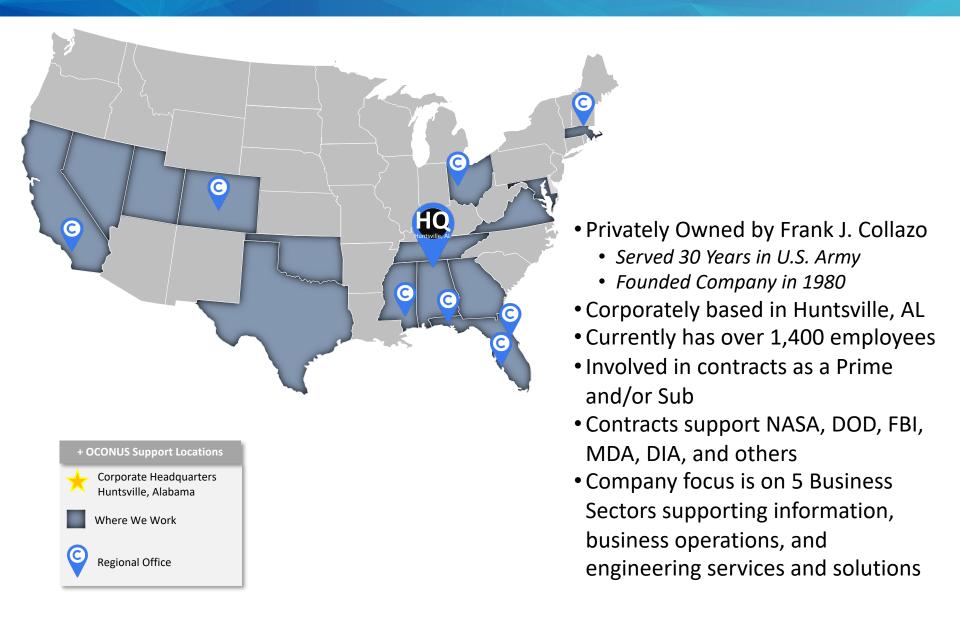




www.COLSA.com

COLSA Proprietary – 4/24/2024

COMPANY HISTORY / PREVIEW



OUR MISSION

At COLSA, our mission is to provide value-added and costeffective solutions to our Government and Commercial customers by providing the latest and most sophisticated engineering, programmatic, and information technology products and services performed by a knowledgeable and ethical team of professionals.

OUR QUALITY

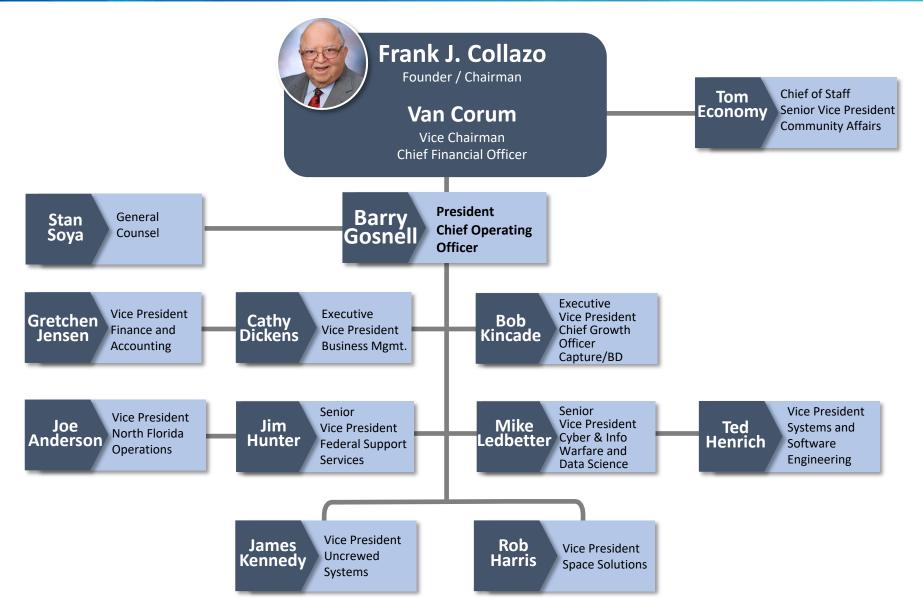
Our policy is to provide products and services that meet or exceed requirements and to continually improve our processes to ensure customer satisfaction above all else.

OUR VALUES

People are our most valuable resource. **Integrity** underlies all that we do. **Teamwork** is integral to success.

Customer Satisfaction is the cornerstone of our corporation.

ORGANIZATION



COLSA is an information and engineering services and solutions company that has been delivering results to federal agencies for over 40 years. Our customer-focused approach, coupled with our advanced technical capabilities, allow us to deliver innovative, high-quality solutions across all areas of the enterprise. We remain steadfast in our core goal: **to serve the company's** customers with dedication and excellence.





Integrating People, Processes, and Technology to Gain and Maintain Information Dominance.

Defensive Cyber Operations

Identifying threats, reducing vulnerabilities, and enhancing cyber defenses for faster detection and reduced response time.

Offensive Cyber Operations

Employing threat tactics, techniques, and procedures (TTPs) against enclaves to present the latest threat representation of our Blue Networks.

Information Warfare

Discovery and exploitation of threat entities, communities, and networks at mission speed and scale.

Software Assurance

Securing software against malicious and pernicious risks and flawed coding to ensure maximum functionality.

Cyber Solutions, Engineering Research, and Development

COLSA's Cyber Solutions and Innovations Labs combine industry Subject Matter Experts (SMEs), seasoned professionals, and unsurpassed interns to create an environment for innovation.

Unmanned Systems

COLSA Stormworks creates innovative low cost sUAS solutions for full spectrum threat representation.



DATA SCIENCE



Delivering Advanced Capabilities in Support of Critical Mission and Operational Requirements

Data Engineering and Machine Learning Operations (MLOps)

With code reuse and the utility of high-level compute libraries, we can take the focus off what would be considered software engineering that software engineers do, to instead build successful machine learning and mathematical models which is what data scientists do.

Knowledge Management Solutions

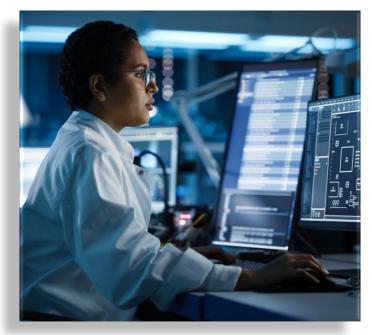
From traditional relational databases to the latest in graph database technologies, COLSA's Data Scientists have extensive experience with multi-source and multi-format data, various natural language processing (NLP) approaches, leveraging advanced algorithms, and exploitation of the knowledge base.

Enhanced Signals Analysis

COLSA's machine learning-enhanced signals analysis solutions solves challenges related to the increasing complexities of modern and dynamic signal processing environments including satellite communications, radio frequency, electro-optical, and acoustic environments.

Scientific Machine Learning

Our Data Scientists utilize sparse regression to narrow down a massive list of features and relationships to only those with strong predictive power. Using Physics Informed Neural Networks (PINNs), they can leverage automatic differentiation to calculate complex gradient spaces enabling the use of partial differential equations to train models and discover properties of systems.





Delivering Modern, Secure, and Scalable Solutions and Services for Our Nation's Most Critical Defense, Law Enforcement, and Intelligence Missions.

High Performance Technology and Scientific Computing

Highly scalable, composable, and vendor agnostic hardware and software solutions that meet emerging mission needs.

Computational Analysis Solutions

AI/ML, modeling, and simulation capabilities that put data to work to deliver emergent threat analysis to the field, at mission speed.

Strategic Technology Modernization

Digital modernization roadmaps and execution to lower total cost of ownership and provide a modern ROI.

Enterprise Data and Knowledge Management

Data aggregation and administration solutions for all-source intelligence, allowing people to focus on what matters most.

Cloud Solutions and Next Generation Networks Innovative networks to enhance speed while securing our Nation's most critical information assets, including cloud migration solutions.

Enterprise Information Technology (IT) Services

360-degree technology services, amplifying the impact of continuous improvement to return value to the warfighter.





Providing Comprehensive System Lifecycle Solutions with Expert Analytical Services and Program Management



Acquisition and Program Management

Managing the acquisition process using effective analytical techniques.

Acquisition Logistics

An integrated approach to providing full range acquisition logistics, ensuring the U.S. Armed Forces are always prepared and ready to meet their mission.

Operations and Sustainment

Planning the deployment of a system into your production environment is vital to identifying root causes and resolutions for safety and critical readiness degrading issues.

System, Engineering and Technical Services

Our specialized engineering and technical experience provides support to complex programs from aircraft platforms to weapons systems to space systems.

Studies and Analysis

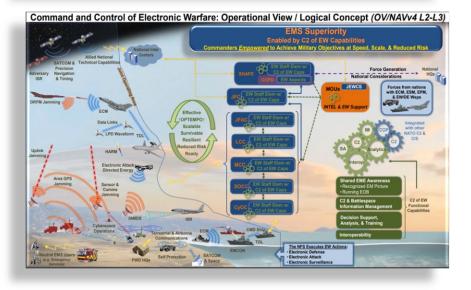
Data Management services provide technology solutions, freeing internal resources to work on core services and strategic initiatives.

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Executing Agile, Advanced Systems and Software Engineering Solutions for Customers Worldwide





Systems Engineering

Scalable systems engineering support provides our customers with innovative solutions.

Software Engineering

Leveraging cutting-edge technology to produce solutions that meet the most complex and challenging mission problems.

Test Engineering

Continuous testing that delivers quality products quickly.

Information Technology

Combining the latest technology and innovations to improve how our customers operate.000

COLSA Software Factory

COLSA Data Science Lab

COLSA Engineering Collaboration

UNCREWED SYSTEMS

TStorm System of Systems TS-M800

- COLSA designed sUAS that optimizes the mission for the Army use case on the training range
- Placed on the approved list of non-COTS American sUAS currently routed for approval by the Deputy SECDEF
- Operate the only Army approved swarming capability at the Combat Test Centers
- COLSA developed a full MCoE Training Support Package used to train Soldiers on sUAS swarm operations



NTC Lead 6 @NTCLead6 · Sep 11

At sunrise this morning a swarm of 40 quadcopters all equipped with cameras, MILES, and lethal munition capable launched in advance of 11th ACR's attack on a prepared defense by 1AD. Drones will be as important in the first battle of the next war as artillery is today.



♀ 245 € 1,600 ♡ 6,470 ♪

Dolus C4I

- Development and maturation of reliable Unmanned Surface Vehicle (USV) autonomy with goal of fully autonomous USV operations at sea for up to 90 days
- Assisting in the development of a fleet integrated C4I system for USV





COLSA INNOVATION ENTERPRISE

COLSA Software Factory

The COLSA Software Factory develops and deploys software products in a quick and cost-effective manner. Our agile process encourages stakeholder participation throughout development, ensuring the highest priority functionality is delivered first. The COLSA Software Factory is appraised at CMMI-3.

Mobile Development

- Big Data
- Cloud Computing

Data Mining

- Machine Learning
- Artificial Intelligence
- Social Media Analytics



COLSA Cyber Solutions and Innovations Lab

The COLSA Cyber Solutions and Innovations Lab is a remotely accessible and completely virtualized environment that stimulates both typical enterprise networks as well as public operating space.

- Utilization of a routed and switched network that separates public and private networks
- An attack infrastructure that uses command and control (C2) direction as well as simulated Virtual Private Network (VPN) capabilities from simulated Internet space to internal network space
- Ability to perform deep log analysis and network traffic analysis on any system placed in the virtualized environment.



COLSA Scientific Computing Lab

COLSA's Scientific Computing Lab serves as an epicenter for research, development, and testing of scientific, composable, and adaptive hardware and software solutions. The lab is directed by COLSA Fellow PhDs and SMEs who are industry leaders in scientific computing. Our lab supports capabilities for customers who have resource-intensive, AI/ML/DL, and scientific computing workloads, such as:

- Defense Intelligence Agency (DIA) Missile and Space Intelligence Center (MSIC)
- U.S. Army Corps of Engineers (USACE) Engineering Research and Development Center (ERDC)



• Army Futures Command - Army Research Lab (ARL)

COLSA Data Analysis and Computational Sciences (DACS) Lab

The COLSA DACS Lab maintains an on-going research focus to advance solutions within scientific machine learning. The DACS Lab consists of multiple research and development environments to include an ability to work with operational mission data and unique mission specific prototype development environments..

- Framework and platform supporting full-scale Machine Learning OPS (MLOps).
- Supports end-to-end capability delivery from model development to deployment and operations
- Minimizes the need for custom software, systems, and integration and saves our customers time and money.





NSSC NTSS Contract Overview

- NTSS NASA Transformational Shared Services
- 8-Year Contract valued at \$400M
- Primary support contract for NSSC located at SSC
- Approximately 300 contractors hired
- 14 different companies plus COLSA
- Several SB goals assigned and met or exceeded

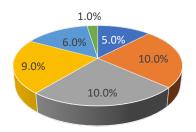
• COLSA Diverse Team of Subcontractors

- Across all SB Categories
- Extensive Experience specializing in Grants, SBIR, etc.

• Employee Data

- Average Number of Contractor Employees 300
- Exempt positions 63% and SCA (non-exempt) positions 37%
- Population Female 77% and Male 23%
- Position Requirement:
 - Years of experience 0 to 15
 - Educational requirements high school to Masters Degree
- Majority of employees are local:
 - Mississippi 72%
 - Louisiana 16%
 - Nationwide 11%
 - AL, CA, CO, FL, GA, ID, KS, MA, MD, NC, OH, TX, TN and VA.

NTSS Small Business - 34% Requirement



- Small Disadvantaged Business Concerns (SDB) 5%
- Women Owned Small Business Concerns (WOSB) -10%
- Veteran Owned Small Business Concerns (VOSB) -10%
- Service-Disabled Veteran-Owned Small Business Concerns (SDVOSB) - 9%

WHY COLSA?

Small Business Roots

COLSA grew up in the small business arena and thoroughly understands the purpose and goals of the small business programs. COLSA's understanding and commitment to these programs are reflected in all of COLSA's subcontracting goals.



Diversity and Inclusion Emphasis

Diversity and inclusion - the capstones of fostering a successful work culture.



Small Business Supportive

COLSA has a proven record of supporting programs that encourage subcontracting to small, small disadvantaged, womanowned, HUBZone, veteran-owned, servicedisabled veteran owned firms, and Historically Black Colleges and Universities/Minority Institutions. We have served in an official Mentor capacity for small businesses through entity Mentor-Protégé programs.



Employees Focused

An environment that puts our Employees first.

 We strive to provide a family-friendly environment in which to work. Our employees enjoy flexible work schedules and reduced work hours to assist with the challenges of work/home issues. We also provide a generous leave program that includes 10 paid federal holidays and accrued annual leave that is immediately vested.



COLSA is looking to establish relationships with small businesses who have initiatives in the following areas:

Cybersecurity and Information Warfare	Operations and Sustainment
System Engineering and Integration	Systems Studies and Analysis
Test and Evaluation	Computer Engineering and Operations
Software Engineering	Data Science
Information Technology	Information Management
Acquisition Management	Program Management
Financial Management	Other Technical Areas that Support our Long-Term Corporate Vision



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