



GLOBAL STRATEGIC SOLUTIONS LLC



## Capabilities Overview

Expanding your Vision through Service and Technology...

# About the Company

Global Strategic Solutions LLC was formed in 2005 with the mission to develop and commercialize cutting-edge software technology products and services in areas of Prognostics and Health Management (PHM), Collaborative Decision Support Systems, Cognitive Computing and Knowledge Augmentation Systems. The Company's objective is to commercialize the technologies it develops, through its internal and federally-sponsored R&D programs, to the government and private sectors.

At GSS, we know that technology innovations are the result of focused R&D and viewing problems and their solutions with an unbiased perspective. We also know that the technology components required to solve problems in one domain may already exist in another domain. GSS partners with Federal and University Research Centers in seeking new, innovative ways to transfer the results of their focused research or extend their application to another domain.

**“Our mission is to bring the latest research and enabling computing technologies from academia to the next level of development and application—and commercialize product solutions for Condition Based Maintenance.”**

## Research Technology Areas

- » Condition Based Diagnostics
- » Prognostics & Health Management
- » AI/Expert Systems
- » Supply Chain Management
- » Modeling & Simulation

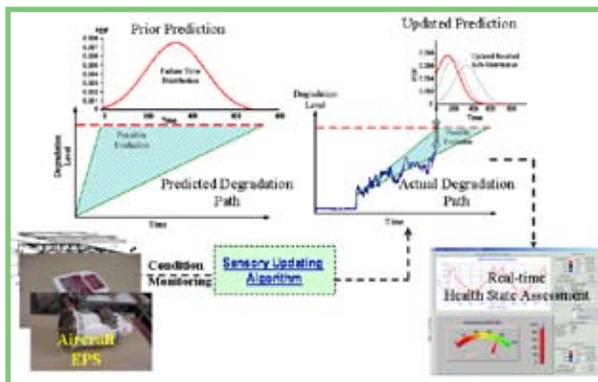
## Commercialization Focus

- » Condition Based Maintenance Systems
- » Decision Support
- » Applications

# Advanced PHM System Solutions

Our PHM solutions predict impending equipment failure in high value aircraft and vehicle systems, enabling planned, efficient and safe maintenance or repair before actual failures occur. Specifically, the solutions address aircraft Electrical Power Systems (EPS) and Avionics Systems. The goal is to develop a general application design toolset for data analysis and de-

velopment of prognostic algorithms, models and applications for multiple aircraft platforms and system components. Using existing data, our PHM technology improves maintenance decision making, safety, system availability and productivity, effectively optimizing operational readiness and reducing total ownership cost.



## Technology Description

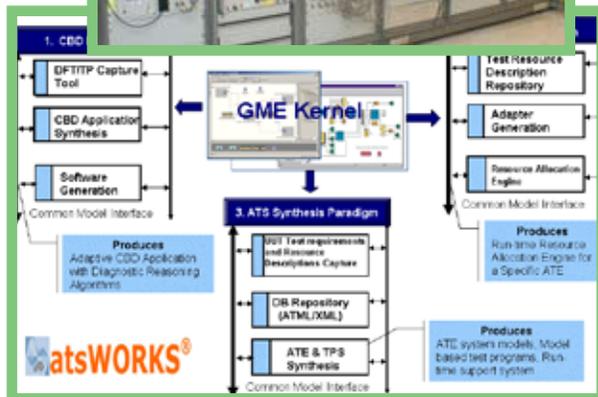
The Sensory-updating, residual life Prognostics Software that integrates real-time condition monitoring with a stochastic process. This prognostic technique facilitates real-time state awareness and remaining useful life predictions of partially degraded equipment, early determination of the state of aircraft component degradation, proactive accident/incident prevention; informed, sense-and-respond logistics processes across multiple aircraft platforms.

# Advanced Computing Solutions

GSS has invested in analyzing and applying cutting-edge technologies to create unique methodologies and tools which enable Condition Based Maintenance. These advanced computing solutions include:

## Condition Based Diagnostics Analyzer

Virtual and synthetic instrument technologies to address maintenance of shipboard electronic systems and aircraft avionics at Organizational Level (O-Level) of maintenance. The system combines an intelligent test execution engine with off-the-shelf test application development tools. It uses the system under test built-in-test (BIT) capabilities and model-based techniques, as the center of the diagnostic process. The basic principle behind the technology is to provide a diagnostic reasoning capability to supplement PHM applications.



## atsWORKS® Model Based Design Environment for ATS

Several factors lead to the high cost of automatic test system (ATS) modernization efforts:

- » the inflexibility of the unique system interfaces
- » the program-unique solutions which inhibit interoperability and insertion of advanced COTS technologies
- » the programming practices used in the test software which do not support reuse or re-hosting to new testers.

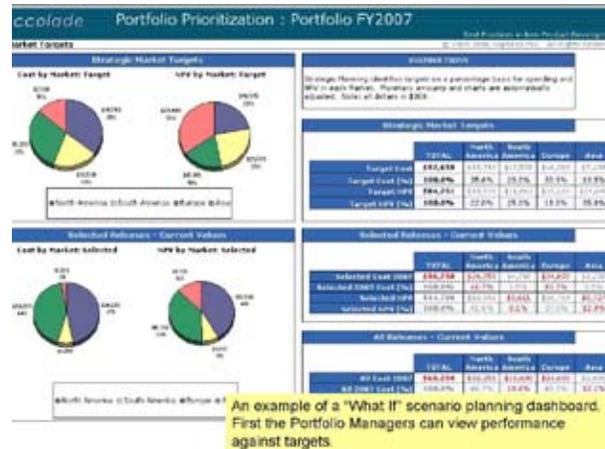
atsWORKS® provides three model based paradigms based on using a generic modeling environment (GME) that can be used to develop meta-programmable modeling tools, model synthesis tools and software code generators. The toolsets are then used to develop model based system applications in a specific technology domain. These applications present a common model interface that provides increased flexibility, improved interoperability and promotes test program reuse thus reducing overall cost. Resulting test programs are model based in accordance with the IEEE 1641 set of standards.

# Technology Portfolio Management & Transition Planning

Ensuring that good products reach the intended customer requires a synchronization of strategic product planning with process execution. Ideas that seem to have market potential often do not reach the customer due to faulty assumptions, lack of important information for the development decision or poor execution in the implementation and/or transition process. To improve returns on product innovation investments, organizations need to effectively govern and measure their new product development processes from end to end.

GSS offers consulting and implementation services to assist organizations in aligning their strategic goals with idea management and product development. As a Sopheon viaConsulting partner, GSS helps customers leverage proven COTS tools in areas such as:

- » Idea generation and management
- » End-to-end innovation management
- » Integrated portfolio prioritization
- » Dynamic resource alignment
- » Centralized access to consistent, reliable data
- » Strategic Roadmapping



# Core Competencies

GSS' founders are experienced entrepreneurs, all having founded and grown successful enterprises in Engineering, IT and Professional Services firms in DoD and commercial markets. Our technical talent and expertise are the result of the involvement of the founders and staff, focused on engineering and information technology projects across several disciplines. Our core competencies, technical and business capabilities and project experience span the following:

## Engineering

- » Prognostics and Health Management Systems
- » Intelligent Maintenance (Expert System) Applications
- » Automatic Test Equipment Applications
- » Modeling and Simulation
- » Collaborative Product Development Applications
- » R&D, Analyses and Feasibility Studies

## Information Technology

- » Systems Engineering/Software Development
- » Integration of Legacy Systems
- » Enterprise Management/Operations Support
- » Intelligent Decision Support Systems

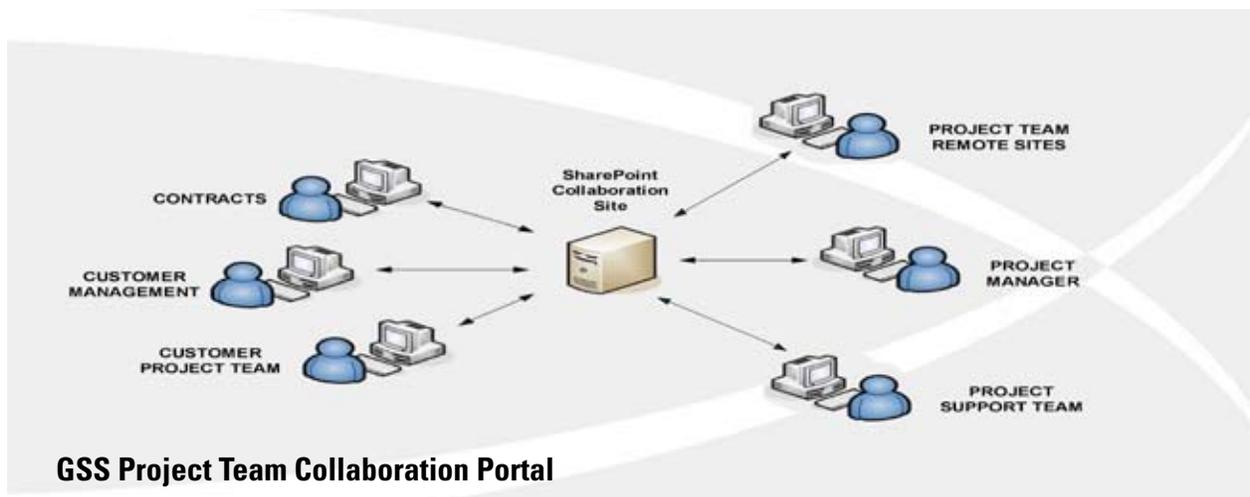
## Technology Management Consulting

- » Innovation/Idea Management
- » Strategic Roadmapping

# Project Management

Each Project Team is assigned the mission to focus its energy on doing the very best for the customer, always with a good understanding of the customers business priorities, project objectives, and measures of success. That is, we want to know “your vision” for the particular project. Once this is established, we deliver what we promise. Our goal is to deliver the highest level of:

- » Customer Service: We offer our customers an open channel of communication. We are constantly polling our customers for feedback so we can evaluate our performance. We strive for zero unhappy customers in our day-to-day operations. We are easy to contact, we listen to our customers, and we evaluate our performance.
- » Product Quality: Every product and service we deliver must pass rigorous Quality Assurance procedures. All products are tested and re-tested to ensure quality. All services follow our published Quality Assurance Plan Guidelines.
- » Project Management: All projects are well planned and managed using our Project Team Collaboration Portal. This is how we deliver projects on time, control cost, and manage project risks and performance. All GSS personnel have open access to upper level management. In turn, upper management has visibility into each project.



## How to Contact Us

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