



An Introduction to Enterra Solutions



Enterra Solutions began with the vision of its founder, Stephen DeAngelis, who, in the aftermath of the tragic events of September 11, 2001, realized that the business landscape had been altered forever. Not only had risks to businesses increased from security threats, but technological opportunities were also transforming the business environment. He believed these technologies would permit enterprises to replace industrial age organizational practices with vastly improved information age practices. DeAngelis called this new framework **Enterprise Resilience Management™** (ERM™).

- Enterra Solutions is a privately funded company headquartered in Yardley, Pennsylvania, with a Washington Operations Center in Reston, Virginia.
- Our senior management team includes leaders from the industrial, academic, software/IT and government sectors.
- We have established partnerships/alliances in the government, academic, and private sectors.
- Our clients include a range of enterprises representing major commercial industries and governments.
- Investors include former senior executives of Fortune 500 companies, other high net worth individuals, and our employees.

As Enterprise Resilience Management matured, Enterra Solutions' employees continued to invent and improve programs to implement it. Enterra Solutions distinguished itself as an integrated management consulting and technology firm. The company now delivers an **Advanced Enterprise Management System™** (AEMS) to its clients as it helps transform them into resilient organizations that proactively mitigate strategic risk,

further competitive advantage, and optimize enterprise performance.

Enterra Solutions' Advanced Enterprise Management System

Enterra Solutions' Advanced Enterprise Management System is built upon its **Enterprise Resilience Platform™** which blends strategic advisory services, with a proprietary methodology, advanced technology and Resilience Management to provide solutions in two discrete areas: Management Consulting & Information Technology (IT) Services and Strategic Advisory Services.



Each component of the Enterprise Resilience Platform is important for making an organization resilient. Components include: Strategic Advisory; a Propriety Methodology; Resilience Management; and advanced, standards-based technology for automating rule sets and business processes, policies and controls.

Our systems are intended to help clients dynamically update affected processes and procedures across an organization as requirements change.

Our reusable product solutions are supported experts and technologists with experience in both the commercial and government sectors. Let's examine each component:

- **Strategic Advisory Services** draw on Enterra Solutions' acute understanding of the dynamics between enterprise strategy and resilience. Working with clients, our leadership team applies its deep knowledge of federated markets, industry challenges and enterprise strategy to establish the blueprint for enterprise resilience.
- The **Enterprise Resilience Management Methodology™** takes a strategic approach to analyzing an entity's core infrastructure and assessing enterprise risk. It helps clients understand and make explicit the connection between enterprise strategy and the tactical, yet critical practices, processes and rules governing their enterprise.
- Enterra Solutions' **Advanced Technology** offering is a first of its kind technology that translates policies, processes and rules into algorithms and software solutions delivered to legacy systems as automated business processes. These secure, pre-configured and reusable solutions exist in a dynamic knowledge base of industry rules, regulations and best practices and can be customized based on client need.
- **Resilience Management** is part of Enterra Solutions' Solution-as-a-Service offering. Resilience management delivers on-going outsourcing support and maintenance as well as a strategic approach to continuing to adapt and

expand the Advanced Enterprise Management System. A constant monitoring and life cycle management of the client environment and dynamic updating to automated rules, regulations and processes ensures the most updated and resilient enterprise.

Together the components of the Enterprise Resilience Platform create the tools required to deliver an Advanced Enterprise Management System to clients.

Enterra Solutions' Products and Offerings

The proprietary technologies found in the components of Enterra Solutions' Advanced Enterprise Management System serve as the foundation of two discrete offerings. They are:

- Management Consulting & Information Technology (IT) Services
- Strategic Advisory Services

A brief description of each solution area follows.

Management Consulting & IT Services

These services (available to government and commercial clients) offer Advanced Enterprise Management System solutions that integrate Enterra Solutions' unique methodology for assessing an organization's risks-vs.-opportunities with a new, innovative computing platform that translates business logic into reusable and adaptable algorithms and code — i.e., rule set automation. Enterra Solutions' Enterprise Resilience Platform is designed to integrate strategic advisory, proprietary methodology and advanced technology into four subscription-based "Solution-as-a-

Service” offerings that can automate rule sets into highly effective and holistic business processes on behalf of our clients. Enterra Solutions uses its methodology to deliver improved business processes within reusable and adaptable web services. Customer markets include:

- **Commercial Sector:** Enterra Solutions develops compliance management systems for logistics, packaging, handling, and security policies that target customers in:
 - Global consumer products and retail
 - Resilient supply chains across multiple industries
- **Government Sector:** Enterra Solutions develops secure information sharing solutions that enables various agencies and jurisdictions to coordinate seamlessly that targets customers in:
 - Ports and intermodal transportation systems
 - National critical infrastructure security apparatus

Brief descriptions of Enterra Solutions’ offering in these follow.

Pre-Configured Industry/Micro Vertical Solutions are designed to automate and integrate regulatory, risk, and compliance rules with corporate, governance and management processes that could enable clients to manage and update as requirements change.

These automated and repeatable solutions can provide clients with the ability to assess, define, and manage business policies and controls against corporate strategies, needs and goals. Pre-Configured Industry/Micro Vertical Solutions are designed to:

- Utilize Enterra Solutions’ proprietary and automated knowledge base of industry rules (e.g., compliance, security, best practices, etc.).
- Leverage standards-based technologies to automate industry rules and corporate business processes fusing both into an Advanced Enterprise Management Systems.
- Integrate Advanced Enterprise Management Systems into existing, legacy systems (technology agnostic); and
- Dynamically monitor and update rules, re-setting affected processes.

The most recent commercial application developed to date is the **Enterra Supply Chain Assurance Platform (ESCAPE™)** which provides a single environment from which consumer packaged goods (CPGs) manufacturers and distributors can better manage and apply their retailers’ logistics requirements. ESCAPE users receive real-time updates on new requirements and penalty charges that they can use in all phases of their relationship with retailers from initial contract negotiations, through compliance in order processing and onto the deduction dispute process. Business analytics are presented to ESCAPE users using intelligent dashboards to monitor all aspects of operations, including those related to retailers and carriers that are participants in the supply chain.

ESCAPE enables CPG manufacturers and distributors to leverage industry best practices immediately for CPG compliance and to develop their own best practices and processes regarding compliance management and contract negotiations. The RAMS is part of Enterra Solutions’

overall effort to help clients develop a Resilient Supply Chain.

Organizations in the **ports and intermodal transportation** segments of the global supply chain face multiple challenges. Along with an increasingly competitive globalized landscape, there are requirements for compliance, visibility, accountability and security from customers and suppliers, regulatory and oversight agencies, law enforcement, insurance and financial providers, cargo owners, and multiple supporting entities (e.g., harbor pilots, labor unions, agents, industry associations). These factors can increase operational complexity and can combine to create significant inefficiencies, delays, and financial impacts. Commercial organizations are driven by profitability; while government organizations are driven mainly by security concerns.

The objectives of Enterra Solutions' port and intermodal transportation offerings are to:

- Provide automated, secure means of sharing information among stakeholders in the supply chain (government and commercial).
- Increase private sector profits by increasing operational efficiencies, compliance with regulatory requirements, and the integrity of supply chain.
- Give government sector increased domain awareness, particularly for supply chain and transportation areas, as well as a superior ability to rapidly, automatically, and accurately assess and respond to anomalous situations.

Enterra Solutions' **Information Fusing & Sharing** offering is designed to enable the

real-time integration, management and secured sharing of data across organizational boundaries, agencies, and geographies. This solution has the ability to automate internal policies and procedures, allowing an enterprise to manage and enable collaboration and oversight of multiple participants while monitoring, controlling, identifying, and tracking activities. Information Fusing & Sharing is designed to:

- Dynamically manage corporate/agency policies and procedures, and adapt to information sharing protocols
- Systematically manage information in a trusted environment, ensuring the effective and timely delivery of data, to enable Trusted Supply Chains and Fusion Centers, for both government and commercial applications; and
- Integrate disparate elements of data into a coherent traceable chain of custody, making the supply chain (i.e., data, goods, intelligence) more secure.

Strategic Advisory Services

Enterra Solutions' leadership possesses differentiated skill sets employed to generate revenue. Strategic Advisory Services are provided in the following areas:

- **Nation-State Building:** Enterra Solutions is currently assisting the Department of Defense's Center for Excellence in Disaster Management and Human Assistance (CFE) in developing a rules-based model to ensure community and societal development programs are significantly improved in their execution and integration. Enterra Solutions' Enterprise Resilience Management Methodology™ (ERMM) framework will help the CFE and its customers perform

a situational assessment of a crisis quickly; identify key program goals; stipulate needed capabilities and partners; generate an integrated action sequence that optimizes plans to best meet all program goals; and make real-time adjustments throughout program execution to build more resilient communities. Enterra Solutions' nation-state building services are built upon principles developed in its Development-in-a-Box™ framework.

- **Alternative and Renewable Energies:** Enterra Solutions will utilize its expertise in rule set automation to create a subscription offering that identifies technology development grants and other contract opportunities with government organizations and corporations interested in the alternative and renewable energy sector.
- **Government Sales Services:** Enterra Solutions assists clients sell their products and services to government agencies (both in the U.S. and abroad) primarily in the medical devices and diagnostic equipment area. Enterra Solutions is currently in discussions with an international medical products company concerning the creation of a joint venture to manufacture and sell medical devices and diagnostic equipment. Enterra Solutions will concentrate on sales to federal and state government agencies and organizations. Initially, these efforts will focus on selling the following products:
 - Diagnostic Testing Kits (drugs, pregnancy, ovulation, influenza A&B, HIV, malaria)

- Pulse oximeters
- Lymphedema pumps and arterial pumps
- Negative pressure wound therapy pumps

The Enterprise Resilience Management Methodology

Enterra Solutions' Enterprise Resilience Management Methodology™ (ERMM) is an assessment system that identifies an organization's critical assets, and establishes the basis for our Advanced Enterprise Management Solutions.

The methodology has its origins in OCTAVE® (Operationally Critical Threat, Asset, and Vulnerability Evaluation¹) – a breakthrough system developed by the Software Engineering Institute at Carnegie Mellon University. OCTAVE is the first top-down, strategic risk-assessment system – one that assesses risk, not asset by asset, but rather to the organization as a whole. OCTAVE enables an organization to identify critical assets by evaluating their importance to its overall mission. Enterra Solutions, in partnership with the Software Engineering Institute, has expanded OCTAVE® beyond the mitigation of acute threats, using the same methodology to examine compliance and performance risks – in effect taking a lifecycle view of enterprise risk as a whole.

Enterra Solutions' Enterprise Resilience Management Methodology provides a systematic framework that:

- Reviews the organization's assets and identifies the subset that is to be considered critical – in other words, the assets that, if they failed, would endanger the organization's mission. Because the methodology targets only

the most critical assets and processes, the resulting Advanced Enterprise Management System is practical and cost effective, and stands apart from other business process automation approaches.

- Identifies the processes that support each asset. A comprehensive review, undertaken in partnership with senior and line managers, determines the process steps involved in the operation – or defense – of the critical assets. The consultation is focused, not only on recording the existing processes, but also suggesting process improvements. Security, compliance and performance factors are weighed together in order to produce recommendations that incorporate security needs, regulatory demands and best practices. The identification of processes also includes

the establishment of performance metrics.

- Maps the organization's IT systems to determine how they will handle rules automation, business process automation, and information integration, and what the requirements will be for the Resilient Technology Architecture.
- Delivers the Integrated Master Plan, which establishes the IT and management systems needed, and lays out the roadmap for Enterprise Resilience Management.

The Integrated Master Plan determines the specifications for the technology solution, which – together with any necessary staff training – puts the Advanced Enterprise Management System into action.

Be Resilient. Be Responsive.

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