

A new paradigm for EHS information systems: The business case for moving to a managed services solution



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Introduction

Global competition is forcing companies to implement rapid changes in business strategy and tactics to reduce operating expenses and improve the bottom line. At the same time, increasing disclosure obligations flowing from Sarbanes-Oxley requirements and scrutiny from non-governmental organizations (NGOs) are placing a harsh spotlight on organizations' environmental, health and safety (EHS) compliance posture. As a result, effective EHS information management strategies can make the difference between a company's success or failure.

As EHS functions become increasingly expensive and difficult to manage, a new paradigm has emerged that makes it possible for organizations of all sizes to receive the advantages of state-of-the-art EHS applications, while simultaneously improving the overall efficiency of their compliance programs. This model is based on the strategic use of managed services to support core business processes.

Managed services are the process by which companies outsource day-to-day business processes or organizational functions to a third-party that is expert in that particular area. The power of this model comes from accessing externally hosted and managed best-in-class EHS applications, which are augmented by subject matter experts who apply industry best practices that help organizations drive performance.

By accessing proven applications and relevant EHS content on an as-needed basis, organizations can avoid the traditional high cost of identifying, procuring, installing and operating enterprise EHS information systems. Companies that take advantage of this business model can significantly reduce costs and risks while improving their overall compliance posture.

This paper provides a brief overview of the industry's EHS landscape, builds a business case for managed services and describes the first steps at utilizing this model for effective EHS programs.

The business and technology challenges

The business landscape

Three major categories of change affect the development and implementation of EHS business strategies:

- **Global markets**

From mergers and acquisitions to new product breakthroughs, there are numerous market factors that can dramatically affect EHS information systems. Take, for example, a company that decides to enhance one of its products with a formulation change, yet doesn't have an automated method to note the requirement to re-register the product with local government agencies. Multiplied across numerous markets and countries, the fines resulting from this kind of oversight can run into millions of dollars. Issues such as these continue to challenge the ability of traditional EHS systems to maintain pace with the underlying processes that support new business strategies.

- **Regulations**

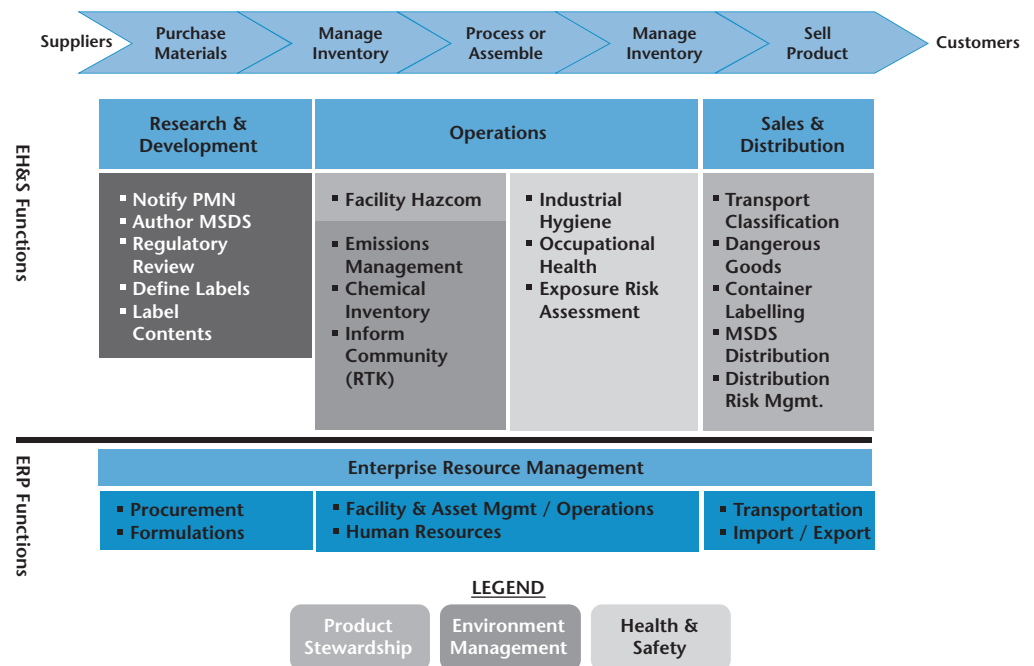
Regulatory change is a constant feature of global trade and finance. Two relatively recent examples illustrate the difficulty of keeping EHS information systems current with regulatory demands: the Sarbanes-Oxley Act of 2002 and the Globally Harmonized System of Classification and Labeling of Chemicals. Without adequate and flexible EHS information systems, a company may not be able to fully comply with new reporting requirements, thus risking significant direct costs such as financial penalties and indirect costs such as impairing a company's reputation and brand value.

- **NGOs and quality programs**

NGO pressures and voluntary quality management systems drive continuous improvement that requires modification of underlying EHS business processes and their supporting information systems. Effective management of the information that goes into performance reports, for example, is critical because this data is often cited as baseline values in such ongoing discussions as global climate change and environmental justice.

Faced with these ever increasing economic and regulatory pressures—along with new advances in information technology—leading organizations are developing cost-effective EHS IT strategies that address these business challenges and support their overall business plan. These strategies recognize the critical alignment between EHS information systems and the extended supply chain, as shown in Figure 1. Thus, as business strategy evolves and drives changes in the supply chain and ERP domain, EHS must realign its processes and information systems to remain in lockstep. Doing this in a cost-effective manner has proven difficult to achieve for many companies.

Figure 1 – EHS value chain alignment with business systems and ERP



The technology landscape

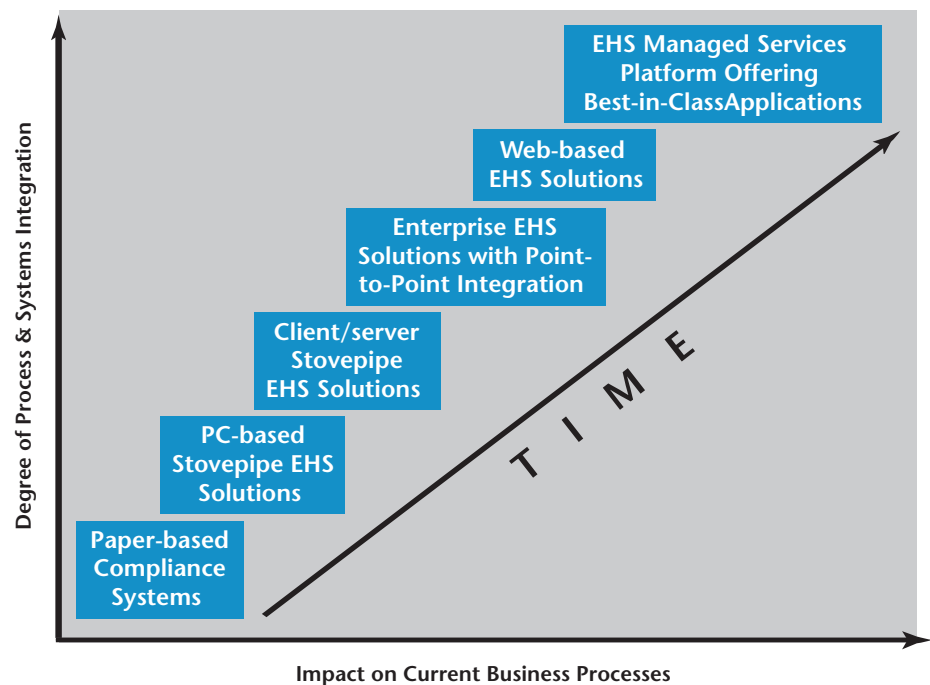
While EHS information systems have evolved over time, they often lag behind the current state-of-the-art enterprise business systems by a few years. This is partially due to the fragmented nature of the EHS software marketplace and to the common approach of solving system challenges on an issue-by-issue basis. Figure 2 demonstrates how EHS information systems have evolved over time, with most companies falling into the client/server, enterprise or web-based categories.

As seen in the diagram, early EHS systems—and many of the systems still in use today—are stove-piped client/server applications. That is, they are not integrated with business systems and often do not share data with other EHS systems. This is a result of how EHS applications have been developed over time.

- Many applications were created to address specific and narrowly focused compliance problems.
- Numerous companies designed and built their own applications because of the relative immaturity of the EHS software applications market.
- Those companies buying third-party software often purchased products that addressed different compliance issues at different times.

These trends led to applications that are expensive and difficult to maintain due to redundant and inefficient business processes, such as maintaining multiple databases containing the same information or supporting customized interfaces between EHS applications. Much of the current technology doesn't allow organizations to leverage critical EHS information across the enterprise.

Figure 2 -Evolution of EHS information systems



The managed services solution

Best-in-class EHS applications

Managed services, a variation of business process outsourcing, offers companies a way to continuously evolve their EHS information systems to stay in step with business requirements.

The emergence of managed services as a viable alternative to internally deployed and supported applications is offering organizations of all sizes a way to take advantage of a less costly and more reliable approach to managing IT assets. The value proposition is founded on the convergence of robust hosting business models and managed service providers that are able to offer the market an integrated stack of best-in-class applications.

Under this model, a company subscribes to a set of EHS IT applications from a variety of vendors. The EHS applications are hosted and maintained by the managed services provider.

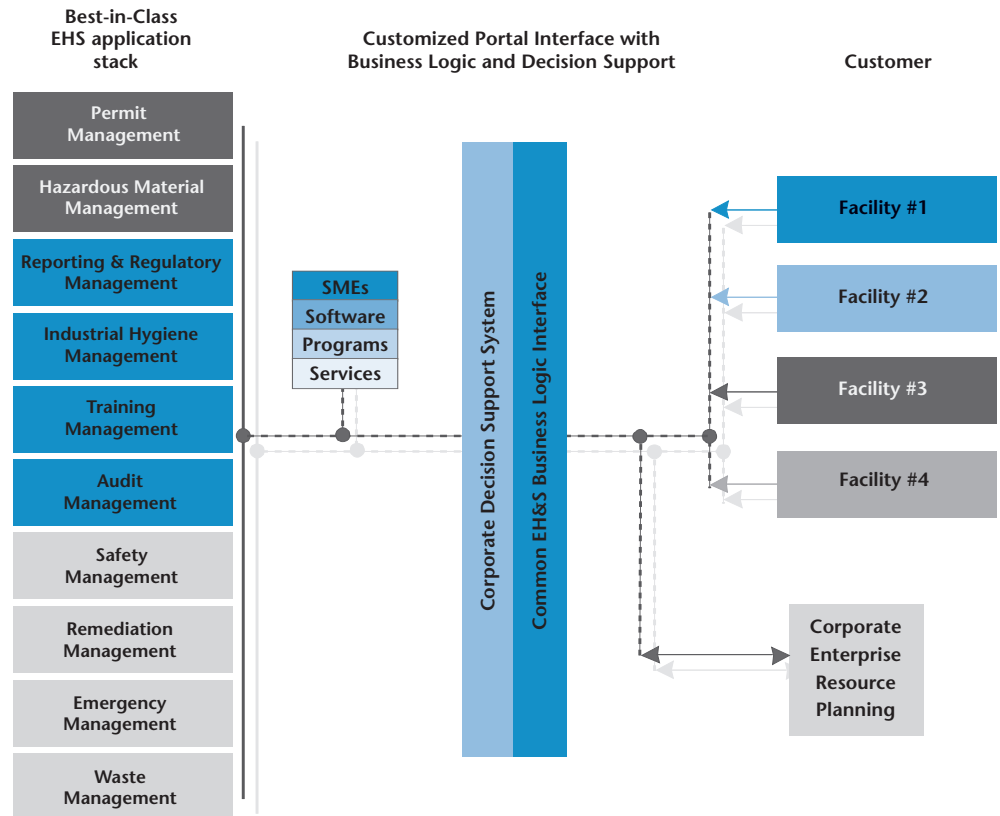
Managed services allow an enterprise to focus organizational resources and expertise on core business functions and to transfer responsibility for non-core business functions to a third party, which in this case, provides a suite of best-in-class EHS applications to support EHS compliance functions within the customer organization.

In addition to IT services, the provider supplies subject matter experts on an as-needed basis to guide compliance activities and supplement the customer's EHS staff.

In the context of EHS operations, this model is illustrated in Figure 3. As demonstrated, the enterprise accesses the best-in-class application stack on an as-needed basis, with decision support tools or business analytics embedded in a portal, which serves as the user interface. Subject matter experts with deep understanding of individual packages and compliance issues are available on an as-needed basis to support the customer's EHS professionals.

This arrangement allows an enterprise to quickly respond to changes in business conditions and alterations to the regulatory environment. For example, as facilities are brought online through acquisitions or new construction, the relevant EHS applications can be configured to support local facility needs, without the need for additional hardware or enterprise-wide IT support for services such as procurement, application installation or database administration. Changes to ERP business logic can be applied to the relevant EHS applications by the managed service provider, assuring alignment at the facility level.

Figure 3 – Conceptual diagram of EHS managed services with portal interface to customer facilities



Benefits of the EHS managed services approach

The managed services model provides a number of important benefits not available under the traditional enterprise application model.

- **Cost savings accrue at multiple levels.** The table highlights typical ranges of cost savings that can be expected from business process outsourcing combined with managed EHS IT services.

Benefit	Estimated Saving
Economies of scale and focus/people power	5-10% reductions
Shared services systems combined with global delivery model (if available)	7-14% reductions
Best practice advantages	4-8% reductions
Continuous improvement programs	4-8% reductions
Total value creation = 20-40% operational cost reduction	

Source: CGI MR&D industry findings

- **Best-in-class application stack offers lowest total cost of ownership.**
By accessing a selection of best-in-class applications maintained by the provider, enterprises of any size can gain scale and expertise at a fraction of the price of purchasing each application separately and maintaining integration points. The enterprise benefits by employing the highest performance applications that are supported by subject matter experts, and avoids the costs of procuring, installing and maintaining software and the associated hardware. All of these issues are now managed by the provider under a service level agreement customized to the needs of the individual organization.
- **Flexible configurations of best-in-class systems share information to reduce risk and cost.**
Because the provider can tailor the family of applications to the needs of the enterprise, keep that suite current with changing business conditions, and ensure that the right information is shared between applications, compliance can be achieved at a far lower cost than if the enterprise were responsible for each compliance element individually.
- **Regulatory content is matched to business process and better aligned with business need.** The provider provides the customer with subject matter experts whose job it is to populate the EHS applications with the appropriate regulatory content and update the applications to address regulatory changes. This function is done in conjunction with the customer's EHS organization to ensure that business needs are fully met and remain aligned as business conditions change. These experts also offer consulting advice and provide continuity between various applications that may be integrated to meet a business need.

Moving forward with EHS managed services

Successfully transitioning a major business area such as EHS to a managed services provider is a decision that requires careful deliberation, planning and execution. To reap the full value of this model, organizations should undertake the following:

Analyze the current EHS business model

An in-depth analysis of current EHS business processes and information systems should be conducted to demonstrate the actual benefits that can be achieved from the managed services model. The current cost of managing EHS functions, for instance, should be compared with the cost of managing these functions under the managed services model. In addition to analysis of the current cost, an organization should identify the ideal state for their EHS environment, so that gaps between current practices and the desired target state can be identified. The gap analysis will help identify issues within current processes and systems and discover potential consequences for not addressing those issues. With this information in hand, organizations can adequately build a detailed and personalized roadmap for moving to the managed services model.

Build consensus

The decision to outsource EHS information systems involves changing the way people work and how business processes are performed. It takes careful planning and leadership to articulate a vision and chart a course. Building consensus at every level of the company is critical to the success of a managed services strategy—it must be accepted, not imposed, to succeed. To gain acceptance, benefits must be demonstrated and fears alleviated. The thorough analysis discussed above addresses the bottom-line concerns of executives, while front-line managers who fear a loss of control should be shown how the managed services model actually provides enhanced control and reduced risk. That is, rather than investing valuable time and resources to manage redundant and cumbersome processes and applications, those managers are freed to focus on controlling results and strategic direction.

Choose the right provider

This step requires extensive due diligence to ensure a long-term and mutually successful relationship. Numerous factors should be considered when selecting a candidate, such as interviewing client references and assessing the financial health of the provider. Other homework should include evaluating the provider's experience and expertise in the EHS domain and ensuring that they have the proper infrastructure and applications to support your EHS requirements. Customer service is the single most important criteria to evaluate in choosing a potential managed services provider. Therefore, ensure that the prospect can manage to your service expectations.

In addition to these steps, organizations that are ready to move to the managed services model should carefully negotiate the contract. This contract should include numerous provisions that build a successful and long-term partnership, from including a governance model that defines the steps to take when the inevitable issue surfaces to applying contractual metrics that keep the relationship on track. Once the contract is signed, the organization should have a process in place to ensure continued value, investing the time and effort required to effectively manage the relationship.

Summary

The managed services model is a viable way to access best-in-class EHS information systems while reducing costs, improving compliance effectiveness and better aligning EHS functions with the ever changing needs of the business.

Organizations seeking to gain competitive advantage from their EHS operations, while managing risk as effectively as possible, will benefit from exploring the managed services model. Based on well-accepted technology paradigms and backed by a service provider with deep understanding of EHS compliance issues, this approach offers broad-based and sustainable advantages.

About CGI

CGI specializes in delivering high-quality, integrated regulatory compliance solutions to global enterprises. We do this through a combination of proprietary and best-in-class ns that leverage our systems integration expertise, domain EHS expertise and deep experience across industrial segments. For example, ProSteward[®], our industry-leading platform for product stewardship that is used in more than 200 countries, was developed in collaboration with leading chemical and energy companies; these companies routinely work with CGI to define the platform's direction, share best practices and improve operational efficiency. CGI provides an integrated platform of environmental, health, safety, quality/audit and compliance solutions that help customers better serve their markets, improve and sustain competitive advantage and reduce overall compliance risk. For more information, visit www.cgi.com.