Stewardship, safety, and sustainability.
Gensuite software helps environmental, health, and safety managers turn progressive policies into corporate practice.

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Vijay Alluru, Vice President and Product Management Executive, Gensuite

SOLUTION
Adobe ColdFusion Enterprise

RESULTS
40% **FASTER** application development

- Easily **MANAGES** thousands of data sources
- 2 Weeks to **COMPLETE** custom error log data app
- **NEW BUSINESS** potential in prepackaged APIs
Protecting workers and the environment

The concept of environmental health and safety (EHS) programs began as organizational efforts to comply with processes, rules, standards, laws, and regulations regarding worker and public safety. In practice, EHS has evolved into a strategic business advantage to save money, attract and retain employees with safe and healthy workplaces, and become better environmental stewards.

As more organizations integrate EHS processes into their operations, companies like Gensuite create technologies to monitor, measure, and analyze data, identify trends, address gaps, and improve performance. Its software-as-a-service (SaaS) EHS applications help clients systematically avert accidents and emergencies, reduce environmental risks, and prevent worker injuries and occupational diseases.

Founded in 1997, Gensuite originally created EHS applications for compliance auditing and corrective action tracking. Since then, Gensuite has developed more than 70 cloud-based applications with user interfaces in 16 languages for tasks including change management, contractor management, EHS training management, responsible sourcing, and sustainability and energy management. Today, there are more than 600,000 Gensuite platform users across a range of industries, including manufacturing, life sciences, transportation, aerospace, oil and gas, healthcare, and retail.

The company adopted Adobe ColdFusion as its rapid web application development platform in 2000. Speed to market is one of Gensuite’s competitive differentiators and the company supports its global subscribers with 70 ColdFusion developers in the United States, Mexico, India, and China.

“Our subscribers demand robust, flexible, mobile-ready solutions that integrate easily with their back-end systems,” says Vijay Alluru, Vice President and Product Management Executive, Gensuite. “Adobe ColdFusion helps us quickly build applications that meet subscribers’ needs and provide the custom configurations that make Gensuite’s offering unique.”

Growth without interruption

Gensuite develops its apps around what it refers to as an 80/20 rule in which 80% of any application can be used as-is, and the other 20% can be customized for specialized client workflows. Customizations, along with Gensuite’s ability to roll them out quickly, are a major selling point that’s fueling company growth.

Compared with other rapid application solutions such as ASP.NET, PHP, and C#, ColdFusion has more built-in functionality that allows Gensuite developers to create modular, customizable code without delays and interruptions. Reusable modules greatly reduce the time and resources required to build production-ready apps.
"If you built a simple application from the ground up using an adaptive development framework, like PHP, I think it would take anywhere from 25% to 40% longer to get the app to production than if you built it in Adobe ColdFusion," says Alluru.

Another advantage Gensuite has realized by using ColdFusion is its ability to easily connect to a variety of databases. Gensuite manages thousands of databases in their own instances for data security, which means developers must manage data sources effectively. Using ColdFusion, developers simply configure a data source for each database they need and then ColdFusion can communicate with that data source through the Java Database Connectivity (JDBC) application programming interface (API).

"We didn't have to invest in separate teams for UI, backends, or databases," says Alluru. "Adobe ColdFusion makes it easy for developers to go back and forth among functions using code they've already written. Without Adobe ColdFusion, we would have had to figure out a different approach to our back-end architecture."

Solving unusual customer problems

One of Gensuite's subscribers needed to process and store third-party learning management system (LMS) error records in a database. Unfortunately, the text-based logs couldn't be deciphered by the subscriber's systems, so the subscriber asked its internal Java development team for a solution. When the Java team submitted a costly remedy that would take six months to develop, the subscriber turned to Gensuite for help.

The Gensuite team leveraged its experience integrating its EHS training solutions with LMSs to build a solution with ColdFusion. The application parsed text from the error log, cleaned it up, and put it in a format that the subscriber’s database could read.

"Using built-in functions such as regular expressions and search and replace features in Adobe ColdFusion, we built a tool to read the file quickly, parse contents, extract error codes, and load it to the database. We even built a mechanism to train the program to flag any new error codes to the customer," says Alluru. "It took Gensuite only two weeks, versus six months, and at a much lower cost."

Always expanding

Gensuite runs ColdFusion in a virtual Windows 2012 Server environment with 24 application servers each hosting a minimum of 30 ColdFusion Enterprise instances. The environment, which is split between Gensuite’s private cloud and Amazon Web Services, can be scaled easily to allow Gensuite to spin up new instances and database connections quickly.
Gensuite is also evaluating ColdFusion API Manager, a standalone ColdFusion server component that combines API development and management processes. Customers are increasingly asking for prepackaged APIs for widely used back-end systems.

"Although we do a lot of custom integrations, we want to provide a packaged API solution for smaller subscribers," says Alluru. "APIs built with Adobe ColdFusion will help us attract smaller organizations by enabling them to tap into the powerful features of the Gensuite platform without having to pay for customizations."

For more information
www.adobe.com/products/coldfusion-family.html