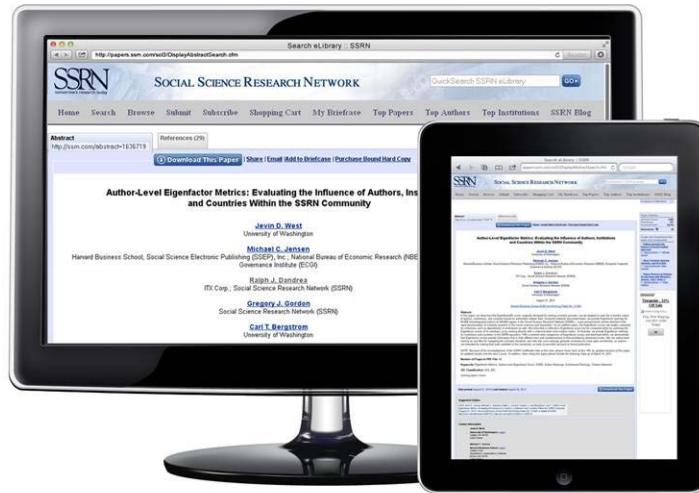


ITX Corp.

# Fast and functional, stable and secure



ITX

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[www.itx.com](http://www.itx.com)

## Results

- Helped eliminate website crashes caused by low memory on client website
- Reduced client website hardware requirements from 14 servers to 8 servers
- Enabled modularization and reuse of code, reducing development time and expense

Adobe ColdFusion helps website developer eliminate performance and stability problems for leading open-access online research repository

Since 1997, ITX Corp. (ITX) has successfully used new technologies to help clients connect their brands with customers, build relationships, and create competitive advantages. The company has transformed itself from a project management company that specialized in telecommunications software implementation to a multi-faceted solutions provider that uses a range of technologies and services to solve business problems. ITX now designs and develops websites and mobile applications, assists clients with search engine optimization, provides content management services, and continues to innovate for its clients using the latest digital technology.

To build its clients' rich, complex, highly functional websites and web applications, ITX considers Adobe ColdFusion software one of its most valuable tools.

"We've used Adobe ColdFusion for 13 years," says Ralph Dandrea, CEO of ITX. "It's easy to learn and its syntax is simple to use while coding. It also has great integration with other languages, especially Java", and it gives us several ways to modularize and reuse code."

## A massive amount of information

ITX serves clients, both large and small, across a variety of industries. Some of the company's clients include Paychex, E&Y (formerly Ernst & Young), Harvard Business Publishing, Manning & Napier, Aspen Dental, and Fujifilm. ITX also built the website for the Social Science Research Network (SSRN), tomorrow's research today, is devoted to the rapid collection and dissemination of social science research.

ITX chose Adobe ColdFusion for SSRN's website to manage the large volumes of data on the site to increase performance, better the user experience, reduce system crashes, and improve security.



### Challenge

- Eliminate performance problems related to existing website's demands on server memory
- Improve security on website that transacts with a high number of daily users and processes large quantities of rich content uploads/downloads

### Solution

Using 64-bit version of Adobe ColdFusion to create an updated version of website with high volumes of rich content uploading and downloading

### Systems at a glance

Adobe ColdFusion  
Adobe ColdFusion Builder™

As of June 1, 2013, the Cybermetrics Lab at Consejo Superior de Investigaciones Científicas (CSIC), which is the largest public research organization in Spain, ranked the SSRN online research repository as the number one open-access research repository in the world. The ranking is based on several criteria, including size, visibility, number of rich files, and scholarly content.

SSRN comprises a number of specialized research networks in each of the social sciences, including accounting, economics, law, management, and humanities. The SSRN electronic library contains an abstract database of more than 500,000 scholarly papers. At its peak, the SSRN website serves 6,000 downloads per hour and more than 60,000 page requests.

SSRN's online research repository has numerous large pages with complex processes, such as search, submission of abstracts and full-text research papers, and reporting. As the volume of data on the network was increasing, memory usage was going up and server performance was going down.

"The amount of information on this network is massive," says Dandrea. "There is so much of it that SSRN's website was having problems with low server memory, which was triggering automatic server restarts and page-error messages for users. It was damaging the user experience."

### Better performance on less equipment

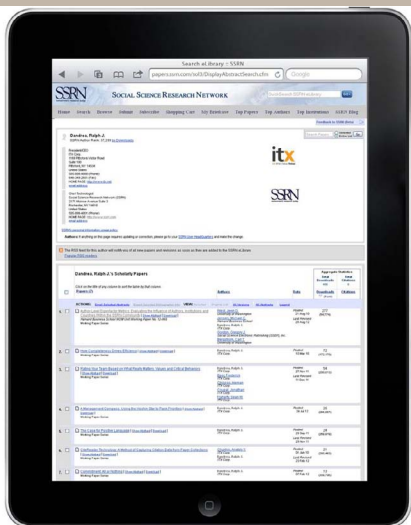
To address the problem, ITX upgraded the SSRN site using Adobe ColdFusion. During a 10-week, phased implementation that began in January 2013, ITX worked slowly and carefully to help ensure the integrity of the large volumes of data. Because Adobe ColdFusion can run as a 64-bit application, it takes better advantage of 64-bit architectures, particularly by using virtual and continuous memory more effectively and by reducing memory-related system crashes.

"Not only did the upgrade to 64-bit Adobe Cold Fusion help stop server crashes, it also helped reduce the number of servers SSRN needs to run its site," says Fernando D'Agostino, lead architect at ITX. "Previously, SSRN had 14 servers. Now it has 8, which reduces costs associated with server purchases, maintenance, and support."

ITX also reports that SSRN's network utilization is below two Mbps, disk space utilization is below 50%, CPU loads average less than 15%, and RAM usage is static, indicating stable memory use.

Because of the large variety of people signing in and accessing information, SSRN also wanted to improve security. ITX enhanced security using many of the latest features in Adobe ColdFusion, including built-in functions that can be used to prevent XSS (cross-site scripting) and CSRF (cross-site request forgery) attacks, and improved session management. Sessions can be renewed every time a user sign-ins and session cookies can be made to apply only to a particular domain. Finally, Adobe ColdFusion pages can be installed with a secure profile to help ensure that various settings are locked down by default.

ITX developers use Adobe ColdFusion for its combination of sophistication and ease of use. For instance, ITX developers use ColdFusion components and custom tags to simplify programming which helped them accomplish many of the complex tasks on the SSRN website with simple scripting.



*"We are thrilled with the upgraded site built using Adobe ColdFusion. The performance is impressive and has significantly enhanced the user experience."*

Gregg Gordon, president, SSRN

"We are thrilled with the upgraded site built using Adobe ColdFusion," says Gregg Gordon, president of SSRN. "The performance is impressive and has significantly enhanced the user experience."

### **Simplicity or complexity, whatever the developer needs**

ITX has been very pleased with Adobe ColdFusion. Currently, a significant percentage of ITX's developers use it regularly, and they appreciate its combination of sophistication and ease of use. For instance, ITX frequently uses ColdFusion components (CFCs) and custom tags to simplify programming. These features helped developers accomplish many of the complex tasks on the SSRN website with seemingly simple scripting.

On the other hand, developers who are highly skilled with Java can mix ColdFusion code with Java class files that use existing Java libraries to create a variety of applications. This helped ITX reuse much of the resources that already existed as part of the previous SSRN website.

"Adobe ColdFusion continues to extend the boundaries of what our developers are able to do with websites and web applications," says Dandrea. "We're able to produce quality code with greater speed and efficiency, and that's good for our clients and the people who use their websites."

### **For more information**

[www.adobe.com/products/coldfusion-family.html](http://www.adobe.com/products/coldfusion-family.html)



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