



## Company Background: Technologies for the Evolving Healthcare Insurance Market

Benefitfocus® is a leader in software and services for the healthcare benefits market, providing solutions for both enterprise and consumer applications. By developing leading technology solutions, Benefitfocus is helping to reinvent the healthcare industry by building relationships between health insurance carriers, brokers, employers, employees and individual consumers.

Benefitfocus has rapidly become the technology leader in a two-trillion dollar healthcare industry. As a critical operational component in its customers' go-to-market strategy, Benefitfocus connects people and healthcare information to help reduce costs, build loyalty, increase productivity and support informed healthcare consumers. The company's tools and solutions streamline workforce operations for 89,000 employer groups and 150 insurance carriers, as well as members in all 50 states and 26 countries.

### The Challenge: High-Volume Mapping of EDI Transactions

The corporate goal of Benefitfocus is to provide the best technology, software and services to the healthcare insurance industry worldwide and to transfer and exchange the largest amount of electronic health data in the industry. To achieve this objective, the company expanded its target markets to include both the large-group segments within major carriers while adding service to small- and mid-group markets. A typical insurance carrier and Benefitfocus client has millions of members and thousands of groups. It is common for a carrier to have between 1500 and 3000 large groups and upward of 36,000 to 80,000 small groups. With this expanded offering came an enormous increase in data exchange volume.

Within the healthcare industry, Electronic Data Interchange (EDI) generally takes place using standards established by ASC X12, a U.S. national standards body accredited under the American National Standards Institute (ANSI). The particular X12 standard by which Benefitfocus receives data from the smaller groups is the EDI Benefit Enrollment and Maintenance Set (834), which is in compliance with the Health Insurance Portability and Accountability Act (HIPAA). Because business processes at Benefitfocus are standardized on XML for workflow management, the 834-compliant EDI documents coming from carriers must be transformed and mapped to XML documents, with the process then reversed for outgoing documents.

Importing membership data for the groups was extremely complex, difficult and required considerable development effort.

"Let's say we're going to accept EDI files from a Blue plan," says Taylor, using one of Benefitfocus' clients by way of example. "We would have an inbound 834 map for them. Then for the next carrier, we'd have yet another map. The 834 is different for each of them, and there are also different versions of the 834 standard out there. Consequently, we create a lot of maps every week."

### The Solution: High-End Scalability with Out-of-Box 834–XML Conversion

As the number of employer groups signing on began to rapidly increase, the IT team at Benefitfocus considered other options. First was the option of in-house development. The expertise existed as the company had been taking this approach with the larger group market all along.

Mapping standard 834 interfaces to documents is extremely complex. Considering the enormous volume involved, this approach is time-consuming and resource-intensive, as it also required a good deal of ongoing maintenance and ran the risk of errors and/or unacceptably slow operations overall.

Benefitfocus opted instead to purchase a third-party solution. The company undertook a thorough evaluation process, assessing solutions from Etasoft, Inc., American Coders, Ltd., and DataDirect Technologies. The two-month process involved trying sample applications, discussions involving the company's technical architect, and rigorous performance and volume testing.

#### Goal:

To handle a continually growing workload converting EDI 834 documents to XML for internal processing.

#### Why they selected

##### DataDirect:

Superior scalability, 834–XML conversion out-of-the-box, and interoperability with Benefitfocus' Enterprise Service Bus solution.

##### Business benefits:

Saves software developers considerable time, freeing them to focus on core business-centric endeavors.

##### Technical benefits:

DataDirect's XML Converters automatically transform thousands of EDI formats to XML and back with no development required and without requiring deployment and maintenance of an additional server.

##### Existing infrastructure:

Benefitfocus' Enterprise Service Bus.

For more information, visit:

[www.datadirect.com](http://www.datadirect.com)  
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"We were now taking in a very large volume of group data and membership data through an import mechanism, transforming it and then loading it into our applications, so scalability was critical," Taylor says. "Our need for significant scaling had increased exponentially."

Superior scalability, Taylor reports, is what initially made DataDirect's products stand out. DataDirect XML Converters™ are high-performance Java™ and .NET components that provide bi-directional, programmatic access to virtually any non-XML file including EDI, flat files and other legacy formats. DataDirect XML Converters support accessing and converting all currently electronically published versions of the X12 standard.

"Our testing confirmed that with DataDirect XML Converters we could take an 834-document in a non-coded ANSI format and have it transformed into XML. This allowed us to map it into the appropriate data schemes."

High-end scalability combined with out-of-the-box 834-XML conversion, and the fact that the solution could easily plug into Benefitfocus' ESB framework, persuaded the team at Benefitfocus to go with DataDirect Technologies.

"The technicians came back to me very enthusiastically and convinced me to sign a purchase order for the product," shared Taylor. "Their bottom line was that it worked."

### The Results: Time Saved and Focus Kept on Core Objectives

Using DataDirect XML Converters, companies like Benefitfocus have found it's easy to convert X12 EDI into XML in as little as 10 lines of Java or C# code. For Benefitfocus, the XML Converters from DataDirect have provided immediate value to the organization helping build upon existing quality to meet the needs of insurance carriers.

"From an engineering perspective alone, I would say that for every map that we would have to build, our new solution using DataDirect XML Converters would probably save us some 40 man hours," says Taylor. "That, and the sheer volume of transactions we've been able to run through, has really clinched it for DataDirect Technologies in our system."

*"For every map that we would have to build, our new solution using DataDirect XML Converters will probably save us approximately 40 hours."*

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

For more information, visit: [www.datadirect.com](http://www.datadirect.com) [www.XMLconverters.com](http://www.XMLconverters.com)

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