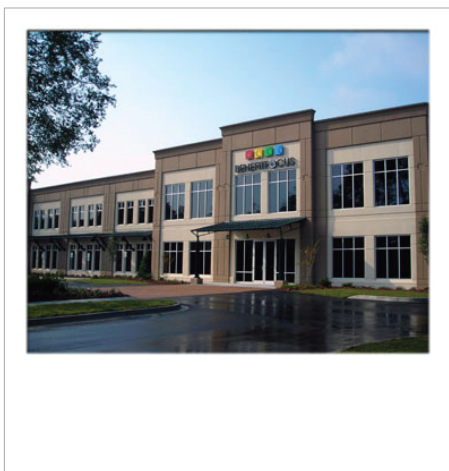




## Help with healthcare

Adobe® Creative Suite® 3 Web Premium software contributes to interactive solutions from Benefitfocus that simplify healthcare benefits for consumers



Today, healthcare insurance is a hot topic throughout the U.S. and around the globe. While millions of people are actively enrolled in healthcare insurance, many more are uninsured and actively seeking the best, affordable alternatives they can find to provide themselves and their families with coverage. Whether part of a company benefits program or on their own, more and more consumers are charged with understanding the complexities of the healthcare insurance business as it relates to their individual needs.

With complex terms like deductibles, co-payments and coinsurance, consumers understandably find it difficult to navigate and take advantage of healthcare benefits options. Healthcare insurance constituents such as health plans, employers, and insurance brokers face similarly daunting difficulties because they must manage many complex business rules and an avalanche of paperwork.

After the user enters the gender and age information for herself and her dependants, she will see the typical annual healthcare cost (premiums + out-of-pockets) under each plan for a family like hers. The Spry data-set controls created in Adobe Dreamweaver CS3 pass the user input to the server for processing and receive the returned calculation results. Without a page refresh the onscreen displays are updated virtually instantly.

*“Adobe Creative Suite 3 software helps us ensure that consumers can readily and intuitively use our software.”*

**Don Taylor, Chief technology officer, Benefitfocus**

That’s where Benefitfocus comes in. Benefitfocus delivers a suite of software-as-a-service (SaaS) products to help consumers and companies manage their healthcare benefits. Insurance carriers are provided with automated, paperless processes with streamlined workflows resulting in increased accuracy, efficiency, and greater return on investment. Consumers quickly and easily navigate through what was previously an arduous paper-based enrollment process.

“Adobe Creative Suite 3 Web Premium software plays a key role in helping Benefitfocus create its industry-leading solutions,” says Don Taylor, chief technology officer for Benefitfocus. We use the best technology available and continually work to improve our solutions. Adobe Creative Suite 3 software provides us with an integrated suite of tools for our interface design and development teams to rapidly develop easy-to-use interfaces around complex business processes.”

#### **Consumer-driven healthcare**

Benefitfocus has rapidly become a technology leader in a \$2 trillion dollar healthcare industry. As a critical component of its customers’ insurance delivery strategies, Benefitfocus tools and solutions streamline healthcare operations. The company’s 400 associates serve an

established client base of over 100,000 corporate clients in all 50 states in the United States and in 26 countries, representing 40 million lives.

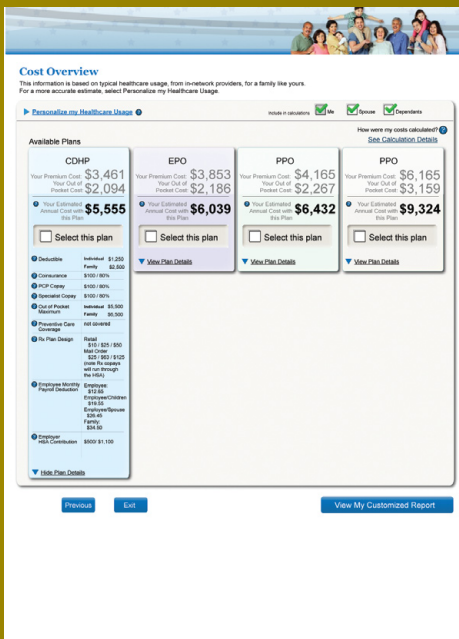
“Consumer-directed healthcare and health savings accounts are putting more money and responsibility directly into consumers’ hands,” states Taylor. “Our solutions help inform and educate consumers while automating processes and reducing paperwork for healthcare insurance providers.”

#### **Simplifying benefits enrollment**

Because consumers now shoulder more responsibility than ever for directing their own healthcare insurance spending, they need tools, information, and assistance. “Imagine someone accessing online benefits enrollment from the convenience of their desk and you have a good idea of what we provide,” explains Taylor.

The company’s flagship product, Benefitfocus eEnrollment™, enables consumers to enroll in health plans electronically. Another tool in development, accessible from within the Benefitfocus enrollment application, helps consumers decide which plan is most appropriate and cost-effective. Every Benefitfocus solution must scale to accommodate tens of millions of users while reflecting the varying business rules of dozens of insurance carriers and tens of thousands of groups.

The Benefitfocus User Experience Group (UxG) is responsible for developing software that accurately reflects business processes and



When the user clicks 'View Plan Details,' the 'Plan Details' panel, thanks to the Spry animation widget in Adobe Dreamweaver CS3, slides open smoothly to show the details of the plan.

## Company

**Benefitfocus**  
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## Challenge

- Streamline business operations for healthcare insurance providers
- Help consumers take informed advantage of healthcare benefits
- Add interactivity with ease
- Maximize design and engineering resources
- Enable two-way exchange of data between users and back-end servers
- Deliver robust user interface specification (UIS) documents
- Educate customers using video delivered using the Adobe Flash Player

## Solution

Develop consumer-facing health insurance solutions with Adobe Creative Suite 3 Web Premium software

## Benefits

- Benefitfocus can add real-time interactivity and robust features with ease
- Consumers can make more educated choices by engaging in intuitive solutions from Benefitfocus
- Health insurance constituents streamline business processes and increase efficiencies

## Toolkit

Adobe Creative Suite Web Premium Components used include:

- Adobe Dreamweaver CS3
- Adobe Fireworks CS3
- Adobe Flash CS3 Professional
- Adobe Illustrator CS3
- Adobe Photoshop CS3 Extended

makes it easy for people, regardless of their level of technical expertise, to research, evaluate, and enroll in their healthcare plan. Developing intuitive systems for consumers involves substantial research and product interface development.

## Interactive development made easier

At Benefitfocus, the interface development process begins with brainstorming on whiteboards and paper to determine how business rules will be presented and how people will interact with the company's solutions. Initial user interfaces are then laid out using Adobe Fireworks® CS3 software. "Adobe Fireworks CS3 is the ideal tool for working with a mix of vector and bitmap images to rapidly develop ideas and prototypes for interactive interface designs," states Charles Wyke-Smith, director of User Experience for Benefitfocus.

Once layouts are established, the UxG team creates vector graphics and user interface specification (UIS) documents using Adobe Illustrator® CS3 software. The UIS documents feature images of each screen, along with descriptions of how users will interact with onscreen elements. The detailed graphical documents are submitted to engineers, who use the UxG interface pattern library to assemble the user interfaces and link them to information in back-end systems and databases.

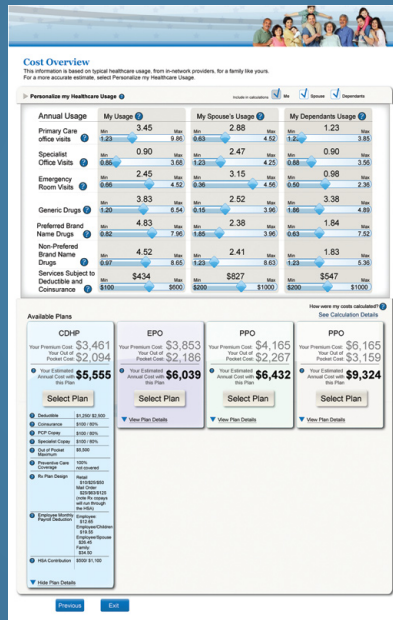
Benefitfocus engineers use Adobe Dreamweaver® CS3 software to develop code

for the presentation layer of the company's solutions. "Our developers love the Adobe Dreamweaver CS3 code editor," says Wyke-Smith. "Adobe Dreamweaver CS3 offers multi-tabbed inspectors, toolbars, and other controls arrayed around its editing screen. Cool features like type-ahead, which reduces keystrokes and helps avoid syntax errors in the code, are examples of the powerful tools now within easy reach of our engineers."

Benefitfocus designers use Adobe Photoshop® CS3 Extended software to create and retouch bitmap imagery for the user interfaces. In addition, the video production group at Benefitfocus contributes interactive elements to the overall designs by creating short videos in Adobe Flash® CS3 Professional explaining complex terminology. These clips are embedded into the applications and played back through the ubiquitous Adobe Flash Player. The end-result is an intuitive, interactive system that leads users through the steps needed to fully understand and enroll in their healthcare benefits.

## New choices, powerful tools

The new plan comparison tool currently in development is a reflection of one of Benefitfocus' core values: providing anticipatory service. When users have to choose which insurance plan they want during the enrollment process, they can explore their options with the plan comparison tool. By entering some basic information about their family



When the user clicks 'Personalize my Healthcare Usage,' the Spry animation widget in Adobe Dreamweaver CS3 creates the effect of a panel opening up, which reveals a set of sliders. She can adjust the sliders to more accurately represent her family's usage, and the costs for each plan are instantly recalculated.

*"Adobe has gone the extra mile with the integration of the Spry framework for Ajax into Dreamweaver CS3, enabling us to easily plug in new functionality and interactions."*

**Don Taylor, Chief technology officer, Benefitfocus**

they can see the typical cost of their healthcare under each plan. This information is instantly calculated from their personal information and industry-average data.

Built using the Spry framework for Ajax within Dreamweaver CS3, the plan comparison tool has a deceptively simple interface that uses sliding panels to reveal information as needed. For instance, if a person indicates he or she has children, the form expands to displays fields for their ages. When the user is viewing costs, plan details are hidden but smoothly drop-down from the cost summary if the user wants to review them.

As users move through the plan selection form, a two-way exchange occurs between the browser and server. This exchange moves specific information, such as industry average healthcare costs and the data the user enters, into the form. Written into the interface in real-time, user information passes through the Spry framework to the server, where numbers are crunched using Java and then passed back to the Spry framework in the browser. Without any page refreshes, the plan comparison tool provides an application-like experience that would be impossible to achieve without the use of Ajax-enabled interactions.

"It would have taken hundreds of hours to have written from scratch the complex interactions that the plan comparison tool provides," states Wyke-Smith. "Using Adobe Dreamweaver CS3 and the Spry framework for Ajax, we had a close-to-final version of the interface programmed by one engineer in fewer than 40 hours. The clunky old 'click-and-wait-for-the-next-page' model is replaced by a tactile and almost playful user environment."

The Spry framework makes it simple to add interactivity as needed. "Adobe has gone the extra mile with the integration of the Spry framework for Ajax into Dreamweaver CS3, enabling us to easily plug in new functionality and interactions," says Taylor. "Our designers can accomplish complex interface programming tasks without always having to draw on engineering expertise."

Whatever the project, the Benefitfocus team relies on Adobe Creative Suite 3 Web Premium as one of the main tools to get the job done. "One of the things our business revolves around is making complex processes easily understandable," explains Taylor. "Adobe Creative Suite 3 Web Premium software streamlines the development process—and that's a huge advantage in the fast-moving and constantly evolving world of healthcare insurance."



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