
Market Overview

BroadVision: The E-Business Solution for the
Pharmaceutical Industry

WHITE PAPER

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The Internet Helps Pharmaceuticals Gain First Mover Advantages

Because the length of patent protection has decreased, pharmaceutical companies are trying to achieve first-to-market advantages and critical mass for their products in the marketplace more quickly to maximize return on investment. To meet these critical demands, pharmaceutical companies are increasingly working to develop more effective direct-to-consumer (DTC), business-to-business (B2B) and collaborative strategies.

A company's DTC strategy needs to help its products secure greater market share. Since 1997, when the FDA altered its guidance for broadcast prescription drug ads, DTC marketing by pharmaceuticals skyrocketed from \$1.1 billion to \$2.5 billion in 2000, according to a survey by Forrester Research. The reason is simple: DTC works. Forrester found that an impressive 8 percent of consumers who saw drug ads in 2000 asked their doctors for the advertised drug, a request that doctors honored 70 percent of the time. Online marketing comprises an increasing share of DTC spending; Forrester respondents expect their online marketing budgets to double, from an average of 9 percent today to 18 percent in 2004. The web has the advantage of allowing pharmaceutical companies to provide content rich, product- or disease-specific therapeutic sites that help consumers understand medical conditions and available treatments. Already 86 percent of pharmaceutical companies have both types of site. And consumers are clearly using this information. Two-thirds of online households in the United States visit health sites each week; 16 percent report visiting drug product sites, while 35 percent register and personalize health content.

A strong B2B strategy that uses the web to market to physicians and payers is also important in the United States, and essential in Europe and Asia Pacific, where physicians retain absolute authority in deciding on medications. Using e-business technology, you can create a profile for both physicians and payers that includes the drugs they typically prescribe, then alert them to relevant new product information, clinical research, seminars or promotional events. You can offer physicians and payers the convenience of online access to information about their account status as well as inventory and billing information—even allow them to place orders online. By analyzing online order information, you can develop demand-driven forecasting and replenishment systems that include more customers than earlier electronic data interchange (EDI) systems. Such capabilities can save physicians and payers time, thereby improving their satisfaction and your overall relationship with them. You can also considerably reduce the cost of sales.

Collaborative technologies can be used to streamline the work processes necessary to complete drug development and clinical trials, significant portions of which may be outsourced to a multitude of specialized labs and process chemistry firms located around the globe. Such collaborative processes can help your company obtain FDA approval for new drugs more quickly.

Online DTC, B2B and collaborative processes hold great promise for improving pharmaceutical companies' revenues and reducing costs. Your company can maximize the value it achieves through web-based technologies by:

- Adopting a web architecture that unifies all your departmental sites, enabling consistent messaging and increased revenues through cross-selling and up-selling

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- Extending existing systems and merging offline and online channels to improve user access to consistent, personalized information that enables pharmaceutical companies to form “one-to-one” relationships with their customers
- Offering collaborative capabilities to help streamline product development processes and clinical trials
- Measuring the results of your marketing efforts

Unifying Departmental Site Silos

Currently, individual lines of business in pharmaceutical companies often host their own web sites on their own architecture. Unifying all of your company’s separate product and therapeutic sites offers many benefits. A single web infrastructure ensures consistent branding companywide by furnishing consistent navigation and look and feel while allowing you to maintain the individuality of your different brand and therapeutic areas. A unified web presence facilitates cross-selling and up-selling by allowing you to present information to consumers, patients and physicians not only about products that address the condition for which the user initially sought information, but also for conditions with comorbidity. A unified web infrastructure also reduces IT costs by simplifying the setup and maintenance of web sites in the organization.

BroadVision’s highly scalable application server, proven in more than 1,200 installations, delivers performance and manageability features to run business-critical portals on a single infrastructure. An included enterprise integration framework brings systems and business processes together in a meaningful way. This infrastructure includes J2EE for building distributed multitier enterprise applications, open adapters to enable connections between BroadVision’s portals and third-party applications, from ERP to LDP to LDAP systems, and enterprise application integration (EAI) through EAI partners to common third-party applications. A unified portal view makes it easy for users to find relevant, up-to-date information throughout all of the organization’s sites. This view can be personalized for each user, based on that user’s role, observed behavior and expressed interests. BroadVision even enables business users to administer systems via the web to reduce the load on IT.

Extending Your Enterprise via Personalized Self-Service

Personalized self-service capabilities can enable your company to provide the right information to the right audience at the right time, whether your audience consists of consumers, patients, physicians or payers. By allowing your entire organization to share information, BroadVision can provide this service in a manner that is consistent across all online and offline channels. With personalization capabilities, you can effectively target useful information from any of your company’s web sites or legacy systems to consumers or physicians, for example, by offering services such as physician locators, risk assessment, refill reminders, diaries of patients’ disease states, appointment calendars, information on disease state management and product information. By providing such personalized services, you can build brand equity by creating a direct, “one-to-one,”

learning relationship with consumers or physicians that optimizes lifetime value. You can also use consumer profile information to target site users for recruitment in clinical trials, thereby reducing recruitment costs.

BroadVision offers extensive personalization capabilities. Dynamic personalization of web pages based on clickstreams, user profiles and offline channels enables your company to anticipate both anonymous and registered customer needs and present customers with information or items most likely to interest them—whether they're stored in one of your departmental sites or in a legacy system—and ultimately lead to additional sales. This personalization can evolve as the site “learns” more about the user's behavior. BroadVision also supports targeted marketing with rule-based, real-time matching based on observed, stated and implicit behavior. Business units can also create business rules that change the way the site interacts with users.

Collaboration Streamlines Interaction with Partners

Pharmaceutical companies are racing to gain first mover advantages for new products by outsourcing parts of the drug development process and clinical trials to specialist labs and process chemistry firms worldwide, in places as far flung as Asia and Africa. Using online collaborative technologies, you can quickly access patent databases to determine which promising molecules, molecular activities or production processes already have pending or existing patents and then distribute this information to partners to ensure that they do not violate intellectual property protections. As you apply for approval and patent protection for your own new drugs or processes, collaborative technologies can help you collect required data from partners in a manner that adheres to the different regulatory requirements of different countries. By improving your ability to track the status of your drug approval application, collaborative technologies also guarantee that any missing data or documents are gathered quickly to ensure timely approval.

BroadVision enables collaboration, such as sharing ideas, content, tasks and processes across the extended enterprise. BroadVision's collaboration pages enable users to build web pages for communities or virtual team members inside and outside the company to collaborate instantly on projects. Team members can post messages to the page, assign tasks, schedule meetings and store documents. Threaded discussions allow users to exchange ideas at their convenience. As a result, BroadVision users can avoid dead ends by tracking the status of a patent or approval application and by making existing patent information transparent to employees and partners based on their role in the project.

Analyzing Marketing Results

The web is the only channel that you can use for DTC or B2B efforts that allows for instant verification and trackability. Unlike other media, such as TV or trade advertising, the web allows you to track anonymous users to determine where they are located and what they are doing on the site. You can then use this information to improve your site to provide more relevant information, which in turn can help you improve site stickiness. By identifying site usage trends, you can improve navigation to ensure that the site supports customers as efficiently as possible. You can also use such analytical capabilities to obtain feedback from patients and physicians, for example, to solicit information about any side effects that patients are having from a specific drug.

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With BroadVision's built-in analytics, you can deepen your understanding of customer needs, profitability and market trends by obtaining views of data by product, therapeutic area or any other factor. BroadVision Analytics™ offers more than a hundred industry-proven, out-of-the-box analytical reports, collaborative features and the power to perform complex targeted analysis so that you can better understand and manage your business. Online analytical processing delivers multidimensional analysis and sophisticated algorithms for discovering meaningful patterns and trends in user behavior. An easy-to-use drag-and-drop graphical user interface enables you to perform powerful statistical modeling.

BroadVision as a Partner

BroadVision (Nasdaq: BVSN, Neuer Markt: BDN) develops and delivers an integrated suite of packaged applications for conducting e-commerce interactions and transactions. Global enterprises and government entities use these applications to sell, buy and exchange information over the web and on wireless devices. The BroadVision e-commerce application suite enables a corporation to become more competitive and profitable by establishing and sustaining high-yield relationships with customers, suppliers and employees. BroadVision services professionals, supported by over 100 partner organizations worldwide, transform these applications into business value for our customers through consulting, education and support services in more than 30 countries.

For more information on a BroadVision solution that can help your pharmaceutical enterprise become more competitive and profitable through high-yield relationships with customers, suppliers and employees, contact BroadVision—the world's leading provider of e-commerce software applications.



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