SANCTUM

Deltanet, Inc.

Deltanet's customers are assured their information is safe with AppScan.

Deltanet Bites Down on Security of Dental Patients' Personal Online Information with AppScan

Delta Dental Plans Association (Delta Dental) is the oldest, largest, most experienced dental benefits system in the United States, offering a nationwide system of dental health benefits for a wide range of employers. Founded over half a century ago, its 37 independent plans today provide coverage to 39 million people enrolled in 75,000 groups throughout all 50 states, the District of Columbia and Puerto Rico.

"For nearly two generations, patients have entrusted their oral health to Delta Dental with complete confidence. Now, thanks to Sanctum, we can provide the same level of assurance regarding the confidentiality of their personal information."

–Lance Wolrab
Network Security Engineer
Deltanet

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In 1975, Delta Dental created a national dental administration software system and established Deltanet, a dedicated information technology services provider, to license and administer it. In the decades that followed, Deltanet extended its services to the open market, performing innovative application enhancements to meet the growing business needs of its customers. Today, as the leading information technology partner for dental insurance companies, Deltanet continues to thrive as the requirements of the healthcare industry expand.

Several years ago, Deltanet introduced a national Web portal, www.deltadental.com, dedicated to strengthening Delta Dental's communications with its subscribers, employers, dentists and brokers/consultants. Initially, the site served as a static source of information regarding dental plans, dentists and general dental health issues. Recently, Deltanet extended its portal into a single point of entry through which dental plan members nationwide access their individual plans and accounts. Utilizing the portal's enhanced functionality, users check coverage and eligibility as well as review claim status, treatment history and billing issues. The benefits of these changes include streamlined business processes and improved customer service.

In light of the expanding role and importance of the web portal, Delta Dental executives recognized a mission critical need for security and compliance with the strict government rules protecting confidential healthcare data. This need had to be addressed without disrupting the business units or adding costs. Lance Wolrab, Network Security Engineer at Deltanet, explains, "HIPAA [the Health Insurance Portability and Accountability Act of 1996] regulations establish national standards for maintaining the privacy and security of personal health-related information. Since most Web site security vulnerabilities—and most security breaches—occur at the application level, we had to be absolutely certain that every application on Delta Dental's national Web site would be completely airtight, before we could go live. To achieve that assurance while keeping our development on time and within budget, we needed an automated Web application security testing tool that could quickly and accurately identify all types of application vulnerabilities. AppScan from Sanctum is the only product on the market that reliably provides that capability."

Wolrab first encountered AppScan in 2001, at his former job, when he was called upon to address serious enterprisewide Web application security issues. "From the outset, I was impressed with AppScan's speed, accuracy and flexibility," he recalls. "In fact, it was the first solution I recommended

upon joining Deltanet. To this day, I have not seen a product in the security industry that is as comprehensive, as effective and as simple to use. And the responsive service provided by Sanctum's customer support team is second to none."

Prior to implementing AppScan, Wolrab says, the only way for Deltanet to assess its application security was to manually analyze line after line of application code. But this was a highly time-consuming process, not to mention very susceptible to human error. AppScan enabled Deltanet to integrate security testing and risk assessment within its existing test processes. "Rather than having to wait until after our applications were deployed to perform security audits, AppScan empowered us to detect security defects automatically during our development and testing efforts," he notes. "This effectively slashed development time, drastically reduced development costs and eliminated costly downtime that would have resulted from discovering security issues later in the process." Before Wolrab began using AppScan, they would schedule a week for security testing and reporting. Wolrab said, "With AppScan it takes me about 2 hours to test an application and generate reports. It's like the difference between walking and flying."

A common way of determining security weakness, Wolrab notes, is a penetration test or "pen test," in which information security experts are hired to simulate a hacker attack. But, he says, penetration tests are costly—often unpredictably so. "Charged by the hour, a single pen test typically costs about $25,000. And you never know how many more of them you're going to need. With AppScan, you can run as many tests as you like for a lot less than the cost of a single pen test. In fact, considering the potential cost of security breaches that AppScan has prevented, it has already paid for itself many times over."

According to Wolrab, one of the most meaningful advantages of AppScan is the accuracy and quality of the results it produces. "With traditional manual analysis and ethical hacking techniques, auditors are often at a loss to explain to the engineers how to rectify the vulnerabilities they discover," he observes." But with AppScan, I can take detailed reports directly to the development staff and they understand what they need to do to fix the application immediately. And since I'm not an application programmer, that saves me a lot of grief."

Testing security throughout the application lifecycle

Deltanet's IT team uses AppScan throughout the lifecycle of all Web applications. During the pre-deployment application development and testing process, members of the development team run AppScan against each application module in order to catch and fix security defects early. Later in the process, when the final product is ready to be deployed, Deltanet security auditors use AppScan to verify the absence of any web application vulnerabilities. "AppScan is the capstone of our development cycle," Wolrab says. "It gives us that final look, to ensure that our assessment of the architecture was accurate, and that best practices have been followed down the line." In addition to the security testing done as a part of the application lifecycle, AppScan is used to check 3rd party

"We had to be absolutely certain that every application on Delta Dental's national Web site would be completely airtight, before we could go live. To achieve that assurance, we needed an automated testing and assessment tool that could quickly and accurately identify both known and unknown application vulnerabilities. AppScan from Sanctum is the only product that reliably provides that capability."

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web technologies like web servers for un-patched vulnerabilities and misconfigurations before they go into production.

Wolrab says one particularly useful feature in the latest AppScan release is "Record and Play," which allows him to point AppScan at a specific series of transactions like a business process, record and save it, and then use it repeatedly for regression testing. "By recording the business process that an application supports, AppScan 3.5 lets us create a baseline and, from this, the solution automatically creates custom tests. And because the business processes are stored as standard XML, we can easily modify them to facilitate retesting."

Another feature of AppScan 3.5 that is crucial to Deltanet, continues Wolrab, is support for the Microsoft® NTLM protocol, which is used to authenticate users in a Windows NT® environment. "Because most of our distributed infrastructure is based on Windows NT, NTLM authentication support was critical to us," he notes.

Sanctum solutions— Scaling to meet Deltanet's Growing needs

Wolrab says Deltanet is so impressed with the benefits of early and frequent security testing with AppScan, the ongoing subscription updates, and Sanctum's services and support that it is now evaluat-

ing the company's other flagship product, AppShield, for future projects. "We are eager to see how AppShield, Sanctum's application firewall, can complement the cutting-edge application security testing that AppScan provides," he remarks. In fact, Wolrab believes Sanctum products and technologies will play an increasing role as Delta Dental's Web-enabled offerings continue to evolve.

Wolrab concludes, "For nearly two generations, patients have entrusted their oral health to Delta Dental with complete confidence. Now, thanks to Sanctum, we can provide the same level of assurance regarding the confidentiality and security of their personal information."

Deltanet, Inc. Success Story

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