



CUSTOMER SUCCESS

DrFirst

Putting Patient Safety First with Identity Protection from Symantec and Experian

DrFirst sought to be the first vendor in the U.S. to attain all necessary certifications to meet U.S. Drug Enforcement Agency (DEA) final rule requirements for e-prescription of controlled substances. In order to meet the strict identity proofing standards, DrFirst selected security leaders Symantec and its partner Experian. In addition to successfully achieving the first to market goal, allowing DrFirst to offer a platform for controlled substance e-prescribing to Healthcare Information Technology (HIT) vendors nationwide, the joint technology offering from Experian and Symantec is the first of its kind for e-prescribing and was developed specifically for DrFirst. Experian's Precise IDSM platform helps ensure that Symantec's VeriSign Identity Protection (VIP) credentials are provisioned to the appropriate users via comprehensive risk-based identity proofing. The technologies serve as the secure back end to DrFirst's identity proofing and logical access controls in accordance with the Drug Enforcement Administration (DEA) requirements for electronic prescribing of controlled substances.

Stopping an epidemic

In 2008, more than 15,000 people died from overdoses of powerful prescription painkillers such as OxyContin, Vicodin, and methadone, the U.S. government reported.¹ That's more than triple the 4,000 deaths from narcotics in 1999. It's an epidemic, the report declared.

The stakes are high. More than \$300 billion was spent on prescription drugs in the U.S. in 2010, amounting to \$898 per citizen.² Controlled substances make up 20 percent of this total—over \$60 billion in volume.

How can this epidemic be stopped?

When the DEA lifted restrictions against the use of electronic prescribing for controlled substances (schedule II – schedule V drugs) in 2010, it also broke down the single greatest barrier to e-prescribing adoption over the last 10 years. Prior to the Final Rule, a provider prescribing a

ORGANIZATION PROFILE

Website: www.drfirst.com

Industry: Healthcare

Headquarters: Rockville, Maryland

Employees: 200

SYMANTEC SOLUTIONS

Web Security

Why Symantec?

- Valuable partnership with Experian
- Faster time to value and cost savings with cloud delivery
- Industry-leading trust and acceptance of VeriSign
- Flexibility to deliver hard or soft token solutions

controlled substance was required to print or write a patient's prescription on paper and give it a "wet signature" with a pen, creating an original document that then needed to be taken to the pharmacy.

This created a challenge. Controlled substance prescriptions are written by approximately 90 percent of providers. The inability to write a controlled drug prescription electronically created the need for a provider to implement two office workflows: one for electronic prescriptions and one for controlled substances that were hand-signed and hand-delivered. These incompatible workflows reduced the efficiency that electronic prescribing otherwise promised to bring to the practice.

A certified e-prescription system for controlled substances (EPCS) can eliminate the workflow barrier while providing the clinical benefits of e-prescribing:

- Provides an overview of all of a patient's medications, automatically checking for potential drug conflicts and other prescribing errors
- Prevents system abuse by patients who visit multiple physicians to obtain a surplus of controlled substances
- Identifies caregivers who may be abusing prescription privileges
- Reduces delays, costs, and errors
- Enables caregivers to spend more time with patients and less time on paperwork

Before these benefits could be achieved, however, there were substantial design, technology, process, auditing, and certification hurdles to overcome.

Setting the foundation

In 2009, physicians in Berkshire County, Massachusetts, began utilizing DrFirst's EPCS 1.0 in a pilot program funded by the Agency for Healthcare Research and Quality (AHRQ) under the auspices of the Massachusetts Department of Public Health and a waiver from the DEA. Through this pilot

SOLUTIONS AT A GLANCE

Key Challenges

- Deliver first solution to meet Drug Enforcement Agency (DEA) final rule
- Keep solution simple to win provider approval, acceptance, and adoption
- Create cost-effective, scalable platform solution for DrFirst Healthcare Information Technology (HIT) vendor partners
- Increase patient safety and security

Symantec Products

- Symantec™ Validation and ID Protection Service (VIP)
- VeriSign™ Secure Site SSL Certificates with Extended Validation

Strategic IT Trends

- Cloud

Symantec Partner

- Experian (www.experian.com)

BUSINESS RESULTS AND TECHNICAL BENEFITS

- First company to attain all necessary certifications to meet U.S. Drug Enforcement Agency (DEA) final rule requirements for e-prescription of controlled substances
- Fast-growing market acceptance exceeded internal expectations
- Cloud service delivery of Symantec VIP eliminated need for on-premise IT infrastructure
- Software as a Service model significantly reduces audit costs
- Flexibility for caregivers to choose hard or soft Symantec VIP tokens

program, DrFirst was the first and only e-prescribing company to publicly demonstrate end-to-end electronic prescribing for controlled substances (EPCS). In March of 2010, the DEA issued an Interim Final Rule (IFR) based on the results of this pilot study "to provide practitioners with the option of writing prescriptions for controlled substances electronically."

"We had many questions to settle as we worked with the DEA on this," says Eric Rosenfeld, chief information officer at DrFirst. "For instance, how could the doctors be identity-proofed online? Because we had set ourselves a goal to be first, there was no well-trod ground before us, and we found that we were inventing, describing, and documenting all at once."

“As the originators of controlled substance e-prescribing for physicians, we are excited to be the first to market with a true nationwide offering. Version 2.0 of EPCS Gold™ reflects DrFirst’s expertise in security through a design that provides a straightforward and inexpensive solution for both providers and health IT vendors.”

Eric Rosenfeld

Chief Information Officer
DrFirst

Delivering a first

DrFirst, a leader in developing groundbreaking healthcare innovations, was able to quickly apply its experience from the Massachusetts pilot and the requirements outlined in the DEA's Interim Final Rule (IFR) to quickly go to market with a system that met the certification requirements for DEA approval and also met identity proofing requirements set by the National Institute of Standards and Technology (NIST).

After achieving the distinction of being the first approved solution for electronic prescribing of controlled substances, DrFirst immediately offered a turnkey platform solution to HIT vendors that eliminated the challenges these vendors faced in implementing e-prescribing of controlled substances (EPCS) within their own applications. This platform solution significantly reduces technology development, auditing, and certification costs otherwise required for vendors to legally offer EPCS to their clients.

"Over 200 electronic medical record application vendors incorporate our platform technologies for e-prescribing and EPCS, and we also provide services to hospital information system vendors such as medication history and discharge prescribing," says G. Cameron Deemer, president of DrFirst.

The race is on

DrFirst has made a big impact in the HIT industry over the past decade, with an entrepreneurial spirit and 200 employees. "We are a very growth-oriented company," Rosenfeld explains. "We tend to attract driven, dedicated, and diligent people for whom cross-functional capabilities are second nature, and who individually contribute and collaborate at multiple levels. We don't waste time. We choose our work plans carefully—and work it aggressively."

Finding the right partners

To work with its team, DrFirst narrowed the list of technology partners to three options. One was Symantec, which had teamed with

Experian, a global leader in consumer and business credit reporting.

Says Rosenfeld: "We were really uncompromising in terms of our need for speed and creative thinking, and the fact that Symantec had a relationship with Experian that could be easily leveraged was incredibly important to our decision."

Teams from DrFirst, Symantec, and Experian met in person. "We worked the process out and talked it through rapidly," Rosenfeld says. "It took two deep dive meetings and we knew what we were doing. There were APIs available on both sides. It was pretty clear. We knit together the solution, and Symantec and Experian brought us the components."

How it works

The first step in this part of the project was how to authenticate a caregiver's identity. A key component of the solution is Symantec™ Validation and ID Protection Service (VIP). VIP delivers cloud-based strong authentication that combines something a person knows (for example, a username and password) with something a person physically possesses (a credential such as a token or mobile phone).

Once a caregiver chooses to participate, Symantec sends a token capable of receiving a one-time numeric password over the Web. Symantec VIP enables caregivers to choose either a physical token, which is a key fob device, or if the caregiver prefers, a soft token that is deployed on his or her smart phone. "The adaptability of Symantec VIP Service is enabling us to meet different kinds of customer demand," Rosenfeld says.

The caregiver also receives an emailed invitation with a link to a Web portal, which is secured by a VeriSign™ Secure Site SSL Certificate with Extended Validation. The Extended Validation feature means the browser address bar turns green behind the DrFirst name. This provides a highly visible indication of site security and trust. "It's important to us and our customers that VeriSign/Symantec is one of the most trusted names, and that it is authenticating our site," Rosenfeld says.

"The Experian and Symantec solutions allowed DrFirst to accurately deliver secure online identity credentials to physicians who are eligible to issue e-prescriptions for controlled substances to their patients through EPCS Gold. The fact that we use Symantec VIP as a cloud service means that one-time password (OTP) capability was coming fully baked, with an infrastructure we didn't have to build. That kept costs manageable."

Eric Rosenfeld

Chief Information Officer
DrFirst

Proving who you are

The next step is identity proofing. The DEA requires that the caregiver be identifiable to the e-prescribing system in an irrefutable way. “The caregiver is asked questions directly by Experian based on information that should be known only to that caregiver,” Rosenfeld explains. If the caregiver answers these questions correctly, his or her identity is bound to the token. “One of the reasons why we can trust the solution is because the process is complete in one session,” Rosenfeld says. “We needed a way to identify and bind simultaneously. After the token is bound, Experian sends a Reference ID to the caregiver’s home address by postal or express mail. The caregiver must log back into the identity proofing website and enter the Reference ID, which proves they reside at the physical address indicated at the beginning of the identity proofing process.”

“Many other potential technology partners had a disjointed solution set, complications with APIs, or other issues”, Rosenfeld adds. “Some wanted to build a network where they would share this identification component with other market-facing components that might conflict with the doctor’s best interest. Symantec and Experian together enabled us to provide best-in-class technology without any other distraction or agenda. It was what we call a pure solution.” With the token activated, an approved caregiver or medical facility can then sign on and e-prescribe controlled substances.

Platform in action

“Once we receive the prescription, there are a number of complex validation and routing steps,” Rosenfeld says. “The prescription is checked against guidelines that differ by state. It’s also checked against any other medications that person might be taking, and other patient safety criteria. Physicians must use their token each time they attempt to prescribe one or more controlled

substances for a patient. They do this by entering the number that appears on their token at that time. An authenticated electronic signature is then created for the prescription and the prescription is routed to be filled.”

“One of the main challenges for DrFirst was not just to create an application, but a platform that could extend to the whole industry,” Deemer notes. “Our EPCS Gold services are not only usable by our own applications, but also by our partners’ electronic health record (EHR) applications, and any other EHR that needs to get to market with controlled substance e-prescribing capability,” he says. “We couldn’t just design it for us—it had to work for our 200-plus partners, as well, and any other vendor looking to offer certified electronic prescribing of controlled substances.”

A quick and innovative process

Just four months after initial design, the solution became the first to be fully certified to meet the prescription processing requirements set by the DEA and identity proofing requirements set by NIST. It was ready to go to market.

It’s also unusual that the solution is available to non-DrFirst prescribers to integrate through their vendors, Rosenfeld points out. “It’s an absolute revolution—something that has never been done before,” he says.

Saving thousands on audit costs

Because DrFirst delivers its solution using a Software-as-a-Service model, the need to audit each user’s installation is reduced or eliminated. “For vendors who integrate with our solution directly,” Rosenfeld notes, “we put together a broad solution that could be audited once on our end and then either pass without an audit or with a very small amount of work at the client’s end.”

“Partners of DrFirst get a go-to-market capability that’s immediate,” Rosenfeld adds. “We’ve already done the heavy lifting, which means they can avoid the developmental, certification, and auditing costs required to conform to DEA guidelines.”

Better outcomes for all

A few key design principles guided the team. “We’ve engineered this solution to be simple, powerful, and fast,” Rosenfeld says. “We expose it to real, live medical doctors and medical practices to make sure that we are hitting the mark. So our customer acceptance and satisfaction is really the first and foremost metric. We always put the doctor first.”

Rosenfeld adds, “The fact that we use Symantec VIP to deliver solution components as a cloud service means that the one-time password (OTP) capability was coming to us fully baked, with an infrastructure we didn’t have to build. We could rent it. That keeps costs measurable and manageable. The real gain is in enhancing patient safety and caregiver services. It’s a success all around.”

1. “Deaths from painkiller overdose triple in decade.” Wall Street Journal, Nov. 1, 2011.

2. “Growth in U.S. Drug Sales Slows.” Seekingalpha.com. Accessed Nov. 18, 2011