



FRED Group Introduces eRx

Australia's first electronic prescription solution

Introduction

Fred Group IT is Australia's largest IT solution provider to the pharmacy industry. Headquartered in Melbourne, Fred Group IT has over 130 employees spread across offices in Sydney, Brisbane, Adelaide, Perth and Ballarat. Fred Group IT were called upon to address a range of critical issues for Australian health professionals, one of the most significant changes has been the move away from paper based prescriptions to eRx, an electronic prescription solution designed and built by Simpl® in association with Microsoft®.

The situation

For the past hundred years, General Practitioners (GPs) and specialists in Australia have been providing patients with paper-based scripts, which are presented to pharmacists as a printed or hand-written prescription. It is a system fraught with issues of inaccuracy and legibility; "Many doctors have illegible handwriting, which, compounded with unclear abbreviations and dosage indications, can result in errors when pharmacists prescribe medication," says David Freemantle, Project Director, eRx Script Exchange.

Pharmacists would have to spend time tracking down the GP that wrote the prescription and call them to seek clarification. Conversely, GPs were spending a significant amount of time responding to phone calls from pharmacies regarding prescriptions.

"Medication dispensing errors are a major healthcare cost in Australia. We wanted a solution that could send prescriptions electronically to reduce errors, improving patient care and safety. With the advancement of technology, we now have close to 95 percent of doctors using computers in their clinics, and 98 percent of doctors and pharmacists on broadband...so the time was ripe to implement an electronic prescription exchange (eRx) across the country," says Freemantle.

The design and development of eRx was a significant challenge for a number of reasons including complex business requirements, the technical diversity of the 15+ vendors to be integrated with eRx, strict privacy and performance requirements and significant budget and time constraints. These challenges were taken on by

Simpl with enormous energy, creativity and focus to ensure a solution was developed that not only met but significantly exceeds these requirements and expectations." David Freemantle, Project Director, eRx Script Exchange

The solution

Fred Group IT worked with Simpl, a Microsoft Gold Certified Partner, as well as Microsoft's own development team on the eRx solution; it then engaged Simpl to deliver the technology platform for the prescription exchange.

eRx was built using Microsoft BizTalk® Server 2006 R2, Microsoft SQL Server® 2008 Enterprise and the Microsoft .NET framework and leverages the Health Connection Engine (HCE) which was also designed and built by Simpl. The HCE facilitates interoperability between multiple health systems by abstracting the interfaces used to connect them and by providing an extensible adapter framework that enables health applications to more easily interoperate and communicate with each other. By leveraging HCE, Simpl ensured Fred Group IT gained a head start in developing eRx and could be confident that HCE would provide cost, time and risk reductions while also having the ability to scale to serve pharmacies nationally.

"The use of the Health Connection Engine allowed us to deliver the solution in only six months, which has enabled Fred Group IT to go to market in record time," says Jodi Mitchell, Health Lead at Simpl. She also reports that the final eRx solution exceeded everyone's expectations; "Fred Group IT required prescription information to be represented at the pharmacy within three seconds of scanning the barcode. The eRx solution surpassed this requirement with outstanding performance results culminating with even greater time savings than originally predicted."

eRx augments the existing paper prescription system:

- A prescriber, such as a GP, prints a paper prescription containing a unique eRx barcode.
- Linked to the unique barcode, the electronic prescription is encrypted and sent securely to the eRx Script Exchange for storage.
- The patient then takes their paper prescription to the pharmacy of their choice where the pharmacist scans the barcode.

- The pharmacy's dispensing software downloads the electronic prescription from eRx Script Exchange, and the patient's prescription will appear on the pharmacist's screen.

The Microsoft BizTalk Server provides a standards-based set of web services that enable health point service applications to connect with other applications; Fred Group IT could work with other vendors that provided dispensing software to pharmacies to integrate their systems to the eRx platform.

In developing the eRx Script Exchange Simpl has created the first national platform for e-scripts. It allows GPs to send prescriptions electronically, confident that patients will have their scripts dispensed safely and securely anywhere in Australia.

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In four months since its launch in April 2009, all major pharmacy software vendors have committed to delivering eRx giving 99% of pharmacies and 90% of GPs and specialists guaranteed access to the platform. GPs, specialists and pharmacies have already sent more than 600,000 transactions via eRx, while 2,300 additional GPs and pharmacists are registered to start using eRx in the coming months.

Benefits of the eRx solution:

- Improved patient safety by eliminating transcription errors when entering prescriptions.
- Pharmacists don't need to decipher hand-written prescriptions; by scanning an eRx barcode, a pharmacist can access a patient's prescription electronically.
- Greater efficiencies through the high speed receipt of accurate prescription information.
- Significant reduction in the need for clarification calls by pharmacists.
- Prescriptions appear within three seconds of scanning the eRx barcode saving close to a total of 1.5 million hours a year across the entire pharmacy industry.
- Closer monitoring of patients as GPs and specialists are informed by the system when a script has been filled.
- Doctors can make informed decisions on dosage adjustments when the medication does not appear to be achieving the desired results.
- Highly scalable solution platform capable of keeping pace with the more than 220 million prescriptions written in Australia annually.

The last word

"eRx chose to engage Simpl for the development of the solution due to its renowned technical expertise, in depth understanding of the health sector and project management track record in the delivery of technology solutions...in the highly complex environment eRx presented to Simpl, the need for detailed planning, strong teamwork and strict adherence to methodology could not have been more evident. Despite the challenges presented, Simpl has managed to deliver a world class solution on time and on budget. As a result, eRx has further contracted Simpl for the provision of ongoing technical support to eRx and for the ongoing development of enhancements to eRx." David Freemantle, Project Director, eRx Script Exchange



CASE STUDY