

Healthe Group

Introducing an Rx for Digital Healthcare Records Worldwide,
Protected by Symantec



A shared electronic medical records system will only be used if it's secure and private. To launch its medical records system, Healthe turned to Symantec for architectural advice on security and Symantec Managed Security Services for 24x7 security monitoring and management. Results include zero intrusions in the 18 months since deployment, and zero intrusions during four weeks of independent penetration testing involving 180 different types of attacks across 43 countries.

ORGANIZATION PROFILE

Founded in 2002 and based in Singapore and Australia, Healthe Group (healthe.com), has 2,000 employees serving 80,000 patients in 11 hospitals and also offers patient-centric health management solutions online.

INDUSTRY

Healthcare

SOLUTION

Security Management

We Have the Power

Information technology has the power in the healthcare industry—if used correctly—to make both people and hospitals healthier. That's the finding of Healthe Group, a corporation based in Singapore and Australia that was formed to make and keep people healthy.

Ten years ago, the company acquired and managed its first hospital in Australia. Now it owns and manages 11 hospitals there. It has also developed an online medical record service that could turn out to be an Rx for making shared digital medical records practical and universal.

"As we've grown and learned how to run hospitals well, the one common thread that makes them successful is the IT platform," says James Grant Wetherill, head of strategic marketing at Healthe. "Whether it's used for enterprise resource planning (ERP), finance, or inventory control, IT enables real time daily key performance indicator (KPI) information that helps us manage, and in particular manage labor costs—one of the biggest cost components. We've actually been able to almost double the profitability of the hospitals we've acquired."

What You Don't Know Can Hurt You

In doing so, a broader challenge revealed itself. "Many of the hospital patients were going home not entirely sure of what kind of treatments they got and why," Wetherill observes. "They'd see other doctors and specialists and get prescriptions for different drugs. By the time they'd come back and see us, they didn't have much of an idea of the additional treatment they'd received after the hospital—and neither did we."

The result is less effective care, and needlessly duplicated medical records and tests. In many of the world's healthcare systems, Wetherill estimates, about 20 or 30 percent of healthcare spending is wasted in this fashion. "Singapore, for instance, spends about two billion dollars annually on healthcare. That means hundreds of millions of dollars are wasted."

"We have Symantec Managed Security Services managing and monitoring our security infrastructure 24x7. And we have had zero penetrations in the year and a half since deployment."

Alan Payne

Chief Innovation Officer
Healthe Group

Healthe IT security managed by Symantec successfully withstood an independent test of 180 different types of attacks across 43 countries in 4 weeks.

“We are HIPAA compliant. That’s primarily due to the work we’ve done with Symantec.”

Alan Payne

Chief Innovation Officer
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So Healthe has developed, through four iterations, a shared electronic medical record service called Healthe Me. It’s a personalized health and wellness platform that can provide clinical level data to care providers to aid in decision making, and a consumer-friendly view of the same data to patients to promote better understanding.

The portal can automatically translate notes and terms on the fly into multiple languages. And it includes tools that help patients understand and manage health risk factors such as smoking, diet, and weight. Consumers can also plug in medical devices such as blood pressure and heart monitors to share data from them with care providers remotely.

Sharing Is Good—If It’s Secure

The result is that healthcare becomes more effective and efficient. “Seniors might be managed by as many as 10 to 20 care providers, and all of them need to collaborate to make sure, for instance, that prescriptions don’t conflict. And they need to share results, so that a blood test given by one provider can be used by another and not duplicated,” Wetherill says.

Healthe Me accomplishes this. “We’re a data broker,” says Alan Payne, Chief Innovation Officer at Healthe. “We can take data from multiple sources, make it all look and feel the same, and then publish that data either to the consumer or the professional.”

The critical factors, however, are security and privacy. “That’s the first thing everyone asks about,” says Payne. “The first thing we need to avoid is a data breach,” Payne notes. “We’re playing to win, so in security we chose the best of the best. The number one security company in the world is Symantec.”

When Healthe designed its online system in August of 2006, it engaged Symantec senior architectural support from day one. “We treat Symantec not as a vendor, but as a partner,” Payne says. “We have Symantec™ Managed Security Services managing and monitoring our security infrastructure 24×7 and providing real-time response. And we

SOLUTION AT A GLANCE

Key Challenges

- Ensure security and privacy for a shared electronic medical record service
- Design a security architecture that’s highly scalable, redundant, and replicable
- Enable cost-effective 24×7 IT security monitoring and management

Solution

24×7×365 monitoring and management of firewalls and other security devices from Symantec Managed Security Services

Symantec Services

Symantec™ Managed Security Services

Technology Environment

- Applications: Custom electronic medical record service built on Oracle
- Databases: Oracle
- Server platform: 77 Dell PowerEdge blade servers running Oracle Unbreakable Linux

Business Results

- HIPAA-compliant shared electronic medical records system successfully deployed
- 24×7 IT security monitoring and management in operation
- No network intrusions in the 18 months since deployment
- Successfully blocked 180 different kinds of test attacks over four months and 43 countries

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have had zero penetrations in the year and a half since deployment. For our customers, the assurance that our system is managed and monitored by the world’s best security company has paid dividends for us.”

Protection Runs Deep

The Symantec Managed Security Services (MSS) team operates from one of six global Symantec Security Operations Centers. This service uses a state-of-the-art technology platform to aggregate and analyze log data from Healthe’s heterogeneous firewalls, intrusion detection systems, and integrated security appliances. The Healthe network team gets an email from Symantec MSS whenever suspicious activity is spotted that should be investigated.

An added layer of protection comes from Symantec DeepSight™ Alert Services and DeepSight™ Threat Management Services. These services, used by the MSS team, provide early warning and actionable information about relevant potential attacks, including prioritization of events according to the threat they pose to Healthe’s network. This information comes from throughout the Symantec Global Intelligence Network— which consists of more than 40,000 sensors deployed in more than 180 countries in addition to more than 120 million client, server and gateway systems employing Symantec solutions. The cumulative intelligence from thousands of events worldwide gives organizations like Healthe an advantage in separating routine traffic from possible threats.

The Acid Test

Healthe employed an outside service to do penetration testing of Healthe Me. “We didn’t know when they would test,” Payne recalls. “They performed 180 different types of attacks from 43 countries, everything from denial of service to security penetration. After four weeks of attempts, the only thing they found was the make of one of the firewalls. They got to its log in screen based on that. It’s as far as they could go.”

Healthe has four completely different layers of security protecting an encrypted message at the core. “We are HIPAA compliant,” Payne says, “and when we get an audit done, we are confident we’ll be HIPAA-certified. That’s primarily due to the work we’ve done with Symantec.”

A Powerful Value Proposition

The Healthe Me application is now an engine that other companies and countries can easily license and adapt. “Working with Oracle, we’ve actually collapsed the whole stack of about 16 Oracle products into an engine that runs efficiently on a single server that costs about 15,000 USD retail,” Payne says. “One server can support more than 20 thousand users. Our application can be fully branded, and when I say ‘branded,’ I mean it can easily be adapted to the look and the feel, content, and colors of the organization that licenses it. We can actually drop our stack onto any organization’s server and make it look as if it’s theirs in a matter of minutes.”

In a world full of overstressed healthcare systems, a fast-acting electronic medical record service like this could be just what the doctor ordered.