Onsite Health Consolidates Data with SymmetricDS

The Organization

Onsite Health is a Management Service Organization (MSO) that brings convenient mobile medical and dentistry to patients at corporations, universities, military, and community sites. With a vision of providing leading edge care to technology companies in the Silicon Valley, Onsite Health started as Onsite Dental in 1997. The success in the San Francisco Bay Area quickly spread across the country to over forty states, operating thirty mobile practices with state of the art technologies. By 2008, the company expanded its fleet to meet both medical and dental requirements, changing its name to Onsite Health to



Headquarters

Arlington, VA

Industry

Health Care

Number of Nodes

30

recognize the broader scope of services. Today, technology continues to be a key asset with "transformer" mobile vehicles that can be converted between medical and dental practices. To better serve clients, the company operations are decentralized with seven regional offices. Onsite Health is constantly looking for ways to serve patients better through innovation and technological advances.

The Challenge

With decentralized operations, Onsite Health needed to improve access to its critical business data for both operational and reporting use. Each mobile unit had its own database with patients and schedules that could only be updated on site. At the end of the day, the mobile unit was manually backed up to the general office database, where it could then be used for reporting. The process has proved to be quite cumbersome. Onsite Health needed a data synchronization solution which would:

- Allow operations such as claims, payments, and scheduling to be performed either at general office or the mobile unit, with all locations kept in synchronization.
- Replicate a single version of patient data among multiple databases.
- Consolidate data from all locations in near real time to enable reporting and business decisions.
- Integrate data across a wireless network that is only occasionally connected.
- Secure data with technical safeguards for security and privacy as defined in the Heath Insurance Portability and Accountability Act (HIPAA).

With multi-master replication of data between multiple databases, Onsite Health can gain control of their data and provide more seamless service to its patients.

The Solution

Onsite Health uses SymmetricDS to replicate its MySQL database between the general office and mobile practice units in both directions. The general office is deployed as a standalone server with a separate MySQL database server for scalability. On the mobile unit, SymmetricDS runs in client mode as a service with only minimal overhead on the database server. New mobile units are opened using the initial database load feature of SymmetricDS, while existing mobile databases are kept in synchronization through change data capture. The change data is transmitted in a compressed stream over Secure Sockets Layer (SSL) to make efficient use of the network and protect sensitive data. Incoming pulls and outgoing pushes are configured to deliver any changes each minute. When disconnected from the network, change data continues to be captured, and batches are stored until replication over the network can continue. The node heartbeat feature is used at the general office to monitor which mobile units are connected.

The Results

SymmetricDS allowed Onsite Health to create a centralized database of corporate data by consolidating multiple remote databases in a partially connected environment. Time spent on the manual backup process has been replaced by automatic synchronization of data. The centralized database has enabled company-wide reporting and analysis as data arrives in near real time. Operations that were once limited to a specific mobile unit can now be performed at the general office. Management and staff in IT and supporting departments enjoy using the system and believe SymmetricDS has greatly improved the workplace.