

CloudPrime

Wound Center Case Study

OCTOBER 2010





CloudPrime
global business messaging

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Presented by: Jeremy Miller

Customer: Wound Center

Customer Profile:

- Specializes in wound treatment using hyperbaric treatment
- Founded in 1999
- Revenues in 2009: ~\$24M
- Provides a full service wound treatment operation for Acute Care Hospitals
- Primarily in operation in the North East and Mid Atlantic of the U.S.

Business situation

As a result of anticipated demand and a need to streamline current processes to increase revenue, the Wound Treatment Center needed to find a way to integrate geographically remote centers to its central offices to process patient and billing data.

Also, due to increased HIPAA/HITECH compliance regulations and incentive payments for achieving compliance, the Wound Center needed to find a way to create an electronic data interchange to connect all the endpoints on its network.

Technical situation

The Wound Treatment Center was faced with 4 primary technical challenges:

1. In order to reduce costs, increase invoice collection times and integrate all of its geographically dispersed locations, the Wound Center needed to find a way to integrate applications on its network;
2. Because of new compliance regulations, the Wound Center needed to find a service that allowed it to connect its endpoints in a secure way, making sure all message traffic sent over the network was encrypted;
3. The customer needed to deploy a service that met the above challenges while at the same time did not require that the customer hire new staff to support its network;
4. The service must comply with and pass a stringent security audit in order to conform to HIPAA regulations and Wound Center requirements.

Today, the Wound Treatment Center does not have any infrastructure for transmitting data over the network other than email and FTP. These mechanisms no longer support the customer's needs as they are unreliable methods of file transfer and communication, do not meet new security and compliance regulations, and require that the customer maintain and support its own network. Also, FTP and email do not provide message parsing capabilities, making it hard for administrators to track files being sent over the network.

Beyond needing a solution that would upgrade its messaging fabric, the Wound Center needs to be able to establish the network in weeks vs. months. Also, bringing up new endpoints has to be simple enough that administrators with limited IT experience could connect to the network and send files.

Additionally, because the Wound Center provides a full-service wound-treatment clinic that resides within a hospital, it is necessary for the Wound Center to analyze patient information that is only relevant to their services. As a result, the electronic data interchange needs to have the

ability to interface to pre-processing applications that will remove patient information that is only relevant to the Wound Center.

As part of the implementation, The Wound Center brought in a health care application integration specialist to help determine how to best solve its problems and to evaluate the right solution to meet its requirements, as well as performing a stringent security audit of each solution evaluated.

Solution

CloudPrime provides an easy to deploy, scalable, secure and cost-effective health care messaging solution “in a box”, empowering health care professionals to build robust messaging networks while complying with stringent and ever-changing HIPAA/HITECH compliance regulations.

CloudPrime’s service created a health information exchange between the Wound Center’s HQ and its constituents, enabling the transfer of important HL7, X12, and CSV files used for billing and patient tracking. Designed to be easy-to-deploy and put into production, CloudPrime is able to create these types of exchanges in as little as a month. In addition to creating a robust information exchange, the Wound Center can also manage their network via the Customer Portal that displays message traffic, the types of messages traveling over its network, and specific data that is being parsed from messages for auditing purposes. (See Exhibit A) The customer portal can also be utilized to manage exception conditions and provide alerts.


Finally, since CloudPrime is offered as a service, the Wound Center does not have to hire additional staff to support and monitor its network, saving the company hundreds of thousands of dollars per year in staffing and training costs alone.

Exhibit A — CloudPrime Customer Portal

Cloud Prime Portal

portal.cloudprime.net/portal/servlet/Controller?command=login&session=9AA9C9542A629B453AF6509D2F78C046

Login_GSA CAE Apple Yahoo! Evernote logo Google Maps YouTube Wikipedia News Popular Ping-o-Matic! Other Bookmarks

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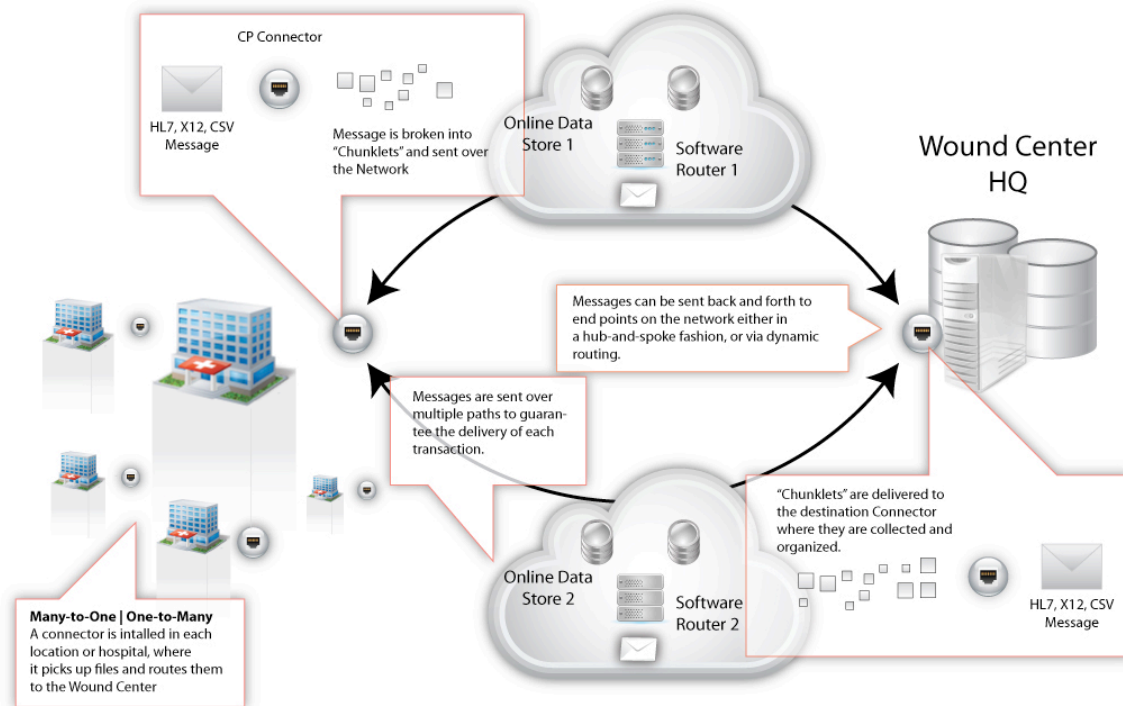
Jeremy@cloudprime.net | RND1 | Super Admin

[Printable Version](#) [Help / Legend](#) [Message Details](#)

| Dir | Date & Time (GMT) | Message Type | Message MetaData | Message ID | Source Link | # of Char | Delivery Time (GMT) |
|-----|---------------------|--|---|------------------------------|-------------|-----------|---------------------|
| → | 09/27/10 21:46:55 | boot.wim | | cs_trial05:cs_trial05:0:2837 | Batch | 524288 | Failed |
| → | 09/27/10 21:39:45 | [ADT_A01/2.3, ADT_A01/2.3, ADT_A01/2.3] | PATIENT @ FACILITY : [null null@null, null null@null, null null@null] | cs_trial05:cs_trial05:0:2836 | HL7 | 5470 | 09/27/10 21:39:45 |
| → | 09/27/10 21:13:15 | [SIU_S12/2.6, SIU_S13/2.6, SIU_S15/2.6] | PATIENT @ FACILITY : [Roger Norton@null, Roger Norton@null, Roger Norton@null] | cs_trial05:cs_trial05:0:2835 | HL7 | 1461 | 09/27/10 21:13:17 |
| → | 09/27/10 21:09:34 | [ADT_A01/2.6, ADT_A01/2.6, ADT_A04/2.6, ADT_A08/2.6, ADT_A28/2.6, ADT_A31/2.6] | PATIENT @ FACILITY : [TANYA JONES@null, TERRY HOLTON@null, TERRY HOLTON@null, TERRY HOLTON@null, TERRY HOLTON@null, TERRY HOLTON@null] | cs_trial05:cs_trial05:0:2834 | HL7 | 2420 | 09/27/10 21:09:34 |
| ← | 09/27/10 19:34:58 | CPDemo__Multiple_ADT_Msg.hl7 | | cs_trial19:cs_trial06:0:18 | demo_HL7 | 5176 | 09/27/10 19:34:58 |
| ← | 09/27/10 19:34:55 | [ORU_RO1/2.3.1] | PATIENT @ FACILITY : [John Doe@null] | cs_trial19:cs_trial06:0:17 | demo_HL7 | 2238 | 09/27/10 19:34:55 |

Navigation menu (left sidebar):

- Home
- Logout
- Contact Us
- Help / FAQ
- Reports
- Track Messages
- Preferences
- Alerts
- TTY Gateway
- Administration

Exhibit B – Wound Center’s Network Topography**Benefits**

CloudPrime offers the best set of comprehensive benefits covering the need for a cost-effective, easy-to-deploy and secure health care application message network.

Cost Savings

As a result of the Wound Center's decision to leverage CloudPrime, it is estimated that the company saved \$180,000/year in staffing costs and in addition, saved 50% on data transfer costs compared to alternatives that were estimated to be \$500,000/year. It is also estimated that the Wound Center saved approximately \$30,000 in training costs they would have incurred if they had gone with a licensed solution. **The total estimated annual savings for the Wound Center are \$433,000.**

Unique Features and Guaranteed Delivery

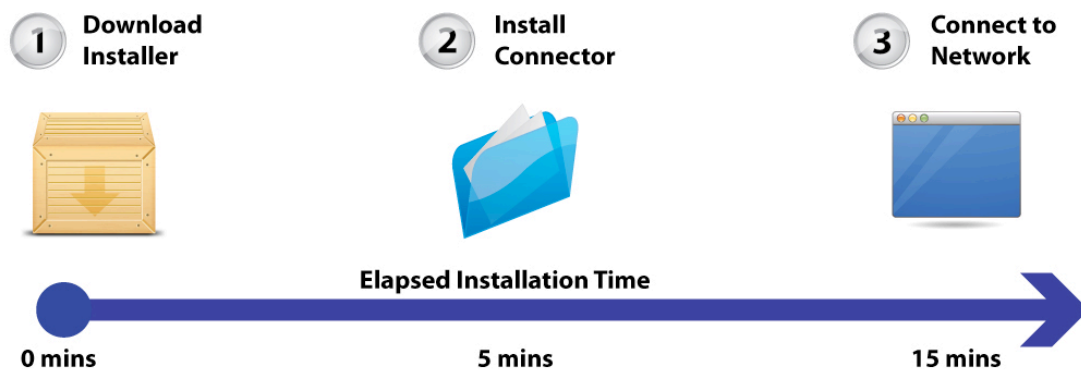
Beyond the substantial savings resulting from implementing CloudPrime's service, the Wound Center is also able to take advantage of CloudPrime's guaranteed delivery of each message sent over the network. Since every message is guaranteed to arrive, the Wound Center will save on trouble-shooting costs as well as money lost as a result of late or improper invoicing due to lost data. [See Exhibit B]

Ease of Installation

CloudPrime provides an easy to install service allowing customers like the Wound Center to bring up new partners on the network in as little as 15 minutes. CloudPrime is able to do this because each application endpoint on the network interfaces with CP's software client called a "Connector". The Connector is less than 30MBs in size and can be downloaded and installed with just a few clicks. The Connector is designed to be easy to install and configure even when the user does not have an IT background. [See Exhibit C]

Meets Stringent Security Requirements

CloudPrime's application messaging service conforms to the most stringent security requirements, including those required by HIPAA and the HITECH Act. As a result of CloudPrime's strong security policies and technological offering, when the Wound Center required a 3rd Party Security Audit, CloudPrime passed with high marks. This is in large part due to CloudPrime's inherent security capabilities coupled with the strong security and compliance standards of Amazon's EC2 Cloud offering.

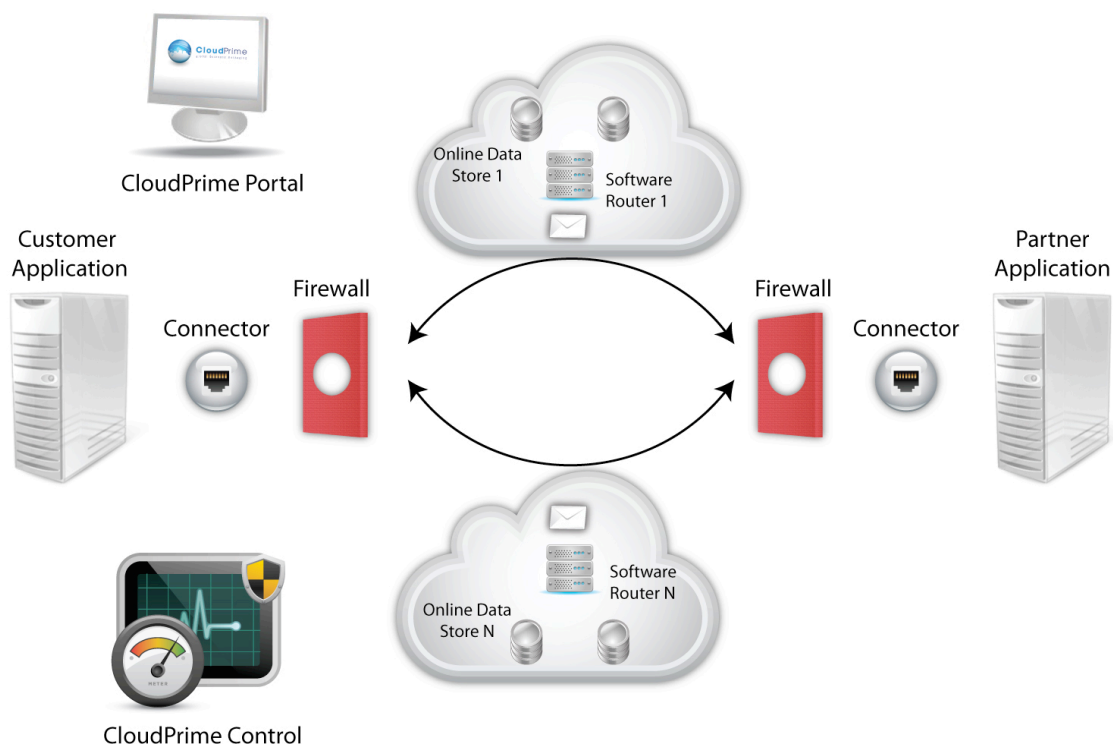
Exhibit C — Elapsed Connector Installation Time

Support Services Used

CloudPrime's service is based upon patented IP that leverages the elasticity of *the Cloud*. CloudPrime creates messaging networks by installing *Connectors* at each endpoint of the messaging fabric. These connectors encrypt and send messages through *Routers* that sit in the Cloud and pass messages along to their correct destination. [See Exhibit D] As part of the service, CloudPrime leverages 3rd party technologies that are listed below:

- OS Requirements: Linux (SUSE, Ubuntu), Windows
- Database: Oracle 11g
- Server: Apache
- Hosted Environment: Amazon EC2 (SAS 70 type II compliant)

Exhibit D — CloudPrime Network Topography



Summary

CloudPrime's application messaging network was the right fit for the Wound Center because of its security capabilities, ease of deployment, cost-effectiveness and ability to comply with even the most rigorous security standards.

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