



Symphony Services helped a leading-edge technology solution provider for homecare agencies in the US to develop a HL7 standards compliant messaging interface to scale its flagship ERP product's integration capability.

## The Client

The client is one of the leading-edge technology solution providers for homecare agencies in the US. The client's industry-leading, web-based product enables homecare agencies to control the mobile work force of skilled clinicians, improve clinical and administrative productivity and billing accuracy.

## The Challenges

The client focused on providing innovative web-based solutions for home care and hospice segment. To improve the flagship software product's communication capability with other third party products, the client desired to develop a messaging interface conforming to HL7 version 2.3.1 and conform to HIPAA guidelines of electronic transmission, receipt, and processing of PHI.

The standardized messaging interface allowed to bridge third party Hospital Information System (HIS) software with customer's flagship web based product to communicate referrals to homecare requests. The critical expectation was that the end-users of HIS software have easy access to referral information entry automated by the messaging interface over seamless integration to client's flagship web based product.

## The Solution

Symphony's solution to the client included designing and developing a messaging interface using Microsoft .NET framework to ensure high performance, stability and scalability.

The messaging interface seamlessly integrated third party HIS software with customer flagship web based product, and without user intervention. Further, the messaging interface conformed to health information messaging standards - HL7 version 2.3.1.

## Product Development

### Platform

Microsoft .NET

### Industry / Domain

Healthcare

### Engagement Key Points

- Project duration – 3 months
- Engagement model: Fixed Cost
- Ramp Up Time from SOW sign off – one week
- SDLC: Waterfall / Agile
- Release cycle – shorter iterations

### Technology and Tools Used

- C#, ASP.NET
- .NET1.1/2.0
- Windows services
- SQL Server 2005
- Visual SourceSafe 6.0

### Major Product Features

- HL7 conformance messaging interface enhanced integration capability and scalability of customer's flagship web based product
- Automated referral transmission and processing
- Conformance to HIPAA guidelines



Symphony delivered a two-part solution. The first part of the solution comprised of creating two Windows services written in C#.NET that integrated with customer's flagship web based product via a data integration framework. The interface allowed the third party HIS software to transmit HL7 compliant patient referral messages and receive responses/acknowledgements to messages sent. In the second part of the solution the messaging interface accepted HL7 messages, parsed, validated, and processed them before responding with an acknowledgement.

## The Benefits

Symphony's superior software R&D skills helped achieve the following benefits for the client:

- A standard HL7 interface allowed the customer's flagship web-based product to integrate with third-party HIS software seamlessly, thereby enhancing the integration capability with other disparate systems
- Automatic referral transmission and processing removed all the manual errors and simplified the process, resulting in higher customer adoption of the product in the market