

Patient Care & Practice Management System

Client Profile

US based client providing documentation services to the medical professionals such as doctors and insurance companies. Our client helps different medical professionals in managing the medical documents by collecting information from patients or doctors, converting them to digital format and finally delivering to respective parties.

Business Need

In order to support above lines of business and provide better services, client wanted to develop an end-to-end solution using the latest technologies.

The solution was expected to facilitate multiple doctors and clinics to optimize time and provide cost effective services to their respective patients using internet as a medium without disclosing identity with others.

The solution would primarily provide services to small and medium size clinics to manage "out patients"

Solution

Gateway team designed and developed a central database and user friendly interfaces using the client-server architecture, Visual Studio .NET 2003, C#, ASP.NET, Web Services and SQL Server 2000.

Service Oriented Architecture (SOA) based on .NET framework was deployed to achieve

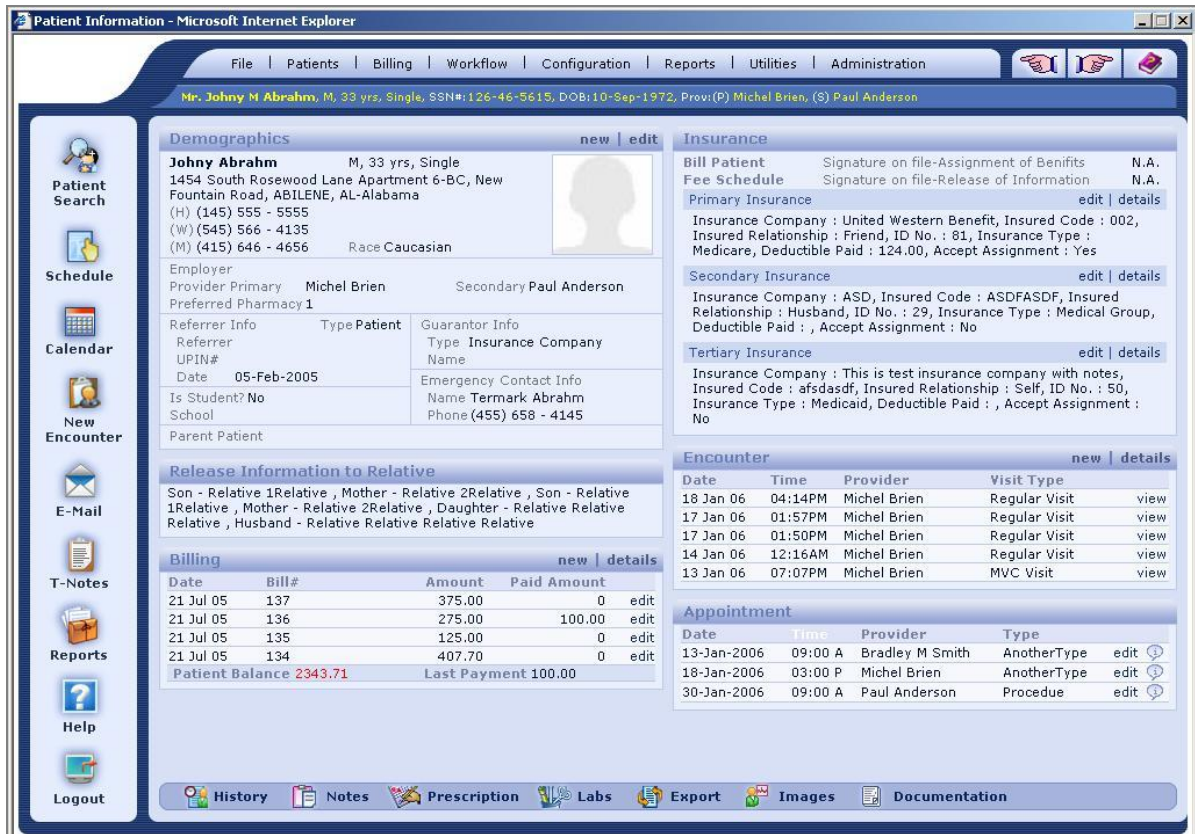
- Robustness and High availability
- Reject unauthorized users and control malicious attacks
- Add new functionality with minimal changes
- Easily enhance existing functionality

Solution (web-portal) developed by Gateway provides services to Clinics, Physicians and Patients. Patients use it to book appointments online, view Events and reports verification.

Web-portal has following key features:

- Patient Management Module including Patient registration, Patient management with details such as demographics, family history, insurance, encounters, notes, documents, images, and billing.
- Scheduling and Appointment Booking Module with following features:
 - Online appointment request from patient using web interface
 - Reminders for appointment
 - Ability to set recurring appointments/private / public event
 - One-place clinic scheduler, first free slot search for appointment for provider(s), verification of free slot while adding appointment
 - Multiple calendar view (Patient, Provider & Clinic Staff) with Month / Week / Day views
 - Patient's visit progress monitoring starting from check-in to checkout, On screen alert for call during patient visit progress
 - Internal email management with auto forwarding
- Encounter module that provides different templates for capturing patient details. This makes it easy to implement for different specializations
- Centralized document repository to store & retrieve patient records
- Sketch Pad for easy explanation using educational images while patient counseling





Patient Information - Microsoft Internet Explorer

File | Patients | Billing | Workflow | Configuration | Reports | Utilities | Administration

Mr. Johnny M Abraham, M, 33 yrs, Single, SSN#: 126-46-5615, DOB: 10-Sep-1972, Provi: (P) Michel Brien, (S) Paul Anderson

Demographics new | edit

Johnny Abraham M, 33 yrs, Single
1454 South Rosewood Lane Apartment 6-BC, New Fountain Road, ABILENE, AL-Alabama
(H) (145) 555 - 5555
(W) (545) 566 - 4135
(M) (415) 646 - 4656 Race Caucasian

Insurance

Bill Patient Signature on file-Assignment of Benefits N.A.
Fee Schedule Signature on file-Release of Information N.A.

Primary Insurance edit | details
Insurance Company : United Western Benefit, Insured Code : 002, Insured Relationship : Friend, ID No. : 81, Insurance Type : Medicare, Deductible Paid : 124.00, Accept Assignment : Yes

Secondary Insurance edit | details
Insurance Company : ASD, Insured Code : ASDFASDF, Insured Relationship : Husband, ID No. : 29, Insurance Type : Medical Group, Deductible Paid : , Accept Assignment : No

Tertiary Insurance edit | details
Insurance Company : This is test insurance company with notes, Insured Code : afsdasdf, Insured Relationship : Self, ID No. : 50, Insurance Type : Medicaid, Deductible Paid : , Accept Assignment : No

Encounter new | details

Date	Time	Provider	Visit Type	
18 Jan 06	04:14PM	Michel Brien	Regular Visit	view
17 Jan 06	01:57PM	Michel Brien	Regular Visit	view
17 Jan 06	01:50PM	Michel Brien	Regular Visit	view
14 Jan 06	12:16AM	Michel Brien	Regular Visit	view
13 Jan 06	07:07PM	Michel Brien	MVC Visit	view

Appointment

Date	Time	Provider	Type	
13-Jan-2006	09:00 A	Bradley M Smith	AnotherType	edit
18-Jan-2006	03:00 P	Michel Brien	AnotherType	edit
30-Jan-2006	09:00 A	Paul Anderson	Procedue	edit

Billing new | details

Date	Bill#	Amount	Paid Amount	
21 Jul 05	137	375.00	0	edit
21 Jul 05	136	275.00	100.00	edit
21 Jul 05	135	125.00	0	edit
21 Jul 05	134	407.70	0	edit
Patient Balance		2343.71	Last Payment	100.00

History | Notes | Prescription | Labs | Export | Images | Documentation

Screenshot Illustrate Patient Information Interface

- Pre-defined customizable templates to create prescription
- Integrated billing system that supports automatic generation from CPT and ICD codes of encounter, bill generation from estimates, bill approval, claim generation, bill payment and EOB adjustment in bill
- Generate HIPAA complaint (HCFA 1500) claims

Benefits

- Fully functional & complete solution for Physicians and Patients
- Meets HIPAA compliance requirement
- An efficient patient and case management system
- Reduce operating costs
- Improve quality of patient care
- Eliminate redundant data entry

Challenges

- Rich UI with Desktop like look and feel in web application for novice users
- Flexible architecture to accommodate future enhancements and addition of module with least changes in architecture

Technology

- Net Framework 1.1, C#, ASP.Net
- MS-SQL server 2000
- SOA based on Microsoft .NET technology

