



## ***The Business Case For A New Claims & Benefit Management System***

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## II. Executive Summary

### **A. Situation Analysis**

The health claims, payor and insurance industries are experiencing a major shifts driven by regulation, standardization and technology. The change in this segment is comparable to what the banking industry faced with the development of standardized transactions and ubiquity of ATM's in the 80's and 90's. New federal HIPAA regulations are forcing change inside medical billing and payment processes. The overall goal is to "drive cost out of the system". That is, the ENTIRE system. All health claim payers "entities" are forced to comply. Some gaps exist in the regulations, which exempt some supporting industry segments, but that will be remedied, and market pressure is already building on them as well.

The new HIPAA requirements essentially convert the old paper claims stream to standardized EDI claim transactions. Operations handling health, medical, dental, vision and related employee benefit claims will all have new opportunities to drive costs out of their systems and increasing accuracy. The "green screen" systems that have been useful for the last 20 years will not adapt well to the new realities of the industry landscape. They may continue to be viable for the short term, but their architectures have been so stretched out of shape by all the industry changes of the last few years, that their ability to adapt to future needs is severely hampered. In any case, legacy system upgrades will be increasingly expensive and offer diminishing returns.

Current legacy adjudication systems were designed and developed to process paper-based claims using "benefit codes" (not today's CPT or DRG codes, let alone coming taxonomy codes). The emphasis of the design of these systems was to minimize the time required for data entry. Currently many payors have separate data entry departments that do nothing but enter claim information. Companies invested enormous amounts to automate these processes via document imaging, scanning, and optical character recognition (OCR). With the dawn of standardized, government mandated electronic data interchange, the advantages of optimized data entry processes have vanished.

New systems that leverage secure web access, remarkably easy-to-use interfaces, and universal authorized access to original "source" data, can gain customers, revenue and market share. Ultimately, such systems can even transform significant aspects of the power relationships in the industry. Thus is born a substantial market opportunity in a quickly changing, highly fragmented business.

### **B. Pareto's Law—the 80/20 Rule**

The new emphasis will be on systems designed to auto-adjudicate the 80%+ of claims, which are routine while providing advanced features to help examiners inspect and manage the remaining exceptions that cannot be processed automatically. The new emphasis will be on leveraging the expertise of top industry professionals for better case management, disease management, wellness, plan design and other strategic efforts. When your



systems are totally Internet based, and each specialist has a login that lets them see the information that you've authorized—they can be anywhere.

You can marshal the best expertise available, and bring it to bear on your groups, members and cases. Your groups can get the best attention available, from the specialists that can deliver it best, all from a standard web browser. These areas are where the Beacon system shines.

The Beacon system realizes the dream of making the very complex plan design process accessible—without extensive training. This is a skill that, up to now, has forced industry experts into lengthy, tedious, non-productive learning curves for months. Top professionals that should be optimizing plans, and pursuing strategic objectives are bogged down in the arcane options and interactions of poorly designed benefit setup and mapping screens. Only newer, well-designed systems can achieve the ease of use that we've all come to expect from the web.

Real time access to “live” data for all stakeholder groups is increasingly becoming a requirement for bidding on desirable accounts. The self service it offers to your members, providers, brokers and group administrators not only takes the work out of your call center, it makes the customer happier. They feel like they have fewer obstacles between them and “their” data.

Think of the operations that we now commonly perform ourselves via the web that formerly were performed only by specially trained customer service reps. Two examples jump to mind—airline travel reservations and stock trading. Once plans are properly setup, the bulk of the claims can be processed electronically via auto-adjudication. New systems can circumvent the error prone “code identification and entry” process handled by your claims processing staff. Once you are confident that you can control and “sculpt” the plans as you require, you'll be ready to configure them the way clients want them—you'll have the competitive edge when you go to market.

According to a study by Accenture's Claim Solution Group, a claim system built on new technologies, that supports receiving claims electronically and can auto-adjudicate those claims, can save a payor up to 15% of their claim expense (see below). For even a small payor, with say, \$10 million total in claim expense, that 15% savings could produce an annual savings of \$1.5 million dollars. As you can see, the return on investment is extremely strong. Even when the cost of a new claim system with a total installation cost of approximately \$1 million, the return on investment is measured in months.

### **C. Competitive Pressures will increase**

Don't be fooled. Risk managers will notice that that HIPAA presents the opportunity to reduce plan administration costs. Be ready to meet their challenge and further outstrip your competitors. Of course, the claims that DON'T go through automatically need better attention than legacy systems can give. The Beacon system lets you use Microsoft Word with powerful integration tools, centralized storage of documents, and pervasive notes features.



The new HIPAA regulations also force in-house systems to now “work and play well with others”. Compatibility and inter-operability are important now, to the detriment of investments in isolated technologies and proprietary platforms. Managing trading partner relationships and support for modern encryption technologies are vastly more difficult to develop for legacy systems.

You will be forced to outgrow many “local” boundaries. As your company grows, your clients grow. As electronic interchange of information increases, local barriers fall. One other key advantage the Beacon system derives from its modern architecture is a truly global capability. Multi-language capabilities for all the web interfaces is not an afterthought, but designed in from the start. Beacon’s implementation supports internationalization of currency and date and time formats as well.

The Beacon system is a global product designed for the era of electronic data interchange and auto-adjudication. It dramatically raises productivity for the problem claims, and lets your firm leverage the specialized talents of your most valuable people. Ultimately, it gives you a big competitive boost, helping you to be the preferred vendor on the accounts you want to tackle, and enhancing your customer service efforts.

#### ***D. Client’s Return on Investment (ROI)***

Clients will receive dramatic return on investment over a broad range of areas. The benefits of automation, workflow routing, reduced call volume to the call center and decreased handling of paper will all deliver substantial labor savings in the claims department. Auto-Adjudication will eliminate expensive errors, and in fact, takes some of the risk out of the business. The self-service capabilities of the web front end will make customers happier, while reducing costs.

Most important, your top people will be able to play more to their analytical strengths, without being bogged down in systems issues. This specialization is always a better use of assets, especially in regard to the most expensive and strategically important kind—human resources. Technology solutions should be enabling and adaptable, not restrictive and confining.

A more detailed ROI calculation and evaluation will depend on the cost factors applied to each of the elements mentioned, and the existing relative efficiencies now in place in your operations. Sharing a range of base metrics about your business with Beacon will allow us to help you define the ROI you can expect.

In any case, an efficient, well-realized technical implementation will also deliver competitive advantages that will allow you to respond aggressively to new pressures in the market.

### **III. Beacon & Beacon SpyGlass**

#### ***A. Beacon—The Company***

Since it’s founding in September of 1995, as a partnership, and it’s incorporation in November 1998, Beacon Technologies Group, Inc., (Beacon) has been a professional software development company specializing in Health Insurance applications. Beacon has



assembled and trained a top-notch team of system developers with a vast knowledge of insurance systems and technologies.

Beacon is well positioned to build a new claims system from the ground up. This requires many qualities that currently define the company:

- Deep experience in the insurance business and claims operations
- Familiarity with the leading packages in the industry
- Credibility from delivering mission critical projects for high profile customers
- Passion for technology, properly harnessed for business purposes
- History of strong application design skills

Beacon has supported, modified and developed interfaces for many of the top-level commercial systems available today. Our lead developers have designed many of the subsystems that comprise the heart of some of the lead systems that are commercially available, and integrated with many others. Our software engineers have used the best ideas of these systems along with modern tools to build a “best of breed” world-class product.

**B. The Beacon system—The Product**

**Focus on auto-adjudication of claims--**While it currently supports a full range of health plans, types of benefits, and broad client requirements, the product’s key objective is not to create a claim system that can do all things for all customers. Beacon focused on building the best plan setup process to position claims to adjudicate automatically and be routed appropriately if not. This necessitated early efforts to clarify the plan and benefits setup processes, making them generic, but entirely table or “rules” driven. Since that portion of the application is now complete, Beacon is developing more of the supplementary systems surrounding the core claims system.

In order to accomplish the key goal, the adjudication engine has been designed and built with new technologies, with a new architecture, and using new processes. Trying to extend the life of the old, tired legacy systems designed in the 1970s by adding new patches will only lead to further performance degradation and ever higher maintenance and upgrade costs.

Beacon is a certified IBM Insurance and HealthCare Industry software vendor, and the application Beacon Claims SpyGlass has been certified by IBM as a Global Solutions Application—since we have gone to some lengths to standardize the coding and implementation on WebSphere, and internationalize the product. The Beacon system offers a range of significant advantages over older products:

Advantages
Lower Total Cost of Ownership
Superior Cost-Effectiveness
Built for the Internet
Powerful and Advanced User Tools
Satisfied, reference-able customers running in production



Internationalizable & multi-language support  
Built for Integration & Scalability  
Easier/Less Expensive to Upgrade and Maintain  
Remarkable ease of use and administration  
Platform & Database Independent  
Shift the “balance of power” among status quo players—poised to transform significant aspects of the market  
Helps address claims costs—the largest component of health costs

### **C. Flexible Deployment Options**

#### **1. Packaged application for local installation in-house**

Beacon is not wedded to a single approach. Customers that want full control of all aspects of the management of the application may install the Beacon system on their own servers in their own data center. For operations where claims handling and data availability is the sole mission critical function of the payor, then only this option will satisfy. Beacon’s Java “platform-neutral” strategy makes for a wide range of hardware and operating system options, allowing you to drive down costs for related hardware and software.

#### **2. Application Service Provider options**

Beacon will also host the application in a strong data center to make it available for use to clients from remote. Beacon will provide the hardware and technical resources to maintain the system. Clients love the freedom from supporting their own “data center” in this scenario, but of course, demand high uptime requirements. Although Beacon currently provides some web-hosting, the Application Service Provider capabilities have been operating since by November 2003, with several hardware upgrades since then, and only 2 less than 2 hour unscheduled network outages during that time (telecom failures).

### **D. Why Now**

New technologies and recent, sweeping industry regulations have put the insurance software application market into a state of flux. In 1996, Congress passed the Health Insurance Portability and Accountability Act (HIPAA). In addition to other provisions, the act enforces a set of national standards to facilitate processing claims electronically. This act went into effect on October 16, 2003 with smaller health care payers getting an extension until October 16, 2004. Many plans, funds, and groups are still struggling for compliance.

To improve the efficiency and effectiveness of the health care system, the Health Insurance Portability and Accountability Act (HIPAA) of 1996 included a series of “administrative simplification” provisions that required the Department of Health and Human Services (HHS) to adopt national standards for electronic health care transactions. By ensuring consistency throughout the industry, these national standards will make it easier for health plans, doctors, hospitals and other health care providers to process claims and other transactions electronically.

All health care providers will be able to use these electronic formats to bill for their services, and all health plans will be required to accept these standard electronic claims, referral authorizations and other transactions.



In the short term, this means that virtually all insurance companies, third-party administrators (TPAs), and Self-Funded Health Plans will have made extensive modifications to their current legacy systems or invested in new systems. Often, the cost to modify a legacy system rivals the cost of a new system, which would probably already be HIPAA compliant.

In the longer term, this means that claims will begin to flow electronically. This will fundamentally change the way the insurance companies have been doing business for the last few decades. The old data entry focus is now “in the way” and part of the problem. This is in addition to being designed to reflect an industry that has changed dramatically over the years. It increased the time required for training and also increased the likelihood of error.

Now, data will be sent and received electronically, with no need for data entry. This will bypass the current “optimized” data entry processes. The focus will become how many of the claims can be auto-adjudicated (processed without human intervention). The emphasis for ease of data entry will be replaced with the need for a strong, flexible auto-adjudication engine and powerful examiner support functions.

The traditional vendors have universally underestimated the impact of these required changes on their legacy systems. This puts the big legacy players at a significant disadvantage, since modifications to millions of lines of code take more time to implement and test. Often they have partnered with other big market players (Sterling Commerce and Gentran) that although they have the EDI experience necessary for the transaction portion of the HIPAA equation, they bring with them a whole additional set of legacy system baggage. This is the time when small, responsive companies can gain traction in the market.

Although many vendors will be modifying their system to be HIPAA compliant, there will be a shake up of systems post HIPAA implementation. Payers will begin to re-evaluate the effectiveness of their 20 year-old legacy solution which was designed for a paper-based era against the value of a new, more flexible system required to work with EDI and support today's business users.

These are the virtues that will be most prized in the new breed of systems:

- Straightforward, clear interface for setting up claim rules
- Reduced need for extensive training and copious reference material
- Secure accessibility from anywhere, supporting a broad range of stakeholders
- Ease of inspecting data and critical information for problem claims
- Native support for remote offices and home-based employees
- Portability to avoid vendor “lock-in”
- Leverage lower cost computing platforms
- Made to scale to handle the dramatically increasing volume of claims
- Built on a reliable, low cost platform to deliver fast Return On Investment



Over the years, Beacon has worked with clients to examine the other significant areas or “pains” that they experience in adjudicating claims. Beacon clients have deemed the following features as significant areas where current systems are deficient:

- Ability to auto-adjudicate a wide range of types of claims while providing appropriate safeguards
- Facilitation of communication between insureds, providers and the payer
- Integration with productive word processor integration (not just long text fields)
- Flexible storage of free format notes and the ability to retrieve and sort those notes
- Built in help functionality such as the ability to do codes table lookups for diagnosis codes, procedure codes, taxonomy codes, etc.
- Easy, flexible benefit setup and administration
- Ad-hoc Query reporting capability
- Easy way to generate interfaces with other systems

The driving forces behind Beacon’s decision to introduce a new Claims Adjudication System are sweeping technological changes and major regulatory environment changes. The insurance industry has changed dramatically in the last few years, making it difficult for older products to meet current needs in the market.

Clearly the time is right to leverage Beacon’s experience and knowledge to build a superior claims system that reflects the industry realities today (which many current claim systems do not) and that has the capability to interact with other systems using network-able components such as web services.

This “snap-together” on demand kind of functionality is similar to the way that Legos work—put the pieces together just the way you need them. They’re made in such a way that it’s easy to pull them apart (or use a perfect copy) to snap-in to the next creation. The technology for this is less than 2 years old. Any product older than that will be at a great disadvantage competing with this architecture.

After substantial analysis of technology and market research on the industry and products currently available, it’s clear that now is the time for a product like the Beacon system. No Insurance products less than one and a half years old are visible in the market at this time. This should create a huge opportunity to sell and offer services based on today’s new technology platforms and in a changing regulatory environment.

The combination of the new HIPAA regulations and the maturation of real and transforming technologies such as java, XML and Web services, makes this a perfect time to enter this market.

### ***E. Evolution of Beacon’s Product***

Beacon began development of the Claims SpyGlass system in September 1999 and has since invested approximately \$2,000,000 in the development of the product. The product began as a web interface to traditional legacy systems. The security system for it would



layer on top of various claim adjudication systems and provide online inquiry capabilities for systems that did not offer that ability.

In September 2000, Beacon made its first sale of the product to a major international customer. Subsequently, the product was enhanced to facilitate the ability to provide online enrollment for Group Administrators and Customer Service functions for complex “green screen” activities. Two early customers invested approximately \$1,000,000 to complete the development of these portions of the system. This helped us develop the security, login and “roles” based system that met stringent international privacy regulations, giving Beacon a good starting position to help US customers meet the HIPAA privacy regulations.

In late 2001 through 2002, Beacon worked with a US based insurer to build a claims system using the same infrastructure. This company invested almost a half a million for the system, further extending the capabilities of the product.

In 2002, Beacon also began development of the rules based plan setup and the adjudication engine for the system. Beacon has invested approximately 8000 hours, some of it paid by new customers in for various modules. On top of the original development base of 2 clients, three new customers have already implemented various combinations of the core product.

#### **IV. Product Description**

Capitalizing on new technologies and building a system based upon open-source standards and a component-based architecture, the Beacon system is poised to carve out a niche in a market populated with woefully outdated products. The products designed and built in the 70's and 80s are slow, inefficient and out-of-date both business-wise and technologically. Products converted from other systems, as many we have seen and worked on, can really never be optimized for their new platform. The top 5 market leading competitors do not command over 50 percent of the market.

The accumulation of changes in the insurance industry makes it increasingly difficult for older products to meet current needs, let alone new needs in the market. New systems must also have the capability to interact with other systems using network-able components such as web services. All these changes taken together require a “clean-slate” approach. Following is a look at the system from a technology perspective, as well as a thorough functional view.

##### **A. Technological View**

There are six (6) key technological features that differentiate the Beacon system from the myriad of other claims systems now on the market. Each feature will be described at a high level along with how this feature gives the product a competitive advantage.

1. Based on Open Standards
2. Component Based Architecture
3. Platform independence (Java on WebSphere, with XML data layer)
4. Internet based from the ground up

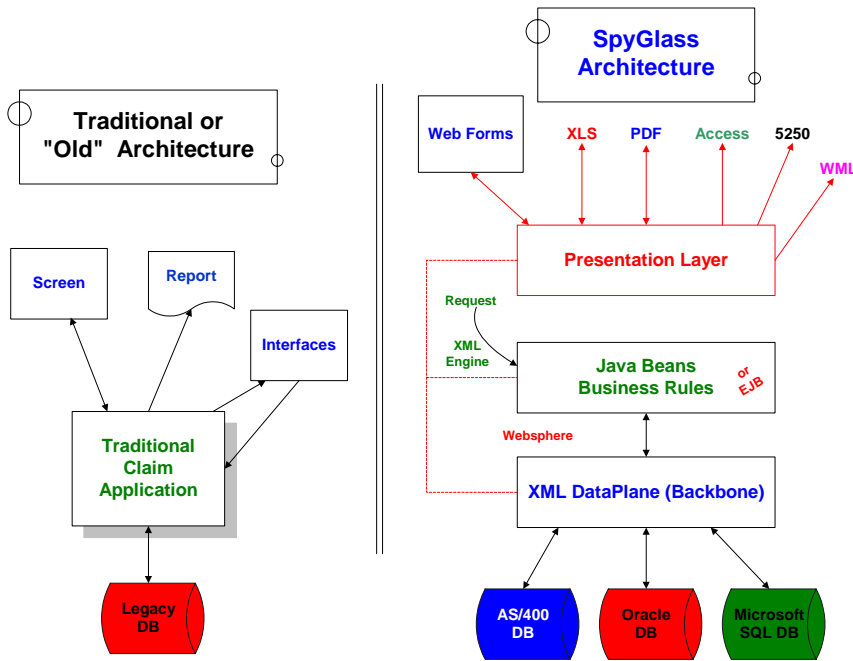


- 5. Built for Real-time data exchange
- 6. Application Service Provider Model

**1. Open Standards**

The **Beacon system** is an open-systems application based upon industry standards such as Java and IBM's WebSphere. It is quite different from traditional application systems, which are closed proprietary systems where you are forever tied to the original vendor.

Take a look at the difference between a traditional insurance application like "Competitor D", "Competitor A" or "Competitor C" vs. a new open-standards based system like Beacon's product.



The application uses server side Java architecture to access claim and eligibility databases and present information to web clients. The use of stored procedures permits use across platforms with minimal or no changes (using DB/2 UDB) in the application code.

The main building blocks of Claims SpyGlass from the technical point of view are Java Server pages, Java Servlets and Java Beans. Java Server Pages (JSPs) support the user interface (display and entry of business information) and Java Servlets and Java Beans provide business rules layer and stored procedure interface layer. J2EE adds an additional level of cost and performance penalties for benefits that are not crystal clear up to this point.

These discrete objects make system maintenance easier. Code re-use is a high priority. Current implementations also support strong version control features via CVS, with controls for code promotion and managed deployment.



The Java language blurs the line between programming language and operating system. Java was developed by Sun Microsystems. In an effort to circumvent platform “lock-in,” Sun has built a localized operating system, a Java Virtual Machine (JVM) for many different hardware platforms. This allows program code written in Java to operate consistently across all supported platforms. Sun has also created a special class of program, Java Beans, just to access data, and enabled them with special communications management features, in order to support large volumes of transactions simultaneously.

About 6 years ago, Sun submitted Java to an open standards process, the Java Community Process, to guarantee a sort-of third party validation of the technology’s implementation.

IBM thought so highly of Sun’s Java initiative, and the possibilities for it as an open standard that it has taken a strong leadership position with Java. IBM has poured enormous amounts of development into Java and Linux technology over the last 4-5 years to realize the “write once, run anywhere” potential. This is partly an effort to compensate for Microsoft’s desktop dominance with ever increasing reach into the server space.

IBM’s has also contributed heavily to development of Linux. This is an “open-source”, or “free” operating system development. Free, in this case, means that all are free to examine the programming code that makes up the entire operating system. It also means free as in “free beer”—you don’t have to pay for it. Many Linux oriented companies thrive financially, though, by providing technical support for it. Thus, expertise, as ever, is rewarded. The Beacon system runs on Linux, and will be certified for Linux operation on IBM hardware by Winter, 2005.

Beacon’s product is built on IBM’s WebSphere—an “application server” that executes the Java code. This allows us to capitalize on IBM’s enormous research and development spending for robust performance, scale-ability, and portability. Thus, the Beacon product, deployed on WebSphere, can manage large volumes of transactions, and run on a broad range of hardware platforms from WinTel servers to mainframes.

The XML data representation, which is strongly supported by WebSphere, gives Beacon an open standard for the information itself. These specifications are also less than 4 years old, with significant updates within the last 2 years. They impact how data should be stored, accessed, and transmitted. This is yet another layer, or “plane” to help achieve interoperability with business partners, vendors, clients, and even customers. Advantages of this approach are apparent in the multi-language capabilities of the product. Even when the language used on the screen to present the data changes, the underlying system operation remains the same.

Even now, several industry organizations are competing to define comprehensive record sets for the insurance market. Although there is no clear winner yet, it’s certain that the dominant player will ultimately conform to XML standards. For now, the HIPAA requirements look much more like traditional EDI than they do XML. Beacon has a wealth of experience with EDI, and is using the most advanced tools and platforms to exercise command and control over it.



In 2004, Beacon presented to WebMD an XML based standard for production of checks and EOB via their ABF division. Some of the ABF engineers wanted Beacon to merely re-create the current UL-48 flat file format with some XML “wrappers”. However, after some collaboration, ABF accepted our suggested schema, with minor modifications as their pilot XML spec. Beacon was, of course, the first to go live implementing this new standard for production clients.

## **2. Component Based Architecture**

Another key differentiator of the Claims SpyGlass product is that the system is designed using Component-Based Architecture. Each component (or bean) is loaded into a framework and is independent of the other components. Each client can have their own custom components or even have a completely new component built to “snap-in” that is not part of the base system. All of this occurs in a managed, controlled fashion under the discipline of the Component-Based Architecture framework.

This architecture can seamlessly tie all the pieces of a modular system together into a common framework. This provides unparalleled flexibility allowing plan administrators to design, build, and administer complex plan models that dynamically respond to plan sponsor needs. The product enables the customer to accommodate new changes occurring within health care industry in a very manageable way.

Beacon’s architecture also makes it extremely easy to customize the product for a given client without modifying the base system. Modifications to traditional insurance applications such as “Competitor D”, “Competitor A” and “Competitor C” are extremely costly because each change affects the entire system. A modification for a single client affects all clients. Therefore, changes to the system become expensive to make, requires notification to the entire customer base, and causes support issues, as each customer must deal with modifications they didn’t want.

Intelligently using a Component-Based Architecture allows Beacon to make changes to support an unlimited scope and variety of a particular customer’s needs. In many cases a single system can support many needs simultaneously—without changing the functionality of the system for the other customers. Thus a single Administrator could have each group that uses a single web site see a unique graphical “look and feel” for each group, and support multiple plans and benefits and trading partners all from the same software installation. This is also the heart of the ASP capabilities.

## **3. Platform independent (Java front-end with XML data layer)**

The world is full of bias and prejudice, especially when it comes to hardware platforms. Using a Java front-end in combination with a XML data plane, allows the Beacon product to run on an extremely wide range of platforms, operating systems and database management systems. In fact, the Beacon system is not limited in retrieving data from a single data source (refer back to exhibit A). If a client has a preference for a specific hardware platform/OS/DBMS, most likely the Beacon product, being based on IBM’s WebSphere will be able to run on it.



Additionally, there will be other clients who already have a substantial investment in their hardware/OS/DBMS and want to reuse it when it comes to replacing their current legacy application.

Basically it comes down to providing options to customers. Claims SpyGlass does this in powerful ways through its support of these key new open standards. This provides advantages when competing for business at every level—features, service, responsiveness and capacity.

#### **4. Internet based from the ground up**

Many (though not all) of the current applications have some components that are web enabled. They have cobbled together some after-market code in order to try and provide some Internet functionality in a limited capacity. However, those systems designed in the 80s were not designed to meet the needs of today's insurance market, let alone take advantage of the power of the Internet.

Current vendors are only now scrambling to add some limited web functionality so they can add "Web Enabled" to their marketing brochures. One popular way of doing this was to send file updates from the legacy system to a remote webserver/database. If updates are made through a web front end, those updates are then batch made to the legacy system files. Alternative vendors often use a second layer of middleware commonly referred to as a screen-scraper product, which adds limited functionality while degrading performance and increasing total cost of ownership.

Beacon's product is native to web and open standards. The true test to reveal whether a system is really built to use the Internet can be found by answering a few simple questions:

- Can any user do their complete job, securely from any PC connected to the Internet?
- Can a Home based payer pay claims from home without any special communications hardware/software other than an Internet connection?
- Can my branch office, which might be located anywhere in the world, connect to the system at a moments notice with no special set up, no special communication server or hardware?

The Beacon system was designed specifically for use over the Internet, with special consideration for additional language support, other aspects of internationalization, and the unique security concerns that use of the Internet demands.

#### **5. Real-time, and scheduled Electronic Data Interchange**

In today's world, information can be exchanged in milliseconds with the advent of Web Services and Java Message Services. EDI tried to solve this collection of problems, but did so using steep barriers of cost and complexity, all using competing proprietary networks—no wonder it never caught on.

Java Message Services provides a standard interface for exchanging data between two different disparate systems. This means data that used to be stored in the claims



adjudication system, can now be extracted from the source system, such as retrieving data from a Human Resource system.

Using modern techniques and platforms that are standards based to manage scheduled batch transactions as well as online web service calls makes these EDI requirements achievable.

For example a PPO might verify that a certain provider was in-network at the time of service for a given claim and can provide accurate real-time re-priced service fees rather than relying on a fee schedule that is stored in the application and must be updated periodically and may be out of date or inaccurate. The benefits of using web services instead of storing the information within the claim system include:

- Real-time information provided – avoids out-of-date information problems
- Reduced storage space requirements in the claim system database
- No need for periodic updates to Eligibility info, provider fee schedules, etc.
- No need to reconcile copies of databases when information doesn't match

## 6. Application Service Model

Today, many companies find it easier to outsource their data centers and use what is commonly referred to as an Application Service Provider (ASP). This can be a very cost-effective solution since the cost of maintaining a data center is effectively shared by several different companies. Claims SpyGlass is a natural solution for this type of approach since it is a native Internet application.

There are no special communications hardware/software to install and configure and clients can literally be connected in minutes. Reports and checks can all be printed locally just as if the system were physically located in their own office building. Clients that choose this ASP approach will not need system operators to monitor or troubleshoot the system. They will not have to perform nightly backup operations, operating system upgrades, maintain recovery procedures. They will not have to pay for redundant systems and have the high cost of technical support people to maintain the system.

The primary benefit of the ASP model is that it allows business managers to focus on business tasks. They delegate technology management to specialists. Other benefits of using the Application Service Provider model are:

- Predictable, controlled monthly costs
- Faster Implementation of bug fixes and upgrades
- Complete backup/recovery services
- Full maintenance of all hardware and operating system software
- Less likelihood of lost data

### B. Hardware:

Beacon has selected the AS/400-iSeries as the ASP database “back-end” for the hardware platform for this application for four reasons:



- Reliability
- Performance
- Scalability
- Credibility

Reliability: For rock-solid stability and system uptime, Beacon has selected the iSeries as the platform of choice. It is often times difficult for a customer to separate problems associated with the hardware/operating system from problems associated with the application. Therefore instability in the hardware/operating system translates into instability in the application. The iSeries has been recognized as the most stable mid-range server available with the highest customer satisfaction index in the industry. It has proven it can deliver over 99.9% availability (as measured by IBM internal studies).

Performance: The Beacon application has been written in java. The iSeries operating system (OS/400) has been optimized for execution of java code. The O/S has a class transformer to generate RISC machine code from Java byte codes, which enables direct execution of Java on the system without the overhead of interpretation.

Scalability: The iSeries platform has tremendous scalability, which allows Beacon the ability to market the application to a wide range and type of clients without modification to our software application.

Credibility: Partnering with IBM provides additional credibility for the Beacon application and for Beacon. This is important for a small company competing with larger companies for market share.

### **C. Functional View**

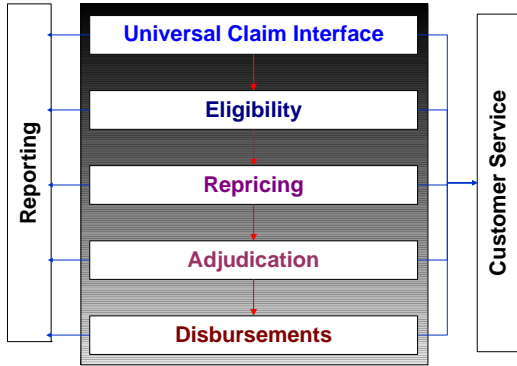
#### **1. Primary functional components**

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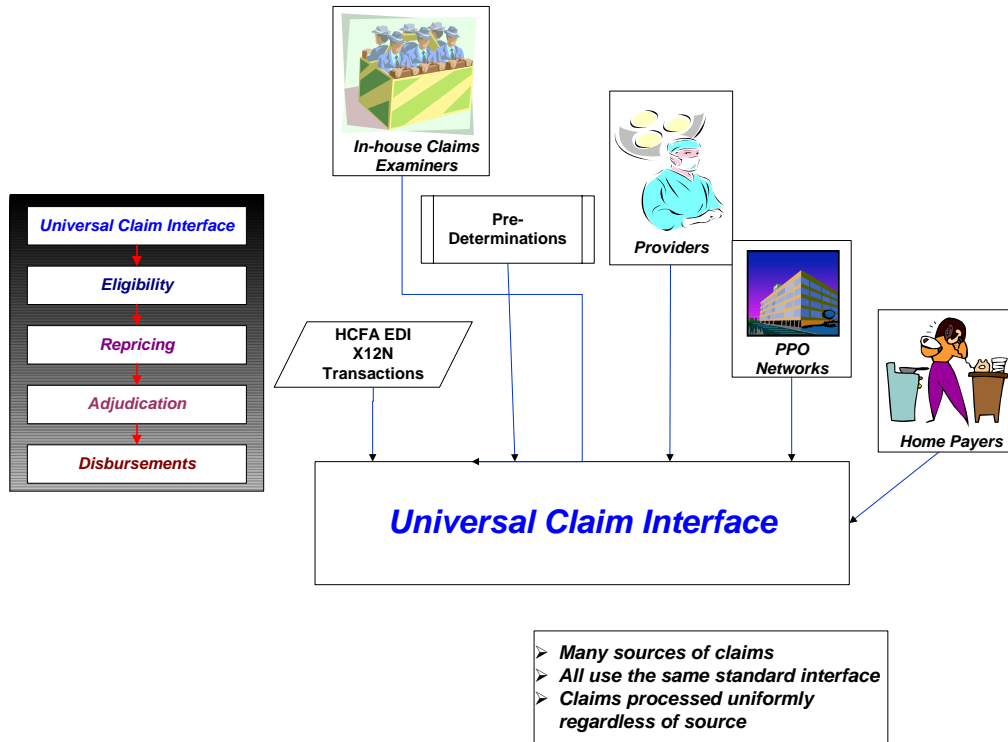
There are seven (7) primary component modules that comprise Claims SpyGlass and each is different in key respects from traditional claim adjudication systems. At a high level there are several factors unique in Beacon. These features give Beacon a competitive advantage over existing claim adjudication systems.

- A. Universal Claim Interface
- B. Eligibility Module
- C. Re-pricing Module
- D. Claims Adjudication Engine
- E. Disbursements Module
- F. Reporting Module
- G. Accounting and GL Interfaces
- H. Customer Service Module

An illustration shows how they fit together:



a) Universal Claim Interface



Claims can be received from many different sources. Claims may be received in the mail and processed by the in-house claims examiners, or they may be received electronically from a clearinghouse or directly from a provider or even from a Preferred Provider Organization (PPO). They may be processed in-house or by a Home Payer or by a regional office. Regardless of the source of the claim, the Universal Claim Interface converts all claims to the same format and all claims are processed the same way.



### b) Eligibility Module

Beacon's product offers a variety of options for eligibility maintenance. And any one may apply to any different client:

- Traditional Eligibility enrollment via In-house staff
- Group Administrator Online Enrollment via the Internet
- Eligibility retrieved from another system (e.g. Payroll, Human Resources, etc.)

The customer will not be limited in using only one approach. Each customer or group may have different requirements and one approach may be more suitable than another for that client.

The advantage of the traditional eligibility approach is that it is familiar and that you can use the Reporting Module to run reports against the database.

For the enrollment via a Group Administrator, you have the advantage of reducing your administrative time and costs. Also, many Group Administrators like the feeling that they have some control in the Benefits Enrollment process. The client would still be able to run reports against any eligibility information loaded by the Group Administrators via the Internet.

#### **More companies move towards online enrollment**

60% of companies permit employees to complete benefits enrollment online, which is more than double from the year before. Source: Towers Perrin

Finally, there is the option to retrieve eligibility information from another system, such as Payroll, Accounting or Human Resource system. The amount of information exchanged is very small and the transaction occurs very quickly. During the claim adjudication process, when eligibility information is required, Claims SpyGlass will send the employee's Social Security Number and Dates of Service. A Web Service will respond with the name of the Plan and who was covered (i.e. Employee only, Family, Employee and Spouse, Employee and Child, etc.). This works well for certain types of groups, but is inappropriate for others. The advantages are:

- No need to re-enter data that is already in another system
- No need for loading daily or weekly interface files
- No risk of having out of date data
- No concerns of reconciling the databases when they get out of sync
- Less data storage required
- Meets some privacy concerns, since only the minimum amount of data is retrieved and only when there is a claim for that person. It is sort of on a need-to-know basis



The disadvantage of this approach is the eligibility information is not available for the Reporting Module.

Another key feature of the Beacon product is that it will support Online Open Enrollment. The employees can do this themselves directly if desired, or be required to go through the employee's Group Administrator if that is more appropriate for a particular client. Obviously, there is a significant cost savings for each employee that enrolls in this manner.

#### **What does Open Enrollment Cost?**

The average manual open enrollment process is \$77.58 per employee. Using an electronic self-service system, the cost is only \$31.25 Source: Hunter Group HR Survey 2000

#### **c) Re-pricing**

Historically claim re-pricing has been accomplished thru the purchase of industry standard data sets (i.e. MDR, HIAA, etc.). These data sets then needed to be reformatted and loaded into the various claim systems for the purpose of applying reasonable and customary rates for specific medical and dental procedures. However, with the advent of new technology and a number of alternative pricing methods (i.e. RBRVS, HCPCS, PPO, etc.) a claim system should not be locked into such an antiquated design.

The Beacon claim system is engineered to be 'Rules Based' and will therefore provide the dynamic flexibility of allowing the setup and efficient use of any combination of the various re-pricing methodologies available in the industry. For instance, it will be quite simple in Beacon to point one company (or plan) to send claims out electronically for re-pricing to a PPO network, while at the same time re-pricing claims under other plans with data provided by HIAA or MDR, for example.

#### **d) Claim Adjudication Engine**

While there is little difference between the methods a claim is paid in one system versus another, (i.e. claims charges minus not covered amounts, minus co-pay amounts, minus deductible times coinsurance equals benefit amount, etc.), the method in how this procedure is described to the system is very different in the Beacon system versus traditional systems. With traditional systems, in order to change how a claim will get paid, the vendor must perform programming changes. With the Beacon system, a benefit change can be made, simply by adding a new adjudication rule. The changed benefit would be entered into an external table (Benefit Rule) by a business analyst, with no programming changes required.

Furthermore, the Beacon architecture is such that the performance of the adjudication engine itself is not limited by the source of a given claim (i.e. online versus batch claim). Regardless of the source of claim the engine will adjudicate one claim as efficiently as the next.

#### **e) Disbursements**



Beacon's disbursement module selects qualifying claim payments from specified groups for the requested or standard period. All pertinent data to the printing of checks and EOB's will be extracted & written to an interface file, including logos and signature files if necessary. The format of the interface file will be modifiable depending upon the requirements of the fulfillment procedures or vendor of choice.

#### f) Customer Service

Ease of use and direct access to precise, well-formatted information in any customer service system is critical. Many customer service applications are a patchwork of inquiry programs from the various sub-systems within a larger system.

The Customer Service module is designed specifically to provide customer service agents with comprehensive and pertinent insured information by way of strong search capabilities and a few clicks of the mouse. It provides the same look and feel as the other modules and the customer service agents do not need to be experts in using the other various system modules just to retrieve basic information.

From a single screen an agent will be able to quickly access the following:

- Insured, dependent, and beneficiary information
- Verify benefits
- Inquire upon claims
- Access correspondence
- Request ID cards

The Beacon system provides special support functions for a Customer Service Rep that takes a call helping a web user. After asking the member's permission to view their records, the CSR will be able to "login as" that user. Thus putting an end to the question "just exactly what is this user seeing on their screen"—the CSR will be able to see it also.

#### g) Accounting and GL Interfaces

Having worked with many accounting systems over the past decade, Beacon developed a flexible structure to accommodate the most demanding applications. Features include customizable charts of accounts with variable numbering schemes, and Excel, CVS or XML data export options. The check cycle management process is available only to authorized users, and can be separated from the check inquiry screens. IRS functions are available for submitting 1099 data electronically, and to providers via the printed forms.

Internal claim handling operations support both reimbursements from outside sources (providers) and manual checks written by the client's accounting department. Any of these can impact the total check amount for a single claim payment, thus offering a "reconciliation" opportunity with every claim payment.

#### h) Key additional features



All of the above functional modules represent the core activities required in the industry. The Beacon product is comprised of an integrated series of components and web service functions, which provide a rich feature set covering:

- a) Online eligibility updates
- b) Online open enrollment
- c) Eligibility via web services
- d) Maximum plan flexibility
- e) Easy plan setup and administration
- f) Quick & easy claim data-entry
- g) Automated claims adjudication
- h) Case Management "Triggers"
- i) Claim "Episodes"
- j) Support for secure HIPAA x12N transactions
- k) HIPAA Gateway and Scheduler
- l) HIPAA Trading Partner Management
- m) High level of system security
- n) Claim workflow processing
- o) Coordination of benefits (COB)
- p) Notes
- q) "My Pended Claims" or pended claims handling
- r) Automated correspondence
- s) Integrated Imaging
- t) Comprehensive and flexible reporting
- u) Support for flexible spending accounts

#### **Key additional Features list with descriptions**

##### **a) Online Eligibility Updates**

Group administrators, can perform Eligibility/Enrollment directly over the Internet, if you desire and grant them authority. This makes it easy for the customer to keep their eligibility current and saves them data entry time. Additionally, they can run their own eligibility reports, saving the customer service department's time and efforts.

##### **b) Online Open Enrollment**

Open Enrollment can be done online by the employee during the open enrollment period, if the system administrator grants authority.

##### **c) Eligibility via Web Services**

Eligibility can be customer maintained if desired, and verification of eligibility will take place via a Web Service at the time of adjudication. If the Web Service is temporarily down, the claim is pended and will be re-tried later. Eligibility data can be retrieved from a payroll system, a Human Resource system, a Billing system or another Eligibility system. With this method, there is no need for creating daily or weekly eligibility upload files and no issue with trying to keep the databases in sync or trying to reconcile the eligibility files.



#### **d) Maximum Plan Flexibility**

The Beacon product is designed to support multiple companies and multiple divisions within each company. Furthermore, each Company/Division can have multiple plans of insurance. Perhaps there will be one plan for executives and another for staff members. Within each plan there can be multiple coverage records of various types (i.e. Health, Dental, Life, Disability, Vision, etc.). There are virtually no limitations regarding the plan design and benefit types. This will allow the clients to market to a broad segment of businesses knowing that their system can meet the requirements.

#### **e) Easy Plan Setup and Administration**

The Beacon product boasts a very quick and easy setup. Whereas other plans may take weeks to setup, Beacon takes only days. No technical understanding of the system or programming knowledge is required. Everything is setup by clicking on a button and/or selecting the appropriate option from a drop down list box. Although the setup is easy and intuitive, field level help is available throughout. Copy buttons make it even quicker to setup a plan by copying benefits that are similar to another plan and then making the appropriate changes.

Making Plan changes is even easier. The Plan Administrator only needs to make the change in one place, and the change will automatically be picked up throughout the system. For example, if a deductible amount changes as of January 1, 2003, the Plan Administrator changes the deductible change in one table as of January 1, 2003 and all Benefits that use that deductible will now use that deductible amount for claims with service dates as of the date of the change.

#### **f) Quick and Easy Claim data-entry**

Claims data-entry in the Beacon system has been streamlined for efficiency. It is the perfect balance of simplicity, ease-of-use and data entry speed. A single form incorporates advanced design features, which include smart auto-fill fields and extensive use of field level help. Additional windows provide subsequent level of detail if necessary, and all information needed to complete the claim is only a click of a button away.

The Beacon claim entry process is laid out in a graphical, intuitive design, which provides easy access for data entry, adjudication, adding notes, generating correspondence, provider inquiry, and workflow processing from a single form. A multi-line entry screen provides for an unlimited number of service lines. From the same data-entry form, the adjuster can add specific notes about the claim, a specific service line, the provider or even a letter that was sent. Automated Correspondence functionality is also just a click away. Claims can be pending and/or routed to another team member for investigation or approval with just a few clicks.

Pop-up Help windows are available throughout the data-entry process to make the process as easy as possible. Hot-Keys are also available to reduce repetitive keystrokes and allow for the handling of special situations.

#### **g) Automated Claims Adjudication**



Unlike many claim systems which have bolted-on an auto-adjudication system as an afterthought, the Beacon claim adjudication engine was designed with auto-adjudication in mind. To the auto-adjudication engine, it doesn't matter where the claim came from, it will process it the same way. It will look to determine if there are any outstanding "review codes". If there are none, the claim can be processed with no human intervention. However, any claim that has a service line requiring review, will be pended and routed to the appropriate examiner along with an explanatory note on why the claim was pended.

#### **h) Case Management "triggers"**

Clients can place a "trigger" on the system to scan any claim coming through the adjudication engine that meets specific requirements. These are maintained separately from the plan setup definitions to offer more flexibility. Any claim that meets the trigger requirements will be flagged for special attention and routing. Using triggers you can initiate a wide variety of programs and interventions for: wellness, disease management, high intensity case management, even referral to secondary and tertiary networks for additional potential discounts, and for claim negotiation.

#### **i) Claim "Episodes"**

Any group of claims can be linked for special tracking. This can be easily accomplished with a range of selection criteria for adding many related claims to an episode quickly. Or an examiner can trace through claims history to relate any single claim. All can also be referred to third party networks

#### **j) Support for secure HIPAA X12N transactions**

Built into the Beacon system will be support for secure X12N transaction sets. Because of the modern data architecture and application server platform, these capabilities are native to the application. We expect that the bulk of health care claims transactions will be received via EDI as the HIPAA regulations make their impact. The Beacon system currently supports two types of encryption standards, SSH (for Unix based FTP systems) and SSL (for Windows based FTP systems).

We also expect the definitions of these transaction sets to change over time and therefore have created separate components to parse and post data from the X12N transactions, (both incoming and outgoing) from and to XML document formats. Again, the component-based architecture allows for flexibility and easy updates to the component without affecting other parts of the system.

#### **k) HIPAA Gateway and Scheduler**

Additionally, Beacon will incorporate a HIPAA Transaction Gateway component, which will facilitate the exchange of HIPAA compliant transactions between trading partners on a scheduled basis. Functions can be controlled and vary by trading partner and type of transaction. The gateway can also call additional programs for parsing and mapping. This is another example of the component-based nature of the product allowing it to inter-operate with other systems easily.

#### **l) Trading Partner Management**



Any vendor or type of vendor that needs managed transactions can be entered as a trading partner—clearinghouse, PPO, hospital or single provider. The Beacon system lets you specify allowed transactions for each, thus helping to control access to “chargeable” transactions.

#### **m) High Level of System Security**

The Beacon product provides a reliable and secure access to the company proprietary information and network. Using a secure, straightforward, web-based process, the administrator will be able to setup and appropriately grant or limit user authorities and roles.

The issue of security is addressed on different levels:

1. Secure exchange of information
2. Secure access to the network
3. Secure access to data
4. Separate data storage system

##### **(1) Secure exchange of information**

When a user fills out a form and presses “enter,” the contents of the form (the information they just typed in) is sent across the Internet to a server. If the server is secured, then when the user presses “enter” the browser first encrypts the information before sending the information. Beacon supports major security methods, including SSH, SSL and data encryption. This requires a digital certificate from a recognized certificate authority, and Beacon has worked with them for many clients.

##### **(2) Secure access to the network**

A major concern for a company that hooks up to the Internet is that the connection exposes the company machines, network and data to the outside world. Without proper precautionary measures, it can be vulnerable to unauthorized break-ins by hackers. Beacon works with various firewall configurations to protect the company network and data. Our preferred method is to use dual firewalls, one between the Internet server and the outside world and another firewall between the application server and the rest of the network. This creates a “De-Militarized Zone,” or DMZ, inside the LAN. Moreover, all access to the proprietary programs and data is completely controlled by the application – the user cannot execute any independent data retrieval or modification.

##### **(3) Secure Access to data**

Beacon has a “role” based design. On user authentication, the system identifies the user as belonging to a specific class of users, their appropriate “role” (e.g. administrator, employee, customer service representative or any other authorized type of user). Based on the user role Beacon builds role-specific menus that have access to records within the companies/divisions specified by the administrator. Also the page information and available functions can be different for different roles. Role access information is table-based. The system doesn’t require any reprogramming to add or restrict access for certain users to the application information. Again, the process is straightforward enough for a business user to do independently, without calling for technical support.

##### **(4) Separate data storage system**

The database itself will be setup on a completely different system, with its own specific security model, one more hallmark of a strong security implementation.



#### **n) Claim Workflow Processing**

In the real world of claims processing, some claims must be routed to a specialist or a particular trained workgroup for review and/or adjudication. The Beacon system claims can be automatically routed to the appropriate claims person/group based on any combination of plan setup rules and workflow management rules. Some of the reasons claims may be rerouted include:

- Specialized medical review required
- Cost exceeds an adjuster's authorization limit
- Claims being audited
- Pre-certification requirements
- Adjustments to claims
- Benefits requiring a manual override
- Provider fraud status
- Claims which must be routed to a claims specialist based upon the Company, Division, Plan, State, Amount or Benefit type

Beacon will have a built in Claim Workflow processing module to route pending claims to the appropriate adjuster based upon the Workflow Rules set up by the Plan Administrator. Rules will add claims to queues; users will be added to Roles that have queues attached to them. When an examiner or workgroup member receives a claim, it will show the remark code that was entered by the system explaining WHY the claim was pended routed to the queue. No more mystery sessions asking "why did this claim pend?"

#### **o) Coordination of Benefits (COB)**

Beacon wants to make sure claims are paid right the first time, every time. The Beacon COB feature helps to maximize plan cost savings, avoid double recoveries, and unnecessary payouts.

The COB features are powerful, but easy to use. In a matter of a few clicks you can activate COB on any plan and begin realizing the cost saving benefits of COB. The key to COB is the identification of primary and secondary insurers. The setup for this is rules driven and therefore flexible for each plan. The Beacon system captures a number of key characteristics for dependents specific to COB processing, which are then subject to the rules for determining primary and secondary insurers of the plan. Any COB rule that is applied in the adjudication of a claim will be identified through the use of remark codes on the EOB, and in the customer service screens. And finally, COB savings will be stored and maintained at the claim level for easy and accurate reporting.

#### **p) Notes**

A convenient and modular notes system appears throughout the system that provides a way to add a virtually unlimited amount of notes on practically anything. Users can add notes about a provider, an employee, a dependent, a claim, a specific service line on a claim, a company, a benefit, etc. Provider notes show only in the provider notes module. To see notes on dependents, users can use the dependent notes access buttons. Whenever there is a note about a specific entity, a note icon will be displayed on the screen along with an icon (or emoticon) indicating the severity of the note. Thus a glance provides



an instant indicator of the importance of the most important note. The user may then click on the notes button to display the notes, and sort them in any order, by severity, by the system user that entered the note, by date, etc.

**q) "My Pended Claims" or pended claims handling**

There are a number of reasons a claim might need to be reviewed before payment can be issued. The Beacon system can pend claims based upon examiner, provider, payment amount, or benefit type, or for other reasons. Each of these different types of holds can be routed to a different claim supervisor or auditor's workflow queue. Once approved by the supervisor, the claim will be released assuming there are no other hold codes on that claim. A standard claims management report can also be run showing all claims being held and the reason for being held. Review reports are automatically printed and routed to individual auditors.

Special handling features in the Beacon system are designed to make managing the claims in the queues easy. Each user has a "My Pending Claims" menu item that allows them to see claims just for them. Users with authorization may see claims for the entire queue. Administrators may access pended claims system wide. This allows for easy support of home-based payors.

**r) Automated Correspondence**

Beacon offers a rich, full-featured Correspondence system. The major benefit for all users is that it integrates completely with Microsoft's Word. Of course, the user will need to have a standardized version of Word installed for this to work. This allows the system to take complete advantage of Word's formatting capabilities, utilities like spell checking, cut, copy and paste capabilities, and a wide range of font support. A type of letter is chosen from a list of Correspondence Templates, or a free-form letter may be generated. The type of template used, and actual letter itself will stored along with any changes that the Examiner or Adjuster made to it.

Normally when Office workers save a document, the system administrator has no control over just exactly where the document gets saved. However, the Beacon system can force save documents to a centralized server directory for better administrative control, management and backup.

The Beacon product will maintain a centralized history of all correspondence generated through the system. This is a far superior system to a plain text correspondence system found in typical claims adjudication systems.

Certain types of correspondence, for example a request for medical records, might require a follow-up letter be sent if the medical records are not received within a certain period of time. The Beacon product will support an automated follow-up process where a letter can be generated automatically or the examiner can be notified in their work process queue.

**s) Integrated Third-party Imaging**

Beacon has integrated advanced imaged documents via multiple imaging service business partners. This will help deliver low cost, web based, secure options for fully integrated



document imaging via ASP or on-site. Non-standardized documents can be attached to claims, and the web-based viewer allows even home-based payors to benefit from the indexed, imaged documents actually stored at either the client's or the service provider.

WebMD's integrated scan-image/EDI offering is next. Beacon's XML work with the ABF division of WebMD has given us a leading opportunity to offer this new option that combines scanned claims, OCR's, scrubbed, validated and entered to the incoming EDI claims stream. This further allows client to streamline their workflow.

#### **t) Comprehensive and Flexible Reporting**

Beacon provides the following Standard reports with appropriate selection criteria for each. This blows the top off the "number of standard reports" you may see on a claims system evaluation form, because the USEFUL permutations are virtually unlimited. But with our web-based system, you don't get overwhelmed by all the options. Easily get what you want when you want it.

- Claims Utilization
  - By Company/Division/Location (3 tier levels with custom names)
  - By Benefit Type
  - By Examiner
  - By Diagnosis (ICD9 or ICD10)
  - By Provider
  - By PPO
- Pending Claims
  - By Company/Division
  - By Status (Backlog Report)
  - By Examiner
- Large Claim Report (claims exceeding a certain dollar limit)
- Watch Claim Report (pending and paid for certain diagnoses)
- Claim Turnaround Report
- Held Claims Report
- Productivity Report (paid claims by examiner)
- By Date Range

However, the real power of the reporting module is in Beacon SpyGlass' ad-hoc reporting module. Users select from a simple menu of choices among thousands of different permutations of reports. This will allow the user to select and combine a wide range of parameters and sort by their selected parameter. Beacon will then automatically generate a custom report for the Client in a .pdf format that can be printed on your own local printer of choice.

If you don't like the native field type or column header, you may change it. Would you like to run the report later? The Beacon system lets you save all the options and customizations used to create the report in specifically named templates. Additional formats can be created for different needs. Users may select to download an Excel formatted file for further processing. These options are also available to your customers if you grant them the authority.



All reports available on the system can be delivered from our reporting framework in one of 4 ways,

- as HTML to your screen for viewing
- via PDF for easy save and email attachments
- in Excel format for easy “pivot tables” and number crunching
- as “native” XML for trading files with partners as needed.

#### **u) Support for Flexible Spending Accounts**

If you are looking for ways to manage your healthcare dollars while providing value-added benefits for your employees, then look no further than the Flexible Spending Account (FSA) feature in Beacon. With the FSA feature of Beacon, you can enhance your benefits program and provide employees with a money saving alternative - without dramatically increasing your employee benefit costs. In fact, your tax savings on employee contributions (which reduce taxable pay) will help offset your plan costs.

When you offer an FSA, the plan reimburses participants for certain health care and dependent care expenses with before-tax dollars. Employees choose to set aside a certain amount of their pay in an FSA account. Then, their FSA account reimburses them for qualifying expenses, such as child or elder care expenses and medical deductibles and co-pays.

Both you and your employees benefit. You pay no Social Security tax (FICA) on employee contributions. Plus, employees' taxable income is reduced by the amount they contribute to their FSA. In other words, employees pay no federal, Social Security or (in most states) state taxes on the FSA dollars used to reimburse their qualifying expenses.

## **2. Other Features**

Other features of the application include:

- Easy maintenance for Coding compliance changes
- Customizable Explanation of Benefits (EOB)
- Customer Service Module
- Bulk Payment processing by employee or provider
- Duplicate Claim Submission checking
- Void Check and Partial Reimbursement Processing
- Easy integration with third party COBRA, 401K, HSA, HRA & Trust account processors
- Integration with Hours/Bank and Taft Hartley oriented Labor Fund eligibility processing

### **D. The Extra Mile**

#### **1. Easy to Learn**

Your claims examiners won't have to be insurance experts to use Beacon. Neither will your customers. The native, web-based interface is easy to use, even for relatively complex



operations. The easy to use interface truly masks the complexity. That you can see from our demo.

The claims processing screens, although standardized, can be tailored to accommodate the uniqueness of each individual benefit. A windowing system is used during the processing of a claim, which creates a logical and step-by-step sequence. When a new examiner first uses the system, the entry sequence can take a more direct path and would involve fewer steps. In other words, it gives the claims examiner the option to select the claims processing sequence best suited to his/her experience level and individual preference. But of all, it educates your user, through it's extensive database of knowledge.

## 2. Easy to Setup

Beacon boasts a very quick and easy setup. Their usability testers are experienced claims processors and benefits administrators. Comments collected so far include "I was expecting it was going to be a long process, **this is a snap.**" Whereas other plans may take weeks to setup, Beacon takes only days. No technical ability or programming knowledge is required. Everything is setup by clicking on a button and/or selecting the appropriate option from a drop down list box. Although the setup is easy and intuitive, field level help is available throughout. Copy buttons make it even quicker to setup a plan by copying benefits that are similar to another plan and then making the appropriate changes.

## 3. Easy to Use

- **Rich, full-function Feature Set** – the Beacon system has been created to support a full range of activities that even your customer service users will find terrifically productive. One client is currently using Beacon in this very way. Plus, this high functionality comes via an easy to use web-based interface that will reduce the training demands on your staff not just for clients, but also for customer service personnel. Finally, Beacon's careful design of User Roles and Access Administration capabilities allows Beacon to limit the ability of user to leave out important information, or enter incorrect information by filtering out incorrect options.
- **Product Support and Upgrades** – The system will continue to evolve over time and new features can be added with regular new releases. You are not locked into the current features of the system you buy. These regular upgrades are available to you at no additional cost beyond the software subscription. The new features and upgrades will be developed based upon feedback from a user group to be established, with particular attention to the needs of charter members.
- **Pick and Choose Upgrades** – Since the product was designed using open standards within a component-based architecture, the Client and its customers will be able to enjoy selective, hassle-free upgrades of the product. Unlike traditional application systems, clients will actually be able to pick and choose which updates they would like to install. Because the software is based on industry standards, the system will be able to interface with a wide range of new applications as they become available.
- **Built-In Dynamic Online Help** – Beacon has a built-in Online Help facility that allows the user to drill down to the information they need. It also has a search function for



faster access to the information they seek. Beacon goes even further in that it offers customizable field-level context sensitive help functionality.

## V. Market Analysis

### A. Target Markets

Although the Beacon system is a rich, complete system fully capable of supporting the largest third party claims processors and insurance carriers—that is not the initial target market for it. The Beacon product will be primarily small to medium sized companies in the following markets:

- ❑ Third Party Administrators (TPAs)
- ❑ Self-funded Employers (typically companies with more than 1,000 employees will be self-funded and self-administered)
- ❑ Small Insurance Companies (see categories below)
- ❑ Medium Sized Insurance Companies
- ❑ ERISA authorized Employer plans
- ❑ Taft-Hartley Plans
- ❑ PPO's, HMO's, MCO's that handle their own claims, or need assistance with HIPAA transactions.
- ❑ Specific product department or "line" for a large insurance company
- ❑ New Market potential—insurance agents and brokers that want more control over their employer self-funded groups.
- ❑ New Market potential—re-insurers

### B. Subjective Market Assessment

The upper end of these markets has a few major software vendors ( like "Competitor E", "COMPETITOR H" , "COMPETITOR A", and some "Competitor J" Systems) and in-house systems developed by the large payors. In this part of the market, companies will spend several million dollars to buy as well as annually to upgrade and maintain their system. Large vendors feed on this market perpetually. There has been substantial merger and acquisition in this market over the last few years, signifying turmoil in the cost/value ratio that the legacy systems provide, while fighting to adapt them to changing markets.

Although many notable efforts to convert the mainframe applications to "client/server" systems over the last decade failed, it's not because the logic couldn't be converted, merely that the tools themselves were immature. A clean slate design based on industry depth and experience using appropriately mature modern tools presents advantages in this regard.

The middle portion of the market has a number of competitors such as "Competitor C" , "Competitor D", "Competitor L" , "Competitor K" , and "Competitor D", etc. These are largely legacy-based systems written in languages like COBOL. These systems start with a base price of around \$250K - \$450K with a typical installation coming in around \$750K - \$1,000K. Subsequent modifications and customizations can be substantial. The typical customer base in this market is insurance companies with more than 50K covered lives or a range of large self-funded groups.



These middle market systems are based on old technologies and platforms. “Competitor C” and “Competitor D” are both based on the old DBC database. Thus, changes to the system require niche expertise, and introduce new architectural elements to the “stack”. This doesn’t make for clean, easy changes.

This portion of the market has shown some innovation, having adapted to the web more quickly than the largest vendors, however, no system has an architecture based on modern design and data structures. Thus, the current adaptations to meet HIPAA requirements are all “surprisingly” expensive and entail wrenchingly difficult upgrades and conversions ( “Competitor C” upgrade for about 30 clients as one example, as we’ve heard from some market investigation). This all bodes well for a new player in the market

The small end of the market is a highly fragmented with no dominant vendors. Many of these systems are in-house systems or systems that were developed long ago and have since been abandoned by the original vendor. These are small payors (less than 10K lives), TPAs, Self-Funded groups and Labor Funds. This is the initial target market for the Beacon product. After developing a market presence in this part of the market, the company’s strategy is to swim upstream and aggressively compete against the older legacy systems in the middle portion of the market.

### **C. Initial Market Focus**

Beacon has chosen to focus initially on the small end of the market for three reasons:

1. Lack of quality competition
2. Number of potential customers
3. New customers

Perhaps the most overlooked factor about the bottom portion of the market is that this is where much new customer growth occurs. There are always new payor organizations being formed, new TPAs organizing, and companies that have grown to the point that they decide to administer their own insurance.

These entities tend to start out small and then grow. The major problem they are confronted with is the initial cost of a quality system. The other large competitors cannot reach the small customer with their large overhead and huge investment in the old legacy system. The smaller vendors have no recognized market presence and lack substantial technical and marketing resources.

### **D. Competition**

There is a significant amount of competition in this market. However, the quality of the competition significantly drops off after the upper echelon competitors. There are few, if any fully featured claim adjudication systems for less than \$500,000. The systems available at the lower end of the market are essentially glorified data entry systems. Very soon, electronic data interchange is going to be a requirement, even at the bottom end of the market. Change is inevitable. The competition sizes up like this:



These costs & figures are estimates only, not actual quotes, based on our own, subjective, competitive investigation.

**Competitive Survey**

Vendor	Inception	Cost Est.	Technology	Market Focus
Competitor A	1979	\$1,000,000	Mainframe	INS, H&W
Competitor B	1980's	\$1,000,000	iSeries	TPA, MCO
Competitor C	1981	\$400,000	Mainframe	TPA, SFG
Competitor D	1980's	\$500,000	Mainframe	MCO, INS, TPA
Competitor E	1980's	\$300,000	VAX, HP6000	H&W
Competitor F	1980's	\$300,000	iSeries	H&W
Competitor G	1980's	\$200,000	iSeries	H&W
Competitor H	1975	\$500,000	iSeries	INS, TPA, SFG
Competitor I	1981	\$500,000	Unix DBC	INS, TPA, SFG, MCO
Competitor J	1984?	\$300,000	Unix UniVerse, D3	TPA, H&W, MCO
Competitor K	1989	\$550,000	DOS->SQL Svr	TPA, SFG
Competitor L	1989	\$550,000	Unix DBC	TPA, SFG
Competitor M	1987	\$600,000	Alpha Proc	TPA, SFG
Competitor N	1993	\$1,000,000	SQL Server	INS, TPA, SFG, MCO
Competitor O	1996	100,000?	SQL Server	TPA, SFG, H&W
Competitor P	1999	\$150,000	Unix DBC	TPA, SFG, H&W
Competitor Q	1996	\$150,000	VB/SQL Server	Dental, Health

**Abbreviations**

Third Party Administrators	TPA's	Self-Funded Groups	SFG
Insurance Companies	INS	Health & Welfare	H&W
Managed Care Organizations	MCO		

**E. Market Category Breakdown**

1. Self-funded Groups

These are large employer groups which have enough employees to spread the risk of medical, and/or dental, and/or disability claim costs that they do not need commercial insurance. They also do their own claims administration. They may do just one component (for example, Dental) or they may do full boat claims administration. There is typically no need for commissions and billing requirements are typically minimal if any.

2. Labor Funds

These are large union groups or smaller union groups which combine to spread the risk of medical, and/or dental, and/or disability claim costs. This eliminates the need for commercial insurance, although they may rely on commercial insurance for catastrophic claims. They also do their own claims administration. They may do just one component (for example, Dental) or they may do full boat claims administration. There is typically no need for commissions and billing requirements are typically minimal if any.

3. Commercial Insurance

These are companies that provide insurance to other companies. Billing, Commissions, COBRA and a G/L Interface are all important issues as well as Claims processing. Their



plans are typically homogenous. They typically use component based billing, where the premium amount is different for every certificateholder based upon gender, age, zipcode and plan options. Because this is a heavily regulated industry for commercial operations, there are more special requirements, especially in reporting.

#### 4. Third Party Administrators

These are companies that administer plans for other companies. These other companies can be any of the 3 types of companies above. Their plans are not very homogenous and plan flexibility is key. They like a software package that can handle a lot of different types of benefits because they are constantly looking for new blocks of business to administer.

### ***F. Shifting the “Balance of Power” to Create New Markets***

The Beacon system can upset the status quo players in the industry. This is all about dealing with the objection “if it ain’t broken, don’t fix it”. Well, there’s a new maxim in town, and it’s “If **YOU** don’t fix your wagon, **I’ll** fix your wagon.” When market change and regulation change converge, technology can drive “disruptive change”. If traditional, old-line TPA’s and claim payers think that business was tough last year, just wait till next year, because the Beacon system is going to apply pressure to margins and customer retention for them.

Beacon’s current experience in the business indicates clearly that some aspects of the market are seeking change:

#### 1. Insurance agents and brokers

Typically insurance agents and brokers want more control over their employer self-funded groups. They have tended to rely on TPA’s to service their customers, which places customer satisfaction out of the control of the agent/broker. When problems occur, though, the agent/broker shares the blame. Often, the business goes elsewhere and all that is left is finger-pointing.

Also, consistent with the idea that “grass is always greener on the other side of the fence”, the brokers see the TPA’s making more money than they are. Their role is increasingly constricted vis-à-vis the client’s significant decisions and their future opportunities shrink.

#### 2. Re-insurers

These players sell “catastrophic loss” insurance to self-funded corporate, municipal, state and federal plans. Their business is all about measuring and controlling risk. One reason why groups have trouble doing THEIR OWN claims administration is fear of self-interest impacting the claims payment decisions. However, with a pre-approved slate of claim adjudication rules, the re-insurer is less dependent on the actual claims examiner decision. Thus, automation reduces risk.

Plus, in re-insurance, as in many industries, some area and regional markets can be tough to break in to for “the new kid on the block.” A re-insurer can offer a pre-approved suite of products along with a pre-approved set of case management & wellness partners into a



new market. This could very well turn the tide for participating brokers as they compete against more established brokers. Clients get more options, more control, and the broker is better rewarded for moving the business.

TPA's, of course, would not like this approach, and they would discourage their existing carriers from participating in it. The ultimate result is pricing pressure on the claims adjudication process. As always, automation drives down costs, increasing competitive pressure.

### **G. Orientation to Market "size" Considerations**

Beacon will offer the product for sale with an aggressive pricing strategy in the early stages. We may consider a tier-based pricing structure based upon the customer's size. This will allow Beacon to be cost competitive for a broader range of clients. Beacon plans to compete aggressively in 2005 to build market share.

On the one hand, SpyGlass is fully capable of serving the largest claims processing operations—where Beacon knows from experience that the implementation costs for large installations run into the millions of dollars, training and maintenance costs are high and the systems are inflexible. Yet these legacy systems remain in place, and restrict the operating efficiencies of their users. This creates huge opportunities for Beacon to increase services, performance and features to drive substantial ROI for even large firms. We realize that we will be starting small, but will move up market quickly.

On the other hand, since the software is flexible to support a very wide range of benefits and business operations styles without programming or extensive training, it can serve small "boutique" client/TPA's very effectively as a "low-cost" supplier, and allow them to leapfrog larger competitors.

Again, in the self-funded group market, the Beacon system's strikingly clear setup interface and template libraries will allow it to be viable for even small organizations of down to 50+ employees for self-funded employer groups. This is far below the traditional industry accepted threshold of 300 or so.

The Beacon system will allow small self-funded employer groups to leverage the expertise the best partners, wherever they are—the best wellness programs, the most knowledgeable benefit plan designers, the best disease and severe and intensive case management—without having to hire and office them in-house. All this will help small operations increase their market opportunities and further compound the SpyGlass advantage.

This balloons the market size for the product by allowing it to appeal to a wide array of small employer groups, expanding the number of companies that can realistically consider self-funding for the first time. Thus, the product creates a new segment of the market, and helps companies achieve the benefits of self-insured ERISA plans that would otherwise lack the specialized resources.

## **VI. Management Team**



Beacon is managed by a diverse group of partners, each with their own area of expertise in the insurance industry.

### **Managing Directors**

Ernie Crawford – Mr. Crawford is a co-founder and functions as the chief executive officer for Beacon. Mr. Crawford owns 36% of Beacon. Mr. Crawford has both a technical background and a business background. Mr. Crawford double majored in Physics and Mathematics at Indiana University, graduating in 1980 and then earned a Masters in Business Administration (MBA) at Indiana University in 1984 double majoring in Management Information Systems and Finance.

Mr. Crawford began his career as a physicist for the department of defense, but has worked the last 15 years in systems consulting and/or the insurance business (see attached resume). Mr. Crawford was the lead designer for several, major insurance subsystems such as a Reinsurance system, a New Business system and an Underwriting system. These systems are commercially available and still being sold today.

Mr. Crawford has received technical certifications from both IBM and Microsoft.

Mark John – Mr. John is a co-founder and is responsible for the Sales and Marketing of Beacon. Mr. John owns 36% of Beacon. Mr. John has successfully built and sold a direct marketing and publishing business in Iowa that was later re-sold to Gannet, Inc..

Mr. John graduated with a BA in the Liberal Arts from Wheaton College, Chicago, Illinois 1979, and has taken several additional sales, technology, programming and certification courses.

Natan Weisburd – Mr. Weisburd is Beacon's Technical Director, and has been with the company since 1998. He has 26 years of systems experience, 9 years in the insurance industry. Mr. Weisburd has worked on several different claims systems including "Competitor D", PMSC and "Competitor A". Mr. Weisburd has received a technical certification from IBM.

Mr. Weisburd graduated from Ural University, Russia with a BS in Computer Science, and a Masters in Mathematics.

Dave Bukowski – Mr. Bukowski has 18 years of systems consulting experience with 14 years in the insurance industry. Mr. Bukowski has designed a dental claim system and other claim subsystems for commercially available insurance software applications. He is a technical lead for a government oriented disability claims application.

Mr. Bukowski graduated from Southern Illinois University with a B.S. majoring in Management Information Systems.

Bob Doverspike – Mr. Doverspike has 20 years of systems consulting experience with 16 years in the insurance industry. Mr. Doverspike has designed many subsystems, with a particular focus on billing and reporting, for commercially available insurance software



applications. He has been a technical lead for a major prescription drug claims processing operation, and a government oriented disability claims application.

Mr. Doverspike graduated from Hiram College with a B.A. and a major in mathematics.

## **VII.For More Information**

Call Mark John at extension 400, toll-free 877-778-0018,  
Or via our local number 317-574-9200, also extension 400  
Or email [MJohn@BeaconSpyGlass.com](mailto:MJohn@BeaconSpyGlass.com)