

# SCHOOL OF MANAGEMENT: CORPORATE CHALLENGE 2011

New Protocol, Inc.  
An Integrated IT Solutions Provider



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## **New Protocol, Inc.**

Prakash Pisipati, the founder and president of New Protocol Inc., had just returned from two potential sales meetings with the medical records departments of two hospitals. The message light on his phone was blinking and several emails were waiting for his response. After taking care of some urgent client-related matters, he immersed himself into the continuing development of the Web-Hx system which integrates medical practice management (patient demographics, scheduling, billing, claims processing, etc.) with electronic health records (clinical information). He was interrupted three times: once by Gary (the technical support specialist at New Protocol), the second time by Trisha (the medical billing specialist) and finally by Jennifer (the quality assurance manager). Time was passing quickly, and Prakash had to run to a Rotary Club luncheon that he was hosting.

After lunch, the rest of the day was no better. Prakash interviewed a commission-based salesperson for more than two hours and then continued working on the development of Web-Hx. This is a typical day in the life of an entrepreneur like Prakash. As evening approached, he started reflecting on where his company had been and where it was going. New Protocol Inc. is focused on providing health care IT solutions, including web-based medical transcription and billing. It has technical expertise in software development, database management, networking, and systems re-engineering. Prakash is passionate about providing high-quality services to his customers and about developing unique services.

One key opportunity for the growth of New Protocol has been presented by the American Recovery and Reinvestment Act of 2009 (commonly known as the Stimulus Bill). Prakash wants to take advantage of this but is reluctant to hire highly paid sales or IT professionals. One of the reasons for the survival of New Protocol has been its shoestring operating budget. Prakash keeps asking himself questions: "Should I look for an "angel investor"? Should I take on a working partner? How can I improve sales significantly without taking on unsustainable overhead?"

## **History**

**1993** - Prakash comes to New York Institute of Technology as a graduate foreign student.

**1995** - Prakash earns a master's degree in computer science at NYIT and begins working in the industry. He gains experience in developing software, project management, system integration and implementation, and the practical aspects of SDLC.

**2001** - Prakash incorporates New Protocol Inc. as an S corporation. While continuing to work full-time, Prakash begins to develop an IT consulting business for New Protocol. He explores the potential of a medical transcription business, in which dictations from doctors in the United States are electronically sent to India for transcription and are returned in less than 24 hours.

**2003** - Prakash starts the medical transcription business by hiring part-time proofreaders and quality assurance persons in New York.

**2005** - The medical transcription business grows, and Prakash begins working full-time for New Protocol. The number of people working in Hyderabad, India, for New Protocol grows to 33. In addition to the effort in sales, technical support, server management, and new product development, Prakash makes frequent trips to India to manage his people there.

**2008** - New Protocol decides to outsource the transcription business in India to another organization within India so that Prakash can focus on business development within the United States. The key people working for New Protocol in India were transferred to the outsourcing firm.

**2009** - New Protocol starts the medical billing business.

**2010** - New Protocol begins focusing on the electronic health record system.

At the present time, New Protocol offers several products and services that will be briefly described later. For details, go to [newprotocol.com](http://newprotocol.com)

## **Mission and Guiding Principles**

The mission of New Protocol is to innovate, develop, and market health care IT solutions at a competitive price to the medical community. New Protocol specializes in providing web-based software products and services using a wide variety of platforms for capturing data and accessing various required reports. New Protocol is focused on developing integrated systems to support health care providers in managing their clinical practice while complying with all the current and announced future health care regulations.

The key principles, guiding the business of New Protocol are::

- System re-engineering with a customer focus
- Continuous development of unique products and services
- Use of trained, qualified, and certified personnel
- Competitively priced products and services offered through innovation and expense control
- Long-term growth of the company

## **Health Insurance Portability and Accountability Act**

In 1996, Congress passed the Health Insurance Portability and Accountability Act (HIPAA). Its purpose was to improve the efficiency and effectiveness of the health care system through the development of established health data standards and requirements for the transmission and storage of electronic health information. New Protocol has addressed security issues related to the confidentiality of the information, the network security, the screening of staff, and the physical security according to HIPAA guidelines.

New Protocol uses 128-bit encryption for communication between client machines and its secure servers for all medical data (dictation, transcription, search facility, and EMR). The employees are bound by contract to maintain the confidentiality of patient information, and they do not have access to the medical data once their task is completed. The web access to servers is password protected.

## **American Recovery and Reinvestment Act**

The American Recovery and Investment Act (AARA) was passed by Congress in 2009. Designed to stimulate economic recovery, it includes several incentives in the health care area. In July 2010, the Centers for Medicare & Medicaid Services (CMS) announced the final rules to implement provisions of the ARRA that provide incentive payments for the meaningful use of certified electronic health records (EHR) technology. The Medicare EHR incentive program provides incentive payments to eligible professionals (EPs), eligible hospitals, and critical access hospitals (CAHs) that are meaningful users of certified EHR technology. The Medicaid EHR incentive program provides incentive payments to eligible professionals and hospitals for efforts to adopt, implement, upgrade or meaningfully use certified EHR technology.

The term "meaningful use" refers to 15 required specific criteria such as electronic prescription and patient clinical information maintained in a system certified by the Office of National Coordinator (ONC). Doctors can receive \$44,000 (\$18,000 in year 1; \$12,000 in year 2; \$8,000 in year 3; \$4,000 in year 4; and \$2,000 in year 5) from the Medicare Incentive program for the "meaningful use" of certified EHR technology to achieve health and efficiency goals. The program begins in 2011, and medical professionals must use the certified technology for a certain percentage of patient visits for at least three months during the calendar year. Doctors participating in the Medicaid program can receive \$67,500 and hospitals can receive \$2,000,000 as part of the same program. For details, visit [cms.gov/ehrincentiveprograms](http://cms.gov/ehrincentiveprograms).

## New Protocol's Services and Products

### Services:

**Medical Billing (Web – RCM):** New Protocol provides a state-of-the-art, web-based medical billing solutions. The web-based system creates a transparent information flow and enables clients to have real-time access to such account information as claim submissions, payment postings, aging analysis, etc. The demographic data, diagnostic code (ICD), and procedure code (CPT) are collected, and bills are electronically submitted to insurance companies in the database. Duplication of work in a physician's office is eliminated, and payments from insurance companies, Medicare, and Medicaid are received faster. Web-RCM was introduced by New Protocol in late 2009. Currently, there are five medical practitioners who use this service.

**Medical Transcription (Web – MT):** Medical transcription is the core business of New Protocol. The doctors in a hospital or office dictate using a digital recorder provided by New Protocol or a toll-free number or PDA. An accurate transcription is made available over the web, by email, or by fax in less than 24 hours. The client has a choice of letterheads, and electronic signature functionality is built into the system. There are about 100 individual and group practice doctors and about 150 doctors from hospitals or surgery centers who use the service. Some well-known clients include North Shore-LIJ Health System, New York Presbyterian Hospital, New York Hospital Queens, Hospital for Special Surgery, Cornell University Medical Center, Pro-health Care Associates, Vascular Associates of Long Island, and Long Island Urological Associates.

**Consulting and Network Services:** New Protocol provides IT consulting, training and implementation in the area of data warehousing, decision support, OLAP, business intelligence systems, web designing, web development, and health care IT solutions. New Protocol is skilled in developing customized software to interface with systems used by a client, with Web-MT, Web-RCM, Web-Hx or systems used by other vendors. New Protocol offers expert assistance in integrating and implementing enterprise-wide intranet/Internet and e-commerce solutions.

### Products:

**Electronic Health records (Web-Hx):** New Protocol has a new product called Web-Hx, which integrates medical practice management (billing, patient scheduling, claims processing, etc.) and electronic health records (e-prescriptions, clinical information). It is a web-based HIPPA-compliant system hosted on secure servers at New Protocol. The major features of Web-Hx are:

- Built-in scheduler
- Electronic billing (includes Medicare) - integration with all insurance companies
- Integration with external general accounting program SQL-Ledger
- E-Prescribing - prescriptions via clearinghouse, printed script, fax, or email
- Integrated practice management, including integration with services of other vendors
- Reporting and data analysis (for meaningful use reporting)
- Multi-facility capable and multiple user roles, i.e. providers, office managers, billing
- Document management - scanning documents for electronic storage and retrieval (new and old records)

At te present, there are two medical practitioners using components of Web-Hx. For details about products/services offered by New Protocol, visit [newprotocol.com](http://newprotocol.com)

## Marketing

New Protocol has no formal marketing plan or strategy. The success of the company is entirely based upon the experience and hard work of Prakash. Most customers are signed by New Protocol as a result of "word of mouth" sales and personal contacts.

### Segmentation, Targeting, and Positioning

Individual doctors and group practices represent the major market segment served by New Protocol for all its products and services. The decision maker is the doctor in charge of running the practice. The reasons for New Protocol's success in signing up clients have been: cost reduction, ease of use, personal attention, reliability, and customization of processes. The market for all of the New Protocol's services and products (Web-MT, Web-RCM, Web-Hx) will likely to expand in the near future. New Protocol has positioned itself as a reliable low-cost provider of the web-MT services. As shown in the revenue breakdown, New Protocol has only a small number of clients for other products and services. Despite having the ability to deliver integrated products/services, New Protocol has not yet established itself as a major player in the billing and EHR arena.

The targeted market segment for Web-MT also includes large hospitals and surgery centers. The use of medical transcription is a necessity, and the available alternatives include the use internal staff or outsourcing using a single or multiple vendors. In some hospitals, the MT vendor is selected by individual departments; in others, the centralized medical records department makes this decision. In a large facility with multiple MT vendors, the vendor must remind doctors to use its transcription service rather than the competition. Cost reduction, ease of use, accuracy, and system reliability are the major selling points for MT services in this market segment.

### Price, Promotion, and Distribution Channel

The prices charged for products/services by New Protocol are usually 20% to 30% lower than the larger, well-established competition. The lower price has been the key factor in selling Web-MT. New Protocol does not have a well-defined promotional strategy, and pricing decision is made on a case-by-case basis. There is no advertising or promotional budget. Occasionally, fliers and brochures are distributed on a selected basis.

New Protocol has tried various sales strategies with limited success. A full-time experienced salesman was hired in 2005. Over a four-month period, the salesman only succeeded in making a few contacts and appointments for Prakash. A decision was quickly made to eliminate the full-time sales position and hire commission-based salespersons with a token base pay. This sales strategy has also had minimal success. As mentioned earlier, the entire customer base of New Protocols has been built by Prakash through personal contacts, referrals, and word-of-mouth marketing.

The New Protocol website provides a good description of its services and products. However, it has not attracted new customers and is predominantly visited by existing customers to learn about complementary products and services offered by New Protocol. There is section on the website that encourages resellers to start selling New Protocol products/services. However, a limited number of inquiries have been received from potential resellers.

### New Product (Web-Hx) Development and Opportunity

New Protocol has recognized the opportunity presented by ARRA of 2009 and further clarification of rules by CMS in 2010 for incentive payments to doctors for using EHR. Web-Hx utilizes open source software, which is currently in the process of being certified by ONS. It is expected that by the end of April 2011, the certification process will be completed and the users of Web-Hx will be eligible to receive incentive payments from CMS if they meet the required number of specified "Meaningful Use" criteria. Getting money from the federal government can become the unique selling proposition for Web-Hx. The issue that still needs to be resolved deals with how to market it. Should New Protocol charge customers \$250 per month for using the system or should it assist medical practitioners with entire implementation and share the incentive payment?

## Operations and Staffing

While most of Prakash's time is spent in the marketing effort, he is passionately involved in managing the innovation, software development, customer support, system integration, and quality control aspects of New Protocol. Prakash and Sunitha are the only full-time employees of New Protocol. There are six part-time employees working 10 – 30 hours per week. Two part-time employees (Trisha and Elise) are medical claims specialists supporting the medical billing business. Two other part-time employees (Jennifer and Kathy) work on quality assurance (QA) for the medical transcription business, where the bulk of the routine work is done in India. The problem cases (e.g. inaudible or difficult dictation) are flagged by the staff in India and resolved by the QA staff in New York. Gary assists Prakash in marketing and provides technical support. A commission-based salesman has recently been engaged by New Protocol. Sunitha does bookkeeping and customer support.

New Protocol has several servers maintained in an air- conditioned secure environment in its office. High-speed digital connectivity is available for use by New Protocol in New York and India. Backup data is maintained at a separate secure location. All employees in New York have flexibility to work at their desk in the office or from their home by connecting securely with New Protocol servers.

Data from digital recorders and PDAs is usually transferred to a PC at the customer location and then to New Protocol servers using a secured encrypted connection. Some clients use the phone or send the audio file by email. All the data is transferred to India in the evening for transcription and received overnight in New York. The QA staff approves the work done in India, and the transcription is available to the customer in less than 24 hours. New Protocol claims more than 98% accuracy in their MT business. The billing business is currently being handled completely in New York. In case of a significant growth, Web-RCM can also be outsourced to India.

## Financials

### Revenues

Table 1 shows the approximate revenue of New Protocol for the last five years and Table 2 shows the approximate breakdown of revenue for the year ending Dec. 31, 2010, by product lines.

Year	Revenue in \$
2010	\$420,000
2009	\$410,000
2008	\$400,000
2007	\$380,000
2006	\$300,000

Category Description	Revenue in \$
Transcription Services (Web-MT)	\$350,000
Billing Services (Web – RCM)	\$50,000
Consulting and Web Hosting	\$18,000
Electronic Health Records (Web-Hx)	\$2,000
<b>Total Revenue for 2010</b>	<b>\$420,000</b>

New Protocol has experienced only a small amount of growth over the past four years. Web-MT is the core business of New Protocol, and it earns almost 80% of the revenue. It keeps generating cash for New Protocol, and Prakash has to spend less time in maintaining this product line compared to the time required in developing other product lines.

### Expenses

Table 3 shows approximate breakdown of expenses for the year ending Dec. 31, 2010.

Category Description	Expenses in \$
Outsourcing Service Provider in India	\$105,000
Full-Time Employees Salaries	\$90,000
Part-Time Employees Wages	\$80,000
Rent, Benefits, Materials, etc.	\$100,000
<b>Total Expenses for 2010</b>	<b>\$375,000</b>

The expense breakdown shown for 2010 is proportionately very similar to that for the past three years. The pre-tax annual income of New Protocol for the past three years has been between \$40,000 and \$50,000. Another important point to note is the total wages paid to six part-time employees. QA and billing support personnel seem reasonably satisfied, but IT support and sales people cannot work even part time at this wage rate.

## Entrepreneur's Dilemma?

Prakash is facing the typical entrepreneur's dilemma. The financials clearly show he is making a reasonable living, and his business has survived during the ups and downs in the economy for the past six years. He would like to grow the business but cannot afford to take the risk of hiring a high-powered full-time IT staff or experienced full-time sales professionals. The IT personnel working with him part-time at below-market wages stay for a few months until they are trained in the highly desirable health care information technology area and find excellent jobs with large organizations. The effectiveness of sales personnel has also been questionable.

Prakash keeps asking himself the same typical questions again and again: Is it time for me to give up 100% control of New Protocol? What should I do to grow the business without taking the risk of ruining an ongoing business? Should I continue pursuing the same strategy and slowly build another product like Web-MT, which can generate cash on a perpetual basis?

## Discussion Questions

All student team leaders should contact Dr. Raj Tibrewala [tibrewal@nyit.edu](mailto:tibrewal@nyit.edu) for additional information. All questions and additional information will be shared with each team. If necessary, a group meeting will be arranged where all student groups can meet and ask questions.

**The major objectives of this case study are to develop specific strategies and prepare an action plan for New Protocol to dramatically increase its revenue. As outlined in the case, the key strengths of New Protocol are technical knowhow, current customer base, flexibility, ability to offer competitively priced products and services. The weaknesses are lack of investment capital, sales force, and the ability to take significant risk. All student teams should keep these strengths and weaknesses in mind while answering the following questions.**

1. Should New Protocol offer Web-Hx as a product (integrated software leased by the client) or a service where New Protocol works hand-in-hand with the customer to satisfy the requirements of the ARRA act? What are the main impediments in selling Web-Hx as a service and as a product? How can New Protocol overcome these impediments?
2. Identify other (aside from electronic health record) opportunities presented by the legislative actions or the desire of the society to reduce health care costs that could help a company such as New Protocol in developing new products or in marketing existing products? Identify some of the competitive threats facing New Protocol and discuss ways to handle these.
3. Should New Protocol spend a significant amount of time over the next six to nine months in developing a business plan and try to raise venture capital or try to find an angel investor? Does it make more sense for Prakash to take on a working partner? If yes, what should this person bring to the table?
4. Discuss pros and cons of the New Protocol website. How can New Protocol attract more potential customers to visit its website? How can social media be used to promote New Protocol products and/or services?
5. How can New Protocol build a commission-based sales force? How should the sales commission be structured? How should it promote the use of Web-MT by more doctors in the hospitals and surgery centers that are clients of New Protocol.
6. Develop a marketing plan, which you believe will help New Protocol in increasing revenues significantly over the next three years.



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