

EXTOL

**Getting Ready for HIPAA:
An Impact Analysis**

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EXTOL International, Inc.
795 Franklin Avenue
Franklin Lakes, NJ 07417
(201) 847-1200
www.extol.com

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Editor
Lane F. Cooper, WNB

Senior Editor
Felix Gorrio, WNB

Researcher/Writer
Mark Kagan, WNB

Part 1: Executive Summary

This report examines the impact that the Healthcare Insurance Portability and Accountability Act (HIPAA) will have on the electronic commerce initiatives of healthcare providers and payers (insurance companies and healthcare maintenance organizations) striving to comply with new IT requirements taking effect on October 16, 2002. There is much more than meets the eye in meeting the requirements of HIPAA. While many organizations in healthcare are anticipating a simple software adjustment to their communications applications, it is now becoming increasingly clear that, in addition to adopting national e-business standards like ANSI ASC X12 transaction sets, HIPAA compliance will also require a significant amount of work on internal enterprise applications. This report concludes that both the healthcare community and the information technology vendors that support it will need to undertake a significant amount of preparation and education in order to ensure compliance by the HIPAA deadline.

The IT departments of healthcare companies in the United States face an acronym-imposed deadline for the second time in nearly two years, and the consequences of HIPAA may be more far reaching than Y2K. The reason: where Y2K required organizations to identify and remedy programming code - a labor intensive, but operationally straightforward challenge - HIPAA mandates that by October 16, 2002, healthcare organizations adopt national standards for electronically processing administrative and financial transactions. The new standards requirements will redefine the exchange of data behind a wide range of healthcare transactions, including:

- eligibility
- coverage
- benefit inquiries
- benefit information
- healthcare claim status requests and notifications
- healthcare services review information
- payment/order remittance advice
- benefit enrollment
- healthcare claim payment/advice

Beyond changing the business applications that healthcare providers and payers currently use to comply with voluntary national standards, it is increasingly clear that many organizations will have to adjust their business conventions - the way they actually operate - to comply with the HIPAA mandate.

For instance, HIPAA will require use of American National Standards Institute's (ANSI) Accredited Standards Committee (ASC) X12 electronic data interchange (EDI) syntax. The X12 997 Functional Acknowledgment transaction set will be required to identify receipt and accept or reject a transaction based on whether or not transmission conforms to the syntax. But it will also require the X12 824

Application Advice transaction set to report application-level errors to the sending party. In other words, the HIPAA requirement dictates how the transaction set should be processed by the application after it has been translated.

Converting to these transmission protocols and application standards will require a great deal of effort by these organizations, since many currently use their own legacy methods and procedures for treating the information involved.

The Health Care Financing Administration (HCFA) Private Sector Technology Group has pointed out that under HIPAA, the legacy Medicaid Management Information Systems (MMISs) of most states will not be able to accept and store the new formats and certain information segments required by HIPAA.

"They will have to find other ways to generate data that is missing from the HIPAA format, but is required by the state for processing." - *HCFA Private Sector Technology Group, Use of Translators or Clearinghouses for HIPAA Compliance (November 2000)*.

To further add complexity to the mandate, HIPAA also places certain restrictions on the ways in which the X12 standard will be implemented. The mandate comes part and parcel with its own implementation guide detailing precisely how organizations in the healthcare industry must manage their X12 implementations.

In short, the ramifications of HIPAA don't stop at the EDI translator and mapping applications. Organizations will have to dedicate time and significant effort to evaluating how current business processes and internal applications will be affected by the mandate.

Part 2: Ready or Not for HIPAA

The question of whether the healthcare industry is ready for HIPAA is academic, since the legislatively mandated deadline does not offer healthcare organizations a choice in the matter of compliance. (Unless one considers remaining on - or reverting back to - manual, paper-based operations). As a result, many organizations are scrambling to test existing applications and processes to determine whether or not they will be capable of meeting HIPAA requirements. Many are discovering they are not in compliance, and the scope of the problem makes it unlikely the HIPAA requirements will be easily met.

A great percentage of players in healthcare have not even begun to define - much less implement - a HIPAA migration strategy. But this has not been due to negligence or denial. Although HIPAA was passed in 1996, there have been significant delays by HIPAA officials in defining which transactions will be affected and how implementation will be carried out.

A recent Gartner Group study reveals that 85 percent of healthcare providers have yet to complete assessments or gap analyses, which form the critical foundation for achieving HIPAA transaction compliance.

According to the survey, 68 percent of respondents are uncertain about the ultimate deadlines for compliance, and many have doubts on whether HIPAA itself is here to stay.

"These doubts, driven by continuing lobbying efforts and bills in Congress to effectively kill the regulation with a two-to-four year deadline extension, are severely damaging the HIPAA transaction regulation compliance effort," says Matt Duncan, Gartner research director and author of the study.

Still, the October 2002 deadline - and the threat of large fines for organizations that don't process transactions in the approved formats - has created a sense of urgency in the healthcare industry that is analogous to the Y2K problem.

The information technology vendor community, on the other hand, is ready in many ways for HIPAA. The X12 list of approved healthcare electronic transactions was issued in August 2000 and some technology vendors (translation software providers and value-added networks) have implemented them, putting them in a position to provide valuable assistance to healthcare organizations.

However, e-commerce generalists have not gone beyond the technical requirements for the transaction sets to develop strategies for implementing the EDI standards in the context of HIPAA's application management mandates. Too

many EDI Software vendors and their customers do not yet realize that an entire underlying set of requirements, rules and guidelines unique to the healthcare industry must be taken into account when implementing the EDI transaction sets. They will find that many of their translators and processes may not be able to handle the transactions under HIPAA because they deal with them strictly from a transactional standpoint and do not address the business process issues that must be addressed.

Concerns and misunderstandings

Beyond the e-commerce technology provider community, there is also significant concern about whether internal enterprise software application vendors - such as claims processing, accounting and patient record keeping functions - will be able to modify their applications to bring them into compliance with HIPAA before the October 2002 deadline. At the same time, numerous studies have analyzed the costs of bringing applications into compliance and have concluded that even minimal modification can cost millions of dollars because of the numbers of people and processes affected.

It may well be that compliance with HIPAA will require significant modification, or even replacement, of existing applications. It could mean healthcare organizations will be forced to bring in new technology that will introduce entirely new processes and new approaches to transaction exchanges. In the latter case, it may mean that an organization, which had previously used only claims and claim payments electronically, will have to expand its support of electronic transactions it may never have used in the past.

The HIPAA requirements will also impose new security standards that were not used in proprietary networks or information clearinghouses in the past. Thus, conforming to HIPAA mandated standards will now require implementing new kinds of security and privacy regulations in addition to new data exchange processes.

Many healthcare companies accustomed to dealing with electronic transactions may not be familiar with the X12 standards committee or understand the EDI processes now required by HIPAA. They may have dealt with standardized transactions - for example, the commonly used HCFA 1500 claim. But it does not correlate very well in structure with the X12 837 Claim transaction set.

They may also believe that achieving compliance with HIPAA is "simply" a matter of making the HCFA 1500 format conform with the 837 format. Although the forms address the same claim issue, they are so radically different that organizations' HIPAA initiatives will require major changes in processes and application files to make HCFA 1500 compliant with X12 837.

Part 3: A Strategic Checklist

Because most healthcare organizations have been executing transactions electronically through proprietary applications and programs, they will have to purchase translation and transformation software that will convert data from their formats to the formats required by the X12 standards under HIPAA.

Healthcare organizations will need to make sure that their software systems are not only capable of handling X12 transactions, but are also capable of handling the business rules and communications security requirements being imposed by HIPAA.

Organizations must also make sure that, in addition to procuring the necessary software, their technology partners have the industry-specific knowledge needed to implement HIPAA requirements as well as software products. These are two separate, though related issues.

Many software providers may find that their existing staff cannot pull it off because they are not familiar with EDI or HIPAA or translator rules. The internal healthcare IT staffs as well as the technology partner organizations brought in to handle HIPAA implementation must be well educated about HIPAA requirements, the best practices that already exist, and the current processes within the organization.

Healthcare providers and payers should also prepare to make HIPAA compliance an ongoing part of their business operations.

*"The [HIPAA] regulations will continue to evolve, even after the first set of final rules is complete... [and] those rules will be updated and additional rules will be written." Sandra Fuller – **HIPAA on the Job: Measuring HIPAA's Impact.** Journal of AHIMA (February 2001).*

Putting off internal evaluations and decisions about HIPAA compliance will only compound problems discussed in this report.

Studies already show that each time a payer (ie. insurance company) brings on a new healthcare provider, it takes an average of six months - from inception to production - to test and verify the transaction processing integrity between the two entities. This timeline will undoubtedly be elongated with the introduction of new HIPAA requirements.

To streamline an organization's HIPAA conversion, companies should reach out to technology partners with products and services that have been certified to support all required X12 transactions and HIPAA mandated data handling requirements.

Translation products, in particular, should be flexible enough to use a variety of communications methodologies so that the system can easily accommodate emerging HIPAA transmission, encryption, authentication and digital signature requirements.

Finally, the strategies and products implemented by healthcare companies should be designed to easily integrate with existing applications that handle data conversions without having to recalculate, change or convert data.

Part 5: Case Study

DELTA HEALTH

Self-Insurance Firm Adopts E-Business Strategy as Government Mandate Approaches

It's usually a straightforward process for a company to justify an investment in process automation. But it becomes all the easier to justify when an industry or government mandate comes into the picture. That is exactly what was at play when Delta Health Systems decided to automate its health claims processing by adopting an aggressive e-business strategy.

Based in Stockton, Calif., Delta Health's services allow companies to become self-insured, thus providing healthcare insurance to employees directly, rather than through an insurance company. Known in the healthcare industry as a Third-Party Administrator, Delta administers benefit plans, handling claims administration for plans such as Preferred Provider Organizations (PPOs) and others. Delta also supports employers offering HMO options by disbursing premiums to HMOs.

The oversight role played by the federal government in the healthcare industry is immense, affecting virtually every aspect of its operations. For Delta and other players in the insurance industry, the impact of the federal government is being felt via the Health Insurance Portability and Accountability Act (HIPAA) of 1996. One of HIPAA's key requirements calls for companies involved in processing Medicare claims to begin using electronic data interchange (EDI) when processing claims transactions.

Specifically, claims processors must now use the American National Standards Institute (ANSI) X12 standard specified by the Federal Government beginning October 16, 2002. For healthcare providers and payors the clock is now ticking.

Healthcare claims forms are among the most complex in the electronic commerce data spectrum. Delta, for example, has hundreds of pages of instructions on how data must be entered to fill out various claims forms.

"Given this complexity, we concluded our best option would be to purchase an EDI solution rather than trying to write X12 code ourselves," notes Lee Thompson, director of information services for Delta.

To further complicate matters, the Health Care Financing Administration (HCFA), which administers the Medicare program, also allows use of a non-standard format (NSF) as an interim solution for companies working toward full compliance with the HIPAA mandate.

So, when Delta began looking for an EDI solution, it was looking for a package that could handle both X12 and NSF for the company's operating environment, which consists of IBM AS/400 I-series servers running the OS/400 operating system. After an exhaustive search, Thompson settled on Integrator 400, an EDI package from EXTOL International, Inc. (Pottsville, PA), in part because of its ability to handle both of the HIPAA-approved data formats. Delta now is sending test data to one of its trading partners, an HMO, as the first step in getting its EDI exchange operational.

"Once we get this to work, there are three to four other trading partners that we will be able to roll out quickly, because they have the same data formats," says Thompson. "And as more and more people become HIPAA-compliant, we'll be able to do more and more claims electronically," says Thompson.

Delta is in discussion with several HMOs about beginning EDI transactions using the NSF standard. As these discussions continue, Delta is working with EXTOL's technical staff to set up NSF data maps and engineer a process that will flow into back-office systems with incoming X12 data in an integrated manner. Delta also has begun contacting its self-insured customer base about conducting X12-based EDI transactions.

Productivity, Data Security Benefits

Delta's Thompson is confident that the company will realize major productivity gains from implementing EXTOL's EDI package. No longer will Delta staff need to re-key data that comes in on paper or in other non-automated formats. In addition to saving time, the effort will also cut down on errors associated with outdated manual processes.

"One result is that healthcare providers will be paid much faster - as quickly as two to three days, compared to 5 to 10 days using the older method," Thompson reports.

These productivity gains will allow the company to accept more customers.

"HIPAA has been a driving force in getting us to adopt EDI," says Thompson. "But as we automate more, we will be able to take on more customers without adding to our data-entry staff."

In addition to HIPAA compliance and the efficiencies of EDI in general, the move to EXTOL's Integrator 400 package also will allow Delta to more securely protect patient privacy. EXTOL experts are now working with Delta to provide EDIINT compliant data during transmission.

Part 6: About the Sponsor

EXTOL INTERNATIONAL, INC.

EXTOL develops and supports electronic commerce and data transformation and integration products that raise the level of efficiency at companies worldwide.

The solutions developed by EXTOL are designed to support rapid deployment of sophisticated, high-powered e-commerce systems at the lowest possible cost of ownership to the implementing organization.

Integrator from EXTOL is a fully featured e-commerce package that has been certified to comply with HIPAA requirements, letting healthcare providers, payers and processors EDI-enable their systems. The product addresses all seven of the critical functions required for business-to-business integration success:

Communications
Reporting & Auditing
Administration
Operations
Content Management
Notification
Data Integration

The HIPAA compliance package for the EXTOL Integrator includes support for the mandated transactions:

270 Health Care Eligibility/Benefit Inquiry
271 Health Care Eligibility/Benefit Information (Confirmation of Eligibility)
276 Health Care Claim Status Request
277 Health Care Claim Status Notification
278 Health Care Service Review Information (Claim Status Notification)
820 Payment Order/Remittance Advice (Premium Payment)
834 Benefit Enrollment and Maintenance
835 Health Care Claim Payment/Advice (Claim Remittance)
837 Health Care Claim (Professional, Institutional, Dental)

In addition, the EXTOL HIPAA compliance package includes features and functions not found in traditional EDI tools. For example:

- a complete HIPAA database supporting HIPAA NCPDP standards
- a datastore for data for inbound HIPAA documents needed for outbound HIPAA transactions
- database maintenance and testing utilities

The EXTOL solution also supports National Council for Prescription Drugs Program (NCPDP) Telecommunication Standard Format, Version 5.1; UB-92; as well as the National Standard Format (NSF) Electronic Claims and Health Care Finance Administration (HCFA)1500 paper claims. It supports all transaction sets, and transaction set versions and releases under X12, EDIFACT and TRADACOMS.

Beyond simply supporting these standards, Integrator can help healthcare players rationalize and harmonize discrepancies and conflicts that will exist among the various standards that HIPAA mandates. For instance, the HCFA-1500 and X12 837 transaction sets are not compatible. On inbound traffic, Integrator 400 can translate and convert the X12 837 data into the HCFA 1500 format and archiving the "unused" data for retrieval and use when compiling an outbound document.

While support of all of these standards helps players in the healthcare industry comply with federal requirements mandated by HIPAA, there are state agency requirements for Medicare and Medicaid processing that must be integrated into the implementation of a HIPAA compliant electronic claims processing and management initiative.

EXTOL Integrator can perform the data manipulation that brings together data from various sources and file types that may not be in the X12 format and reconstruct that data during the translation process. In so doing, it can efficiently bring the claims transmission process into conformance with state and federal rules.

At the enterprise level, EXTOL has features that ensure best-practice implementation of business rules, communication conventions and security paradigms.

Specific features that the healthcare community should look for in EXTOL Integrator include:

- **State Medicare and Medicaid Processing** - EXTOL's ability to apply business rules and business logic to all transactions can allow organizations to add information not provided in the data from trading partners.
- **Datastore for HIPAA-Imposed Content** - EXTOL's HIPAA Compliance Version contains a database expressly for healthcare players managing the "missing" pieces on incoming and outgoing messages.
- **Security and Encryption** - Employing the latest EDIINT, and PKI technologies, EXTOL lets customers meet stringent security, authentication, validation and non-repudiation requirements.

- **Conversion of HIPAA to HCFA** – EXTOL can convert the HIPAA/X12 837 Transaction Set (Claim) to HCFA 1500 format to protect existing integration investments.
- **Future HIPAA Standards Requirements** – EXTOL has a seven year track record in providing customers B2B and EDI technology to succeed in a rapidly changing environment. As one of the few transformation providers to support all past and current versions of both US and International standards, EXTOL's healthcare industry customers can rest assured their EDI and Integration systems will accommodate HIPAA's planned and projected requirements.
- **Rapid Implementation of Electronic Trading Relationships** – EXTOL makes this possible with automated functionality added to a broad range of user friendly, automated processes. Across most industries EXTOL users report new partnerships set up in less than a day.
- **Expertise in Healthcare Transaction Processing** – EXTOL's Customer Support and Professional Services Teams have been delivering successful implementations (success = rapid deployment with a minimal cost to IT of ongoing ownership) to customers in all facets of the healthcare industry - from providers, payers and suppliers, to distributors. EXTOL is the recognized leader in EDI and Integration software for the mid-sized enterprise running midrange systems.
- **Support for Multiple Communications Methodologies** – EXTOL helps the healthcare community adapt to a wide array of e-commerce scenarios, communications methodologies and data transfer protocols including: the Internet, IP Portals, traditional commercial networks, VAN's of every description, peer to peer communications and the Internet, as well as private networks.
- **Integration with New and Existing Applications** – The EXTOL software was designed to seamlessly integrate e-business systems with business application software.

EXTOL has a well-established presence in the healthcare market, with customers from within the provider, payer and processor communities. The company's vast experience in healthcare has allowed the firm to develop product and service support offerings that automate, integrate and minimize the integration efforts that will be required to comply with HIPAA rules while striving to achieve the business objectives of the entire community of interest.

About EXTOL International, Inc.

EXTOL International, Inc. has become the market leader in electronic commerce software for the mid-market enterprise by delivering solutions that are rapidly deployable and have a low cost of ongoing ownership. EXTOL has established a reputation as a provider of comprehensive B2Bi software applications for the AS400, NT and Unix platforms by including superior integration, communications, commerce management and end user access features.

EXTOL Integrator is a high performance EC system able to execute the critical partnership management, processing and integration requirements necessary for a competitive advantage in a wide array of industry and business settings including traditional X12 or EDIFACT-based EDI, the new frameworks of the XML initiatives and web transaction management. EXTOL Portal utilizes IP technology to deliver partner connectivity and management at less than half the cost of traditional VANs. EXTOL Secure provides the internet communications supporting most popular security standards, including AS1, AS2, Secure Sockets Layer (SSL) and digital certificates.

With over 600 customers, EXTOL has been named to the Inc. 500 two consecutive years, ranked in the Software 500, and recognized by Deloitte and Touche as a member of the nation's Fast 500. EXTOL is also an IBM Business Partner. Additional information about the company can be found at www.extol.com.