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# **Testing and Certification**

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A White-Paper Describing the Recommended  
Solutions Associated With Compliance  
Certification of the HIPAA transactions

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**SNIP recognizes the critical importance of Industry review and input to the successful implementation of HIPAA. So please take this opportunity to participate and let your voice be heard.**

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# **Transaction Compliance Certification White-Paper Purpose and Scope**

## **Purpose**

The SNIP Transaction Set Testing SubWorkGroup has identified issues related to the compliance certification of transactions as related to the HIPAA Transaction and Code Sets Final Rule. The purpose of this white paper is to document the different types of compliance certification provided by the certifying bodies and to list those certifying bodies and testing systems found to date.

## **Scope**

The scope of this white paper will address the following specific testing certification issues:

1. What are the different levels of testing necessary for transaction certification systems?
2. What level of transaction certification testing will be the minimal acceptable to payers and what testing level will be acceptable as sufficient for their approval processes?
3. What other issues, related to transaction testing, will be required for successful certification and payer acceptance?
4. What entities provide testing facilities today? What level of transaction testing do they provide?

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## Overview

HIPAA regulations and compliance thereof will require health plans to test the standard transactions with a large number of submitters, and providers to test with all their health plans as they become ready, all in a relatively short timeframe. It is expected that this testing will overwhelm both health plans and providers once they have made initial changes to their systems relating to the transaction changes necessary to comply with HIPAA and they have completed the initial beta test phase.

Consider using a third party to certify the trading partners as “compliant” with the HIPAA Implementation Guides. The timeframe for testing among trading partners could be dramatically reduced thereby assisting in the implementation of the transactions and code sets and reducing the cost of implementation.

Given the need in most cases to test with real transaction data produced by a “live” system, it should be noted that any testing performed through a certification system should be subject to the HIPAA security and privacy requirements with respect to the confidentiality of patient identifiable information. All precautions should be taken to eliminate the possibility that patient information be exposed.

In spite of all the automated testing, it will still be necessary to assure the integrity of the data when completing a “round trip.” This white paper does not deal with the necessary testing of the application and adjudication systems. These systems must be tested to ensure that data elements are not truncated, ignored, or mis-processed in other ways. The testing of these applications is outside of the scope of this white paper. (*Refer to the SNIP Business-To-Business Transaction Testing White Paper.*)

## Background

**Subtopic 1:** What are the different levels of testing necessary for transaction certification systems?

Different transaction certification systems will conduct different levels of testing. This testing will vary from a basic level integrity checking to a more intricate level of detailed testing. It is the purpose of this subtopic to define those different levels of testing used by the certification systems.

**Subtopic 2:** What level of transaction certification testing will be the minimal acceptable to trading partners and what testing level will be acceptable as sufficient for their approval processes?

All trading partners should go through at least a minimal level of testing, and, if a covered entity has performed a certain level of testing and obtained third party certification, the trading partners will be able to accept the validity of the HIPAA compliance established by the third party, or at least to reduce testing through their own systems. This will create quicker testing turnaround timeframes and expedite the implementation of the HIPAA transaction sets.

**Subtopic 3:** What other issues, related to transaction testing, will be required for successful certification and trading partner acceptance?

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A third party certification mechanism for the integrity of the data when translated by a clearinghouse becomes necessary. Especially, when translating from/to pre-HIPAA legacy formats, the potential for data corruption or truncation is very real. There should be a mechanism to certify data integrity in a clearinghouse, otherwise each pair of trading partners will have to do their own independent verification of the “pass through” integrity of the data going through a clearinghouse.

Protection of patient information should be carefully evaluated when submitting tests to certification systems. Trading partners often require tests with live data, however that may not be allowed by the certification systems. This could potentially produce a gap in the process and ultimately reduce the trading partner acceptance rate of certain certification systems.

**Subtopic 4:** What entities provide testing facilities today? What level of transaction testing do they provide?

A listing of the transaction testing systems discovered to date are listed below. The identifying characteristics of those systems include:

- System Name and contact information
- Standalone or packaged system
- Level of testing performed
- Product or Certifying Service
- Setup Time
- Training Time
- Cost of the testing certification
- Special Functions of the system

### **Business Drivers**

The reasons for writing this White Paper are:

- To provide the healthcare industry with an outline of **issues** required to address the transaction testing and HIPAA transaction compliance certification process.
- To provide a structure of **consistency** across the industry related to transaction testing and HIPAA transaction compliance.
- To **reduce administrative costs** of transaction testing and compliance certification.
- To provide for a mechanism by which a trading partner may **recognize** systems as compliant with the HIPAA transactions in an effort to expedite the testing process between all covered entities.

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### **Recommendation for Solution**

**Subtopic 1:** What are the different levels of testing within transaction certification systems?

**Assumptions:** It is assumed that the levels of testing are somewhat independent of each other. If a compliance certification system performs different levels of testing, it will be noted as such within their information. However, levels 1 and 2 are pre-requisites for the other levels.

#### **Recommended Levels of Testing:**

**Level 1: *Integrity testing*** – Testing of the EDI file for valid segments, segment order, element attributes, testing for numeric values in numeric data elements, validation of X12 syntax, and compliance with X12 rules. This will validate the basic level integrity of the EDI submission.

**Level 2: *Requirement testing*** – Testing for HIPAA implementation-guide-specific requirements, such as repeat counts, used and not used codes, elements and segments, required or intra-segment situational data elements. Testing for non-medical code sets as laid out in the implementation guide. Values noted in the implementation guide via an X12 code list or table.

**Level 3: *Balancing*** – Testing the transaction for balanced field totals, record or segment counts, financial balancing of claims or remittance advice, and balancing of summary fields, if appropriate.

**Level 4: *Situation testing*** – The testing of specific inter segment situations described in the HIPAA implementation guides, such that: If A occurs then B must be populated. This is considered to include the validation of situational fields given values or situations present elsewhere in the file. Example: if the claim is for an accident, the accident date must be present.

**Level 5: *Code Set testing*** – Testing for valid implementation-guide-specific code set values. This level of testing will not only validate the code sets but also make sure the usage is appropriate for any particular transaction. Validates external code sets and tables such as CPT, ICD9, CDT, NDC, status codes, adjustment reason codes, and their appropriate use for the transaction.

**Level 6: *Product Types / Types of Service testing*** – The specialized testing required by certain healthcare specialties. For example, ambulance, chiropractic, podiatry, home health, parenteral and enteral nutrition, durable medical equipment, psychiatry, and other specialties have specific requirements that must be tested before putting the transaction in production.

**Subtopic 2:** What level of transaction certification testing will be the minimal acceptable to payers and what testing level will be acceptable as sufficient for their approval processes?

It is possible that standards be established for testing between providers, clearinghouses, and payers such that the testing and transaction certification results in the reduced testing time among the trading partner systems. Ideally, a provider that has been certified to be in compliance with the HIPAA implementation guides would not

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have to test any further. The same would apply to the payers, for transactions they generate. Therefore a trading partner who has been approved for all six levels of testing mentioned in Subtopic 1, would have no testing required at all with any of the trading partners they would submit to. A submitter who has been approved only for a level 1 or level 2 test, would have more testing to perform with its trading partners.

**Recommendation:** All trading partners should test their transactions at levels 1 and 2 as a minimum before attempting to exchange data with another trading partner. A transaction that does not meet these requirements should not be transmitted, even as a test, to a trading partner.

**Recommendation:** In order to reduce the testing costs and to expedite the implementation process, sending trading partners test their transactions with a third party testing service. The testing service should certify the compliance with the HIPAA requirements by issuing a certificate of compliance that specifies the different levels of testing passed. The receiving trading partners should accept transactions from a submitter that has been certified to comply with levels 1 through 6 without requiring any further testing. Acceptance of transactions from submitters not certified to comply with some of the test levels is subject to further testing by the receiving trading partner.

**Recommendation:** In order to reduce the testing costs and to expedite the implementation process, “receiving” trading partners test their translators and their maps with a test suite sufficient to represent the possible transactions received. This testing should not be dependent on trading partners willing to send the relevant transactions, but should be established **before** the receiving system goes into production.

**Subtopic 3:** What other issues, related to transaction testing, will be required for successful certification and payer acceptance?

**Recommendation:** Clearinghouses should test their operations, not only at the EDI interface level like all other trading partners, but also at the translation and data integrity levels. Especially when translating from/to pre-HIPAA legacy formats, the limitations of the translation process, data constraints, data mapping, and the population of HIPAA transactions from table driven data by the clearinghouse must be tested, documented, and available to the trading partners including certification agencies.

**Recommendation:** Patient Identifiable Information should be encrypted or eliminated from tests submitted to the certification testing systems. If the testing systems receive patient identifiable information, the testing systems must be in compliance with the HIPAA regulations concerning security, privacy, and business associate agreements.

**Recommendation:** Trading partners should evaluate at least one HIPAA transaction compliance certification system, and if the certification is adequate, should accept the certified trading partners without further testing.

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**Subtopic 4:** What entities provide testing facilities today? What level of transaction testing do they provide?

**Recommendation:** Below are some of the certification and testing systems and services available on the market today. It is not the intention of this white paper to promote any particular system or service mentioned below. These are merely examples of systems and services available and this list is not inclusive of all testing systems and services, simply a sample of what is in the market today.

### **Value in Accepting**

Appendix A on the following pages contain a Table of organizations offering Transaction Certification Products, whether application software or services. The value in accepting the preceding recommendations and becoming Certified through an organization like the ones on the following Table, will be to provide guidance to health plans, health care providers, and clearinghouses regarding the testing process.

By following these recommendations and becoming Certified the testing timeframes with Business Partners and Associates will undoubtedly be drastically reduced. And thereby meet the implementation of the HIPAA standard transactions, in a timely fashion and at a much lower cost.

## Transaction Compliance Certification

### APPENIDX B

#### Certification Systems and Services:

Certification System or Service Name	Standalone/Package d	Testing Levels	Product or Certifying Service?	Setup Time	Training Time	Cost	Functionality
EHNAC Standard Transaction Format Compliance System (STFCS) <a href="http://www.ehnac.org">www.ehnac.org</a>	Standalone, on-line Internet	1-2	Certifying Service	Registration time can be done within hours. Register via e-mail on the web site.	Self-train Follow menus, 1 hour maximum.	\$595.00/yr for 250 tests. More tests \$100.00 for 100 tests. Renewal is \$395.00 a year for 250 tests. EHNAC Accredited corporations receive free tests. Pricing may vary in the future.	Performs testing of all HIPAA transaction sets and implementation guides mentioned in the Transactions and Code Sets Final Rule. Sign on through the EHNAC web site, submit tests and receive results via the Internet.
Foresight Corporation EDISIM	Standalone, Windows based.	1-2	Product			\$6,000 per user	EDISIM - integrated suite of software tools that lets you control the elements needed to expand an EDI program. The tool that would be used for HIPAA certification would be the EDISIM Analyzer. which saves time and improves accuracy by checking for compliance to any given standard or guideline.
Foresight Corporation Previsto <a href="http://www.previsto.com">www.previsto.com</a>	Standalone, on-line Internet	1-2	Certifying Service			Publisher guideline that others will use to test will cost \$495/month. 2+ messages is \$295/month. All subscriptions are for 6 months min.	Previsto is a web-based product that allows someone to publish their guidelines. Then trading partners are allowed to test against those guidelines.
Sybase (NEON / PaperFree) HIPAA Tool kit	Packaged with translator	1-5	Product				HIPAA Toolkit is a product enhancement to PaperFree's map development tool ECMap. Compliance checking maps can be generated to verify compliance to the implementation guides. The baseline maps can be enhanced with specific rules that will further test business logic and flow. Validation testing and cross-reference checking are among the testing capabilities within this product.

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Certification System or Service Name	Standalone/Package	Testing Levels	Product or Certifying Service?	Setup Time	Training Time	Cost	Functionality
Claredi <a href="http://www.claredi.com">www.claredi.com</a>	Standalone, On-line, Internet, or dial-up	1-5 6 in 2Q 2001	Certifying Service			Unlimited testing and certification for a flat subscription fee.	Transaction testing, & also Internet Security communications and interoperability testing. Secure test site and procedures follow HIPAA Security NPRM requirements so testers can send real production data. Customer support staff is healthcare EDI trained to assist with the test results. Publishes a library of standard test cases that can be used by trans receivers to test compliance of the translator receiving the trans. These test cases include both compliant and non compliant tests. Testing and certification status, by trans Set, of all trading partners posted on the Internet. Additional trading partner facilitation services.
Mercator	Packaged with translator	1-5	Product	Hours	Months	Up to \$200,000 for the translator engine. \$3,000-5,000+ per authoring seat. Includes X12 maps	The Mercator engine and authoring system combine to build a comprehensive mapping solution for any organization. Mercator's built in functions allow for the table verification and balance checking needed for this level of certification. Mercator also supplies X12 maps for HIPAA trans sets.
GE Global eXchange Services (GXS)  <a href="http://www.gegxs.com/">http://www.gegxs.com/</a>	Packaged with translator	1-6	Product	Minutes per business partner	Translator product requires training.	Call for more information and quote 1-800-560-GEIS or visit web site <a href="http://www.gegxs.com/">www.gegxs.com/</a>	Net Community Manager service provides web-based testing of HIPAA transaction sets. NCM includes on-line error reports, testing history, to-do tasks for trading partners to follow program requirements, and posting of specs, test documents and guidelines. GXS also provides a full line of additional EDI products and services.

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## **APPENDIX B**

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### **Acknowledgments**

The SNIP Transaction Set Testing SubWorkGroup is comprised of organizations from all facets of the Health Care Industry. The following list represents many of the organizations participating in this Testing SubWorkGroup. The Members of these organizations which have volunteered their time and energies are greatly appreciated and acknowledged.

BlueCross/BlueShield of Florida  
BlueCross/BlueShield of Kansas  
California Association of Health Plans  
California Department of Health Services  
CIGNA  
Claredi - special thanks to Keba Zubeldia, co-writer of this document  
The Cleveland Clinic  
Complete Business Solutions, Inc.  
Electronic Data Systems  
Empire BlueCross/BlueShield  
GE Global Exchange Services, Inc.  
HDX  
Health Care Finance Administration  
IDX  
IHC  
John Muir / Mt Diablo Health System  
Mayo Clinic  
McKessonHBOC - special thanks to Mark McLaughlin, co-writer of this document  
Missouri Medicaid  
New Era of Networks Inc.  
State Farm Insurance Companies  
Verizon, Inc.  
Washington Department of Health Services