INPUT

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June 7, 1988

Ms. Karen Mickevicz
Manager – Customer Applications Analyst
Bell Communications Research
290 West Mt. Pleasant Avenue
Room 3D 237
Livingston, NJ 07039

Dear Ms. Mickevicz,

I am happy to send you the *final* report on the results of our customized research on EDI use in the industries and application areas as outlined in our proposal.

Any changes in this version would be purely grammatical. No content has been changed.

Thank you for allowing us this opportunity to be of service to you and Belcore, and also thank you for the referrals to others at your company. If we can be of assistance in the future, do not hesitate to contact INPUT.

Sincerely,

Victor S. Wheatman

Victor S. Wheatman
EDI Planning Service Manager

MAY 1988

A STUDY ON EDI, EMC, INTERFACE

Prepared for Belcore
by
INPUT

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Table of Contents

Table of Contents (Continued)

Table of Contents (Continued)

Table of Contents (Continued)

Table of Contents (Continued)

Introduction

Introduction

A

Objectives

The objectives of this study is to provide Bell Communications Research with quantitative and qualitative information in several specific areas regarding EDI/EMC and Insurance Interface usage.

B

Purpose

The purpose of this project is to assist Bell Communications Research in understanding the special needs for each vertical/application area relative to adoption of EDI, and to provide a sense of transaction types and transaction quantity in typical user settings.

C

Scope

This project examines the following areas:

Health Care: Electronic Medical Insurance Claims Submissions and Hospital Purchasing (two functional areas).

Insurance: Electronic Medical Claims and Agent/Company "Interface" (two functional areas). Note: The report combines EMC results into one section.

Retail: specifically grocery.

Federal Government Agency Purchasing.

Banking/EFT-EDI transactions.

D

Methodology

INPUT developed a questionnaire, which was approved by Bell Communications Research, and administered the questionnaire to EDI/EMC/Interface coordinators at companies and agencies representing the industries and functions identified above. While several interviews were conducted on-site, most were telephone sessions.

Although the contract called for 14 interviews, INPUT actually interviewed a few more in an attempt to gain representative and useful responses in some segments.

On the interview summaries, under issues, the ranking scale of 1-5 was used with "1" being of no concern and "5" being of great concern.

Health Insurance Claims Processing

Health Insurance Claims Processing

A

Introduction

EDI techniques are used for submitting claims to health insurance carriers, using electronic versions of formats developed in support of Medicare claims processing and other "standardized" formats called HCFA 1500 and UB 82. This type of EDI is called EMCS for Electronic Medical Claims Submissions.

Such services are provided by the National Electronic Information Corporation (NEIC), a clearinghouse for several insurance carriers), General Electric Information Services Company, Blue Cross/Blue Shield insurers, several other insurance carriers and computer service firms.

Bell South, Southern New England Telephone (SNET) and possibly other BOC are providing LADT networking services for EMCS data transport. SNET, working with Blue Cross/Blue Shield of Connecticut's subsidiary ProMed, is supporting EMCS on the ConnNet statewide packet network. Data bases are also available on the service called Connecticut Health Information Network (CHIN). Bell South is the providing network to deliver EMCS data to National Data Corporation for processing.

One of the problems in developing this market are Third Party Administrators (TPAs) who provide services to health insurance companies and self-insured users. Since most TPAs are small companies (under $5 million), they may not have the resources necessary to implement EMCS. Further, EMCS services may tend to bypass their own functions in some cases implying a threat to their business.

Other market inhibitors: Insurance carrier needs for a numerically coded diagnosis rather than the medical terms; requirements for an attached physician's interpretative and surgical reports; discipline at the health care provider level to accurately enter data required by carriers. Also, the state insurance programs often require unique standardized formats making a uniform approach difficult.

There is apparently no industry association championing EMCS development, another factor inhibiting market development.

Despite these inhibitors, the potential for health claims processing becoming a major EDI application is significant.

The health care industry is addressing cost containment in response to government, business, and consumer pressures. Losses by health insurance companies of over $1.25 billion were reported in 1987, and several insurance companies have abandoned health insurance as a result. Meanwhile, health insurance premiums continue to rise. Annual health care spending as a whole is now approximately $500 billion annually, and represents nearly 11% of the gross national product.

In 1987, the average corporation spent $1,985 per employee annually for health care and health care claims administration. This represents an increase of nearly 8% over 1986 when a 7.7% increase was reported over the previous year. In 1988, the average cost per work is expected to rise to $2,100.

Additionally, errors in health claims have been reported in virtually all bills over $10,000.

The potential for EMCS is great. An estimated three billion paper-based medical claims are mailed each year, involving over 500,000 physicians and hundreds of insurance carriers. These documents lead to additional transactions such as remittance advice and benefits coordination between multiple carriers.

In addition to physicians, there are over 100,000 dentists, 60,000 pharmacies, 6,000 hospitals, plus nursing homes, alternative health care providers and suppliers of medical equipment, and services such as ambulance companies which represent the potential user market.

The Health Care Financing Administration (HCFA), which is responsible for the U.S. Medicare program, is working towards a 1990 goal of having half of all Medicare Part B claims processed electronically. However, respondents report this goal may be modified since governmental changes are reducing the EMC benefit of speedy claims payments in Medicare. INPUT estimates that approximately 35-40% of Medicare claims are now handled electronically.

Working to increase the use of electronic claim filing is increasing acceptance of in-house turnkey hospital, physician and other medical practitioner management systems, and remote computing service vendors which automate bill processing, providing automated links to insurance carriers.

INPUT interviewed individuals responsible for EMCS at hospitals, a billing service and talked with insurance/health care service plan companies involved in this area.

B

Health Care/EMC

Blue Shield of California
2 North Point
San Francisco CA 94133

Richard Lee, Manager ECS, (415) 445-5164

1. Background

Blue Shield of California, a health care service plan regulated by the Department of Corporations, handles Medicare Part B processing from physicians' offices, some medical service companies (such as ambulance companies and medical equipment suppliers) and claims offices/billing services, handling 51 of 58 California counties, with TransAmerican Occidential handling Southern California counties (see next interview). This company has 2587 employees. It is non-profit and reports 1987 revenues at $2.5 billion, including investment income and Medicare payments.

2. Transactions

Medical insurance claims are just getting started on private Blue Shield plan claims processing (800,000 paper claims on private annually). Interview focused on Medicare.

3. Transaction Size

Average claim size is 560 bytes.

4. Transaction Frequency

Last month, 28,342 claims were handled in an average day, half being done via telecommunications, the other half on mag tape.

5. Communications

Blue Shield has three data centers. It supports 1200 asynch and can handle 3780 RJE bisynch protocols. Most are handled via direct dial-in, with approximately 2500 claims per month coming in through GEIS' EMC*Express. GEIS also sends some private plan claims (included in that figure).

6. Percentage Total Transactions Handled Electronically

Claims, in paper and electronic forms, come from 33,300 physician/ groups, and 8,700 other providers of services such as ambulance companies and durable medical equipment suppliers. On average, 38% are handled electronically, half on tape, half via telecommunications. Last month, total claims volume was 650,000 electronic claims, representing 40.4% (telecom and mag tape). No projections on growth.

7. Benefits

Save .40—50 per claim to process electronically over paper. Strategic benefits: to the user, they control data entry/input thus lowering transcription error rates.

8. Issues

Need to make it simpler for people to get started. Clearinghouse concept is ideal in terms of getting one layout. People who do high volume with one carrier or insurance company want to do it direct. Blue Shield does it without charge. GEIS collects transaction charge and sells service to a vendor who adds a mark up. Their perspective is it that costs less to process the claim electronically and therefore can do ECS for free.

"We have not even scratched the surface on claims with attached narrative reports, we can't process those. Have to match electronic and mailboxed claims and merge them. Technology is there, but getting people together to make it happen is the issue."

Questions what's going to happen in terms of government processing and with pressures on controlling medical costs. Will we see more fee schedules which will tend to turn off people from becoming more efficient?

Also, talk about Medicare payment floors being started on July 1 will not allow payment any sooner than 10 days. But they are required by law to pay within a certain time anyway, so with the pipeline filled, providers lose little of the float. There is a window between the coming payment floor restriction and the legal requirements.

Competitors: 1 "We're not in a competitive situation."

Entire System: 4 "We did not set up to interface with the explosion in telecommunications of late. Our system was installed five years ago. Using voice-grade lines a drawback; sometimes drops the line."

Security: 2 "We have two levels of security."

Software Maintenance: 2

Changing Business Practices: 1

Reliance on one vendor/vendor viability: 2

Standards/Compatibility: 3

C

Insurance Company/ Health Claims

TransAmerican Occidental
1150 South Olive Street
Los Angeles CA 90015

Nancy Shaman, Manager, Medicare Electronic Claims Processing, (213) 742-2585

1. Background

Company processes Medicare claims (Part B only) for the seven southern California counties. Company dropped out of the group health insurance business. Also handles some MediCal claims by sending tapes to the contractor for the State of California (was CSC, now or soon to be EDS).

2. Transactions

Medicare claims, using a modified HCFA format which contains the same information and specific format as mandated by HCFA, but with additional information as required by their needs. Payments to health care providers are sent by check, although an output tape is available to post accounts.

3. Transaction Size

Respondent says the format specifies each record at 300 bytes, with a single claim having at least three records for a one-line claim. Could be up to ten lines, and most submitters send more than one claim at a time, some up to 5,000 claims. There is no typical transaction size.

4. Transaction Frequency

Receives about 30,000 electronic claims daily.

5. Communications

Some providers transmit directly to them, but also pick-up from GEIS' EMC*Express. Supports 1200-2400 bps asynch and 4800 bps for incoming claims.

6. Percentage Total Transactions Handled Electronically

Respondent says they electronically process about 36% of the entire regional Medicare claims workload for HCFA. Telecommunications accounts for approximately 60% of transaction volume. Also receive claims on diskette (less that 1 percent) and mag tape (about 40%). There are approximately 35,000 providers, with nine to ten thousand electronic submitters. No projections or even a guess as to additional partners to be added this year. May lose some of the smaller providers due to governmental changes (see issues, below.)

7. Benefits

They save .25-.30% per claim over paper claim processing. Strategic benefits are faster processing, cost savings in the long run for providers.

8. Issues

Some physicians don't accept Medicare patients, small billers don't see benefit to them in going to EMCS, but company is still attempting to market them. Have most of the larger volume health care providers. Has had problems with software support, particularly when changes are put in, providers may use 50-60 different software packages which are approved.

Respondent thinks Medicare processing has just about plateaued, with new providers generally smaller volume. May get to 40%. Also, governmental changes which will place floors on how soon Medicare claims can be paid, will severely impair their effectiveness with the benefit of speed of turnaround. Says that government has not mandated increased electronic claims expected due to unknown impact of these changes. "We've pushed all these years, dangling the carrot, but now we're being forced to pull back some of the incentives" in the Medicare electronic processing area only.

Competitors: 1

Entire System: 3

Cost: 2-3 "We will spend to save."

Security: 4 "We're handling this."

Software Maintenance: 4

Changing Business practices: 1 Conversion was relatively easy.

Reliance on one vendor: 5 Regarding their own system.

Vendor Viability: 3 Some software companies have gone out of business.

Standards: Have been around since 1981, few changes except as mandated by government.

D

Health Care/Hospital/ Medical Claims

Washington Hospital
2000 Mowry Blvd
Fremont, CA 94538

Sandy Day, Government Programs Supervisor, (415) 797-1111

1. Background

This private hospital is licensed for 265 beds. Revenues not released. Approximately 1000 employees.

2. Transactions

Electronic medical claims for Medicare, regular Medicare in-patient and Part B Medicare only. Blue Cross (in Van Nuys) is used as their primary intermediary. They are using UB 82 as a guideline. For this, data is rekeyed off the paper UB 82 and transmitted. They also bill through Blue Shield Medicare for professional components of the bills (doctor's charges) electronically, however, this system was installed by a small company. It downloads data from the hospital's mainframe, mapping it into the required format onto a diskette which is inserted into a PC, and the communications and uploading session is automatically handled. Acknowledgements are very important, get rejects back each time log on for resubmission to Blue Shield. Blue Cross is slower on acknowledgements.

3. Transaction Size

Estimated at between 200-500 characters entered on the electronic form, depending on charges. However, with regards to the system which downloads data from hospital's mainframe onto a diskette is uncertain as to file size.

4. Transaction Frequency

Daily, doing an average of 20 inpatient, 60 outpatient, and on the Blue Shield system, approximately 150-200 individual payments transmitted. Total daily transactions: 230-280.

5. Communications

Uncertain regarding VAN usage since Blue Shield system dials automatically. Doesn't know modem speed.

6. Percentage Total Transactions Handled Electronically

Thirty-seven percent of claims are billed electronically, exclusively Medicare. Also have 13% MediCal patients. There are 107 Preferred Provider Organizations under contract to the hospital, none handled electronically. Looking at using the NEIC clearinghouse.

7. Benefits

Cash flow is faster. Unquantified savings on downloading system which obviates rekeying.

8. Issues

Want to get away from keying data on Blue Shield Medicare claims. Feels any form of electronic billing is an enhancement. EMC is starting slow, but next year, a lot of people will be doing it.

Competitors: 1 "We're pretty advanced in this area."

Entire System: Very concerned about the Blue Shield software system installed by a small company because it has no support; if it goes down "I'm on my own." Not concerned about Blue Cross system.

Cost: Is charged by one of the intermediaries, concern about that one.

Security: 1 "No fear."

Maintaining Software: "I'm real worried about that Blue Shield Software. There's not going to be support in the future, these little companies could fold in three seconds."

Changing Business Practices: 1 "We've been slowing changing over to paperless whenever possible. Every time we do that, people get panic stricken that they won't be able to survive, but after a few months, they handle it like they've always been doing it that way. Training new people is easier—this is your job and this is how we do it."

Reliance on One Vendor/Vendor Viability: 5 Due to above comments.

Standards: 1

E

Health Care/Hospital/ Electronic Medical Claims

Alta Bates/Herrick Hospitals
3001 Colby Avenue
Berkeley, CA

Gail Greene, In-Patient Medicare Manager, (415) 540-0337
Jane Cronin, (415) 540-4018

1. Background

Two hospitals have been merged forming this non-profit corporation. Combined, there are nearly 600 beds.

The hospital has a Shared Medical system that has UB 82 information from Medicare and Blue Cross inpatient/outpatient records and is downloaded onto floppies and then taken to business services. There, Qube software interfaces with DDE (Direct Data Entry), which apparently resides on the Blue Cross computers, and then the transfer is accomplished, with Qube and DDE mapping the information.

2. Transactions

Medicare ECS is sent to Blue Cross in Southern California. Blue Cross Standard Claims are billed using ECS, both using UB 82 formats and Blue Shield Part B Medicare outpatient claims for professional fees (Emergency room, doctors), using HCFA 1500. The hospital has a contract with a billing service called Medical Overload to submit claims to the state program, MediCal, electronically. Paper is sent to the billing service. No other ECS billing.

3. Transaction Size

Two screens on average for each claim under the UB 82 format. Could not estimate character count.

4. Transaction Frequency

For inpatient Medicare, between 23 and 75 claims daily, for outpatient Medicare, 100-200 daily.

5. Communications

Unaware of modem speed or networks used. Respondent did know about NEIC, but it wasn't being used here.

6. Percentage Total Transactions Handled Electronically

Respondent could not estimate.

7. Benefits

Greatly reduced errors. No cost analysis.

8. Issues

Believes Qube is adding NEIC interface to the software. Says that NEIC is only good for a small percentage of claims, that all claims over $10,000 go into medical review by the insurance companies, reducing the promised rapid turnaround.

Says programming kinks drive non-computer people crazy. There were times when DDE was down and system got overloaded. Couldn't handle volume.

Competitors: 1

Entire System: 4 "I have general problems with SMS - you need to know computers."

Cost: Pays for DDE connections through Blue Cross but we would have that cost regardless. Didn't know cost. Not concerned.

Security: 1

Software Maintenance: 3

Changing Business Practices: "We don't have a recall system to call up information from the desktop. We still use paper."

Reliance on One Vendor: "Need one company such as SMS to gather the information."

Standards/Compatibility: No concern. On-line edits are very good to prevent return of bills with errors. Universal billing form was supposed to handle lack of uniformity. Part B is a requirement from Medicare to separate out professional fees. MediCal doesn't accept UB 82 (is being handled by EDS in Sacramento).

F

Electronic Medical Claims Billing Service

Safir Program Systems
1710 S. Amphlett Blvd St. 115
San Mateo, CA 94402

Orin Safir, President, (415) 570-7575

1. Background

This company's primary focus is software and systems sales. Billing services are offered to introduce physicians to their software, not considered central to their business. Statistics felt not to be meaningful, however the respondent had some perspectives worth reporting.

2. Transactions

UB 82 primarily writing software for NEIC. Services used by physicians and by durable medical equipment providers, labs, and ambulance services.

3. Transaction Size

Respondent says that transactions could be condensed to 200-300 bytes. Blue Shield's 80-byte records are compact. Others treat the entire claim as a record, with lots of blank space in the fixed length fields. Only the data, not the template, are sent.

4. Transaction Frequency

Can't estimate volume, feels not relevant to a market study.

5. Communications

Twelve hundred or 2400 BPS, most carriers don't ask for faster speeds. Mostly dial direct, one carrier using IBM Information Network.

6. Issues

Feels there is apathy by doctors. So wealthy, don't really care about case flow. Government has subverted EMC benefits with floors on payment (a way of handling deficit by slowing payments). AMA has told congress this is discriminatory. Feels GEIS approach is bad because of transaction charges. Feels NEIC approach (clearinghouse) makes good sense. Security: an issue when you get something back from carrier, such as pending claim information, etc., but feels password protection is satisfactory.

G

Insurance Company/ EMC

Traveller's Corporation
Hartford, CT

Paul Barrett, Vice President, Data Processing, Employee Benefits
Richard Landpher, Health Claims, (203) 177-4449
DO NOT CALL

Barrett made a presentation in March at a conference. Most information reported here from that presentation. Landpher did not want to participate because felt information was competitive, although did give some information.

1. Background

Traveller's is a holding company of about $17.5 billion in annual sales, with assets of $50 billion. There are 150 companies in the group. It is part owner of NEIC and has several ventures and joint development efforts underway in this area.

2. Transactions

Medical claims in UB 82 and NEIC which he reports is moving to the HCFA formats.

3. Transaction Size

Landpher did allow character counts of 300-500 per claim.

4. Transaction Frequency

Would not respond. Presentation indicates five million daily transactions of all types, 60% ECS. Says 100% of hospital Medicare claims are processed electronically, but company has 50 remote medical claims processing centers which do data entry, using 4,000 people to key-in data. Becomes electronic after this process. Moves five tons of paper daily (!).

Says that in 1987, 32.5% of Medicare payments were totally EMC, untouched by human hands. A model system built for HCFA and Travellers is fixing the documentation used by people bidding on Medicare claim processing. Commercial electronic claims coming in via NEIC are growing slowly.

5. Communications

Company has an extensive private network.

6. Percentage Total Transactions Handled Electronically

Barrett indicates company deals with some 600,000 providers.

7. Benefits

"We are a strategic management company. Our networking and computer skills are assets. We want providers to do EMC to reduce administrative costs on both sides."

H

Hospital Electronic Purchasing

The best known EDI implementations in electronic hospital purchasing are captive systems, but there are indications these captive systems are being opened by their owners to allow multi-vendor purchasing. The competitive advantage of being the first such system has now decreased with several electronic ordering systems in place, and at least one vendor is seeking to retain revenues by being a conductive agent for hospital ordering.

The classic captive system is operated by Baxter-Travenol, which purchased American Hospital Supply, a manufacturer and distributor of medical equipment. It offers the ASAP (Analytical Systems Automated Purchasing) private EDI system, which allows customers to uses terminals, touch-tone phones, portable terminals, bar code scanners and processors of all sizes to enter orders. (Two respondents referred to this as "ASAP Five." Over 500,0000 products are available to some 6,000 customers. Messages and special requests can be sent to customer sales representatives. The system can translate between a customer's stock numbers and Baxter's order numbers, and can provide sorting and customized management reports.

Optionally, the system can automate ordering with the ASAP computer, compiling a list of recommended purchases for electronic approval.

Baxter-Travenol, working with GE Information Services, is opening this "closed" system to other suppliers, allowing purchasers to buy from multiple sources through the same conduit. The new service is called ASAP*Express, in keeping with GEIS' series of EDI*Express services.

Other network service vendors are attempting to address this market. McDonnell Douglas recently certified the medical industry's Material Management System as compatible with EDI*Net. Sterling Software Ordernet division appears to have pulled back from its planned HOP (Hospital Ordering Program) development. IBM has a relationship with Abbott Labs QuickLink captive system.

INPUT interviewed buyers at two hospitals to gain their perspectives on Hospital EDI.

I

Hospital/Purchasing

Washington Hospital
2000 Mowry Avenue
Fremont, CA 94538

Lisa Norwalk, Assistant Director, Materials Management, (415) 791-3460. WOULD NOT LIKE TO TALK WITH BELCORE.

1. Background

Private Washington Hospital has 265 beds and approximately 1000 employees, serving a 150,000 population suburb of San Francisco. Would not release revenues.

2. Transactions

Electronic purchase orders with two med/surg suppliers: Baxter Travenol's ASAP 5, Kendall McGaw.

3. Transaction Size

Average is between 70-80 line items, spread against several purchase orders weekly, but transactions can run anywhere between 1-80 line items. This hospital batches orders. Maximum 20 characters per line item.

4. Transaction Frequency

Purchasing is done only on Monday and Wednesday. Hospital batches orders.

5. Communications

Direct dial methods are used with a 1200 bps modem. Respondent says they would not consider using a third party network for this application (may not be aware that access is probably through such a network.)

6. Percentage Total Transactions Handled Electronically

Estimate 420 total line items weekly with 15% of all transactions handled electronically, with the balance handled by phone. May add two or three more suppliers this year.

7. Benefits

Time savings, checking on back orders,"find out what's going on with the company." Strategic benefits: fast, ease of using telcom and desirability of service.

8. Issues

Need more vendors that can be interfaced with Compunet software she uses. The software doesn't seem to allow them to access other suppliers. Need more time to expand usage. Would use the method more but there is a lack of time to set up systems, to coordinate communications with the vendors.

Competitors: 2

Entire System 4

Costs: 2

Security: 2

Software Maintenance: 3

Changing business practices: 4

Reliance on one vendor: 3

Vendor Viability: 2

Electronic standards and compatibility 3

J

Health Care—Hospital Purchasing

Stanford University Medical Center
300 Pasteur Drive
Stanford, CA 94305

Angela Serrone, Buyer, Materials Management Department, (415) 725-4505

1. Background

The hospital has 650 beds. The interviewed hospital buyer is dealing on an electronic basis mainly with Baxter Travenol (ASAP), and Abbott Laboratories. Also trades Fisher Scientific, VWR, National Health Care (Bergen Bruswig), Johnson and Johnson, Thomas Scientific, Baxter Scientific, Baxter Mueller, other parts of Baxter, Surgico, Ethicon, and Codman.

The Baxter-Travenol inventory system is being used by the university computer, and the process is in transition from a PC and Mini-based system into a mainframe environment, although the PC will remain as a workstation.

Several of the suppliers are accessed via Baxter Travenol's ASAP system by working through sequential windowed screens, but requiring strings to access the additional suppliers.

2. Transactions

Two software packages are principally used for the primary suppliers to facilitate electronic purchase orders, working in a batch mode after orders are entered and approved. Invoices are received in paper.

Receiving order acknowledgements is rated at a high "5".

3. Transaction Size

Each purchase order has one line item, averaging $500 value. Respondent could not estimate character count.

4. Transaction Frequency

Of twelve total transactions on the day of the interview, five were being handled electronically. Respondent indicated that normally, a higher percentage (approximately 80%) would be handled electronically. Respondent indicated that a range of 11-20 would be typical for total transactions daily. Orders are not generally batched, because quick-turn around is needed and cannot wait for demand or requisitions to build for batch transmission.

5. Communications

Vendors pay for communications. The modem is 1200 bps. Networks used are Baxter-Travenol (which uses GEIS), and Abbott Quicklink (Note: Believe this runs through IBM's Information Network). Abbott Quicklink is being used under a five year contract.

6. Percentage Total Transactions Handled Electronically

Generally, respondent indicates 80% of the purchasing is handled electronically. Plans to add "as many as we can" to electronic purchasing, but respondent was unable to place a figure on this goal.

7. Benefits

Respondent estimates that it costs $75 to manually process a requisition document, and that the university charges this amount for such processing. Respondent believes it cost half or less than half to do this electronically.

If manually processed through a similar government service, per transaction processing charge is $260 (unable to clarify this government service).

Strategic benefits mentioned were faster response times, just-in-time deliveries with lower stockpiling or hoarding since vendor does the actual stocking in a JIT mode. Also, there's no massive paperflow. Since accounting pays vendors faster, better supplier relations, and easier tracking mechanisms.

8. Issues

Respondent would like purchasing reports and is unaware if these are available. However, does get back order reports from some vendors.

A unique issue in this case was a decision two years ago separating the hospital from the university in most functions; however, now contracting and purchasing are being merged again.

Competitors: 3

Entire System: 4

Cost: 4

Security: 5

Software Maintenance: 4, Although the vendor maintains the software.

Changing Business Practices: Respondent feels this is more of a vendor concern, since can go either to preprinted forms or software generated ordering "forms."

Reliance on one network: 2

Vendor viability: 3

Standards: 4

Other issues: Would like to see cross industry usage of barcodes by hospitals. Feels this is because of economics.

Insurance

Insurance

A

Background

EDI in the insurance industry is known as Interface.

The best known example of an EDI service for property and casualty insurance underwriting is provided through IBM's Information Network (IIN) by Insurance Value Added Network Service, Inc. (IVANS - Greenwich, CT).

IVANS is a separate, non-profit company associated with a relationship with the Insurance Institute for Research/Agent Company for Research and Development (White Plains, NY), two industry groups which were joined several years ago. The association developed the IIR/Acord formats for both paper and electronic documents.

Contrasting with EDI for purchase orders and invoices, insurance Interface is used more for textual than numerical information. It is being used between independent agents and their multiple insurance carriers since companies with their own agents tend to use captive systems.

However, there have been problems in developing independent insurance agents as Interface users.

- Independent agents are less likely to be computerized. Accordingly, mid- to large-size companies would be best candidates, at least in the near term.
- There are technological and training issues to overcome, in part due to the geographic distribution of independent agents.
- Procedures and standards among insurance companies are not standardized.

The IIR is addressing these issues by working to develop improved electronic technical interfaces between independent agencies and multiple insurance companies. This research and development project is called Project Impact.

In 1987, Western Union announced an adaptation of its EasyLink E-mail, called InsLink, targeted to companies wanting to use Interface with generally smaller agents.

Recently, industry associations such as the Independent Insurance Agents of America and the National Association of Professional Insurance Agents are beginning an organized campaign to address industry standards to the insurance interface. The IIA described a model for Interface to:

- Provide agencies with the ability to do business with several companies through common formats.
- Reuse data automatically to eliminate multiple data entry requirements by agents.
- Produce sufficient client and policy detail to satisfy the needs of agencies and carriers.

The INS (UK) service known as Brokernet, using proprietary standards based on the Trade Data Interchange protocol, is used to exchange auto insurance details among major British insurance companies.

Another European project, called RINET or Reinsurance and Insurance Network, aims to support the massive paperwork requirements of companies which underwrite and share insurance risks.

Although this phase of the project called for only two interviews, INPUT talked with five insurance companies on referrals from the first interviews, in an attempt to get representative responses about Interface.

B

Wilson and Shultz

Wilson and Shultz
2300 Bahamas Drive
Bakersfield, CA 93309

Kim Allman, Computer Operations, (805) 327-3111

1. Background

This agency has six agents and does approximately $13-15 million per year.

2. Transactions

Wilson and Shultz has a computer that was installed by Cigna for interactive interface, and is used mostly for quotes and inquiries, although the capability exists to do new policies, renewals, claims and to view accounting records. The company is also looking at batch interfacing with Kemper and American States via IVANS, but respondent feels there are hold-ups at the two companies.

3. Transaction Size

Respondent indicated that data entry for liability and auto schedules may take several hours, especially when dealing with a fleet (auto) customer.

4. Transaction Frequency

From the discussion, it sounded like the Cigna-provided system is used once a week for an intensive, perhaps all day session.

5. Communications

Dial-up using what respondent thought was a 9.6 kbps modem. Batch interface system, when up, will use IVANS.

6. Percentage Total Transactions Handled Electronically

Company represents 10-15 standard insurance companies and an additional 10-15 excess markets or reinsurance companies. Few transactions are currently handled electronically, as indicated, focusing on inquiries and quotes.

7. Benefits

Respondent saw no benefits in Interface. Companies do not offer incentives or additional commissions for using Interface. As it stands now, the agency is doing a lot of the work for nothing in return. If a single input to get quotes from several companies was in place, that would be beneficial.

8. Issues

Respondent is clear that a standardized approach is needed, more than one company with one special computer system. Agents don't want to spend the time, the money or provide the space for multiple terminals, and CSRs shouldn't have to use different systems for different companies.

Competitors: 2

Cost: 4

Security: 2

Software Maintenance: 4

Changing Business Practices: 5 "We have a lot of independent people who find it easier to do things as they have done, they don't want to learn something new, even though its faster and better."

Reliance on one vendor: 3

Vendor viability: 3

Electronic standards/compatibility: 5

C

Ludwig & Fawcett

Ludwig & Fawcett
100 El Camino Real W. # 82
Mt. View, CA 94041

Brady Harrigan, Agent, (415) 962-0813

1. Background

Ludwig & Fawcett has five agents, but respondent didn't know revenues—estimated at $1.5 million.

Although agency represents several carriers (Mercury Casualty, Ohio Casualty, Transamerica, West American, United Pacific and Safeco), they are only doing Interface with Safeco using their interactive screens.

2. Transactions

"Everything"—Policies, new business, claims inquires, claims, E-mail. Can look at insured payment status. Thinks payment advisories and other transactions are available, but they don't use. Print out changes, and receive change acknowledgements a few days later from the company.

3. Transaction Size

D/K but go through several screens per policy.

4. Transaction Frequency

two hours at least on the computer per day, doing 10-15 daily policy inputs and payment status report daily.

5. Communications

This is done in an interactive mode via their PC which connects to the company via a VAN local node, but respondent didn't know which VAN. [NOTE: SAFECO is a member of IVANS, therefore access likely through either IBM Information Network or Telenet.] The modem is 2400 bps.

Says companies are really behind in using Interface. Would do more but other carriers don't have this set up. A few have FAX, however. Still paper intensive. Most other companies want to do it, but appear uncertain how to set up systems, believes they are looking for compatibility and ACORD forms.

Says computer in some ways doesn't really save time or money because they need hard copies nevertheless; they need to input data.

6. Percentage Total Transactions Handled Electronically

One hundred percent of their business with Safeco is via Interface. Respondents are unable or unwilling to guess percentage of total transactions handled this way.

7. Benefits

Able to look at changes immediately, but if paper endorsement sent to company, change could take one month. With Interface, takes one week for company to send changes to insured. Claims are the best because when they input a claim, insured is contacted by Safeco in one hour. With other companies, if sent by paper, they may not be contacted for two to three days. Knowing who was assigned to process claims is the big benefit because can give insured the adjusters name quickly. Can also check on claim payment status.

8. Issues

Thinks SAFECO is using them as the workers rather than Safeco handling input.

Cost - low because company helps out on computer cost, which benefits them, and they pay or help pay for computer.

Security - low. Don't see any problems.

Software maintenance: low. Computer really working as a terminal.

Changing business practices: low concern, because "I like using the computer - enjoy it to make changes and see them and verify they are being done right."

Standards/Compatibility: high. Would be good if all their carriers used the same screens or methods.

D

Bess Moore Nicholaisen Insurance Agency

Bess Moore Nicholaisen Insurance Agency
1050 El Monte Ave.
Mountain View, CA 94042

William M. Moore, Agent (Also, President, Local Chapter of Independent Insurance Agents and Brokers Association), (415) 968-3311

1. Background

Company has three agents, doing $1.2 million per year.

Represents several companies (Fremont, United Pacific, General Accident, Ohio Casualty, TransAmerica, Atlantic Companies) but only doing interface with Atlantic Companies using their interactive screens.

2. Transactions

New business, policy changes, various inquiries and cancellations.

Can check the next day after a new policy is entered to check for rejects/mistakes. Acknowledgement generally via this method and through hardcopy policies sent to agency.

3. Transaction Size

New Policies: approximately 1000 keystrokes/characters. Changes: approximately 500, cancellation, under 100 characters.

4. Transaction Frequency

New business has declined in usage from two per day when started using Interface one year ago to maybe one per month currently. Changes were about three to four per day. Cancellations are infrequent. Now mostly

used for inquiries for three to four hours per month. Respondent finds he is using the system less and less because the interface and the company program is cumbersome, it is easier to mail forms.

5. Communications

Interactive dial up using 2400 bps modem via IVANS node in San Francisco.

6. Percentage Total Transactions Handled Electronically

Estimate that of the approximately 30 policies they write monthly, only doing one per month now, or approximately 3.4%.

Respondent says still need to print and mail transactions even when using Interface. Standards need to be more useful; then they will be accepted. Says the insurance company assumes he knows how to use a mainframe terminal, which is what the PC becomes when on-line. Says the nearly 21 pounds of documentation he received indicates complexity. Software on company side was written in 1978 and is not user friendly. Requires control sequences which are difficult to learn.

7. Benefits

No cost benefits seen. If anything, costs them more. Don't get additional commissions, have to do the data entry, had to learn how to use the system. "It doesn't balance out." Sees subtle benefit in that it is part of the learning curve—there will be more use of computers in agency office, and need to learn how to use them. Most agents have resisted using computers at all. Strategic benefit - getting policy within one to two weeks rather than several weeks may be a small customer service benefit.

8. Issues

Not concerned about competition, not a factor in his business.

Is concerned about costs of system, hard to justify $15-40 thousand for a system that doesn't do what he wants it to do. Communications costs are minimal.

Not a security issue in small office.

Not concerned about changing business practices.

Very concerned about standards, hopes that companies will get together to develop common approach. Is hopeful that the paperless office can happen, that the industry is too paper intensive.

E

Saliba/Charter Insurance Agency

Saliba/Charter Insurance Agency
4051 Wilshire Boulevard.
Los Angeles, CA 90010

Tom Saliba; Frank Marshall; Roy Thompson, DP Manager; (213) 487-5180

1. Background

Company has 62 on staff, 10 agents, doing $40 million per year.

Represents 12 companies as agents, and another 50 as brokers. Is doing primitive interface with Safeco, Great America, Continental and Royal, through IVANS.

2. Transactions

Although principals thought they were doing new business and renewals through Interface, DP manager says only inquiries and E-mail types of things being done now, using a PC as a terminal for the insurance companies. There are plans to upgrade so agents can talk to various companies from their desktop PCs rather than use a dedicated terminal/PC, as is the case now. Looking at using ARC software.

Thompson said that Royal will be mandating electronic claims through Interface, but probably in an interactive mode.

3. Transaction Size

Not applicable since only doing E-mail.

4. Transaction Frequency

Ten to twenty new policies/day, 20 renewals daily, but now being done on paper.

5. Communications

The communications being done now are through IVANS, although I-Net America has been pitching their services to them. Using a 2400 bps modem.

6. Benefits

May cost more to do interface now, but "if we don't get started, we'll be left behind." Customer service benefits improves company image. Cuts down on paperwork.

7. Issues

(All from DP Mgr.) Actions of competitors: low, entire system: 5, cost: 4, security: 5, software maintenance: 5, changing business practices: 4 (Need to "reprogram" the customer service reps to do things via Interface, would have to make people comfortable.) Reliance on one vendor: 1 (IBM will be here tomorrow), Vendor viability: 1, standards and compatibility: 5.

8. Comments

Would like to see network upgrade from 2400 to 9.6 kbps capability (respondent believed network was limited.)

F

Sfigi and Hannon Insurance Agency

Sfigi and Hannon Insurance Agency
Indio, CA

Gilda Sandsness, (619) 347-0737

1. Background

Company has $20 million annually in premium volume, with 35 agents out of some 40 employees.

2. Transactions

Respondent says they are doing claims, inquiries and E-mail to Safeco and CNA, through the IVANS network, but will be going to single-entry with CNA shortly.

3. Transaction Size

Respondent claims that the screens prompt the data entry, and require between 10-25 characters each line, but could not estimate average number of lines per transaction.

4. Transaction Frequency

Varies between 3-10-50 per day. On call back, indicated may be 100 transactions on some days, many of these presumed to be electronic mail, endorsements and inquiries.

5. Communications

Connects through IVANS using a 4800 bps modem.

6. Percentage Total Transactions Handled Electronically

Respondent estimates they represent 25 different companies, but that under 10% of their transaction volume is handled electronically.

7. Benefits

Could not quantify, but indicated time savings, postage, stationary expenses were reduced.

8. Issues

Respondent was not cooperative, therefore did not continue with interview.

Grocery Industry

Grocery Industry

A

Introduction

The industry has quickly adopted advances in technology, right down to the check stand, as a way of optimizing profit margins measured in fractional percentages.

EDI in this industry is called UCS, developed around 1982 after an Arthur D. Little study pointed to large savings.

Industry buyers issue some 15 million purchase orders annually. These documents trigger a like number of bills of lading and invoices, along with other documents such as adjustments, product announcements, allowances and other information.

The total of this traffic is estimated in excess of 100 million messages between 2,000 distributors, 5,000 manufacturers and 2,000 brokers. Accordingly, industry participants view the grocery and distribution industries as prime candidates for EDI services.

Currently, purchase orders and, to a lesser extent, invoices represent the bulk of UCS exchanges. New standards are being developed supporting the industry's Direct Store Delivery (in piloting), multi-point purchase orders, and other requirements.

Industry participants report that while most users send and receive electronic purchase orders, they typically print UCS invoices used for manual rekeying procedures. Although the optimal benefits of EDI are not realized, the use of tailored print formats does lead to productivity gains in keying operations.

INPUT interviewed two large grocery chain EDI/UCS coordinators for this project. We found usage principally of purchase orders with a small percentage of trading partners (typically representing the bulk of dollar purchases). However, there are plans to rapidly expand the supplier base involved in UCS.

B

Safeway Stores

Safeway Stores
201 4th Street
Oakland, CA 94660

Reg Cyr, UCS Coordinator, Corporate Grocery Division, Marketing Group, (415) 891-3262.

1. Background

Safeway was a member of the original UCS task force in 1982. Revenues: $19.85 Billion, 164,385 employees.

2. Transactions

Safeway is sending purchase orders and purchase order changes to suppliers and receiving invoices from its suppliers, using UCS formats. Functional acknowledgements are rated very important, and it receives these for its POs and changes, and sends them for invoices it receives.

3. Transaction Size

Mr. Cyr estimates that purchase orders (POs) have on average 11 lines, representing 500-600 characters each transaction (this is probably without the header area). He indicates these transactions are getting smaller ("trimmer") due to efficiencies.

4. Transaction Frequency

The company sends some 2100 purchase orders weekly or approximately 400 daily considering a five-day work week.

5. Communications

The company's central UCS mailbox is in Salt Lake City at its regional center. The company uses a 2400 bps modem as required by the UCS communications standard, with 57 trading partners receiving POs on direct dial-outs. Brokers in this group may, in turn, send on POs to manufacturers estimated at approximately 280. Thirty-nine (of these 57) companies are reached via a third party service. One company is on GEISCO, approximately three on Kleinschmidt, approximately 11 on Ordernet and 24 on Tymnet. Mr. Cyr noted that connections to brokers and manufacturers via third-party networks is generally handled on a "no-host" basis, in that the receiving company pays for the mailbox and connection time.

6. Percentage Total Transactions Handled Electronically

Mr. Cyr estimates that Safeway deals with between 400-500 trading partners in total and that approximately 25% of the company's PO transaction volume is handled via EDI.

The company plans to add approximately 40 companies to its EDI this year, planning to have 100 such linkages. Mr. Cyr reminded us that many of these links will be to brokers who in turn may connect to as many as 450 suppliers.

Growth from 1986-1987 was estimated at 30%, with 20-25% growth forecast for this year. In five years, he expects that 55% of all dollar volume would be handled by EDI, that new EDI suppliers being added would tend to represent smaller volume companies.

7. Benefits

Mr. Cyr quoted a savings of $1.20-$1.50 per purchase order. He cites labor savings for PO changes, reduced inventory as unquantified benefits, but did say that EDI can reduce overhead expenses for data entry and verification by one-third. He said in one example, the company cut its inventory for cigarettes by one million dollars.

8. Issues

The company will be adding the Purchase Order Change transaction to its EDI, approximately 20-25% of all purchase orders require a PO change, and handled via phone calls and paperwork.

Competitors: 2

Entire System: 2

Cost: 1

Security 3-4

Software Maintenance: 3 He said there was a problem with the TDCC software they are using in version 3.0.

Changing Business Practices: 3

Standards: 1

C

Lucky Stores

Lucky Stores
6200 Village Parkway
Dublin, CA 94568

Scott Gray, (415) 833-6799

1. Background

Lucky's is a chain of retail grocery stores, with approximately 68,000 employees and $6.44 billion in revenues.

2. Transactions

The company sends purchase orders to its suppliers, using the UCS format, and receives invoices in the same format. No other EDI. EFT is being done in the stores, but this is a customer service for POS/debit-type applications, and is not related to EDI. The functional acknowledgement for POs was described as "essential" and the company sends these for received invoices.

3. Transaction Size

The average size for purchase orders was calculated at 3,464 characters, although respondent noted that some POs for one item would be as small as 100 characters.

4. Transaction Frequency

On the previous Friday, 57 purchase orders were sent, although this may have been a light day.

5. Communications

The company uses McDonnell Douglas' EDI*Net for mailboxing services, and chose this VAN several years ago because "that's all there was four to five years ago" and also because most of its trading partners are on this network. (Note: EDI*Net and Ordernet do interchange EDI traffic). A dial connection is used to get to the VAN, using a 9.6K bps modem.

6. Percentage Total Transactions Handled Electronically

Respondent says that 121 companies receive purchase orders from Lucky's, representing an estimated 18% of total transactions. The total number of trading partners was described in the thousands. Approximately 60 companies send Lucky's invoices, representing approximately nine percent of all trading transactions.

The company plans to communicate with as many as 240 additional companies this year, adding between 10-20 each month.

7. Benefits

Respondent says that paper purchase orders cost an average of eight dollars to prepare, but EDI POs cost $1.50. Strategic benefits are cutting inventory, and invoices can go right into the accounts payable system without human intervention.

8. Issues

Respondent says issues include selling EDI usage to their own buying staff, expanding the number of vendors and the fact that vendors won't cut lead time for them are problems.

Actions of Competitors: 1

Entire System: 5

Cost: 4

Security: 3

Software maintenance: 4

Changing Business Practices: 4 Respondent reported resistance in the divisions of the company (there are four) to using UCS.

Reliance on one vendor: 2

Vendor Viability: 2

Electronic Standards: 4 Respondent says the problems found in this area are that vendors have problems adapting and updating to new versions of the standards.

Respondent reports now using TDCC software, but favorably impressed with Transettlements and may go to it. Says his is a mature system, with few system problems except keeping up with version changes.

Federal Government

Federal Government

A Background

Federal government market demand for EDI and EDI-like products and services will increase from $97 million in government fiscal year 1987 to $196 million in 1992. The market will experience a sustained growth at an average annual rate of 15% through the five year forecast period.

In the federal government, EDI is used to transfer electronic purchase orders, invoices, bills of lading, tax information and financial reports. The government's need for increased productivity and effectiveness, along with continuing budgetary constraints will drive Federal agencies to use EDI.

The 15% average annual growth rate stems primarily from Department of Defense spending for general purpose computer equipment and microcomputer-based EDI software. However, EDI software vendors will realize significant increases in marketing opportunities. Agency executives pointed to the wider availability of microcomputers as a key technology fueling EDI growth.

Federal EDI will likely expand dramatically over the next few years because budgetary, policy, and technological factors are converging to propel EDI into a major place in the Federal information systems marketplace. However, there are some impediments. Many agency, supplier, and vendor executives do not yet fully understand EDI or appreciate its market potential or its benefits.

INPUT expects this to change as the forces driving EDI become unavoidable. The Government will need to overcome current EDI impediments, such as security concerns and EDI literacy, with better policies, safeguards and user education.

Just as EDI is becoming more accepted in the commercial environment, Federal EDI, driven by the same dynamics impacting commercial firms

as well as some unique issues, will grow. Each sphere of influence will have expectations of the other, further fueling the overall EDI market.

INPUT interviewed two agencies involved in Federal EDI.

B

Federal Agency

Securities and Exchange Commission (SEC)
EDGAR Program Office
Room 10199
450 5th Street, NW
Washington, DC 20001

David Copenhafer, COTR, Edgar Project, (202) 272-3794

1. Background

This agency is budgeted at $72 million over eight years for this program, now a pilot system, for electronic filings of SEC documentation.

2. Transactions

The pilot program is handling the following transactions: 10K financial data, securities registration statements, correspondence regarding financial documents being filed, textual components of additional filings as required by the SEC. Graphics cannot be transmitted. The EDGAR format is totally flexible using low-level data code in a general ASCII file format. Agency representative says "we want to accommodate all software and hardware companies." Acknowledgements rated a "4" in importance. SEC sends a very brief acknowledgement reading "EDGAR transmission complete" after the company transmits an "EOF" three times.

3. Transaction Size

Average for all documents is 22 pages, or roughly 3,000 bits per page.

4. Transaction Frequency

Agency receives 1,000 documents monthly. SEC does not transmit documents.

5. Communications

Currently, incoming documents come from PCs to the SEC's mainframes. In the future, they will almost certainly go to a VAN between the SEC and the filing company. An RFP or competitive procurement will be issued to obtain services of dial-up vendors and may also use some leased lines for large filing agents.

6. Percentage Total Transactions Handled Electronically

Eighty-five percent of all documents received in the pilot are transmitted electronically. One thousand companies are participating. Expect to add an additional 2,000 companies within two years, and eventually, all 13,000 registered companies will be mandated by legislation to transmit electronically. Can also use disk or tape as future options.

7. Benefits

Some companies with frequent SEC filings are realizing substantial benefits. Can file two or three times daily. Easier data gathering process for the SEC. Strategic Benefits: ultimately, SEC will have a larger audience for their data. The process will benefit SEC because can spot problem documents with greater reliability and speed.

8. Issues

There have been some problems with connections to the system and format. No special needs were identified as the industry has resolved most issues except signature procedures. Are using special personal ID numbers on documents to replace signatures. Holding them back from using the method more are format and spacing problems with some transmissions from companies using proportional spacing (which is not readily accepted). Also, some communications problems were identified in device to line connections.

Competitors: 2 "Private systems are offering different products."

Entire System: 4 Hiring outside contractors.

Cost: 4

Security: 4

Changing business practices: 3 "Keeping pace with changes, (e.g., NBI format, disk conversion, software conversion, and variable-speed ASCII modems.)

Reliance on one network: 1

Vendor Viability: 1

Standards/Compatibility: 3 "Keeping pace with standards not really a concern."

C

Federal Agency/
Logistics Command

Wright Patterson Air Force Base
LMCS/SBD
Wright Patterson AFB Ohio 45433

Lt. Col. Robert Barclay, Program Manager, CDMS, (513) 257-8591

1. Background

Agency/project budget not disclosed due to competitive RFP pending. This logistics/procurement system is in final development, but is not yet fully implemented. Will be a large system with six separate locations throughout the country. Consists of both inter-site and intra-site EDI.

2. Transactions

A: Intrasite: purchase requests, solicitation documents, contract documents and contract modifications, funding documents, technical data packages. B: Intersite: abstracted data from above listed documents. Format is standard DoD format using MILSCAP - Military Standard Contract Administration Program format. Acknowledgement rated at "5" as being important for all types of data transactions. When the system is implemented, will receive acknowledgements.

3. Transaction Size

Vary from two characters to word processing documents with 100 pages of text. Contracting documents are very large, funding documents are mid-sized.

4. Transaction Frequency

"When fully implemented, system will have 850,000 transactions per day."

5. Communications

Intersite: currently using leased line, but plan in the future to use the Defense Data Network (DDN). Intrasite: Using a LAN, TRW designed and implemented. TRW LAN chosen as a result of formal source selection early in the program. Cost, schedule and management were factors for selection.

6. Percentage Total Transactions Handled Electronically

Between 11 and 20 sites participating, including six primary sites and 12 external, outside receivers of data. The project will transmit paper contract documents to all administrative offices outside of the command.

The electronic abstract is sent to a possibly smaller subset of offices; however, electronic and paper documents might be sent to the same offices at all times. Expect by 1990 to communicate contracts between six government installations and private industry contractors.

7. Benefits

Life cycle savings estimated at $104 million from elimination of redundant data entry. Will improve speed and accuracy of data. Improve data integrity. Reduce acquisition lead time (which is important to the government). Strategic benefits: ability to surge (wartime distribution) demand. Ability to install contingency operations (service operations elsewhere if one site fails or is destroyed in war).

8. Issues

No reply on special needs, additional transactions or standards. Only constraint identified is budgetary. "Have already resolved any other EDI issues from regulations or legislation, security, etc."

Actions of competitors: 1 "Not concerned about Russians as competition."

Entire system: 5

Cost: 5

Software maintenance: 4

Changing business practices: 4

Reliance on one vendor and vendor viability: 4

Standards/Compatibility: 5 "Highly concerned; however, standards are being accepted and overcoming problems."

Banks

Banks

A Background

In a survey of 193 banking executives conducted for INPUT's recent multi-client study *Banking and Financial Services: The Next Decade*, 55% reported current or planned EDI projects, with regional and money center banks reporting highest levels of involvement or planning.

Although these findings indicate interest, the evidence shows that banks have been conservative in their approach to EDI services, wrestling with their appropriate roles as potential full-service providers, or conduits for EFT operations associated with EDI transactions.

Bank EDI/EFT activities are just getting started, with the best know examples being services provided for General Motors by a consortium of banks, freight payment services, and document EDI services such as Chase Trade's Electronic Letters of Credit and electronic bills of lading (CEBOL) for international trade applications.

Mortgage bankers are just beginning research on adopting EDI techniques, using X12 formats, for Computerized Loan Origination (CLO) documents as well as others, some of which are sent to insurance companies, thus offering a bridge between insurance "Interface" EDI and X12-type EDI.

INPUT interviewed representatives from First Chicago and the Bank of Boston.

B

Bank of Boston

Bank of Boston
23 Third Avenue
Burlington, MA 01803

Joseph Grimaldi, Vice President, Deputy Division Executive, Freight Management Services, (617) 270-3312.

1. Background

The Banks Freight Payment Service handles payment between the accounts of bank customers (shippers and carriers) only.

2. Transactions

Freight Payments using the TDCC format.

3. Transaction Size

Estimated at 500 characters per freight payment.

4. Transaction Frequency

Mr. Grimaldi claims to handle 250,000 freight payments monthly, or approximately 11,400 daily on a 22-working day month basis.

5. Communications

Grimaldi indicates mostly dial up usage, but could not respond on speed. Says can also use VANs. Small carrier freight bills are processed after electronic transmissions received from Transettlements (Atlanta), but larger carriers tend to communicate directly with the bank.

6. Percentage Total Transactions Handled Electronically

Respondent estimates that 15-20% of incoming freight bills are handled via EDI, with outgoing freight bills a lesser proportion. Overall, the bank accommodates several thousand shippers, but only a handful deal exclusively on an EDI basis because many carriers are not ready for the method.

7. Benefits

Mr. Grimaldi believes the costs are less than $.10 for electronic transactions, but that paper processing costs are more like $.30. Strategic benefits: There are few banks using EDI as is this bank, and it helps them to reduce the price they need to charge for this service while improving quality.

8. Issues

Competitors: 4

Security: Low because security is in place.

C

First National Bank of Chicago

First National Bank of Chicago
Chicago, IL 60670-0813

Carol King, Assistant Vice President, (312) 732-5501, Peter Ziesmer, Vice President EDI Consulting, Kathleen Flynn, Assistant Vice President.

1. Background

First Chicago is the core bank providing EFT/EDI for General Motors suppliers (and others). 10,600 employees. Assets: $44.2 billion. Revenues: $4.255 billion.

2. Transactions

ANSI X12 820 transactions (Remittance/Payment Advice). (There is also, separately, Accelerated Trade Payments service applied to international trade. This is apparently being reworked.)

3. Transaction Size

Each ANSI X12 820 transaction covers 35-50 invoices, with each remittance advice containing approximately 75 characters and approximately 500 characters in the header area. This suggests each transaction would have approximately 4300 characters, although respondents estimated more (10,000 characters) per transaction.

4. Transaction Frequency

Between 5500 and 7000 transactions are done monthly, mostly for GM suppliers. This suggests between 250-320 daily for a 22 working day month.

5. Communications

Communications are largely handled directly with other banks, using an asynch Telebit modem capable of up to 19.2 Kbps. Additionally GE, McDonnell Douglas and Transettlements are used for some communications, and respondents indicate a few users use MCI Mail to carry transactions such as E-mail. The bank has the capability of using virtually any of the named networks.

6. Percentage Total Transactions Handled Electronically

Respondents wouldn't hazard a guess since they handle literally millions of payments of all types, and in some ways, a comparison would not be appropriate.

7. Benefits

Could not quantify benefits or provide comparisons with paper-based processing.

8. Issues

Regarding the standards, they would like to see some stability. They note that they are pioneering this area, and in fact helped create standards where none previously existed. They would do this more but it depends on customer demand and requires a cultural change to move to EDI in general.

Competitors: 2-3

Security: 5 ("We're a bank.")

Software Maintenance: 1

Changing Business Practices: 2

Reliance on one vendor: 1 (using several)

Standards: 2