



EDI Implementation Guide

EDI Bill Payment 820 Transaction Set

Release 2.0

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1 Ameritech EDI Billing Program

1.1 Introduction

The purpose of this Implementation Guide is to describe the EDI Billing Products in both business and technical terms. It is intended for those new to EDI as well as those experienced. The estimated time to implement the EDI payment program with Ameritech is approximately 3 to 6 months depending on a company's level of experience.

The following is a brief description of the Implementation Guide Sections:

1. **Ameritech EDI Billing Program:**
This section contains background information on EDI as well as a brief description of Ameritech's EDI Billing Products. It is a non-technical representation of the EDI Billing Products.
2. **Ameritech EDI Processing Overview:**
This section specifically describes the procedures Ameritech will use to receive and manage the EDI payment program.
3. **Ameritech EDI Implementation Procedures:**
This section contains the steps necessary to implement the 820 transaction set with Ameritech. A separate 811 Implementation Guide will address implementation of the Billing Transaction Set. It is important to complete and return all of the paperwork in this section so that Ameritech can manage your account with speed and accuracy.
4. **EDI Payment Methods:**
This section describes the method currently used by Ameritech to accept payment using Electronic Data Interchange.
5. **Ameritech EDI Technical Specifications:**
This section contains detailed information on the structure of the Payment Order/Remittance Advice. This section is intended as a requirements document for translator and application programmers.

1.2 EDI Overview

Electronic Data Interchange is often described as the computer to computer exchange of business documents in a standardized format. The EDI world has evolved significantly over the past 5 years with the introduction of many new products and services to make the implementation process easier and more successful. Although gaining in flexibility and complexity, the 820 transaction set version 4010 provides essentially the same capabilities as the first set, version 2001. All of these versions are accepted by Ameritech's bank.

1.2 EDI Overview, Continued

There are four major technical components to EDI systems: Standards, Translators, Communication Links and Application Interfaces. Each will be briefly described below:

1. Standards

Standards refer to ANSI X12 Transactions or structured computer readable business documents. Standards are managed by a national organization known as the American National Standards Institute or ANSI. There are several committees within ANSI. The group that defines EDI transactions for the US and Canada is known as X12. Industries may interpret transactions differently based upon a particular industry need. Several industry based groups have been formed for EDI standards development. The telecommunication industry group is known as TCIF or the Telecommunication Industry Forum. Ameritech supports and participates in the development of EDI guidelines including the development of the Consolidated Service Invoice/Statement (811 transaction set) and the Payment Order/Remittance Advice (820 transaction set).

Standards are evolving, and as of late 1993, several versions of the ANSI X12 standards have been released. A list of the versions released and those supported by Ameritech are listed below. It is neither required nor anticipated that a company will change with every standard release. All transactions become part of a release whether or not they have changed from previously released versions.

X12 Release	Ameritech 811	Ameritech 820
Version 2.0	No	No
Version 2.1	No	Yes
Version 2.2	No	Yes
Version 2.3	No	Yes
Version 2.4	No	Yes
Version 3.1	No	Yes
Version 3.2	No	Yes
Version 3.3	No	Yes
Version 3.4	No	Yes
Version 4.1	Yes	Yes

Standards are made up of four components: transactions, segments and data elements and delimiters. Transactions are made up of a series of segments and are defined by transaction numbers assigned by ANSI X12. Segments are made up of a series of related data elements and are equivalent to data processing records. Data elements are the smallest component and are equivalent to data processing fields. Delimiters are special characters used to separate data elements and segments. Before transmission, transactions are compressed to remove all spaces for economical data transfer.

1.2 EDI Overview, Continued

2. *Translators*

Translators are commercial software packages that make the transmission of EDI data more efficient. The most important functions include translation of application data to EDI formatted data (and vice versa), X12 compliance checking, version control, acknowledgment processing, audit reports and journalizing, and trading partner profile management. Translators are available for all major platforms (PC, Mini and Mainframe). Prices on translators range from \$500 to \$50,000. While the purchase of a translator is not mandatory, custom development of the required EDI functionality may be cost prohibitive.

3. *Communication Links*

Communication Links consists of three major routes; direct, value added networks (VANs), and gateways, which are similar to VANs. The use of VANs and gateways are the most popular route of transmission because they remove two communication barriers, namely, time and protocol dependence. VANs and gateways provide multiple protocol links so that a trading partner can access EDI transmissions from a PC, client/server, mini or mainframe environment. Time independence is possible through the use of electronic mailboxes where transactions are stored until retrieved by a trading partner.

4. *Application Interface*

The application interface is used to connect the EDI system to existing or new applications. An application interface can be a manual or automated interface. The application interface can provide outbound data or receive inbound data. For the Ameritech EDI Billing Products, the trading partner will need to provide an application interface to process EDI data in order to accept bills (811 transactions) or issue payments (820 transactions). Combination translator/application interface packages are available on various computer platforms, including PCs, from third party vendors. Section 3 of this guide will describe each of these components as it relates to implementing EDI with Ameritech.

1.3 Ameritech EDI Billing Products

Ameritech offers three EDI Billing Products: the EDI Summary Bill, the EDI Detail Bill and the EDI Bill Payment. This Implementation Guide addresses EDI Bill Payment. The EDI Detail Bill and the EDI Summary Bill use a separate Implementation Guide available upon request from an Ameritech EDI Representative. All three products are briefly described below:

EDI Summary Bill

The EDI Summary Bill is sent to Ameritech EDI trading partners using the ANSI X12 811 Transaction Set. The objective of the EDI Summary Bill is to provide Ameritech trading partners with summary level bill information in an electronic format. The EDI Summary Bill is intended for Ameritech trading partners who wish to perform high level bill processing and electronic bill payment.

1.3 Ameritech EDI Billing Products, Continued

The EDI Summary Bill contains three sections. The header section contains account information such as invoice number, invoice date and payment terms. The detail section contains bill section subtotals for each service provider with no additional detail information. The summary section contains bill balance, payment and adjustment amounts. A detailed description of this product is provided in Section 4.3 of the EDI 811 Transaction Set Implementation Guide.

EDI Detail Bill

The EDI Detail Bill is sent to Ameritech EDI trading partners using the ANSI X12 811 Transaction Set. The objective of the EDI Detail Bill is to provide Ameritech trading partners complete billing information in an electronic format. Ameritech trading partners who intend to perform detail analysis of telecommunication usage and billing are the intended subscribers of this product offering. The EDI Detail Bill is offered at no charge (with the eventual elimination of the paper bill) to the trading partner when delivered through the Ameritech Gateway.

The EDI Detail Bill contains three sections. The header section contains account information such as invoice number, invoice date and invoice terms. The detail section contains bill section subtotals for each service provider with supporting detail information such as Toll Call detail, Optional Calling Plan information. Other Charges and Credit line items, Directory Assistance information and other billing data. The Summary section contains bill balance, payment and adjustment amounts. A detailed description of this product is provided in Section 4.4 of the 811 Transaction Set Implementation Guide.

EDI Bill Payment

The EDI bill payment is sent to Ameritech from their EDI trading partners using the ANSI X12 820 transaction set. The EDI bill payment uses a process known as EDI/EFT or Financial EDI, whereby the 820 transaction is routed through banks capable of processing EDI transactions (known as Value Added Banks, or VABs). While Ameritech does not charge for this service, the trading partners bank may charge a fee for EDI/EFT transaction processing. The EDI bill payment can be used in conjunction with the EDI Detail Bill or EDI Summary Bill.

The EDI bill payment also contains three sections. The header section contains payee and payer information including the total payment amount. The detail section contains information on one or more invoices that are to be paid by this transaction. The summary section contains transaction control information only. This 820 Implementation Guide provides all of the details on Ameritech's EDI Payment Program.

1.4 Ameritech and the Telecommunications Industry Forum

Ameritech is an active member of the TCIF (Telecommunications Industry Forum) EDI Committee. The ANSI X12 811 standards described in this document conform to the guidelines defined by the TCIF. The ANSI X12 820 transaction, like other standards, is evolving and Ameritech is committed to remaining current with changes recommended by the TCIF EDI committee.

1.5 Ameritech Contacts for EDI

If you have questions about the Ameritech EDI Billing Program, please contact your account representative or the Alternate Bill Media Helpdesk @888-800-6325, Option #2.

2 Ameritech EDI Processing Overview

2.1 Process Overview

For the purposes of this guide, EDI bill payment is executed when a trading partner electronically authorizes their bank to debit funds from their account by a specified amount, and authorizes Ameritech's bank to credit Ameritech's account by that same amount. There are three methods for performing this that employ EDI 820 Payment Order/Remittance Advice transactions. These methods are described more fully in Section 4.

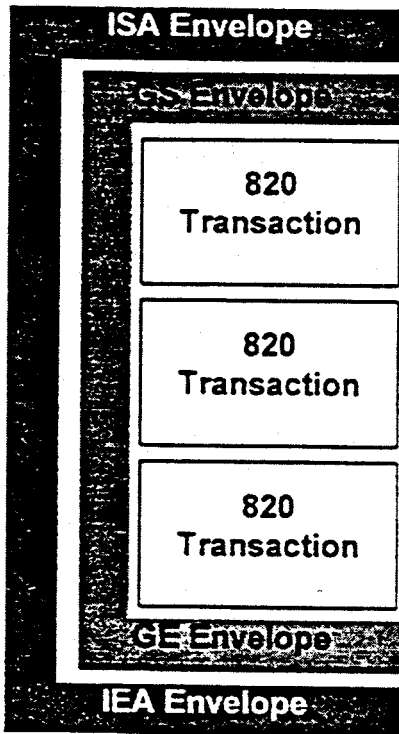
The bill payment process operates slightly differently than Ameritech's EDI billing process, because it deals with actual payment of funds and requires communication with financial institutions rather than directly with Ameritech. This is the case whether the trading partner currently receives their Ameritech bill in paper form or via EDI. The Ameritech trading partner transmits an EDI 820 Payment Order/Remittance Advice to a bank, either the trading partner's or Ameritech's. Notification that the transaction was successfully received comes back from the bank, not Ameritech. Please see Section 4 for more information on the payment methods available.

2.2 The Ameritech Gateway

The Ameritech Gateway is an electronic bridge between companies, networks and third party providers. It is a full function store and forward mailbox with interconnections to major networks. Ameritech provides trading partners a mailbox and free access to the Gateway for sending and receiving EDI Billing Products. If a trading partner wishes to use their existing VAN to send the 820 transaction, interconnections to these VANs can be arranged.

2.3 EDI Billing Transmission

The EDI Billing Transmission consists of one or more 820 transactions and the required EDI Enveloping as shown in the following diagram. A trading partner may transmit 820s whenever desired; during the business day or at any other time, and as many times per day as desired. Ameritech's bank, and most value-added banks, will process the 820s they receive once per business day.



2.4 EDI Enveloping

EDI Enveloping has two components, the Interchange Envelope (ISA/IEA) and the Functional Group Envelope (GS/GE). The Interchange Envelope is used to route the transaction through telecommunication links from the sender to receiver. It also has security and authorization codes and transaction version information. The Functional Group envelope is used to group a series of like transactions into a single envelope. The 820 Transaction Set uses the “PG” Functional Group Identifier.

2.5 EDI Transactions

EDI Transactions are a series of data segments and elements used to represent common business documents in a standardized computer readable format. Ameritech uses the 820 transaction set as defined by the national EDI standards setting committee called ANSI X12. Ameritech also follows industry guidelines established by the Telecommunication Industry Forum (TCIF) EDI Committee and is an active member of this industry group.

The 820 transaction consists of the payment amount and one or more invoices to be satisfied by this payment. A detailed description of the EDI Payment Order/Remittance Advice can be found in section 5 of this document.

2.6 EDI Acknowledgment Processing

EDI Acknowledgments are used as a control mechanism to ensure the successful delivery of EDI documents through telecommunication links. Acknowledgment protocols will be coordinated between the trading partner and the trading partner's Value-Added Bank (VAB). The 997 transaction set is the most common acknowledgment document and the one recommended by Ameritech. The purpose of the 997 Functional Acknowledgment is to communicate to the sender of a document the successful receipt of an EDI transaction. The 997 transaction set also communicates that the received document is in compliance with X12 standards, but does not authorize the content of the transaction. One acknowledgment per functional group can be expected from Ameritech's bank or your own bank within 24 hours of a transmission, depending on the payment method you select. Most commercial translator software provides automatic acknowledgment processing as an option.

2.7 EDI Billing Options

Ameritech offers a number of billing media, including paper, magnetic tape, and electronic delivery. The 820 transaction is offered as a payment method for all billing options.

2.8 Paper Bill Options

Ameritech offers three options for receiving a paper bill. The first option is the one you are most likely receiving today, the full detail paper bill. The second option is for trading partners who receive the Ameritech bill in an electronic format (like EDI), but wish to pay using traditional methods (the paper check). For these trading partners, only the first page of the bill containing the payment stub is mailed. The third option eliminates all paper bills and is only available to trading partners who pay electronically, or via another automated method, and those trading partners receive a bill electronically or in some other non-paper format.

3 EDI Implementation Steps

Ameritech's EDI Billing Program breaks down the implementation of EDI into nine major phases. Each phase is described below and the EDI Implementation Forms can be found in the following pages.

3.1 Preparation and Assessment

The objective of the EDI Preparation and Assessment phase is to gain an understanding of what is involved in an EDI implementation, identify the benefits to be achieved, secure commitment from all stakeholders and to assemble a plan for implementation.

This phase can take from a few weeks to several months depending on your company's experience with EDI and your management's commitment to implementing EDI systems. EDI offers great benefits, but implementations are complex and require the cooperation of many different departments within a company. Implementation of an EDI system for the first time within a company has often required the efforts of an "EDI champion". EDI champion is a common term given to the person who sees the benefits of EDI and commits to its implementation despite the obstacles.

Ameritech requests that you submit the *Trading Partner Survey* during this phase of the implementation. The Trading Partner Survey will provide us with EDI contact information and help us determine your EDI experience and the level of assistance you may require from the EDI Trading Partner Support team.

3.2 Payment Requirements

The objective of this phase is to establish the requirements of your payment applications.

Section 4 of this guide describes the EDI payment method Ameritech will support. The selection of an EDI payment method will depend heavily on existing systems. If your bank is not a VAB (see section 1.3), then it cannot process transactions like the 820. Ameritech urges you to consult your bank on the best method to pursue.

Once you have established your requirements and are aware of your general implementation plan, Ameritech requests that you submit the *Implementation Timeline* form. This will allow Ameritech to schedule the activities to support your implementation. Ameritech will be very flexible concerning these dates -- delays can be expected -- but this timeline will provide us with a general time frame to work from.

3.3 EDI Platform Selection

This phase is only applicable to first time EDI implementations or companies that will use a separate EDI system for their payment processing. The objective of this phase is to evaluate and select the components required to perform EDI transmissions. The major components are an EDI translator and a Communication Link.

The EDI translator, as described in Section 1, converts application data to EDI formatted data or vice versa. There are several commercially available translator packages on the market and based on the requirements established in the previous phase, trading partners will need to evaluate and select the translator that will best meet their needs. The custom development costs of this component cannot be justified for most companies.

The Communication Link refers to the communication software package, the modem hardware, the telephone line, and the Value Added Network. There are many communication software packages on the market that each trading partner will need to evaluate to be able to select a package that meets their individual requirements. The trading partner must also select one of two types of phone lines, dial-up or direct. For most companies dial-up is more than adequate. If data volume is very high, a direct line may be cost justified. As for a value added network, Ameritech offers access to the Ameritech Gateway at no cost for their EDI Billing Products. For companies already doing EDI with other VANs, interconnection to these VANs may be available, but trading partners will incur the cost of transmitting data through this network.

Ameritech requests that you submit the *Trading Partner Profile* during this phase of the implementation. The Trading Partner Profile will provide the necessary technical information for electronic data transmission.

3.4 Translator Mapping and Coding

The objective of this phase is to match the requirements of your bill payment application and the 820 transaction set requirements from Ameritech (this is called mapping) and then update and link your translator tables with this information. Ameritech has provided the X12 segment layouts that you will need in Section 5 of this guide.

3.5 Application Development

The objective of this phase is to produce and test a bill paying application that will effectively process your payment data as determined in phase two of this implementation. Depending on the functionality of your payment processing system, this could be the most time-consuming phase of the implementation.

3.6 Connectivity Testing

The objective of this phase is to test the communication link between you and Ameritech’s bank or your own bank. It is not to completely test the 820 standard. A successful test will occur if you are able to send an 820 to either your bank or Ameritech’s bank, depending on the method of EDI payment you have selected, and are then able to receive a 997 transaction set in return.

3.7 End-to-End Testing

The objective of this phase of the implementation is to ensure that all participants in the payment process are communicating with each other properly. This includes the trading partner, the trading partner’s bank, Ameritech’s bank, and Ameritech. The trading partner determines the test period for this phase. The trading partner must give Ameritech at least two weeks notification before they begin transmitting. This time is required to allow Ameritech’s bank to prepare to receive the transmissions, and for Ameritech to ensure that the trading partner is properly entered in Ameritech’s billing systems.

3.8 Maintenance

When changes are made to the EDI Billing Products, Ameritech will give 60 day notification of pending EDI Updates. These updates may or may not involve software changes. The EDI Updates will be sent to a designated representative at a specified trading partner location. Ameritech requires notification if there is a change in the representative or location to which EDI updates are being sent. Please submit these changes to an Ameritech EDI representative. For those trading partners using EDI software packages customized for Ameritech, software updates are at the discretion of the software provider.

3.9 Implementation Forms

The implementation forms listed below immediately follow this page.

Trading Partner Survey	3.9.1
Implementation Timeline	3.9.2
Trading Partner Profile	3.9.3
Trading Partner Agreement	3.9.4

3.9.1 Trading Partner Survey

A. TRADING PARTNER CONTACTS

Company Name _____

Primary EDI Contact

Name _____

Title _____ Room Nbr: _____

Address _____

City/State/Zip _____

Phone _____ Fax _____

Secondary EDI Contact

Name _____

Title _____ Room Nbr: _____

Address _____

City/State/Zip _____

Phone _____ Fax _____

Who will be the keeper of the Implementation Guide for future updates? _____

B. GENERAL INFORMATION

Has your organization implemented other EDI transactions? Yes _____ No _____

If no, have you had any EDI education or experience?

If yes, how many month/years have you been doing EDI?

Which transactions have you implemented?

Are you currently sending EDI payments to other vendors or service providers anywhere in your organization? Yes _____ No _____

If no, have you had any Financial EDI education or experience?

If yes, which ANSI X12 versions are you using? (e.g. version 4010)

Which Value Added Bank are you using?

What bill format do you currently receive or plan to receive from Ameritech? Please check all that apply.

	Current	Planned
_____ EDI 811 Summary Bill	_____	_____
_____ EDI 811 Detail Bill	_____	_____
_____ Regular Bill - Paper Format	_____	_____
_____ Consolidated Summary - Paper Format	_____	_____
_____ Other	_____	_____

3.9.1 Trading Partner Survey, Continued

Do you have any other SBC EDI Products? Yes_____ No _____

If yes, please list Product(s) and affiliates (e.g. Ameritech, SWBT, PAC):

What department(s) within your company is leading this EDI implementation effort?

- _____ Management Information Systems (MIS or IS)
- _____ Telecommunications Department
- _____ Centralized EDI Group
- _____ Accounts Payable
- _____ Other _____

3.9.2 Implementation Timeline

Please estimate the following dates for your EDI Bill Payment Implementation:

- | | | |
|---|-------------------|-----------------|
| 1. Preparation and Assessment | Start Date: _____ | End Date: _____ |
| 2. Requirements and Payment Method | Start Date: _____ | End Date: _____ |
| 3. Selection of EDI Platform | Start Date: _____ | End Date: _____ |
| 4. Translator Mapping and Coding | Start Date: _____ | End Date: _____ |
| 5. Development of EDI Bill
Payment Application | Start Date: _____ | End Date: _____ |
| 6. Connectivity Testing | Start Date: _____ | End Date: _____ |
| 7. End-to-End Testing | Start Date: _____ | End Date: _____ |
| 8. Production | Start Date: _____ | |

Note: See Section 3 of the 820 Implementation Guide for descriptions of each of these steps.

3.9.3 Trading Partner Profile

A. Trading Partner Technical Contact Information

Company Name: _____
Technical Contact: _____
Title: _____ Room Nbr: _____
Address: _____
City/State/Zip: _____
Phone: _____ Fax: _____
Secondary Contact: _____ Phone: _____

B. Value Added Bank Information

Ameritech Trading Partner:

Value Added Bank Name: _____
ABA Number: _____
Primary Contact Name: _____
Phone: _____ FAX: _____
Secondary Contact Name: _____
Phone: _____ FAX: _____

Ameritech:

Value Added Bank Name: Harris Bank
ABA Number: 071000288
Primary Contact Name: Larry Schuler
Phone: 312-461-5709 FAX: 312-293-4299
Secondary Contact Name: Dan Paoletti
Phone: 312-461-7509 FAX: 312-293-4299

Ameritech's account number at Harris Bank will be provided in confidentiality in a separate document.

C. EDI Platform Profile

Translator Package: _____

Translator Hardware Platform: PC MINI MAINFRAME

Value Added Network: _____
(if any other than Ameritech Gateway)

Communication Package: _____

3.9.3 Trading Partner Profile, Continued

D. Transaction Sets and Versions

Ameritech's bank currently supports receipt of all versions of the ANSI X12 820 transaction set through 4010.

What version of the 820 transaction set will you be using?

Are there Financial EDI transactions besides the 820 that you intend to send/receive?

Do you expect a 997 Financial Acknowledgment from the receiving bank?

What billing products do you intend to use with the 820 transaction set, if any?

E. Terms and Conditions

1. EDI 820 is for payment of landline accounts only.
2. Payee must provide a valid 13-digit account number in order for proper disbursement of funds.
3. Credits are not acceptable forms of payment.

3.9.4 Trading Partner Agreement

Contract No. _____

ELECTRONIC DATA INTERCHANGE TRADING PARTNER AGREEMENT

This Electronic Data Interchange Trading Partner Agreement ("Agreement") is made as of the date of the last executed signature herein, by and between _____, a _____ corporation ("Customer"), and "Ameritech Services, Inc." ("Seller") a Delaware corporation.

WHEREAS, Customer is a purchaser of various telecommunications products and services from Seller; and WHEREAS, Customer and Seller desire to electronically exchange various documents; NOW THEREFORE, the parties, intending to be legally bound, agree as follows:

1. DEFINITIONS

For the purpose of this Agreement, the following definitions shall apply. A term defined in the singular shall include the plural and vice versa when the context so indicates.

- 1.1 "Acceptance" means a properly received Document as prescribed by the EDI Guidelines.
- 1.2 "Data" means an electronic Document.
- 1.3 "Document" means the record of a Transaction.
- 1.4 "Electronic Data Interchange ("EDI")" means the transmission of information as a stream of electronic data.
- 1.5 "EDI Guidelines" means Telecommunications Industry Forum EDI Guidelines for use of American National Standards Institute (ANSI) Accredited Standards Committee X12 transaction sets, or mutually agreed upon proprietary format or alternate standard such as Extensible Markup Language (XML).
- 1.6 "Provider" means a third party service provider.
- 1.7 "Receipt Computer" means the computer designated to receive EDI transitions as prescribed by ANSI Accredited Standards Committee X12 transaction standards.
- 1.8 "Signature" means an electronic identification, adopted by each party, consisting of a symbol(s) or code(s).
- 1.9 "Signed Document" means a Document that has a Signature.
- 1.10 "Transactions" means orders, payments, acknowledgements, invoices, remittance advices, and other records.

2. GENERAL TERMS

2.1 Terms and Conditions: The terms contained herein shall apply to any activity where both parties agree to the transmission of Data via EDI. If there is any conflict between this Agreement and any other agreement or Order, this Agreement shall prevail.

2.2 Validity/Enforceability:

- 2.2.1 Any Documents properly transmitted as Data shall be considered to be a "writing" or "in writing" and any such Document, when containing a Signature, shall be deemed for all purposes to: (a) have been "signed" and (b) constitute an "original" when printed from electronic files or records established and maintained in the normal course of business. The parties agree: (i) the provisions of the Uniform Commercial Code 2-201 (Statute of Frauds) shall not apply to these electronic transactions, (ii) these electronic transactions shall be deemed to satisfy any legal formalities requiring that agreements be in writing, and (iii) computer maintained records when produced in hard copy form shall constitute business records and shall be admissible as evidence to the same extent as other generally recognized business records.
- 2.2.2 The conduct of the parties pursuant to this Agreement, including the use of properly transmitted Signed Documents, shall, for all legal purposes, evidence a course of dealing and a course of performance accepted by the parties in furtherance of this Agreement.

3.9.4 Trading Partner Agreement, Continued

- 2.2.3** The parties agree not to contest the validity or enforceability of Signed Documents under the provisions of any applicable law requiring certain agreements are to be in writing or signed by the party to be bound thereby. Neither party shall contest the admissibility of copies of Signed Documents under either the business records exception to the hearsay rule or the best evidence rule on the basis that the Signed Documents were not originated or maintained in documentary form.
- 2.3 Termination:** This Agreement shall remain in effect until terminated by either party upon thirty (30) days' prior written notice, which notice shall specify the effective date of termination; provided, however, that no termination shall affect or reduce any obligations or rights of the parties which arose or were incurred prior to termination of the Agreement
- 2.4 Severability:** Any provision of the Agreement which is determined to be invalid or unenforceable will be stricken, and the entire remaining Agreement will be enforceable without regard to the stricken provision.
- 2.5 Tariffs:** This Agreement is subject to the jurisdiction of the Public Utilities Commission of the state in which the Seller is located, and/or the Federal Communications Commission, and shall at all times be subject to such changes and modifications as either Commission or the Telecommunications Division of either Commission may, from time to time, direct in the exercise of its jurisdiction.
- 2.6 Governing Law:** This Agreement shall solely be governed by and interpreted in accordance with the laws of the State of Illinois.
- 2.7 Force Majeure:** Neither party shall be liable for any failure to perform its obligations in connection with any Transaction or any document, where such failure results from any act of God or other cause beyond such party's reasonable control (including, without limitation, any mechanical, electronic or communications failure) which prevents such party from transmitting or receiving any Data.
- 2.8 Limitation of Damages:** Neither party shall be liable to the other for any special, incidental, exemplary or consequential damages arising from or as a result of any delay, omission or error in the electronic transmission or receipt of any Data pursuant to this Agreement, even if either party has been advised of the possibility of such damages.
- 2.9 Cure:** Neither party will be deemed to be in default under any of the terms of this Agreement, and the parties may not seek or attempt to enforce any remedy for any claimed default, unless the other party fails to cure or correct same within ten (10) days following receipt of written notice thereof from the other party.
- 2.10 Entire Agreement:** This Agreement and all agreements referenced as supplementing this Agreement constitute the complete agreement of the parties relating to the matters specified herein and supersede all prior representations or agreements, whether oral or written, with respect to such matters. No oral modification or waiver of any of the provisions of this Agreement shall be binding on either party. No modification or amendment to this Agreement shall be effective unless reflected in a writing signed by all of the parties hereto. No obligation to enter into any Transaction is to be implied from the execution or delivery of this Agreement. This Agreement is for the benefit of, and shall be binding upon, the parties and their respective successors and assigns.

3. PREREQUISITES

- 3.1 Document Standards:** In accordance with the EDI Guidelines, and in a format mutually acceptable to the parties, each party may electronically transmit Data to or receive Data from the other party. Any transmission of Data that does not meet the definition of a Document as set forth above shall have no force or effect between the parties unless justifiably relied upon by the receiving party.
- 3.2 Third Party Service Providers:**
- 3.2.1** Data will be transmitted electronically to each party either directly or through any Provider with which either party may contract. The Providers must interconnect with each other. Either party may modify its election to use, not use, or change a Provider upon thirty (30) days' prior written notice.
- 3.2.2** Each party shall be responsible only for the costs incurred by its own Provider.

3.9.4 Trading Partner Agreement, Continued

3.2.3 Each party shall be solely liable for the acts or omissions of its own Provider while transmitting, receiving, storing or handling Data, or performing related activities for such party; provided, that if both the parties use the same Provider to effect the transmission and receipt of a Document, the originating party shall bear all liability for the acts or omissions of such Provider as to such Document.

- 3.3 Systems Operation:** Each party, at its own expense, shall provide and maintain the equipment, software, services and testing necessary to effectively and reliably transmit and receive Data.
- 3.4 Security Procedures:** Each party shall properly use security that is reasonably sufficient to ensure that all transmission of Data is authorized and to protect its business records and data from improper access.
- 3.5 Signatures:** To the extent required by law, each party's Signature shall be affixed to or contained in each Document transmitted by such party. Each party agrees that any Signatures of such party affixed to or contained in any transmitted Document shall be sufficient to verify such party originated such Document.
- 3.6 Confidentiality:** Information contained in any Document or otherwise electronically exchanged between the parties shall be considered confidential and shall not be disclosed to any third party without the prior written consent of the originator.

4. TRANSMISSION

- 4.1 Proper Receipt:** Data shall not be deemed to have been properly received, and no Document shall give rise to any obligation, until accessible to the receiving party at such party's Receipt Computer.
- 4.2 Verification:** Upon proper receipt of any Document, the receiving party shall promptly and properly transmit a functional acknowledgment in return. A functional acknowledgment shall constitute conclusive evidence that a Document has been properly received.
- 4.3 Acceptance:** Any Document, which has been properly received, shall not give rise to any obligation unless and until an Acceptance has been received by the party initially transmitting such Document.
- 4.4 Garbled Transmission:** If any transmitted Document is received in an unintelligible or garbled form, the receiving party shall promptly notify the originating party (if identifiable from the received Document) in a reasonable amount of time and in a reasonable manner. In the absence of such notice, the originating party's records of the contents of such Document shall control.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives:

Ameritech Services, Inc

Customer Company Name

By: _____
(Signature)

By: _____
(Signature)

(Typed Named)

(Typed Named)

(Title)

(Title)

(Date)

(Date)

4 EDI Payment Methods

4.1 Payment Overview

Ameritech currently recognizes one method of receiving EDI 820 payments.

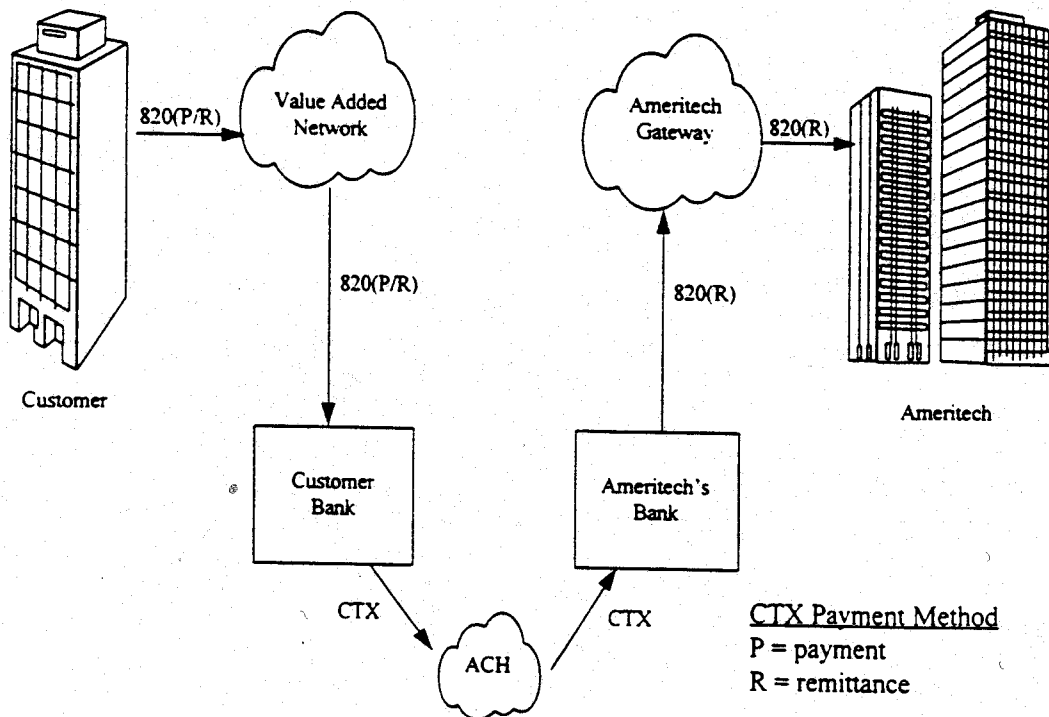
- The trading partner authorizes payment using an 820 transaction. The trading partner creates this transaction containing, among other information, a payment amount and an intended settlement date, which is the date upon which the trading partner wishes the payment to occur.
- The trading partner transmits this 820 two or more days prior to the intended settlement date to a financial institution, either the trading partner's bank or Ameritech's bank.
- The financial institution receiving the 820 (either the trading partner's bank or Ameritech's bank) has the responsibility of coordinating with the other financial institution. The two financial institutions reconcile funds between themselves. This will most likely occur using Electronic Funds Transfers (EFTs) via the Automated Clearing House (ACH), an electronic network used by financial institutions. Banking practices provide for two business days for an EFT to travel from one institution to another and post on the receiving institution's books.
- Within two business days, the financial institution receiving the 820 transmission will send an acknowledgment to the trading partner to report back the status of the transmission sent by the trading partner. This acknowledgment is another ANSI X12 transaction set, the 997 set, called Functional Acknowledgment.
- The trading partner's bank debits the trading partner's account by the amount of the payment.
- Ameritech's bank credits Ameritech's account by the amount of the payment.
- Ameritech receives a copy of the 820 for record-keeping purposes from Ameritech's bank, and acknowledges the receipt of this 820 with an EDI 997 transaction.

4.2 CTX Payment Method

The CTX (Corporate Trade Exchange) method of payment is used when Ameritech's trading partner sends an 820 transaction to their own bank, with instructions in the 820 identifying the payee (Ameritech) and the payee's bank. The payer's bank will debit the account of the payer and create a NACHA CTX transaction from the 820 received from the payer. It will send this transaction to the payee's bank. A CTX transaction provides for the ability to carry a copy of the 820 transaction along with the financial information required for the banks to coordinate payment with one another.

Ameritech's bank will post a credit to Ameritech's account in the amount of the payment on the CTX transaction, and will send the 820 along to Ameritech for its own record-keeping.

The following diagram shows the flow of this process through the various organizations.



4.2 CTX Payment Method , Continued

Advantages of the CTX Method

The CTX method of payment is credit-based. The receiving institution (the trading partner's bank) issues a credit transaction to the payee's (Ameritech's) bank. The trading partner's bank will not issue such a transaction unless the proper trading partner account number is on the 820 and there are sufficient funds for payment in that account.

The 820 transaction is used both for authorization to the debit the payer's account and credit the payees, and for advisement that payment is authorized. The "dollars and data" travel together.

A third advantage of the CTX method is that it is a commonly used technique. It is familiar to financial institutions and can be implemented in a relatively short time.¹

¹ For discussion, use of an electronic means is presumed for the customer to notify their bank, but any means will do that is acceptable to the customer and their bank.

5 Ameritech 820 Technical Specifications

5.1 820 Transaction Set

The ANSI X12 820, Payment Order/Remittance Advice transaction set provides the capability to electronically pay a bill, provide advisement that a bill is being paid, or both.

5.2 820 Versions: BPS vs. BPR

Versions of 820 transactions including and prior to 3010 employ a segment called BPS to carry the financial information banks need to process the transactions. Versions including and after 3020 use a segment called BPR for similar information. Ameritech will accept versions 3010, 3020, and 4010 of the 820 Payment Order/Remittance Advice. Ameritech's bank will convert versions prior to 3010 to 3010, and will convert versions higher than 3020, up to and including 3050, down to 3020. Version 4010 will be processed as 4010.

5.3 820 Section Description

The 820 transaction set, for all versions, has three main sections: Header, Detail and Summary. The Header section contains basic trading partner account information. The Detail section contains remittance information at the invoice level. The Summary section is used to mark the end of the transaction set.

Header Section

The Header section of the EDI Payment Order/Remittance Advice contains banking information, which is that information necessary for a financial institution to use the 820 to credit or debit an account. It identifies the payee and payer, the desired settlement date, and the payment amount.

Detail Section

The Detail section of the EDI Payment Order/Remittance Advice contains payment advice information. This is information at the invoice level, allowing the payee and payer to communicate to each other the specifics of what was paid for. The information is not required by financial institutions to correctly post credits or debits against accounts, but it is necessary for the internal recordkeeping of companies to correctly track payment for service or products.

The detail N1 segment should carry the company name, company division name or other organizational entity. There may be more than one N1 for an 820 header.

The remittance area² of the detail section carries invoice information. There may be more than one invoice per detail N1 segment.

Invoice remittances must exactly total the payment amount³ in the 820 header section.

² The RMT segment in versions 3010 and earlier, and the RMR segment in versions 3020 or later.

³ The BPS segment in versions 3010 and earlier, and the BPR segment in versions 3020 or later.

5.3 820 Section Description, Continued

Summary Section

The Summary section of the EDI Payment Order/Remittance Advice is only used to identify the end of the transaction.

Section Layouts

Three versions of the 820 are used by Ameritech. Ameritech's bank converts all ANSI X12 versions prior to 3010 to 3010, converts versions 3030, 3040 and 3050 to 3020, and passes version 4010. For this reason, any version can be sent by an Ameritech trading partner.

For each of the above versions, 3010, 3020, and 4010, the following documents are included:

1. Technical Specification. This document identifies the data segments Ameritech will use, and a short description of the purpose of each segment.
2. Complete ANSI X12 Transaction Set. This document shows all the segments that exist in the ANSI standard for the 820 transaction and indicates whether that segment is required, how many times it can occur in the transaction, and how segments repeat (loop) relative to one another.⁴
3. X12 Segment Layout. Segments are standardized organizations of like information, made up of units of data called data elements. This document shows what each segment element contains and how it is used by Ameritech.

⁴ Though it doesn't indicate so in the document, the Detail table can repeat any number of times relative to the Header table. There will always be one header and one summary, but there may be many details.

5.4 820 BPS Series

For 820s sent to Ameritech's bank that are ANSI X12 version 3010 or earlier, the invoice information is in the detail section RMT segments. The payee (Ameritech) and payer (trading partner) account-level information is in the header section BPS segments. The sum of remittance payments (RMT03) must total the 820 payment amount (BPS02).

5.4.1 Technical Specification: 820 Version 3010

Segment sequence and usage

HDR	ST	Occurs once per transaction Contains transaction control data
	BPS	Occurs once per transaction Contains total payment amount, bank ABA and account numbers, and effective dates
	REF	Occurs once per transaction Contains the transaction reference number to uniquely identify the payment
	DTM	Occurs once per transaction Contains the transaction creation date
	N1	Occurs twice per transaction First occurrence contains the payee name (Ameritech) Second occurrence contains the payer name (Trading Partner name)
DTL	LS	Occurs once per remittance loop (one for Ameritech) Contains a loop ID code
	N1	Occurs one or more times per trading partner Contains the name of the trading partner or a trading partner organizational unit
	RMT	Occurs once per invoice Contains invoice number and invoice amount
	DTM	Occurs once per invoice Contains the invoice statement date
	LE	Loop End
SUM	SE	Occurs once per transaction Contains transaction control data

Summing Rules:

BPS02 must equal the sum of all RMT03 amounts

5.4.2 Complete ANSI X12 Specification, Version 3010

Table 1 (Header)

Seg Id	Name	Req. Desc	Max. Use	Loop Repeat
ST	Transaction Set Header	M	1	
BPS	Beginning Segment for Payment Order/Remittance Advice	M	1	
NTE	Note/Special Instruction	F	100	
CUR	Currency	O	1	
REF	Reference Numbers	M	5	
DTM	Date/Time Reference	M	10	
N1	Name	O	1	N1/200
N2	Additional Name Information	O	2	
N3	Address Information	O	2	
N4	Geographic Location	O	1	
REF	Reference Numbers	O	12	
PER	Administrative Communications Contact	O	3	

Table 2 (Detail)

Seg Id	Name	Req. Desc	Max. Use	Loop Repeat
LS	Loop Header	M	1	
N1	Name	M	1	N1/10000
RMT	Remittance Advice	O	1	RMT/10000
CUR	Currency	O	1	
REF	Reference Numbers	O	15	
DTM	Date/Time Reference	O	10	
LE	Loop Trailer	M	1	

Table 3 (Summary)

Seg Id	Name	Req. Desc	Max. Use	Loop Repeat
SE	Transaction Set Trailer	M	1	

5.4.3 Segment Layouts, Version 3010/Table 1 (Header)

Table 1 (Header)

Segment	Seg ID	D/E		Type	Min/Max
ST			TRANSACTION SET HEADER		
	ST01	143	TRANSACTION SET ID CODE Value: 820	ID	03/03
	ST02	329	TRANSACTION SET CONTROL NUMBER Four Digit Sequential Must match the SE02 value	AN	04/09
BPS			BEGINNING SEGMENT FOR PAYMENT ORDER/REMITTANCE ADVICE		
	BPS01	591	PAYMENT METHOD CODE "ADC" = ACH Demand Credit	ID	03/03
	BPS02	782	MONETARY AMOUNT Total Payment Amount This must equal the sum of RMT's	R	01/15
	BPS03	305	TRANSACTION HANDLING CODE "C" if payment method is CTX "X" if payment method is Customer Debit	ID	01/01
	BPS04	506	ORIGINATING DFI ID NUMBER QUALIFIER "01" = ABA Number Qualifier	ID	02/02
	BPS05	507	ORIGINATING DFI ID NUMBER Customer Bank's ABA Number	AN	03/12
	BPS06	508	ACCOUNT NUMBER Customer Account number	AN	01/35
	BPS07	509	ORIGINATING COMPANY ID NUMBER Customer Dun's Number	AN	10/10
	BPS08	510	ORIGINATING COMPANY SUPPLEMENTAL CODE Not Applicable	AN	09/09
	BPS09	506	RECEIVING DFI ID NUMBER QUALIFIER "01" = ABA Number Qualifier	ID	02/02
	BPS10	507	RECEIVING DFI ID NUMBER Harris Bank's ABA Number (VALUE IS 071000288)	AN	03/12
	BPS11	508	RECEIVING ACCOUNT NUMBER Ameritech Account Number	AN	01/35
	BPS12	513	EFFECTIVE ENTRY DATE Desired Settlement Date	DT	06/06
	BPS13	727	SETTLEMENT DATE Not Applicable	DT	06/06
REF			REFERENCE NUMBERS		
	REF01	128	REFERENCE NUMBER QUALIFIER "AN" = Sending Company Audit Number	ID	02/02

5.4.3 Segment Layouts, Version 3010/Table 1 (Header), Continued

Table 1 (Header)

Segment	Seg ID	D/E	Type	Min/Max
	REF02	127	REFERENCE NUMBER Audit Reference Number Assigned by Customer to uniquely ID this Transaction	AN 01/30
DTM			DATE/TIME REFERENCE	
	DTM01	374	DATE/TIME QUALIFIER "097" = Transaction Creation	ID 03/03
	DTM02	373	DATE Date Transaction is generated by Originator	DT 06/06
N1(1)			NAME	
	N101	98	ENTITY IDENTIFIER CODE "PE" = Payee	ID 02/02
	N102	93	NAME Actual Name of Receiving Trading Partner "Ameritech"	AN 01/35
N1(2)			NAME	
	N101	98	ENTITY ID CODE "PR" = Payer	ID 02/02
	N102	93	NAME Customer Name	AN 01/35

5.4.4 Segment Layouts, Version 3010/Table 2 (Detail)

Table 2 (Detail)

Segment	Seg ID	D/E		Type	Min/Max
LS			LOOP HEADER		
	LS01	447	LOOP IDENTIFIER CODE Recommended value "RMT" Must match value of LE01	ID	01/04
N1			NAME		
	N101	98	ENTITY IDENTIFIER CODE "PR" = Payer	ID	02/02
	N102	93	NAME Customer Company and/or Division Name	AN	01/35
RMT			REMITTANCE ADVICE ACCOUNTS RECEIVABLE OPEN ITEM REFERENCE		
	RMT01	128	REFERENCE NUMBER QUALIFIER "IV" = Seller's Invoice Number	ID	02/02
	RMT02	127	REFERENCE NUMBER Ameritech 13 digit Account Number (e.g., 7085551212333)	AN	01/30
	RMT03	782	MONETARY AMOUNT Amount of payment for this invoice All RMT03's must total BPS02 amount	R	01/15
DTM			DATE/TIME REFERENCE		
	DTM01	374	DATE/TIME QUALIFIER "003" = Invoice Date	ID	03/03
	DTM02	373	DATE Invoice Date	DT	06/06
LE			LOOP TRAILER		
	LE01	447	LOOP IDENTIFIER CODE Recommended Value "RMT" Must match value of LS01	AN	01/04

5.4.5 Segment Layouts, Version 3010/Table 3 (Summary)

Table 3
 (Summary)

Segment	Seg ID	D/E		Type	Min/Max
SE			TRANSACTIONS SET TRAILER		
	SE01	96	NUMBER OF INCLUDED SEGMENTS Total of all segments including the ST and SE segments	NO	01/06
	SE02	329	TRANSACTION SET CONTROL NUMBER Same number as ST02	AN	04/09

5.5 820 BPR Series

For 820s sent to Ameritech’s bank that are ANSI X12 version 3020 or more recent (up to 4010), the invoice information is in the detail section RMR segments. The payee (Ameritech) and payer (trading partner) account-level information is in the header section BPR segments. The sum of remittance payments (RMR04) must total the 820 payment amount (BPR02).

5.5.1 Technical Specification: 820 Version 3020

Segment sequence and usage

HDR	ST	Occurs once per transaction Contains transaction control data
	BPR	Occurs once per transaction Contains total payment amount, bank ABA and account numbers, and effective dates
	REF	Occurs once per transaction Contains the transaction reference number to uniquely id the payment
	DTM	Occurs once per transaction Contains the transaction creation date
	N1	Occurs twice per transaction, for Ameritech First occurrence contains the payee name (Ameritech) Second occurrence contains the payer name (Trading name)
DTL	ENT	Occurs once per remittance loop Required by Ameritech
	N1	Occurs one or more times per trading partner Contains the name of the trading partner or a trading partner organizational unit
	RMR	Occurs once per invoice Contains invoice number and invoice amount
	DTM	Occurs once per invoice Contains the invoice statement date
SUM	SE	Occurs once per transaction Contains transaction control data

Summing Rules:

BPR02 must equal the sum of all RMR04 amounts

5.5.2 Complete ANSI X12 Specification, Version 3020

Table 1 (Header)

Seg Id	Name	Req. Desc	Max. Use	Loop Repeat
ST	Transaction Set Header	M	1	
BPR	Beginning Segment (Payment Order/Remittance Advice)	M	1	
NTE	Note/Special Instruction	O	>1	
TRN	Trace	O	1	
CUR	Currency	O	1	
REF	Reference Numbers	O	>1	
DTM	Date/Time Reference	M	>1	
N1	Name	O	1	N1/>1
N2	Additional Name Information	O	>1	
N3	Address Information	O	>1	
N4	Geographic Location	O	1	
REF	Reference Numbers	O	>1	
PER	Administrative Communications Contact	O	>1	

Table 2 (Detail)

Seg Id	Name	Req. Desc	Max. Use	Loop Repeat
ENT	Entity	O	1	ENT/>1
N1	Name	O	1	N1/>1
N2	Additional Name Information	O	>1	
N3	Address Information	O	>1	
N4	Geographic Location	O	1	
REF	Reference Numbers	O	>1	
PER	Administrative Communications Contact	O	>1	
ADX	Adjustment	O	1	ADX/>1
NTE	Note/Special Instruction	O	>1	
PER	Administrative Communications Contact	O	>1	
REF	Reference Numbers	O	1	REF/>1
DTM	Date/Time Reference	O	>1	
IT1	Baseline Item Data (Invoice)	O	1	IT1/>1
REF	Reference Numbers	O	1	REF/>1
DTM	Date/Time Reference	O	1	
RMR	Remittance Advice Accounts Receivable Open Item Reference	O	1	RMR/>1
NTE	Note/Special Instruction	O	>1	
REF	Reference Numbers	O	>1	
DTM	Date/Time Reference	O	>1	
IT1	Baseline Item Data (Invoice)	O	1	IT1/>1
REF	Reference Numbers	O	1	REF/>1
DTM	Date/Time Reference	O	1	
ADX	Adjustment	O	1	ADX/>1
NTE	Note/Special Instruction	O	>1	

5.5.2 Complete ANSI X12 Specification, Version 3020, Continued

Table 2 (Detail), Continued

Seg Id	Name	Req. Desc	Max. Use	Loop Repeat
PER	Administrative Communications Contact	O	>1	
REF	Reference Numbers	O	1	REF/>1
DTM	Date/Time Reference	O	>1	
IT1	Baseline Item Data (Invoice)	O	1	IT1/>1
REF	Reference Numbers	O	1	REF/>1
DTM	Date/Time Reference	O	1	

Table 3 (Summary)

Seg Id	Name	Req. Desc	Max. Use	Loop Repeat
SE	Transaction Set Trailer	M	1	

5.5.3 Segment Layouts, Version 3020/Table 1 (Header)

Table 1 (Header)

Segment	Seg ID	D/E		Type	Min/Max
ST			TRANSACTION SET HEADER		
	ST01	143	TRANSACTION SET ID CODE Value: 820.	ID	03/03
	ST02	329	TRANSACTION SET CONTROL NUMBER Four Digit Sequential. Must match the SE02 value.	AN	04/09
BPR			BEGINNING SEGMENT FOR PAYMENT ORDER/REMITTANCE ADVICE		
	BPR01	305	TRANSACTION HANDLING CODE "C" if payment method is CTX "X" if payment method is Customer Debit	ID	01/01
	BPR02	782	MONETARY AMOUNT Total Payment Amount. This must equal the sum of RMR's.	R	01/15
	BPR03	478	CREDIT/DEBIT FLAG CODE Not applicable	ID	01/01
	BPR04	591	PAYMENT METHOD CODE "ADC" = ACH Demand Credit	ID	03/03
	BPR05	812	PAYMENT FORMAT Not applicable	ID	01/10
	BPR06	506	ORIGINATING DFI ID NUMBER QUALIFIER "01" = ABA Number Qualifier	ID	02/02
	BPR07	507	ORIGINATING DFI ID NUMBER Customer Bank's ABA Number.	AN	03/12
	BPR08	896	ACCOUNT NUMBER QUALIFICATION CODE Not applicable	ID	02/02
	BPR09	508	ACCOUNT NUMBER Customer Account Number	AN	01/35
	BPR10	509	ORIGINATING COMPANY ID Customer Dun's Number	AN	10/10
	BPR11	510	ORIGINATING COMPANY SUPPLEMENTAL CODE Not applicable	AN	09/09
	BPR12	506	RECEIVING DFI ID NUMBER QUALIFIER "01" = ABA Number Qualifier	ID	02/02
	BPR13	507	RECEIVING DFI ID NUMBER Harris Bank's ABA Number (value is 071000288)	AN	03/12
	BPR14	896	ACCOUNT NUMBER QUALIFICATION CODE Not applicable	ID	02/02
	BPR15	508	RECEIVING ACCOUNT NUMBER Ameritech Account Number	AN	01/35

5.5.3 Segment Layouts, Version 3020/Table 1 (Header), Continued

Table 1 (Header)

Segment	Seg ID	D/E		Type	Min/Max
	BPR16	513	EFFECTIVE ENTRY DATE Desired Settlement Date	DT	06/06
REF			REFERENCE NUMBERS		
	REF01	128	REFERENCE NUMBER QUALIFIER "AN" = Transaction Reference Number	ID	02/02
	REF02	127	REFERENCE NUMBER Transaction Reference Number Assigned by Customer to uniquely ID this Transaction	AN	01/30
DTM			DATE/TIME REFERENCE		
	DTM01	374	DATE/TIME QUALIFIER "097" = Transaction Creation.	ID	03/03
	DTM02	373	DATE Date Transaction is generated by Originator.	DT	06/06
N1(1)			NAME		
	N101	98	ENTITY ID CODE "PE" = Payee	ID	02/02
	N102	93	NAME Actual Name of Receiving Trading Partner "Ameritech"	AN	01/35
N1(2)			NAME		
	N101	98	ENTITY ID CODE "PR" = Payer	ID	02/02
	N102	93	NAME Customer Name	AN	01/35

5.5.4 Segment Layouts, Version 3020/Table 2 (Detail)

Table 2 (Detail)

Segment	Seg ID	D/E		Type	Min/Max
ENT			ENTITY		
	ENT01	554	ASSIGNED NUMBER Not Applicable	NO	01/06
	ENT02	98	ENTITY ID CODE Not Applicable	ID	02/02
	ENT03	66	ID CODE QUALIFIER Not Applicable	ID	01/02
	ENT04	67	ID CODE Not Applicable	AN	02/17
	ENT05	98	ENTITY ID CODE Not Applicable	ID	02/02
	ENT06	66	ID CODE QUALIFIER Not Applicable	ID	01/02
	ENT07	67	ID CODE Not Applicable	AN	02/17
	ENT08	128	REFERENCE NUMBER QUALIFIER Not Applicable	ID	02/02
	ENT09	127	REFERENCE NUMBER Not Applicable	AN	01/30
N1			NAME		
	N101	98	ENTITY ID CODE "PR" = Payer	ID	02/02
	N102	93	NAME Customer Company and/or Division Name	AN	01/35
RMR			REMITTANCE ADVICE ACCOUNTS RECEIVABLE OPEN ITEM REFERENCE		
	RMR01	128	REFERENCE NUMBER QUALIFIER "IV" - Seller's Invoice Number	ID	02/02
	RMR02	127	REFERENCE NUMBER Ameritech 13 digit Account Number (e.g. 7085551212333)	AN	01/30
	RMR03	482	PAYMENT ACTION CODE Not applicable	R	01/15
	RMR04	782	MONETARY AMOUNT Amount of Payment for this invoice All RMR04's must total BPR02 amount	R	01/15
DTM			DATE/TIME REFERENCE		
	DTM01	374	DATE/TIME QUALIFIER "003" = Invoice Date	ID	03/03

5.5.4 Segment Layouts, Version 3020/Table 2 (Detail), Continued

Table 2 (Detail)

Segment	Seg ID	D/E	Type	Min/Max
	DTM02	373	DATE Invoice Date	DT 06/06

5.5.5 Segment Layouts, Version 3020/Table 3 (Summary)

Table 3 (Summar)

Segment	Seg ID	D/E		Type	Min/Max
SE			TRANSACTION SET TRAILER		
	SE01	96	NUMBER OF INCLUDED SEGMENTS Total of all segments including the ST and SE segments	N0	01/06
	SE02	329	TRANSACTION SET CONTROL NUMBER Same number as ST02	AN	04/09

5.5.6 Technical Specification: 820 Version 4010

Segment sequence and usage

HDR	ST	Occurs once per transaction Contains transaction control data
	BPR	Occurs once per transaction Contains total payment amount, bank ABA and account numbers, and effective dates
	REF	Occurs once per transaction Contains the transaction reference number to uniquely id the payment
	DTM	Occurs once per transaction Contains the transaction creation date
	N1	Occurs twice per transaction, for Ameritech First occurrence contains the payee name (Ameritech) Second occurrence contains the payer name (Trading Partner name)
DTL	ENT	Occurs once per remittance loop Required by Ameritech
	N1	Occurs one or more times per trading partner Contains the name of the trading partner or a trading partner organizational unit
	RMR	Occurs once per invoice Contains invoice number and invoice amount
	DTM	Occurs once per invoice Contains the invoice statement date
SUM	SE	Occurs once per transaction Contains transaction control data

Summing Rules:

BPR02 must equal the sum of all RMR04 amounts

5.5.7 Complete ANSI X12 Specification, Version 4010

Table 1 (Header)

Seg Id	Name	Req. Desc	Max. Use	Loop Repeat
ST	Transaction Set Header	M	1	
BPR	Beginning Segment (Payment Order/Remittance Advice)	M	1	
NTE	Note/Special Instruction	O	>1	
TRN	Trace	O	1	
CUR	Currency	O	1	
REF	Reference Numbers	O	>1	
DTM	Date/Time Reference	O	>1	
N1	Name	O	1	N1/>1
N2	Additional Name Information	O	>1	
N3	Address Information	O	>1	
N4	Geographic Location	O	1	
REF	Reference Numbers	O	>1	
PER	Administrative Communications Contact	O	>1	
RDM	Remittance Delivery Method	O	1	
DTM	Date/Time Reference	O	1	

Table 2 (Detail)

Seg Id	Name	Req. Desc	Max. Use	Loop Repeat
ENT	Entity	O	1	ENT/>1
N1	Name	O	1	N1/>1
N2	Additional Name Information	O	>1	
N3	Address Information	O	>1	
N4	Geographic Location	O	1	
REF	Reference Numbers	O	>1	
PER	Administrative Communications Contact	O	>1	
ADX	Adjustment	O	1	ADX/>1
NTE	Note/Special Instruction	O	>1	
PER	Administrative Communications Contact	O	>1	
DTM	Date/Time Reference	O	1	
REF	Reference Numbers	O	1	REF/>1
DTM	Date/Time Reference	O	>1	
IT1	Baseline Item Data (Invoice)	O	1	IT1/>1
REF	Reference Numbers	O	1	REF/>1
DTM	Date/Time Reference	O	1	
RMR	Remittance Advice Accounts Receivable Open Item Reference	O	1	RMR/>1
NTE	Note/Special Instruction	O	>1	
REF	Reference Numbers	O	>1	
DTM	Date/Time Reference	O	>1	
IT1	Baseline Item Data (Invoice)	O	1	IT1/>1
REF	Reference Numbers	O	1	REF/>1
DTM	Date/Time Reference	O	1	
ADX	Adjustment	O	1	ADX/>1
NTE	Note/Special Instruction	O	>1	

5.5.7 Complete ANSI X12 Specification, Version 4010, Continued

Table 2 (Detail)

Seg Id	Name	Req. Desc	Max. Use	Loop Repeat
PER	Administrative Communications Contact	O	>1	
REF	Reference Numbers	O	1	REF/>1
DTM	Date/Time Reference	O	>1	
IT1	Baseline Item Data (Invoice)	O	1	IT1/>1
REF	Reference Numbers	O	1	REF/>1
DTM	Date/Time Reference	O	1	

Table 3 (Summary)

Seg Id	Name	Req. Desc	Max. Use	Loop Repeat
SE	Transaction Set Trailer	M	1	

5.5.8 Segment Layouts, Version 4010/Table 1 (Header)

Table 1 (Header)

Segment	Seg ID	D/E		Type	Min/Max
ST			TRANSACTION SET HEADER		
	ST01	143	TRANSACTION SET IDENTIFIER CODE Value: 820.	ID	03/03
	ST02	329	TRANSACTION SET CONTROL NUMBER Four Digit Sequential. Must match the SE02 value.	AN	04/09
BPR			BEGINNING SEGMENT FOR PAYMENT ORDER/REMITTANCE ADVICE		
	BPR01	305	TRANSACTION HANDLING CODE "C" if payment method is CTX "X" if payment method is Customer Debit	ID	01/02
	BPR02	782	MONETARY AMOUNT Total Payment Amount. This must equal the sum of RMR's.	R	01/18
	BPR03	478	CREDIT/DEBIT FLAG CODE Not applicable	ID	01/01
	BPR04	591	PAYMENT METHOD CODE "DCC" = ACH Demand Cash Concentration/Disbursement (CCD) Credit	ID	03/03
	BPR05	812	PAYMENT FORMAT Not applicable	ID	01/10
	BPR06	506	ORIGINATING DFI ID NUMBER QUALIFIER "01" = ABA Number Qualifier	ID	02/02
	BPR07	507	ORIGINATING DFI ID NUMBER Customer Bank's ABA Number.	AN	03/12
	BPR08	569	ACCOUNT NUMBER QUALIFIER Not applicable	ID	01/03
	BPR09	508	ACCOUNT NUMBER Customer Account Number	AN	01/35
	BPR10	509	ORIGINATING COMPANY IDENTIFIER Customer Dun's Number	AN	10/10
	BPR11	510	ORIGINATING COMPANY SUPPLEMENTAL CODE Not applicable	AN	09/09
	BPR12	506	RECEIVING DFI ID NUMBER QUALIFIER "01" = ABA Number Qualifier	ID	02/02
	BPR13	507	RECEIVING DFI ID NUMBER Harris Bank's ABA Number (value is 071000288)	AN	03/12
	BPR14	569	ACCOUNT NUMBER QUALIFIER Not applicable	ID	01/03
	BPR15	508	RECEIVING ACCOUNT NUMBER Ameritech Account Number	AN	01/35

5.5.8 Segment Layouts, Version 4010/Table 1 (Header), Continued

Table 1 (Header)

Segment	Seg ID	D/E		Type	Min/Max
	BPR16	373	DATE Desired Settlement Date	DT	08/08
REF			REFERENCE NUMBERS		
	REF01	128	REFERENCE IDENTIFICATION QUALIFIER "TN" = Transaction Reference Number	ID	01/03
	REF02	127	REFERENCE IDENTIFICATION Transaction Reference Number Assigned by Customer to uniquely ID this Transaction	AN	01/30
DTM			DATE/TIME REFERENCE		
	DTM01	374	DATE/TIME QUALIFIER "097" = Transaction Creation.	ID	03/03
	DTM02	373	DATE Date Transaction is generated by Originator.	DT	08/08
N1(1)			NAME		
	N101	98	ENTITY IDENTIFIER CODE "PE" = Payee	ID	02/03
	N102	93	NAME Actual Name of Receiving Trading Partner "Ameritech"	AN	01/60
N1(2)			NAME		
	N101	98	ENTITY ID CODE "PR" = Payer	ID	02/03
	N102	93	NAME Customer Name	AN	01/60

5.5.9 Segment Layouts, Version 4010/Table 2 (Detail)

Table 2 (Detail)

Segment	Seg ID	D/E		Type	Min/Max
ENT			ENTITY		
	ENT01	554	ASSIGNED NUMBER Not Applicable	N0	01/06
	ENT02	98	ENTITY IDENTIFIER CODE Not Applicable	ID	02/03
	ENT03	66	IDENTIFICATION CODE QUALIFIER Not Applicable	ID	01/02
	ENT04	67	IDENTIFICATION CODE Not Applicable	AN	02/80
	ENT05	98	ENTITY IDENTIFIER CODE Not Applicable	ID	02/03
	ENT06	66	IDENTIFICATION CODE QUALIFIER Not Applicable	ID	01/02
	ENT07	67	IDENTIFICATION CODE Not Applicable	AN	02/80
	ENT08	128	REFERENCE IDENTIFICATION QUALIFIER Not Applicable	ID	02/03
	ENT09	127	REFERENCE IDENTIFICATION Not Applicable	AN	01/30
NM1			NAME		
	NM101	98	ENTITY ID CODE "PR" = Payer	ID	02/03
	NM102	1065	ENTITY TYPE QUALIFIER Type of Company, i.e. "4" = Corporation, "G" = Government	ID	01/01
	NM103	1035	NAME LAST OR ORGANIZATION NAME Customer Company and/or Division Name	AN	01/35
RMR			REMITTANCE ADVICE ACCOUNTS RECEIVABLE OPEN ITEM REFERENCE		
	RMR01	128	REFERENCE IDENTIFICATION QUALIFIER "IV" - Seller's Invoice Number	ID	02/03
	RMR02	127	REFERENCE IDENTIFICATION Ameritech 13 digit Account Number (e.g. 7085551212333)	AN	01/30
	RMR03	482	PAYMENT ACTION CODE Not applicable	ID	02/02
	RMR04	782	MONETARY AMOUNT Amount of Payment for this invoice All RMR04's must total BPR02 amount	R	01/18
DTM			DATE/TIME REFERENCE		
	DTM01	374	DATE/TIME QUALIFIER "003" = Invoice Date	ID	03/03

5.5.9 Segment Layouts, Version 4010/Table 2 (Detail), Continued

Table 2 (Detail)

Segment	Seg ID	D/E		Type	Min/Max
	DTM02	373	DATE Invoice Date	DT	08/08

5.5.10 Segment Layouts, Version 4010/Table 3 (Summary)

Table 3 (Summar)

Segment	Seg ID	D/E		Type	Min/Max
SE			TRANSACTION SET TRAILER		
	SE01	96	NUMBER OF INCLUDED SEGMENTS Total of all segments including the ST and SE segments	N0	01/10
	SE02	329	TRANSACTION SET CONTROL NUMBER Same number as ST02	AN	04/09