

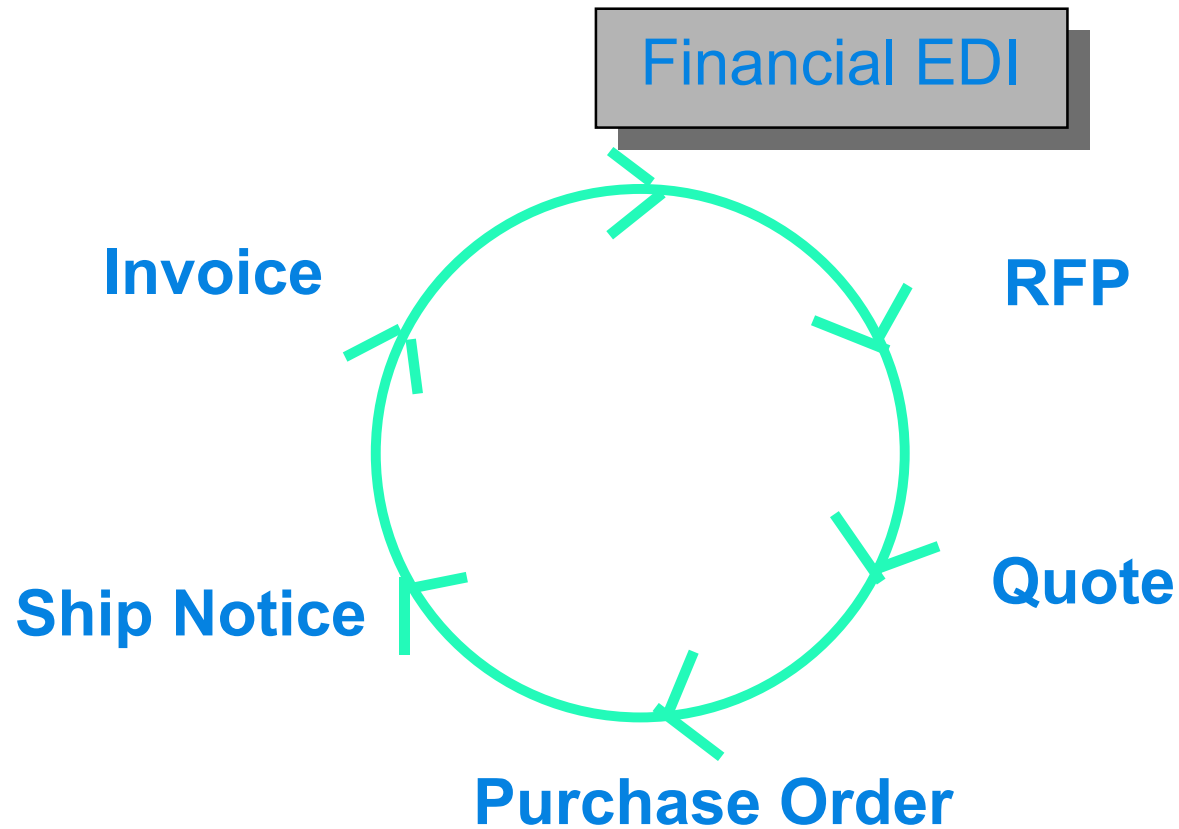
1998 DI USERS GROUP

Financial EC/EDI Fundamentals and Common Applications

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Financial EDI

Financial EDI - Completing the EDI Circle



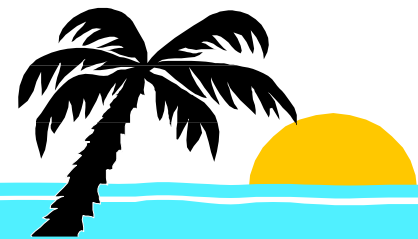
Financial EDI Benefits

- **Corporate Benefits**

- Market image
- Improved customer/trading partner relations
- Completing the EDI cycle
- Protection of market share

- **Treasury, A/P-A/R Benefits**

- Reduced costs
- Enhanced cash management and cash forecasting
- Improved quality



Factors Driving the Growth of FEDI

- Declining importance of float (as an issue)
- Federal Government initiatives (i.e.. tax payments)
- Just-in-time business practices
- Power and cost of technology
- Check Fraud
- Cost reduction/reengineering
- The “Gorilla” effect (your major trading partner is ready to initiate Financial EDI)

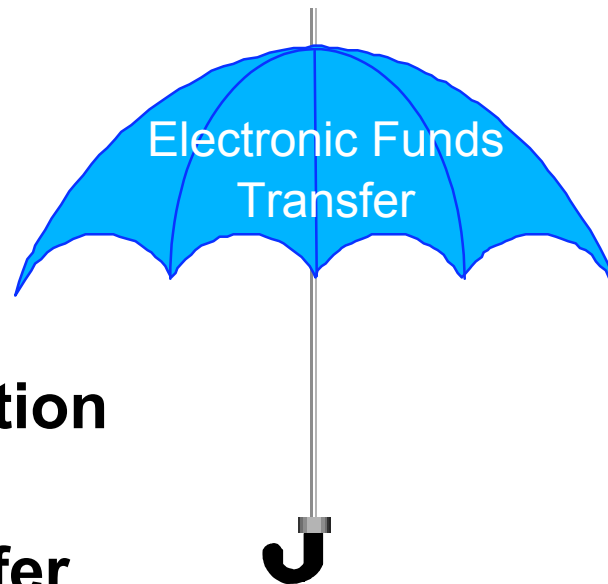


Electronic Funds Transfer

Bank to bank electronic payment instructions

Wire Transfer

- **FEDWIRE**
- **Large dollar**
- **Instantaneous**
- **Limited information**
- **Expensive**
- **Same-day transfer**



ACH

- **National Automated Clearinghouse-NACHA**
- **Check alternative**
- **“Batch processing”**
- **Remittance information**
- **Inexpensive**
- **Next-day transfer**



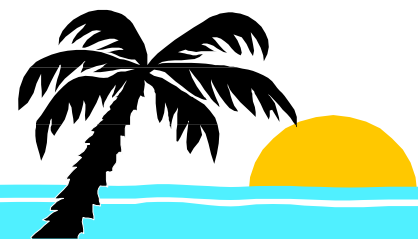
ACH Formats

- **CCD+**

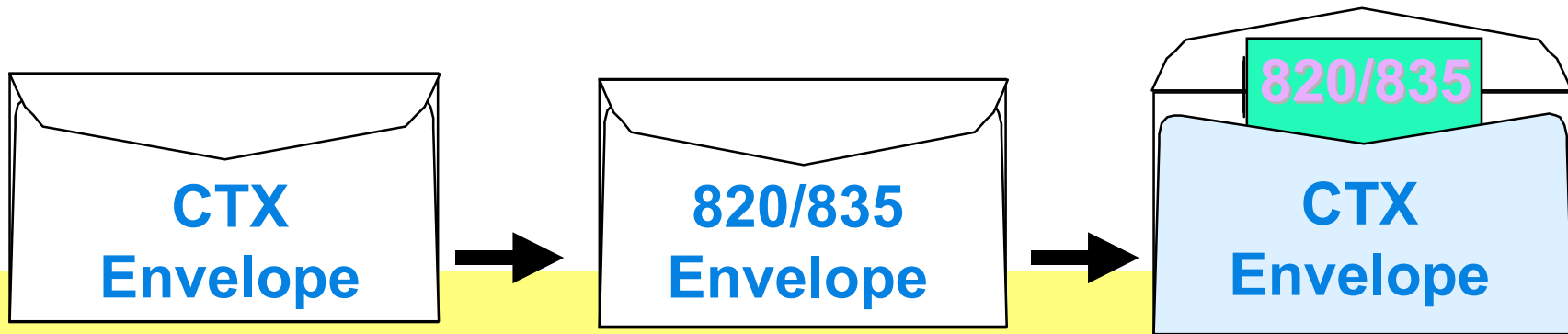
- Limited remittance information
- Typically used if the dollars and data move separately (i.e. dollars via CCD+ format, remittance via 820R remittance).

- **CTX**

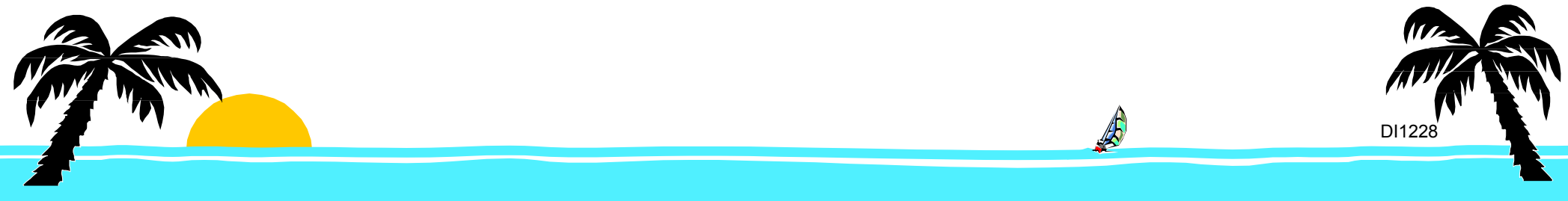
- Allows for substantial remittance information
- Remittance information is in standard EDI formats (ANSI X12)
- The format of choice for EDI (i.e.. a complete 820P/R can be inserted into a CTX NACHA formatted file)



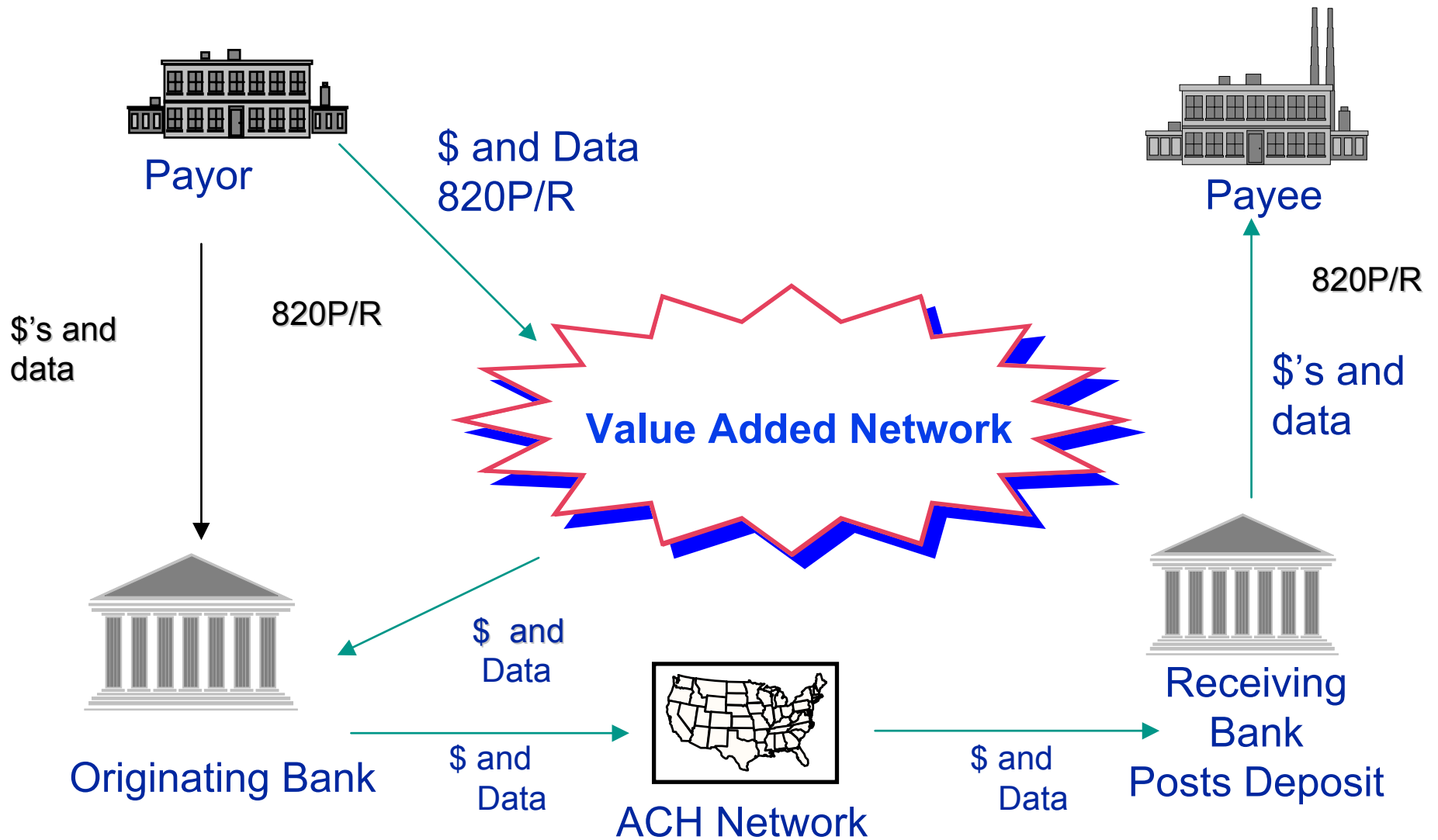
Enveloping - CTX Dollars and Data together



CTX travels through the ACH network

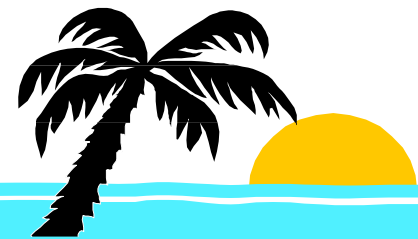


Dollars and Data Together

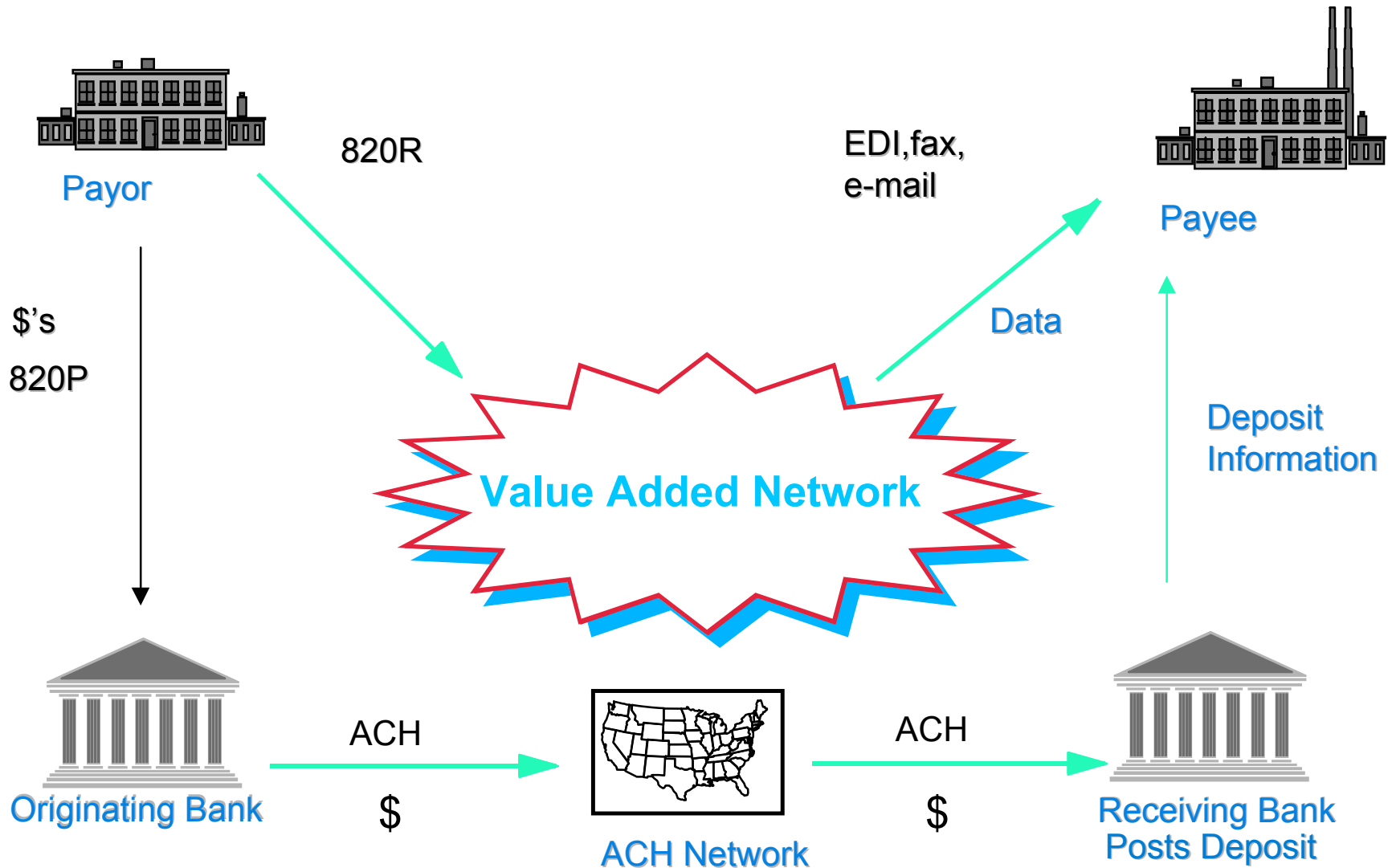


Issues of Dollars and Data Together

- Typically originating bank must be EDI capable
- Receiving bank *must* be EDI capable
 - Approximately than 25% of US banks are EDI capable
- Dollars/data do not need to be reassociated

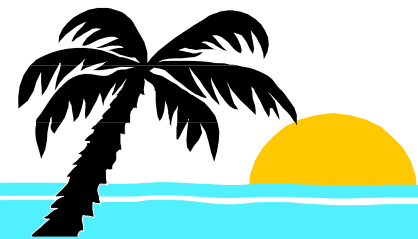


Dollars and Data Separated



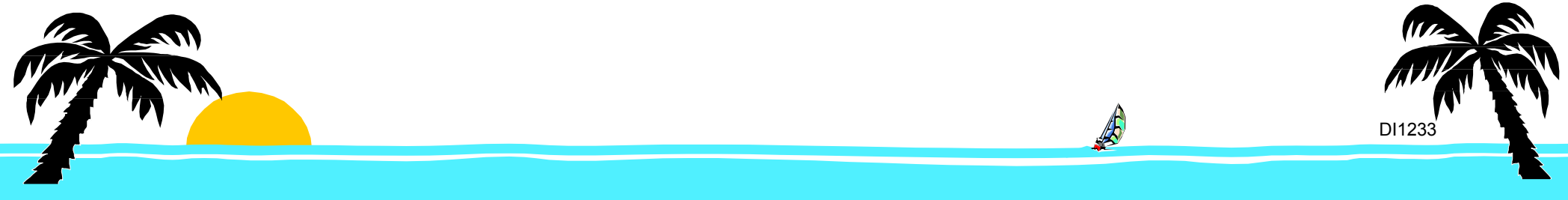
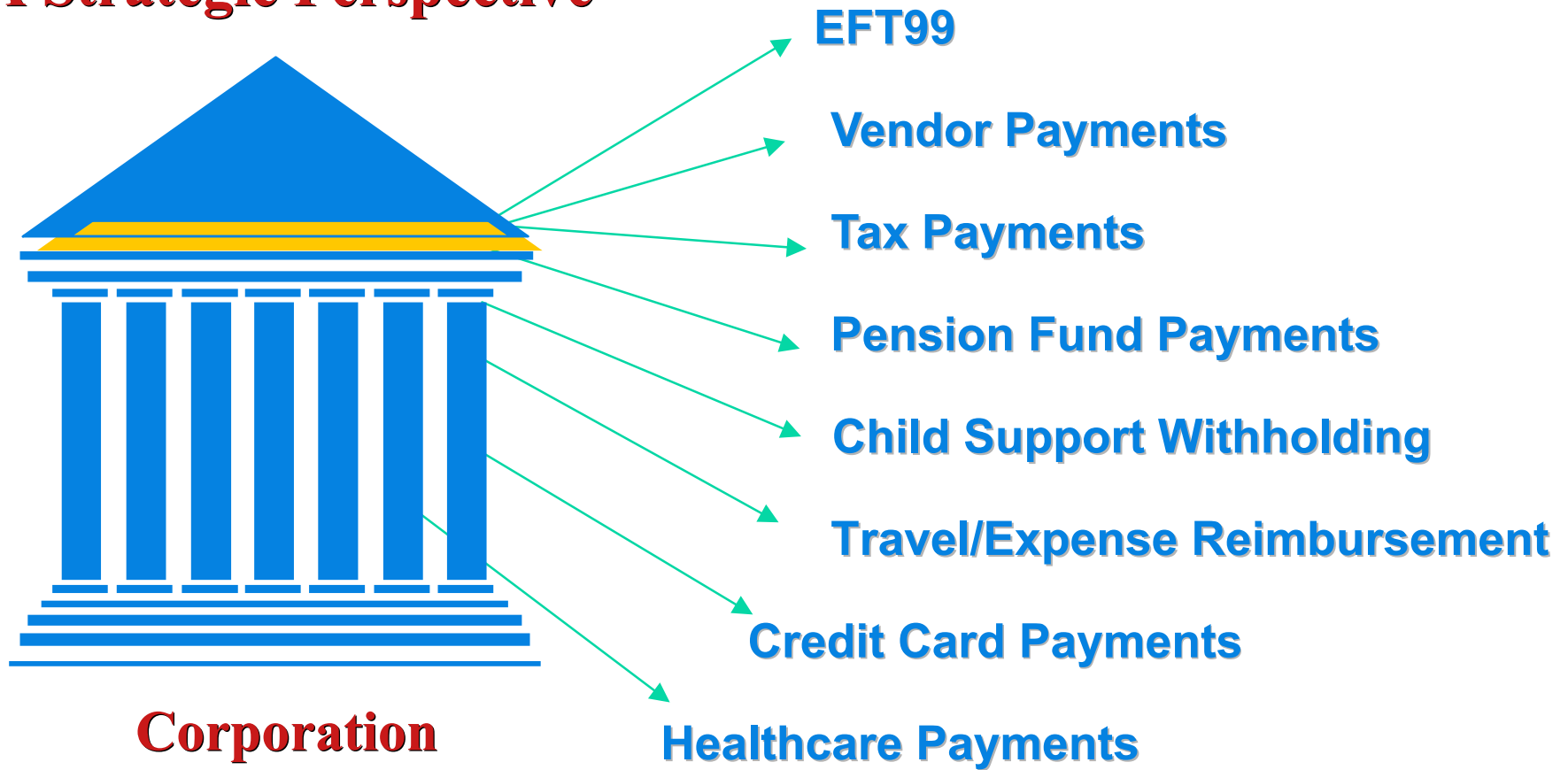
Issues of Dollars and Data Separated

- **The originating bank may not need to be EDI capable**
- **The receiving bank does not need to be EDI capable**
- **Advanced notice of available funds to the receiver**
- **Requires the receiver to reassociate the payment and remittance advice**

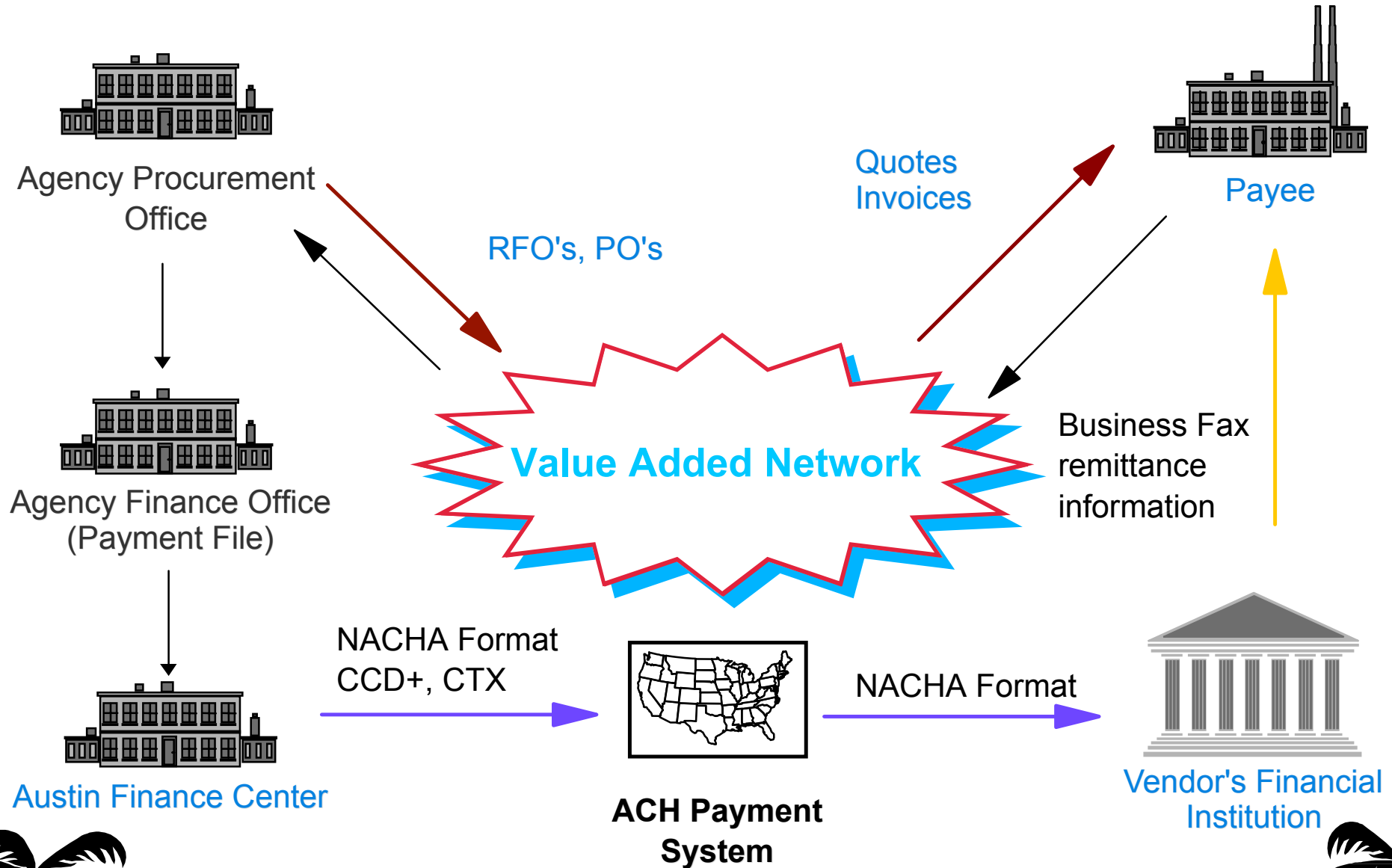


Financial EC Applications

A Strategic Perspective

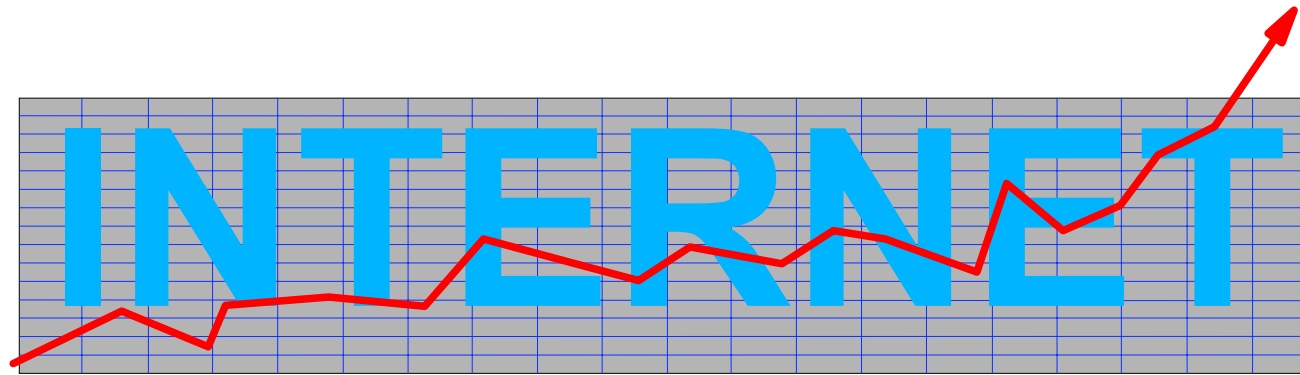


EFT99 Solution Road Map



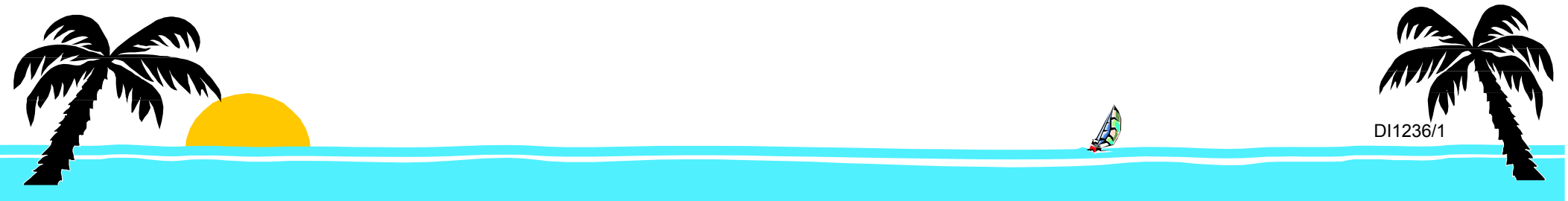
Financial EC and the Internet

- A solution for DFI's, government agencies, EDI Hubs, vendors and the entire financial supply chain
- Secure transactions
- Growth scenarios



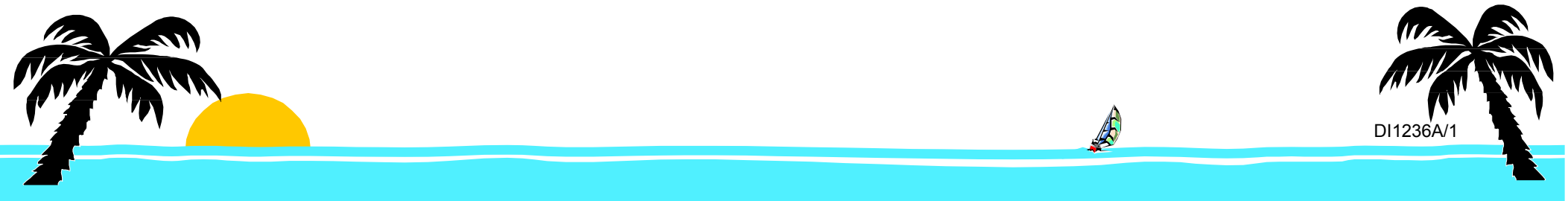
Financial EDI-Related Terms

- **Electronic Funds Transfer(EFT) - The electronic movement or exchange of funds via ACH, Fedwire, Swift, or other authorized electronic payment system.**
- **ACH (Automated clearinghouse) - The most popular and widely used clearinghouse of electronic fund transfers (i.e.direct deposit of payroll, corporate payments, travel/expense reimbursements, state/federal, tax payments, consumer/business related transactions). Common ACH computer formats (NACHA formats) include CTX, CCD, and CCD+.**
- **ANSI X.12 Financial EDI documents/transaction sets - see glossary (820P&820R, 835P&835R)**



Financial EDI-Related Terms (cont.)

- **Financially EDI capable/Value Added bank (VAB)** - can successfully process and deliver incoming/outgoing EDI data, including translation, and store-and-forward mailboxing to between bank customers and their trading partners
- **Value added network(VAN)** - A third party service provider of secure networking services such as secure store-and forward mailbox delivery of EDI documents, EDI and proprietary in-network translation, and access to audit and reporting data on activity
- **Float** - time delay related to exchange of funds (i.e. check, mail, processing)



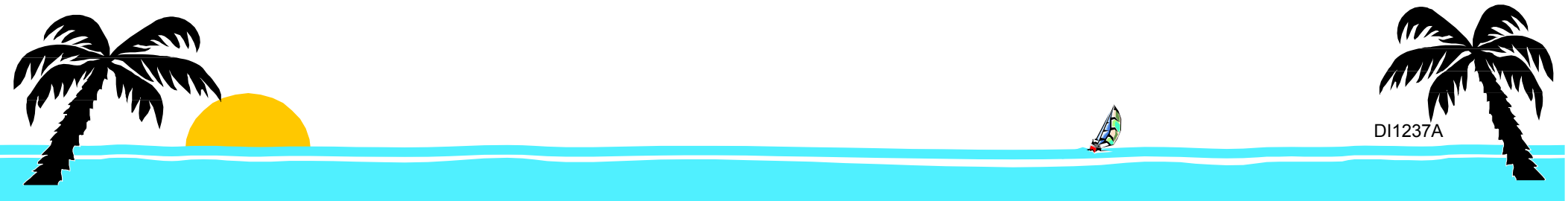
Financial EDI-Related Terms (con't)

- **Advance Notification of Funds** - The receipt of payment related detailed information in advance of payment
- **Authentication** - The use of hardware or software to ensure
 - 1) the successful transfer of uncorrupted/unaltered information
 - 2) the identity of both sender and receiver of information
- **Encryption** - The use of hardware or software to translate payment/detail information into an unreadable format (typically, payment instructions destined for a bank)
- **Dollars and Data Together** - When the payment (820P) and remittance (820R) are kept together through the entire data flow process, with the receiver also receiving the information together



Financial EDI-Related Terms (con't)

- **Dollars and Data Separate** - The transfer and receipt of payment and related data separately (usually split to accommodate the advance notification of funds, requiring reassociation of both payment and remittance by receiver of information)
- **Originating Depository Financial Institution(ODFI)** - bank which initiates FEDI instructions
- **Receiving Depository Financial Institution(RDFI)** - bank which receives FEDI instructions



Bank Transactions for Corporate Payments

NACHA

Formats

Move Funds?

Moves Data?

CCD

Yes

No

CCD+

Yes

One 80-character addenda

CTX

Yes

ANSI 820 contained in
multiple addenda

CTP

Yes (phased out 4/96)

Fixed format,
inflexible addenda



Glossary of FEDI Transaction Sets

820	Payment Order/Remittance Advice
	<p>This Draft Standard for Trial Use contains the format and establishes the data contents of the Payment Order/Remittance Advice Transaction Set (820) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to make a payment, send a remittance advice, or make a payment and send a remittance advice.</p> <p>This transaction set can be an order to a financial institution to make a payment to a payee. It can also be a remittance advice identifying the detail needed to perform cash application to the payee's accounts receivable system. The remittance advance can go directly from payer to payee, through a financial institution, or through a third-party agent.</p>
821	Financial Information Reporting
	<p>This Draft Standard for Trial Use contains the format and establishes the data contents of the Financial Information Reporting Transaction Set (821) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to report balances, detail and summary financial transaction, and other related account information. It can be used by financial institutions and their agents to report to their clients.</p>
822	Customer Account Analysis
	<p>This Draft Standard for Trial Use contains the format and establishes the data contents of the Customer Account Analysis Transaction Set (822) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to transmit detailed balance, service charge and adjustment detail primarily from a bank to its corporate clients. However, this transaction set can also be used between or within corporations.</p>



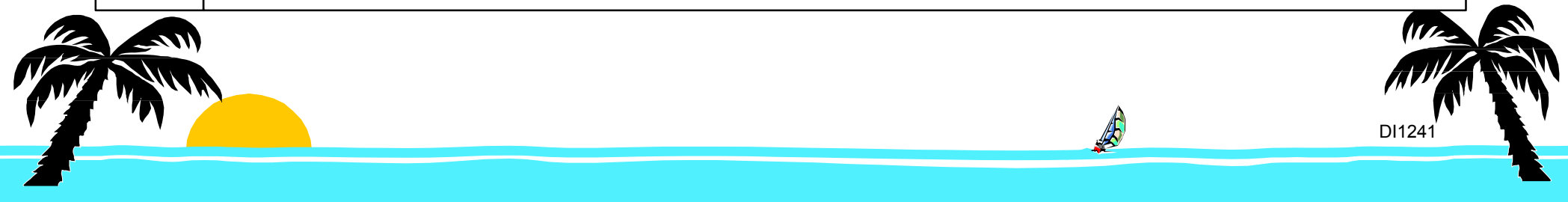
Glossary of FEDI Transaction Sets

823	Lockbox
	This Draft Standard for Trial Use contains the format and establishes the data contents of the Lockbox Transaction Set (823) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to transmit lockbox (incoming payments) information and totals from a bank or any other lockbox service provider to a company.
824	Application Advice
	This Draft Standard for Trial Use contains the format and establishes the data contents of the Application Advice Transaction Set (824) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide the ability to report the results of an application system's data content edits of transaction sets. The results of editing transaction sets can be reported at the functional group and transaction set level, in either coded or free-form format. It is designed to accommodate the business need of reporting the acceptance, rejection or acceptance with change of any transaction set. The Application Advice should not be used in place of a transaction set designed as a specific response to another transaction set (e.g., purchase order acknowledge sent in response to a purchase order).
826	Tax Information Reporting
	This Draft Standard for Trial Use contains the format and establishes the data contents of the Tax Information Reporting Transaction Set (826) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to exchange tax information between federal and state taxing agencies. This transaction set will support individual and Business Master Files, Individual and Business Returns Transaction Files, and the Gift Tax Data Extract Exchange Program of the Federal/State Exchange Program.



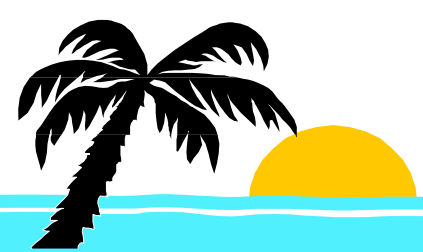
Glossary of FEDI Transaction Sets

827	Financial Return Notice Transaction
	<p>This Draft Standard for Trial Use contains the format and establishes the data contents of the Financial Return Notice Transaction Set (827) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to report the originator the inability of the originating financial institution to have the Payment Order/Remittance Advice Transaction Set (820) processed.</p>
828	Debit Authorization
	<p>This Draft Standard for Trial Use contains the format and establishes the data contents of the Debit Authorization Transaction Set (828) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide information from the paying entity to the financial institution regarding debits the paying entity has authorized against its account. This financial institution would hold this information then match it against incoming debits to determine whether those debits have been authorized by the account holder.</p> <p>This transaction set can be used to add new authorizations or cancel existing authorizations.</p> <p>With regard to electronic debits, this would be used for ACH debit processing only. This transaction set can also be used for paper-based debits (i.e., checks). In the paper-based world, this transaction set would serve the purpose of the "issuance file" or "check register" used in account reconciliation applications.</p> <p>Either one-time or recurring debits can be authorized with this transaction set.</p> <p>One transaction set can be used to identify multiple debit authorization detail against one bank account.</p>

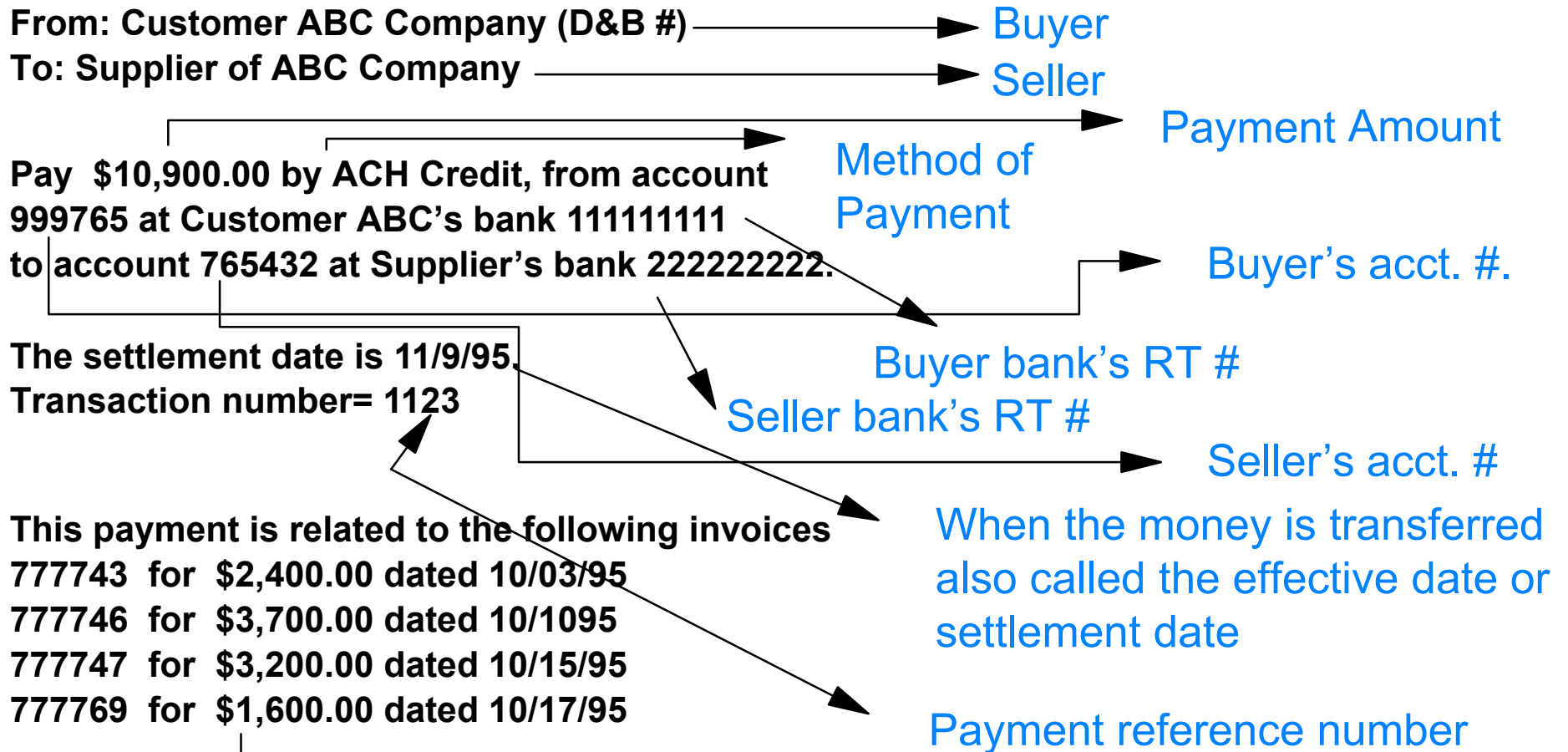


Glossary of FEDI Transaction Sets

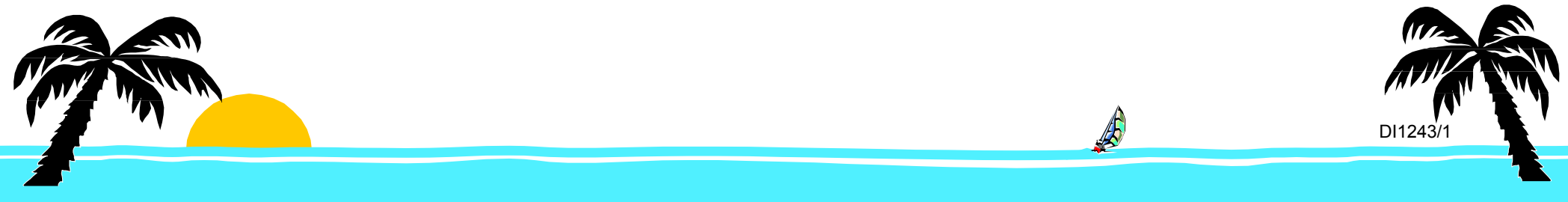
829	Payment Cancellation Request
	This Draft Standard for Trial Use contains the format and establishes the data contents of the Payment Cancellation Request Transaction Set (829) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to cancel a previously transmitted electronic payment between an originating company and its originating financial institution before funds are released.
831	Application Control Totals
	<p>This Draft Standard for Trial Use contains the format and establishes the data contents of the Application Control Totals Transaction Set (831) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to transmit totals associated with a collection of like transaction.</p> <p>The items reported in this transaction set must be of the same transaction set ID code.</p>
835	Health Care Claim Payment/Advice
	This Draft Standard for Trial Use contains the format and establishes the data contents of the Care Claim Payment/Advice Transaction Set (835) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to make a payment, send an Explanation of Benefits (EOB) remittance advice, or make a payment and send an EOB remittance advice only from a health insurer to a health care provider either directly or via financial institution.



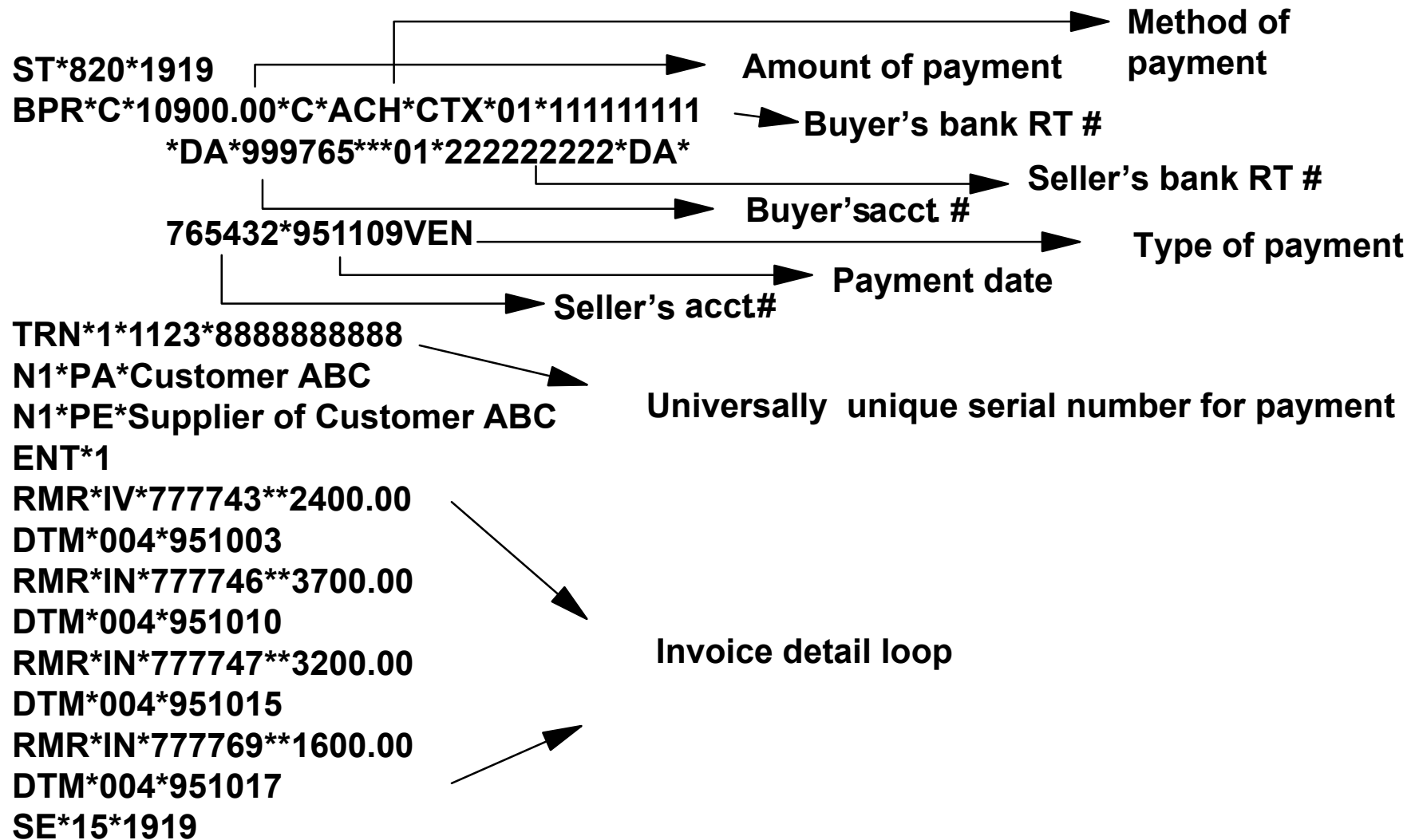
Mapping the 820 Payment/Remittance



Why the payment is being made



Mapping the 820 Payment/Remittance



NACHA CTX RECORD REORGANIZATION

- "6" record for each CTX
- "7/05" records containing an EDI 820 blocked into 80 character records

Example:

622123000013...	...1072000320000001
705ISA*00*SENDERID...	...00010000001
7052*U*00200*000000001*0*P*:\GS*...	...00020000001
7052010\ST*820*0001\BPS...	...00030000001
7053*123456789*921105\REF*TN*...	...00040000001
705\RMT*OI*INVOICE1*500\RMT*OI*...	...00050000001
70500\SE*16*0001\GE*1*1\IEA*...	...00060000001

The EDI 820 interchange is blocked into 80 character records, enveloped in ACH "7" type "05" records

Contacts

American Bar Association (ABA)	750 North Lake Shore Dr. Chicago, IL 60611 800-285-2221	Publishes the "model EFT Trading Partner Agreement" and "Model EDI Trading Partner Agreement"
Data Interchange Standards Association (DISA)	1800 Diagonal Road Suite 355 Alexandria, VA 22314 703-548-7005	Secretariat to the American National Standards Institute (ANSI). DISA administers the publication and maintenance of EDI standards. They sponsor an annual EDI conference in April/May timeframe.
CommerceNet	http://www.commerce.net	Committed to finding a secure method of conducting commerce over the Internet
Electronic Data Interchange Association (EDIA)	225 Reinekers Lane Suite 550 Alexandria, VA 22314 703-838-8042	Cross industry association of EDI users. Provides members w/inf. re: latest EDI developments; legislation; task forces, etc.
National Automated Clearinghouse Association (NACHA)	607 Herndon Parkway Suite 200 Herndon, VA 22070 703-742-9190	Regulatory body for the ACH network Publishes the " <i>ACH Rules</i> " and the Bankers EDI Council " <i>Mapping Corporate ACH Formats to/from The ASC X12 820 Transaction Set</i> ".
Credit Research Foundation (National Assoc. of Credit Management - NACM)	8815 Centre Park Drive Suite 200 Columbia, MD 21045 410-740-5567	
Treasury Management Association (TMA)	7315 Wisconsin Avenue Suite 1250 W Bethesda, MD 20814 301-907-2862	The principal organization representing private sector treasure professionals, supporting them through continuing education, professional certification, publications, industry standards, government relations, and research. TMA sponsors an annual FEDI conference in January.

