2002 WEDi / AFEHCT Project Health Care Communications Security & Interoperability

March 14, 2002 - Part I

Tom Hanks, PricewaterhouseCoopers LLP

Peter Barry, Peter T Barry Company

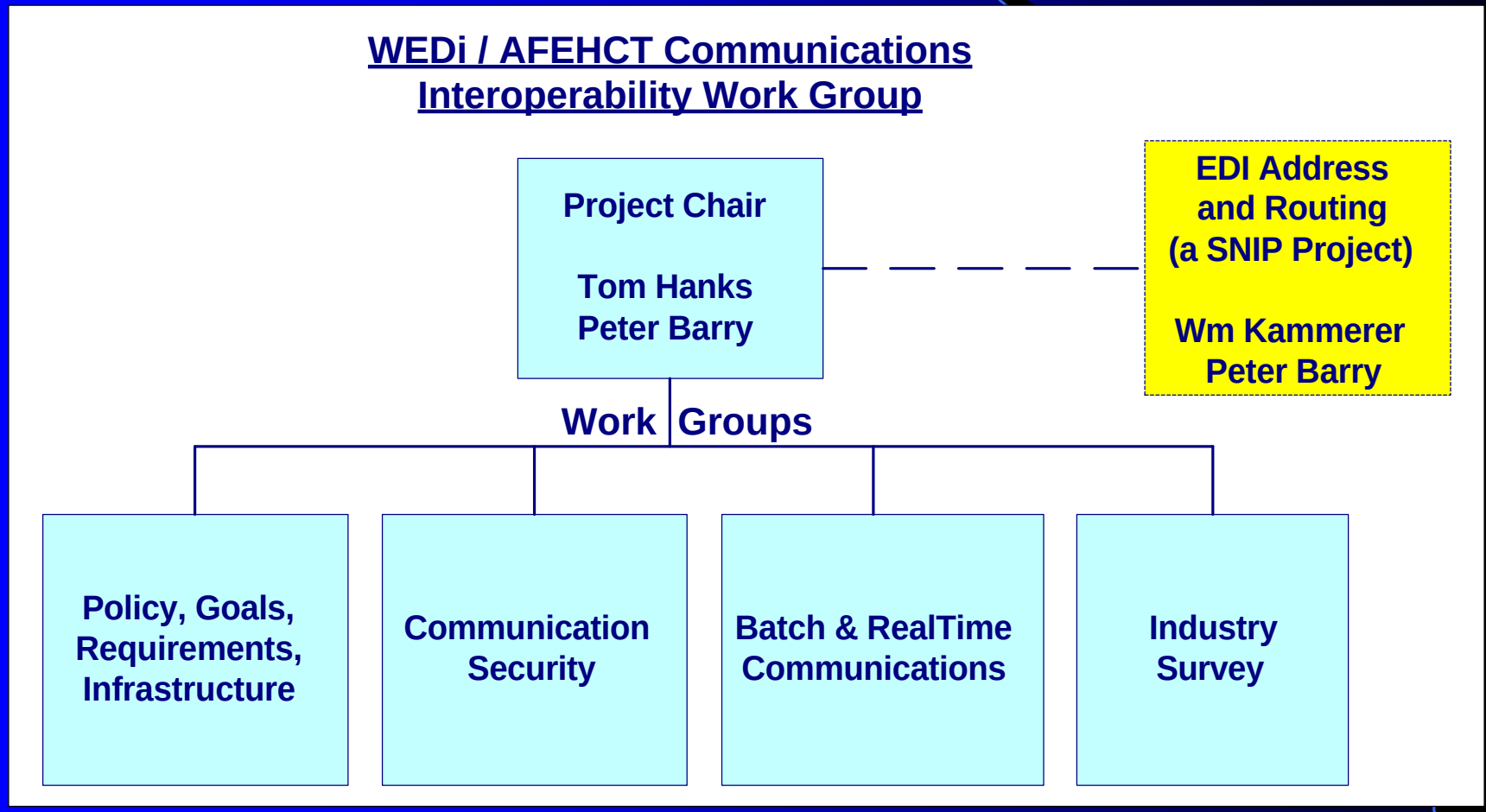
tom.hanks@us.pwcglobal.com
peterbarry@aol.com

Health Care Communications Security & Interoperability

Purpose of the project:

- Publish specifications of standard communications security and interoperability methods for communicating HIPAA standard EDI transactions.
- Meet HIPAA security rules and the 11/24/98 HCFA Internet Security Policy (HISP-98), and use open, non-proprietary technology

Health Care Communications Security & Interoperability



Health Care Communications Security & Interoperability

AFEHCT & WEDi. The project is organized jointly. The boards of WEDi and AFEHCT approve final documents before publication.

Project Chairs. Responsible for general administration and scheduling of the project and for final editing of publications.

Health Care Communications Security & Interoperability

Policy Workgroup.

- Policies and business issues
- Goals of the project
- Business and technical requirements
- Overall architecture and requisite infrastructure

Health Care Communications Security & Interoperability

Security Workgroup

Specify a reasonable set of security methods

- Consistent with CMS (HCFA) Internet Security Policy - 1998
- Dial-in connection
- Private IP- dial-in, browser/web based, and dedicated connection
- Internet

Internet Interoperability Challenge

- No shortage of public encryption algorithms
- No shortage of proprietary authentication methods – digital signatures/PKI
- Shortage of interoperable authentication methods – digital signatures/PKI
- Infrastructure for digital signature
  - Root certificate authority
  - Policies, requirements for obtaining a certificate
  - Certificate revocation notification

Health Care Communications Security & Interoperability

Communications Workgroup

Specify a reasonable set of interoperable EDI communications methods.

- **Interactive** Define transport packaging for standard interactive EDI transactions.
- **Batch** Define transport packaging for batch EDI. Example: FTP, ebXML, EDIINT, or other

Health Care Communications Security & Interoperability

Survey Workgroup

Conduct surveys of technologies, policies, and practices currently used in health care for EDI over Internet and other networks.

Health Care Communications Security & Interoperability

EDI Address and Routing Workgroup

This is an affiliated SNIP project to define identifier usage, EDI Addresses, and related issues important to Interoperability

Health Care Communications Security & Interoperability

Sequence

- Dial-in and private network.
- Web/Browser based
- Internet packet security will take longer

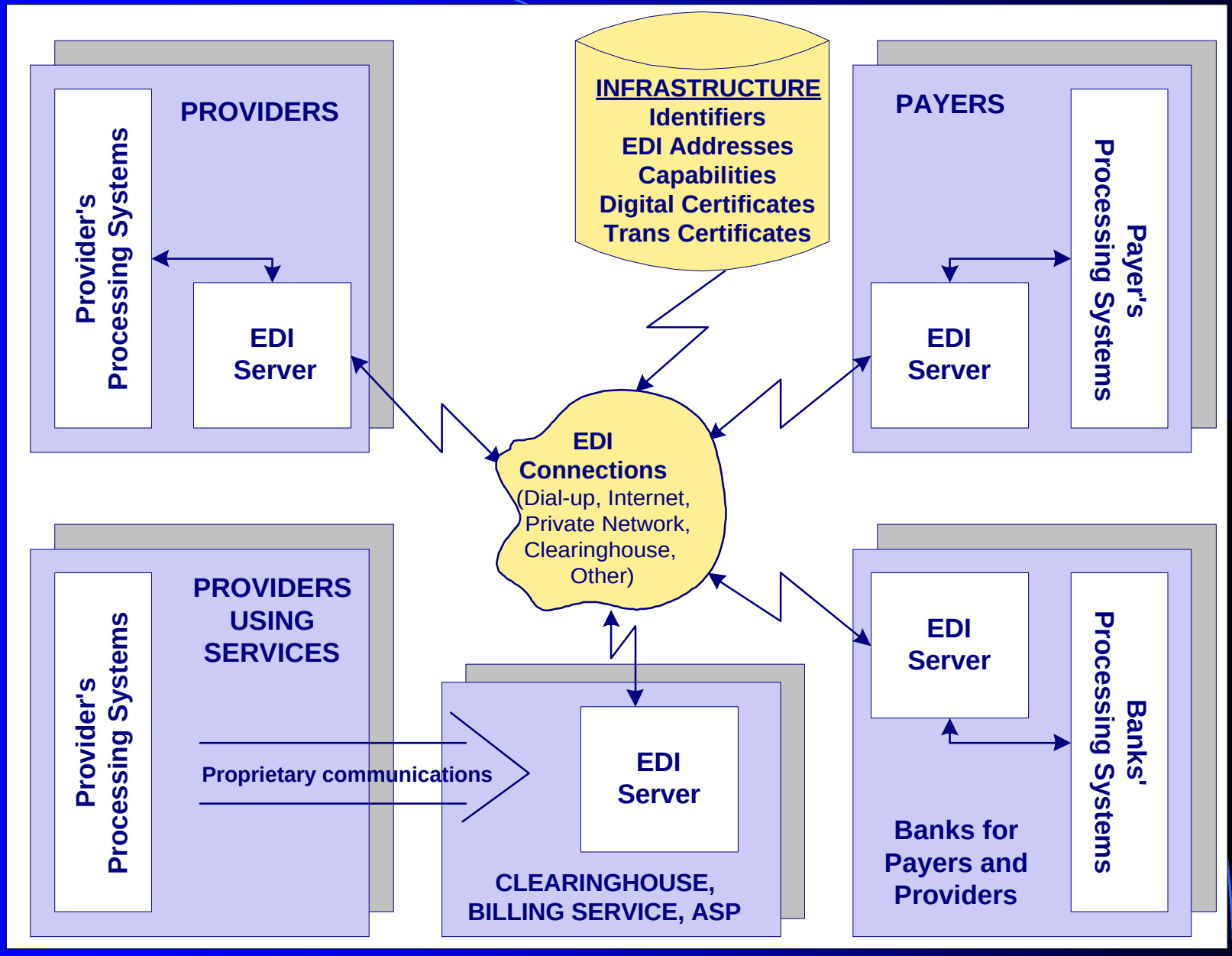
2002 WEDi / AFEHCT Project
Health Care Communications Security & Interoperability
March 14, 2002 - Part II
Vision and Requirements

Tom Hanks, PricewaterhouseCoopers LLP

Peter Barry, Peter T Barry Company

tom.hanks@us.pwcglobal.com
peterbarry@aol.com

The Vision:


INFRASTRUCTURE
Identifiers
EDI Addresses
Capabilities
Digital Certificates
Trans Certificates
PROVIDERS
Provider's Processing Systems
EDI Server
PAYERS
Payer's Processing Systems
EDI Server
EDI Connections
(Dial-up, Internet, Private Network, Clearinghouse, Other)
PROVIDERS USING SERVICES
Provider's Processing Systems
Proprietary communications
EDI Server
CLEARINGHOUSE, BILLING SERVICE, ASP
EDI Server
Banks' Processing Systems
Banks for Payers and Providers

Outline of Part II:

- Business objectives
- Transaction characteristics
- Operating characteristics
- Trends. How is EDI Environment Changing
- Communications Security Requirements
- Interoperability Requirements
- Infrastructure

Business Objectives

- Secure communications
- Equal participation
- Neutral to business approaches
- Efficiency and low cost
- Make it easy
- Position for the future (more than HIPAA)
- Sound financial structure

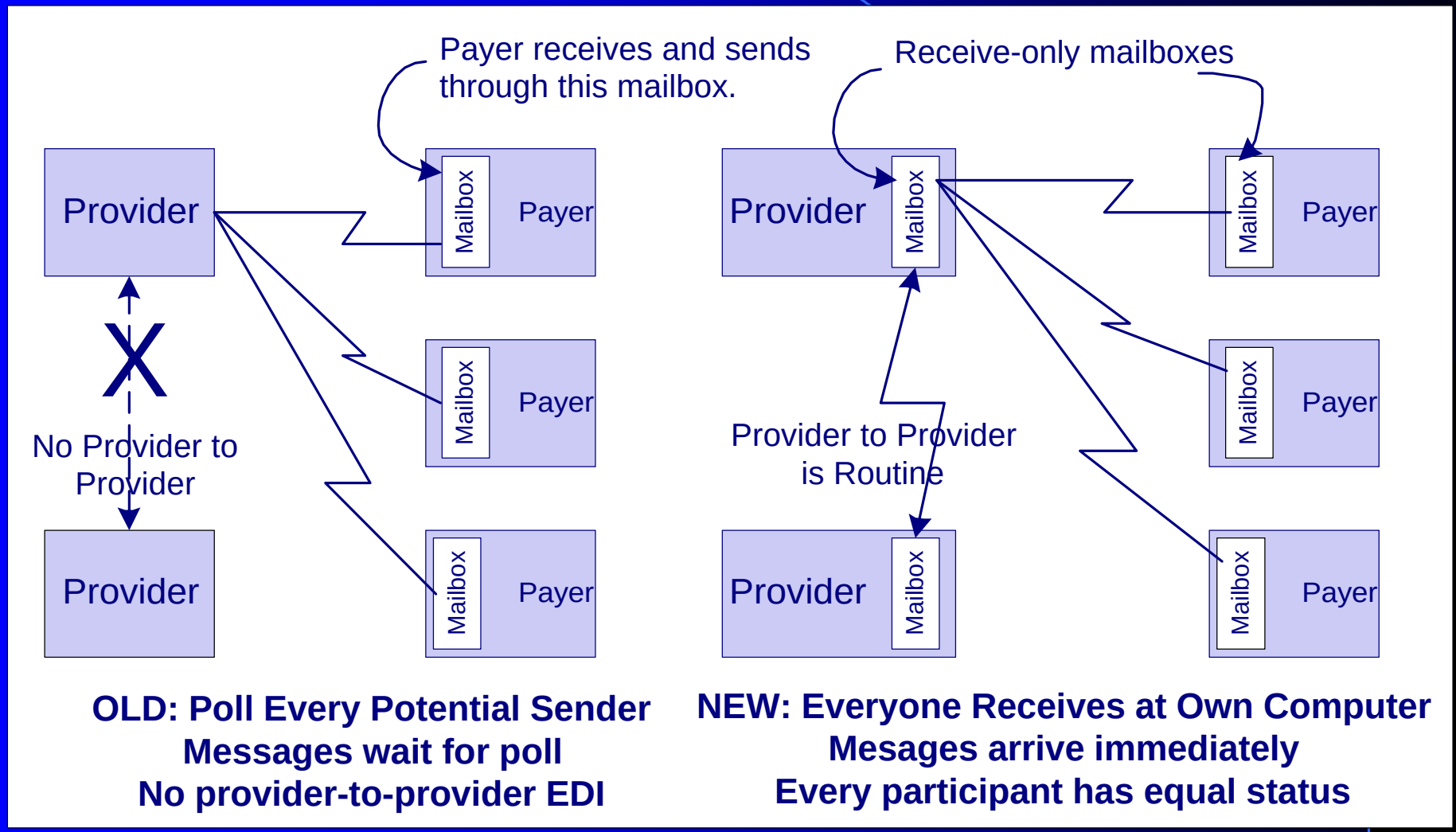
Transaction characteristics

- Batch transactions
- Real-time, fast-response transactions
- Unsolicited transactions
- Asynchronous response transactions
- Synchronous response transactions
- Acknowledgement & front-end edits

Operating characteristics

- Full capability
- Receiving queue for all participants
- High availability (reasonably)
- Either hands-on or hands-free
- Integration with internal systems
- Transition

Trends
Demise of Payer Mailbox Model



OLD: Poll Every Potential Sender
Messages wait for poll
No provider-to-provider EDI

NEW: Everyone Receives at Own Computer
Mesages arrive immediately
Every participant has equal status

Other Trends

- Use of Internet will become dominant
  - Low-cost, high-speed access everywhere
  - Security will become effective and accepted
  - Infrastructure for addressing, security, transaction certification, capabilities
- Many more types of transactions
- Equal access for all participants
- Automatic and integrated systems

Communications Security

1. Ensure no alteration of data in transit
2. Ensure no observation of data in transit
3. Ensure against repudiation
4. Authenticate the source
5. Ensure the other party is secure
6. Ensure no omissions or duplications
7. Ensure no intrusion
8. Audit trail for security audit

Communications Security

1. No changes
2. No sniffing
3. No denying
4. Know the sender
5. No weak links
6. No losses, no doubles
7. No hackers
8. No 18-1/2 minute gaps

Communications Security

Communications Security divides into:

1. **Closed connections** such as
   - dial-in
   - private networks
2. **Internet** (requires digital signatures)

Interoperability

- Support everything we've been talking about, plus
- Support dial-in, private IP network, Internet
- Specify transport packaging of EDI objects
- Everyone has ability to receive unsolicited transactions
- Infrastructure

Infrastructure

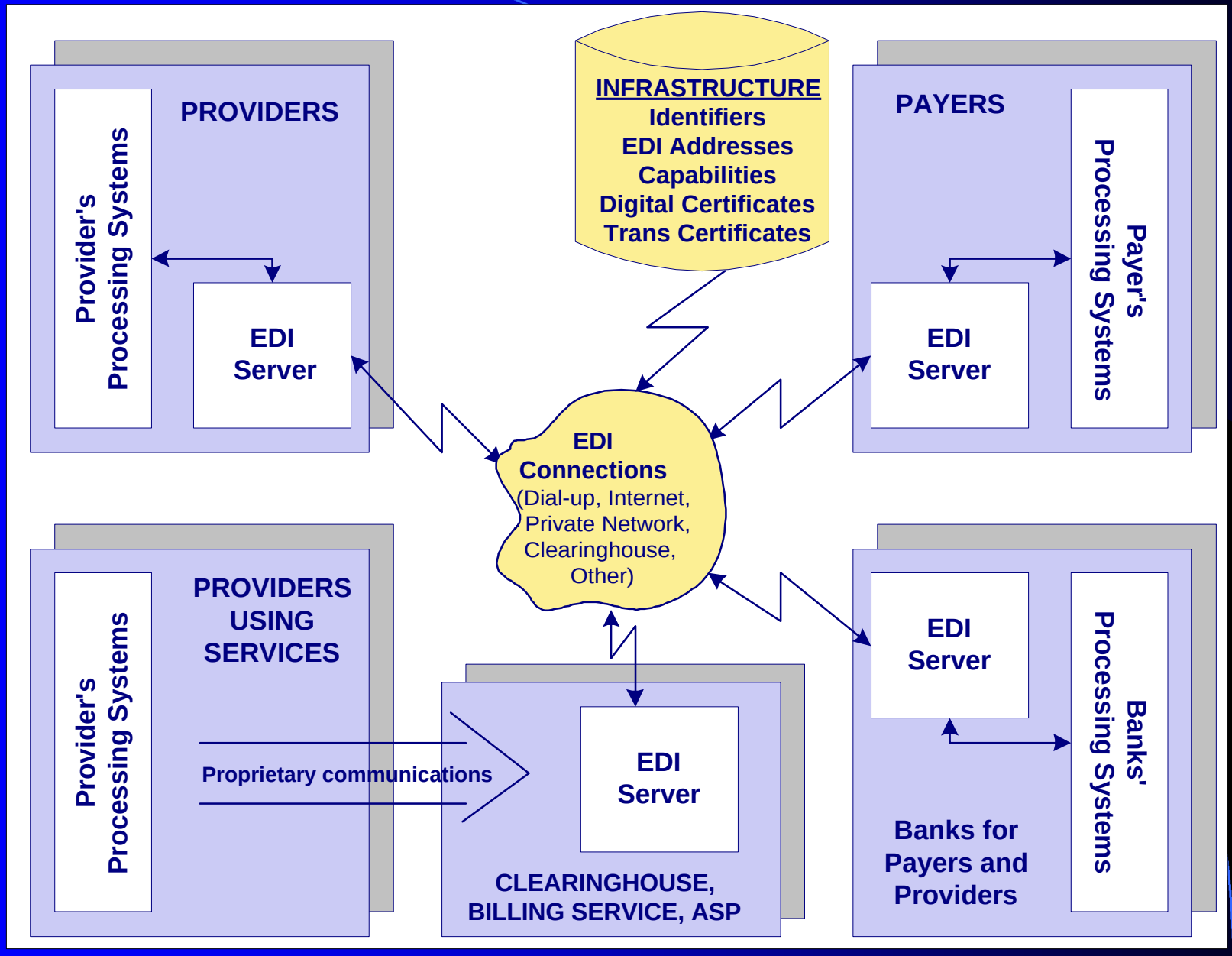
- Identifiers
- EDI Addresses
- Capabilities
- Transaction Certificates
- Digital Signature Certificates

How to join us

www.afehct.org

Join listserv “Interop”

The Vision:


INFRASTRUCTURE
Identifiers
EDI Addresses
Capabilities
Digital Certificates
Trans Certificates
PROVIDERS
Provider's Processing Systems
EDI Server
PAYERS
Payer's Processing Systems
EDI Server
EDI Connections
(Dial-up, Internet, Private Network, Clearinghouse, Other)
PROVIDERS USING SERVICES
Provider's Processing Systems
Proprietary communications
EDI Server
CLEARINGHOUSE, BILLING SERVICE, ASP
EDI Server
Banks' Processing Systems
Banks for Payers and Providers