



# Claims Attachments and HIPAA

The HIPAA  
Colloquium at  
Harvard University

Maria Ward

PricewaterhouseCoopers, LLP

Co Chair, HL7 ASIG

# About your presenter...

## **Maria Ward**

**PricewaterhouseCoopers, LLP  
Healthcare Consulting Practice  
CoChair, HL7 Attachment SIG  
Chair, DSMO Steering Committee  
HL7 representative to the NUCC**

# Today's Agenda

- ❖ Attachments – How we got here
- ❖ X12 + HL7 = Claims Attachment
- ❖ HL7 Brief Technical Overview
- ❖ Architectures for Compliance

# NPRM Process

- **Testimony at NCVHS - 1998**

- ✓ NCVHS recommendation(s) to HHS

- **Draft NPRM**

- ✓ Industry input:

*NCVHS, WEDI, NUCC, NUBC, ADA*

- ✓ Implementation teams

- **Internal Clearance process**

- ✓ CMS & HHS



# Proposal Selection Criteria

- **Similar to the approach used to select the original HIPAA transactions:**
  - ✓ Outreach to identify with subsequent review of available standards to select defacto standard, if possible
  - ✓ Integrate well with existing HIPAA standards
  - ✓ Adhere to the selection guidelines regarding: technology neutral, ANSI accredited, ultimately reduce admin cost



# Selection Results

- **Defacto standard for Claims Attachments did not exist**
- **The health care clinical information domain belonged to Health Level Seven (HL7)**
- **HL7 membership represents the expertise for clinical standards development -- both provider and vendor**
- **HL7 is ANSI accredited, technology neutral**



# Claims Attachment NPRM Status

- **NPRM for Claims Attachments**
  - ✓ CMS clearance completed
  - ✓ In HHS Department Clearance
  - ✓ Then to OMB – up to 90 days to approve
  - ✓ NPRM published
  - ✓ Public comment period – 60 days?



# NPRM process

- **NPRM for Claims Attachments Con't**
  - ✓ Anticipated date in Federal Register is ...
  - ✓ Public Comment period – need to read all materials included
  - ✓ HHS response to all comments
  - ✓ Modifications to implementation guide and other documents based on comments
  - ✓ Issuance of Final Rule



# Attachments - Past

- WEDI Attachment Workgroup Report, 1994
- Recommendations:
  - ✓ Standardize attachment data elements
  - ✓ Coordinate affected entities to develop guidelines
  - ✓ Work with Medicaid to standardize/eliminate attachments
  - ✓ Develop 274/275 as primary vehicle
  - ✓ Create standard way to link data across transaction sets



# Attachments - Past

## **NUCC:**National Uniform Claim Committee (NUCC) Survey, 1996

- ✓ Survey to Blues & Medicare contractors asking what attachments are utilized?
- ✓ COB, SNF, Therapies, DME, Surgery
- ✓ 54 responses - no follow-up conducted as NUCC need to focus on 1500 dataset

## **HCFA** Surveys to Medicare Carriers and Intermediaries, 1996 / 1997

- ✓ Results led to funding 275 POC



# Attachments - Past

- **Proof of Concept (POC) Team**

- ✓ 5 Medicare contractors funded by HCFA to develop Electronic Request for Information
- ✓ 1997 began considering options for Claims Attachments as response to request - April 1997 approached HL7
- ✓ August 1997 POC Team joined HL7 and helped to form ASIG
- ✓ ASIG solicited industry input before moving forward



# Attachments - Past

## Recommendations from industry outreach

- ✓ Determine most frequently used Attachments
- ✓ Consider Attachments where HL7 messages already exist / in development
- ✓ Need to “Standardize” the questions payers ask  
- industry consensus required
- ✓ Form “Attachment workgroups” by soliciting help from all sectors of industry (e.g. payers, providers, National Associations)
- ✓ Use LOINC codes



# Attachments - Past

- **HL7 proposed for use in Attachment transaction**
  - ✓ Only ANSI accredited standard focusing on clinical processes
  - ✓ X12 275 transaction has BIN segment allowing for inclusion of other standards
  - ✓ HL7 already had much of the work done (i.e relevant segments, codes, fields already existed)
  - ✓ LOINC supported by HL7



# Attachments - Past

- **LOINC vs. Claim Status reason Codes**
  - ✓ POC pilot in 1996 revealed that Claim Status Reason Codes were not effective in requesting information from providers
  - ✓ LOINC already had many codes needed for Claims Attachments
  - ✓ LOINC codes provide necessary granularity
  - ✓ LOINC consortium was very accommodating regarding special code requests
  - ✓ Free mapping tool for LOINC database



# Attachments - Past

- Attachment types ultimately selected for development and HIPAA recommendation:
  1. Ambulance
  2. Emergency Department
  3. Rehabilitative Services
  4. Lab Results
  5. Medications
  6. Clinical Notes



# Attachments - Present

- Development of next Claims Attachments:
  - ✓ Home Health
    - Workgroup underway, much progress made
  - ✓ Durable Medical Equipment (DME)
  - ✓ Several Medicaid driven attachments
- ASIG expanded to develop attachments for X12N 278 transaction (pre-cert / pre-auth)
- ASIG membership continues to grow



# X12 + HL7 = Claims Attachment

- **X12 (SDO)**
  - X12N Insurance
    - TG2 Healthcare
    - WG 9
- **Transaction Sets**
  - 275
    - segments
      - fields
- **HL7 (SDO)**
  - (HL7)
    - Orders TC
    - CA SIG
- **Messages**
  - ORU
    - segments
      - fields

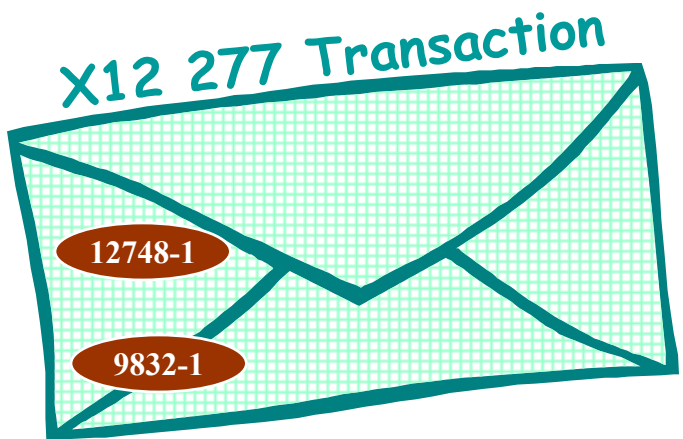


# Organizations and Documents

**ASC X12 &  
Subcommittee  
X12N**

**X12  
Trans.  
Sets  
277, 275**

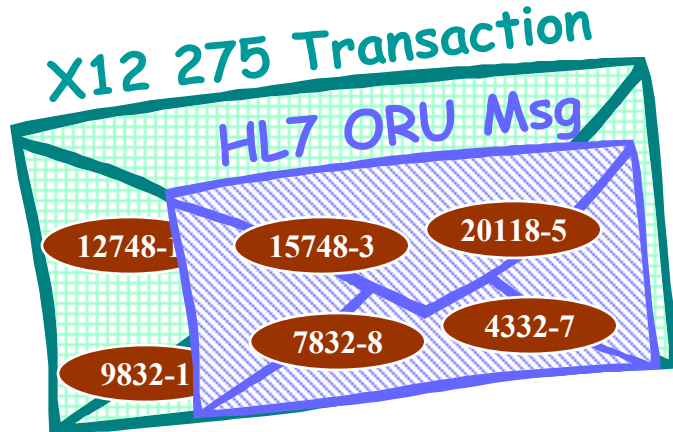
**X12N Impl.  
Guides  
277, 275**



**Health Level  
Seven**

**HL7  
Version  
2.4**

**HL7  
Claims  
Attachments  
Impl.  
Guide**



**LOINC  
Consortium**

**LOINC  
Codes**

**LOINC  
Attachment  
Booklets**

# Full Documentation Suite

- **X12 Implementation Guides**

- ▶ **ASC X12N Implementation Guide for Use of the 275 Transaction (004020) Additional Information to Support a Health Care Claim or Encounter**
- ▶ **ASC X12N Implementation Guide for Use of the 277 Transaction (004020) Health Care Claim, Request for Additional Information**

- **HL7 Implementation Guide**

- **HL7 LOINC Code Booklets**

- **Other**

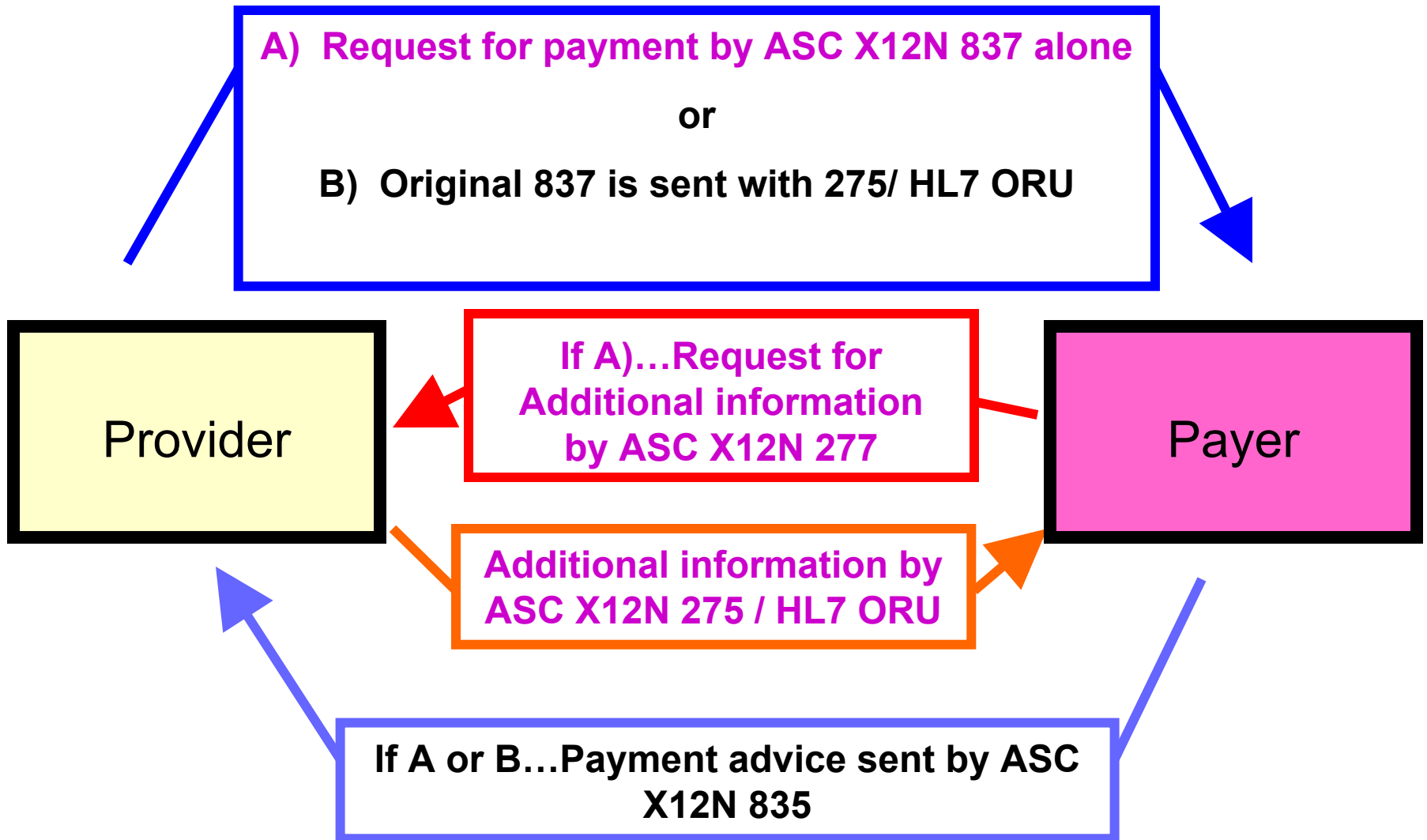
- ▶ **Modifier Codes in the ASC X12N Implementation Guide for the 277 Requests for Additional Information Transaction**
- ▶ **LOINC Codes for the HL7 and X12 Additional Information to Support a Healthcare Claim or Encounter Transactions: Summary Listing**



# Claim Attachment Transaction Relationships

- **Transactions involved in Claims Attachments**
  - ✓ 837 (claim) + 275(patient info)  
+ HL7 ORU
  - ✓ 277(info request) + 275/HL7 ORU
  - ✓ 997 (functional acknowledgment)
- Attachments can be sent with the original claim or in response to a payer's request for information

# The concept moves information electronically between the provider and the payer



# Claim Attachment

## Transaction usage requirements

- Provider has choice to:
  - ✓ Request 277 from payer
  - ✓ Respond to request via 275/HL7
- Payer has responsibility to:
  - ✓ Create a 277 when provider elects to receive
  - ✓ Receive & process a 275 / HL7 when provider elects to send it
- Payer & provider mutually agree to use 997



# Linking the Transactions same transmission

Attachment submitted with Claim (837 + 275)

**ISA** Interchange Control Header

**GS** Functional Group Header

**ST 837** Transaction Set Header: Claim

...PWK contains provider's control number

**SE** Transaction Set Trailer

**GE** Functional Group Trailer

**GS** Functional Group Header

**ST 275** Transaction Set Header: Add'l Info

...TRN contains provider's control number

**SE** Transaction Set Trailer

**GE** Functional Group Trailer

**IEA** Interchange Control Trailer



# Linking the Transactions

separate transmissions must be paired

## Attachment Request

from the Payer

<b>ISA</b>	Interchange Control Header
<b>GS</b>	Functional Group Header
<b>ST 277</b>	Transaction Set Header: Request
...TRN	contains <i>payer's control number</i>
STC	<i>specific data requested</i>
<b>SE</b>	Transaction Set Trailer
<b>GE</b>	Functional Group Trailer
<b>IEA</b>	Interchange Control Trailer

## Attachment Response

from the Provider

<b>ISA</b>	Interchange Control Header
<b>GS</b>	Functional Group Header
<b>ST 275</b>	Transaction Set Header: Response
...TRN	contains <i>payer's control number</i>
STC	<i>specific data requested</i>
...BIN	<i>specific data response</i>
<b>SE</b>	Transaction Set Trailer
<b>GE</b>	Functional Group Trailer
<b>IEA</b>	Interchange Control Trailer

# History of HL7

- Founded 1987
- Membership: near 2000
- Goal: Exchange of clinical and clinical-administrative information
- US ANSI Accreditation 1995
- 18 Affiliate chapters in 30 + Countries
- US Market penetration:
  - Hospitals > 90%
  - Other care delivery organizations: no competing standard



# Attachment Principles

- Structured Data
  - ✓ Usable now, support the smarter processing over time
- HL7 authority
  - ✓ not to specify *what* data is sent
  - ✓ to specify *how* it is encoded in HL7
- Fully specified
  - ✓ No trading partner agreements
- ANSI accredited HL7 V2.4
- Implementation Guide stable for one year per HHS requirements
- Responsive to need for addition of new attachment forms



# LOINC Codes

- **What is LOINC?**
  - ✓ Logical Observation Identifier Names and Codes
- **Why LOINC and not Health Care Claim Reason Codes as in the Claims Status Notification (277)?**
  - ✓ Specificity & Flexibility
  - ✓ Supported by HL7
  - ✓ Comprehensive database structure to support & free mapping tool



# LOINC Codes

- **Logical Observation Identifier Names and Codes**
- **Universal names and ID codes for identifying**
  - ✓ laboratory and clinical test results
  - ✓ All other information meaningful in claims attachments
- **Freeware**
- **Owned by**
  - ✓ Regenstrief Institute
  - ✓ Logical Observation Identifier Names and Codes (LOINC) Consortium



# Key components of the transaction

If the request is for Rehab treatment, progress notes, and goals, and the **LOINC** set is used, it is expressed

**STC\*R4:18658-5::LOI~**

# Key components of the transaction

## With Reason Codes, must use 3 STCs

STC*R4:310:3F~	310=6 months prior
STC*R4:436:3F~	436=short term goals
STC*R4:437:3F~	437=long term goals

# Conceptual Approach

## Electronic Attachment *LOINC Code*

Element  
*LOINC Code* Answer Part *LOINC Code*

Answer Part *LOINC Code*

Element  
*LOINC Code* Answer Part *LOINC Code*

Element  
*LOINC Code* Answer Part *LOINC Code*

Answer Part *LOINC Code*

Answer Part *LOINC Code*

# Emergency Dept Attachment

**Emergency Dept**

***30053-0***

**Respiratory Rate**

***11291-2***

**Respiratory Rate (NM)**

***11291-2***

**Body Temp**

***11289-6***

**Body Temp (NM)**

***11289-6***

**Temp Reading Site (CE)**

***11290-4***

**...**

**...**

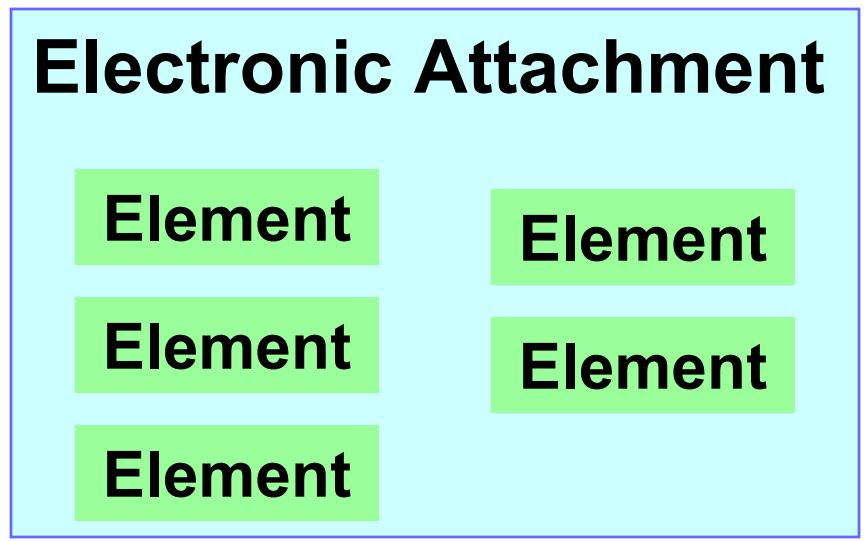
# 277 Questions & 275 Answers

- **A 277 asks for**

- Attachments

*or*

- Elements



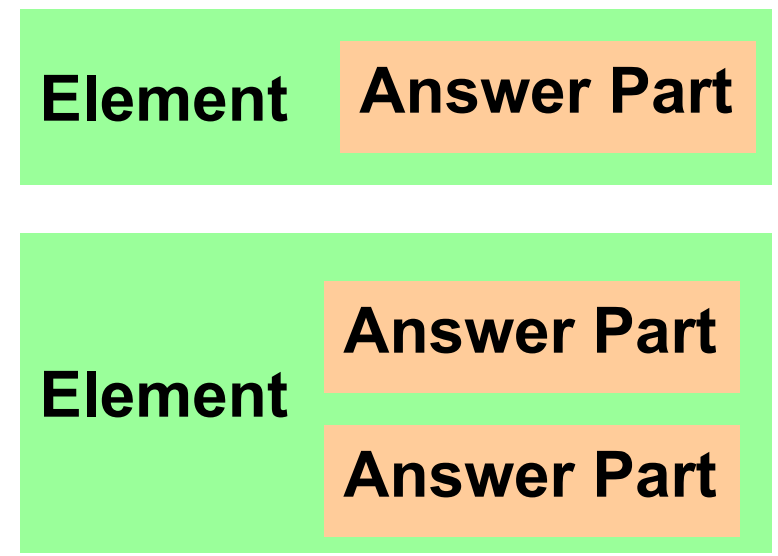
- By sending **LOINC**

- **A 275 sends**

- Elements

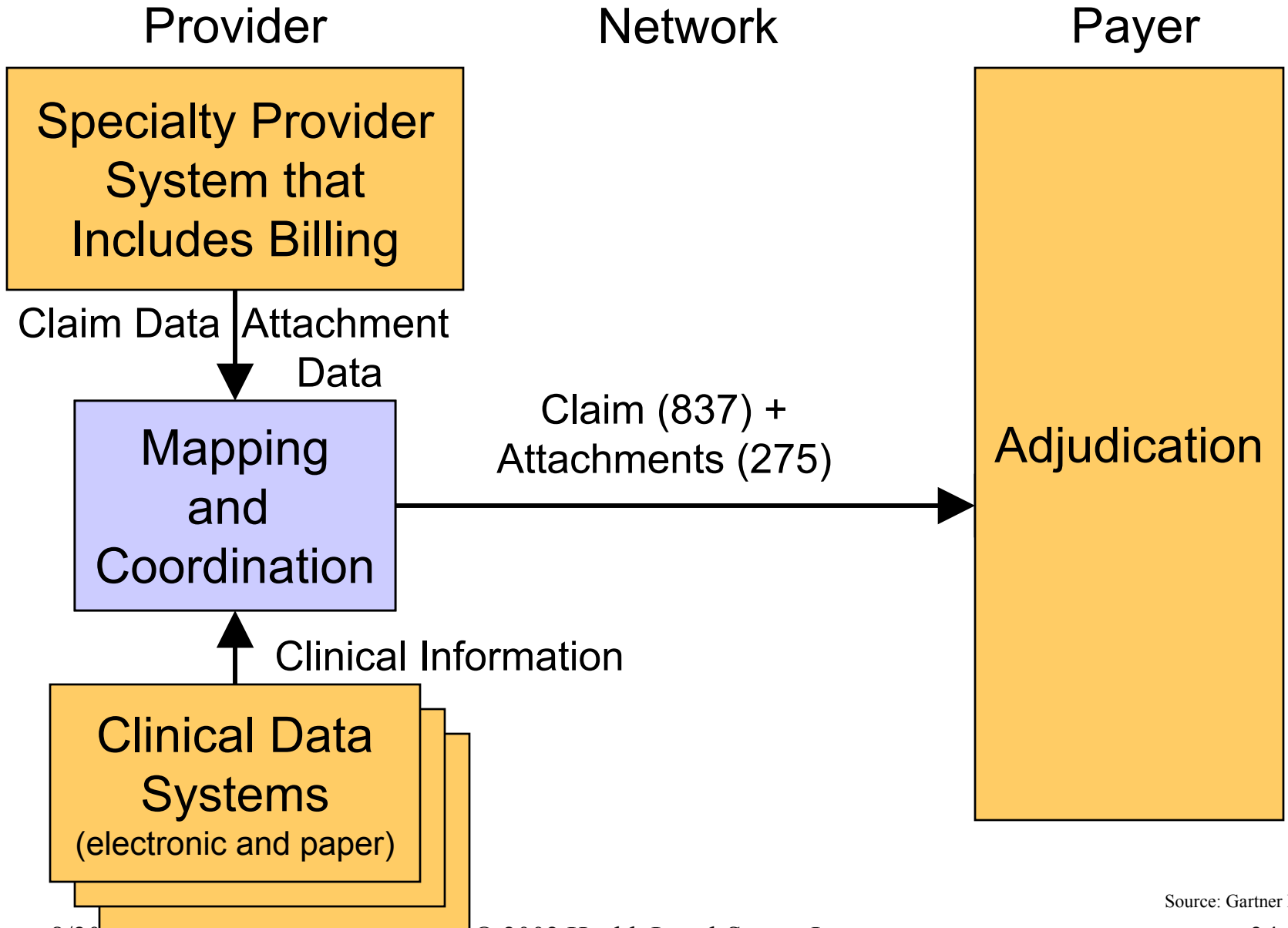
*consisting of*

- Answer parts



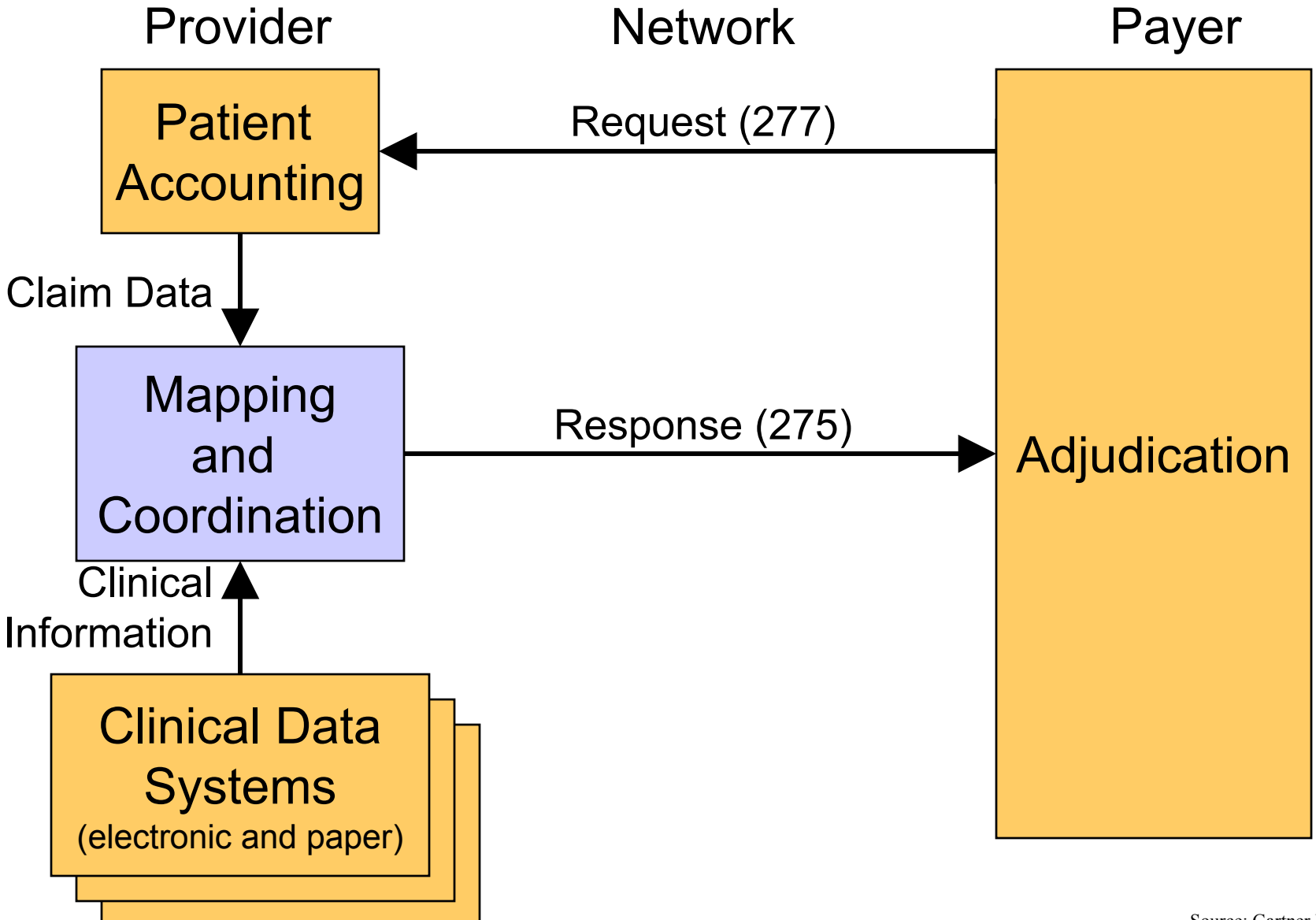
- Identified by **LOINC**

# Architecture--Providers, Prospective



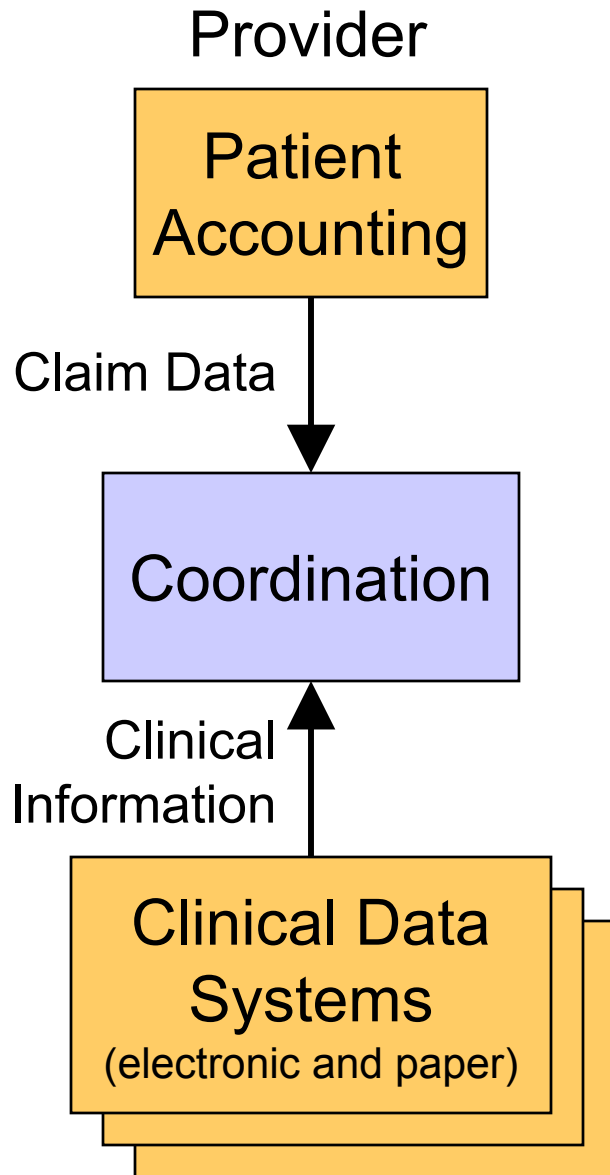
Source: Gartner Research

# Architecture--Providers, Ad Hoc



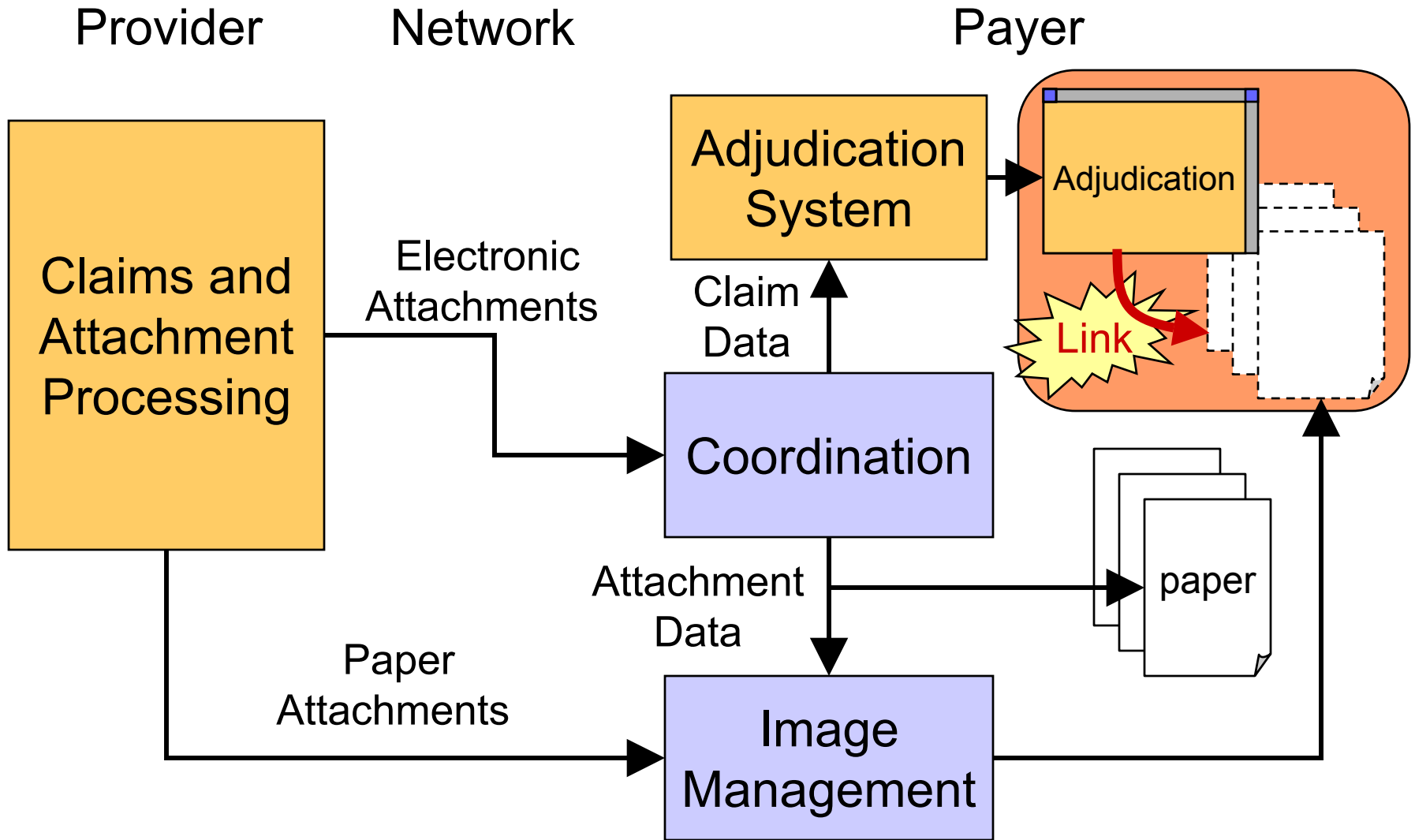
Source: Gartner Research

# Provider Coordination Function

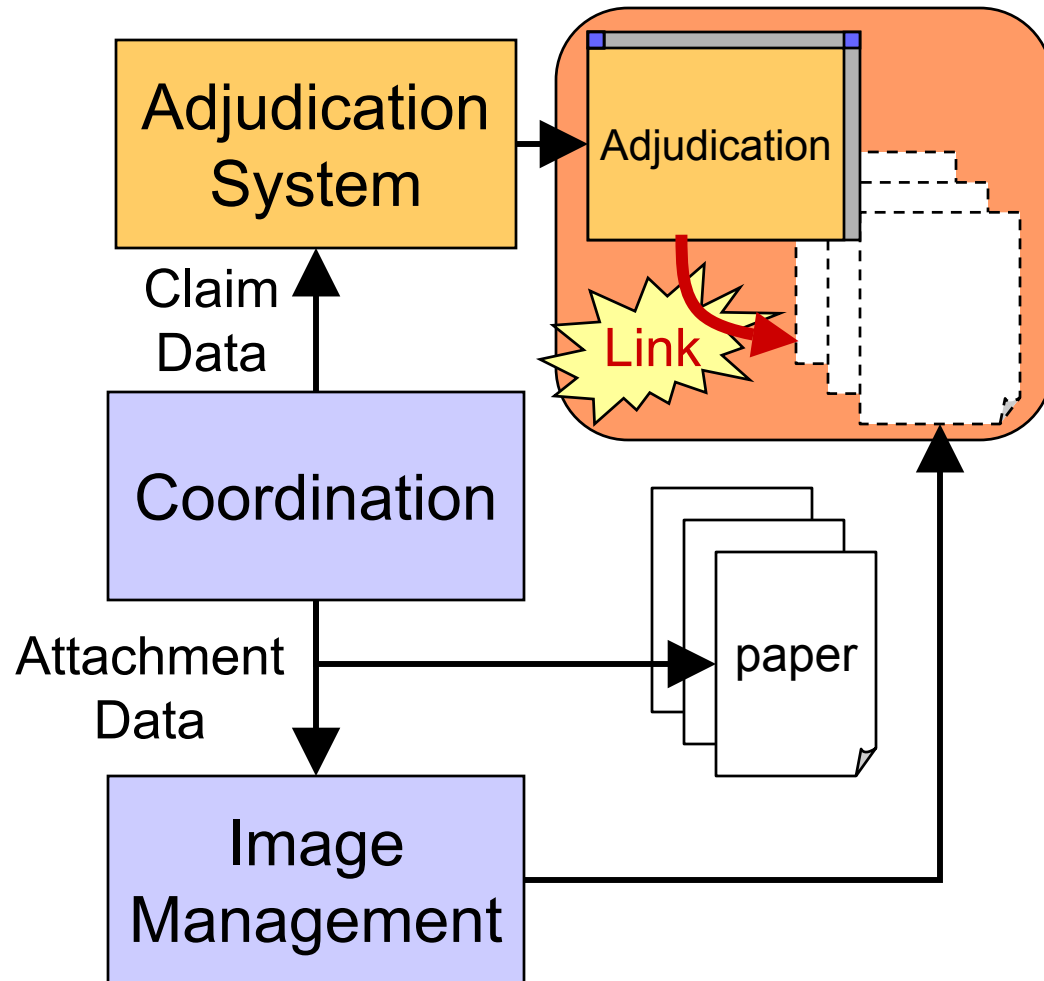


- **Manual function**
  - Can be enhanced by automated support
  - Subject to the judgement of a person
- **Mapping software creates the combined 275-ORU message**
- **Revision for images**
  - fax-quality scanned images
  - portions of attachments that would otherwise be sent as unstructured textual reports
  - each scanned portion of a document is in an OBX with a specific LOINC code
  - valuable for providers that have image-based electronic medical record systems
  - valuable for small providers that have no on-line storage of medical record systems

# Payer Architecture: Quick Benefits

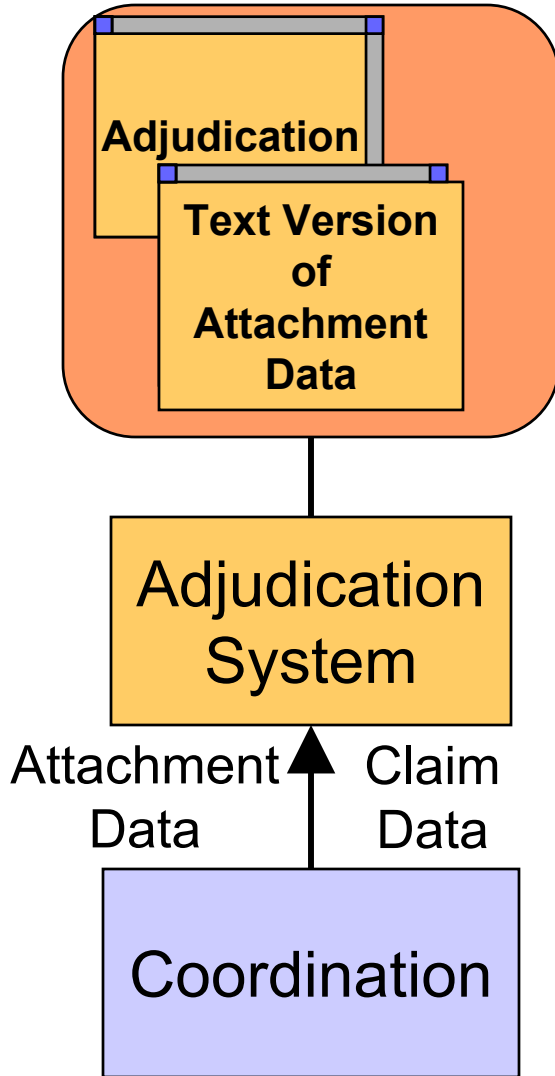


# Payer Coordination System



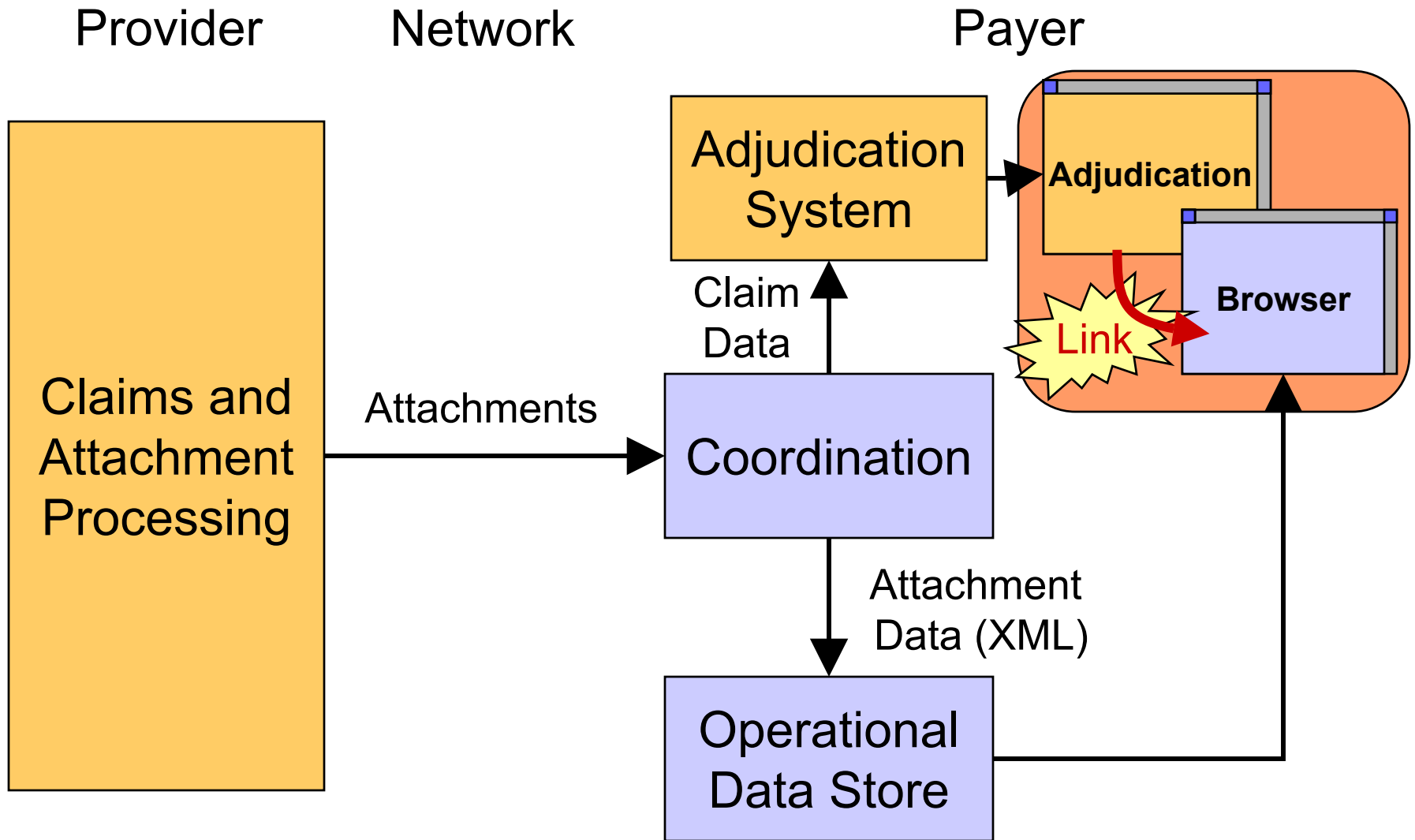
- **Convert structured data to print image**
- **Print if required**
- **Create various ID fields for image management**
- **Notify adjudication system of receipt of requested attachment**

# Quick Payer Architecture #2

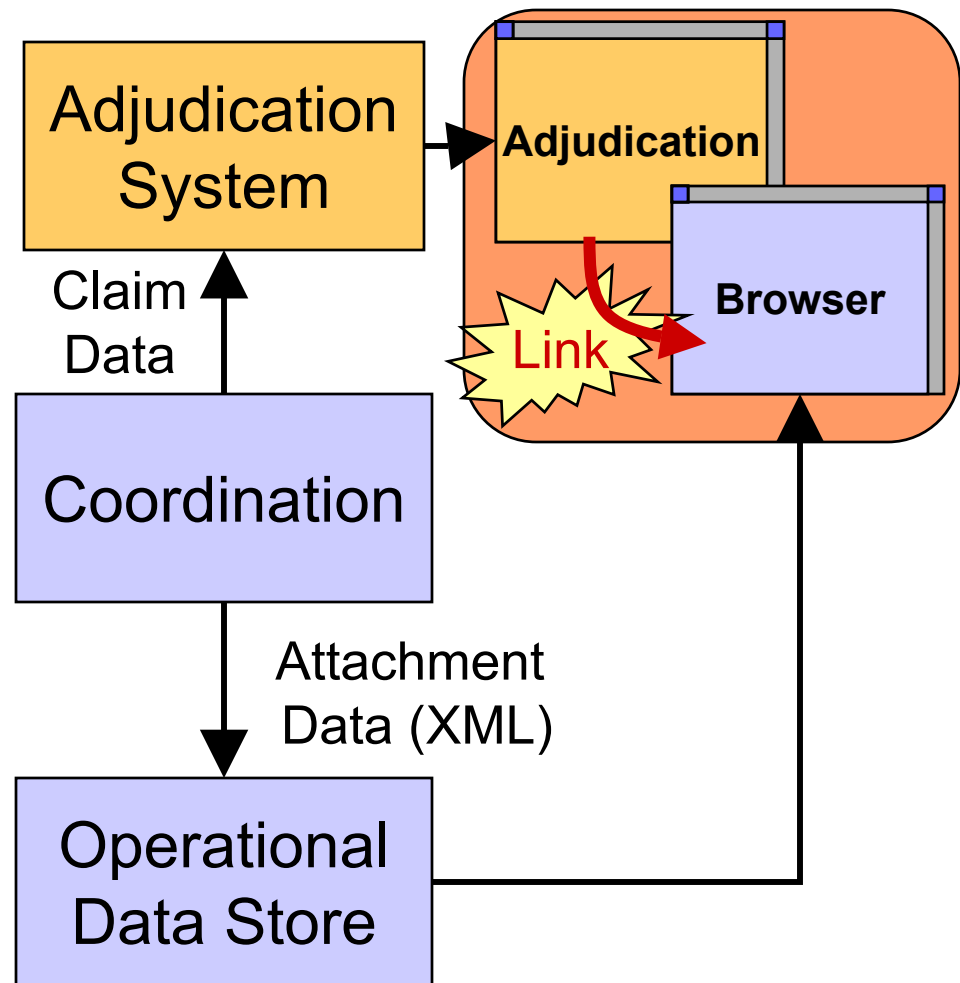


- **Requires minimal remediation of the adjudication system**
- **Recommended where document image management system is not in use**

# Quick Payer Architecture #3

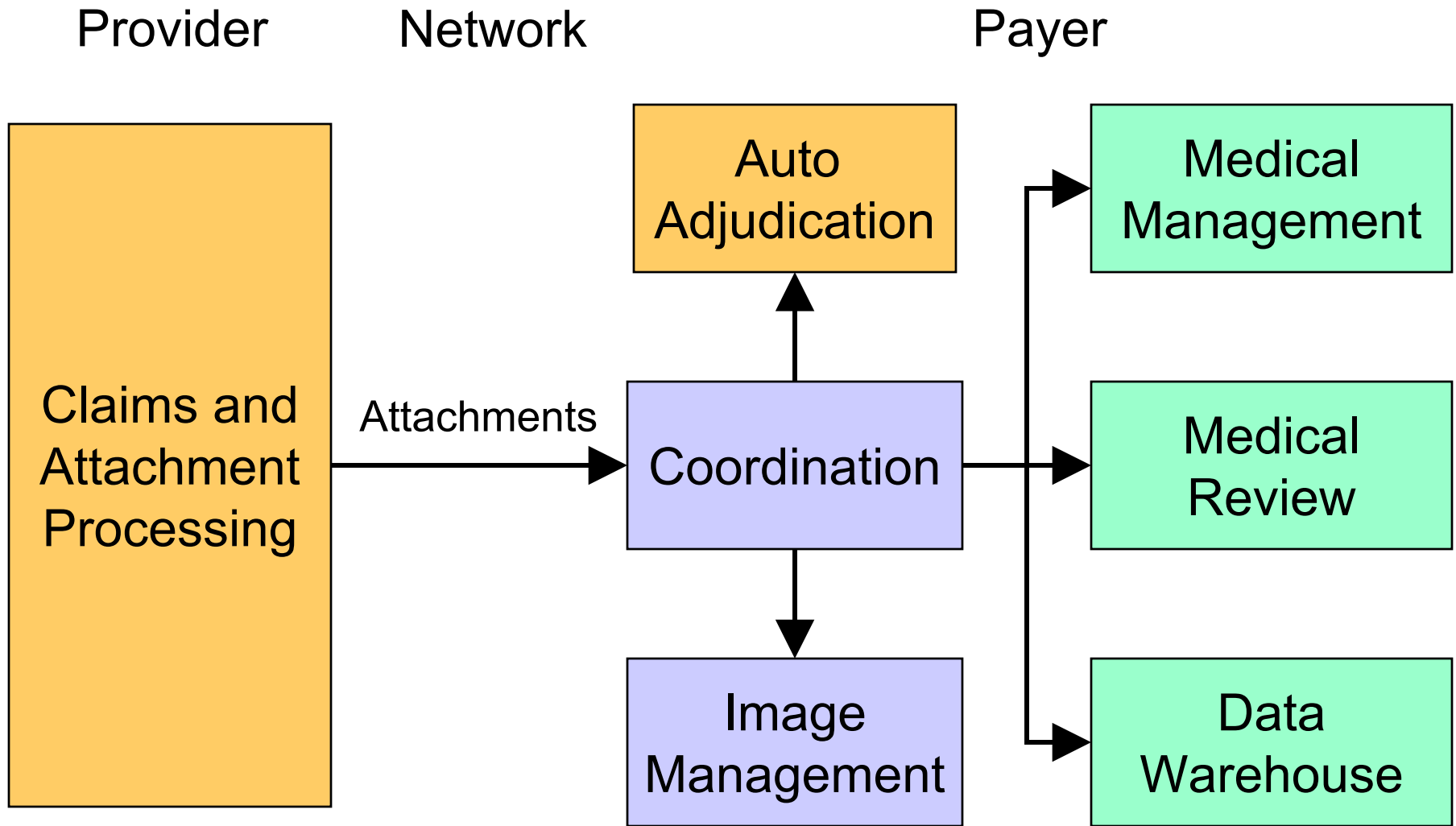


# Payer Coordination System #3



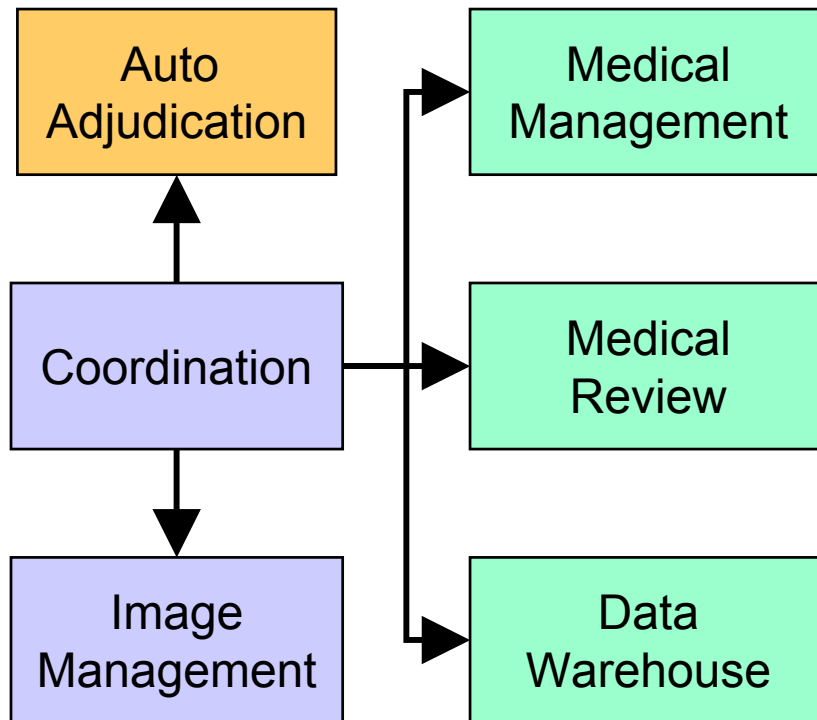
- **Convert attachment data into XML documents or other data format**
- **Create various ID fields for image management**
- **Notify adjudication system of receipt of claim attachment**
- **Store hyperlinks to the XML documents.**

# Payer Architecture: Best Benefits



# Coordinator for Best Payer Benefits

- **Routing and mapping of structured data**
- **Notification of arrival of claims data**



“Best possible” handling of unstructured text and image data because LOINC codes are still used

# Conclusions for Providers

- **Standardized claims attachments and the LOINC code structure and enable automatic and semi-automatic assembly of attachments**
- **Providers opt into electronic claims attachments initially to take advantage of standardized payer questions, to expedite payment of pended claims, and to save people, paper, and postage costs**
- **Provider savings grow dramatically with the use of a CPR -- indeed, attachments may help to justify the cost of a CPR**
- **The TRICK is getting short term benefits without jeopardizing the long term**



# Conclusions for Payers

- **Payers wishing to minimize entry costs can adopt claims attachments with few changes to existing systems**
- **Initial payer process savings can be achieved with limited investment through minimal integration with document image management systems**
- **Payer savings grow dramatically with sophisticated use of structured data and standardize claim to improve adjudication and downstream processes**
- **The TRICK is getting short term benefits without jeopardizing the long term**



# More Information

- **HL7 official Web site**
  - general information/link to ASIG
    - <http://www.hl7.org>
- **Washington Publishing Company (HIPAA Implementation Guides) – includes *all* materials related to Claims Attachments**
  - <http://www.wpc-edi.com>

Questions... or to participate:

**Maria Ward**

**PricewaterhouseCoopers, LLP**

**[Maria.T.Ward@us.pwcglobal.com](mailto:Maria.T.Ward@us.pwcglobal.com)**

**312-298-2586**