



The Importance of HIPAA for Successful eCommerce Initiatives

First Annual HIPAA Forum

Washington, DC
October 16, 2000

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Information obtained from META Group, Inc., Stamford, CT



Objectives

- **Confirm Current State of Healthcare eCommerce vis-à-vis Business Transactions**
- **Review Payor eHealth Priorities**
- **Relate eEconomy Futures to Healthcare**
- **Convey eHealth Trends and Opportunities**
- **Use the Five “Cs” of eHealth to Highlight Emerging Solutions**
- **eCommerce Infrastructure Solution**
- **Future State Based on HIPAA Compliant Solutions**



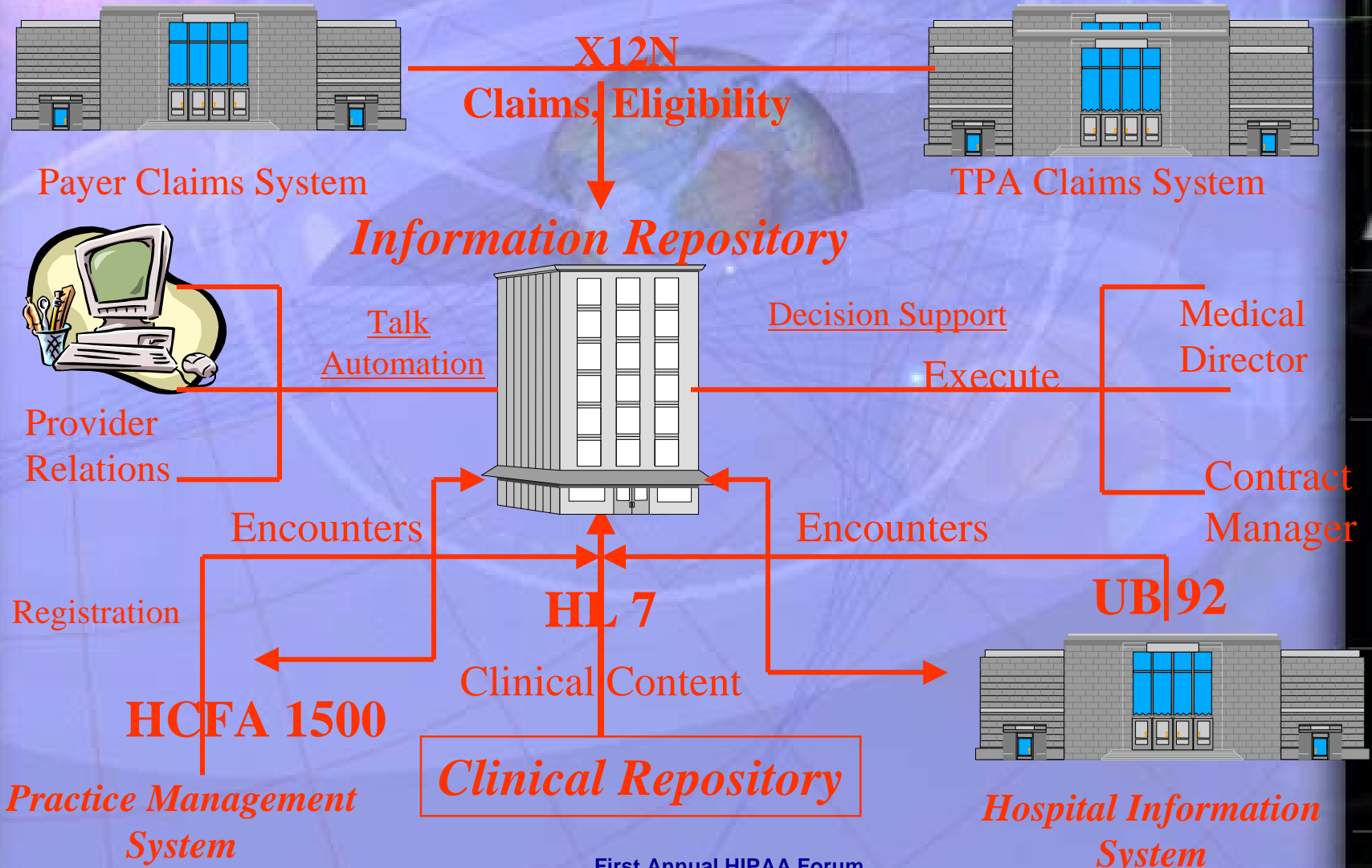
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Information Sources

- ▶ MetaGroup
- ▶ Top Internet Technologies "Solutions in Healthcare"
- ▶ Health Data Management
- ▶ Forrester Research
- ▶ Gartner Group
- ▶ International Data Research



Healthcare e-Commerce Current State





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Payer eHealth Priorities

- ▶ eHealth: #1 IT strategy
- ▶ Manage patient care cases in real/near real time
- ▶ Eliminate labor/paper-intensive processes
- ▶ Give key constituents online access to data
- ▶ Minimize resources tasked to respond to claims, referrals and eligibility status requests





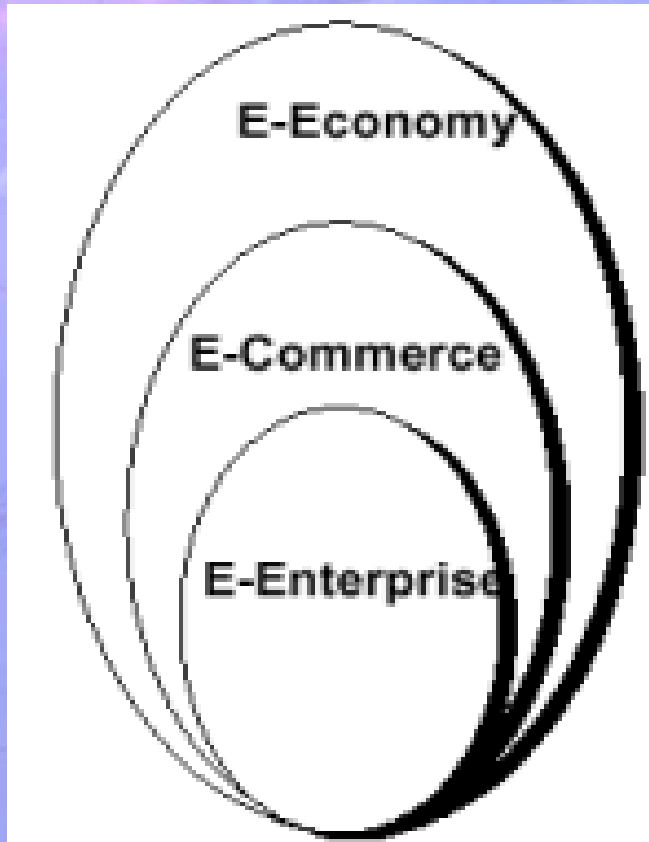
Payer eHealth Priorities Cont'd

- ▶ eHealth = competitive advantage
- ▶ HIPAA will impact most organizations' eCommerce Strategies
- ▶ eEngineer processes to eliminate cost
- ▶ Customer Commerce Management (CCM)





eEconomy Forces Change

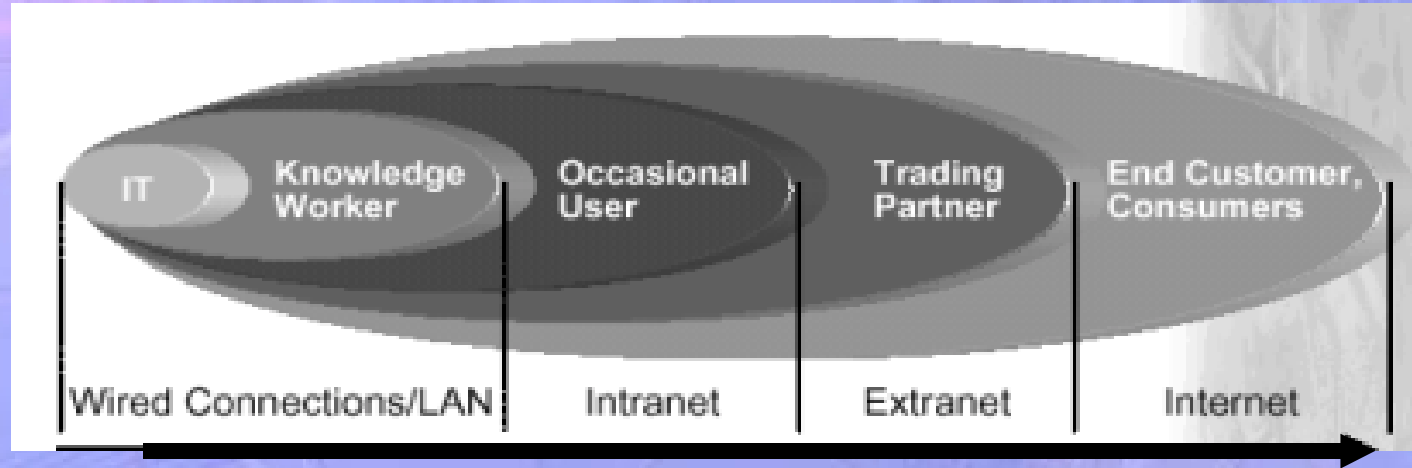


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- ▶ **eEconomy**: Broad business environment where global commerce is conducted
- ▶ **eCommerce**: Conduct of business among e-enterprises & consumers
- ▶ **eEnterprise**: Business enterprise - Capability to exchange value electronically



Healthcare Information Exchange is eBusiness



Any exchange of information that requires a “middleman” is a candidate to become an e-business transaction.

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eEconomy Forces Business Change

- ▶ US eHealth market to save billions of dollars by 2004
- ▶ Continuum spans from the supply chain for drugs and medical supplies to information exchange between providers, brokers, and consumers
- ▶ New business models driven by information packaging and access
- ▶ Challenge: Moving from health insurer to "health management" via information





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eHealth Futures

- ▶ Online links between providers and payers will grow 27% annually through 2002
- ▶ By 2001, most medical practices will have Internet access, and by 2003, most practices will routinely exchange data with payers via the Web



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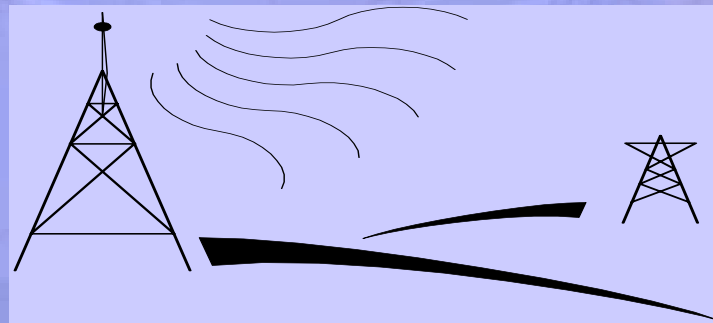
eHealth Futures Cont'd

- ▶ During 1999-2001, payers will incentivize online links to stimulate online communications and business transaction exchanges with providers
- ▶ By 2002/03, eHealth applications will be utilized by >60% of the healthcare organizations
- ▶ Web-based connectivity will exceed 70% by 2002/03, saving healthcare >\$50B in back-office administrative costs over the subsequent 5 years



e-Commerce Market Trends

- ▶ e-Commerce companies are pursuing substantial opportunities in consumer and business markets
- ▶ Consumer strategies are evolving around broad platform & niche markets
- ▶ Business strategies vary widely - focus on developing online markets to match buyers and sellers and streamline procurement and fulfillment
- ▶ Successful companies will share qualities

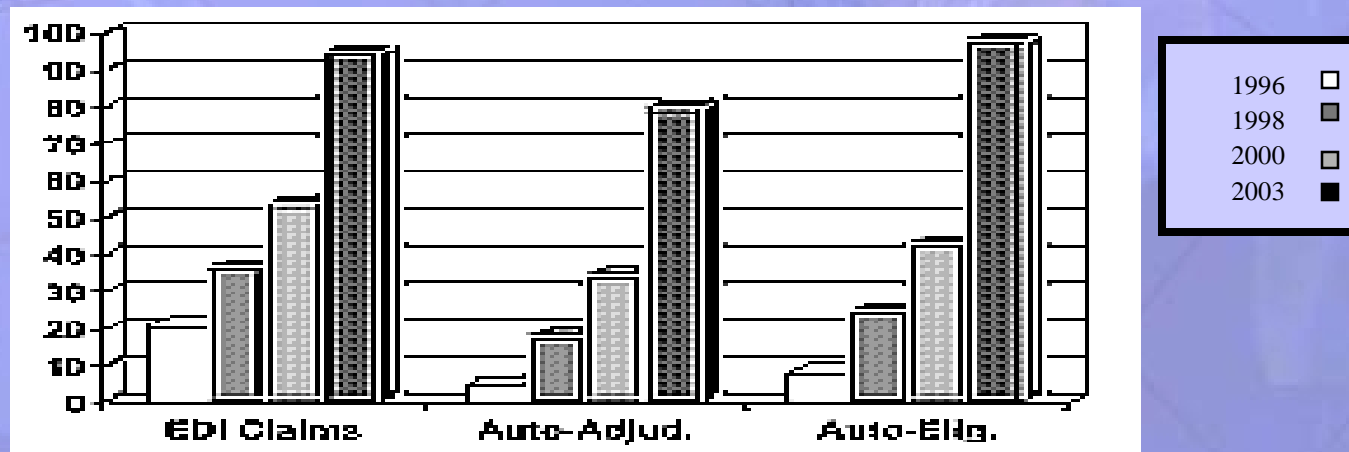




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eHealth Trends and Opportunities

- ▶ HIPAA driven payor implementations by 2002/03 of new administrative systems to increase electronic claims processing from >50% to >95%
- ▶ Improve auto-adjudication from <40% to >80%, and increase auto-eligibility and referral processing from <45% to >98%





eHealth Trends and Opportunities Cont'd

- ▶ 22M Americans use Internet to search for healthcare information (Cyber Dialogue)
- ▶ 900 billion emails were sent in the US in 1999 – will grow to 3 trillion by 2005
- ▶ John Glaser, CIO Partners HC “Assumptions we have always used in brick & mortar businesses are going away in this information age” (Health Data Management)
- ▶ Russell Coile of Superior Consulting “What we are seeing today is the digital transformation of medicine” (Health Data Management)



eHealth Trends and Opportunities Cont'd

- ▶ Physicians will use the internet to provide patients with follow-up materials i.e. Educational brochures, guides to local wellness programs, tips on disease prevention
- ▶ Pharmacists will use web sites to check possible adverse drug interactions
- ▶ Digital signatures will enable electronic prescriptions and refills



eHealth Trends and Opportunities Cont'd

- ▶ **Application Service Providers (ASPs)**
 - Offering access to specific applications i.e. Practice management and electronic records
- ▶ **John Hopkins**
 - Developing a breast cancer survivors web site which will be analogous to "My Yahoo" and other free personal web services
- ▶ **Pharmaceutical Companies are devising disease management strategies capitalizing on the internet**



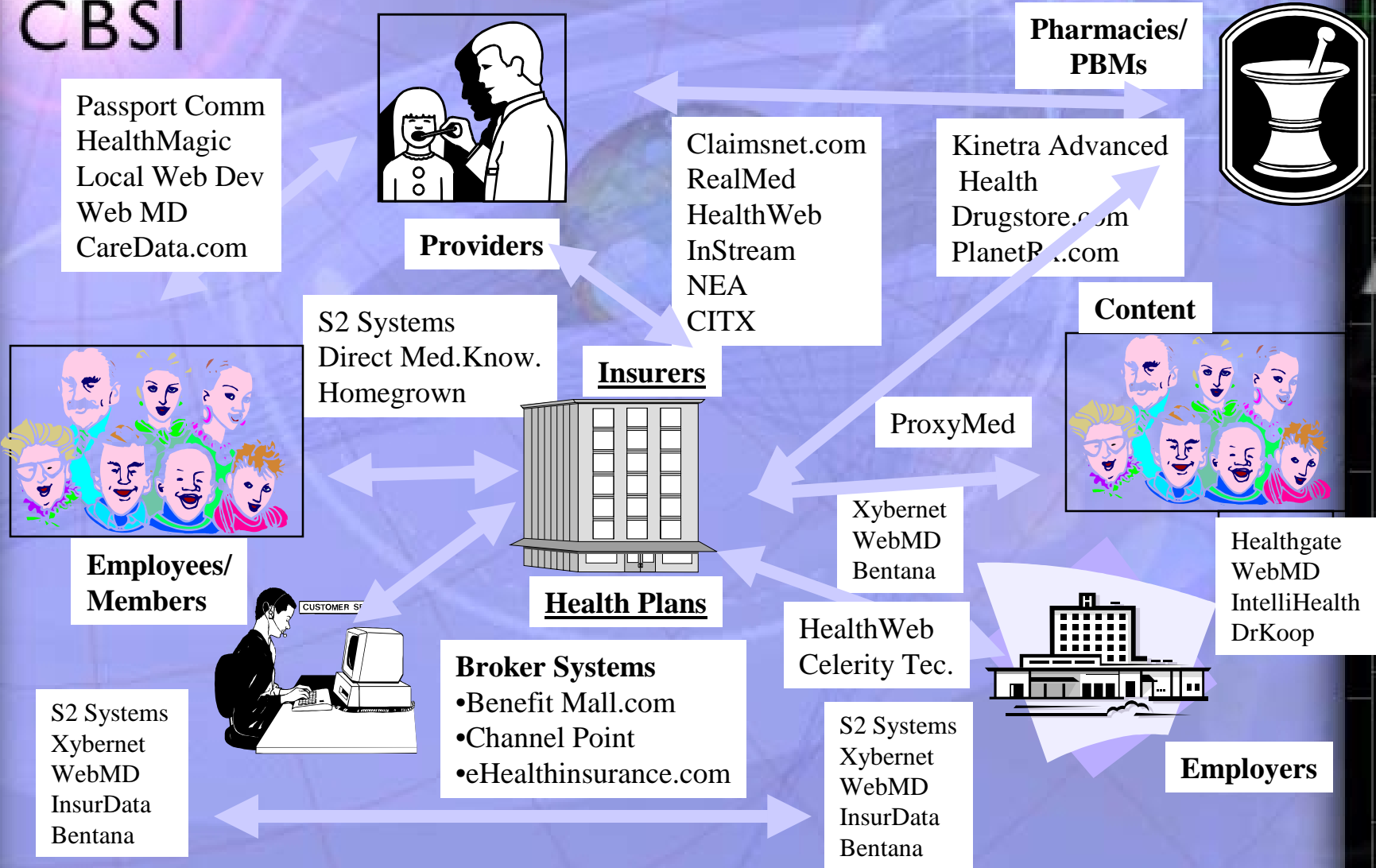
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eHealth Challenges

- ▶ 1 to 2 months in Web time = 1 to 2 years in real time
- ▶ Greater emphasis needs to be placed on enterprise-wide strategies rather than one department at a time



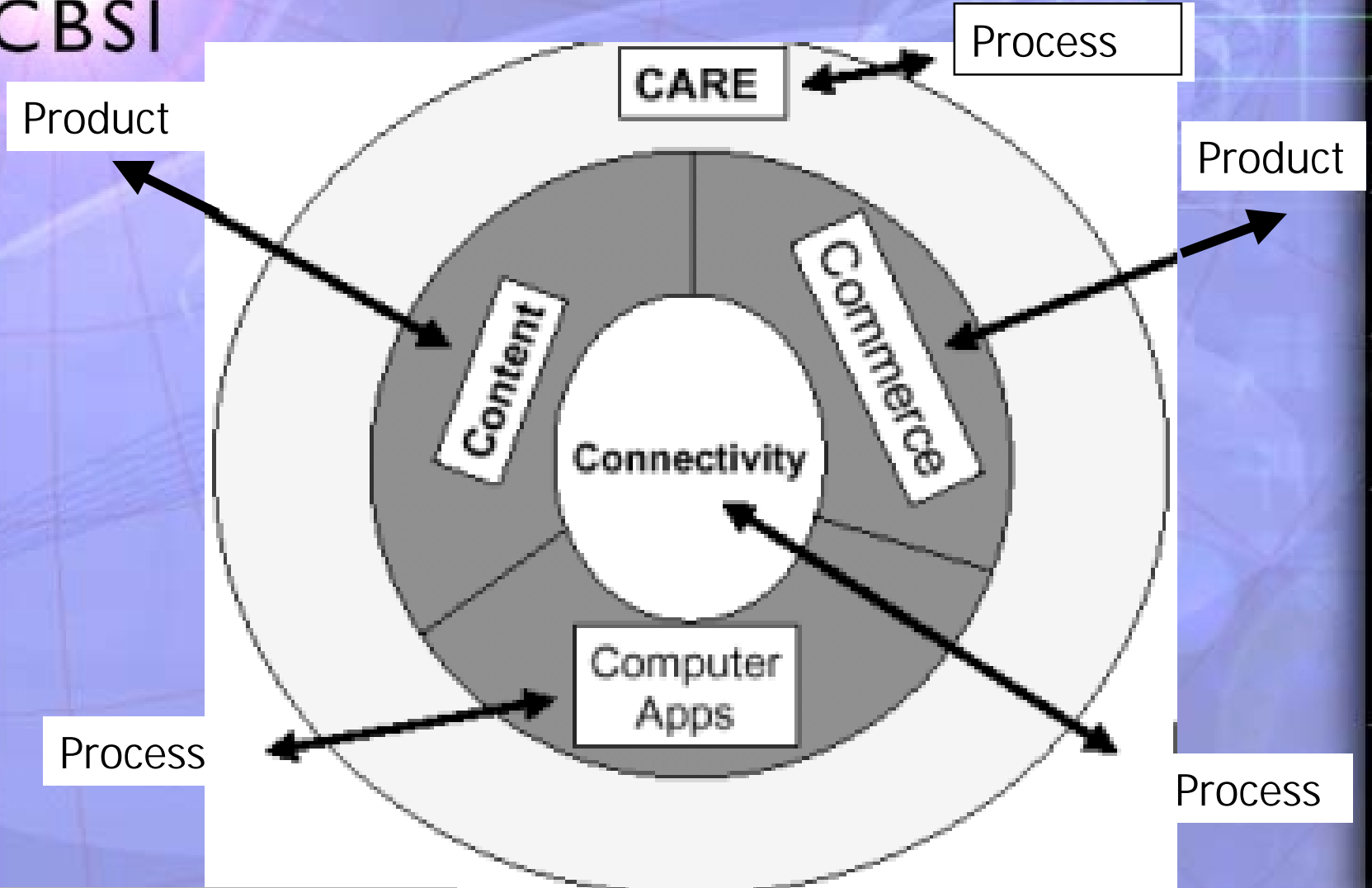
Emerging eHealth Vendors





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The Five C's of eHealth



Information obtained from META Group, Inc., Stamford, CT



Connectivity

- ▶ The link between two parties that enables the exchange of information via open or closed networks.
 - A *closed network* connects multiple parties to send and receive transactions from one computer system to another
 - An *open network* is the public Internet, which requires an Internet service provider (ISP) for connectivity



Member Connectivity Solutions (Example)

- ▶ My Aetna.com: Self-service personalized information portal for all health-related issues
 - Benefits coverage, demographic data updates, sophisticated provider searches, identification card requests, claim status, health content information, referrals
- ▶ Payers are assuming that the more knowledgeable members are about healthcare, the fewer healthcare resources they will use, reducing the plans' medical expenses
- ▶ Web-based customer service applications will improve payers' member retention rates, giving these applications a significant return on investment



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Provider Connectivity

- ▶ Key e-Commerce solution that payers will initially deploy:
 - Access to data
 - Internet and Closed Network connections enabling HIPAA standard batch and real-time eligibility, referral, claim submission and claim status transactions
- ▶ At least, 35% of hospital claims and 20% of physician claims transmitted directly via the Internet by 2002/2003

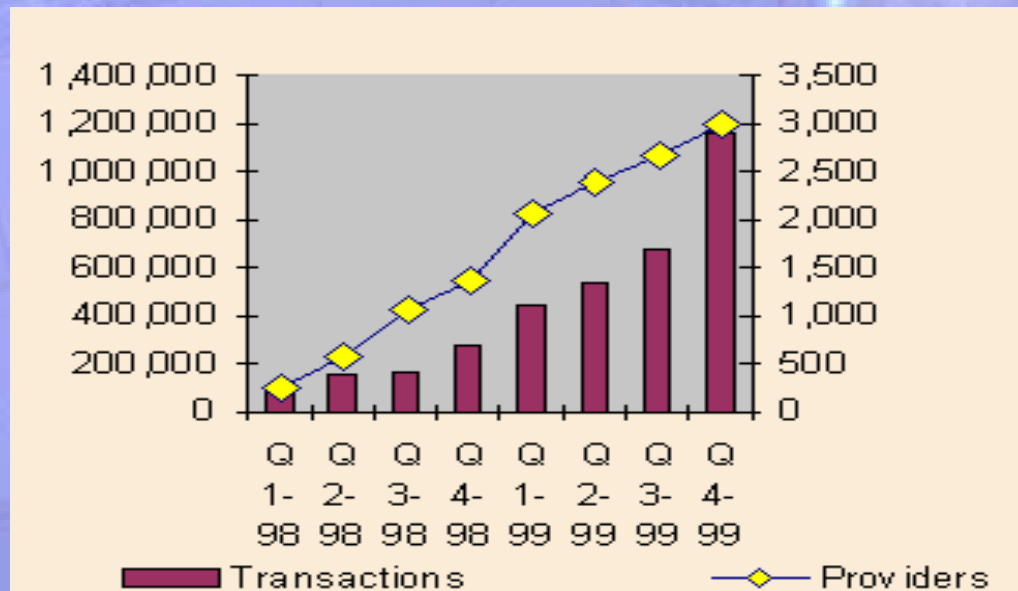


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Connectivity Solution (Example)

▶ Claimsnet.com (Clearinghouse)

- Inception 1990
- Developed multiple transactions and services through a single connection and interface 1995
- Uses the Internet to connect directly to the management system, thus, reducing costs



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Employer Connectivity

- ▶ Ease of administration and employee enrollment
- ▶ Intranet solutions for healthcare and other employee benefits
- ▶ Web-based benefit pricing and reconciliation
- ▶ Superset of member information
- ▶ 100% annual growth (1999-2003)
- ▶ Employers are powerful





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Computer Applications

- ▶ Less expensive “Thin” client/server computer applications for healthcare, which may or may not compete with traditional healthcare IT applications
- ▶ These applications include typical legacy financial, administrative, patient management and clinical systems



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Computer Applications

- ▶ Common-look-and-feel applications use thin-client technology to create a single Web browser interface to view or exchange information with multiple legacy applications
- ▶ Over time, thin-client solutions will also migrate to mobile/wireless platforms



Computer Application: (Example of Point-of-Care Claims Settlement)

PROVIDER BENEFITS

- Provides payment in 48 hours
- Increases time spent on patients
- Reduces administrative cost
- Visa acceptance and recognition
- Reduces anxiety about patient payment

(Model incorporates real-time credit or debit card payments)

EMPLOYER BENEFITS

- Improves employee satisfaction
- Captures leadership position in innovative healthcare benefits
- Increases healthcare spending account utilization
- Reduces administrative costs
- Piece of the "total value" packages



Example of Point-of-Care Claims Settlement Cont'd

CARD ISSUER BENEFITS

- Replaces EOB with monthly statement of transactions
- Provides a low interest payment alternative for medical/dental expenses
- Reduce out-of-pocket costs by earning "deductible dollars"

PAYER BENEFITS

- Eliminates ID card protection costs & creates revenue opportunity
- Additional value to members - continues to link them to PAYER even as they change employers
- Increases provider satisfaction by creating immediate reimbursement & easy access to PAYER policies



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Care

- ▶ Internet-based services enable new forms of providing care
- ▶ A diabetic's blood-glucose monitor can connect to a PC, and values sent via a Web site
- ▶ Emerging Patient-Physician encounters online
- ▶ Big contribution of the Internet in healthcare





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Care

- ▶ Confer is a leader in developing Internet solutions for the healthcare industry
- ▶ GlobalMedic Inc. offers Web-based services primarily in the wellness category



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Content

- ▶ Web sites that provide information (content) to users in a combination of text and graphic formats
- ▶ Specialized or general healthcare information and typically including features such as keyword searches and message boards
- ▶ The two primary audiences for healthcare content Web sites are consumers and physicians



Content

- ▶ The consumer market includes all adults with Internet access; the professional market in the US includes 650K physicians and 2 million nurses
 - Community is a key ingredient of many Web sites
 - Community at medical Web sites usually is presented in two ways: 1) moderated/expert chats and 2) user-to-user chat rooms/message boards

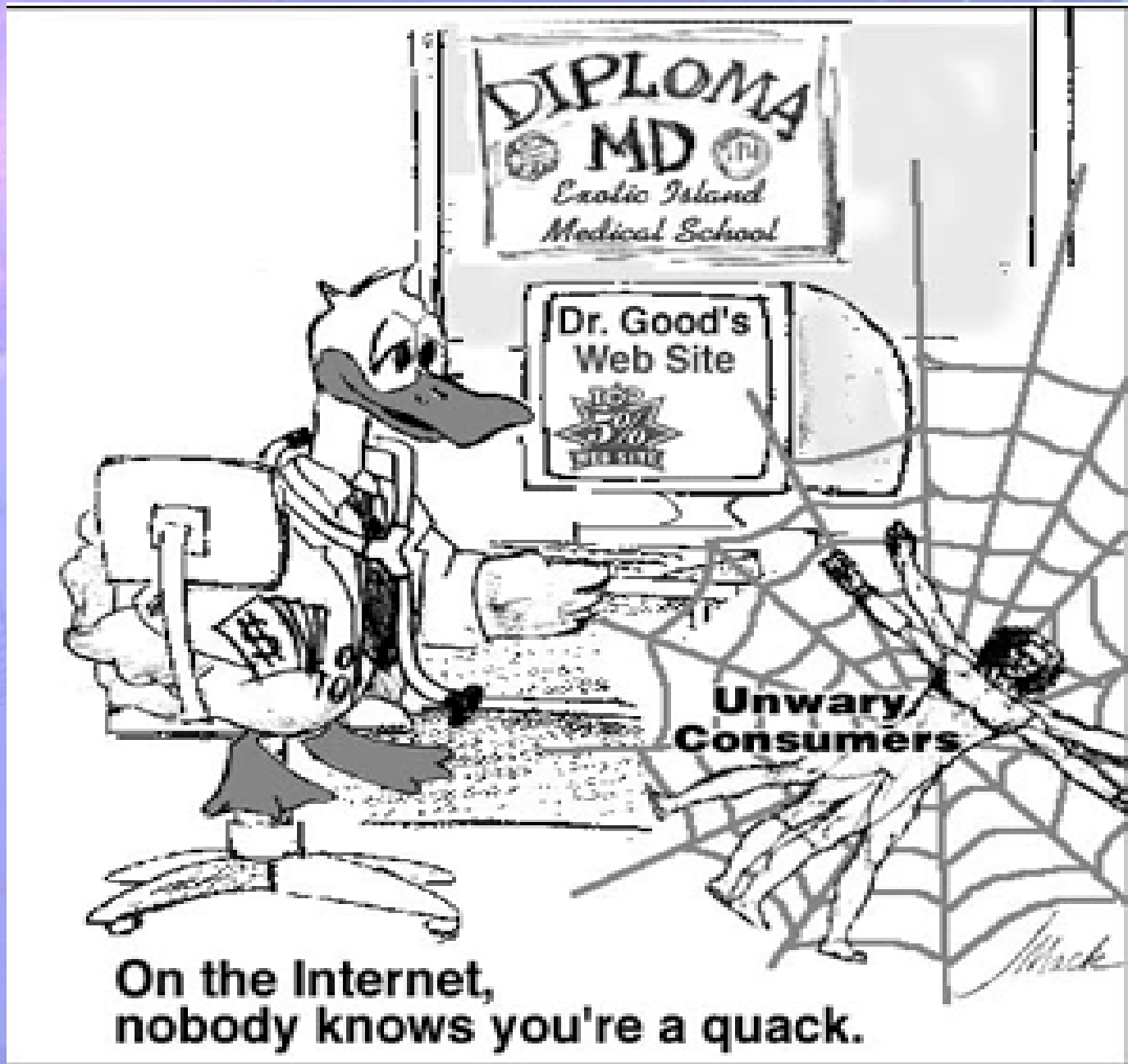


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Content

Examples of Leading Health Library Sites

- ▶ These Web sites feature access to medical libraries and other resources:
 - AmericasDoctor.com
 - One of the best research tools
 - OnHealth's Conditions A-Z
 - Information on the usual range of subjects
 - WebMD's Health & Medical Library
 - Information from a mix of sources



**On the Internet,
nobody knows you're a quack.**



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Commerce

- ▶ There are two types of e-Commerce companies: e-Sellers and e-Markets
 - e-Sellers - Web sites enable users to purchase from the company via the Internet
 - e-Markets - Web sites bring buyers and sellers or together in an electronic exchange
 - Both products may be tangible or intangible goods
 - Commerce sites - business-to-business (B2B) or business-to-consumer (B2C)





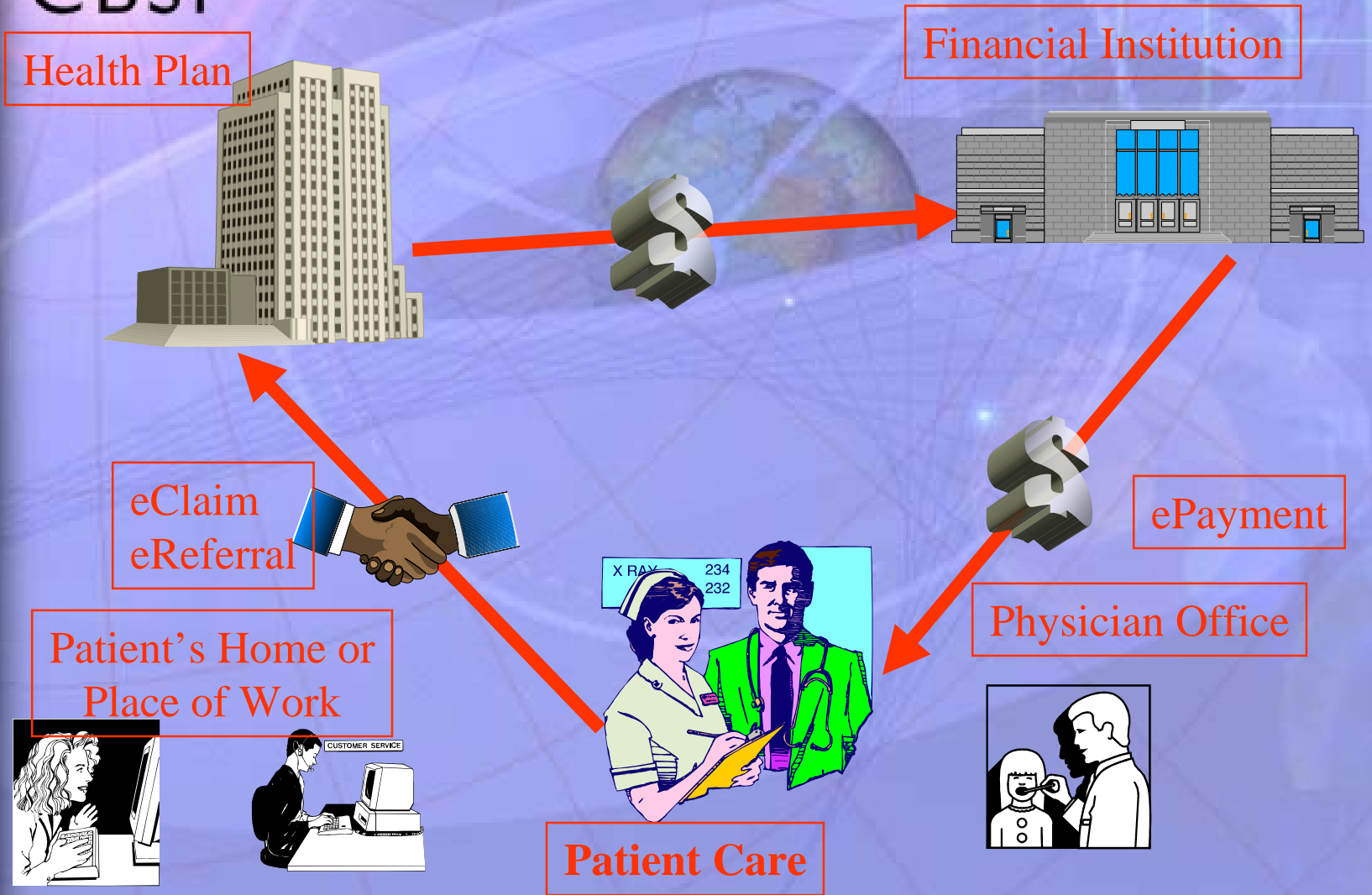
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HIPAA Driven eCommerce Infrastructure Solutions

- ▶ Security, Privacy and Confidentiality
 - Digital Signatures
 - Public Key Infrastructure
 - Encryption techniques and strategies
 - Certificates of Authority
 - Security Reporting
- ▶ Transactions
 - EDI and Interface Engines
 - Workflow Engines
- ▶ Code-sets and Identifiers
 - Cross-walks between previous and new HIPAA standards



eHealth Environment Future State





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eHealth Environment Future State -2002 And Beyond-

- ▶ Real-time service authorizations and claims payments
- ▶ Empowered consumer driven healthcare purchases of benefits and providers
- ▶ Information revolution and privacy means even more powerful government role in regulations and rules
- ▶ Integrated information locally and nationally; Medical records become the accepted property of the patient
- ▶ Provision of care evolves into provision of information
- ▶ On-line, up-to-date, clinical decision support systems using statistically validated data



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eHealth Future State Some Stimuli

- ▶ HIPAA, CCM and the Web's importance will drive healthcare's eCommerce reengineering
- ▶ eHealth and CCM will extend Customer Resource Management
 - Providers
 - Consumers
 - Plan Sponsors
 - Brokers
 - Pharmaceuticals



eHealth Future State

Some Stimuli

- ▶ New forms of proactive health management continue to emerge
- ▶ eHealth will necessitate process innovation before deploying IT/eCommerce systems (e-Engineering)
- ▶ HIPAA Security and Privacy rules will be major factors stimulating new eHealth vendors
- ▶ Corporate senior management, providers, members, and brokers will eventually embrace eHealth strategies once aware of the significant returns on investment in HIPAA compliance



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**THANK YOU!
&
QUESTIONS?**

