CONNECTING FOR HEALTH
COMMON FRAMEWORK

Resources for Implementing Private and Secure Health Information Exchange

Common Framework Implementation: The MA-SHARE Approach

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April 10, 2006

MA-SHARE Experiences with Health Information Networks

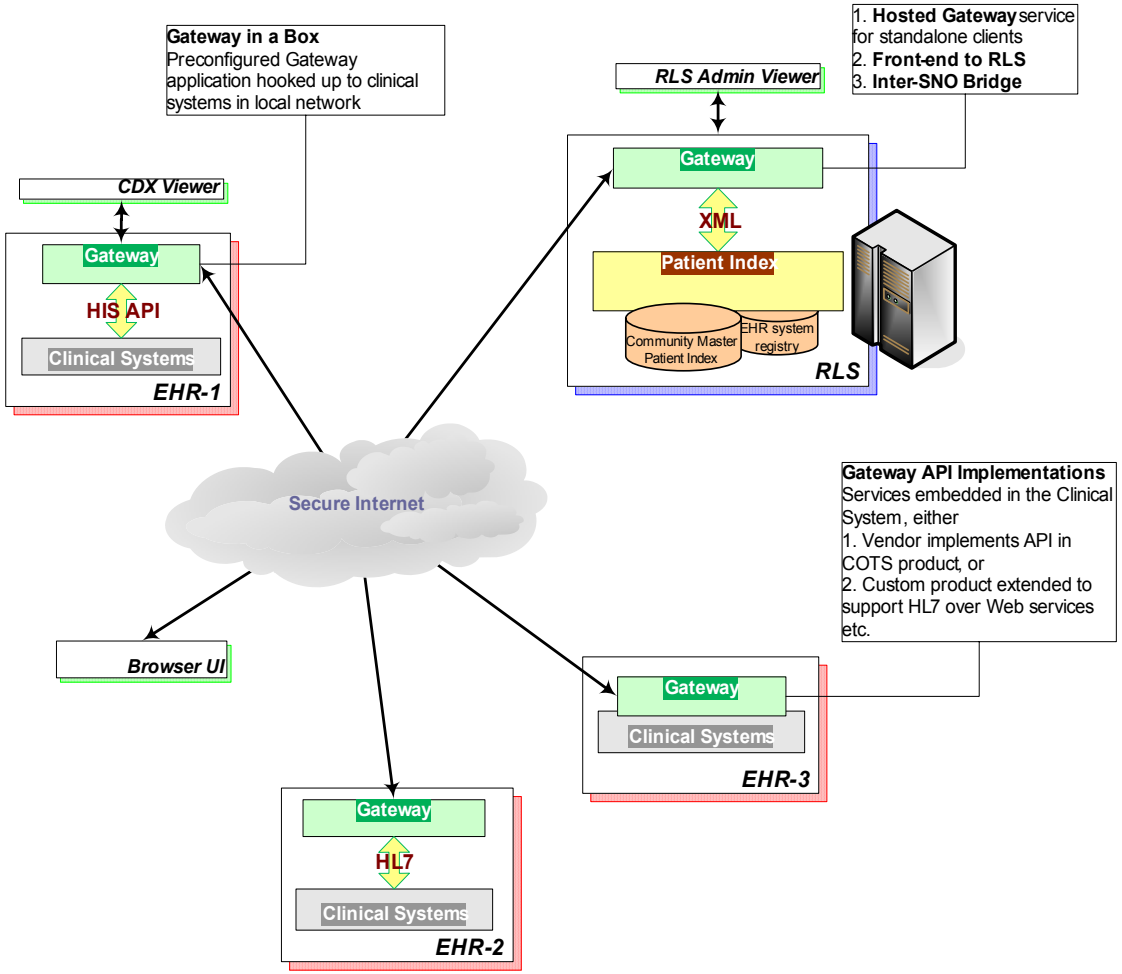
- New England Healthcare EDI Network (NEHEN): HIPAA compliant administrative transaction routing
- MedsInfo-ED: Pilot medication history retrieval for emergency departments
- RxGateway e-Prescribing network conceptual architecture
- Connecting for Health Record Locator Service Prototype

Federated SNO Network Architecture

- Member preference for Peer-to-Peer Clinical Data Exchange between clinical applications at provider (and other) locations
- Specification of both SNO ‘Network’ and ‘Edge’ connectivity services
- Federated model can support centralization of services such as
  - Data storage
  - Aggregation
  - …

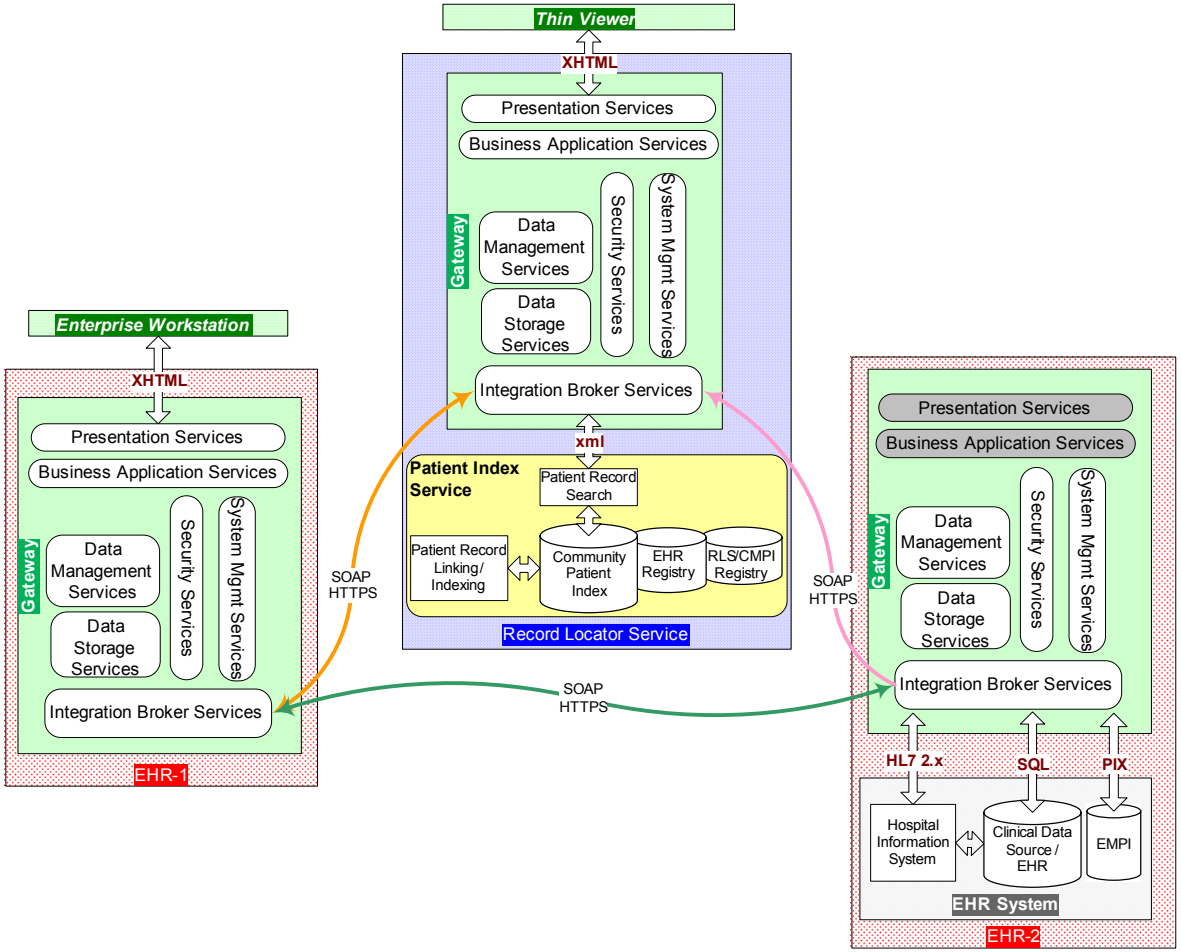
Gateways Provide Edge Services

- Gateways abstract differences between EHR application interfaces through standards based interfaces
  - HL7 and other clinical data exchange standards
  - SOAP / WSDL and other Web services standards
- Hosted Gateway Service
  - Enables direct (browser based) client access to remote clinical systems
  - Inter-SNO Bridge services
  - Other centralized services
    - EHR Registry
    - Standard Metadata, e.g. Schema, WSDL, Policy

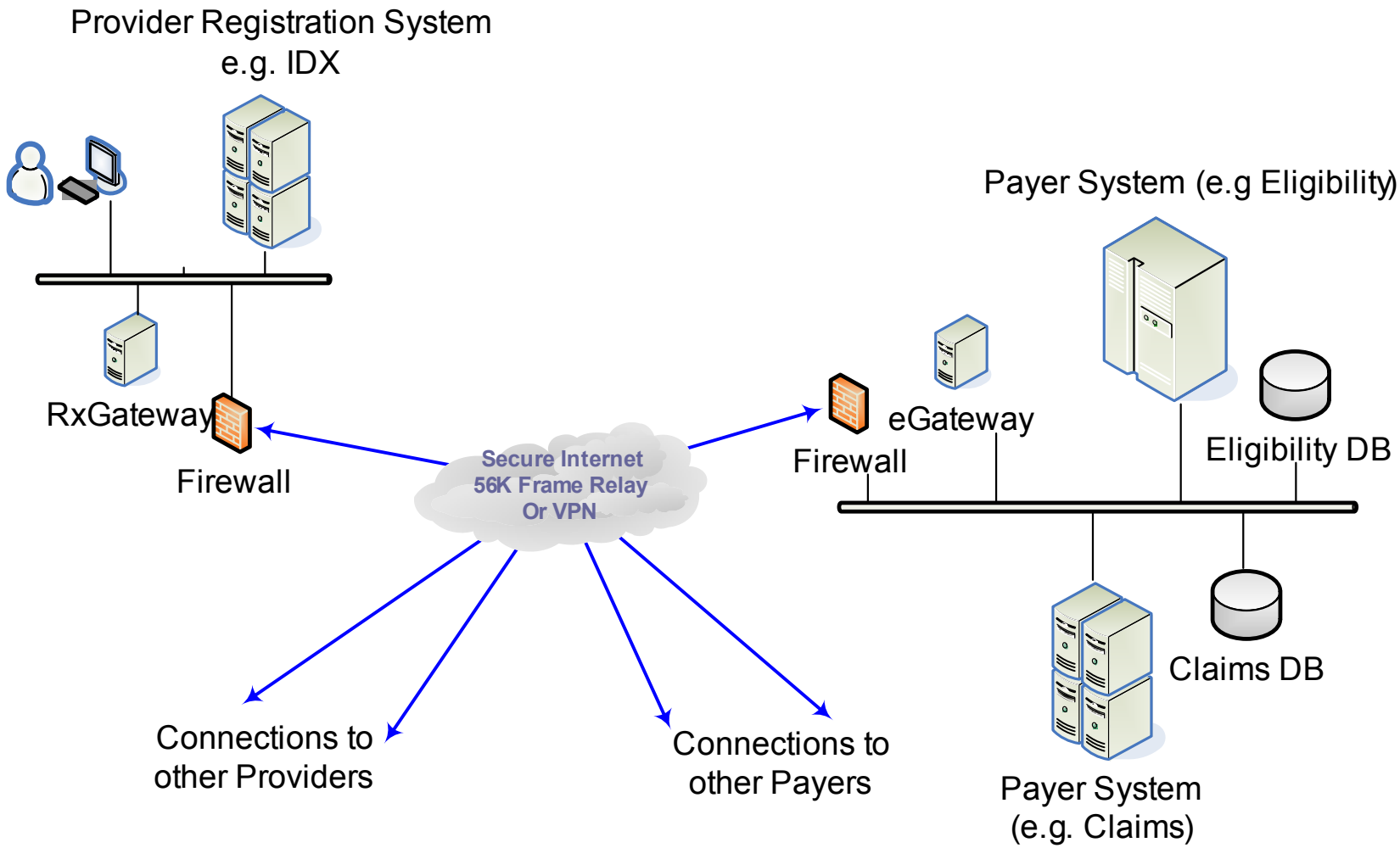


Service-Oriented Gateway Architecture

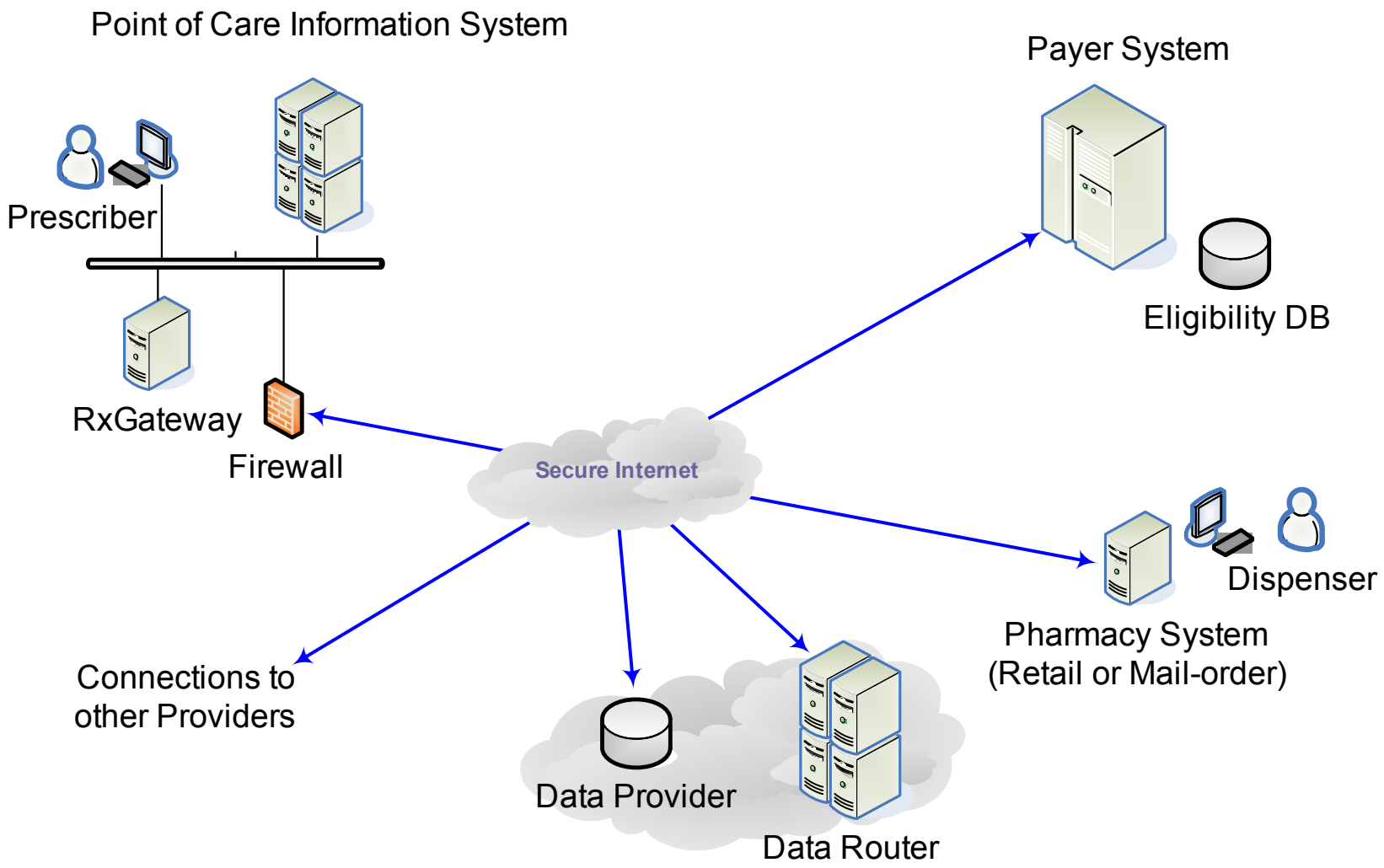
- Common infrastructural (plumbing) services
  - Systems management
    - Logging, auditing, service management
  - Security
    - Authentication, policy, consent management
- Integration services
    - Messaging, transformation, orchestration, adaptor
- Presentation/Business services
- Data management and storage
  - Clinical Systems Proxy
  - Caching



Current NEHEN Network Model



e-Prescribing Pilot Network Model



Planned Convergence of MA-SHARE Gateway Services

Clinical Data Exchange

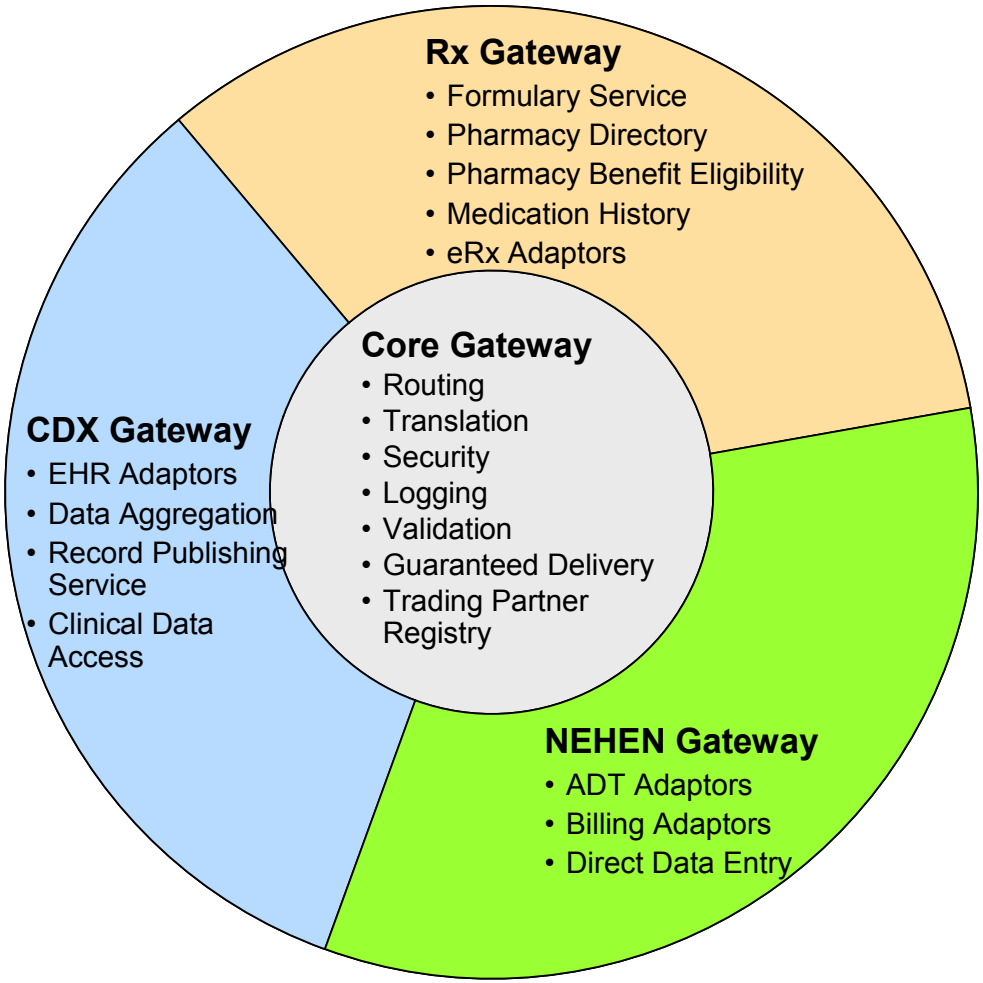
- Supports peer-to-peer clinical data exchange through Web services
- Federated data management requires community RLS
- EHR Adaptors

Administrative Data Exchange

- Compliance with HIPAA standards and X12
- Interfaces to ADT and billing systems
- Revenue cycle tools to support community needs

E-Prescribing

- Community business services
- National standards compliance (Medicare Part D)
- Interface from order entry systems
- Reduced complexity for participants in leveraging eRx vendor offerings



MA-SHARE Roadmap

- Implementation of ‘nationwide’ standards within SNO enables flexible interoperability within and between sub-network
- Reduced implementation and maintenance cost through joint investment
- Unified network architecture maximizes reusability of infrastructure across use cases
- Common B2B framework leveraging transport and messaging standards from outside healthcare domain