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**Nationwide Health Information Network (NHIN)**

**Accenture Prototype Demonstration**

**January 25<sup>th</sup>, 2007**

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This presentation discusses a NHIN Architecture Prototype project made possible by a contract from the Office of the National Coordinator for Health Information Technology (ONC), DHHS. The content is solely the responsibility of the authors and does not necessarily represent the official view of ONC.

# What We Set Out To Do



- Build a secure NHIN prototype that leveraged existing infrastructure and:
  - Allow patient control of their health information
  - Connect system with a wide variety of IT platforms
  - Allow patients and providers with limited EHR/PHR access the ability to see a core set of clinical information
  - Deal with the critical issues of data normalization
  - Provide enough flexibility to allow local choice in the degree of centralization of data
  - Meet the requirements of the three use cases
- Show we could quickly build out RHIOs

# Our Distinct Health Care Markets



Characteristics of our distinct health care markets:

- RHIOs exist, but do not have regional information infrastructures for sharing health data
- Hospital and provider systems are widely diverse
- Few systems based on federal health standards
- Very representative of the US health care market
- Required rapidly building RHIO capabilities, leveraging existing IT systems



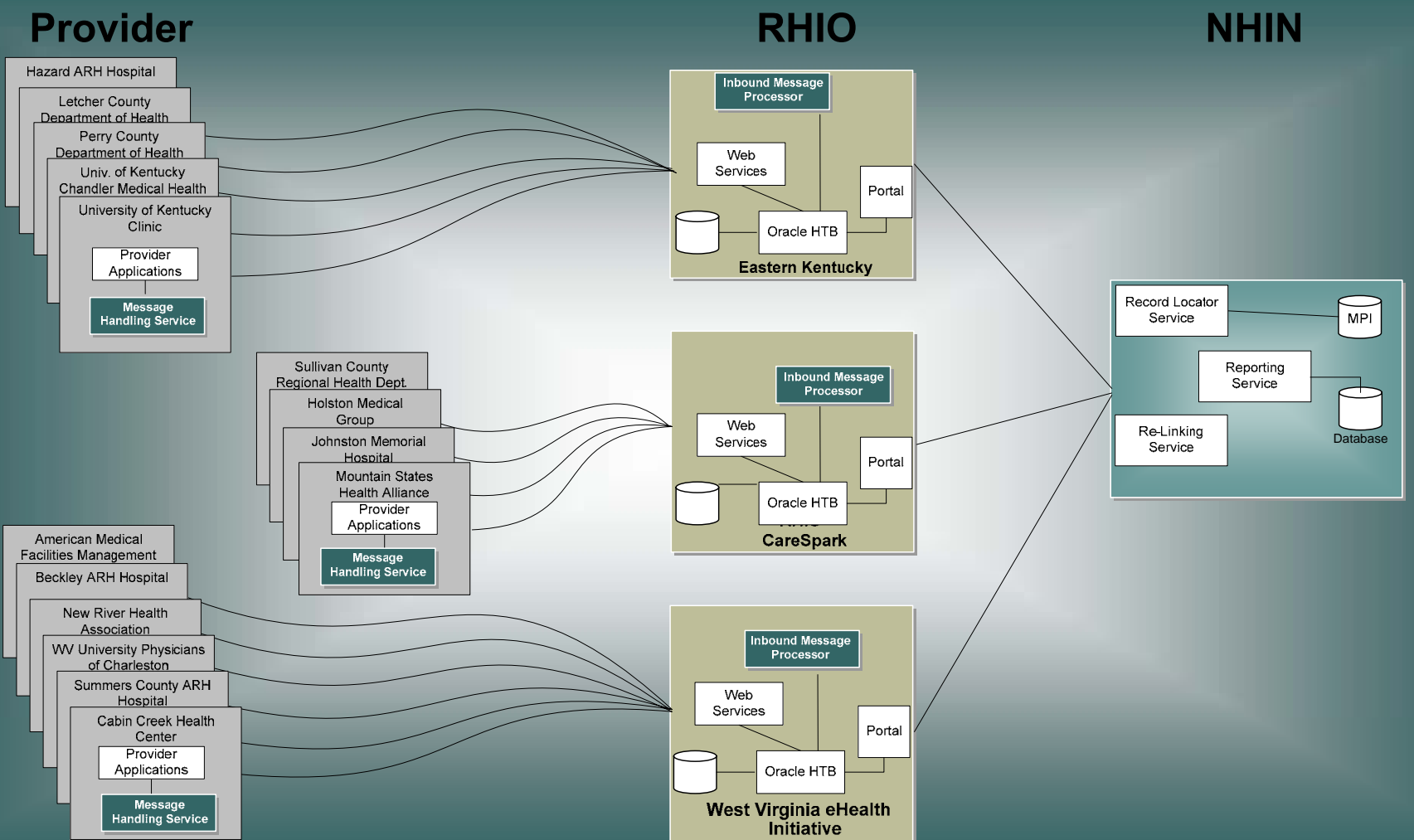


## How We Accomplished Our Mission

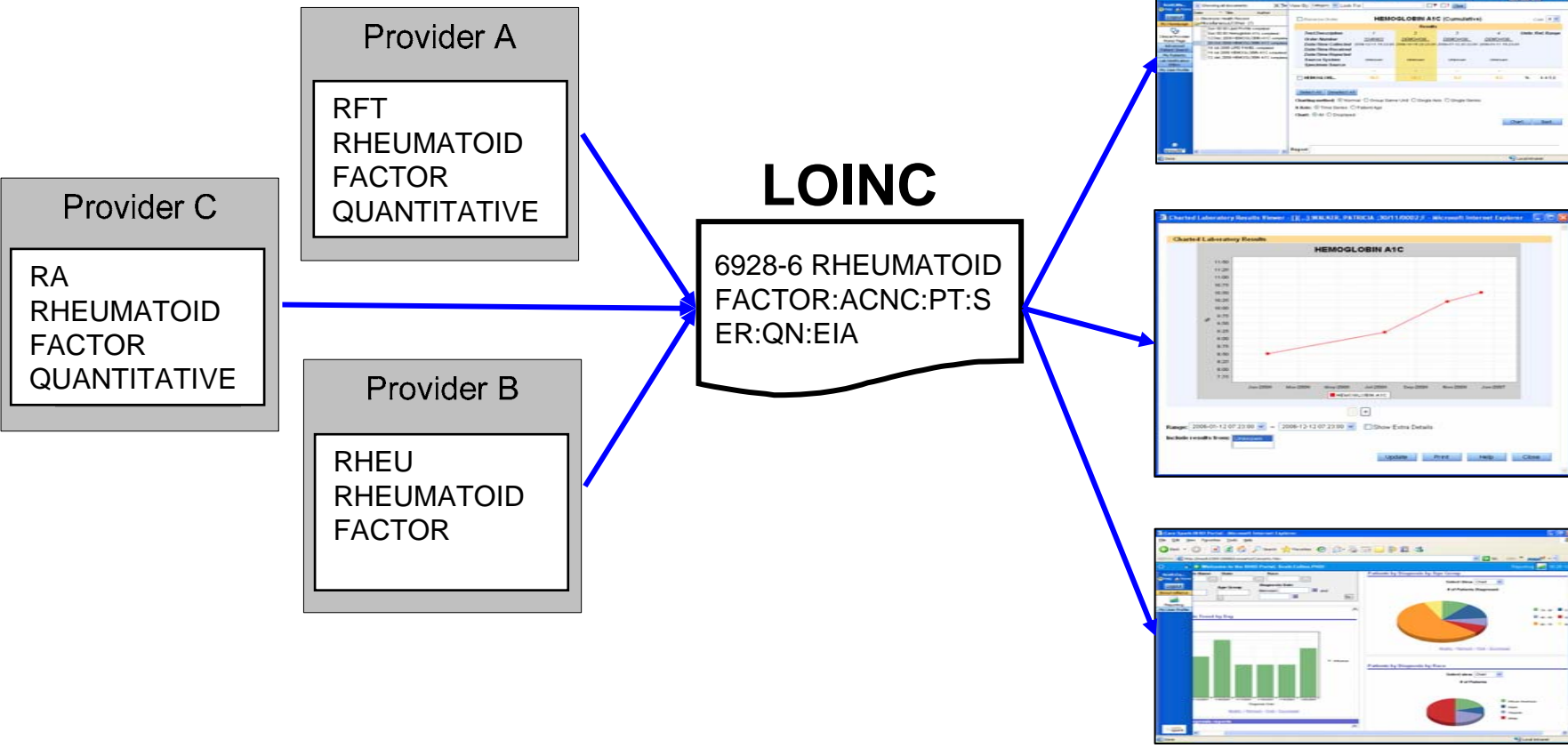


- Allow patient choice regarding which providers can see their health care data
- Provide robust auditing capabilities
- Place filtering within the provider organizations to allow local choice regarding the degree of data sharing
- Design an architecture that is flexible regarding where data is stored
- Convert local messages and data to HL7 v3 standard messages
- Map local terminology to federal standard terminology (LOINC, SNOMED CT, etc.)

# Accenture's Solution Overview



# Terminology Normalization



# Prototype Successes & Challenges



- Building a NHIN requires teamwork between a complex and large number of stakeholders
- Incentives must be aligned and be of sufficient magnitude to promote health data sharing for the NHIN to succeed
- Data can be extracted from a wide variety of provider systems and converted into semantically normalized data
- Flexibility regarding architecture will be critical given the variety of views regarding privacy
- **OUR CONSORTIUM SUCCEEDED IN DEVELOPING A NATIONWIDE HEALTH INFORMATION NETWORK PROTOTYPE**

# Accenture Healthcare & Technical Partners



## West Virginia Medical Institute

- New River Health Association - Beckley
- Cabin Creek
- ARH-Beckley
- ARH Summers County
- AMFM-Beckley
- WV University Physicians of Charleston

## The Commonwealth of Kentucky's Eastern Region Health Community

- ARH-Hazard Regional Medical Center and Family Health Services
- University of Kentucky Clinic
- University of Kentucky HealthCare Chandler Medical Center
- Kentucky River District – Letcher County Health Dept
- Kentucky River District – Perry County Health Dept

## CareSpark

- Holston Medical Group
- Mountain States Health Alliance
- Johnston Memorial Hospital
- Sullivan County Regional Health Dept.

## Core Technical Components

- Cisco Systems
- Initiate Systems
- Oracle
- Orion
- Quovadx
- Sun Microsystems

## Technical Partners

- Apelon
- AMA
- BEA
- CCSi
- CGI – Federal
- Intellithought
- LucentGlow
- Oakland Consulting Group
- Reactivity
- Red Hat