



HEALTH CARE SOA IMPLEMENTATION

ORGANIZATION

The client provides a range of health care and social services through its network of facilities and service organizations. It was established in 1986 and operates 18 acute care hospitals, one heart hospital, outpatient care facilities, physician practices, skilled nursing and long-term residential care facilities, clinics, a managed care organization, and other health-related services.

The health system is currently operated through regional Strategic Service Units (SSUs). As of FY2007, it employed 28,000 co-workers, 1,045 integrated physicians, and 4,450 medical staff members.

As part of this strategic initiative, the client wanted to achieve multiple objectives including:

- Integrate clinical and revenue systems to enhance information systems and associated work processes.
- Provide complete and accurate electronic records of a patients to improve service.
- Integrate several health information systems to facilitate a single electronic patient record across all venues of care.

CHALLENGE

The client's business scenario was characterized by the following:

- The presence of several point-to-point interfaces connecting different systems at different levels of the organization (region, SSU, facility, and clinic). The business logic applied to each interface between these disparate systems was different.
- A strategic imperative facing the client was to possess the capability to electronically transmit HL7 messages between different health information system spread across inconsistent segregation levels. Each health information systems had its own guidelines (VMDs) for different types of HL7 messages for different events.
- Differing volumes for different systems and HL7 messages as well as types of electronic patient records.
- Need for consistency in handling exceptions in records processing, reporting, auditing, and centralized logging of messages.

SOLUTION

XTIVIA implemented an integration solution combining Event-Driven and Service Oriented Architecture (SOA) with a Common Information Model (CIM) approach to facilitate a one-to-many real-time information exchange between all internal systems. XTIVIA also utilized common services for exception handling and auditing of transactions. XTIVIA leveraged an SOA and BPM-based, highly decoupled solution that delivered:

- Abstraction and reusable components to execute common business processes.
- Adaptability for changing business requirements of existing information systems.
- Easy addition of future interfaces for existing or new systems.
- A Common Information Model (CIM) for all system information mappings. Integration message flow was decoupled from the actual translation and transformation business logic to enable a flexible and scalable solution. This decoupled integration message flow took the form of a framework that contained the HL7 transactions processing logic for specific HL7 messages.

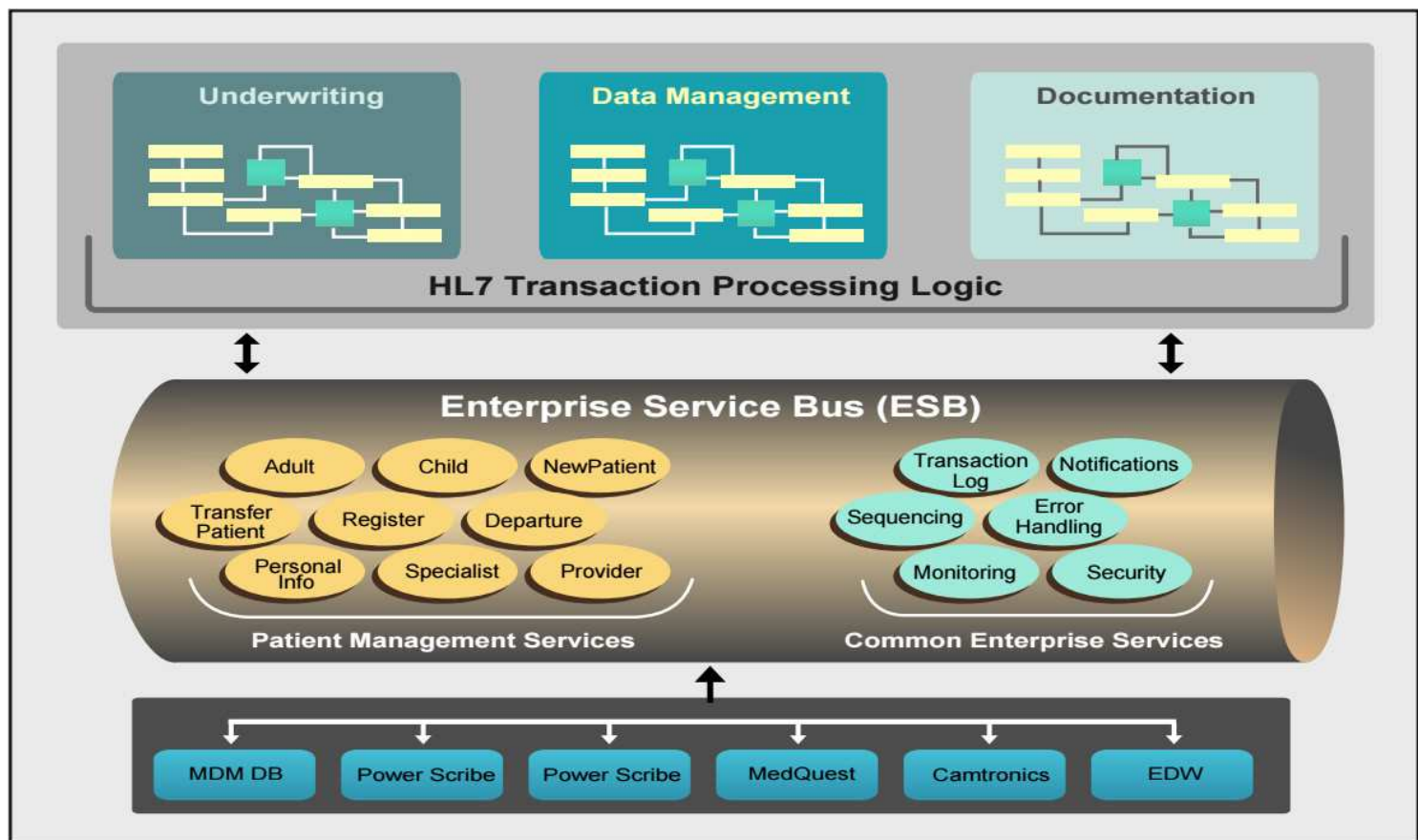


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RESULTS

The integration solution implemented by XTIVIA provided several benefits besides increased efficiency and effectiveness of processes. In addition to facilitating a one-to-many real-time information exchange between all internal systems, XTIVIA also provided:

- Billing processes and information in-sync are consistent with patient services.
- Consistent and unified view of patient records across all business units with real-time updates.
- Reusable and extensible solution that can adapt to future needs.
- Completely integrated systems and processes across different health care systems.



XTIVIA OVERVIEW

XTIVIA is a proven technology integration and innovation company known for delivering leading-edge technology solutions to our clients' specific requirements, regardless of project complexity. We bring next-level business operations to reality through Application Development, Business Intelligence, Data Warehousing, Database Support & Management, Enterprise Information Management, Digital Experience Solutions and Enterprise Resource Planning. Our success stems from a demonstrated ability to deliver deep expertise via professional services, empowering clients to leverage their chosen technology successfully, competitively and profitably. XTIVIA has offices in Colorado, New York, New Jersey, Missouri, Texas, Virginia, and India.

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