

Use of EMPI and Microsoft Technology by Nation's E-Prescribing Network Gives Physicians Access to Critical Patient Information

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SureScripts® Mission: Improve the Prescribing Process

- Incorporated August 2001
- Formed by associations representing nation's 55,000 pharmacies
- Privately owned by the pharmacy industry
 - Pharmacy membership organization
 - Operate like a not-for-profit
 - Neutral entity
 - No advertising or commercial influence
 - Protect patient choice of pharmacy, physician choice of therapy
- Driven by single mission:
 - Improve the prescribing process through a focus on safety, efficiency and quality



NATIONAL ASSOCIATION OF
CHAIN DRUG STORES



**National
COMMUNITY
PHARMACISTS
Association**



Over 95% of the nation's
pharmacies have completed
the certification process
required to connect to the
SureScripts® Electronic
Prescribing Network™

SureScripts® Does Not Develop, Sell or Endorse Software: *It “Certifies” Software to Connect to Pharmacies*



What the Physician Needs:

1. Electronic prescribing software that has been certified by **SureScripts®**
2. A high-speed Internet connection



SureScripts®
provides the behind-
the-scenes network
that makes the
two-way electronic
exchange of new
prescription &
renewal information
possible



What the Pharmacy Needs:

1. Pharmacy management software that has been certified by **SureScripts®**
2. An Internet or Intranet connection



SureScripts
Electronic Prescribing Network™



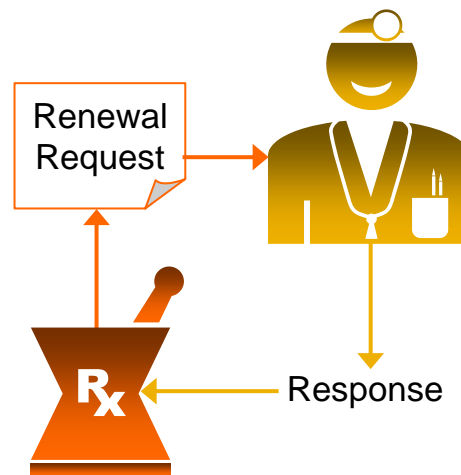
Over 95% of the nation's retail pharmacies have systems certified to connect to the Pharmacy Health Information Exchange™ operated by SureScripts®

Message Types

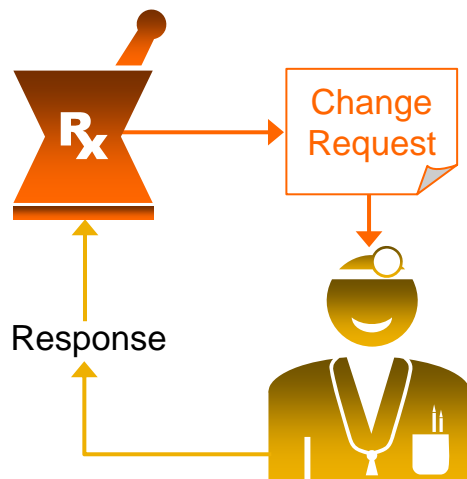


New Prescriptions
from a prescriber to
the pharmacy of the
patient's choice

Renewal Request
from the pharmacy
to the prescriber
and the response
back

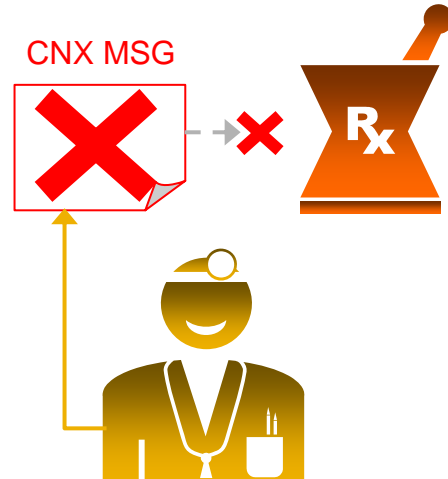


**Initial
Transaction
Types:**



Change Request
from the
pharmacy to
the prescriber
and back

Cancel Message
from the
prescriber to
the pharmacy



Strategic Importance of Medication History

- Pharmacy is 'raising its role' in the healthcare process
- Medication history fits with pharmacy strategic imperatives
 - Develop patient care services
 - Focus on consumer experience
 - Improve efficiencies and patient safety
- Medication history will increase adoption and utilization of e-prescribing
 - E-prescribing is a pre-requisite for access to medication history
- Medication history will also enhance the relationships of pharmacy with its most significant stakeholders
 - Government orgs focused on emergency preparedness and interoperability
 - Hospitals need it for medication reconciliation programs (JCAHO)
 - RHIOs using it as the foundation for healthcare interoperability
 - Physicians want to inform & position practice for pay-for-performance programs
 - Federal, employer and corporate focus on personal health records
- Pharmacy interoperability is the first step toward broad HIT interoperability

Challenges

- 1 **SureScripts®** needed to take medication history data feeds from multiple pharmacy chains, populate a database, and create an indexing structure that *would link patient records from different pharmacies for a transparent query by prescribers*

- 2 We needed a solution that would allow **SureScripts®** to *fine tune the matching algorithm based upon our data types*

Requirements



We needed response times of less than 3 seconds to find up to 300 matches, format and deliver the response to the requesting prescriber



Base matching criteria solely on patient demographic information



A partner with proven technology and track record of on-time implementation

Technology

Our initial platform for the routing of messages:

- Windows 2003
- SQL Server 2000
- .NET Framework 2.0
- Visual Studio 2005

Our solution needed to utilize the same technology *(not force us to a new O/S, database or development tools)*

Solution

- Initiate Identity Hub™ software:
 - Web service APIs
 - Message based transactions services
 - Data governance
 - Administrative tools
- **Initiate Systems** enables organizations to create the most complete, real-time views of people, households and organizations from data dispersed across multiple application systems and databases
- More than 1500 healthcare implementations



Using SureScripts® & Initiate Identity Hub™ software, providers are able to:

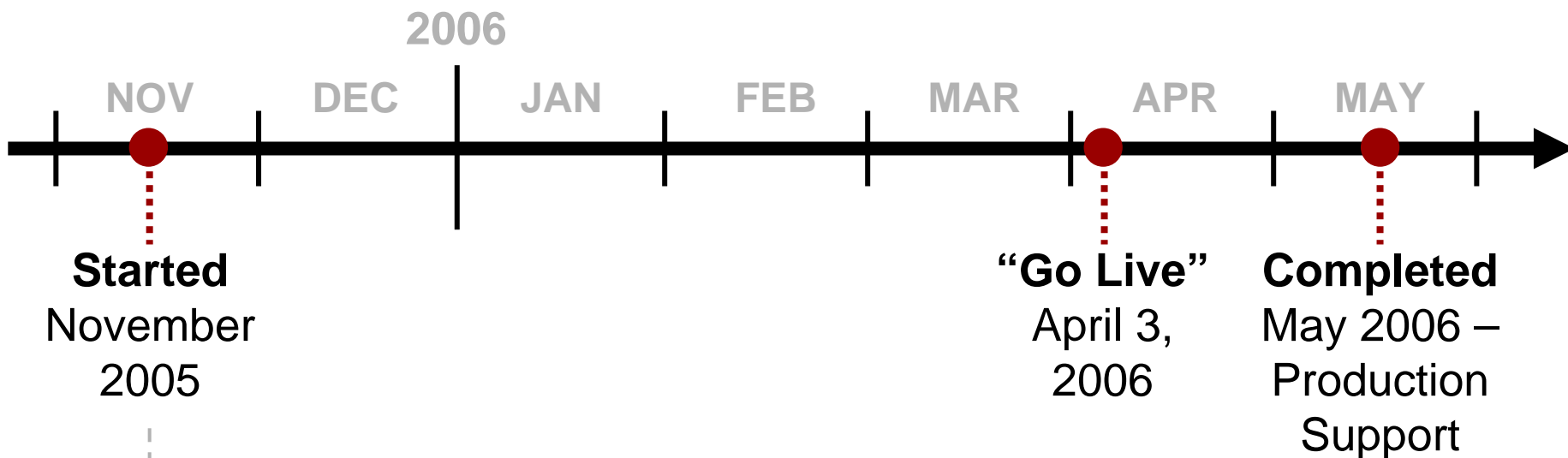
Formulary

Generate requests for drug formulary, then using search capabilities, validate patient eligibility and deliver plan specific formulary information

Rx History

Generate medication history requests, then using search capabilities, receive medication records for prescriptions within the requested data range for the requested patient

Implementation Overview

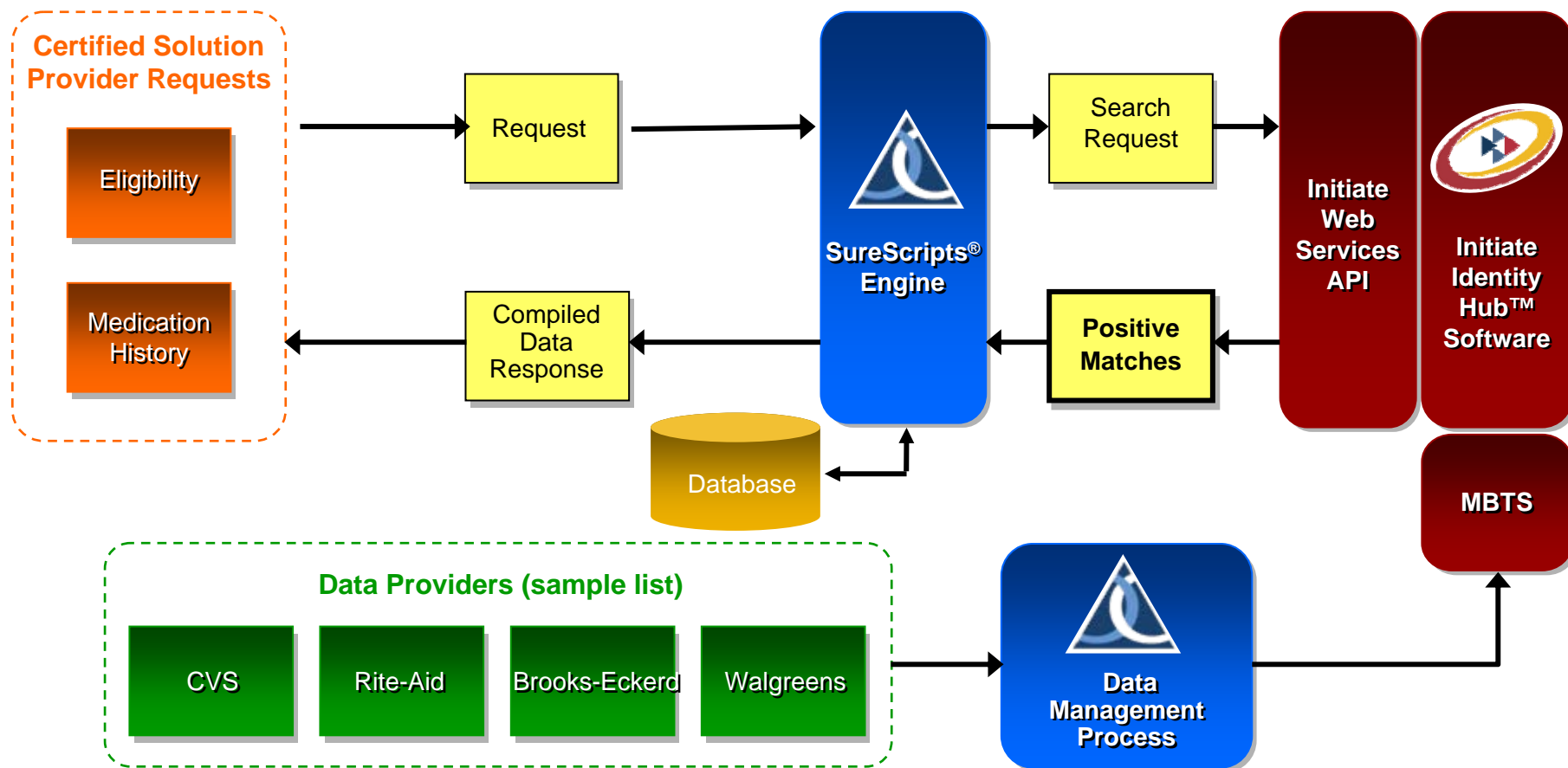


***No major changes in design,
planned usage & architecture***

Implementation Approach

- Goals:
 - Improve the accuracy of customer searches
 - Speed time to market for data updates
 - Create a more flexible, extensible application platform
- Components:
 - **SureScripts® Engine:** Execute searches and provide additional value add information for eligibility, medication history, and formulary and benefits information
 - **Web Services APIs:** Enables SureScripts® to integrate with Initiate Identity Hub™ software
 - **Initiate Identity Hub™ software:** Provides searching capabilities on member data
 - **Data Management Process:** Process update files, eligibility, formulary and medication history information
 - **Message Based Transactions Services:** Provides integration to process member update files

Solution Architecture



Initial Processing Requirements & Hardware Config:

Day 1 – Volume:	2,000,000 patients
Total Volume to Support for Pilot:	20,000,000 patients

Hardware – 2 DB and 2 FE Servers:

Manufacturer:	IBM and Dell
Model:	xSeries and PowerEdge
Operating System:	Windows Server 2003
RDBMS:	Microsoft SQL Server 2000
Number of Processors per server:	4 (Dual-core)
RAM:	32 GB RAM
Storage:	2 Terabytes

Reasons for Success & Benefits:

- Flexible data model
- Robust highly accurate probabalistic algorithm
- High performance scalable solution
- Configurable threshold triggers
- Dynamic review of data content
- Ability to evaluate system performance ongoing
- Functions as a real time service