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**Enabling Healthcare Transformation**

Initiate Systems, Inc. an IBM Company  
EMPI Solutions  
Patient, Provider, Citizen & Organization Registries

*Foundational Component of Healthcare Information Exchange, Master Citizen Index, and Fraud Prevention*



# Initiate Software Components Defined

## Initiate<sup>®</sup> MASTER DATA SERVICE<sup>®</sup> PLATFORM

### Initiate<sup>®</sup> INSPECTOR<sup>™</sup>



Issue Resolution



Hierarchy/  
Relationship  
Management



Central Data  
Store

### Initiate<sup>®</sup> DATA HUBS



Provider



Organization



Patient

### Initiate<sup>®</sup> MASTER DATA SERVICE<sup>®</sup>



Master Data  
Engine



Configuration &  
Administration



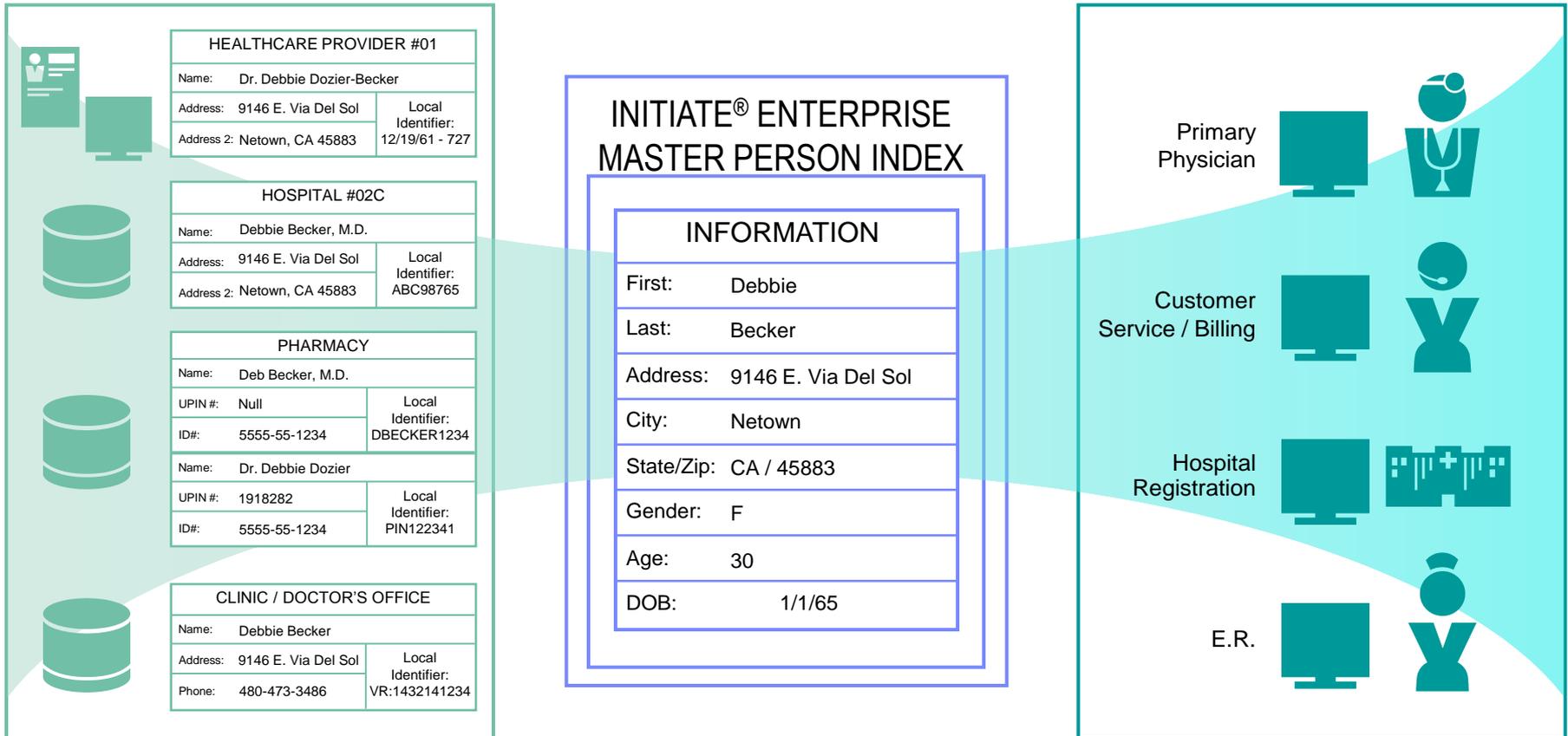
Integration

# Create Authoritative “Trusted Golden Record” for Citizens of Virginia



Name	NPI	DOB	SSN	Sex	Address 1	Zip Code	Phone	IRS TIN#
Dr Deb Becker-Smith	1821125561			Female	19456 Madison Ave	60606	312-334-1012	
Dr. Debra Smith	1821125661	06/02/1964	491-68-4511	Male	PO BOX 17334	60656	312-334-2204	491-68-4511
Deborah Becker	1821125661	06021964	491-86-4511	Female	43776 Maison Blanc Square	60054	773-441-4456	454-76-1211
Debbie Becker	1821125661	02-06-64	491-86-4511	Female	19456 Madison, Suite 207	60606	312-334-1012	454-76-1211
Dr. Deborah Becker	1821125661	06-02-1964	491-86-4511	Female	19456 Madison Ave, Suite 207	60606	312-334-1012	454-76-1211

# Initiate® Patient creates a single view of Patient / Beneficiary



*Initiate® delivers higher quality information into healthcare enterprise business processes driving informed decisions, increased efficiencies & reduced costs*

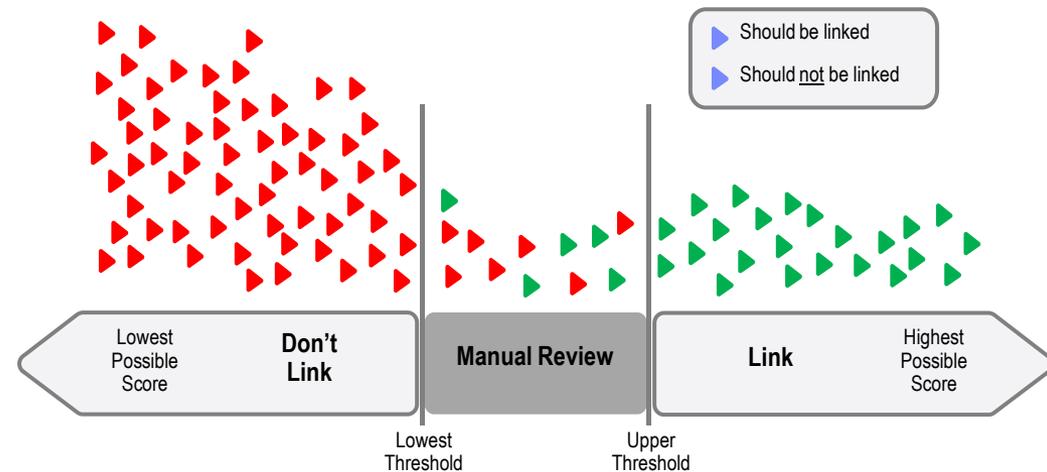
# Probabilistic Algorithm Approach Delivers Superior Accuracy

**Gartner**

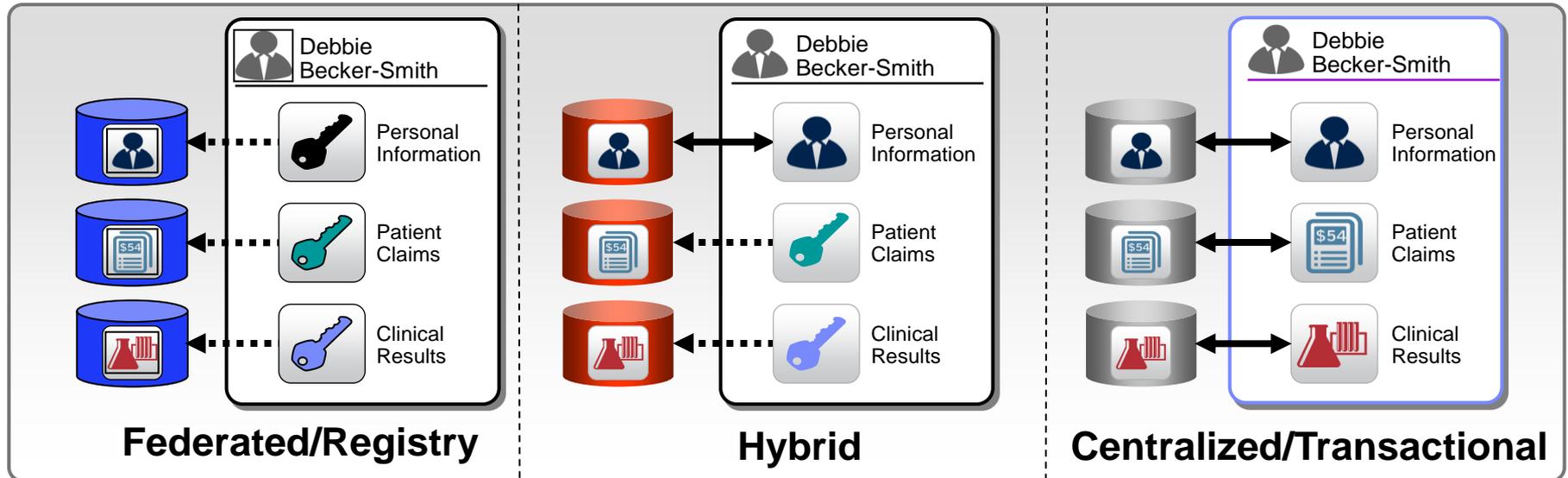
*“Intelligent matching so superior... it has established a new baseline against which matching performance must be judged.”*

- Bases weights on actual data
- Determines how ‘close’ two values are
- Looks for incorrectly used and ‘overloaded’ columns
- Recognizes equivalencies and anonymous values
- Assigns thresholds for clerical review
- ‘Learns’ from human input
- Enables data stewardship

		Matching Decision	
		Match	Don't Match
Truth	Same Member	Correct Decision	False Negative
	Different Member	False Positive	Correct Decision



## Flexible, Non-Invasive Architectural Styles

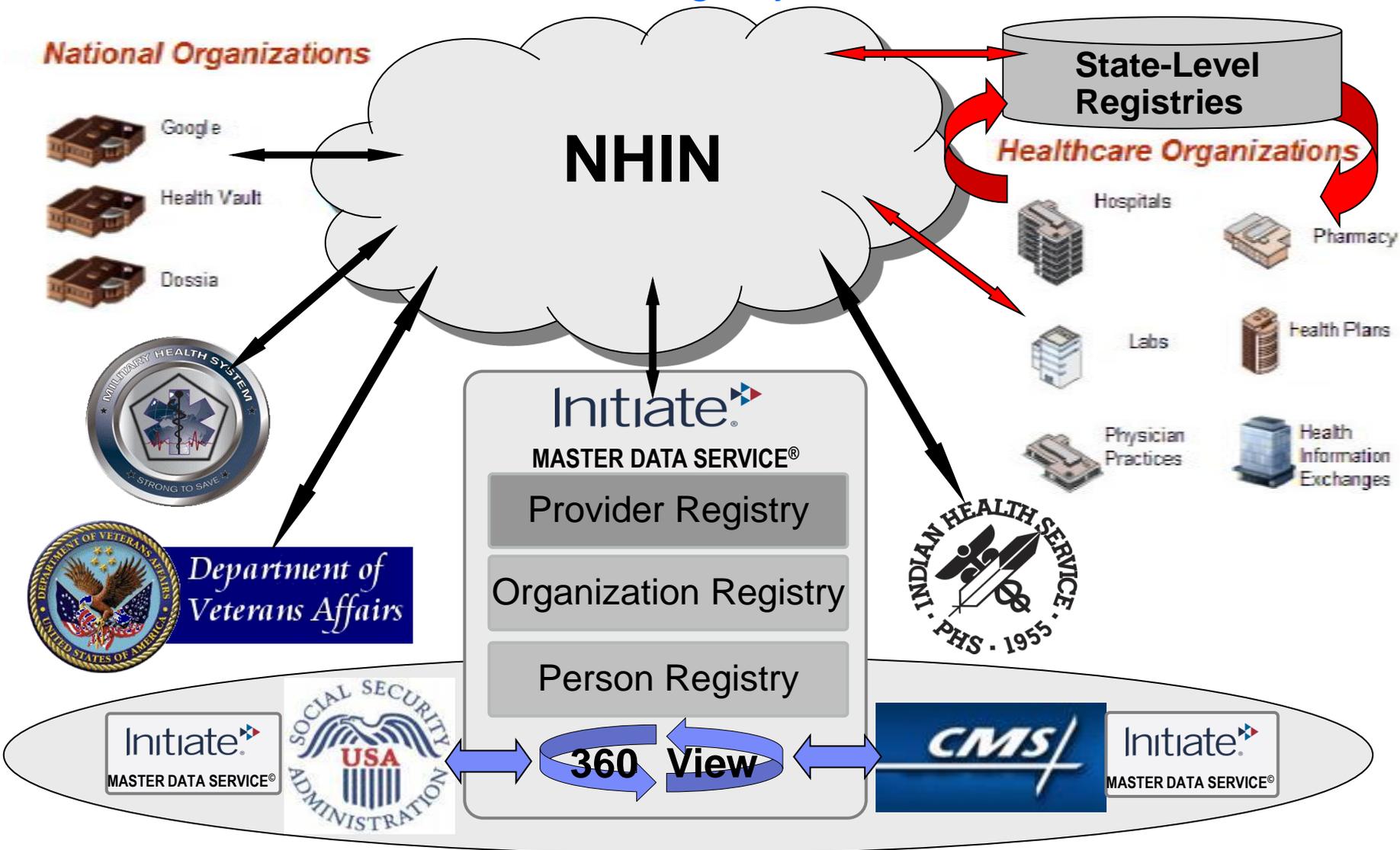


- A **Federated (aka Registry)** deployment model is when ALL data is maintained in the originating source systems and the Initiate Hub acts only as a “**Registry**” for finding and accessing the data.

- This is a combination of both **Centralized & Federated styles**. This is when a sub-set of core data is maintained centrally in the Initiate Hub and the remainder of the data is maintained only in the originating source systems.

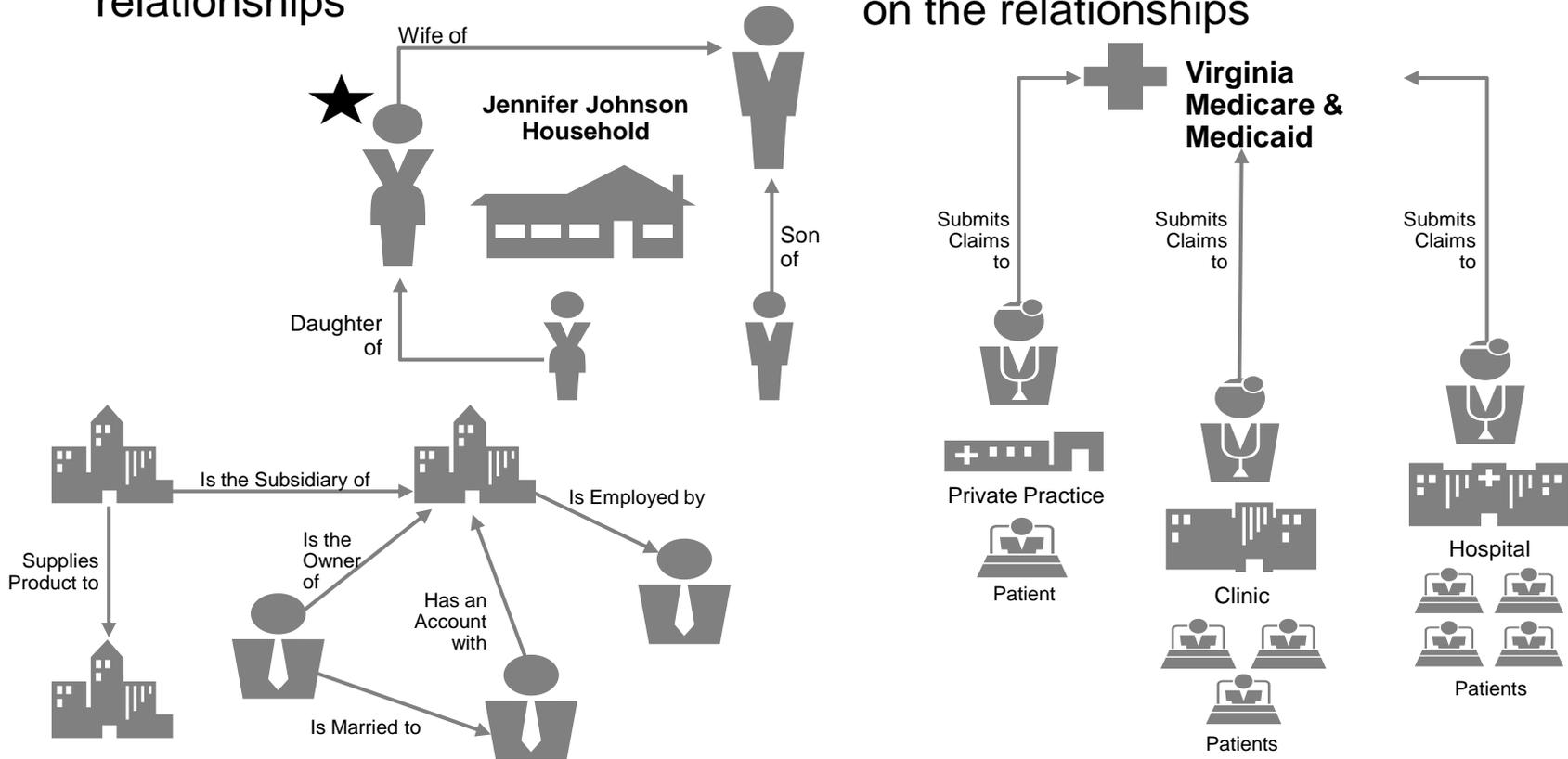
- A **Centralized (aka Transactional)** deployment model is when ALL data from the originating source systems is maintained within the Initiate Hub and managed in a Centralized manner.

# Unified National-Level NHIN Registry Services



# Relationships and “Non-Obvious” Relationships

- Model relationships you encounter in real world
- Map your data against those relationships
- Identify, resolve, manage and maintain relationships within your data
- Visualize, export, consume and act on the relationships

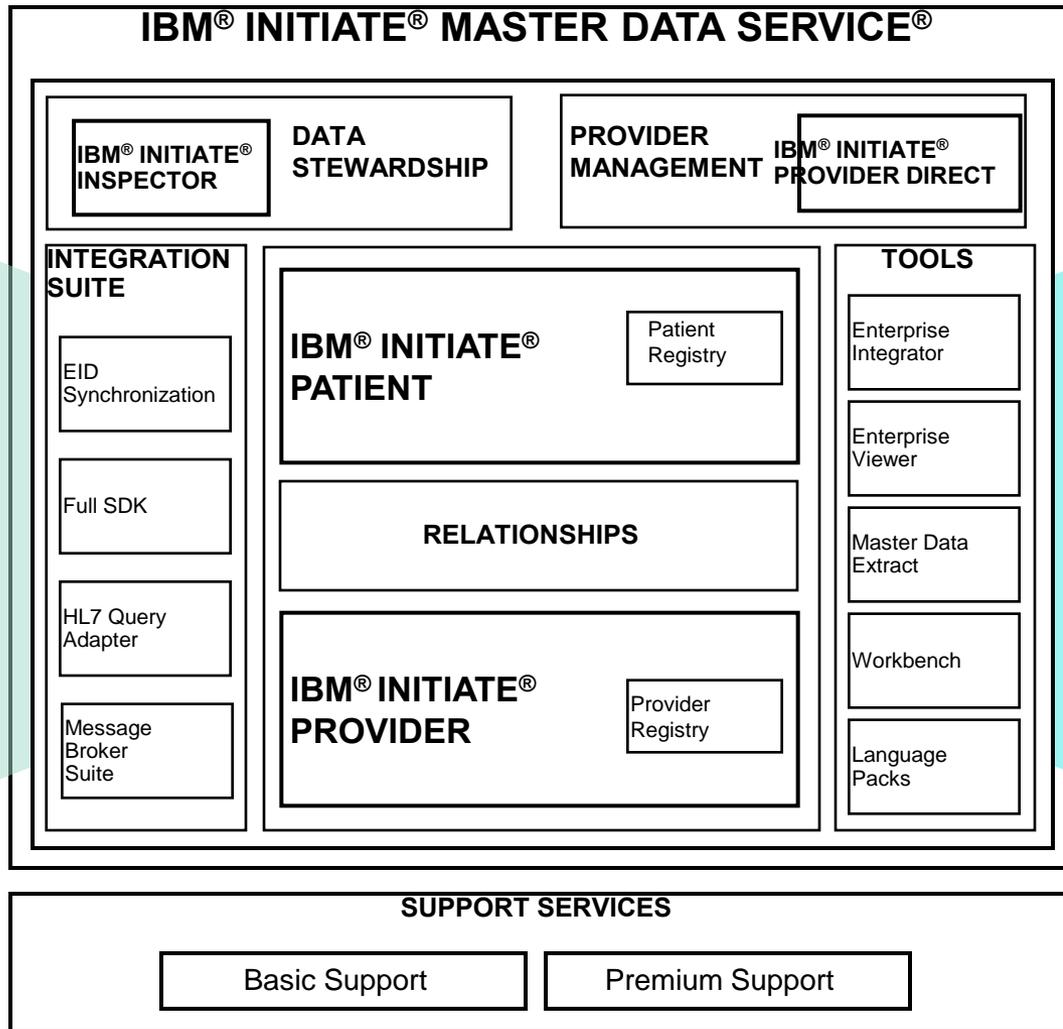


*Understand Relationships within SSA Data to Increase Understanding of Relationships Between Patients, Providers, and HIE Organizations to Improve Disability Determination Process, Enhance Fraud Detection, and Improve Risk Management & Regulatory Compliance*

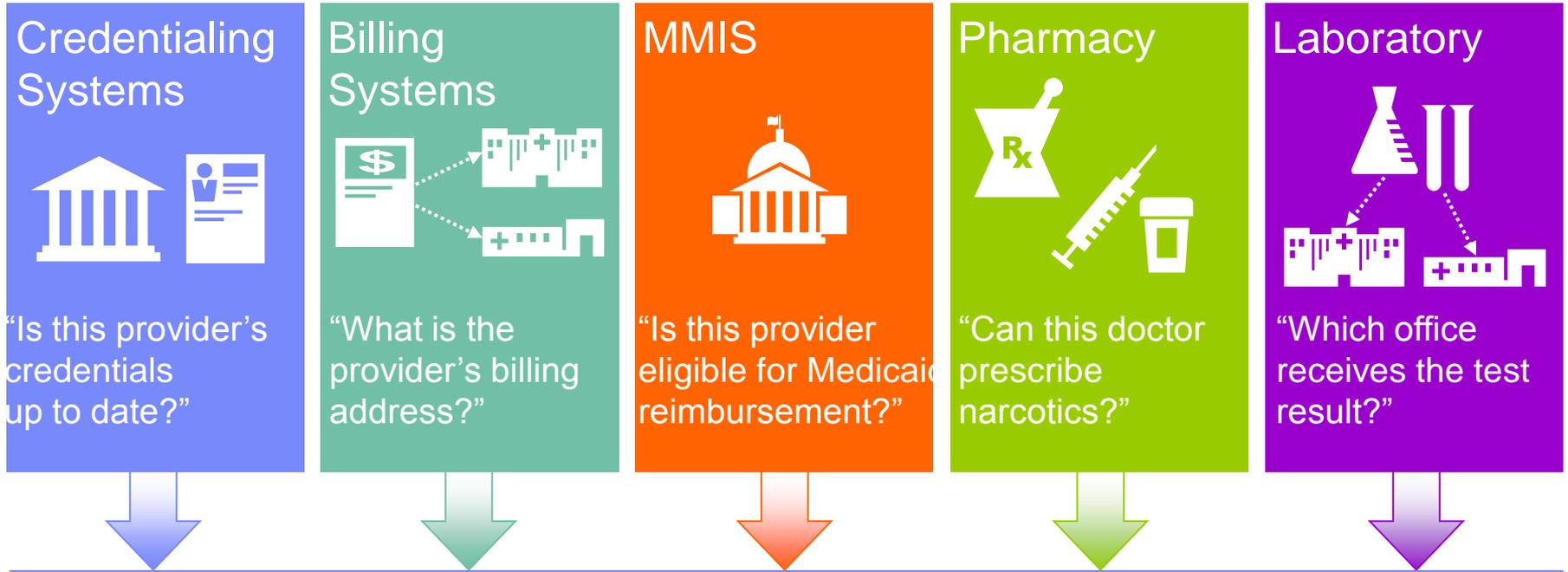
# Let's Build A Smarter Planet: Connecting Providers for Meaningful Exchange



# The IBM Initiate solution set



# Accurate provider data is critical to daily operations and strategic initiatives



A trusted, unified view of a provider helps address operational challenges and is vital to controlling costs & improving workflow

## Incorrect provider data is costly...

# 26 billion

Cost of incorrect provider data to US healthcare system in each years due to

- Returned mail costs and delayed payments
- Loss of patient referrals from dissatisfied providers
- Locating and fixing incorrect and duplicate records across systems
- Regulatory compliance fines

# 7.3%

Number of providers who failed to update expired license information

# 3%

Providers facing disciplinary charges or have had privileges revoked

# 30%

Number of physicians which change affiliations with each year

New insurance networks  
Hospital networks  
Multiple clinic locations

# There is a need to manage different provider types

## Most common provider registry entries...

### People



**Physicians**

(Staff & Non-affiliated)



**Nurses**

### Organizations



**Medical Practices**



**Hospitals**



**Clinics**



**Labs**



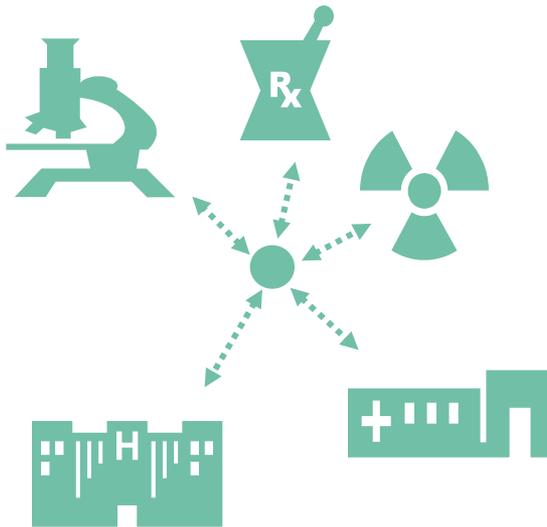
**Medical Suppliers**



**Pharmacies**

(Retail & Mail Order)

## Public and private HIEs need to enable cross boundary exchange



- The process of on-boarding new, affiliated and referring physicians can be inefficient and erroneous. An abundance of information exists, but administrators do not have trusted information available in an accessible and secure location.
- Health systems need to give community physicians access to an accurate index of health network specialists and facilities that are authorized and available to perform the service a patient needs.
- Provider source systems are closed – additional information about electronic exchange cannot be stored in these systems
- HIE administrators and IT staff members rely on manual communication of new and updated provider information today

## What is a Provider Registry?

**Single point of collection for distributed provider data**

**Understands individual practitioners and organization providers**

**Delivers a comprehensive, single view of those providers to users or systems**

**Maintains historical information from individual data sources**

**Allows for access & use of data by a variety of applications**

## Smart is: Creating a master provider registry as source of truth

### IBM® Initiate® Provider

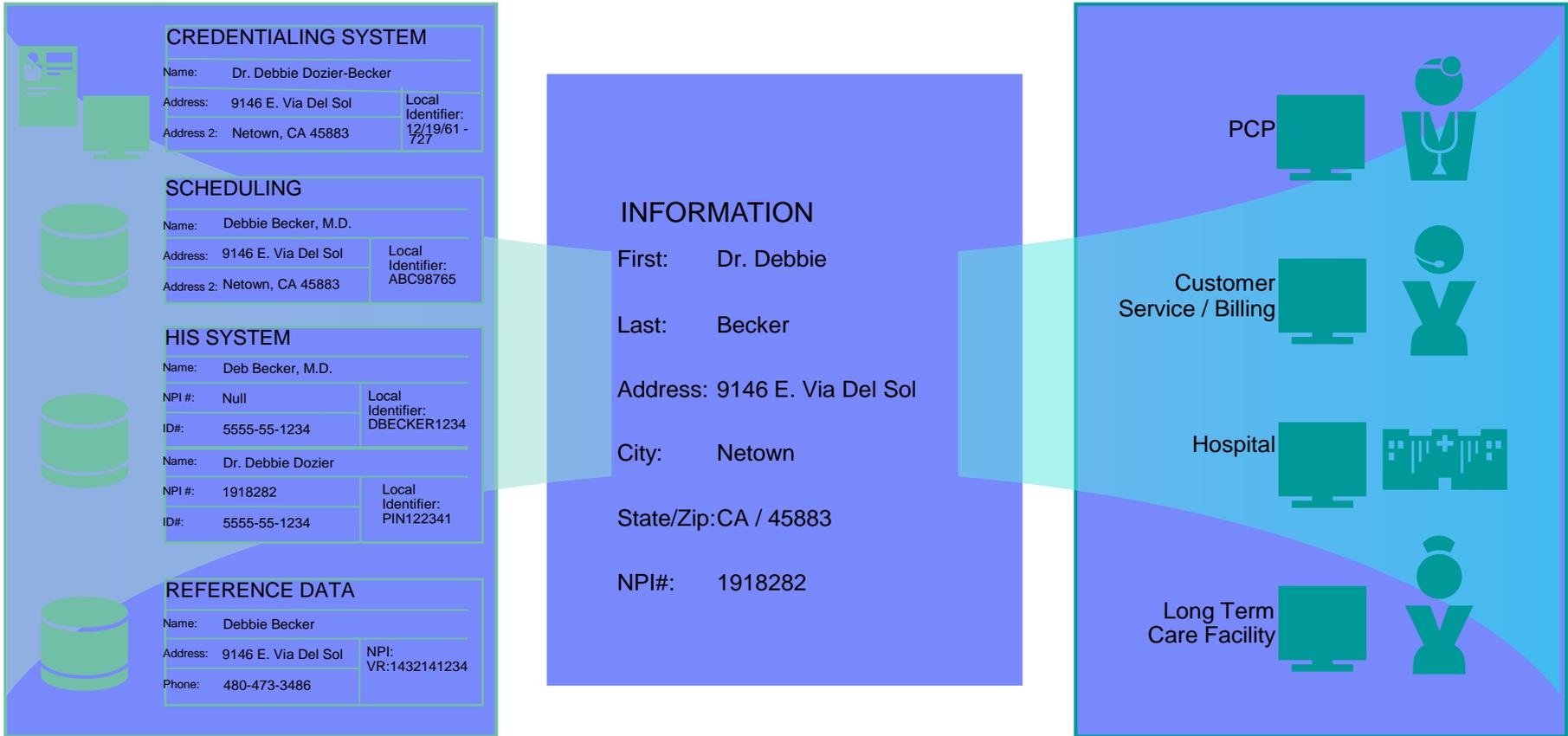
- Establish a master provider registry
- Locate and link same provider records across systems
- Create relationships across providers, patients and organizations
- Automatically resolve provider data issues with custom business rules
- Manually assign issues for resolution with robust data stewardship tools
- Capture detailed communications preferences
- Manage acute and ambulatory providers



### Benefits:

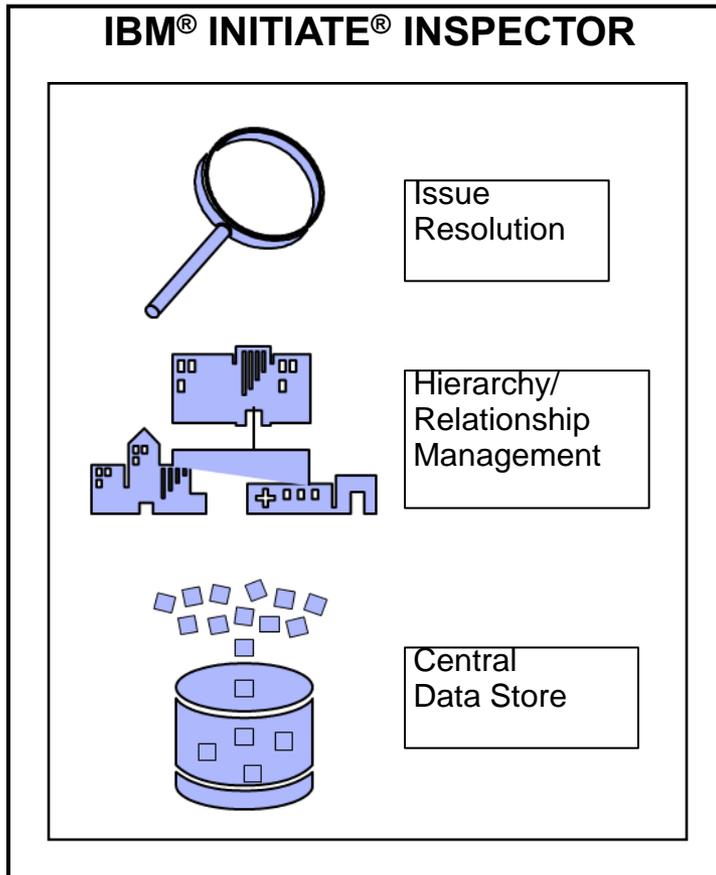
- Lower cost to manage provider data
- Fix incomplete and duplicate provider records
- Keep provider data up to date across systems
- Manage provider and patient data on single infrastructure
- Increase provider loyalty with consistent communication
- Enable results to be routed to the correct provider

# Smart is: Locate & share provider data across systems



*Increase efficiency & reduce cost of locating information*

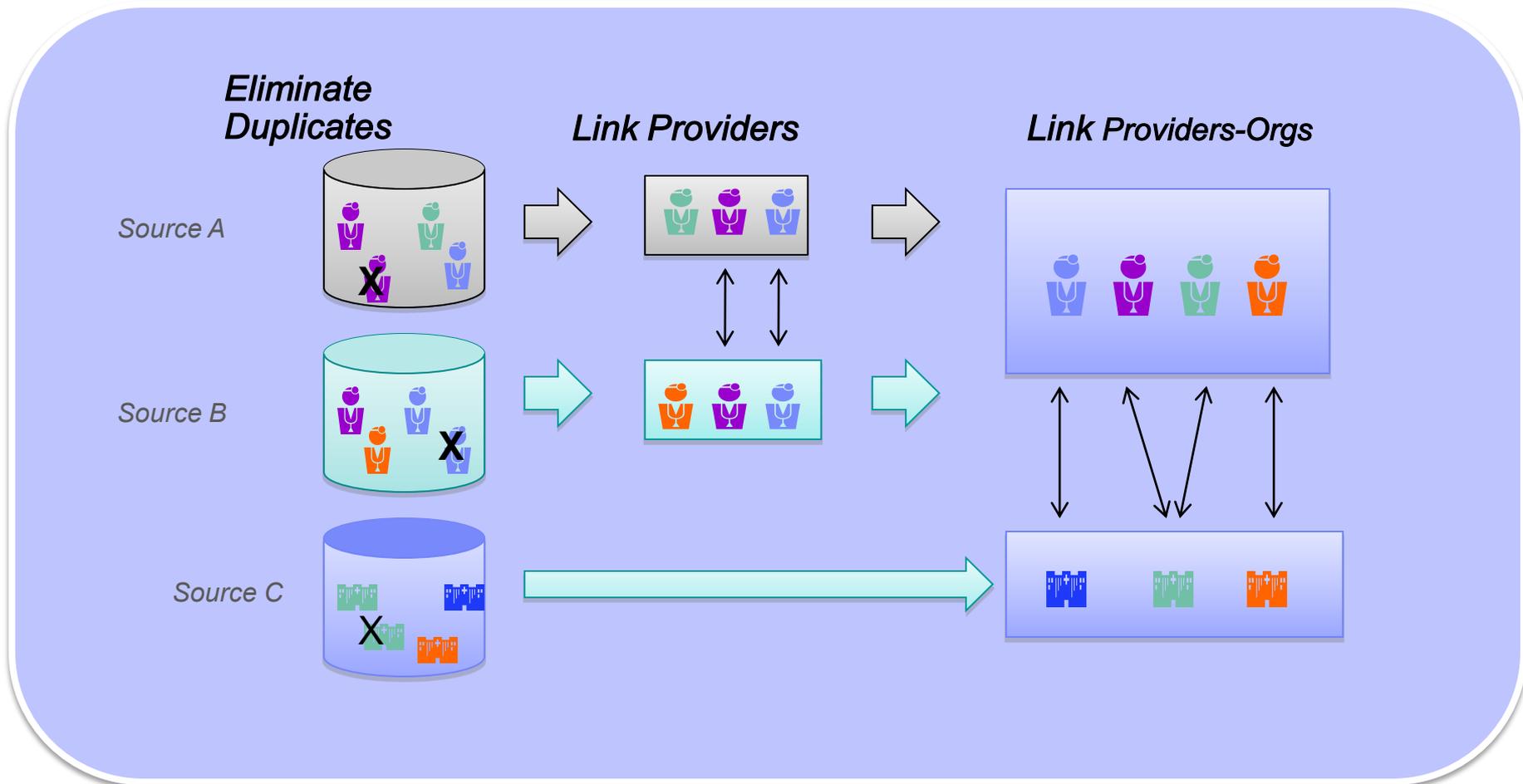
## Smart is: Using data resolution tools to remediate inconsistencies exposed by the match process



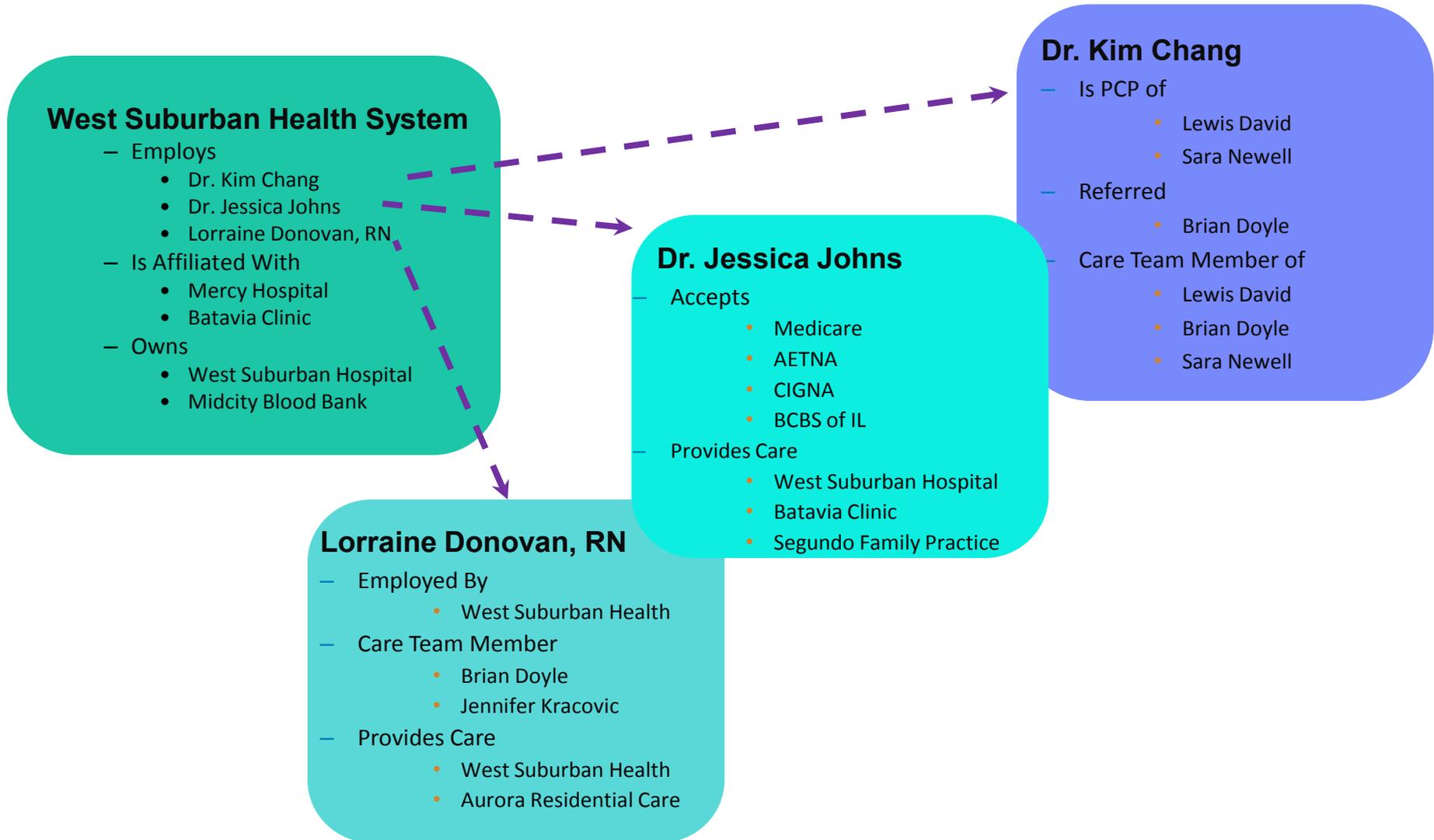
*Alerts data stewards to potential data quality and relationship issues delivering the ability to collaboratively inspect data, visualize relationships and resolve issues*

- Inspect and resolve data quality issues
- Resolve duplicates within same source
- Manually link records across multiple systems
- Visualize and manage relationships
- Centralize and leverage data across the enterprise...with a single tool

# IBM recommends: Robust matching technologies and data stewardship tools are required



# Relationships between Providers, Organizations & Patients



## Smart is: An expanded and flexible data model

### Individual – Physicians, Clinicians, Hospitalists

<b>Personal</b>	<ul style="list-style-type: none"><li>▪ First Name, Last Name, Title</li><li>▪ Gender</li><li>▪ Languages Spoken</li><li>▪ Emergency contact info</li></ul>
<b>Locations</b> (Name, Address, Phone, Fax, Email (DIRECT address))	<ul style="list-style-type: none"><li>▪ Primary Location</li><li>▪ Billing Location</li><li>▪ Business Location</li><li>▪ Alternate Location</li><li>▪ Electronic Data Delivery Preference for each location</li></ul>
<b>Profile</b>	<ul style="list-style-type: none"><li>▪ Status (Active/Retired/Deceased)</li><li>▪ Specialties (One to many)</li><li>▪ Role (Physician, RPN, Academic Staff)</li><li>▪ Accepting New Patients? Y/N</li><li>▪ Additional Custom Attributes (Med School, Degree Date)</li></ul>
<b>Credentials</b>	<ul style="list-style-type: none"><li>▪ UPIN, NPI, DEA ID, Medicare ID, Medicaid ID</li><li>▪ State Licensing Info, Exp Date, Status, Renewal Date</li><li>▪ Internal IDs (Such as Meditech, ECHO, etc.)</li></ul>
<b>Relationships</b>	<ul style="list-style-type: none"><li>▪ Affiliated With</li><li>▪ Refers To</li><li>▪ Employed By</li></ul>

## Smart is: An expanded and flexible data model

### Organization – Hospitals, Clinics, Labs, Clinics, Pharmacies

#### Legal Entity Info

- Business Entity Legal Name
- Type
- Status (Active/Inactive)
- Other Known Names
- Business URL
- Specialties

#### Locations

(Name, Address, Phone, Fax, Email)

- Practice/Service Address
- Billing Address
- Mailing Address
- Other Addresses
- Individual Contact Name, Phone & Email for each location
- Electronic Delivery capabilities and web service URL for each location

#### Credentials

- State credentials
- National credentials (NPI, Medicare, Medicaid, DEA ID, Tax ID)
- Internal IDs (Customizable)

#### Relationships

- Affiliated Providers
- Employed Providers
- Referring providers