

# Healthcare Data Interoperability

*Presenters*

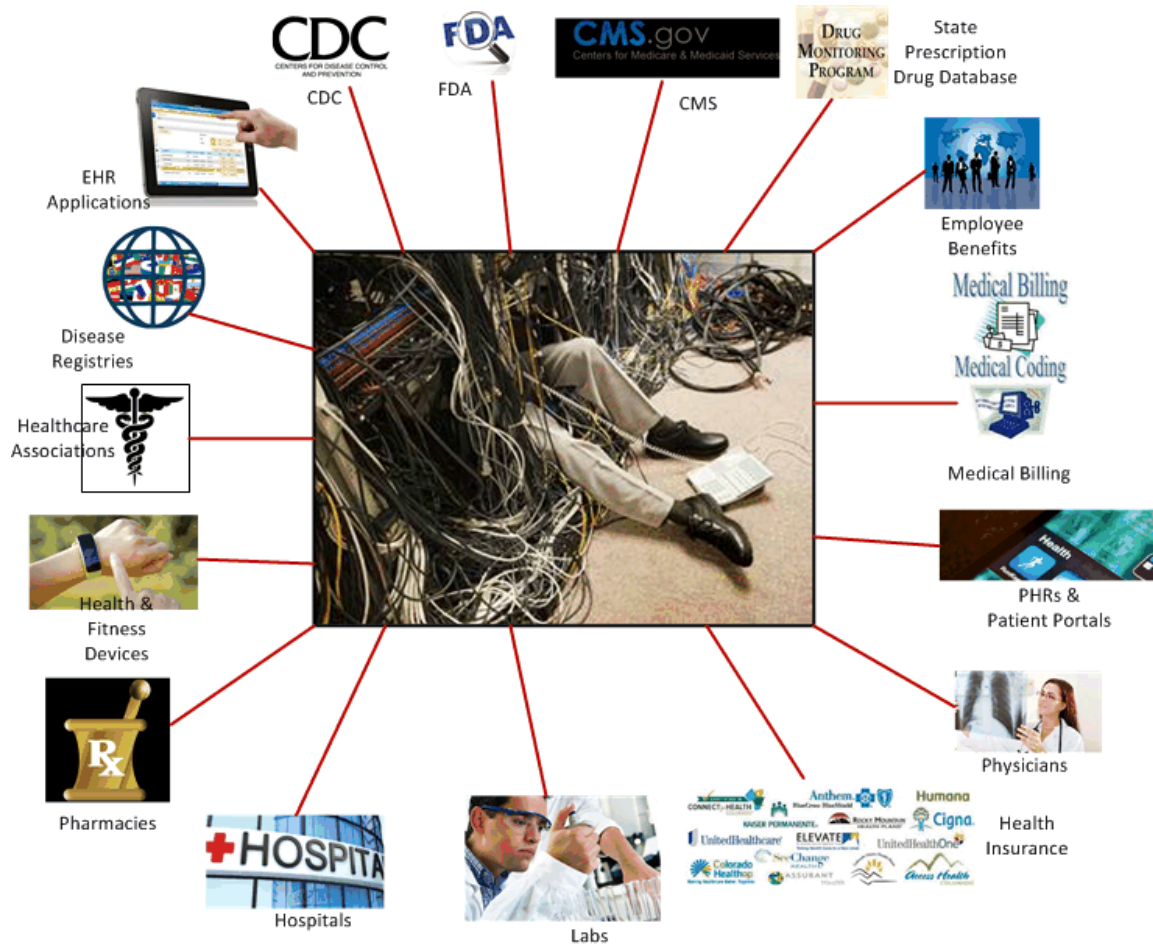
**Latif Khalil – Chief Technology Officer, JBS International, Inc.**

**Vijay Shah – Deputy Director, Health IT Solutions, JBS International, Inc.**

*May 2016*



# Interoperability



- Data representation within each system is different
- Each type of communication between two systems requires a unique translation
- As the number of systems increases, the complexity of the solution quickly becomes unmanageable

# Lack of Interoperability – Impacts



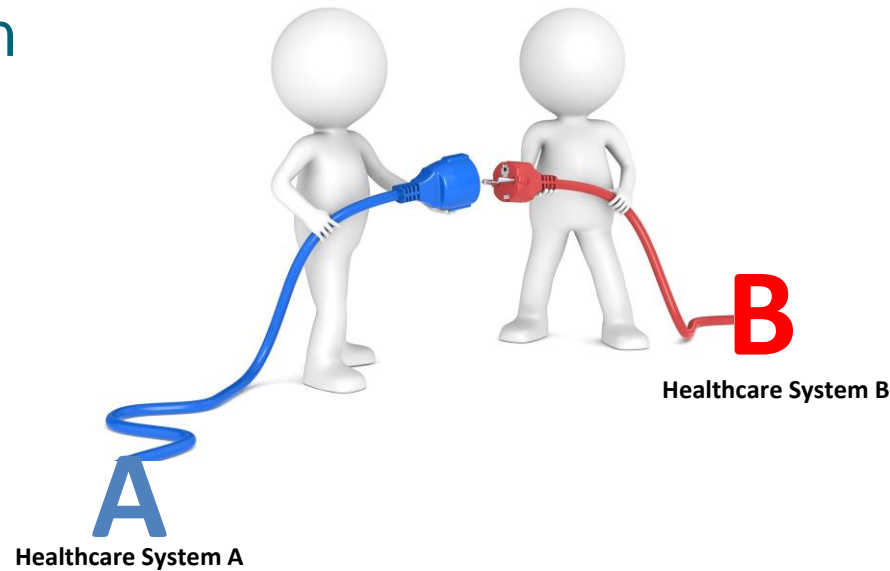
- Wide range of impacts including increase in cost, data errors, poor quality of care, and threat to public health
- Lack of interoperability:
  - Causes delays in reporting of infectious and chronic diseases, such as Ebola, Zika, and Cancer
  - Is one of the reasons why opioid abuse is difficult to control

# Solution Approach – Standards



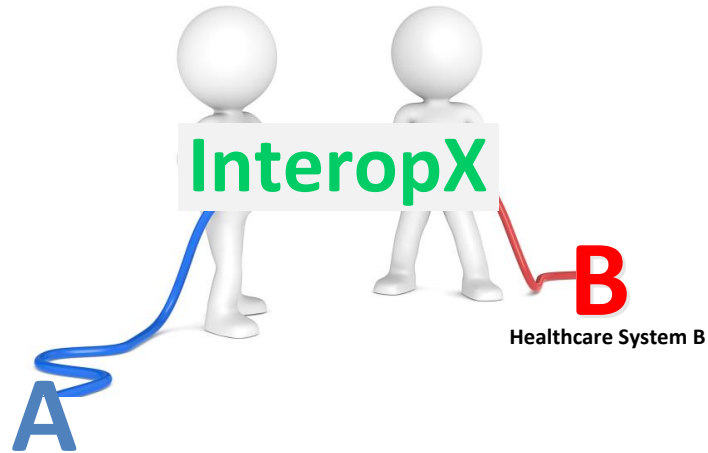
- Standards that describe the data in motion are central to solving interoperability:
  - System A and System B could continue to use dissimilar data formats but when communicating with each other, they adhere to standard data format
  - This approach scales to a large number of interconnected systems

# Implementation



- Think of two systems, System A and System B, connected through a wire
- To make these systems interoperable by adhering to a common and standard data format, we must change the two systems
- To minimize the changes on System A and System B, **we need to make the “wire” more intelligent**

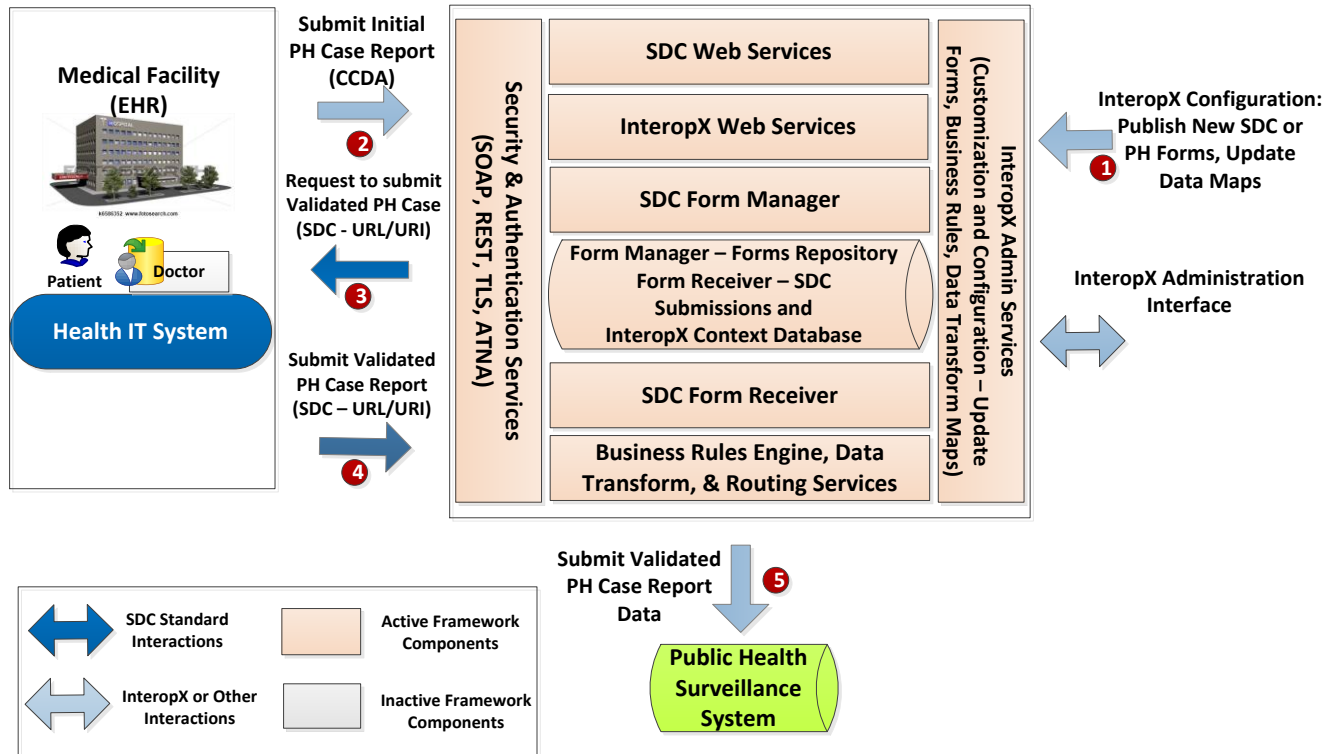
# InteropX – The Intelligent Wire



- Features of InteropX:
  - Supports multiple competing standards
  - Transforms an arbitrary data format into another
  - Includes security features — authentication, digital signature, auditing
  - Includes smart routing — context based and multicast routing
  - Has guaranteed delivery — synchronous/asynchronous response
  - Is extensible to multiple use cases

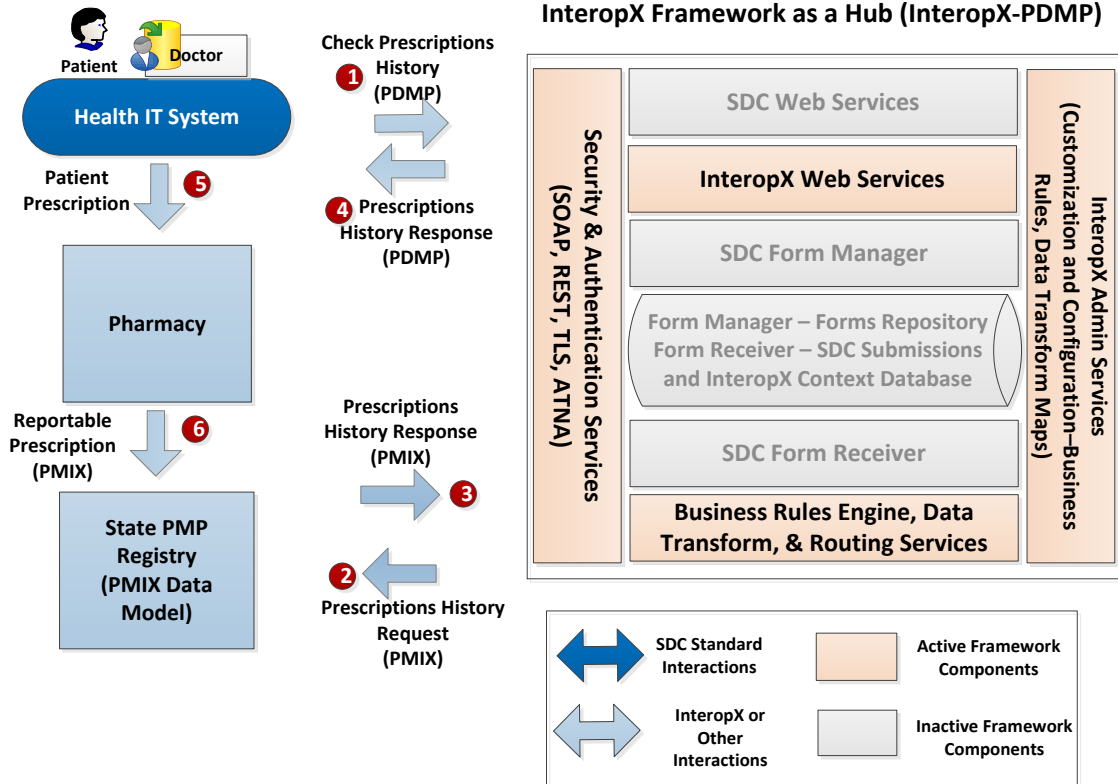
# Public Health Case Reporting – Jane Smith Case

## InteropX Framework–Public Health Case Reporting (InteropX-PHR)



1. InteropX receives the updated Zika virus reporting form from public health agency
2. Provider needs to report Zika virus infection and submit relevant information to InteropX
3. InteropX verifies the information, confirms (using decision support system) that it is a reportable condition, and sends URL information to a partially-filled form
4. Provider uses the URL to access the partially filled form, completes the form, and submits it to InteropX
5. InteropX verifies and validates the content and then submits the case report data to appropriate public health agency

# Prescription Drug Monitoring Program (PDMP)



1. Provider needs to check prescription history of a patient and send a request to InteropX
2. InteropX transforms that request and sends it to State Prescription Drug Monitoring Plan (PMP) registry
3. InteropX receives the requested information from the registry
4. InteropX transforms that information back to original format and sends it back to Provider
5. After verification, provider now writes (or refuses to write) the prescription and sends it to the pharmacy
6. The pharmacy dispenses the medication and shares that prescription information with State PMP for future use



# JBS International, Inc.

- ***A women-owned business with 30 years of experience providing data interoperability, data capture, and content dissemination solutions to the Federal Government.***
  - Office of the National Coordinator for Health IT (ONC)
  - Food and Drug Administration (FDA)
  - The National Institutes of Health (NIH)
  - The Centers for Disease Control and Prevention (CDC)
  - Substance Abuse and Mental Health Services Administration (SAMHSA)
- Healthcare Data Management Proficiencies:
  - Healthcare Data Interoperability
  - Standards-Based Solutions
  - Structured Data Capture (SDC)
  - Content Dissemination and Web Applications

# Questions



**For more Information, visit [www.jbsinternational.com](http://www.jbsinternational.com)**

- *Information Technology Pavilion Booth #1201*
  - *Contact:*
    - *Latif Khalil ([lkhalil@jbsinternational.com](mailto:lkhalil@jbsinternational.com))*
    - *Vijay Shah ([vshah@jbsinternational.com](mailto:vshah@jbsinternational.com))*
- *Professional Services Pavilion Booth #1639*
  - *Contact:*
    - *Jennifer Kasten ([jkasten@jbsinternational.com](mailto:jkasten@jbsinternational.com))*
    - *Susan Hayashi ([shayashi@jbsinternational.com](mailto:shayashi@jbsinternational.com))*