

# Using 3 XDS Affinity Domains at the Connectathon

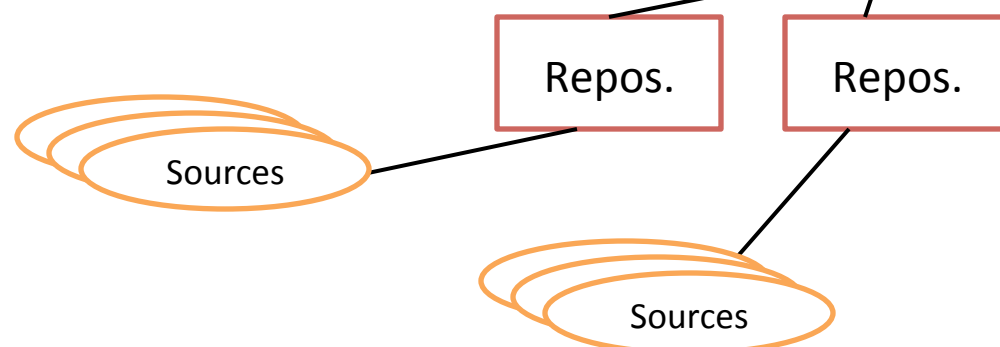
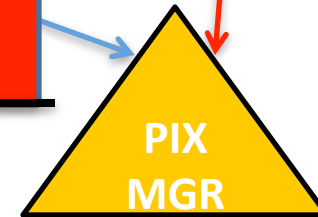
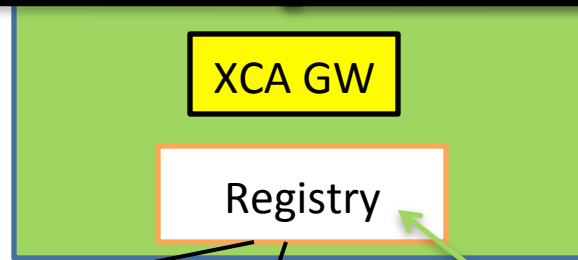
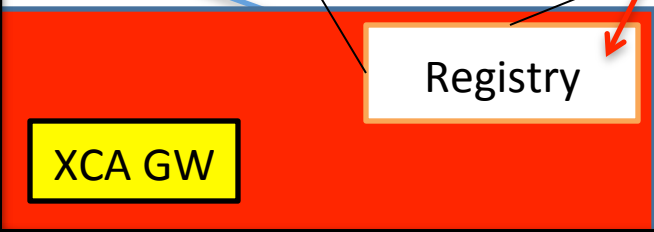
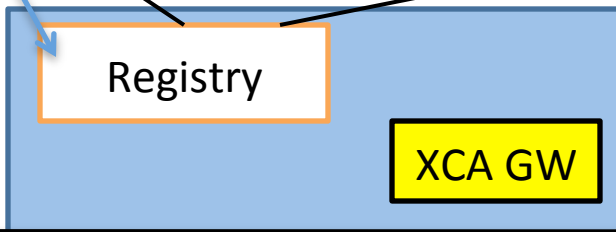
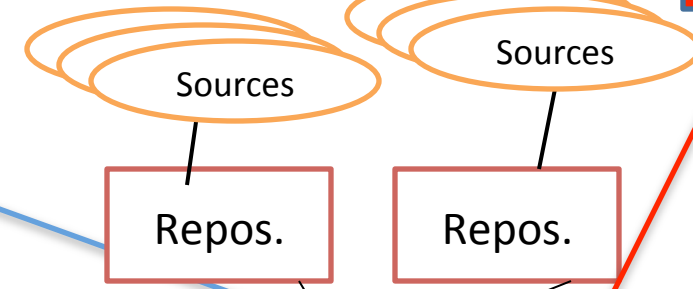
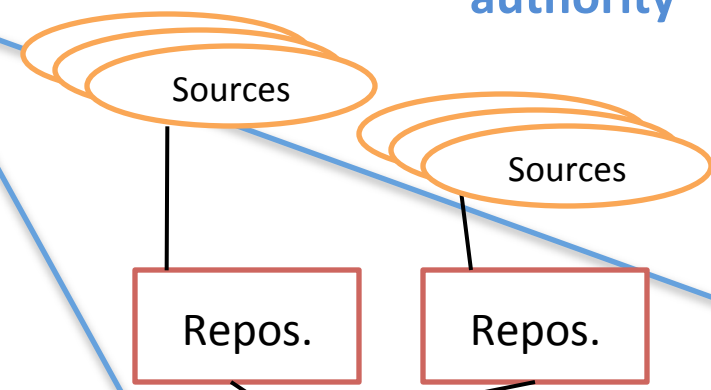
- Prior to the 2010 European connectathon, we chose to test with one Affinity Domain, with one Patient ID assigning authority accepted by all XDS.b Registries.
  - One AD was easier to test (less switching)
  - But this was not as effective for also testing XCA
- Since April-2010 in both Europe and North America, we've had three Affinity Domains for the Connectathon. The world did not end, so we have continued to follow that model.

# Using 3 XDS Affinity Domains at the Connectathon (Part 2)

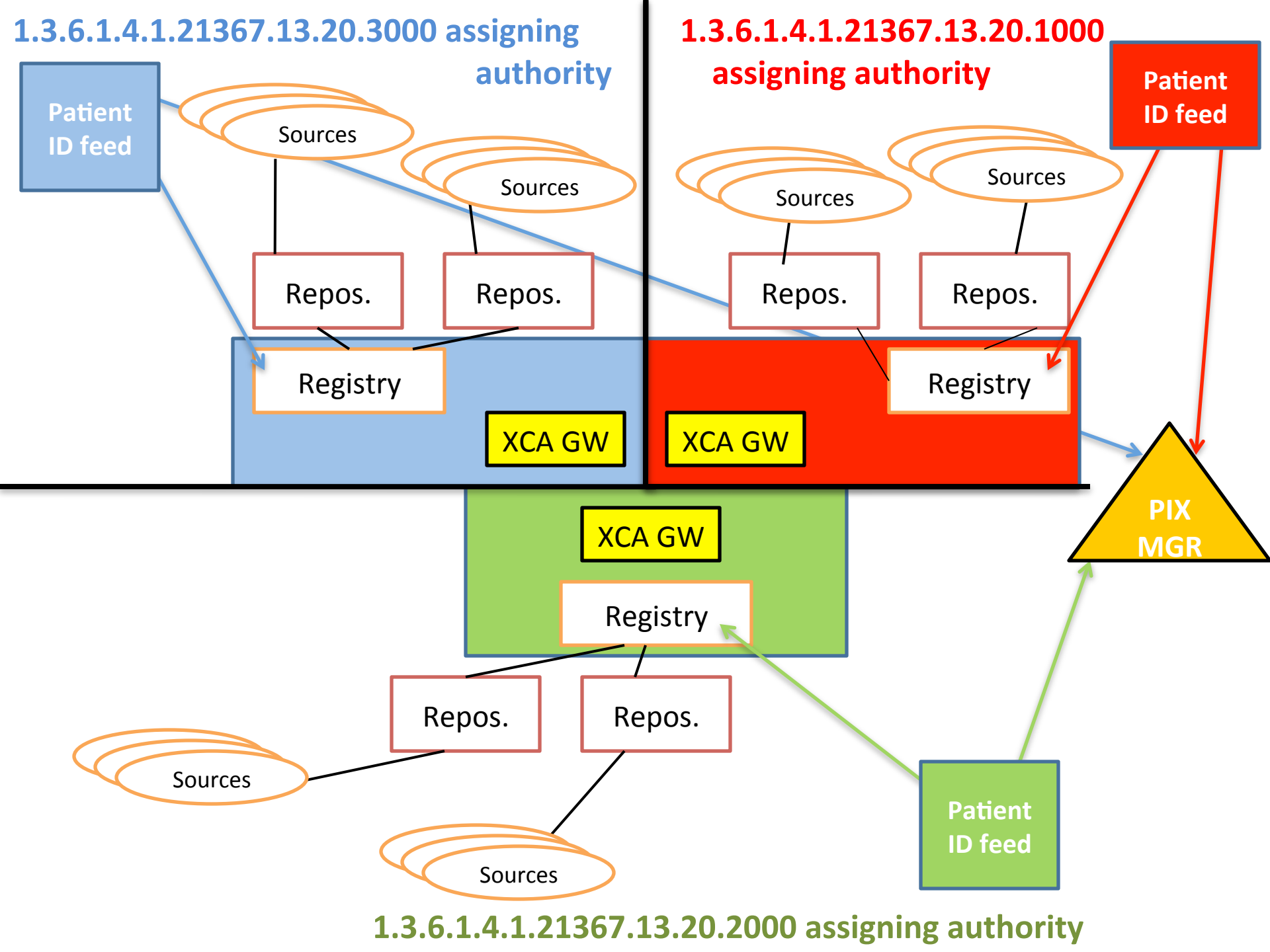
- Each Affinity Domain has its own (different) ‘master’ assigning authority for Patient IDs (eg ...20.1000, ...20.2000, ...20.3000)
- For ease-of-reference, we call these the ‘blue’, ‘red’, and ‘green’ domains
- Each XDS.b Registry and XCA/XCA-I Gateway is assigned to one of these 3 domains **for the week**.
  - The Registry’s Patient ID feed must have the Assigning Authority OID for the Registry’s domain
  - All documents submitted must use the proper Assigning Authority OID in the Patient ID in the document metadata
- Affinity domain codes (from codes.xml in the XDS toolkit) are the **same** across all 3 affinity domains
  - A simplification to ease testing

1.3.6.1.4.1.21367.13.20.3000 assigning authority

1.3.6.1.4.1.21367.13.20.1000 assigning authority



1.3.6.1.4.1.21367.13.20.2000 assigning authority



# Three Assigning Authority - effect on XDS actors

- **XDS.b Registries:**
  - A given Registry is assigned only one of these values. It only accepts Patient Feeds and Documents with Patient IDs from this Assigning Authority. This value remains the same for the whole week.
  - We had ~**30 for NA2013, so ten** of the Registries were assigned to accept a Patient ID with the ...20.1000 value, eight are assigned the ...20.2000 value, etc. A similar model will be followed for other connectathons
- **XDS.b Repositories:**
  - A Repository shouldn't care if it has stored documents for patients with different assigning authority values; the Repository can keep its database and be paired with different Registries during the week with no adverse effect.
- **XDS.b Sources & Consumers / XDS-i.b & XCA-I Img Doc Source & Consumer:**
  - During connectathon week, the burden for keeping track of multiple assigning authority domains lies here.
  - Sources will have to pay close attention to Assigning Authority of the Registry associated with the Doc Repository to which they are submitting a document. The Patient ID in the document metadata must contain the Assigning Authority for your Registry
  - Consumers will have to know the Assigning Authority value of the Registry it is querying.

# Three Assigning Authority – effect on HL7 actors

- **XDS.b Registries:**
  - For tests driven by XDS.b and XDS-I.b, we will use the gazelle patient generation tool to serve as the Patient Identity Source (HL7v2 or v3); it is able to send demographics containing a Patient ID with red, blue, green assigning authority to each Registry.
- **PIX/PIXv3 Managers:**
  - Will receive a feed for all patients created by the Patient Identity Source (gazelle patient generation tool) used for XDS.b testing (including red, blue, green assigning authority values), as well as from vendors' Patient Identity Source actors.
- **PIX/PIXv3 Consumers:**
  - Are already required to specify the affinity domain in their PIX Query; they may optionally specify 'what domain returned', to query a PIX Manager for a Patient ID in the domain they want
- **PDQ/PDQv3 Suppliers:**
  - Many PDQ Suppliers will be able to store & respond to queries for Patient IDs from multiple affinity domains. If yours can only handle IDs from one domain, you can choose to participate in Red, Blue or Green, or the Assigning Authority OID given to you in gazelle..
- **Gazelle patient generation tool:**
  - **\*\*Any\*\*** test system can receive an HL7v2 or v3 feed from this tool
  - More details on a later slide...

# Sample: Assigning Authorities for XDS.b Registry and XCA Gateways

XDS.b Document Registries		Patient ID Assigning Authority to accept in your HL7v2 or v3 feed
<b>ALERT</b>	<b>OTHER_ALERT</b>	1.3.6.1.4.1.21367.13.20.1000
<b>CareEvolution</b>	<b>OTHER_CareEvolution</b>	
	<b>etc..</b>	
<b>Allscripts</b>	<b>OTHER_Allscripts_Helios</b>	1.3.6.1.4.1.21367.13.20.3000
<b>Carefx</b>	<b>XDSb_REG_Carefx</b>	
	<b>etc...</b>	
<b>Axlotl</b>	<b>XDSab_REG_Ax</b>	1.3.6.1.4.1.21367.13.20.2000
<b>CSH</b>	<b>PACS_CSH_0</b>	
	<b>etc...</b>	

**An electronic copy of the Registry & Gateway domain assignments is kept here:**

<http://ihewiki.wustl.edu/wiki/index.php/Image:Three-domain-assigning-authority.xls>

# Connectathon patient demographics (pre-loaded)

- **We distribute patient demographics prior to the connectathon to be pre-loaded on XDS.b Registry, PDQ Supplier and PIX Manager systems**
  - We have 3 sets – **demographics-red**, **demographics-blue**, **demographics-green** that contain name/DOB/addr for these patients, but different ID values for each of the 3 assigning authorities. The PIX Managers should recognize these as the same person.
  - **PIX Managers** load all demographics (red, blue, **and** green)
  - **PDQ Suppliers** load all demographics for their assigning authority (red, **or** blue, **or** green)
  - **XDS.b Registries & XCA Gateways** load all demographics for their assigning authority (red, **or** blue, **or** green).

These demographics will be available in the Gazelle Patient Generation tool. See next slide.

# Patient Demographics (pre-load & on-demand)

## Gazelle Patient Generation & Sharing

- Gazelle's Patient Generation tool will be pre-loaded with demographics that need to be pre-loaded onto the actors identified on the previous slide. This enables connectathon test systems to receive these 'pre-load' demographics via and HL7v2 or v3 feed.
- This tool can also be used to create new & send new patients before and during the connectathon
- This tool is found in gazelle under menu *Connectathon* → *Patient Generation and Sharing*

More info on this tool is here:

<http://na2014.wustl.edu/TechnicalPrep/PatientIDTools.html>



# Multiple domains: XCA, XCA-I & XCPD

- **Initiating and Responding Gateways:**
  - Connectathon Monitors assigned to these profiles will help Gateways “plug in” to this 3-affinity-domain infrastructure
  - Each Gateway is assigned to a Red, Green, or Blue community
  - This **\*\*does not\*\*** mean that your Gateway must interact with an XDS Registry/Repository infrastructure
  - Those Gateways that support the ‘XDS affinity domain’ option can be associated with one of the Red, Green, or Blue XDS Registries
  - Gateways can pre-load patient demographics (previous slides). They can either learn about patients by accepting a Patient ID feed, or they will do it some other non-IHE way.
  - Some Gateways will also support XCPD, and can test this as well

**An electronic copy of the Registry & Gateway domain assignments is kept here:**

<http://ihewiki.wustl.edu/wiki/index.php/Image:Three-domain-assigning-authority.xls>