Overview:
In response to demands from its partners, APHL has deployed an environment that hosts a variety of secure messaging services. The APHL Informatics Messaging Services (AIMS) Hub is a secure, cloud based environment that accelerates the implementation of public health messaging solutions by providing shared services to aid in the transport, validation, translation and routing of electronic data.

Foundation: Route not Read
Since 2009 APHL has maintained a message transport hub service that has the ability to receive, hold, and transmit electronic messages sent from anywhere to anywhere. The RnR Hub service routes electronic messages between the CDC, partner laboratories, and public health agencies.

Benefits: Simplicity and Reliability
Routing messages through AIMS Hub reduces certificate management and message routing tasks for individual trading partners. Each messaging partner updates credentials for a single recipient or poller, rather than maintaining connections to multiple senders and pollers. Once a trading partner is on the AIMS Hub, they can send and receive with any trading partner already on the Hub with minimal effort.

Benefits also include:
- Common architecture and services
- Shareable Open Source architecture
- Centralized processing and message routing
- Monitoring and audit systems
- Reduced message transport complexity
- Reduced data translation and transformation complexity
- Reduced development and support costs
- Flexible capacity technical infrastructure via AWS
- FISMA Moderate compliant applications
- FedRAMP compliant environment
- 5 Year Authentication Certificates
- Vocabulary and HL7 Message Support
- Experience and dedicated Technical Support

Interoperability: Protocols
The AIMS Hub provides interoperability between a variety of transport protocols allowing a sender using one protocol to send data securely to a receiver using another. They include:

- PHINMS
- Direct
- Web Services
- SFTP
- VPN

**Current Use Cases**

To date, APHL’s AIMS Hub has transported more than 400,000 messages. Currently, more than 40 messaging partners route, on average, more than ten thousand messages per month through the AIMS Hub.

- SPHLs involved in the Public Health Laboratory Interoperability Project (PHLIP) use the AIMS Hub to transport Electronic Laboratory Surveillance Messages (ELSM) for Influenza and Vaccine Preventable Diseases to CDC
- The AIMS Hub is used by states to maintain Pandemic Influenza surge capacity to securely exchange electronic test orders and results (ETOR).
- The AIMS Hub supports Meaningful Use secure message transport for Syndromic Surveillance, Immunizations, and Electronic Laboratory Results (ELR).
- The Laboratory Response Network (LRN) uses the AIMS Hub to securely transport messages of possible bioterrorism threats.

**Future: Leveraging Informatics Capability**

APHL and its partners are actively working to enhance the capability of the AIMS Hub and the services offered to foster interoperable health information exchange nationwide.

- APHL Technical Assistance Teams continue to add Public health Laboratories and their partners to the AIMS Hub to send national and regional Disease Surveillance and Electronic Laboratory Reporting data.
- Pilot programs have been initiated with ASTHO, ONC and LIC, involving message routing and Reportable Conditions Alerts.
- The AIMS team is expanding its monitoring and reporting tools to provide an interactive trading partner portal and dashboard.

*For more information on APHL Informatics Messaging Services, including the AIMS Hub please contact: Dari Shirazi, Health Information Technology Manager, at dari.shirazi@aphl.org*