

# Introduction to PHINMS



# Meet the PHINMS Team


- CDC Program Business Steward – Jennifer McGehee
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- PHINMS Team (ICF/CGI Federal Contractors)
  - Sheila Hannon (PHINMS Project Manager)
  - Tavan Jones (PHINMS Product Support and Technical Team Lead)
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  - Carl Marshall (PHINMS Product Support Engineer)
  - Joseph Mai (PHINMS Product Support Engineer)
  - Sunil (Kumar) Nakkerthi (PHINMS Product Engineer)

# What is PHINMS?

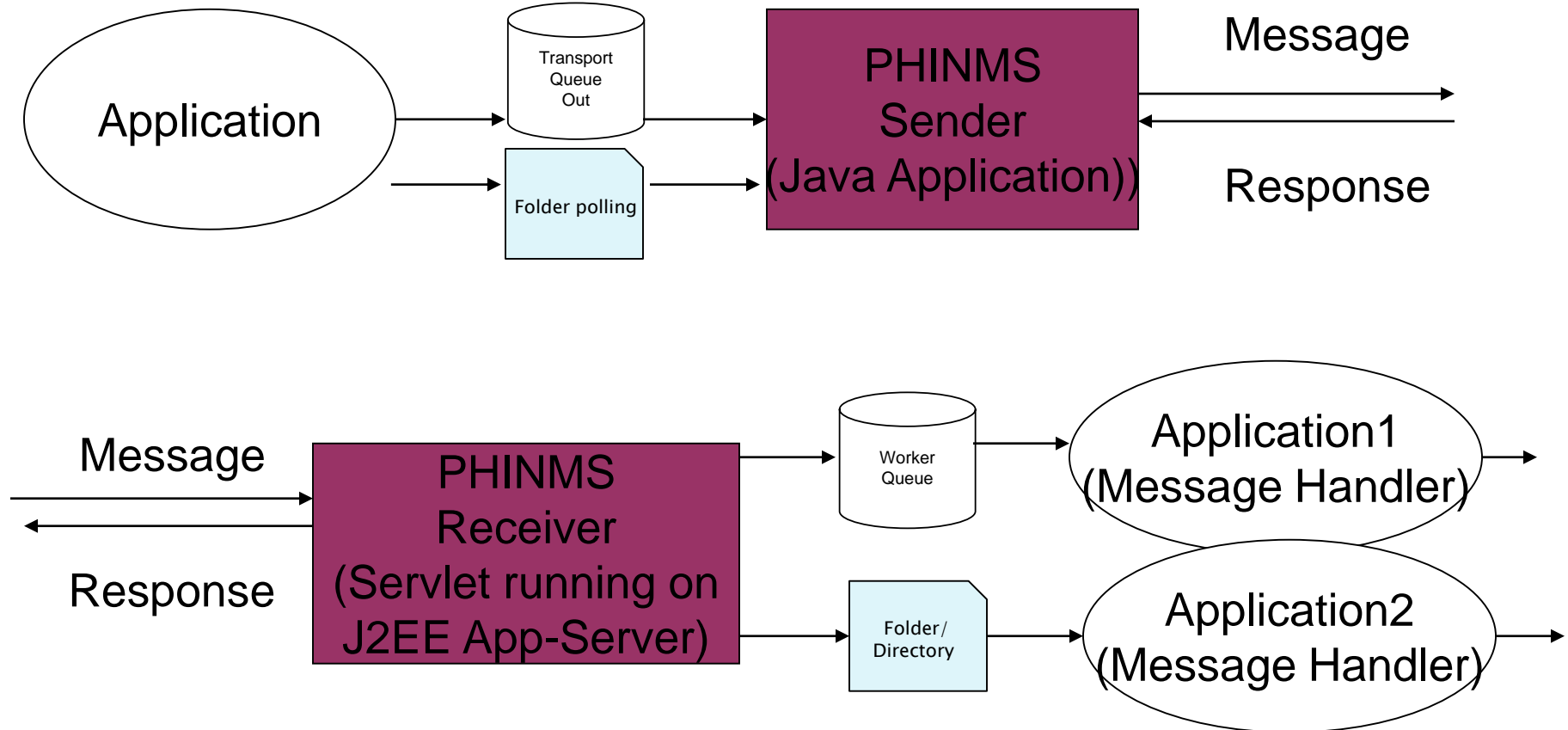
## **Business Perspective**

- Secure, reliable transport of any message(s)
- Common platform for sending PH data
- Applications using PHINMS include: BioSense, PHLIP, LRN, NBS, NND, Cancer, DSNS, etc.
- States using PHINMS internally: NYC, MN, OK, CA, SC, FL
- 12-year old product deemed “mission critical” by CDC

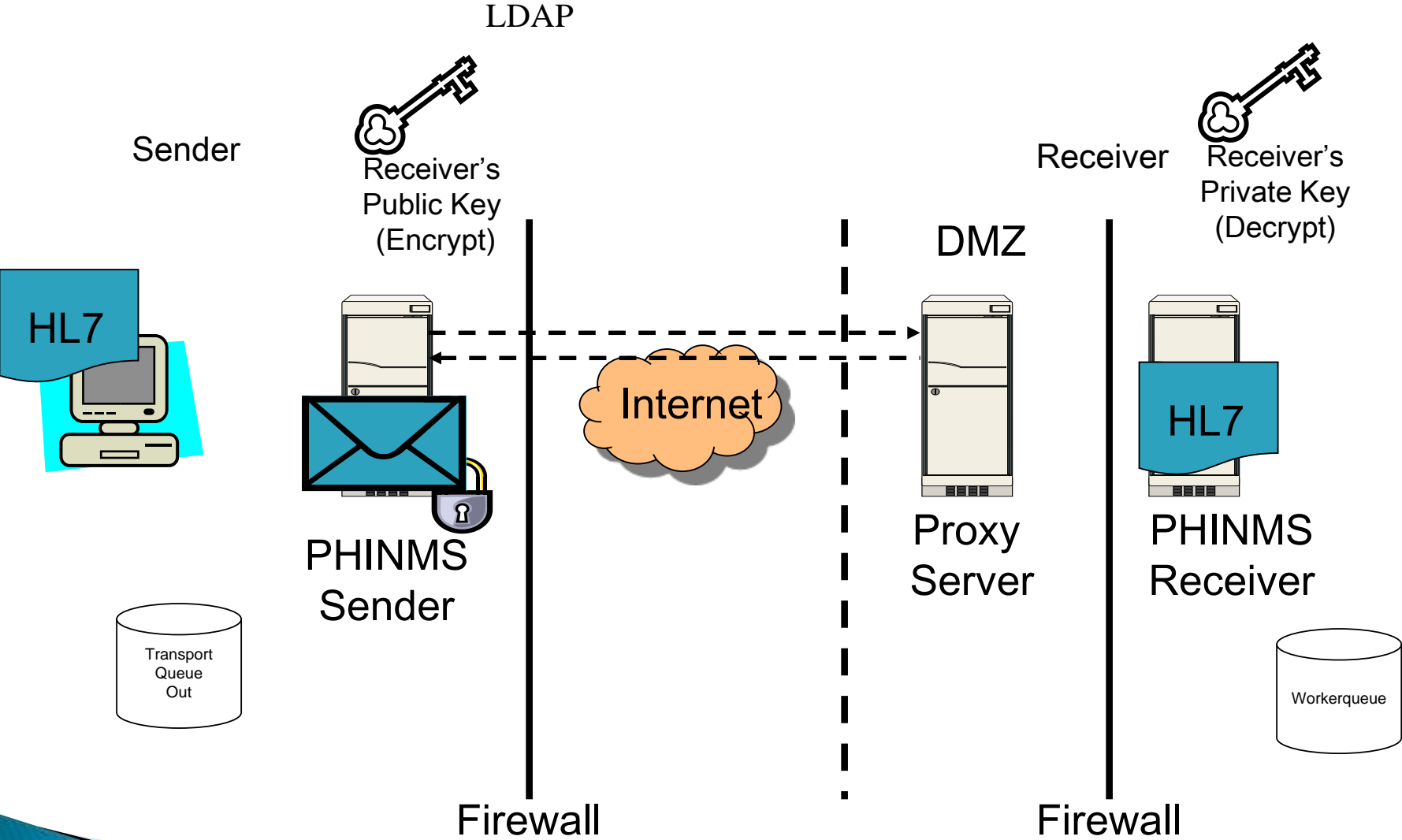
## **Technical Perspective**

- CDC’s implementation of the ebXML 2.0 messaging standards
  - Runs on Windows, Linux, Solaris (platform independent)
  - Can be used by any application that can write to and read from database tables and/or directories
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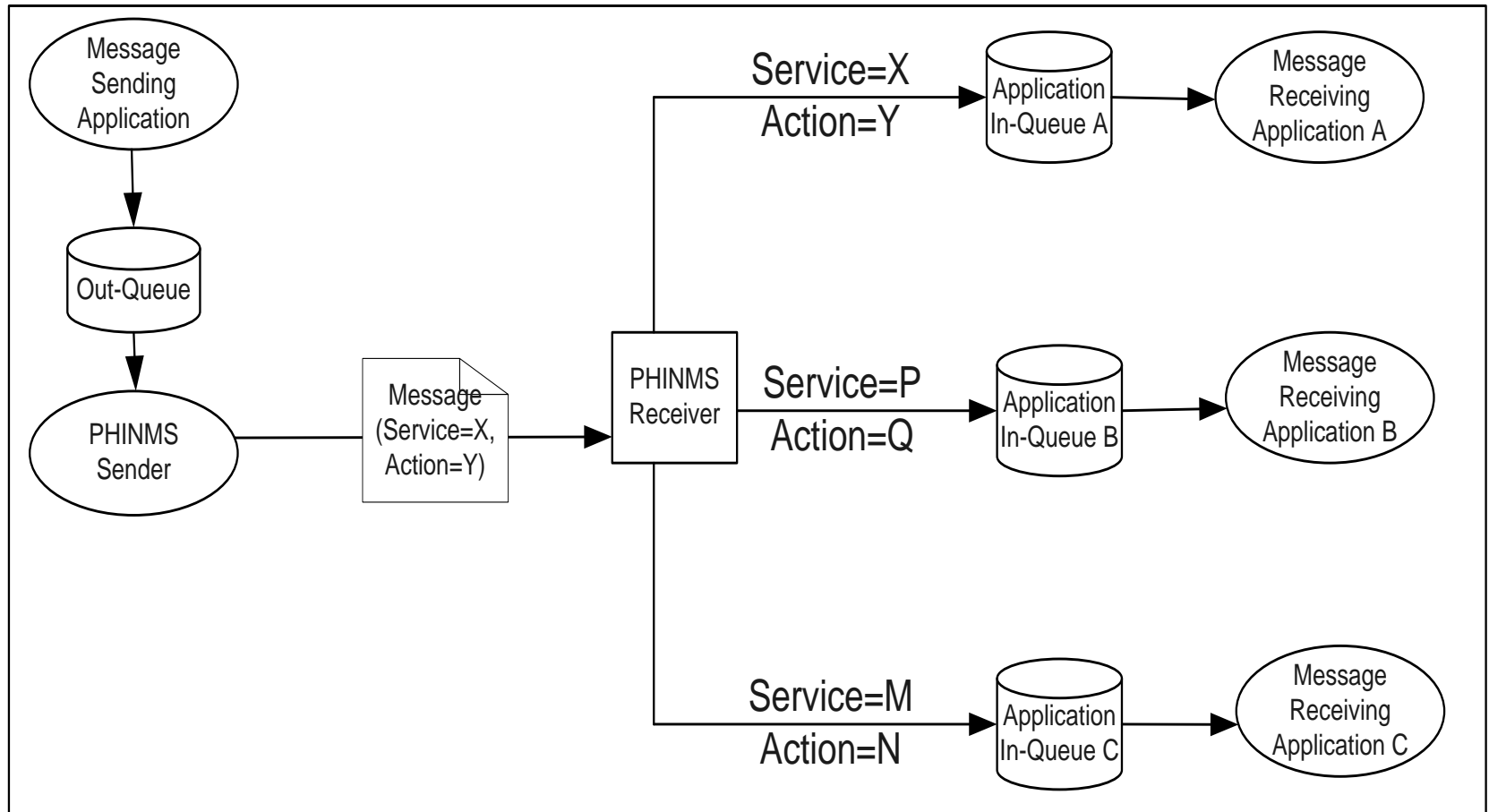
# Functional Components



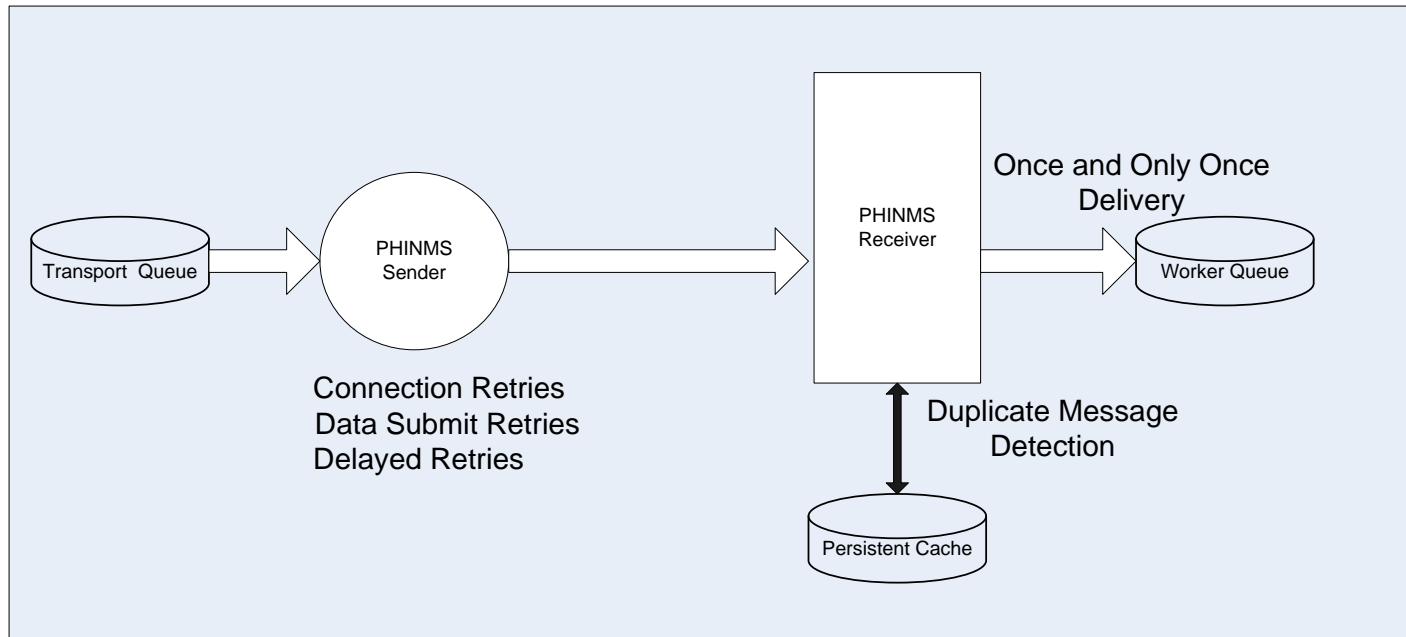
# PHINMS - Message Flow



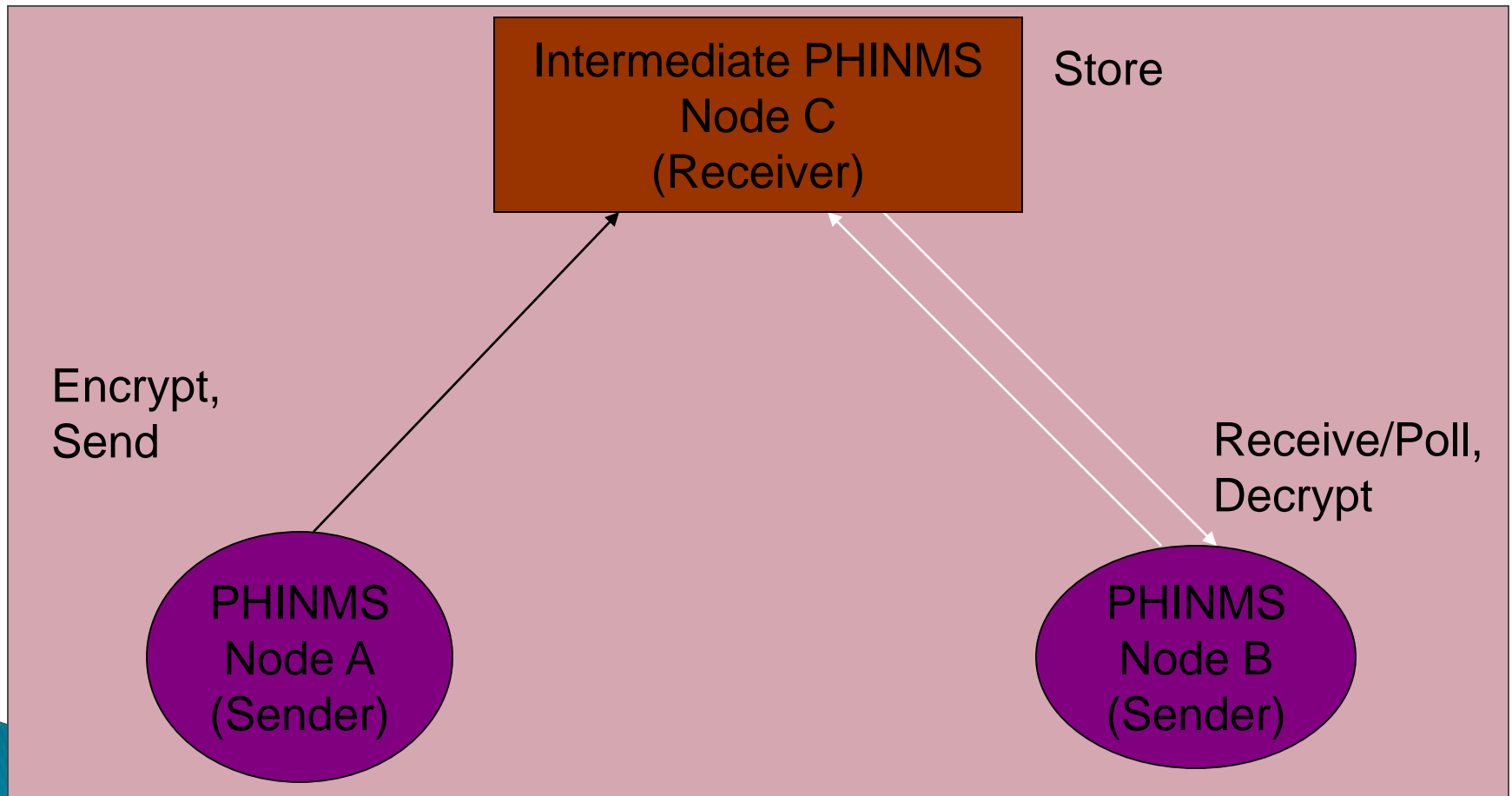
# Routing Incoming Messages



# Reliable Messaging



# What is “Route-not-Read”?

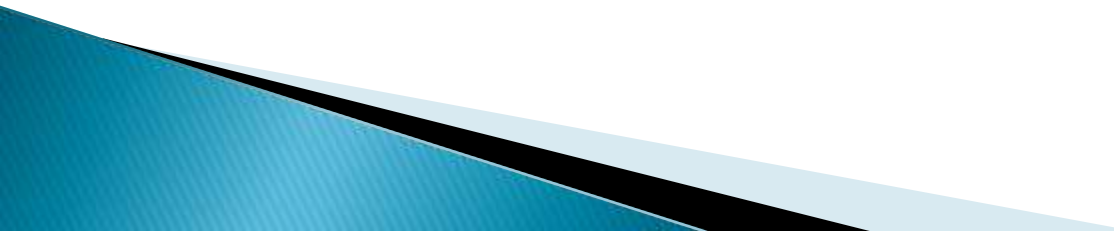




# Comparison of Direct-Send and Route-not-Read

Feature	Direct-Send	Route-not-Read
Scalability	Unlimited	Limited
Reliability	High – provides end-to-end transport status	Medium – provides link-level (not end-to-end) transport status
Single point of failure	None	Yes
Liability for Intermediary Organization (RNR Hub)	None	High
Privacy for Messaging Nodes	Higher	Lower
Deployment Cost	High	Low
Infrastructure Needs	High	Low

# Message Chunking

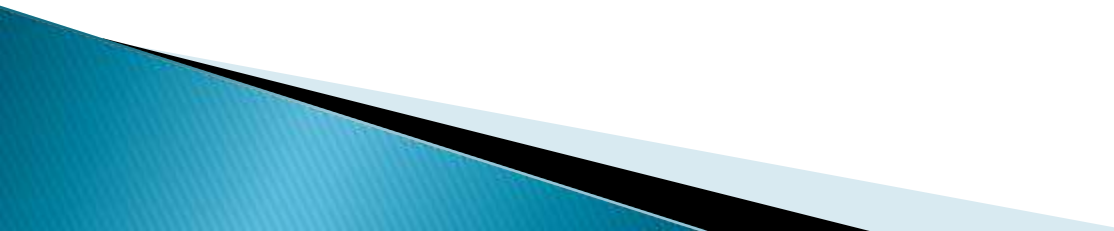
- PHINMS Message Size limit  $\leq$  10Mb
  - PHINMS Sender can be configured to send larger files in “chunks”
  - Chunking is transparent to sending and receiving applications
  - With chunking, much larger files can be sent
  - Isn't compatible with Route-Not-Read
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# PHINMS Security Concepts

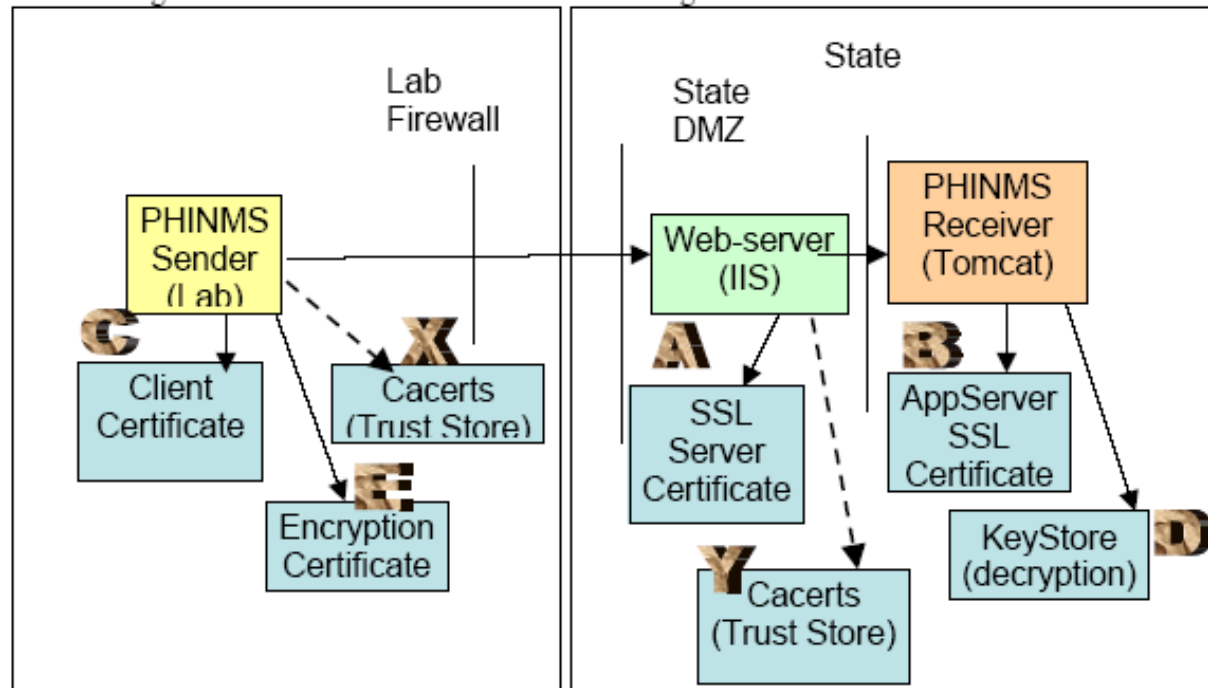
## *Digital Certificates*

# Digital Certificates

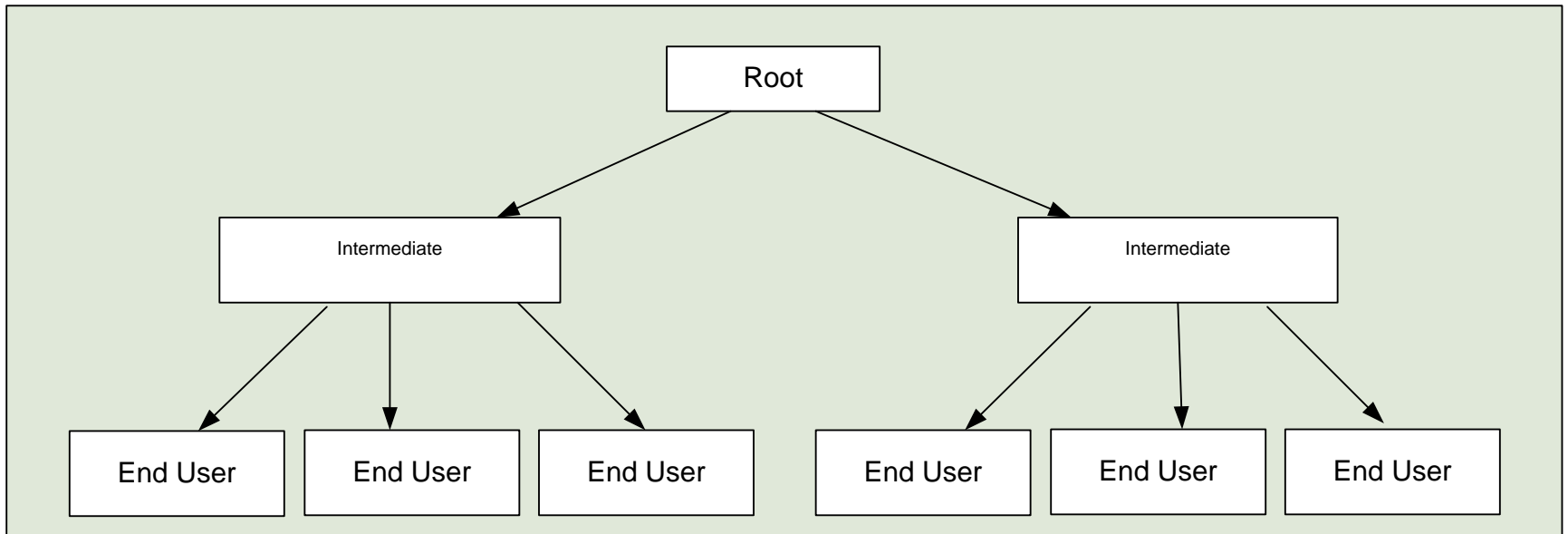
## Why so many certificates?

- Digital certificates and encrypted channels are what make PHINMS the secure reliable messaging system it is. Data is protected from the start to the end of the transmission.
  - Certificates establish security, trust, authentication, and encryption/decryption mechanisms for PHINMS.
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# Use of Digital Certificates in PHINMS

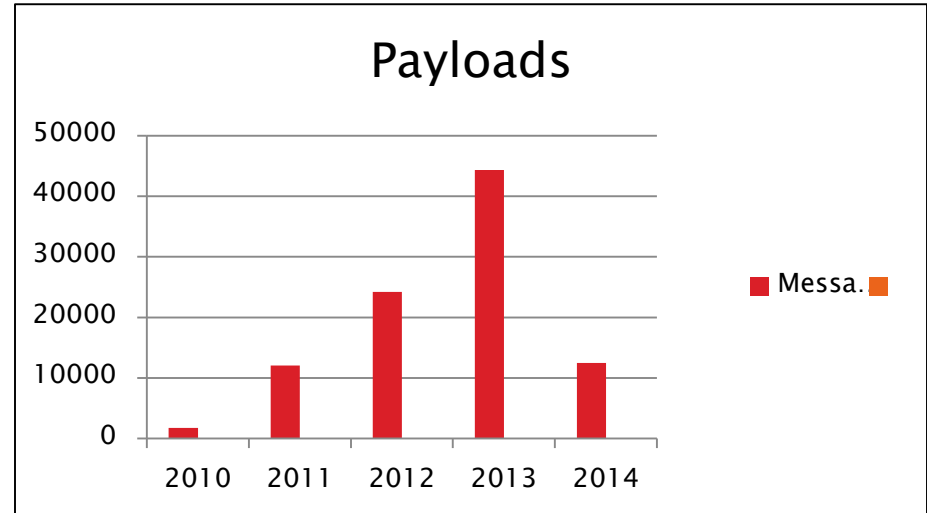


# PKI Trust Hierarchy

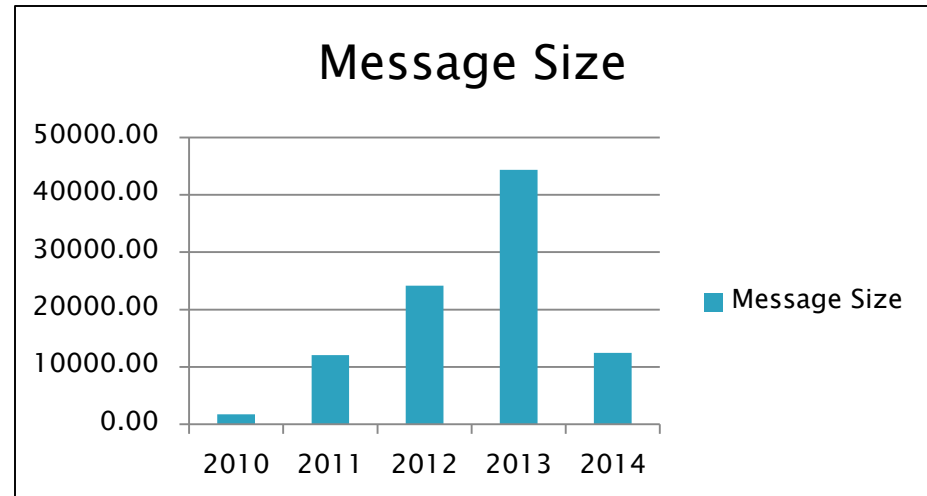


# PHINMS Annual Utilization

Message Size	
2010	1732.69
2011	12060.29
2012	24185.62
2013	44348.65
2014	12446.44



Message Size (KB)	
2010	1732.69
2011	12060.29
2012	24185.62
2013	44348.65
2014	12446.44



# PHINMS User Support Contact Information

PHINTech Helpdesk

[phintech@cdc.gov](mailto:phintech@cdc.gov)

1-800-532-9929

