EdExchange 101

Fall 2018 Data Summit

EdExchange 101

- A Brief History
- How it Works
- Current Status

A Brief History of EdExchange

The Problem

- No simple way to request & exchange documents between academic institutions
- Service provider exchange networks operate in isolation from one another
- Available open exchanges built on legacy technology and impose risk of data at rest

The EdExchange Solution

- Enables real-time open data exchange amongst academic institutions and their service providers
- Payload agnostic to support a multitude of documents, types of exchanges
- Community based solution based on standards, open source development

How EdExchange works

How EdExchange Works

PESC

Directory Server

Network Server

How EdExchange Works

Directory Server

Purpose

- Secure repository of validated network endpoints servicing listed destinations

Functions

- Accept Delivery Options request
- Return Delivery Options report

Reference Implementation

- Java Server

Deployment

- To be operated by PESC

How EdExchange Works

Purpose

- Serve as an endpoint in the secure EdExchange network

Functions

- Lookup
- Send
- Receive

Reference Implementation

- Java Server

Deployment

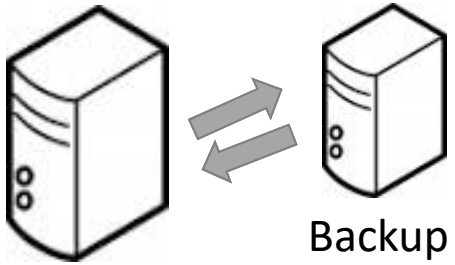
- Local to Vetted Institutions & Service Providers

Network Server

How it Works

How do I send an electronic transcript to _____?

AWS Web Hosting



Directory Server

Backup Directory Server

College/Service Provider A

Network Server

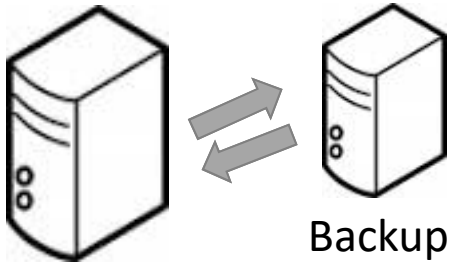
College/Service Provider B

Network Server

How it Works

"College A" calls the EdExchange **Directory Server** with a **Delivery Options Request**

AWS Web Hosting



Directory Server

Backup Directory Server

College/Service Provider A

Network Server

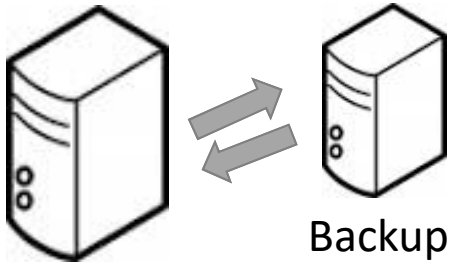
College/Service Provider B

Network Server

How it Works

Directory server responds with **Delivery Options Report**, which contains validated network servers

AWS Web Hosting



Directory Server

Backup Directory Server

College/Service Provider A

Network Server

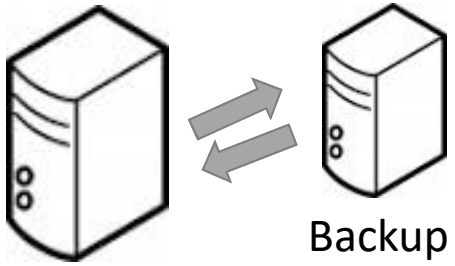
College/Service Provider B

Network Server

How it Works

Transcript placed in an "EdExchange Envelope" and delivered to the appropriate **Network Server**

AWS Web Hosting

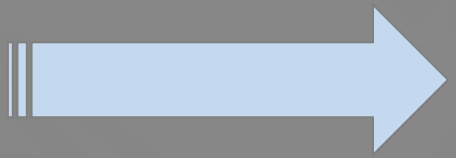


Directory Server

Backup Directory Server

College/Service Provider A

Network Server

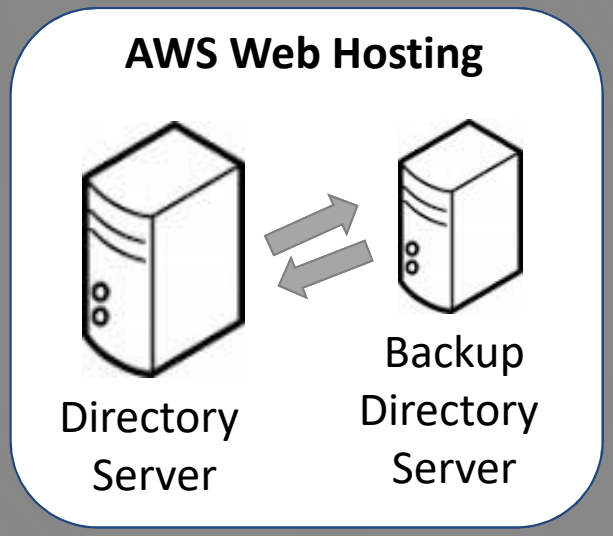


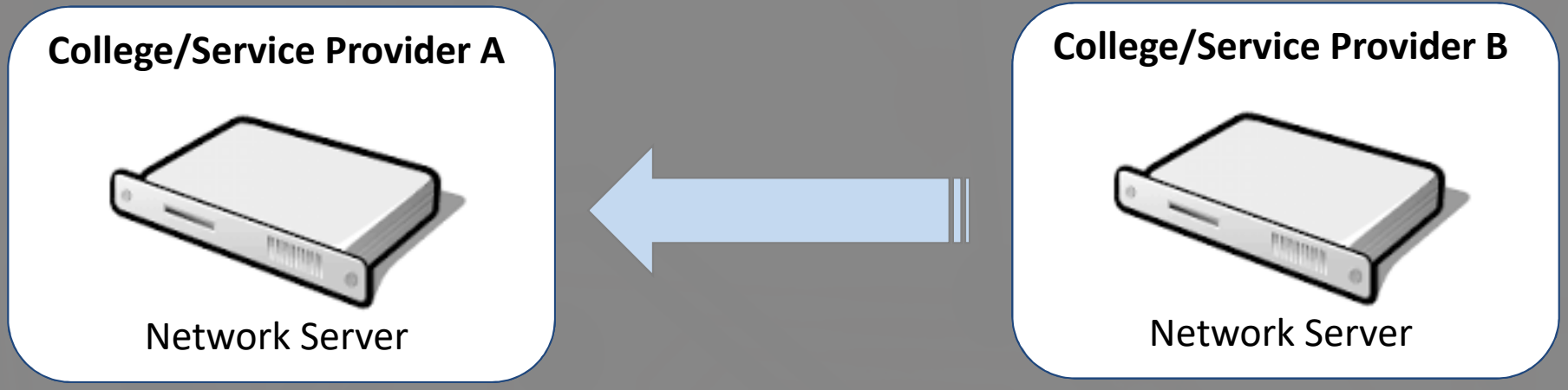
College/Service Provider B

Network Server

How it Works

Confirmation placed in "EdExchange Envelope" and returned to senders **Network Server**





EdExchange Summary

- **Secure** Avoiding file based technologies keeps exchange of data between sender and receiver
- **Reliable** EdExchange standard assures confirmation of delivery is received
- **Fast** Peer to peer architecture provides for a direct connection
- **Payload Agnostic** Supports a variety of document types and transactions

Current Status

EdExchange Development

- Development of Directory Server complete and operating as a service hosted by Infiniti/AWS
- Reference implementation of Network Server is complete and available for download at Github
- EdExchange service Onboarding guide is available

EdExchange Pilots

- Parchment & the California Community Colleges Technology Center successfully completed a pilot
- Additional pilots in progress:
  - Credentials Solutions / National Student Clearinghouse / Parchment
  - University of Phoenix
- Success defined by the exchange of documents between a network of servicer providers and participating institutions

Preparing to Deploy

- PESC is operating EdExchange Directory Server
- Press release being prepared to announce availability of EdExchange
- MOU complete
  - Now being signed by Parchment and CCCTC
  - Additional signees expected
- Resolving fee structure which has been presented to Steering Committee

How to get involved

Participate in the CDS Task Force meeting

Join the pilot, or view the network server reference implementation that can be used to develop your EDExchange network server. Source code for network server reference implementation located at https://github.com/jhwhetstone/cdsWebserver.git

- Apereo EdExchange project site: https://www.apereo.org/projects/edexchange
- EdExchange Onboarding Guide: https://edex-directory-open-pilot.ccctechcenter.org/onboarding-guide