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

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
How it Works

How do I send an electronic transcript to ________?
"College A" calls the EdExchange Directory Server with a Delivery Options Request
How it Works

Directory server responds with Delivery Options Report, which contains validated network servers.
How it Works

Transcript placed in an “EdExchange Envelope” and delivered to the appropriate Network Server

College/Service Provider A

Network Server

College/Service Provider B

Network Server

AWS Web Hosting

Directory Server

Backup Directory Server
How it Works

Confirmation placed in “EdExchange Envelope” and returned to senders

Network Server

College/Service Provider A

Network Server

College/Service Provider B

Network Server

AWS Web Hosting

Directory Server

Backup Directory 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