THE RIGHT **DATA**
THE RIGHT **WAY**
THE RIGHT **TECHNOLOGY**
THE RIGHT **PEOPLE**

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www.PESC.org

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PESC

- Founded 1997 in Washington DC
- Non-profit (501c3) Association w/ 2 Staff
- Open Standards-Development Body
- Open Standards-Setting Body
- Governed by Voluntary Consensus
- Funded by Dues, Sponsors, Registrations
- PESC Approved Standards Free & Open
  - EDI
  - PDF
  - XML

- Data, Software & Technology Service Providers
- Schools, Districts, Colleges & Universities
- College, University & State/Province Systems
- Local, State/Province & Federal Government Offices
- Professional, Commercial & Non-Profit Organizations
- Non-Profit Associations & Foundations
- 150 volunteers

PESC

leading the establishment and adoption of open data standards across the education domain

- Academic Credentialing & Experiential Learning
- *Admissions Workgroup for Recruitment Data
- Canadian PESC User Group (CanPESC)
- JSON Task Force
- Global Education Code (GEO) Workgroup
- Change Control Board (CCB)
- EdExchange (CDS) User Group
- Education Record User Group (ERUG)
- Seal of Approval Board (SAB)
- Technical Advisory Board (TAB)
- PESC Board of Directors

PESC MEMBERS

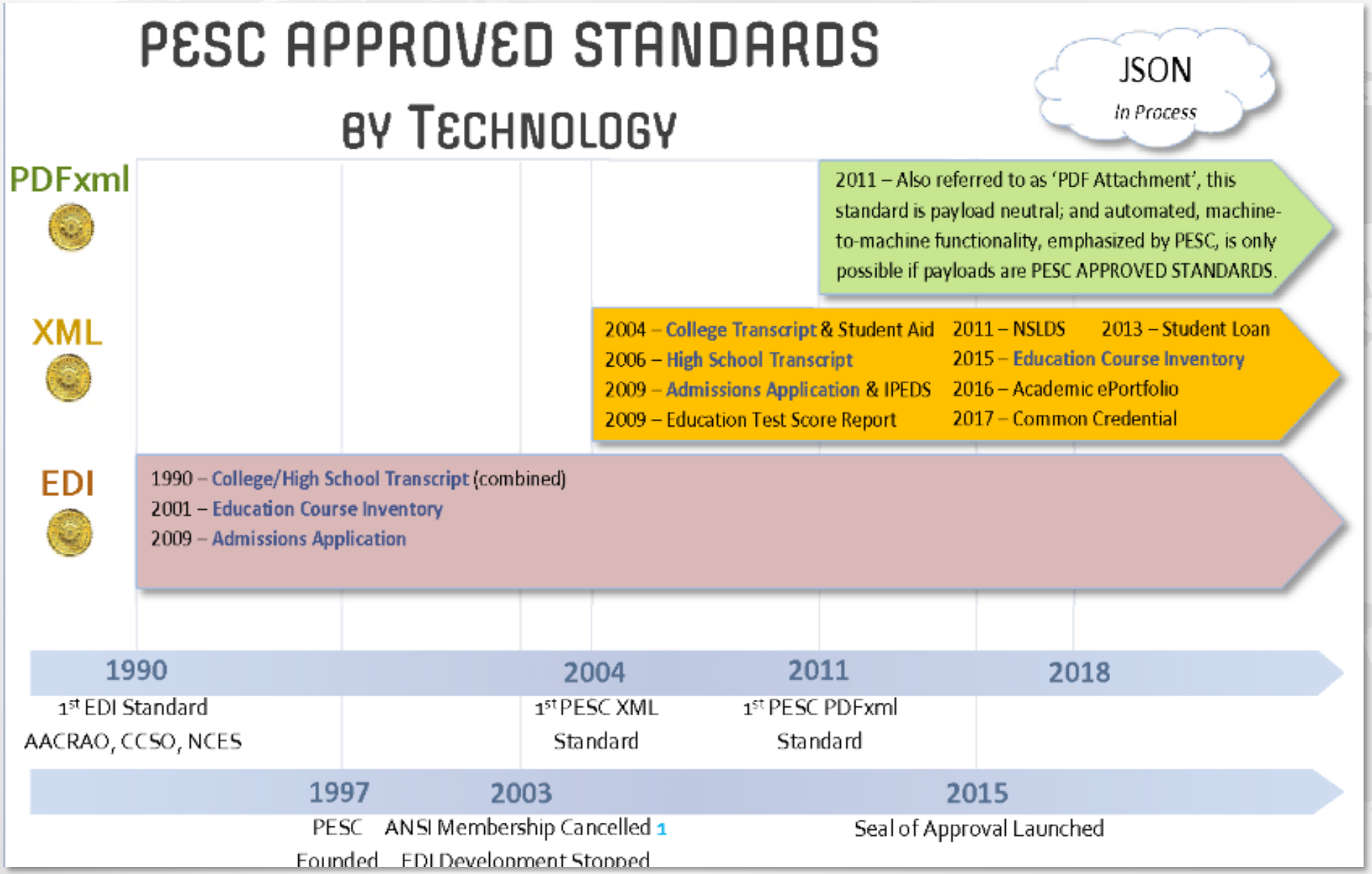
PESC APPROVED STANDARDS

INTEROPERABILITY
BUSINESS VS. TECHNICAL

- Comprehensive Management Support
- Controlled Access & Security
- Disaster Recovery
- Flexibility & Scalability
- Formal Governance & Policy
- Fraud Prevention
- Funding & Licensing
- Privacy
- Quality Control Measures
- Training
- IT Strategy
- Business/Use Cases
- Data Delivery, Timelines & Requirements
- Federations
- PESC Approved Standards
- Student/Learner-Centric Perspective
- Unique ID's & Standardized Code Sets
- Use of Hubs and Spokes

PESC APPROVED STANDARDS

BY TECHNOLOGY



AROUND THE WORLD

- **Australia / New Zealand**
  - **My eQuals**
- **Canada**
  - **OCAS & OUAC**
  - **ApplyAlberta**
- **China**
  - **Higher Education Student Info & Career Center**
- **Europe**
  - **EMREX**
  - **EWP**
- **Netherlands**
  - **Diploma Registry**
- **South Africa**
  - **Qualifications Authority**
- **USA**
  - **Common Application**
  - **Credentials, NSC, Parchment**

USE CASES – THE IT STACK

Applications

Database

Middleware

Operating System

External Presentation
To Students, Learners,
Parents, Employers

Netherlands

- Ministry Collects Diplomas
- Trusted, National Hub
- Authentic & Verifiable
- Suitable for Blockchain

Applications

Database

Middleware

Operating System

External Presentation
To Students, Learners,
Parents, Employers

Internal Processing
Delivery & Results

DATA DELIVERY & EXCHANGE

- **Globally insufficient or non-existent solutions**
- **PESC Common Data Services Taskforce (10/2011)**
- **Gap Analysis by California Community Colleges resulted in need for EdExchange**
- **No consistent way to request & exchange documents between academic institutions**
- **Service provider exchange networks operate in isolation from one another**
- **Available legacy exchange built on legacy technology, storage of PII, and lacks confirmation of delivery**

THE EDEXCHANGE SOLUTION

- **Enables real-time open data exchange among 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**

- **Open web services architecture, open source code & standards**
- **Neutral digital look-up service, neutral platform (PaaS)**
- **Peer-to-peer network enabling secure, reliable & direct connection between users**
- **Avoids store-and-forward & file-based technologies**

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

- Operated by PESC

NETWORK SERVER

Purpose

- Serve as an endpoint in the secure EdExchange network

Functions

- Lookup
- Send
- Receive

Reference Implementation

- Java Server

Intended Deployment

- Local to Vetted Institutions & Service Providers

HOW IT WORKS

How do I send an electronic transcript to _____?

College/Service Provider A

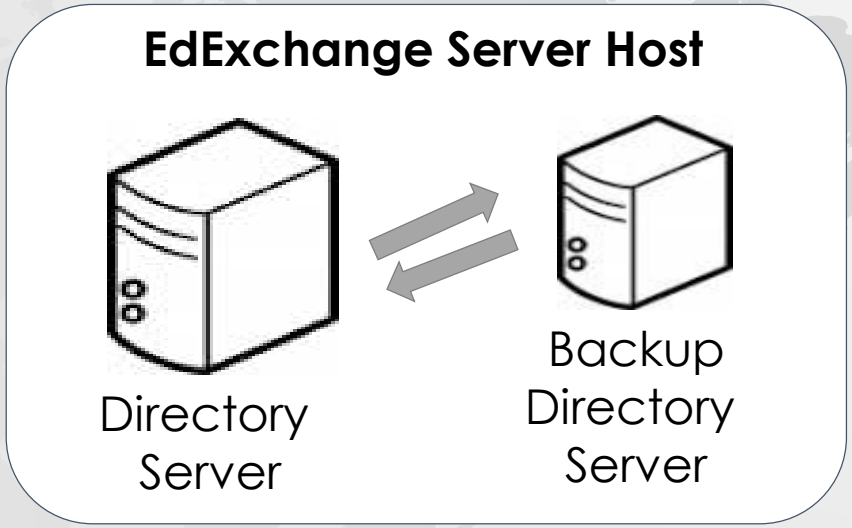
Network Server

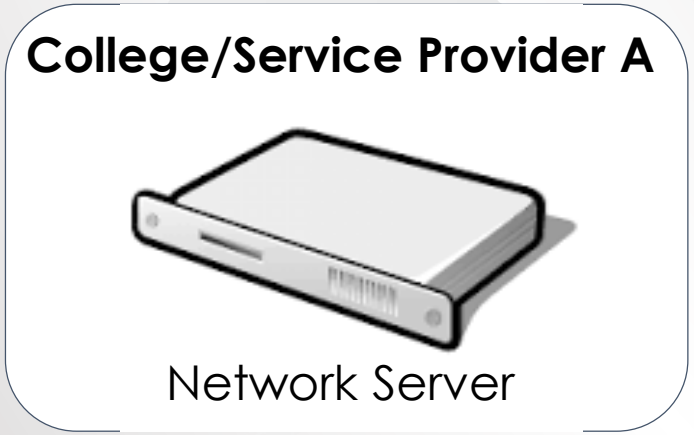
College/Service Provider B

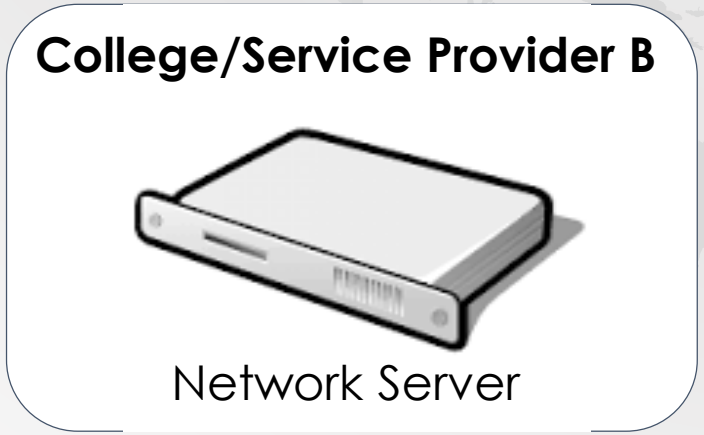
Network Server

HOW IT WORKS

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

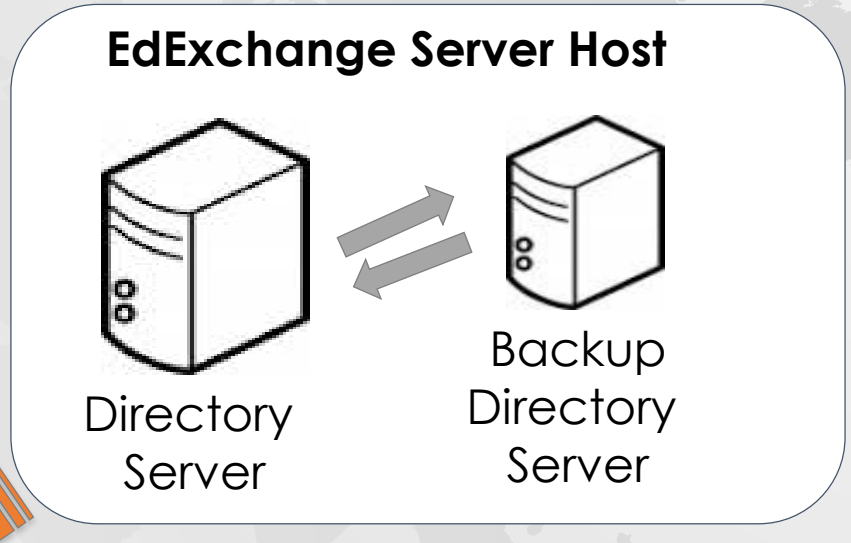


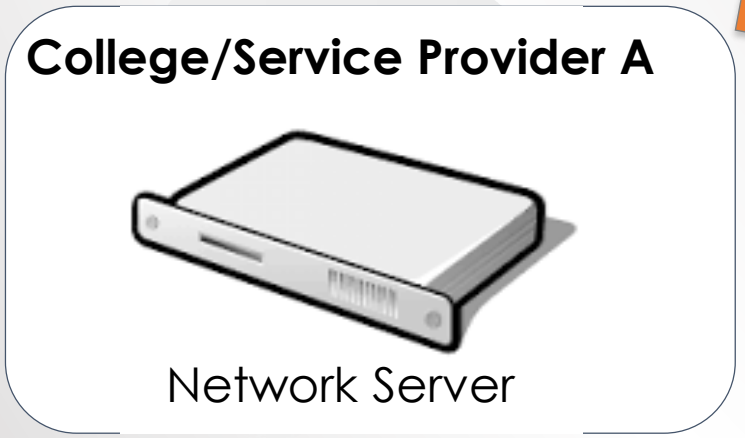


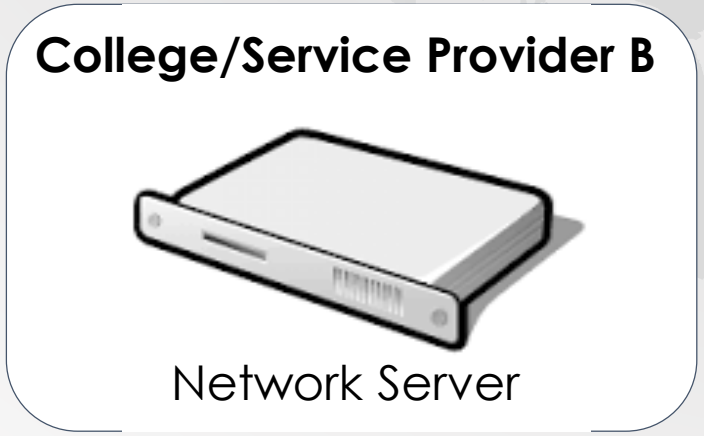


HOW IT WORKS

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

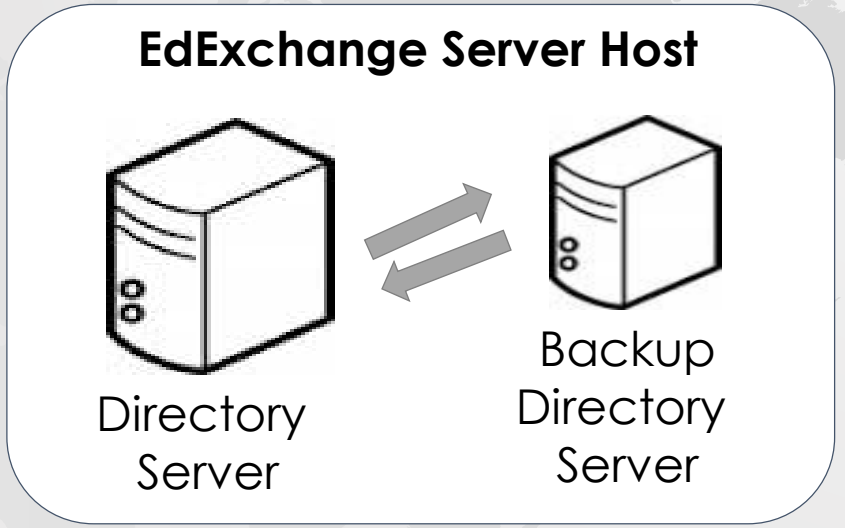






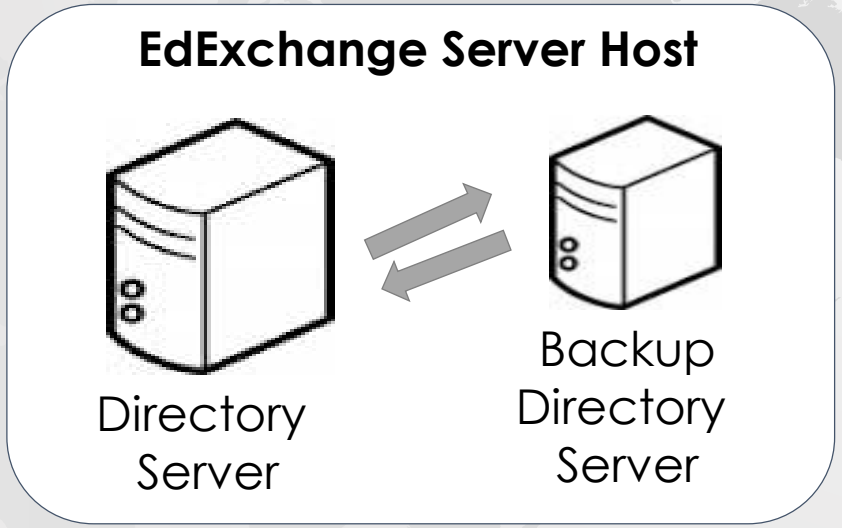
HOW IT WORKS

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



HOW IT WORKS

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



EDEXCHANGE

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

BENEFITS

- **Improve data integrity and data quality**
- **Provide consistent and reliable information and service to end users and consumers of data**
- **Enable the ability to measure and benchmark various levels and components of data**
- **Decrease programming costs**
- **Reduce human resource costs**
- **Instill a hierarchical methodology for development based on standards and minimizes variables**

NEXT STEPS

- **Finalize pilots:**
  - **California Community Colleges**
  - **Credentials Solutions**
  - **National Student Clearinghouse**
  - **Parchment**
- **MOU w/ PESC**
- **Confirmed Insurance**
- **Budget**
- **Subscription Pricing**
- **‘Soft launch’ Fall 2018**

ADDITIONAL INITIATIVES

- **Admissions Workgroup for Standardizing Recruitment Data**
  - **Thursday June 21, 2018 3pm EDT**
- **GEO Code**
- **JSON Task Force**
- **Technology Task Force**
- **Fall 2018 Data Summit**
  - **October 17-19, 2018, San Francisco**
  - **Charmain Hack, President, ARUCC, Keynote Speaker**
  - **SIS and Application Centers**

THANK YOU!

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