
Common Data System Network Narrative for Data Exchange

Version 0.10

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Revision History

| Name | Date | Reason For Changes | Section | Version |
|--------------|------------|--|----------------------|---------|
| John DiPirro | 08/13/2013 | Added Issues section, updated delivery options table, added title page, table of contents, and revision history. | Entire Document | 0.9 |
| John DiPirro | 08/23/2013 | Provides response to Issues that were still in a TBD state, Updated assumption on transaction ID. Added CDS Network Process Diagram to document. Removed XML excerpts. | Issues, Assumptions, | 0.10 |
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CDS Directory Server

The CDS Directory Server may be overseen by the Postsecondary Electronic Standards Council (PESC), by Ed-Unify, or by some other Organization/Entity. The CDS Directory Server is used to maintain the CDS Organization Directory and the CDS Delivery Options Directory. There will likely be only one server used to maintain these directories.

Organization Directory:

Data are captured and maintained in the Organization Directory for those organizations interested in participating in the exchange of payloads (transcripts or other data) from one organization to another.

| Field Name | Description | Required |
|--------------------------------------|---|----------|
| Organization Name | See Organization ID table below | Y |
| Organization ID | Unique Identifier to be concatenated with the Organization Id Organization to form a global unique ID | Y |
| Organization Sub Code | Further refinement of the delivery location. Ex, department (Math, Science) | N |
| Description | | |
| Credential | Unique for each sender and receiver | Y |
| Contact Type | Admin, Technical, Billing, etc... | Y |
| Address | Mailing/Billing Address of organization | Y |
| Email | Email address of organization | Y |
| Phone | Phone Number of organization | Y |
| URL | Web Site address of organization | Y |
| EIN – Employer Identification Number | Employer Identification Number (EIN) is also known as a Federal Tax Identification Number, and is used to identify a business entity | Y |
| Entity Indicator | Identifies if organization is a Vendor or an Institution | Y |
| Terms of Use | Rules which one must agree to abide by in order to use a service. Terms of service can also be merely a disclaimer, especially regarding the use of websites. | Y |
| Privacy Policy | A statement that discloses some or all of the ways a party gathers, uses, discloses and manages a customer or client's data. | Y |
| Receiving Format | Data format the organization is able to process | Y |
| | | |

| Organization ID | Description |
|-----------------|---|
| OPEID | Office of Postsecondary Education identification code. Number issued to colleges that are eligible to participate in federal financial aid programs |
| IPEDS | Integrated Postsecondary Education Data System ID |
| ATP | College Board's Admissions Testing Program, codes maintained by ETS |
| FICE | Federal Interagency Committee on Education |
| ACT | American College Testing program |
| CCD | |
| CEEB | College Entrance Examination Board ID. Unique ID for high school, college, or university |
| PSIS | Statistics Canada Organization ID |
| USIS | |
| ESIS | |
| DUNS | A unique nine digit identification number, for each physical location of a business. |
| NCHelp ID | |
| | |

Organization Delivery Options:

Data are captured and maintained in the Organization Delivery Options data store for those Vendors and Institutions interested in providing a service to send a payload (transcripts or other data) from one Institution/Vendor to another Institution/Vendor.

Need to define what delivery options are captured for each entity in the DB.

Delivery Options Table

| M E M B E R S | Organization Name | Content Code | WebService URL | Cost Amount | Speed Code | Delivery Confirmation Flag | Error Handling Indicator |
|---------------------------------|-------------------|--------------|---------------------------|-------------|-----------------------|----------------------------|--------------------------|
| | Vendor 1 | PESC XML | HTTP://www.Vendor1url.com | \$1.00 | Fastest | Yes | Yes |
| | Vendor 1 | EDI | HTTP://www.Vendor1url.com | \$2.00 | Faster | Yes | Yes |
| | Vendor 1 | PDF | HTTP://www.Vendor1url.com | \$3.00 | Fast | No | No |
| | Vendor 1 | TEXT | HTTP://www.Vendor1url.com | \$4.00 | Normal | No | No |
| | Vendor 1 | Hard Copy | HTTP://www.Vendor1url.com | \$0.50 | 1 st Class | N/A | N/A |
| | Vendor 1 | Hard Copy | HTTP://www.Vendor1url.com | \$2.50 | Priority | N/A | N/A |
| | | | | | | | |
| | Vendor 2 | PESC XML | HTTP://www.Vendor2url.com | \$1.00 | Fastest | Yes | Yes |
| | Vendor 2 | EDI | HTTP://www.Vendor2url.com | \$2.00 | Faster | Yes | Yes |
| | Vendor 2 | Hard Copy | HTTP://www.Vendor1url.com | \$1.50 | Registered | N/A | N/A |
| | | | | | | | |
| | Vendor 3 | PESC XML | HTTP://www.Vendor3url.com | \$1.00 | Fastest | Yes | Yes |
| | Vendor 3 | EDI | HTTP://www.Vendor3url.com | \$2.00 | Faster | Yes | Yes |
| | Vendor 3 | TEXT | HTTP://www.Vendor3url.com | \$4.00 | Normal | No | No |
| | | | | | | | |
| | Institution X | PESC XML | HTTP://www.Vendor3url.com | \$1.00 | Fastest | Yes | Yes |
| | Institution X | EDI | HTTP://www.Vendor3url.com | \$2.00 | Faster | Yes | Yes |
| | Institution X | TEXT | HTTP://www.Vendor3url.com | \$4.00 | Normal | No | No |
| | | | | | | | |

The following table will establish a relationship between the institutions that want to send a payload and the vendor or other institution that will deliver that payload.

Vendor Reference Table

| M E M B E R S | Organization ID | Organization Reference |
|---------------------------------|-----------------|------------------------|
| | Institution 1 | Vendor 1 |
| | Institution 1 | Vendor 2 |
| | | |
| | Institution 2 | Vendor 1 |
| | Institution 2 | Vendor 3 |
| | | |
| | Institution 3 | Vendor 1 |
| | Institution 3 | Vendor 2 |
| | Institution 3 | Institution X |

CDS Network Server

While there will probably be only one CDS Directory Server there may be many CDS Network Servers. Each Institution or vendor may maintain one or more server used to send and receive payloads via the CDS Webservice.

CDS Get Delivery Options

1. Actor initiates a document exchange (Delivery Options Request)
2. Process connects to the server to get the Delivery Locations.
3. Access the "Organization Directory & Delivery Options" database to obtain an updated list of all organizations and their locations in the directory. The directory contains the organizational information and delivery options of all entities, educational institutions and vendors alike).
4. Access the "Organization Directory & Delivery Options" database to obtain an update of the delivery options available from each organization in the directory. Delivery Options are passed back to the actor.
5. Actor selects one or more Delivery Locations and one or more Delivery Options to be associated with each Delivery Location.
6. Actor SENDS the payload to the CDS Network Server
7. Payload is sent (maybe a request for a transcript) to the selected Delivery Locations,
 - 7.1 Transaction History DB is updated
8. Receiving Entity(s) as defined by Delivery Location receives the payload.
9. Receiving Entity(s) send some payload back to the Actor.
 - 9.1 Transaction History DB is updated

See [Figure 1-1 CDS Network Process Diagram](#) below for a graphical representation of the delivery options.

Issues

1. Do I have to be a PESC member to be a member of the CDS Network?
Response: Yes, only PESC members will be allowed to participate
2. Is there a need to vet prospective organizations prior to allowing access to the CDS Network?
Response: Yes, PESC or its appointed representative will vet any and all organization prior to allowing said organization access to send or receive any payload over the network.
3. If there is a need to vet prospective organizations, what criteria are used to determine acceptance?
Response: Default to the PESC membership vetting criteria.
4. Should Full Replacement be used when updating Organization Directory and Delivery options or should individual Create, Read, Update, and Delete transactions be used?
Response: Will use Create, Read, Update, and Delete transactions. Delivery Options obtained from the Organizational Directory will be included in the transactions being transmitted.
5. What documentation is needed to define the structure of the Organizational Directory and Delivery Options database?
Response: Data Model, Data Dictionary, Meta Data... to be continued....
6. Will other public organizational types such as military institutions (Army, Navy, Air Force, Marines, Coast Guard, etc...) be included in the Organization Directory?
Response: Yes, contingent on acceptance, vetted member in good standing.
7. Will other private organizational types such as large national and multi-national company's (IBM, HP, Walmart, GM, Apple etc...) be included in the Organization Directory?
Response: Yes, contingent on acceptance, vetted member in good standing.
8. Is vender information is also captured:
Response: Yes, vendor information will be captured. The vendor information will be useful for coming up with the routes. Probably when someone looks up a destination and a route, portions (or all) of that route will involve vendors.
9. Do the institutions in the directory send and receive or just receive data?
Response: Institutions may send, receive or send and receive data. They might send passwords and credentials but for the most part they look up data.
10. If the same institutions or vendors are also in the Organization DB do we need two separate DBs?
Response: No, a single Data Base will be used to store organization and delivery option data.
11. Who creates and maintains the routing information. Vendors?
Response: Deduced from the organizations delivery options.

Assumptions

1. Each CDS network server will provide their own Unique Id for each transaction. Each transaction may be composed of one or more transmissions. Transactions are between CDS Network servers and not between the CDS network servers and the organizational directory server.
2. Not all organizations in the “Organization Directory & Delivery Options” database will have delivery options associated with their organization.
3. The receiving organization will always send an acknowledgement or other response to the sending organization.

CDS Network Process Diagram

Figure 1-1

