**Use Cases:**

We previously reviewed the relatively simple UC-1. This version includes changes made during that review and also some additional highlighting to compare with UC-1b.

UC-1b might be a replacement for UC-1 in that this new variation includes references to a ‘transaction manager’ that would keep track of transmissions and provide a basis for fee accounting and payment. However, in both versions the transmission flow is not disrupted by fee requirements since these are handled outside of the exchange. So I think that they are probably the same case.

UC-2 describes the case where fees are calculated and must be approved in order for the transaction to proceed.

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| **Name** | **UC-1: Transaction Exchange Between Two Clients of Different Vendor-based Service Providers – There Are No Transaction Fee Dependencies** |
| Summary | This use case describes the movement of a payload (electronic document) between two clients supported by different vendor-based service providers. The payload is arbitrary, and not relevant to the transmission process. There are no transaction fees or else they do not need to be addressed within the CDS exchange. |
| Rationale | This is *(almost)* the simplest case for automated exchange - between service providers acting on behalf of single sender and single recipient. *(A simpler would be between two clients supported by the same vendor host.)* |
| Users | Any front-end service that is a client of a PESC-compliant CDS Server |
| Preconditions | * Sending client service has formatted the payload and envelope in a supported PESC format. * Sending and Receiving CDS servers have complied with CDS registration requirements * FERPA requirements have been met. |
| Basic Course of Events | 1. The front-end service submits a transmission package (envelope and payload) to its host (sending) CDS server. 2. The sending CDS server identifies the transmission target 3. The sending CDS server identifies the CDS host for the transmission target 4. The sending CDS opens a connection to the correct recipient CDS and delivers the transaction. 5. The receiving CDS provides (forwards?) tracking information and delivery confirmation. |
| Alternative Paths | Conditions under which the basic course of events (above) could change:   1. Package received by sending CDS is mis-configured. 2. The CDS host for the target client cannot be located. 3. Transaction fees are involved that require user confirmation before processing. 4. The source and destination clients are both supported by the same CDS host. 5. Transmission errors. |
| Postconditions | Electronic transcripts are confirmed as received by recipient institutions and all users involved in the transmission and approval of the records have tracking information and confirmation of receipt. |
| Related Documentation | Refer to transcript exchange workflow diagrams. |

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| **Name** | **UC-1b: Transaction Exchange Between Two Clients of Different Vendor-based Service Providers – any fees requirements are outside the network** |
| Summary | *This is a proposed modification of UC-1 that will make it a little more generic by including a ‘transaction manager’ that will support vendor fee accounting based on an existing business relationship.*  This use case describes a transaction between two clients supported by different vendor-based service providers. The sending institution sends an unsolicited document to the recipient institution. The payload is arbitrary, and not relevant to the transmission process. Any transaction fees are based on existing business relationships between the two supporting vendors and fee calculation, payment authorization, billing and payment are all outside of document transmission process. |
| Rationale | This is a relatively simple case for automated exchange - between service providers acting on behalf of single sender and single recipient. Although fees may be involved the delivery of the document is not delayed because fee accounting, authorization and payment are accomplished outside of the transmission cycle. |
| Users | Any front-end service that is a client of a PESC-compliant CDS Server |
| Preconditions | 1. Sending client service has formatted the payload and envelope in a supported PESC format. 2. Sending and Receiving CDS servers have complied with CDS registration requirements. 3. There is an existing relationship between service providers that describes any fees and assures payment for fees incurred. 4. CDS servers are able to interface with a ‘transaction management service’ that handles fee accounting and processing based on customized vendor data. 5. FERPA requirements have been met. |
| Basic Course of Events | 1. The front-end service submits a transmission package (envelope and payload) to its host (sending) CDS server. 2. The sending CDS server identifies the transmission target 3. The sending CDS server identifies the CDS host for the transmission target 4. The sending CDS opens a connection to the correct recipient CDS and delivers the transaction. 5. The ‘transaction management service’ of the receiving CDS records the transaction, delivers the document to the recipient institution and returns tracking information/delivery confirmation. |
| Alternative Paths | Conditions under which the basic course of events (above) could change:   1. Package received by sending CDS is mis-configured. 2. The CDS host for the target client cannot be located. 3. Transaction fees are involved that require user confirmation before processing. 4. The source and destination clients are both supported by the same CDS host. 5. Transmission errors. |
| Postconditions | Electronic transcripts are confirmed as received by recipient institutions and all users involved in record transmission and approval have tracking information and confirmation of receipt. |
| Related Documentation | Refer to transcript exchange workflow diagrams. |

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| **Name** | **UC-2: Transaction Exchange Between Two Clients of Different Vendor-based Service Providers – with Fee Approval Dependencies** |
| Summary | This use case describes a transaction between two clients supported by different vendor-based service providers. The requesting institution sends a request for a document to the fulfillment institution. The payload is arbitrary, and not relevant to the transmission process. Any transaction fees are based on existing business relationships between the two supporting vendors. Fee calculation and payment authorization are supported within the document exchange process. Billing and payment are outside of the document exchange process. |
| Rationale | In this case one party is requesting a document from another party. The vendor receiving the request may charge a fee and the institution providing the document may charge a fee. Fees must be calculated and communicated to the requestor. The request is not processed until the fulfilling vendor receives fee approval. Billing and payment of the approved fees are handled outside of the exchange transmission. |
| Users | Any front-end service that is a client of a PESC-compliant CDS Server |
| Preconditions | 1. Sending client service has formatted the payload and envelope in a supported PESC format. 2. Sending and Receiving CDS servers have complied with CDS registration requirements. 3. There is an existing relationship between service providers that describes any fees and assures payment for fees incurred. 4. CDS servers are able to interface with a ‘transaction management service’ that handles fee accounting and processing based on customized vendor data. 5. FERPA requirements have been met. |
| Basic Course of Events | 1. The requesting institution submits a document request (envelope and payload) to its host (requesting) CDS server. 2. The requesting CDS server identifies the transmission target 3. The requesting CDS server identifies the CDS host for the transmission target 4. The requesting CDS opens a connection to the correct fulfillment CDS and delivers the transaction. 5. The ‘transaction management service’ of the fulfillment CDS records the transaction and calculates the required fees and sends back a fee statement to the requesting institution. 6. The requesting institution responds to the fee statement with a ‘fee statement response’ indicating approval of the fee. 7. The fulfillment CDS records the fee approval and forwards the document request to the fulfilling institution. 8. The fulfillment institution responds with the document. 9. The fulfillment CDS forwards the document to the requesting institution 10. The requesting CDS delivers the document to the requesting institution and returns tracking information/delivery confirmation. |
| Alternative Paths | Conditions under which the basic course of events (above) could change:   1. The requesting institution does not approve the fee statement or does not respond within a defined time period. 2. The fulfillment institution receives the request but is unable to fulfill the request (e.g. student not found). CONSIDER THAT THE REQUESTOR HAS ALREADY APPROVED THE FEE SO THE VENDOR MUST ADJUST FEES ACCORDINGLY |
| Postconditions | The electronic document is confirmed as received by recipient institutions and all users involved in record transmission and approval have tracking information and confirmation of receipt. |
| Related Documentation | Refer to transcript exchange workflow diagrams. |