K-12 Use Case for Persistent Identifier Attribute [DRAFT]

Background

A persistent identifier would allow an individual's electronic identity to be correlated between different organizations or institutions. It could be provided (as an attribute) to maintain some continuity between individuals that move between different entities but still might need to access resources and be recognized as the same user after obtaining a new credential. In the K-12 (or P-12) space of elementary education this is very important in being able to follow a student who moves between school districts within a state. Students who move between states pose an even bigger problem, but let's start with the intrastate use case.

Use Case 1 – K-12 Access to State Federation Resource

Jack is a "lifelong" resident of North Carolina and is entering school for the first time. He will turn "5" on May 2nd, so he meets the admissions criteria for his school district (the requirement is that a child must turn five years old on or by August 31st). His parents take him to registration night in February. They are required to bring the following documents:

- A certified copy of Jack's birth certificate
- Proof of a parent's residence (in the form of a utility bill, property deed, or rental lease)
- Jack's updated immunization record.

(North Carolina law also requires that every child have a completed Kindergarten Health Assessment form, completed within 12 months prior to the start of school - not sure whether his has information that could be used for further identity vetting).

When Jack is registered, all his bio-demo data is entered into the NC WISE (Window of Information on Student Education) database. This includes most "directory-type" information as well as SSN if available and information about his parents. Jack is also assigned an **NC WISE identifier** which is assigned to all North Carolina school children when they first enter any NC K-12 school system. As Jack progresses through elementary school, all his standardized test scores, class and teacher information, awards or special recognition, sports participation, etc. is entered into his NC WISE record.

One of the K-12 resources available in the state P-20 Federation is NCVPS (North Carolina Virtual Public School), which provides North Carolina school children the opportunity to take advanced courses or more unique classes, not available in all school districts (e.g. Honors Science classes, less common languages, etc.). Access to the site is federated, and controlled by students logging in through their school district's IdP. When a student registers for a class,

information is matched against their NC WISE record, and a NCVPS class record is created. The eduPersonTargetedID attribute is released to the NCVPS resource provider when a student logs in. and is linked to the student's record. When Jack entered high school, he began taking Honors and more advanced courses through NCVPS to build up his transcript, as he was very interested in getting into a very competitive university.

In December of Jack's junior year, his mother is transferred to an office in the western part of the state. Jack's NC Wise record is put into a "withdrawn" state when his school is notified. When Jack arrives at his new school, his record in NC WISE can be searched for in the Registry and once identified (by name, parents' names, address, DOB, etc.) it can be "transferred" and updated with his new school, address, phone number, etc. The "new" school has access to all of Jack's previous test scores, grades, any special considerations or needs he might have, and can continue to update his information as his education progresses. Any "change" in his performance can be recognized and a suggested action can be taken. All of this information is stored on the servers which support his school district, and can be made available to authorized personnel.

When Jack tries to login to NCVPS after his move, his class records cannot be accessed because the eduPersonTargetedID he was using has changed (since the IdP used in the creation of that attribute is different)...

Use Case 2 – K-12 Access to National Federated Resource

Use case is similar to above "In State" example, but the student transfers to another state, has a different IdP as well as another "state" persistent identifier used in creating an even more unique (and different) eduPersonTargetedID to release to the resource Service Provider.

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Notes on NC WISE:

First introduced to North Carolina Public Schools in 2004, the North Carolina Window on Student Education (NC WISE) integrates all aspects of public school life from the classroom to the central office. Web-based and centrally maintained for capturing, accessing and reporting a wide spectrum of student information, NC WISE replaces the Student Information Management System (SIMS), which North Carolina Public School Systems have used for almost two decades. In 2009, NC WISE completed a statewide rollout which includes all of the state's 115 LEAs and 98 charter schools. NC WISE is composed of three basic components:

Electronic Student Information System (eSIS) allows individual schools to manage student information Electronic Data Interchange provides the capability to electronically transmit all student instructional records and demographic information between school districts, between schools within a district and to universities and colleges in North Carolina Uniform Education Reporting System (UERS) transfers information from the local school district to the North Carolina Department of Public Instruction (NCDPI).

Essentially, NC WISE integrates all aspects of public school life from the classroom to the central office.