Multiple ID issues at Georgia Tech

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History

Although the unique identification of an individual at Georgia Tech has created issues over the years, it has not been perceived as a great problem until the last few years. Individual functional offices were able to identify those individuals important to them, provide service and function with little disruption. Payroll in and of itself was fine. The student system in and of itself was fine. Each could recognize their staff/faculty or their students and the need for either office to know if a student was also a staff member was not a pressing issue. (Note - the graduate office has always had a problem when checking for GTA/GRA waiver eligibility.) The independent software applications that supported these functional areas provided the information necessary for each to function effectively. Any issues that arose were communicated and worked through manually by the offices affected.

As we have moved toward more systems integration (albeit different software applications) and have implemented a Data Warehouse concept where many campus applications require data that encompasses both students/faculty/staff, we are seeing increasing difficulties.

Problem

In Banner, there is a unique number assigned to each student (pidm). In PeopleSoft, there is different unique number assigned to each employee (emplid). If a student is also an employee, they still do not have the same unique identifier in both. We typically determine if someone is the "same" person based on their SSN. That can then lead to additional problems, especially with our foreign student/faculty population. As information is pulled from both the student and business systems to the data warehouse, additional complexities can occur. The data warehouse is where many of the ancillary systems on campus get their data as they need it for both students and faculty/staff. Examples are the Buzz card, Parking, the Andover security system, SAC, Health Services, the Library and the Athletic Association. Our current business processes basically undermine the value of the data in the data warehouse because we cannot consistently identify an individual in multiple roles as the same person. (See Attachment A)

These folks are finding that quite a few (over 1800) people have more than one record based on different identification numbers. Some issues are purely data entry issues, but most are not. Here's a scenario that can occur. A foreign student has no SSN, so the registrar's office assigns a number through Banner. That number is in the format 80xxxxxxxx. This student then becomes an employee at the institute. OHR then assigns them an ID based on their specific guidelines, in the format of 87xxxxxxxx. Eventually, this person gets a real SSN and reports this to OHR. They then update their records and the new data is fed to the data warehouse. There's not really a mechanism to know for sure that this is the same person. We now end up with 3 different records in the data warehouse with different identification numbers. There are also cases when the Buzz card system is the "first" to know about a person because they need access to services and buildings. This is very common with Visiting Scholars. The school may be the only area that really knows or needs to know about them. They aren't paid, so PeopleSoft doesn't know about them. The Buzz card center creates yet another ID in their format of
8999xxxxx. However, they could then become a student or a faculty member. If that happens, we then end up with the multiple ID issue again.

There are three offices on campus that can assign temporary ID's - Payroll, Registrar and the Buzz Card center. This whole situation also creates a lot of confusion for the individual as well. If they have a student number, certain offices need that to grant services and access. If they are an employee, then they have an employee number that drives these things.

Impact to Campus

In many cases, our administrative customers – faculty/staff/students must go all over campus to different offices to get information updated. There is currently no process that exists between offices to communicate a change for an individual, especially as it relates to name or SSN. This culminates in people not being able to get into parking lots that they should be able to because their buzzcard is coded improperly. This means that parking has a hard time identifying people for prioritization of parking permits. This means that a person could have incorrect building access based on how their buzzcard is coded. This poses the question of potential risk to the institution. This means that there could be issues with funds associated to a specific buzz card. This can also make it very difficult for areas like the Library and Health services to provide proper and efficient service to their constituents. This also means that a person could end up with two computer accounts and userid’s, thus creating problems for system access.

There is also a problem for the Bursar’s office. When a student has their SSN updated in PeopleSoft, but not in Banner, it presents a big problem in reporting information to the IRS in accordance with the regulations for (Tax Reform Act).

Items that need to be considered in the future are the institute’s directions for an Enterprise Portal, Enterprise Directory Infrastructure and a true “One-Card” system. If it is important to the institute to implement a portal solution at some point in time that recognizes an individual in all roles that they have at Georgia Tech, then it is imperative that each individual have a unique identifier. If the institution decides that it is fine for an individual to go to various portal sites depending on their role, then that makes the need for a unique id in this situation less important.

An Enterprise Directory Infrastructure is currently being modeled at Georgia Tech. Information from the Data Warehouse will populate the directory infrastructure. The existence of a unique identifier makes this process much cleaner and easier for applications to use. If multiple “person” information is fed to the Directory, we have once again undermined the value of the directory and added yet another layer that needs to be “cleaned up”.

To have stability and value in a “One Card” system, people must be identified in one consistent manner. Until that happens, people will either carry multiple cards to do business as whatever role they are at that moment or they will continue to have problems effectively carrying on business on campus.

On the front end, it currently takes over 6 hours per week for OIT staff and specific functional areas (i.e. Bursar, Housing Graduate/Undergraduate Admissions, IRP, etc.) to
resolve duplicates and consolidate information in the Banner system. Currently, the Buzz Card center spends numerous hours trying to determine if an individual is the same person so that they can provide appropriate services. On average, it takes about 30 minutes per person to identify multiple identifiers and then contact the individuals to resolve if they are indeed the same person. There are about 10 duplicates that occur each day. It is always more costly to correct things at the end of a process than to build in quality control steps at the beginning of the process. To this end, the core administrative units must work together to help solve this problem at the front end.

The project team has identified several short term and long term solutions for consideration. Most of these are not technical in nature, but require a commitment from the administrative offices for process change. There is a concern in all offices that any solution not add additional time and effort for that staff. Realistically, we can’t say that there will not be resource impacts in the administrative areas, however, we do believe that the effort will be minimal and will create a much more efficient process and cleaner data for all institute services in the long run. It may also mean that a small impact on one department will alleviate a huge time consuming issue in other departments.

**Related Activity**

The Banner functional and technical team are working on project plans to move away from the use of SSN as the student identifier in Banner. It has become increasingly difficult to get individuals to give you their SSN for uses other than official tax related purposes. They will still store SSN information when required in Banner in a separate location that already exists. Modules like Financial Aid do need this information in an official capacity. The current plan specifies using a generated number that begins with 9 as a unique identifier. We are adopting a solution that has been successful at the Savannah College of Art and Design, another Banner school. Because of this related activity, our long term solution for a unique campus identifier will be much easier to accomplish. Details on our long term solution are presented below.

There are other considerations that need to occur as we move away from SSN use as an identifier. Items that will need to be resolved are impact to other systems – like building access, SAC entry and the account creation process within OIT Customer Support.

**Short Term Solutions Identified**

**A Issue:** Get the buzz card center out of the business of creating a third identifier as much as possible. It was determined that if we could at least reduce, if not eliminate this business practice, it would go along way in reducing the number of multiple identifiers created.

**Solution:** Load future dated records into Data Warehouse. **This has been completed.**

**Concerns:** Unfortunately we realized this will not help until there is a process change in OHR.

**Recommendation:** We would like to recommend that the PSF information be entered as soon as a department sends the document to OHR – prior to the employee actually being on campus. Currently the PSF will not be processed until the PDF, I9 information and all requirements are received by OHR, usually a person’s first day of
employment. It may be possible to define a pre-employment class that would allow people to obtain a buzz card, get email and library access for instance, without being defined as a “payable” employee. It is also suggested that the student id be put on the PSF so that their student number is readily available and obvious to Payroll when they receive the PSF. We are not sure that all departments on campus would actually record that information on the PSF.

B Issue: It is currently very difficult to identify problem individuals.
Solution: Create a report that will help business units identify problem individuals so that they can make corrections and changes where necessary. This has been completed. (See Attachment B for problem examples)
Concerns: The current report pulls information for students directly from Banner and for employees from the data warehouse. Since the data warehouse is 24 hours behind what's current in PeopleSoft, we may want to change the report to go directly against PeopleSoft. There are some technical issues to be resolved here if we make this change. At this point, the business units will use the existing report and see if the delay in employee data has an impact.
Recommendation: It is recommended that the 3 major business areas – Registrar, Buzz card center and Payroll use this report and dedicate resources to work with each of the other units on any cleanup efforts that will help the situation. We also recommend that they use this report to lookup individuals as they receive these folks as new students, employees, etc. and see if they exist by one of the other identifiers prior to just entering them into their system. This could greatly help in stopping some of the duplication. If for instance, Payroll sees that a person already has an “80” number from Banner because the person is a student, they could use that in PeopleSoft instead of entering a new “87” number. There are some sensitivity issues regarding workload and auditability. We will also need to determine if this report solves the problems encountered at the Buzz card office or if they will also need some sort of view access to employee data in PeopleSoft and student data in Banner. Both are very workable options.

C Issue: Individuals must go to several offices to get information about themselves corrected or modified. This does not happen consistently, therefore the change is never made at the other offices that need the information.
Solution: Create a process that facilitates Payroll, Registrar and Buzz card center working together so that each office can report corrections or changes to each other so that the individual customer does not have to go all over campus and visit each office personally.
Concerns: There is concern over allowing other offices to make a determination that a change or correction should occur. For instance, the Registrar’s office typically wants to see an individual in person with specific items (like SSN card) if a change needs to be made for a student. They then determine if that change is valid.
Recommendation: We recommend that all offices define the specific items that must be documented for specific types of changes and then determine a process that can occur between the offices to ensure that the customer does not have to go in person to each office, but that the office receiving the change first can coordinate with other offices to make that change to happen in their system. This could be by creating a form for each office to use to track the changes and then sent to the other 2 offices at the end of each day or simply by placing a phone call to the other offices’ contact while the individual is standing in their office.
Long Term Solutions Identified

At this point in time, we are leaning toward Banner hosting the “Master Campus ID” for all individuals with the Buzz Card center being the first point of entry. We have chosen Banner since, 1) there will be a unique identifier that can be generated and is not related to SSN, 2) there are fewer employees than students therefore the impact to the Banner database will be less than putting all students into PeopleSoft, 3) with the implementation of Banner gradebook, many faculty members will already be defined in Banner anyway. 4) Students become part of Banner through the recruiting system, which may be 2 years before they become employees.

The Buzz card center will act as the “Campus ID” Coordinator. This will allow the student or employee to go to one office and have his or her ID changed on all Georgia Tech administrative systems and have his or her Buzz Card replaced all at the same time. This will ensure that the Buzz Card will function at all access points available to the student or employee. The Buzz Card Center would collect all documentation required for auditing purposes for all offices with record keeping responsibilities.

There would need to be business process changes as well as technical coding changes for this solution. Initially, EIS would need to write a program that would mass load all “clean” employee person information into Banner so that a unique id could be generated. PeopleSoft panels would need to be modified to capture this unique id. The process of how day to day activities would occur between offices would need to be carefully documented and staff would need to be trained on new procedures.

We see the long term solution taking a lot of coordination with many units on campus potentially impacting any database or files stored on campus that maintain an ID for faculty, staff or students. This is a very large effort and we believe that this could literally take a year to accomplish. It will be critical to get support, resources and commitment to a plan, especially from the 3 major business areas.

Other areas to Investigate

BOR – We need to stay informed about activities at the BOR level on this issue. The University System is also looking at ways to move from the use of SSN to some other identifier. **GT is now involved on a committee at the BOR level, addressing this same issue.**

Sagavista – This is a software product that enables integration between databases. The University of Toronto is using this software to assist in keeping people in sync between their student and business systems, maintaining one ID. Dan Looby will be doing a site visit with UofT in April while he attends the SCT Summit Conference. **We have learned that this is not a viable solution for Georgia Tech.**

Summit topic – At the SCT Summit Conference, there will be a session discussing the issues of moving away from the use of SSN in Banner to some other unique identifier. Dan Looby, Sonny Monfort and Marie Mons will be attending that session to understand issues and solutions that may be in place at other Banner institutions. **This is a very big issue at other institutions as well. We are investigating a solution that Drexel University implemented. They are also a Banner Student site.**
Attachment A – Flow of Data from Source Systems to the Data Warehouse and Ancillary Systems

PeopleSoft HRMS
Employee Data
Person = 870000001

Banner Student System
Student Data
Person = 800000010

Data Warehouse
Person = 870000001
Person = 800000010

Buzz Card
870000001
800000010

Andover
870000001
800000010

Library
870000001
800000010

Parking
870000001
800000010

Athletic A.
870000001
800000010