What is Penn Community?

- It’s what is called a Person Registry – the place where we keep track of ‘who is or was associated with the University’
- It’s about WHO people are, and WHAT our relationship is with them.
- Data here is predominantly reflected from other systems, and joined so that a unique identity record is created – and a PennID.
What can you do with it?

- You can get a PennID generated.
- Allows for a PennCard.
- You can get a setup code for a Pennkey (HOW you sign in to a lot of applications)
- You can get a PennID, PennName and Pennkey password for low-level access.
- You can verify data properly matched, and all suitable affiliations represented.
Where does data come from?

- Penn Community gets nightly feeds from:
  - Student Record System (SRS)
  - Penn’s Payroll System
  - UPHS’ Payroll System
  - Atlas (Alumni)
  - Oasis (Applicants)

- Penn Community is archival.
Concept of ‘reflect and join’

- Data that comes from varying sources can almost, but not quite, match:
  - Discrepancy in SSN
  - Discrepancy in birthdate
  - (Slight discrepancies in names accounted for by Soundex matching)

Data Administration sends out conflict reports to all source systems on a daily basis – in the meantime, a record can be suspended awaiting resolution.
What else is Penn Community used for?

- Authorization: my application only wants active employees, this screen only allows active students (this data can be used through PennGroups as well as several other authorization systems at penn using our data!)
- Think about licensing – think about protecting data.
What else is Penn Community used for?

- Important for applications like Online Directory and any app that needs to pick people to allow access—supplying data, maintaining who’s active and who’s not.
People less directly affiliated with Penn

- Penn Community also has an application available to enable individuals not in source systems to be part of our Community.
  - Penn Community Entry-View application (*Available to the select and highly-trained PennCommunity Data Managers and PennKey Administrators)
  - Also: read-only Community Status application for information
Affiliations

- Penn Community represents all of a person’s relationships to the University.
- Could be both staff and student – so would have both these affiliations.
  - Holder of all jobs, all student degree pursuits for an individual.
Penncomm-Direct

- For Developers, there is a new version (that will be highly available, but read-only) of data from Penn Community and Directory geared to the needs of developers and designed to prevent some typical coding.
Types of Membership

- Source system: Faculty, Staff, Students (from applicant on), Alumni, UPHS
- Non Source system but having a longer relationship: Contractors, Consultants, associated Organizations, etc.
- Very short relationship: some Wireless Guests – although now other means of access
Concept of Persistence

- If we know enough about you, we can join data from varying sources, and can be assured that we have only a single unique record for you – this allows assurance that when you log in with a pennkey you see what you should in any particular application or service.

- If we don’t have enough info, we can keep information, but there may be >1 record – and we don’t know for sure who you are.
“Persistent” affiliation

- People with permanent or ongoing connections to Penn
- Goes through the biomatching process
- Individual should have only one Persistent record in Penn Community.
- Requires Social Security Number and birthdate to guarantee uniqueness
  - For foreign students, system does permit “Penn-assigned” SSN, e.g. ‘999-xx-xxxx’
“Non-persistent” affiliation

- Cannot be reactivated once expired.
- No SSN or birthdate collected.
- No biomatching done – can have multiple records.
- Authorization should not be done against these records – we do not know enough about the individual to allow significant access.
- Essentially “disposable”
NP Bulk Upload

- For short term users, we have functionality to create Penn Community records en masse, and get back not just a setup code, but an established pennkey/pw.

- These pennkeys are not good for much but computing labs and wireless access (and now there are several other means of getting on wireless).
Bulk Non-persistent PennKeys

- Grant access on temporary basis to conference guests, non-Penn class attendees, recruiters, etc.
- System returns Excel sheet with assigned PennKeys
Persistent Adhoc Upload

- Functionality allows, with prior approval and for a small timeframe, batch uploading of Persistent Penn Community data
  - (proof of accuracy of SSN/dob information required)
- Pennkeys or setup codes are not part of this functionality – idea is to get the PennID/Member & Affiliation data.
PennKey
October, 2002: PennKey Debuts

- PennKey inaugurated as central university-wide authentication system
- Based on MIT Kerberos 5
- Used “PennNames” namespace
  - ISC worked with schools & centers to “unify” usernames, resolve conflicts
- Users had for the first time a single login name for wide variety of central and school-specific resources
What is a “PennKey”?  

- It’s helpful to think of your PennKey as an “electronic PennCard” that grants you access to online PennNet resources in a similar fashion to the access in the physical world granted by your PennCard (door swipes, etc.)
- Other than that, it’s simply a username/password combination, but based on highly secure protocols and technology
- Of course, like any other password, if you give it away, it loses its security
Who needs a PennKey?

- Anyone who needs to access the EVER-growing PennKey-compliant network resources, e.g.:
  - PennInTouch
  - U@Penn
  - Blackboard
- Students registering wired network ports in residential halls via NetReg

- Note that sometimes PennKey may not be the right answer for every app/service.
Who can get a PennKey?

- PennKey is based on the PennCommunity database, populated by:
  - Nightly feeds from source systems: SRS, Atlas, Payrolls, Oasis.
  - Individual records added by PennCommunity Data Managers and PennKey Administrators
    - Visiting faculty & scholars
    - University Trustees
    - Consultants & service providers
    - …and many other special affiliations
“Generic” or “Multi-user” PennKeys?

- In a word, NO…
- One of the fundamental concepts here is that a PennKey represents a single, unique individual
- For operational and security concerns, it is important to be able to identify who is using the resources
- There is, however, some work being done on the concept of “application PennKeys” for future use
PennKey Setup Codes

- A 7-character **one-time** password used to register a new PennKey OR reset PennKey password online
- Once it’s been used, it becomes invalid
- Expires if not used within 60 days
- **NOT** an assigned PennKey password
Setup Codes (cont.)

- Case sensitive, letters must be entered as lower-case, e.g. ‘ab2345c’
- Generation algorithm ignores easily confused characters, e.g. ‘0 <-> O’, ‘1 <-> I’, etc.
- Issuing a Setup Code “freezes” a PennKey, i.e., invalidates existing password
- Issuing a Setup Code invalidates any previously issued, non-expired Setup Code
Choosing a PennKey Name

- 8-character max, all lower case
- When first registering PennKey, user presented with a list generated by algorithm to have some relation to actual name, e.g. ‘smithj’, ‘jqpublic’
- “I don’t like any of the choices…”
  - If you cancel out and start the process again, you often will get a different list, BUT…
  - Once you’ve made your choice, THAT’S IT
PennCard + PennKey = ?

- Not necessarily…
  - Some people on the Penn campus do not use computers as part of their jobs, and thus do not need a PennKey, while on the other hand…
  - Many users of Penn computing resources may never come to Philadelphia, and have no need for a PennCard
    - Remote campuses, e.g. Wharton West (San Francisco)
“Persistent” Pennkeys

- 73% of existing PennKeys associated with this type of record
- People with permanent or ongoing connections to Penn
- PennName is permanent (archived)- even if person leaves Penn – this may be re-examined in future
- Requires Social Security Number to guarantee uniqueness
  - For foreign students, system does permit “Penn-assigned” SSN, e.g. ‘999-xx-xxxx’
“Non-persistent” Pennkeys

- aka “guest PennKeys”, intended for use by temporary, “ephemeral” Penn users, e.g. conference guests
- Do not reflect name, are assigned sequentially, e.g. ‘g0001234’
- Valid for 7 days by default, but can be set longer
- Password cannot be changed
- No SSN required
- Essentially “disposable”
Obtaining Setup Codes: On Campus

- Three original locations still in business:
  - Registrar’s Office (Students Only)
    - 221 Franklin Building
  - ISC Customer Service (Faculty/Staff Only)
    - 3401 Walnut 265B
  - PennCard Center
    - Special Case…
PennCard Center

- As a convenience to new Penn people who are visiting to get their first PennCard, the PennCard Center will issue a PennKey Setup Code for these people as well.

- This is the only instance - DO NOT send existing PennKey holders to the PennCard Center for Setup Codes.
Local PennKey Administration Stations

- Schools and centers have locations where their own people could come to get Setup Codes
- Generally limited to the particular school, e.g., Wharton students may not get Setup Codes from a station in SAS
- Hours and other operating parameters can vary
- Check PennKey website for details
Who is responsible for putting people in Penn Community?

- If people come from a source system in a timeframe that is acceptable there is no concern.
- If the timeframe doesn’t work, or if the person doesn’t come from a source system, the people in the school/center closest to the person’s need for the affiliation are responsible.
PennKey Administrators

- Selected by individual schools to receive training in managing Penn Community data entry and issuing Setup Codes
- Limited by policy to small numbers, though exceptions for size have been granted (e.g. SAS, UPHS)
- Granted SSN4 view to PennCommunity
PennKey Administrators (cont.)

- Have ability to add new people to PennCommunity and issue PennKey Setup Code
- Required to inspect 2 forms of ID before issuing Setup Code, or otherwise confirm identity of person
- Not allowed to email setup codes at this point in time.
Case Study: New Faculty

- Dr. Jones is a new faculty hire whose official hire date is Sept. 1 (it’s currently May)
- He will be moving to Philly over the summer and will be doing preliminary work on campus prior to September
- He needs a PennKey, but will not appear in Payroll until September - what to do?
Add him to PennCommunity anyway…

- Members of PennCommunity can (and frequently do) have more than one “Penn affiliation”
- Get the local PennKey Admin to add him with a “Courtesey” (CTSY) affiliation - this will make him eligible for a persistent PennKey (it will require his SSN)
- Once he is in the payroll system, that feed will match up the SSN in PennCommunity and both affiliations will appear
‘PennKeys for remote individuals

- ‘PennKey ASAP’ for alumni, to speed up/avoid mailing of setup codes for PennKeys.
  - Series of questions based on the individual’s career at Penn.
- One-shot emailing of setup codes to incoming students (where data available).
Obtaining Setup Codes: Off-campus

- PennKey Setup Code Service
  - https://medley.isc-seo.upenn.edu/pennKeyRequest/jsp/fast.do

- Setup Code letter will be mailed to address of record, chosen by enduser.
Guest Sponsorship

- Good for individuals not able to present themselves on campus.
  - Form is at: http://www.upenn.edu/computing/pennkey/guest/GuestPennKey.pdf
- Persistent and Nonpersistent-type affiliations available.
- Pennkey Setup code is generated, and information is sent.
Electronic Setup Code Delivery?

- Only for incoming students through our automated system.
- Setup Codes MAY NOT otherwise be transmitted by telephone, fax or email.
Testing a PennKey

- Use “Test your PennKey & Password” link at: www.upenn.edu/computing/pennkey
- Some resources (e.g. Library) have additional authentication layers - if user PennKey doesn’t work, have them test it here before generating Setup Code/changing password
- If test is OK, have them contact admins for resource(s) to see what additional authentication or authorization is required
Changing/resetting Passwords

- A known PennKey password can be changed at anytime at the following link:
  - http://www.upenn.edu/computing/pennkey/setreset/

- A forgotten PennKey password requires a Setup Code to reset, unless the person signed up for “Challenge/Response” (which is currently not recommended for people with access to sensitive data).
Can I reset my PennName, too?

- Once you have selected your PennName, it cannot be changed (with a few exceptions - stay tuned)
- Using a Setup Code to reset your password will not affect your PennName
Policy: Changing PennNames

- University policy permits a change of PennName in the following circumstances:
  - Legal name change (via marriage, divorce, etc)
  - Person being subjected to harassment, threats, etc
  - The existing PennName may be deemed offensive or otherwise inappropriate
Initiatives for FY14

Penn Community:
- Redo training materials
- Redo website
- Evaluate possible transition/incorporation of PennNames into PCOM suite of data/applications.
Initiatives for FY14

- PennKey:
  - Re-evaluate whether meeting business needs with present setup code delivery methods
  - Re-evaluate PennKey website for ease of use
Initiatives for FY14

- Continue to work on Levels of Assurance initiatives – already pilots in place on financial applications
- Keep positioning/evaluating for Incommon Silver
- Launching 2-Step Verification pilot
- Examination of Social Credentialling for appropriate levels of access.
Thank you – questions?

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