

# Identity Management in Higher Education: 2005 Baseline Study Survey Questionnaire

Identity Management is a high profile issue attracting much attention in the higher education IT community. Yet, adoption of many Identity Management technologies is just beginning. This survey is part of an ECAR study designed to help institutions position themselves in this quickly evolving arena. The survey looks at the benefits and applicability of Identity Management solutions to differing types of colleges and universities. It will also create a profile of higher education practices and plans related to Identity Management.

Identity Management refers to the business processes and infrastructure required to support the use of digital identities. Within this context, this survey focuses on the key functions of establishing identity, user authentication and authorization, as well as supporting infrastructures such as enterprise directory, reduced/single sign on, and federated identity.

Our testing suggests that this survey will require 20–40 minutes to complete. If you wish to print a copy of the survey before completing it online, a .pdf version is available from the survey header or at [http://www.educause.edu/ir/library/pdf/ecar\\_so/ers/si/esi05e.pdf](http://www.educause.edu/ir/library/pdf/ecar_so/ers/si/esi05e.pdf).

This survey need not be completed at a single sitting. You may save your responses and return to the survey later. If you wish to exit before submitting your final answers, set a Favorite (Bookmark) for the survey, and then click the SAVE button. If cookies are enabled, when you return to the survey you will be taken to the place you left off. You may complete or revise your answers until you click the FINISH button.

Please complete this survey by Tuesday, June 14, 2005. As thanks for your time and valuable input, each participant is entitled to receive a summary of key findings from the study. In addition, three survey respondents will be selected at random to receive a complimentary copy of the final report or, for ECAR participating subscribers, one additional complimentary admission to the annual ECAR Research Symposium.

We appreciate your time and participation. If you have any questions or concerns, please e-mail [ecar@educause.edu](mailto:ecar@educause.edu).

Click the Next button to begin the survey. Once again, thank you for your input.

## Section 1: About You and Your Institution

Please enter the survey ID number that you received by electronic mail to begin this survey. If you do not have this ID number, you may find it using the EDUCAUSE institution Survey ID Lookup link.

### 1.1 Survey ID [Required]

### 1.2 Your name [Required]

1.3 What is your position?

- CIO (or equivalent)
- Vice president / vice provost or equivalent (non-CIO)
- Director of administrative computing
- Director of academic computing
- Chief information security officer
- Director/manager of IT networking
- Other IT management
- Other administrative management
- Other academic management

1.4 Is the CIO at your institution a member of the president/chancellor's cabinet?

- No
- Yes

1.5 Does anyone at your institution hold the title of chief information security officer?

- No
- Yes

1.6 At my institution, IT is:

- Highly centralized
- Centralized
- Balanced
- Decentralized
- Highly decentralized

1.7 Has your institution implemented, or are you currently implementing, an enterprise data warehouse or data marts?

- No
- A single institution-wide data warehouse
- Data mart(s) for specific types of information

### 1.8 Do you use, or are you currently implementing, vendor supported ERP software for administrative applications? [Required]

- A complete vendor supported ERP including HR, financial, and student applications (go to 1.9)
- Some vendor supported ERP applications (go to 1.9)
- No vendor supported ERP applications (go to 1.20)
- Don't know (go to 1.20)

1.9\_1.17 Which ERP vendor(s) supply your institution's student, human resource, or financial applications? Check all that apply.

- 1.9 Campus Management Corp.
- 1.10 Datatel
- 1.11 Jenzabar
- 1.12 Oracle Financial/Oracle SIS
- 1.13 Oracle PeopleSoft
- 1.14 SAP
- 1.15 Software Research Northwest (SRN)
- 1.16 SunGard SCT
- 1.17 Other

1.18 What BEST describes the approach you want your ERP vendor to take with respect to Identity Management solutions?

- Provide comprehensive Identity Management solutions for our institution
- Provide specific, focused 'point solutions' that contribute to our overall Identity Management solution
- Create formal partnerships with key Identity Management providers to offer attractive Identity Management solutions
- Ensure their ERP software is compliant with industry standards and regulations relevant to Identity Management
- Other
- 1.19 Please describe 'Other' (optional)

1.20 Has your institution implemented, or are you planning to implement, a faculty/staff portal?

- Already implemented
- Currently implementing
- Planning to implement
- Not planning to implement
- Don't know

**1.21 Has your institution implemented, or are you planning to implement, a student portal?**

**[Required]**

- Already implemented (go to 1.22)
- Currently implementing (go to 1.29)
- Planning to implement (go to 1.29)
- Not planning to implement (go to 1.29)
- Don't know (go to 1.29)

1.22\_1.28 Are any of the following resources currently offered through your student portal? Check all that apply.

- 1.22 Student administration self service
- 1.23 Course management system
- 1.24 Student debit/purchasing card accounts
- 1.25 Bookstore/e-commerce integration
- 1.26 Calendaring
- 1.27 E-mail and/or other messaging
- 1.28 Portal personalization

1.29 How would you characterize the budget climate of your central IT organization in the past three years?

- Decreasing budgets
- Flat budgets
- Increasing budgets

1.30 What BEST characterizes your institution in terms of adopting new technologies?

- Innovator (first 2.5%)
- Early adopter (next 13.5%)
- Early majority (next 34%)
- Late majority (next 34%)
- Laggards (last 16%)

1.31 Which of the following BEST describes your institution's goals for IT?

- Provide reliable IT infrastructure and services at the lowest possible cost
- Provide appropriate IT infrastructure and services to different users, based on their needs
- Provide IT infrastructure and services that further the institution's strategic goals
- Provide IT infrastructure and services to create institutional competitive advantage

## Section 2: Institutional Perspectives on Identity Management

Identity Management refers to the business processes and infrastructure required to support the use of digital identities. This includes establishing identity, user authentication and authorization, enterprise directory services, reduced/single sign on, and identity federations.

2.1\_2.8 What is your opinion about the following statements?

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree
- Don't know

- 2.1 My institution's senior management understands the benefits of investing in Identity Management.
- 2.2 My Institution's senior management understands the costs of Identity Management.
- 2.3 My institution's senior management is willing to address the policy issues related to Identity Management
- 2.4 My institution is providing the resources needed for Identity Management.
- 2.5 It is important that our Identity Management solutions are consistent with emerging technologies such service oriented architecture (SOA)/Web services.
- 2.6 It is important to provide anonymous access to certain network services (e.g. library content, whistle blowing, etc.).
- 2.7 My institution is compliant with regulatory requirements affecting student information (e.g., FERPA, Student and Exchange Visitor Information System)
- 2.8 My institution is compliant with regulatory requirements affecting health information (e.g. HIPAA)
- 2.9 My institution is compliant with regulatory requirements affecting financial records (e.g. Gramm Leach Bliley Act)
- 2.10 The central data, networks and applications at our institution are secure.

2.11 How many significant security incidents related to user identification, authentication, or authorization has your institution experienced in the last two years?

- No incidents
- One incident
- More than one incident
- Don't know

2.12 If you use Social Security Number (SSN) as an identifier at your institution, how long do you estimate you will continue this practice?

- We do not use SSN as an identifier
- Plan to discontinue within one year
- Plan to discontinue in one to two years
- Plan to discontinue in three years or more
- No plans to discontinue
- Don't know

2.13\_2.19 What is the status of the following activities?

- Completed
- In progress

- Planning to do
- Not planning to do
- Don't know

- 2.13 Documented business case for any area of Identity Management
- 2.14 Documented plan for Identity Management
- 2.15 Released an RFI or RFP for Identity Management
- 2.16 Risk assessment of data access security and privacy practices
- 2.17 Inventory of campus identifiers (e.g. used by library, e-mail, etc.)
- 2.18 Documented campus data custodians/owners
- 2.19 Documented data definitions, reconciling differences between different data sources

2.20 If you have prepared an inventory of campus person identifiers (e.g. used for e-mail, the library, on-line classes, etc.), how many person identifiers did you find?

- Have not completed an inventory
- Fewer than 20
- 21 to 50
- 51 to 100
- 101 to 250
- 251 to 500
- More than 500

2.21\_2.24 Have you implemented, or are you currently implementing, any of these online self service functions? Check all that apply.

- 2.21 Password resets
- 2.22 Updating certain personal information
- 2.23 Mailing lists and other subscription services
- 2.24 Setting privacy preferences for release of identity information

2.25\_2.30 What areas of Identity Management does your institution monitor? Check all that apply.

- 2.25 Emerging standards relevant to Identity Management
- 2.26 Technology vendor offerings and directions
- 2.27 Information from research/consulting firms
- 2.28 Directions of leading higher education institutions
- 2.29 Directions of peer institutions
- 2.30 Higher education working groups (e.g. NMI-edit, Net@EDU groups)

2.31\_2.33 Do you have documented policies for the following?

- No documented policies
  - Policies are in progress or partially completed
  - Policies are completed
  - Don't know
- 
- 2.31 Policies for establishing identity (e.g. how user IDs are issued)
  - 2.32 Policies for user authentication (e.g. guidelines, responsibilities for passwords)
  - 2.33 Policies for user authorization (e.g. what groups are allowed what access)

2.34\_2.38 Does your institution keep any of the following metrics related to Identity Management? Check all that apply.

- 2.34 Number of user accounts added, changed or deleted
- 2.35 Help desk statistics on user access problems (e.g. password reset)



- 2.36 Average time to create a new user ID and enable authorized services
- 2.37 Average time from user termination to disablement of all of a user's IDs
- 2.38 Number of temporary affiliates with enabled accounts but expired contracts

2.39 Are you integrating Identity Management for computer and network access control with Identity Management for physical access control (e.g. with a single multi-function ID card)?

- Yes
- Planning to do
- Not planning to do
- Don't know

2.40\_2.51 What is motivating your institution to pursue Identity Management? Rank up to three. Enter 1 for the item you rank first, 2 for the second, and 3 for the third.

- 2.40 No motivators at this time
- 2.41 Regulatory compliance (e.g. HIPPA, GLB Act, FERPA)
- 2.42 Security/privacy best practices
- 2.43 Enhanced user services and satisfaction
- 2.44 Cost reduction/increased efficiencies
- 2.45 Strategic value/opportunities
- 2.46 Improvements in our technical environment
- 2.47 Strategy of early adoption/experimentation
- 2.48 Keeping current with generally accepted IT directions
- 2.49 Position the institution for implementation of federated identity
- 2.50 Reduce vendor dependencies
- 2.51 Other

2.52\_2.64 What are the challenges to your institution in pursuing Identity Management? Rank up to three. Enter 1 for the item you rank first, 2 for the second, and 3 for the third.

- 2.52 No challenges at this time
- 2.53 Lack of acceptable ROI
- 2.54 Adequate funding is not available
- 2.55 Higher IT priorities
- 2.56 Lack of IT staff expertise
- 2.57 Lack of institutional senior management's support
- 2.58 Technical solutions are too immature
- 2.59 Problems with vendor software and support
- 2.60 Problems with our institution's technologies/infrastructure
- 2.61 Data integrity problems (consistency, accuracy, etc.)
- 2.62 Difficulty developing campus policies and procedures
- 2.63 Lack of ownership of Identity Management by a central group
- 2.64 Other

2.65 Which BEST describes your institution's current thinking about Identity Management solutions?

- We probably will not use vendor solutions, but will build solutions using in-house developed or open source software.
- We will address our short term needs with best of breed vendor point solutions and integrate these various products in-house.
- We will first identify our long term business and architecture strategy and then decide on a solution or set of solutions for the institution.

- We will probably buy the vendor “suite” solution that best aligns with our network, infrastructure, and hardware vendors.
- We will probably buy the vendor “suite” solution that best aligns with our administrative applications and ERP vendors.
- Other
- Don't know

## Section 3: The Benefits of Identity Management

This section presents 14 benefits related to Identity Management for your evaluation.

- Very low
- Low
- Medium
- High
- Very high
- Don't know

3.1\_3.2 Capability to immediately enable all authorized services for a new user

- 3.1 What is the importance to your institution?
- 3.2 Please rate your institution's current capability.

3.3\_3.4 Capability to immediately change authorized services for a user who changes roles

- 3.3 What is the importance to your institution?
- 3.4 Please rate your institution's current capability.

3.5\_3.6 Capability to immediately disable all services and user IDs when a user is no longer affiliated with the institution

- 3.5 What is the importance to your institution?
- 3.6 Please rate your institution's current capability.

3.7\_3.8 Capability to give visitors/guests only the specific access they require and disable that access at the correct time

- 3.7 What is the importance to your institution?
- 3.8 Please rate your institution's current capability.

3.9\_3.10 Prior to issuing credentials (e.g. user account, ID card, etc.), we have the appropriate level of confidence (based on type of constituent) that a user is who he or she claims to be

- 3.9 What is the importance to your institution?
- 3.10 Please rate your institution's current capability.

3.11\_3.12 Capability to directly track illegal or unauthorized network activity back to the person responsible

- 3.11 What is the importance to your institution?
- 3.12 Please rate your institution's current capability.

3.13\_3.14 Reduced or single sign-on (one electronic identity used to access most or all institutional services)

- 3.13 What is the importance to your institution?
- 3.14 Please rate your institution's current capability.

3.15\_3.16 Capability to provide self service functions (e.g. password reset, profile management)

- 3.15 What is the importance to your institution?
- 3.16 Please rate your institution's current capability.

3.17\_3.18 Capability to decentralize user account management and authorization of services (e.g. to deans of schools, managers of business units)

- 3.17 What is the importance to your institution?
- 3.18 Please rate your institution's current capability.

3.19\_3.20 Capability of strong authentication (e.g. strong passwords, two factor authentications)

- 3.19 What is the importance to your institution?
- 3.20 Please rate your institution's current capability.

3.21\_3.22 Have a single authoritative source of information for all persons affiliated with the institution (as an institutional asset)

- 3.21 What is the importance to your institution?
- 3.22 Please rate your institution's current capability.

3.23\_3.24 User authentication and authorization processes that are scalable (e.g. as enrollment grows)

- 3.23 What is the importance to your institution?
- 3.24 Please rate your institution's current capability.

3.25\_3.26 Capability to allow our institutional users to access off campus resources that require their own authentication and authorization (e.g. licensed library content)

- 3.25 What is the importance to your institution?
- 3.26 Please rate your institution's current capability.

3.27\_3.28 Capability to allow non-institutional users access to our institutional resources for which we require authentication and authorization (e.g. sharing our course materials with other institutions)

- 3.27 What is the importance to your institution?
- 3.28 Please rate your institution's current capability.

## Section 4: Campus Identity Management Projects

### 4.1 Is your institution engaged in any efforts or projects related to Identity Management (e.g., enterprise directory, reduced/single sign-on, strong authentication, automated role- or privilege-based authorization, federated identity)? [Required]

- No (go to 4.74)
- Yes (go to 4.2)
- Don't know (go to Section 5)

### 4.2\_4.9 What is your institution's implementation strategy for Identity Management projects? Check all that apply.

- 4.2 Not yet determined
- 4.3 Part of infrastructure build out
- 4.4 Stand alone project
- 4.5 Bundled with an ERP implementation
- 4.6 Bundled with IT security implementation
- 4.7 Bundled with campus portal implementation
- 4.8 Bundled with another project implementation
- 4.9 Other

### 4.10\_4.17 Who sponsors your campus Identity Management projects? Check all that apply.

- 4.10 CIO (or equivalent)
- 4.11 Administrative functional area executive
- 4.12 Director of administrative computing
- 4.13 Chief information security officer
- 4.14 Director/manager of IT networking
- 4.15 Other IT management
- 4.16 Other administrative management
- 4.17 Other academic management

### 4.18\_4.30 Which functional areas actively participate in your campus Identity Management projects? Check all that apply.

- 4.18 Financial services
- 4.19 Student affairs
- 4.20 Human resources
- 4.21 Business services
- 4.22 Academic affairs
- 4.23 Alumni/development
- 4.24 Library
- 4.25 Legal counsel
- 4.26 Audit
- 4.27 Risk management
- 4.28 Police
- 4.29 Academic schools and departments
- 4.30 Research administration

### 4.31\_4.37 Is there an oversight committee for Identity Management projects, and what is its role? Check all that apply.

- 4.31 No oversight committee
- 4.32 Advisory
- 4.33 Sets policy

- 4.34 Sets priorities
- 4.35 Adjudicates conflicts
- 4.36 Authorizes funding
- 4.37 Other

4.38 Are your current Identity Management projects organized into a formal initiative?

- No
- Yes
- We are considering

4.39 When did you begin your Identity Management projects?

- Before 2002
- 2002
- 2003
- 2004
- 2005
- Don't know

4.40 Approximately how much do you think central IT will spend on implementation of Identity Management projects over the next three years?

- \$50,000 or less
- \$50,001 to \$100,000
- \$100,001 to \$500,000
- \$500,001 to \$1 million
- Between \$1 million and \$2 million
- Between \$2 million and \$5 million
- More than \$5 million
- Don't know

4.41\_4.47 How do you pay for your Identity Management projects? Check all that apply.

- 4.41 Not yet determined
- 4.42 Annual central IT budget
- 4.43 Contributions from other central units
- 4.44 One time campus budget allocation
- 4.45 Bundled in other campus projects (e.g. ERP)
- 4.46 Partnerships or grants
- 4.47 Other

4.48 Approximately how many central IT full time staff (FTE) are currently assigned to your Identity Management projects? Drop down menu: 0 to 25 and Don't know.

4.49\_4.53 Are any of these data integrity issues a significant challenge to implementing Identity Management at your institution? Check all that apply.

- 4.49 Inconsistencies of data definitions between systems/applications
- 4.50 Duplication of data in multiple systems
- 4.51 Poor accuracy/timeliness of data
- 4.52 Lack of established data ownership for data
- 4.53 Needed data are not now collected

4.54\_4.60 Are any of these technology issues a significant challenge to implementing Identity Management at your institution? Check all that apply.

- 4.54 Accommodating existing homegrown or legacy applications or systems
- 4.55 Adopting new and complex technologies



- 4.56 Lack of mature vendor products
- 4.57 Lack of vendor software interoperability
- 4.58 Proprietary vendor solutions
- 4.59 High cost of vendor solutions
- 4.60 Poor vendor support for their products

4.61\_4.69 Have you used, or are you currently using, consultants/external services to help with your Identity Management efforts in any of the following areas? Check all that apply.

- 4.61 Have not used consultants/external services
- 4.62 Develop a business case
- 4.63 Organization and/or process
- 4.64 Change management
- 4.65 Architecture/design
- 4.66 Software development/implementation
- 4.67 Policy development
- 4.68 Education/training
- 4.69 Other

4.70\_4.71 What is your opinion about the following statements?

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree
- Don't know
- Not applicable

4.70 My institution is getting the value we expected from the money spent on consultants/external services.

4.71 My institution is getting the value we expected from the money spent on Identity Management projects.

4.72 Are Identity Management projects included in your IT strategic plan (or institutional strategic plan if this includes IT)?

- Do not have either an IT or institutional strategic plan
- Not included in an IT or institutional strategic plan
- Included in an IT or institutional strategic plan
- Don't know

4.73 What best describes your expectations about cost savings from your Identity Management projects?

- We have not achieved identifiable cost savings and do not expect to
- We have not achieved identifiable cost savings, but expect to in the future
- We have achieved identifiable cost savings but do not expect to achieve more
- We have achieved identifiable cost savings and expect to achieve more in the future
- Don't know

**Branch to Section 5**

4.74 Can you tell us more about why your campus has chosen not to pursue Identity Management projects at this time?

## Section 5: Establishing Identity and User Authentication

5.1 How many different types of ID cards does your institution issue? Drop down menu 0 to 15;  
Don't know

5.2 For faculty and staff in sensitive roles, do you require stronger identity proofing than for those not in sensitive roles (i.e., ensuring a person is who they claim to be prior to issuing a user account)?

- Yes
- Planning to do
- Not planning to do
- Don't know

5.3 For different groups of off campus affiliates (e.g., parents, alumni), do you use different methods of identity proofing (i.e., ensuring a person is who they claim to be prior to issuing a user account)?

- Yes
- Planning to do
- Not planning to do
- Don't know

5.4 For different groups of on campus visitors and guests, do you use different methods of identity proofing (i.e., ensuring a person is who he or she claims to be prior to issuing a user account)?

- Yes
- Planning to do
- Not planning to do
- Don't know

5.5\_5.14 What user authentication methods does your institution use when providing access to network services?

- Using
- Planning to use
- Not planning to use
- Don't know

- 5.5 Conventional password/PIN
- 5.6 Strong password
- 5.7 Kerberos
- 5.8 PKI certificate (software) without PIN
- 5.9 PKI certificate (software) with PIN
- 5.10 PKI hardware token without PIN
- 5.11 PKI hardware token with PIN
- 5.12 Secure ID-style onetime password
- 5.13 Other multi-factor authentication methods
- 5.14 Biometric identification

5.15\_5.18 Is any part of your institution using, or planning to use, any of the following? Radio buttons

- Using
- Planning to use
- Not planning to use
- Don't know

- 5.15 Encrypted e-mail
  - 5.16 Signed e-mail
  - 5.17 Biometrics for Identity Proofing (e.g., finger prints, iris scan, etc.)
  - 5.18 RFID technology for any function of Identity Management
- 5.19\_5.21 To what extent have you implemented the following related to Identity Management?
- Not at all
  - In some cases
  - In all cases
  - Don't know
- 5.19 Primary electronic identifiers assigned to individuals are “unique for all time” (i.e., never reassigned).
  - 5.20 Significant events related to Identity Management are logged and retained securely for 6 months (e.g. issuance or revocation of user IDs).
  - 5.21 Prohibit (by policy or technology) network transmission of unencrypted passwords for the primary electronic identifier.

## Section 6: Reduced or Single Sign On

### 6.1 To what extent is your institution considering or implementing reduced or single sign-on (a single electronic identity that can be entered once for all or most of your applications)? [Required]

- Not considering (go to 6.10)
- Currently evaluating (go to 6.2)
- Planned, but won't start within the next 12 months (go to 6.2)
- Will start within the next 12 months (go to 6.2)
- Implementation is in progress (go to 6.2)
- Partially operational (go to 6.2)
- Fully operational (go to 6.2)

6.2 Are you implementing, or planning to implement, your reduced/single sign-on in conjunction with a campus portal?

- No
- In place or implementing
- Planned for the future
- Don't know

6.3\_ 6.7 What is, or will be, your approach to implementing reduced/single sign-on? Check all that apply.

- 6.3 Not yet determined
- 6.4 Use Open Source software (e.g. Kerberos, CAS, PubCookie)
- 6.5 Use homegrown software developed at your, or another, institution
- 6.6 Use commercial vendor software (e.g. RSA, Aladdin)
- 6.7 Other

6.8 If applicable, please briefly describe the technologies you use, or are planning to use, for reduced/single sign-on technology.

6.9 Do you plan to use more commercial vendor software for reduced/single sign on in the future?

- No
- Yes
- Don't know

### Branch to Section 7

6.10\_ 6.24 What are the primary reasons your institution is not considering reduced/single sign-on? Check up to three.

- 6.10 Capabilities of reduced/single sign on not required at this time
- 6.11 Consider reduced/single sign on a security risk
- 6.12 Lack of acceptable ROI
- 6.13 Adequate funding is not available
- 6.14 Higher IT priorities
- 6.15 Lack of IT staff expertise
- 6.16 Lack of institutional senior management's support
- 6.17 Technical solutions are too immature
- 6.18 Problems with vendor software and support
- 6.19 Problems with our institution's technologies/infrastructure
- 6.20 Data integrity problems (consistency, accuracy, etc.)



- 6.21 Difficulty developing campus policies and procedures
  - 6.22 Lack of ownership of Identity Management by a central group
  - 6.23 Other
  - 6.24 Please describe “Other” (optional)
- 6.25 Do you think you will consider reduced/single sign-on at some point in the future?
- No
  - In the next 12 months
  - Between one and two years from now
  - Between two and three years from now
  - More than three years from now
  - Don't know

## Section 7: The Enterprise Directory

**7.1 To what extent is your institution considering or implementing an enterprise directory? By enterprise directory, we mean an institutional directory service that has the capability to include all persons affiliated with the institution and to be used by multiple applications. [Required]**

- Not considering (go to 7.56)
- Currently evaluating (go to 7.2)
- Planned, but won't start within the next 12 months (go to 7.2)
- Plan to start within the next 12 months (go to 7.2)
- Implementation is in progress (go to 7.2)
- Partially operational (go to 7.2)
- Fully operational (go to 7.2)

7.2\_7.10 What is, or will be, your approach to your enterprise directory? Check all that apply.

- 7.2 Not yet determined
- 7.3 Implemented as a stand alone system using Open Source software (e.g. OpenLDAP)
- 7.4 Implemented as a stand alone system using homegrown software developed at your, or another, institution
- 7.5 Implemented as a stand alone system using commercial vendor software (e.g. Sun JES, Novell e-directory)
- 7.6 Implemented as part of vendor supplied application software (e.g. an ERP)
- 7.7 Implemented as part of an institutional legacy application
- 7.8 Implemented as part of a network operating system (NDS, Microsoft Active Directory)
- 7.9 Integrates multiple directories to act as a single directory
- 7.10 Other

7.11 If applicable, please briefly describe the technologies you use, or are planning to use, for enterprise directory.

7.12\_7.16 Do you plan to change your approach to enterprise directory in any of the following ways in the future? Check all that apply.

- 7.12 Migrate from an enterprise directory implemented as part of another application to a stand alone enterprise directory system
- 7.13 Use more commercial vendor software
- 7.14 Use more standards based software
- 7.15 Use more Open Source software
- 7.16 Replace/reduce multiple subdirectories with a single directory

7.17\_7.24 Which of these technologies are you using, or planning to use, for your enterprise directory? Check all that apply.

- 7.17 LDAP
- 7.18 Microsoft Active Directory
- 7.19 Novell Directory Services (NDS)
- 7.20 X.500
- 7.21 SQL
- 7.22 DSML
- 7.23 XML
- 7.24 Other

7.25\_7.32 Are you using your enterprise directory to facilitate any of the following functions?

- Using
- Planning to use



- Not planning to use
- Don't know

- 7.25 User authentication
- 7.26 User authorization
- 7.27 Store affiliation and group information
- 7.28 Store privileges and permissions for access to systems and resources
- 7.29 Track, log, and report on user activities
- 7.30 Produce campus reports (e.g. whitepages)
- 7.31 Workflow (updating user data based on defined business triggers)
- 7.32 Enable functionality of ID cards (e.g. physical access based on job function)

7.33 Has your enterprise directory development been influenced by the EduPerson object classes?

- No
- Yes
- Don't know

7.34 Does the scope of your enterprise directory include a medical center?

- Do not have a medical center
- No
- Yes

7.35\_7.47 Which of the following campus applications use the enterprise directory? Check all that apply.

- 7.35 Campus telephone directory
- 7.36 Campus e-mail directory
- 7.37 Human resources systems
- 7.38 Student information systems
- 7.39 Alumni systems
- 7.40 Library system
- 7.41 Course management system
- 7.42 Business services system (e.g. parking, housing)
- 7.43 Medical center applications
- 7.44 Network operating system (NOS)
- 7.45 Any departmentally controlled systems
- 7.46 ID card system
- 7.47 Physical access control system

7.48 Our goal is to have all or most of our central IT applications use the enterprise directory.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree
- Don't know

7.49\_7.55 Do you have documented policies for your enterprise directory? Check all that apply.

- 7.49 No policies
- 7.50 Enterprise directory's role and authority
- 7.51 Adding and removing attributes
- 7.52 Data ownership and definitions

- 7.53 User access control (who gets access to what)
- 7.54 Privacy of enterprise directory data
- 7.55 Other

**Branch to Section 8**

7.56\_7.69 What are the primary reasons your institution is not considering an enterprise directory at this time? Check up to three.

- 7.56 An enterprise directory is not required at this time
- 7.57 Lack of acceptable ROI
- 7.58 Adequate funding is not available
- 7.59 Higher IT priorities
- 7.60 Lack of IT staff expertise
- 7.61 Lack of institutional senior management's support
- 7.62 Technical solutions are too immature
- 7.63 Problems with vendor software and support
- 7.64 Problems with our institution's technologies/infrastructure
- 7.65 Data integrity problems (consistency, accuracy, etc.)
- 7.66 Difficulty developing campus policies and procedures
- 7.67 Lack of ownership of Identity Management by a central group
- 7.68 Other
- 7.69 Please describe "Other" (optional)

7.70 Do you think you will consider implementing an enterprise directory at some point in the future?

- No
- In the next 12 months
- Between one and two years from now
- Between two and three years from now
- More than three years from now
- Don't know

## Section 8: Automated Role- and Privilege-Based Authorization

### 8.1 To what extent is your institution considering or implementing automated role- and privilege-based authorization (e.g., giving access to electronic resources using privileges or permissions derived automatically from affiliations and groups). [Required]

- Not considering (go to 8.13)
- Currently evaluating (go to 8.2)
- Planned, but won't start within the next 12 months (go to 8.2)
- Plan to start within the next 12 months (go to 8.2)
- Implementation is in progress (go to 8.2)
- Partially operational (go to 8.2)
- Fully operational (go to 8.2)

8.2\_8.8 What is, or will be, your approach to automated role- and privilege-based authorization? Check all that apply.

- 8.2 Not yet determined
- 8.3 Stand alone system using Open Source software (e.g. Signet, Grouper)
- 8.4 Stand alone system using homegrown software developed at your, or another, institution
- 8.5 Stand alone solution using commercial vendor software
- 8.6 Implemented as part of vendor supplied application(s) software (e.g. ERP)
- 8.7 Implemented as part of one or more institutional legacy applications
- 8.8 Other

8.9 If applicable, please briefly describe the technologies you use or are planning to use for automated role- and privilege-based authorization.

8.10 Do you plan to use more commercial vendor software for automated role- and privilege-based authorization in the future?

- No
- Yes
- Don't know

8.11\_8.12 What is your opinion about the following statements?

- Strongly disagree
  - Disagree
  - Neutral
  - Agree
  - Strongly agree
  - Don't know
- 8.11 Our institution is committed to revising current business policies before they are entered into an automated role- or privilege-based authorization system.
  - 8.12 Our goal is to have all or most of our central IT applications use the automated role- and privilege-based authorization system.

### Branch to Section 9

8.13\_8.27 What are the primary reasons your institution is not considering automated role- or privileged-based authorization at this time? Check up to three.

- 8.13 Capabilities of automated role- and privilege-based authorization not required at this time
- 8.14 We are not that far along in our Identity Management project
- 8.15 Lack of acceptable ROI

- 8.16 Adequate funding is not available
- 8.17 Higher IT priorities
- 8.18 Lack of IT staff expertise
- 8.19 Lack of institutional senior management's support
- 8.20 Technical solutions are too immature
- 8.21 Problems with vendor software and support
- 8.22 Problems with our institution's technologies/infrastructure
- 8.23 Data integrity problems (consistency, accuracy, etc.)
- 8.24 Difficulty developing campus policies and procedures
- 8.25 Lack of ownership of Identity Management by a central group
- 8.26 Other
- 8.27 Please describe "Other" (optional)

8.28 Do you think you will consider implementing role- or privilege-based authorization at some point in the future?

- No
- In the next 12 months
- Between one and two years from now
- Between two and three years from now
- More than three years from now
- Don't know

## Section 9: Federated Identity

9.1 When do you think your institution will need to participate in a federated identity solution -- requiring automated management of identity information between your campus and other institutions and organizations to facilitate collaborative or business initiatives?

- We do not envision a need
- We have a need now
- In the next 12 months
- Between one and two years from now
- Between two and three years from now
- More than three years from now
- Don't know

9.2\_9.4 What are your plans for federated identity?

- No
- Yes
- Planned for the future
- Don't know

9.2 Are you a member of the InQueue federation?

9.3 Are you a member of the InCommon federation?

9.4 Are you implementing Shibboleth, Liberty Alliance, or another federating technology?

9.5 If you are using or planning to use Shibboleth, what best describes your institution's approach?

- Not planning to use
- A short-term solution to be replaced by a commercial vendor solution in the future
- A long-term "niche" solution to be used with select applications
- A long-term strategic solution to be used with most applications
- Not yet determined

9.6 If applicable, what applications are motivating you to implement federating technologies? Fill in box.

## **Section 10: Conclusion**

10.1 May we contact you by phone or e-mail to obtain further insights or clarifications on your responses?

- No
- Yes

10.2 If yes, what is your e-mail address?

10.3 Do you wish to receive a copy of the key findings from this study?

- No
- Yes

10.4 If you have any other comments or insights about Identity Management, please share them with us.

10.5 If your institution has a web page with information on Identity Management that you think would be of value for us to look at, please give us the URL.

10.6 We are committed to continually improving our surveys. All comments are welcome and will be considered.

You have reached the end of the survey. Thank you! Please submit this survey by clicking the “Finish” button now. You will then see an option to print your responses, and we recommend that you do so. Full ECAR studies are available either through subscription or purchase at <http://www.educause.edu/ecar/>. If you have any questions or concerns, please e-mail [ecar@educause.edu](mailto:ecar@educause.edu).

**– END SURVEY –**