

Cyberinfrastructure Resources and Practices: Survey Questionnaire

November 2007

Thank you for your participation in this study on key issues related to information technology and research in higher education. This study is being conducted through the collaboration of many parties including the Council of Australian University Directors of Information Technology (CAUDIT), the European University Information Systems organization (EUNIS), the EDUCAUSE Center for Applied Research (ECAR), and the EDUCAUSE Net@EDU Campus Cyberinfrastructure (CCI) working group.

This study updates and expands our community's understanding of how leading-edge IT resources for research, scholarship, creative activity, and teaching and learning are utilized, provided, and funded. It embraces the subjects termed cyberinfrastructure by the United States National Science Foundation and often referred to elsewhere as e-Science and e-Research.

In most of these survey questions, the word "research" embraces traditional research in all academic areas, as well as other research-like scholarship and creative activities. In only a few questions do we ask for separate consideration of these components.

This survey should be completed by the senior-most IT administrator at your institution. Please help us ensure that this occurs.

Responses will be kept confidential; only aggregate results will be reported. The survey consists of eight sections. Our testing suggests that it will require approximately 25 minutes to complete the survey. If you wish to preview the survey before completing it, a PDF version is available from the ECAR survey instruments website, <http://www.educause.edu/SurveyInstruments/1004>

Our survey software allows you to:

- > **Print.** To *print a blank copy of the survey* before completing it, click "Printable version of this survey" in the header. Once you have completed the online survey, you can print your responses by clicking the "Review" button at the end of the survey and selecting the "Print" option at the top of the page.
- > **Save partially completed surveys.** To save and return to a partially completed survey, set a Favorite (Bookmark) for the survey and then click the "Save" button. If cookies are enabled in your browser, when you return to the survey you will be taken to the place you left off.
- > **Revise, review, print, and save responses.** You may revise your answers until you click "Save" or "Finish." To revise a response, use the "Back" button or the page-number dropdown box to navigate through the survey. You may also review your answers before submitting them. When you reach the end of the survey, choose the "Review" button to review, print, and save your responses. ***We strongly suggest that you print and save your responses before you submit them.***

Please complete this survey by **Tuesday, January 8, 2007**. Once the study is complete, Key Findings will be available to all respondents from the ECAR website.

If you have any questions or concerns, please e-mail ecar@educause.edu

Click the Next button to begin the survey. And again, thank you for your time!

©2007 EDUCAUSE. Reproduction by permission only.

Section 1: About You and Your Institution

1.1 Where is your college or university located? *Required.*

- United States <Go to 1.2, skip 1.2c and 1.2i, go to 1.3 and 1.4, skip 1.4i, go to 1.5 through end of survey>
- Canada <Go to 1.2c, skip 1.2i, go to 1.3 and 1.4, skip 1.4i, go to 1.5 through end of survey>
- Europe <Go to 1.2i, then to 1.3, skip 1.4, go to 1.4i through end of survey>
- Australia/New Zealand <Go to 1.2i, then to 1.3, skip 1.4, go to 1.4i through end of survey>
- Other <Go to 1.2i, then to 1.3, skip 1.4, go to 1.4i through end of survey>

1.2 What is your survey ID? *Required.* Obtain your survey ID from the e-mail invitation you received for this survey. _____

1.2c Please identify your institution. If your institution is an EDUCAUSE member, please enter your survey ID from the e-mail invitation you received for this survey. If your institution is not an EDUCAUSE member, please enter the full name of your institution. *Required.* _____

1.2i What is the full name of your college or university? *Required.* _____

1.3 Please enter your name. *Required.* _____

1.4 What is your primary role at your institution? *Required.*

- CIO or equivalent
- Vice president/vice provost or equivalent: non-CIO
- Director of administrative computing
- Director of academic computing
- Director of research computing
- Other IT management
- Other administrative management
- Other academic management

1.4i What is your primary role at your institution? *Required.*

- Senior-most IT leader: CIO, IT Director, or equivalent
- Vice president/vice rector/DVC or equivalent: non-CIO
- Chief/head, administrative computing
- Chief/head, academic computing
- Chief/head, research computing
- Other IT management
- Other administrative management
- Other academic management

1.5 Which statement best describes your institution?

- Research and teaching are the primary missions, but research is what really drives faculty and institutional success.
- Research and teaching are both primary missions, and they are equally important for faculty and institutional success.
- Teaching is the primary mission, but faculty research is rewarded.
- Teaching is the primary mission, and faculty research does not factor heavily in faculty and institutional success.

1.6 Does your institution have a medical school or health sciences center?

- No
- Yes

©2007 EDUCAUSE. Reproduction by permission only.

1.7 Does your institution have an officially designated office of research?

- No
- Yes

1.8 Does your institution have a governance/advisory body that deals primarily with IT issues related to research?

- No
- Yes

1.9 Does your institution have a governance/advisory body that deals primarily with IT issues related to teaching and learning?

- No
- Yes

1.10 Does your central IT organization have a distinct unit with the explicit mission of supporting faculty, clinicians, or other researchers with their research needs?

- No
- Yes

Section 2: High-Performance Computing

This section deals with supercomputers and with clusters of computers or other computational devices integrated in such a way as to provide supercomputer-like performance to individual applications. *Note: the network infrastructure on which high-performance computing relies is addressed in section 5 and should not be considered in answering questions in this section.*

2.1 What best describes the level of research use of high-performance computing resources at your institution? *Required.*

- Not used. <Go to 2.36.>
- Used occasionally by a few personnel
- Used occasionally by many personnel
- Used often by a few personnel
- Used often by many personnel

2.2_2.6 To what extent do researchers at your institution obtain access to high-performance computing resources in each of these ways?

	None	A small extent	A moderate extent	A large extent	A very large extent	Not applicable	Don't know
2.2 Use their own resources or those of their lab/s							
2.3 Use campus central IT resources							
2.4 Use other campus resources							
2.5 Use resources available to them through collaboration/s with other higher-education institution/s							
2.6 Use resources available to them through governmental or private source/s							

2.7_2.11 To what extent are the high-performance computing resources used by researchers at your institution funded from each of these sources?

	None	A small extent	A moderate extent	A large extent	A very large extent	Not applicable	Don't know
2.7 Research funds awarded to the researcher or lab							
2.8 Funds awarded to the institution not specifically for the researcher or lab							
2.9 Campus central IT organization funds							
2.10 Other campus funding							
2.11 Funds made available through collaboration/s with other higher-education institution/s							

2.12_2.15 What is the importance of high-performance computing to these areas at your institution?

	No importance	Minor importance	Moderate importance	High importance	Very high importance	Not applicable	Don't know
2.12 Research in science and engineering							
2.13 Research in other disciplines							
2.14 Creative activities such as arts, music, etc.							
2.15 Teaching and learning							

2.16_2.20 Rate the senior-most IT leader's detailed knowledge about the research use of high-performance computing resources at your institution.

	Poor	Fair	Good	Very good	Excellent	Don't know
2.16 What resources are available to researchers						
2.17 Who provides these resources						
2.18 Who funds these resources						
2.19 Who is using these resources						
2.20 What these resources are used for						

2.21 Rate the senior-most IT leader's overall knowledge about the research use of high-performance computing resources at your institution.

- Poor
- Fair
- Good
- Very good
- Excellent
- Don't know

2.22 Rate the ability of the senior-most IT leader to obtain information about the research use of high-performance computing resources at your institution.

- Poor
- Fair
- Good
- Very good
- Excellent
- Don't know

2.23_2.26 Rate the following individuals' overall knowledge about the research use of high-performance computing resources at your institution.

	Poor	Fair	Good	Very good	Excellent	No such officer	Don't know
2.23 Chief academic officer or equivalent							
2.24. Chief research officer or equivalent							
2.25 Academic deans in science and engineering							
2.26 Other academic deans							

2.27 Does your institution have a documented inventory of the high-performance computing resources used for research there?

- No inventory
- For some high-performance computing resources
- For all high-performance computing resources
- Don't know

2.28_2.35 Which of these would most help your central IT organization support more effective research use of high-performance computing resources at your institution?

Select up to three.

- 2.28 Increased funding for central IT infrastructure
- 2.29 Increased funding for central IT services
- 2.30 Increased involvement of central IT in developing budgets for grants and contracts
- 2.31 An increased share for central IT of indirect cost recovery funds from grants and contracts
- 2.32 Increased authority for central IT to enforce standards for resource acquisition
- 2.33 Increased authority for central IT to enforce standards for resource management
- 2.34 Increased communication/outreach between researchers and central IT
- 2.35 Greater inclusion of researchers in institutional IT governance bodies

2.36 For your institution's research activities, how do you think the overall importance of high-performance computing will change in the next three years?

- Decrease
- No change
- Minor increase
- Moderate increase
- Great increase
- Don't know

2.37 For your institution's teaching and learning activities, how do you think the overall importance of high-performance computing will change in the next three years?

- Decrease
- No change
- Minor increase
- Moderate increase
- Great increase
- Don't know

Section 3: Cyberinfrastructure Applications and Tools

This section deals with general cyberinfrastructure/e-Science/e-Research applications and tools that support research but are not specific to a particular discipline. These include software for simulation, parallelization, visualization, job scheduling, data mining, statistical analysis, and so forth, but not specific sequencing, chemical analysis, or other disciplinary applications.

3.1 What best describes the level of research use of cyberinfrastructure applications and tools at your institution? *Required.*

- Not used. <Go to 3.36.>
- Used occasionally by a few personnel
- Used occasionally by many personnel
- Used often by a few personnel
- Used often by many personnel

3.2_3.6 To what extent do researchers at your institution obtain access to cyberinfrastructure applications and tools in each of these ways?

	None	A small extent	A moderate extent	A large extent	A very large extent	Not applicable	Don't know
3.2 Use their own resources or those of their lab/s							
3.3 Use campus central IT resources							
3.4 Use other campus resources							
3.5 Use resources available to them through collaboration/s with other higher education institution/s							
3.6 Use resources available to them through governmental or private source/s							

3.7_3.11 To what extent are the cyberinfrastructure applications and tools used by researchers at your institution funded from each of these sources?

	None	A small extent	A moderate extent	A large extent	A very large extent	Not applicable	Don't know
3.7 Research funds awarded to the researcher or lab							
3.8 Funds awarded to the institution not specifically for the researcher or lab							
3.9 Campus central IT organization funds							
3.10 Other campus funding							
3.11 Funds made available through collaboration/s with other higher-education institution/s							

3.12_3.15 What is the importance of cyberinfrastructure applications and tools to these areas at your institution?

	No importance	Minor importance	Moderate importance	High importance	Very high importance	Not applicable	Don't know
3.12 Research in science and engineering							
3.13 Research in other disciplines							
3.14 Creative activities such as arts, music, etc.							
3.15 Teaching and learning							

3.16_3.20 Rate the senior-most IT leader's detailed knowledge about the research use of cyberinfrastructure applications and tools at your institution.

	Poor	Fair	Good	Very good	Excellent	Don't know
3.16 What applications and tools are available to researchers						
3.17 Who provides these applications and tools						
3.18 Who funds these applications and tools						
3.19 Who is using these applications and tools						
3.20 What these applications and tools are used for						

3.21 Rate the senior-most IT leader's overall knowledge about the research use of cyberinfrastructure applications and tools at your institution.

- () Poor
- () Fair
- () Good
- () Very good
- () Excellent
- () Don't know

3.22 Rate the ability of the senior-most IT leader to obtain information about the research use of cyberinfrastructure applications and tools at your institution.

- () Poor
- () Fair
- () Good
- () Very good
- () Excellent
- () Don't know

3.23_3.26 Rate the following individuals' overall knowledge about the research use of cyberinfrastructure applications and tools at your institution.

	Poor	Fair	Good	Very good	Excellent	No such officer	Don't know
3.23 Chief academic officer or equivalent							
3.24 Chief research officer or equivalent							
3.25 Academic deans in science and engineering							
3.26 Other academic deans							

3.27 Does your institution have a documented inventory of the cyberinfrastructure applications and tools used for research there?

- No inventory
- For some cyberinfrastructure applications and tools
- For all cyberinfrastructure applications and tools
- Don't know

3.28_3.35 Which of these would most help your central IT organization support more effective research use of cyberinfrastructure applications and tools at your institution?

Select up to three.

- 3.28 Increased funding for central IT infrastructure
- 3.29 Increased funding for central IT services
- 3.30 Increased involvement of central IT in developing budgets for grants and contracts
- 3.31 An increased share for central IT of indirect cost recovery funds from grants and contracts
- 3.32 Increased authority for central IT to enforce standards for resource acquisition
- 3.33 Increased authority for central IT to enforce standards for resource management
- 3.34 Increased communication/outreach between researchers and central IT
- 3.35 Greater inclusion of researchers in institutional IT governance bodies

3.36 For your institution's research activities, how do you think the overall importance of cyberinfrastructure applications and tools will change in the next three years?

- Decrease
- No change
- Minor increase
- Moderate increase
- Great increase
- Don't know

3.37 For your institution's teaching and learning activities, how do you think the overall importance of cyberinfrastructure applications and tools will change in the next three years?

- Decrease
- No change
- Minor increase
- Moderate increase
- Great increase
- Don't know

Section 4: Data Storage and Management

This section deals with large-scale research data storage systems for real-time use and for archival purposes, as well as facilities, software, and procedures for periodic backup of research data sets.

4.1 What best describes the level of research use of data storage and management resources at your institution? *Required.*

- Not used. <Go to 4.36.>
- Used occasionally by a few personnel
- Used occasionally by many personnel
- Used often by a few personnel
- Used often by many personnel

4.2_4.6 To what extent do researchers at your institution obtain access to data storage and management resources in each of these ways?

	None	A small extent	A moderate extent	A large extent	A very large extent	Not applicable	Don't know
4.2 Use their own resources or those of their lab/s							
4.3 Use campus central IT resources							
4.4 Use other campus resources							
4.5 Use resources available to them through collaboration/s with other higher-education institution/s							
4.6 Use resources available to them through governmental or private source/s							

4.7_4.11 To what extent are the data storage and management resources used by researchers at your institution funded from each of these sources?

	None	A small extent	A moderate extent	A large extent	A very large extent	Not applicable	Don't know
4.7 Research funds awarded to the researcher or lab							
4.8 Funds awarded to the institution not specifically for the researcher or lab							
4.9 Campus central IT organization funds							
4.10 Other campus funding							
4.11 Funds made available through collaboration/s with other higher-education institution/s							

4.12_4.15 What is the importance of data storage and management to these areas at your institution?

	No importance	Minor importance	Moderate importance	High importance	Very high importance	Not applicable	Don't know
4.12 Research in science and engineering							
4.13 Research in other disciplines							
4.14 Creative activities such as arts, music, etc.							
4.15 Teaching and learning							

4.16_4.20 Rate the senior-most IT leader's detailed knowledge about the research use of data storage and management resources at your institution.

	Poor	Fair	Good	Very good	Excellent	Don't know
4.16 What resources are available to researchers						
4.17 Who provides these resources						
4.18 Who funds these resources						
4.19 Who is using these resources						
4.20 What these resources are used for						

4.21 Rate the senior-most IT leader's overall knowledge about the research use of data storage and management resources at your institution.

- Poor
- Fair
- Good
- Very good
- Excellent
- Don't know

4.22 Rate the ability of the senior-most IT leader to obtain information about the research use of data storage and management resources at your institution.

- Poor
- Fair
- Good
- Very good
- Excellent
- Don't know

4.23_4.26 Rate the following individuals' overall knowledge about the research use of data storage and management resources at your institution.

	Poor	Fair	Good	Very good	Excellent	No such officer	Don't know
4.23 Chief academic officer or equivalent							
4.24 Chief research officer or equivalent							
4.25 Academic deans in science and engineering							
4.26 Other academic deans							

4.27 Does your institution have a documented inventory of the data storage and management resources used for research there?

- No inventory
- For some research data storage and management resources
- For all research data storage and management resources
- Don't know

4.28_4.35 Which of these would most help your central IT organization support more effective research use of data storage and management resources at your institution?

Select up to three.

- 4.28 Increased funding for central IT infrastructure
- 4.29 Increased funding for central IT services
- 4.30 Increased involvement of central IT in developing budgets for grants and contracts
- 4.31 An increased share for central IT of indirect cost recovery funds from grants and contracts
- 4.32 Increased authority for central IT to enforce standards for resource acquisition
- 4.33 Increased authority for central IT to enforce standards for resource management
- 4.34 Increased communication/outreach between researchers and central IT
- 4.35 Greater inclusion of researchers in institutional IT governance bodies

4.36 For your institution's research activities, how do you think the overall importance of data storage and management will change in the next three years?

- Decrease
- No change
- Minor increase
- Moderate increase
- Great increase
- Don't know

4.37 For your institution's teaching and learning activities, how do you think the overall importance of data storage and management will change in the next three years?

- Decrease
- No change
- Minor increase
- Moderate increase
- Great increase
- Don't know

Section 5: Advanced Network Infrastructure

This section deals with the institution's high-performance networks on campus and its connections to off-campus high-performance networks that support such capabilities as massive data transfers to and from clusters, real-time visualization, and use of remote instrumentation. Off-campus networks used for advanced network infrastructure include regional or university consortial networks and such networks as Internet2 and National LambdaRail in the United States and CANARIE, AARNET, DFN, JANET, SURFnet and others outside the United States.

5.1 What best describes the level of research use of advanced network infrastructure resources at your institution? *Required.*

- Not used. <Go to 5.36.>
- Used occasionally by a few personnel
- Used occasionally by many personnel
- Used often by a few personnel
- Used often by many personnel

5.2_5.6 To what extent do researchers at your institution obtain access to advanced network infrastructure resources in each of these ways?

	None	A small extent	A moderate extent	A large extent	A very large extent	Not applicable	Don't know
5.2 Use their own resources or those of their lab/s							
5.3 Use campus central IT resources							
5.4 Use other campus resources							
5.5 Use resources available to them through collaboration/s with other higher-education institution/s							
5.6 Use resources available to them through governmental or private source/s							

5.7_5.11 To what extent are the advanced network infrastructure resources used by researchers at your institution funded from each of these sources?

	None	A small extent	A moderate extent	A large extent	A very large extent	Not applicable	Don't know
5.7 Research funds awarded to the researcher or lab							
5.8 Funds awarded to the institution not specifically for the researcher or lab							
5.9 Campus central IT organization funds							
5.10 Other campus funding							
5.11 Funds made available through collaboration/s with other higher-education institution/s							

5.12_5.15 What is the importance of advanced network infrastructure to these areas at your institution?

	No importance	Minor importance	Moderate importance	High importance	Very high importance	Not applicable	Don't know
5.12 Research in science and engineering							
5.13 Research in other disciplines							
5.14 Creative activities such as arts, music, etc.							
5.15 Teaching and learning							

5.16_5.20 Rate the senior-most IT leader's detailed knowledge about the research use of advanced network infrastructure resources at your institution.

	Poor	Fair	Good	Very good	Excellent	Don't know
5.16 What resources are available to researchers						
5.17 Who provides these resources						
5.18 Who funds these resources						
5.19 Who is using these resources						
5.20 What these resources are used for						

5.21 Rate the senior-most IT leader's overall knowledge about the research use of advanced network infrastructure resources at your institution.

- Poor
- Fair
- Good
- Very good
- Excellent
- Don't know

5.22 Rate the ability of the senior-most IT leader to obtain information about the research use of advanced network infrastructure resources at your institution.

- Poor
- Fair
- Good
- Very good
- Excellent
- Don't know

5.23_5.26 Rate the following individuals' overall knowledge about the research use of advanced network infrastructure resources at your institution.

	Poor	Fair	Good	Very good	Excellent	No such officer	Don't know
5.23 Chief academic officer or equivalent							
5.24. Chief research officer or equivalent							
5.25 Academic deans in science and engineering							
5.26 Other academic deans							

5.27 Does your institution have a documented inventory of the advanced network infrastructure resources used for research there?

- No inventory
- For some advanced network infrastructure resources
- For all advanced network infrastructure resources
- Don't know

5.28_5.35 Which of these would most help your central IT organization support more effective research use of advanced network infrastructure resources at your institution?

Select up to three.

- 5.28 Increased funding for central IT infrastructure
- 5.29 Increased funding for central IT services
- 5.30 Increased involvement of central IT in developing budgets for grants and contracts
- 5.31 An increased share for central IT of indirect cost recovery funds from grants and contracts
- 5.32 Increased authority for central IT to enforce standards for resource acquisition
- 5.33 Increased authority for central IT to enforce standards for resource management
- 5.34 Increased communication/outreach between researchers and central IT
- 5.35 Greater inclusion of researchers in institutional IT governance bodies

5.36 For your institution's research activities, how do you think the overall importance of advanced network infrastructure will change in the next three years?

- Decrease
- No change
- Minor increase
- Moderate increase
- Great increase
- Don't know

5.37 For your institution's teaching and learning activities, how do you think the overall importance of advanced network infrastructure will change in the next three years?

- Decrease
- No change
- Minor increase
- Moderate increase
- Great increase
- Don't know

Section 6: Collaboration within Virtual Communities

This section deals with facilities and support for teleconferencing, for hosting collaborations with off-campus researchers, and for the operation of remotely located research instrumentation and related devices; and with support for identity management and associated middleware in collaborative research activities.

6.1 What best describes the level of research use of resources for collaboration within virtual communities at your institution? *Required.*

- Not used. <Go to 6.36.>
- Used occasionally by a few personnel
- Used occasionally by many personnel
- Used often by a few personnel
- Used often by many personnel

6.2_6.6 To what extent do researchers at your institution obtain access to resources for collaboration within virtual communities in each of these ways?

	None	A small extent	A moderate extent	A large extent	A very large extent	Not applicable	Don't know
6.2 Use their own resources or those of their lab/s							
6.3 Use campus central IT resources							
6.4 Use other campus resources							
6.5 Use resources available to them through collaboration/s with other higher-education institution/s							
6.6 Use resources available to them through governmental or private source/s							

6.7_6.11 To what extent are the resources for collaboration within virtual communities used by researchers at your institution funded from each of these sources?

	None	A small extent	A moderate extent	A large extent	A very large extent	Not applicable	Don't know
6.7 Research funds awarded to the researcher or lab							
6.8 Funds awarded to the institution not specifically for the researcher or lab							
6.9 Campus central IT organization funds							
6.10 Other campus funding							
6.11 Funds made available through collaboration/s with other higher-education institution/s							

6.12_6.15 What is the importance of collaboration within virtual communities to these areas at your institution?

	No importance	Minor importance	Moderate importance	High importance	Very high importance	Not applicable	Don't know
6.12 Research in science and engineering							
6.13 Research in other disciplines							
6.14 Creative activities such as arts, music, etc.							
6.15 Teaching and learning							

6.16_6.20 Rate the senior-most IT leader's detailed knowledge about the research use, at your institution, of resources for collaboration within virtual communities.

	Poor	Fair	Good	Very good	Excellent	Don't know
6.16 What resources are available to researchers						
6.17 Who provides these resources						
6.18 Who funds these resources						
6.19 Who is using these resources						
6.20 What these resources are used for						

6.21 Rate the senior-most IT leader's overall knowledge about the research use, at your institution, of resources for collaboration within virtual communities.

- Poor
- Fair
- Good
- Very good
- Excellent
- Don't know

6.22 Rate the ability of the senior-most IT leader to obtain information about the research use, at your institution, of resources for collaboration within virtual communities.

- Poor
- Fair
- Good
- Very good
- Excellent
- Don't know

6.23_6.26 Rate the following individuals' overall knowledge about the research use, at your institution, of resources for collaboration within virtual communities.

	Poor	Fair	Good	Very good	Excellent	No such officer	Don't know
6.23 Chief academic officer or equivalent							
6.24. Chief research officer or equivalent							
6.25 Academic deans in science and engineering							
6.26 Other academic deans							

6.27 Does your institution have a documented inventory of the resources for collaboration within virtual communities used for research there?

- No inventory
- For some resources for collaboration within virtual communities
- For all resources for collaboration within virtual communities
- Don't know

6.28_6.35 Which of these would most help your central IT organization support more effective research use, at your institution, of resources for collaboration within virtual communities? Select up to three.

- 6.28 Increased funding for central IT infrastructure
- 6.29 Increased funding for central IT services
- 6.30 Increased involvement of central IT in developing budgets for grants and contracts
- 6.31 An increased share for central IT of indirect cost recovery funds from grants and contracts
- 6.32 Increased authority for central IT to enforce standards for resource acquisition
- 6.33 Increased authority for central IT to enforce standards for resource management
- 6.34 Increased communication/outreach between researchers and central IT
- 6.35 Greater inclusion of researchers in institutional IT governance bodies

6.36 For your institution's research activities, how do you think the overall importance of collaboration within virtual communities will change in the next three years?

- Decrease
- No change
- Minor increase
- Moderate increase
- Great increase
- Don't know

6.37 For your institution's teaching and learning activities, how do you think the overall importance of collaboration within virtual communities will change in the next three years?

- Decrease
- No change
- Minor increase
- Moderate increase
- Great increase
- Don't know

Section 7: Accountability and Integration

7.1_7.8 At your institution, whom does the chief executive officer (e.g., president, chancellor, rector) hold primarily accountable for these activities:

	Individual researchers	Academic deans	Chief academic officer or equivalent	Chief financial officer or equivalent	Chief information officer or equivalent	Chief research officer or equivalent	Other	Not applicable	Don't know
7.1 Providing sufficient storage for research data									
7.2 Providing security for research systems									
7.3 Providing space and environmental support for research IT resources owned by campus entities other than central IT									
7.4 Providing support services for research IT systems, such as system administration, identity management, and help desk									
7.5 Enforcing the research community's compliance with national regulations regarding privacy of data, such as HIPAA and FERPA in the U.S.									
7.6 Providing sufficient network bandwidth for research									
7.7 Providing sufficient network bandwidth for teaching and learning									
7.8 Providing ongoing maintenance and support for IT resources obtained with one-time research funds									

7.9_7.16 At my institution, the senior-most IT leader has the authority needed to meet his/her responsibilities for these activities:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable	Don't know
7.9 Providing sufficient storage for research data							
7.10 Providing security for research systems							
7.11 Providing space and environmental support for research IT resources owned by campus entities other than central IT							
7.12 Providing support services for research IT systems, such as system administration, identity management, and help desk							
7.13 Enforcing the research community's compliance with national regulations regarding privacy of data, such as HIPAA and FERPA in the U.S.							
7.14 Providing sufficient network bandwidth for <u>research</u>							
7.15 Providing sufficient network bandwidth for <u>teaching and learning</u>							
7.16 Providing ongoing maintenance and support for IT resources obtained with one-time research funds							

7.17_7.24 At my institution, the senior-most IT leader has the resources needed to meet his/her responsibilities for these activities:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable	Don't know
7.17 Providing sufficient storage for research data							
7.18 Providing security for research systems							
7.19 Providing space and environmental support for research IT resources owned by campus entities other than central IT							
7.20 Providing support services for research IT systems, such as system administration, identity management, and help desk							
7.21 Enforcing the research community's compliance with national regulations regarding privacy of data, such as HIPAA and FERPA in the U.S.							
7.22 Providing sufficient network bandwidth for <u>research</u>							
7.23 Providing sufficient network bandwidth for <u>teaching and learning</u>							
7.24 Providing ongoing maintenance and support for IT resources obtained with one-time research funds							

7.25 At my institution, researchers generally collaborate in the use of cyberinfrastructure resources.

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

7.26 My institution realizes significant economies of scale in the research use of cyberinfrastructure resources.

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

7.27_28 At my institution, effective incentives exist to encourage researchers to:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Don't know
7.27 Share cyberinfrastructure resources with other researchers on campus						
7.28 Partner with the central IT organization to achieve economies of scale in the use of cyberinfrastructure resources						

7.29 Rate your central IT organization's effectiveness at integrating the resources we have explored in this survey to provide seamless support for research. "Integrating" means bringing together into a seamless whole a wide variety of human, software, and hardware systems to form a platform for enabling activities in research and in teaching and learning. It involves coordination, synthesis, and teamwork.

- Not effective
- Slightly effective
- Moderately effective
- Very effective
- Extremely effective
- Don't know

Section 8: Conclusion

8.1 EDUCAUSE plans to conduct follow-up interviews with some institutions to probe further into tools and resources used for research, scholarship, and creative activity. Would you be willing to participate in a follow-up interview?

- No
 Yes

8.2 If yes, what is your e-mail address? _____

8.3 If you have any other comments or insights about tools and resources used for research, scholarship, and creative activity, please share them with us.

8.4 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, or, if you wish to review, print, or save your responses, click “Review.”

Full ECAR studies are available either through subscription or purchase at the ECAR Web site, <http://www.educause.edu/ecar/>. If you have any questions or concerns, please e-mail ecar@educause.edu.

– END SURVEY –