Introduction:

You are invited to participate in a survey about the Campus Research Computing (CaRC) Consortium, which has just been launched with NSF support. This is being sent to people who are knowledgeable about the Consortium and to people who may be hearing about it for the first time – we are seeking input from current and prospective stakeholders. First, here is some general information on the Consortium and voluntary consent language, with the survey to follow.

Vision: The vision of the Campus Research Computing Consortium is to advance the frontiers of research at universities by supporting on-campus awareness and facilitation services for researchers, cross-campus resource and knowledge sharing among high performance computing professionals, and continuous innovation in cyberinfrasturcture capabilities.

Purpose: The CaRC Consortium is dedicated to extending and enhancing the reach and impact of campus and national research computing infrastructure on the science conducted by researchers at the campus level. The Consortium explores and develops effective strategies and best practices that campuses may use to empower such researchers to become more effective users of advanced cyberinfrastructure. The Consortium is also committed to ensuring the sustainability of campus efforts through professional and career development for the individuals ("Facilitators") who help researchers to better utilize high performance computing resources.

Informed and Voluntary Consent:

INVITATION TO TAKE PART: You are invited to take part in this survey, which is voluntary. You may refuse to take part or choose to stop taking part at any time. This research project has been reviewed and approved by the Brandeis University Institutional Review Board, which requires that we provide you with the following full information before participating in the research.

PURPOSE AND PROCEDURES: The purpose of this research is to provide a window into how things are now and to serve as a baseline against which to measure progress.

The survey is estimated to require approximately 20 minutes to complete, but may take more or less time for each individual. We mayl contact you again in the coming years for an update on the same questions covered in this survey.

BENEFITS: The data collected with the survey will help enable stakeholder alignment and continuous improvement.

RISKS TO PARTICIPANTS: This survey-based research poses minimal or no risk to participants – no greater risk than is associated with everyday work and leisure activities.

ALTERNATIVES: The only alternative to participation is to decline to participate in the survey.

STUDY WITHDRAWAL: Your decision to take part in this survey is voluntary. You may decide to stop taking part in the survey at any time. If you decide to withdraw from the survey, any data you have already submitted will still be used in the research, but will be confidential as described below.

CONFIDENTIALITY: The responses to this survey will be kept completely confidential. The signature information for this voluntary consent (below) will be stored separately from the rest of the data, which will not have identifying names or e-mail addresses in the data set. The data from this survey will be analyzed in aggregate; your individual responses to questions will not be available to anyone outside of the research team at Brandeis University and the survey provider (SurveyGizmo). For follow-up surveys, we will connect your responses to this survey with your subsequent responses, but the combined data set will still not have any identifying information.

QUESTIONS: If you have questions or complaints at any time about this research study, please feel free to contact the Principal Investigator, Joel Cutcher-Gershenfeld, PhD, at Brandeis 781.736.3998 or joelcg@brandeis.edu. If you have additional questions, comments, concerns about your rights as a participant in this research you can contact the Brandeis University Institutional Review Board (IRB), at Phone: (781) 736-8133 or via email at irb@brandeis.edu.

SIGNATURE: By including your name, e-mail address, and clicking the survey link included below, you consent to participate in this study. Do so only if you understand that:

- a) Your participation is completely voluntary.
- b) You have the right to withdraw from the study at any time.
- c) Any questions or concerns about the study can be answered by calling the study team Principal Investigator, Joel Cutcher-Gershenfeld, PhD, at Brandeis 781.736.3998 or joelcg@brandeis.edu. If you have questions about your rights as a research participant contact the Brandeis University Institutional Review Board (IRB), at Phone: (781) 736-8133 or via email at irb@brandeis.edu.
- d) The benefit of this study is that it will serve as a window into how things are now and as a baseline against which to assess progress.
- e) It is expected that this research poses minimal risk to participants. Your confidentiality is guaranteed, as no individual results will be published or released.

1. Name *This question is required.

2. Email Address ***This question is required.**

3. I have read this statement, I am 18 years old or older, and I agree to participate in this research ***This question is required.**

Õ	Yes

🔘 No

For each page of the survey, please use only the provided buttons for advancing the survey. Do not use the browser's navigational buttons unless you wish to exit the survey. Any technical problems can be directed to <u>help@waymarksystems.org</u>.

Your Role and Expertise

For each page of the survey, please use only the provided buttons for advancing the survey. Do not use the browser's navigational buttons unless you wish to exit the survey. Any technical problems can be directed to <u>help@waymarksystems.org</u>.

1. Please select your **primary role** – the one that <u>**best**</u> describes your role relative to **the CaRC Consortium.**

Answer the rest of the questions based on your experience in this role. ***This question** is required.

I am a member of CaRC Leadership I am member of CaRC Council I am involved in research computing (as a provider or user), but not currently involved in CaRC Other (please specify)

2. What are all of your roles relative to Research Computing more generally (select all that apply):

University Research Computing Roles

Campus executive leadership (Provost/CIO/VPR) Campus research computing leadership (VP/Director of Research Computing) Campus IT services (systems, security, networking, engineering) Campus research computing facilitators (not part of CARC or ACI-REF) Campus IT/research computing training and workforce development

Additional Research Computing Consortia Role

XSEDE Champions (Campus Champion, Domain Champion, Regional Champion, Student Champion) ACI-REF facilitator ACI-REF leader or member CASC leader or member XSEDE leader or member XSEDE Service Provider (leader or staff) National Data Service (NDS) leader or member Research Data Alliance (RDA) leader or member Open Science Grid (OSG) resource provider

Researchers/end user Roles

Research principal investigator (faculty, staff) Research software/model developer (including students, postdocs, and staff) Additional research team member (including students, postdocs, and staff) Industry, Government, and Foundations Government research lab leader or member Government funder of research

Foundation funder of research Commercial research lab leader or member Commercial research software developer Other (please specify)

3. If you would like to add a more specific title to your role or description of your primary area of expertise, please do so here:

4. Please indicate your university/institution:

5. Please indicate your years of experience in your primary area of expertise:

- Under 5 years
- 5-10 years
- 11-20 years
- 21-30 years
- Over 30 years

6. Please select the gender you identify as.

- Male
- Female
- Alternative gender identity or Prefer not to answer
- 7. Please indicate your highest level of education achieved:
 - C Less than high school
 - U High school degree or equivalent (e.g. GED)
 - Some college but no degree
 - Associate degree
 - Bachelor degree
 - Graduate degree (non-doctoral)
 - Doctoral degree

Back	Next
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8. Please indicate your age:

Under 18

18-24

25-34

35-44

45-54

55-64

65-74

Over 74

Back Nex

Your "must have"

As a reminder, here are the vision and purpose statements for CaRC:

Vision: The vision of the Campus Research Computing (CaRC) Consortium is to advance the frontiers of research computing at universities by supporting on-campus awareness and facilitation services for researchers, cross-campus resource and knowledge sharing among high performance computing professionals, and continuous innovation in cyberinfrasturcture capabilities.

Purpose: The CaRC Consortium is dedicated to extending and enhancing the reach and impact of campus and national research computing infrastructure on the science conducted by researchers at the campus level. The Consortium explores and develops effective strategies and best practices that campuses may use to empower such researchers to become more effective users of advanced cyberinfrastructure. The Consortium is also committed to ensuring the sustainability of campus efforts through professional and career development for the individuals ("Facilitators") who help researchers to better utilize high performance computing resources.

9. If **CaRC Consortium** could deliver one thing to you, "a must have," what would it be? (Something that you personally value or that is professionally useful to you. It would motivate you to want this to move forward.)

10. What is the biggest barrier preventing or limiting your "must have?"

Importance and Challenges

Please indicate your perception of the **current status** of the following issues when it comes to **the CaRC Consortium** (based on how important each is and how difficult each is):

11. How Important: Effective models for demonstrating return on investment (ROI) in research computing resources. Not important ------ Very important Don't Know/Not Applicable 12. How Challenging: Effective models for demonstrating return on investment (ROI) in research computing resources. Very easy ------ Very difficult Don't Know/Not Applicable 13. How Important: Innovating in the design and operation of campus research cyberinfrastructure. Not important ------ Very important Don't Know/Not Applicable 14. How Challenging: Innovating in the design and operation of campus research cyberinfrastructure. Very easy ------ Very difficult Don't Know/Not Applicable 15. How Important: Workforce development for cyberinfrastructure administrators and staff. Not important ------ Very important Don't Know/Not Applicable 16. How Challenging: Workforce development for cyberinfrastructure administrators and staff. Very easy ----- Very difficult Don't Know/Not Applicable 17. How Important: Supporting facilitators (broadly defined) on campus, bridging between research teams and research computing resources. Not important ------ Very important Don't Know/Not Applicable 18. How Challenging: Supporting facilitators (broadly defined) on campus, bridging

between research teams and research computing resources.

Draft Document for Review by CaRC Leadership – Not for Broader Distribution 8

	Very easy Very difficult
	Don't Know/Not Applicable
19.	How Important: Defining roles and career paths in campus research computing. Not important
	How Challenging: Defining roles and career paths in campus research
con	Nputing. Very easy Very difficult Don't Know/Not Applicable
21.	How Important: Research computing expertise sharing among universities. Not important Very important Don't Know/Not Applicable
22.	How Challenging: Research computing expertise sharing among universities. Very easy Very difficult
23.	How Important: Research computing resource sharing among universities. Not important Very important Don't Know/Not Applicable
24.	How Challenging: Research computing resource sharing among universities. Very easy Very difficult Don't Know/Not Applicable
	How Important: Identifying leading practices for balancing resource allocation campus IT functions and campus cyberinfrastructure research support. Not important Very important Don't Know/Not Applicable
	How Challenging: Identifying leading practices for balancing resource ocation for campus IT functions and campus cyberinfrastructure research support. Very easy Very difficult Don't Know/Not Applicable
	How Important: Identifying leading practices for regulatory compliance in mixed ding environments (government costing, appropriate use of funds, etc.). Not importantVery important Don't Know/Not Applicable

28. **How Challenging:** Identifying leading practices for **regulatory compliance** in mixed funding environments (government costing, appropriate use of funds, etc.).

Very easy	/	 	 Very difficult

Don't Know/Not Applicable

29. **How Important:** Influencing **state and federal policies** impacting research cyberinfrastructure.

Not important ------ Very important

Don't Know/Not Applicable

30. **How Challenging:** Influencing **state and federal policies** impacting research cyberinfrastructure.

Very easy	Very	difficult
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Don't Know/Not Applicable

Back Nex

General Challenges

Challenges facing **the CaRC Consortium** – based on your experience and observations. Note that this is a list of general challenges facing many organizations and initiatives – most will apply in this case, and we ask you to focus just on the top three.

31. Select the top three high-level challenges that you believe are most worrisome, needing immediate attention for **the CaRC Consortium.** Not all may apply in your case, but select the top three that do apply. ***This question is required.**

- **D** building a **shared vision**
- □ sharing a sense of **urgency**
- □ creating **value**
- □ mitigating **harm**
- **D** ensuring effective **leadership**
- **u** supporting **problem-solving** in decisions
- **G** fostering **inclusivity** in decision making
- **•** ensuring effective **conflict resolution**
- **D** providing timely **feedback**
- **D** ensuring effective **communication**
- □ specifying **roles/responsibilities**
- □ making **metrics** visible
- □ providing effective **incentives**
- **o** ensuring **transparent information**
- □ maintaining dependable **funding**
- □ reinforcing **shared values**
- **d** transforming **underlying assumptions**
- **d** ensuring effective **cooperation**
- **d** ensuring constructive **competition**
- □ sustaining **trust**
- □ being open to **change**
- appreciating shared and separate interests
- **d** addressing **disruptive technology** changes
- **d** addressing **incremental technology** changes
- □ using shared **technology standards**
- developing an effective **technology architecture**
- **Other** Write In (Required)

*This question is required.

Back	1
Decore	

Next

Ranking the Challenges

32. Please rank the top three challenges: The biggest challenge facing **the CaRC Consortium** should be ranked 1. ***This question is required.**

	1	2	3
Item from question 26	\bigcirc	\bigcirc	\bigcirc
Item from question 26	\bigcirc	\bigcirc	\bigcirc
Item from question 26	\bigcirc	\bigcirc	\bigcirc
	Next)[6	Back

Successes

Note that this is the same list of challenges facing organizations and initiatives, but the focus here is on what is working well. Most will apply in this case and we ask you to focus just on the top three successes.

33. Select the top three high level successes that you believe **CaRC Consortium** can **depend on now**:

- **b**uilding a **shared vision**
- □ sharing a sense of **urgency**
- **c**reating **value**
- **d** mitigating **harm**
- ensuring effective **leadership**
- **u** supporting **problem-solving** in decisions
- □ fostering **inclusivity** in decision making
- ensuring effective **conflict resolution**
- **D** providing timely **feedback**
- □ ensuring effective **communication**
- **D** Ensuring effective **learning and education**
- □ specifying **roles/responsibilities**
- □ making **metrics** visible
- **D** providing effective **incentives**
- **d** ensuring **transparent information**
- □ maintaining dependable **funding**
- □ reinforcing **shared values**
- **d** transforming **underlying assumptions**
- **d** ensuring effective **cooperation**
- **o** ensuring constructive **competition**
- **u** sustaining **trust**
- □ being open to **change**
- **D** appreciating **shared and separate interests**
- **d** addressing **disruptive technology** changes
- addressing **incremental technology** changes
- □ using shared **technology standards**
- developing an effective **technology architecture**
- **Other** Write In (Required)

*This question is required.

Back Next

34. If you could use one phrase or metaphor to summarize your current view of **the CaRC Consortium** what would it be?

35. Please use one sentence to summarize your vision of success for **CaRC Consortium**

36. Please use this space for any other comments you might have:

Next	Back
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