#### Job Title (Number)

Storage Engineer Intermediate (103566)

#### Working Title -Storage Engineer Intermediate

#### Status

Draft

#### Job Summary

The Advanced Research Computing - Technology Services (ARC-TS) organization has an exciting opportunity to hire a Storage Administrator Intermediate.

This position will be part of a team working on portfolio of storage systems within ARC-TS. The primary responsibilities for this position will be in assisting the development, deployment, maintenance and support of new storage services for University of Michigan researchers for archiving and active storage. The position will also be responsible for assisting in the maintenance and support of our existing storage services currently over 7PB. These include IBM Spectrum Scale/GPFS and Lustre parallel filesystems on High Performance Computing (HPC) clusters and NAS filers. Finally, they will also provide expertise towards projects leading to the development of HPC in the Cloud.

Advanced Research Computing - Technology Services (ARC-TS) is the University of Michigan research IT provider specializing in High Performance Computing (HPC), BigData (Hadoop/Spark/etc), high speed networking, storage, and other technologies to accelerate the research mission of the institution. For more information about ARC-TS visit our website: http://arc-ts.umich.edu.

#### Posting Period

Four Weeks

#### Position Description Form

<http://hr.umich.edu/hrris/forms/pdfs/positiondescription.pdf>

Check one:

- - Existing Position for Posting

X - New Position or Job Code Change for Posting

- - Job Code Change for Individual

#### Part One (Skip to part Two for New Position)

Current Incumbent Name: <skip>

Current Job Market Title:

Etc.

#### 

#### Part Two

Immediate Supervisor Name: Jeremy Hallum

Etc.

#### Part Three

Proposed Job Market Title: Storage Engineer Intermediate

Proposed Full Time Rate: $68,000 - $90,000

Proposed Working Title: Research Storage Administrator Intermediate

Etc.

#### Part Four

Supervision

None

#### Part Five

Benchmark Incumbents:

Rodney Craig Johnson

Daniel Shepard

William Turner

#### Part Six

**RESPONSIBILITIES:**

40% Research Storage Support

* Storage System Updates and Patches
* System Configuration
* System Health and Performance Monitoring
* Provisioning and Destruction of Media

25% User Support

* Support users access to ARC-TS storage systems
* Support the high performance transport of data over national and local networks
* Troubleshoot User Requests
* Support researchers use of storage systems from external providers (Cloud, Central IT)

15% System Capacity Planning

* Monitor usage of storage resources and make recommendations to maintain service.
* Work with other ARC-TS staff for data center utilization
* Maintain inventory of storage resources under ARC-TS management

15% Work within ARC-TS to improve the research computing environment on campus

5% Development of Self

* Stay abreast of application technology trends in storage infrastructure and environments (Computers, accelerators, system management methods, etc.) This can include: on-the-job training, attending technical courses or conferences, reading, researching, and testing.

**Required Organizational Competencies**

Successful candidates will be expected to demonstrate in this role the following organization competencies, but not limited to:

**Advancing the Mission**

\*Demonstrates knowledge of the primary mission of the University and Health Systems.

\*Demonstrates awareness of the diversity of constituency groups and their roles and purposes and issues.

**Creative Problem Solving / Strategic Thinking**

\*Demonstrated ability to provide necessary attention to solve different level problems, often multitasking to solve moderate level problems.

\*Defines problems, analyzes causes, identifies possible solutions, selects the best solution, and develops action plans. Generates new ideas and goes beyond the status quo.

\*Demonstrated ability to use creative thinking to improve processes and solve complex problems.

**Development of Self and Others**

\*Demonstrated initiative in participating in growth opportunities for continuous development and improvement.

\*Demonstrated ability to apply new skills/knowledge to the job and serve as a training resource to less experienced staff.

**Quality Service**

\*Demonstrated ability to establish and maintain effective relationships with internal and external customers in a manner that consistently meets the organization’s expectations for exemplary customer service.

\*Demonstrates the ability to see issues from the customer’s perspective assesses urgency of requests and responds accordingly.

\*Demonstrated focus on fulfilling expectations by seeking insight into customer needs and developing solutions that provide value for the customer.

#### Part Seven

Position Qualifications

Required Qualifications

* Bachelor’s degree in computer science, business computing or a related field and/or equivalent combination of education, certification or experience.
* Minimum of 2 years experience in a related role requiring customer service, confidentiality, timeliness, organization, prioritization, troubleshooting, and working independently to successfully design services and workflows.
* Minimum 1 year experience in implementing storage and backup solutions.
* Demonstrate the ability to lead project teams and provide timely project status reports.
* Ability to leverage appropriate technical tools to perform day-to-day administration tasks, root-cause analysis and service restoration (such as backup, restore, failover, log interpretation, and performance monitoring) for at least two of the following: SAN, NAS and enterprise backup solutions.
* Strong Linux background.

Desired Qualifications

* Experience with deployment of storage systems using NFS v4 with Kerberos.
* Experience with Spectrum Scale/GPFS, Lustre and EMC OneFS.
* Experience with Object Storage or HDFS
* Experience with iSCSI, SMB/CIFS, or SRP
* Understanding of protected data (HIPAA, CUI, etc.)
* Experience in a high-performance computing cluster environment.
* Experience with LDAP and Active Directory in a storage service.
* Experience providing IT support in an academic or research environment
* Experience with Cloud Storage API’s
* Experience with Globus GridFTP, Aspera, or FDT.
* Experience with hierarchical storage management (HSM) systems such as SAM-QFS, Black Perl, HPSS, Spectrum Archive etc, with object or tape backends.

<also see <https://hrd.umich.edu/performancemanagement/index.html> re organizational competencies>

#### Part Eight

Additional Comments

Some development may be applicable to open source projects. In addition there may be opportunities to speak at relevant conferences regarding work done on these endeavors.

#### Part Nine

Funding plan for position/business case for request by department.

<consult dept leadership / hr>

**How to Apply**

A cover letter and resume are required; the cover letter must be PAGE 1 of your resume. The letter should:

(1) specifically outline the reasons for your interest in the position;

(2) outline your particular skills and experience that directly relate to this position; and

(3) include your current or ending salary.

Starting salary may vary depending on qualifications and experience of the selected candidate.

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\*\*NOTE: This is a full time; term limited position ending after three years with the intent to reevaluate for potential extension.\*\*

**Responsibilities\***

40% Research Storage Support

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* System Configuration
* System Health and Performance Monitoring
* Provisioning and Destruction of Media

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**Required Qualifications\***

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\* Minimum of 2 years experience in a related role requiring customer service, confidentiality, timeliness, organization, prioritization, troubleshooting, and working independently to successfully design services and workflows.

\*Minimum 1 year experience in developing and leading the implementation of storage and backup solutions.

\*Demonstrate the ability to be a productive part of project teams and provide timely project status reports.

\*Ability to leverage appropriate technical tools to perform day-to-day administration tasks, root-cause analysis and service restoration (such as backup, restore, failover, log interpretation, and performance monitoring) for at least two of the following: SAN, NAS and enterprise backup solutions.

\*Strong Linux background.

\*Demonstrated ability to communicate effectively in technical concepts both verbally and in writing to teams and customers.

\*Ability to manage priorities in face of multiple requests and projects.

\*Demonstrated ability to work in a self-directed manner, skillfully manage complex projects and stay up-to-date with the latest industry developments and best practices and apply the knowledge in the workplace.

\*Demonstrated ability to troubleshoot difficult issues, and problem solving skills with a focus on process improvement and/or automation.

**Desired Qualifications\***

\*Experience with deployment of storage systems using NFS v4 with Kerberos.

\*Experience with Spectrum Scale/GPFS, Lustre, EMC OneFS.

\*Experience with hierarchical storage management (HSM) systems such as SAM-QFS, Black Perl, HPSS, Spectrum Archive etc, with object or tape backends.

\*Experience with Object Storage or HDFS

\*Experience with iSCSI, SMB/CIFS, or SRP

\*Understanding of protected data (HIPAA, CUI, etc.)

\*Experience in a high-performance computing cluster environment

\*Experience providing IT support in an academic or research environment

\*Experience with LDAP and Active Directory in a storage service.

\*Experience with Cloud Storage API’s

\*Experience with Globus GridFTP, Aspera, or FDT.

**Additional Information**

\*The University of Michigan was featured as one of the "Great Colleges to Work For" in the 2016 Chronicle of Higher Education.

\*The University of Michigan is a recipient of the 2016 Seal of Distinction by the WorldatWork Alliance, recognizing strategies and practices that help employees achieve success in work-life effectiveness.

\*The University of Michigan was ranked as the top U.S. public university in the latest QS World University Rankings for 2016, moving ahead of the University of California, Berkeley and the University of California, Los Angeles. U-M ranked 23rd overall among more than 900 colleges and universities in the world, up seven spots from last year (2015). The QS World University Rankings, launched in 2004, are based on six factors: academic reputation, employer reputation, student-faculty ratio, citations per faculty, proportion of international faculty and proportion of international students.

**U-M EEO/AA Statement**

The University of Michigan is an equal opportunity/affirmative action employer.