**Loyola University Chicago**

**Research Data Center (RDC)**

**Overview**

Loyola University Chicago's Research Data Center (RDC) is a 1,000-square-foot facility dedicated to support research and funded grants projects, provides a secure home for the computational clusters and related equipment used by the LUC research community. The RDC is managed by ITS and supported by Facilities.

The RDC (opened in 2010) delivers a high availability computing environment for research projects. Currently three research clusters and over 100 nodes are housed at the RDC. Additionally, collaborative research efforts with other participating institutions and/or organizations have full access and connectivity to Internet2 via the Metropolitan Research & Education Network (MREN) to accommodate high bandwidth applications, data transmissions, and computational requirements. In 2012 the university purchased an IBM System x3755 M3 running VMWare vSphere 5. This private cloud solution provides a shared environment for investigators who do not need a dedicated server for their research.

A steering committee, made up of senior administrators, faculty, and ITS professionals, is responsible for reviewing, evaluating, and recommending strategies, plans, and policies governing the use of the RDC resources. Loyola's RDC is managed by Information Technology Services (ITS) in partnership with the university's Facilities Department. The charge to the RDC Steering Committee is found at <http://www.luc.edu/media/lucedu/ors/pdfsanddocs/research/RDC_SC_charge.doc>.

Researchers and research support groups may request that equipment be hosted in the RDC in order to protect and sustain it in a controlled environment. Requests will be considered under the following circumstances:

1. Adequate resources are available in the RDC for any required equipment.

2. Allocation of resources is approved by the RDC Steering Committee.

Space, power, and cooling are expensive university resources required for computer equipment, and they must be used efficiently. The following are some of the factors considered for occupancy requests in the RDC: available funding and resources, fit with academic and/or research priorities identified by the Provost’s Office, school, and the strategic plan, long-term plan for renewal, and duration of request. Other factors may also be considered as warranted.

The procedure to request or renew hosting of equipment at the RDC may be found at <http://www.luc.edu/media/lucedu/ors/pdfsanddocs/research/RDC_Procedure.doc>.

Researchers and research support groups may also request access to the VMWare server in the RDC in order to do modeling and simulation, manipulate large data sets, perform time-intensive and/or memory-intensive computations, and similar tasks. The procedure to request or renew use of the VMWare server may be found at <http://www.luc.edu/media/lucedu/ors/pdfsanddocs/research/VM_Procedure.doc>.

Authorization for both hosted equipment and VMWare server usage must be renewed annually each January. The on-line form for requesting such renewal is found at <https://ptap.luc.edu/Public/RDCAnnualRenewal.aspx>.

Researchers may want to highlight the availability and capabilities of the RDC in grant proposals that involve high performance computing or have advanced research computing needs. This is particularly true where the sponsor requires discussion of the research facilities available at the recipient institution. Suggested language for inclusion in such grant proposals is found at <http://www.luc.edu/media/lucedu/ors/pdfsanddocs/research/RDC_Boilerplate.doc>.