

CORE COMPUTATIONAL FACILITY

AT VIRGINIA BIOINFORMATICS INSTITUTE

AVAILABLE SERVICES & RATES

The Core Computational Facility (CCF) at the Virginia Bioinformatics Institute (VBI) is responsible for providing a secure, stable, and manageable infrastructure supporting data-intensive research. The architecture focuses on scalability and flexibility ensuring fulfillment of future computational and data requirements. The goal of CCF is to enable excellence through proactive

technological development and implementation. CCF strives to position VBI at the forefront of life science-oriented computational capabilities.

As a service center of VBI, the CCF offers the services described below to both internal and external customers. The internal rate is available to those paying for the services rendered using a Virginia Tech managed fund.

IBM LTO TAPE LIBRARY

This enterprise-class tape library ensures data backup and protection, featuring an IBM Tivoli Storage Manager fronting an IBM 3584. On-site data backup ensures fast recovery times while off-site data backup provides for data recovery in the event of a disaster.

VT Rate: \$0.40 per GB/month

Non-VT Rate: \$0.63 per GB/month

PILLAR ENTERPRISE STORAGE

A Pillar Data Systems AxioM 500 provides enterprise-level disk storage capacity. This architecture facilitates rapid capacity scaling as needs increase as well as accommodations for differing usage patterns. Access is available both via Network Attached Storage (NAS) and a high speed Storage Area Network (SAN).

VT Rate: \$0.36 per GB/month

Non-VT Rate: \$0.57 per GB/month

SERVER HOSTING

Deployment, administration, support, and maintenance of server instances are included with the associated rates for this service. The servers are housed in secure, state of the art data centers with fast, reliable network access. Industry best practices are followed for system maintenance, ensuring high availability, security, and consistent reliability of servers and service.

Additionally CCF personnel are available to assist with hardware specifications, vendor interaction, systems architecture, and assembling high performance computing resources.

VT Rate: \$130/month

Non-VT Rate: \$206/month

DATABASE HOSTING

The CCF database personnel manage central information resources at VBI, ensuring data availability to authorized users while maintaining security and data recovery capabilities. Our preferred database system is Oracle 10g, although MySQL hosting is also available. These databases are hosted on servers running Suse Linux Enterprise Server and SAN-attached disk storage on a Pillar AxioM 500 storage system houses database files.

VT Rate: \$238/month

Non-VT Rate: \$377/month

DATA SPECIALISTS (HOURLY)

For databases and other data related tasks not utilizing CCF Database Hosting service, database support, monitoring, and maintenance are available for an hourly rate. CCF Data Specialists will assist with database design and architecture as well as data access strategies and development.

Additionally, CCF Data Specialists can assist in the development of tools, applications, and systems that utilize high performance computing resources. This will ensure that these tools are web accessible, scalable, and maintainable over the entire lifecycle of the system.

VT Rate: \$59/hour

Non-VT Rate: \$94/hour

POSTER PRINTING

The CCF can print posters on a large format HP Designjet T1120ps printer, which can be used for printing high quality posters. Posters are 42" wide, up to 60" in length, on a glossy photo paper.

VT Rate: \$39/poster

Non-VT Rate: \$62/poster

SHARED (VIRTUAL) SERVER HOSTING

The Shared Server Hosting service takes advantage of virtualization to provide a cost effective and flexible environment. This virtual environment is delivered using Xen virtualization running on CCF provided servers. These servers are typically Dell Power Edge 2950 or R710 models with ample memory, storage, and processing capacity. The default virtual environment consists of 2 GB RAM, 50 GB local storage, and an Intel Xeon processor core (2 GHz or higher). This environment can be expanded as need arises with minimal disruption of service. The Shared Server Hosting service provides the logical hardware needed, the administration and maintenance would be covered by the separate Server Hosting Rate described previously.

VT Rate: \$48/month

Non-VT Rate: \$76/month

DEDICATED SERVER HOSTING

The Dedicated Server Hosting provides access to a complete server used by a single operating system. The typical servers are Dell Power Edge 2950 or R710 models with ample memory, storage, and processing capacity. These servers feature 16 GB RAM, at least 100 GB local storage, and 2 Xeon multi-core processors (2 GHz or higher). The Dedicated Server Hosting service provides the hardware needed, the administration and maintenance would be covered by the separate Server Hosting Rate described previously.

VT Rate: \$157/month

Non-VT Rate: \$249/month

FOR MORE INFORMATION

www.vbi.vt.edu/core_computational_facility

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All CCF rates are subject to change without prior notice

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