Purpose/Objective

This document outlines the general terms, support provided and acceptable usage of any Virtual Machine (VM) provisioned by the Center for High Performance Computing (CHPC) at the University of Utah. The purpose of this document is to establish:

1. A clear representation of the capabilities of the service.
2. The acceptable use of this VM.
3. A shared set of expectations regarding the provisioning, operation, and support of the VM.
4. A framework for bidirectional communication regarding operational issues and overall satisfaction with the service.

This document is to be used in conjunction with a separate Faculty Research User Agreement specific to each individual VM request.

Service Cost

CHPC currently provides VMs free of charge to faculty and other members of the University of Utah research community, but reserves the right to review and change this agreement at most twice annually. Changes to this agreement are subject to the approval of the IT Governance Research Portfolio.

Service Description

Virtual Machines provide the user with their own server with the choice of the operating systems (OS). Currently supported OS are Windows and Linux. The use of VMs allows for maximized use of infrastructure and is an attractive alternative to managing physical servers. CHPC runs two VM systems – one for projects that involve data that is regulated and/or sensitive data such as Protected Health Information (PHI) and require a HIPAA compliant environment (“Protected VM Farm”) and a second for other projects (the “Standard VM Farm”).

CHPC provides:

- Hardware infrastructure for your server including processing, RAM and disk storage.
  A typical VM is 1 to 2 cores, 2GB RAM, and 50GB disk storage. Larger amounts should be justified in the VM request.
- OS install and licensing.
  CHPC currently offers all current vendor supported versions of Red Hat Enterprise Linux and Windows Server.
- Additional software installation as per agreement with VM owner.
- Secure physical infrastructure located at the campus data center.
• Redundant network connectivity in the VM farm itself (not for individual VM images).
• Redundant power the VM farm.
• Static IP address (addresses).
• Firewall protection.
• Administration of accounts with shell access.
• Dynamic server fail-over for the physical VM server.
• Backups (weekly full and daily incremental with a two week retention cycle) of entire VM.

Acceptable Use of VM

The CHPC VM farms are available for research purposes, typically when the application does not fit well within the other HPC resources provided by CHPC or within the VM services offered by other University Information Technology departments or groups.

All VM requests must come from a PI for the research project. The PI and all users must have a valid CHPC account. The PI will meet with CHPC personnel to discuss the project in order to determine if the project is a good fit for the CHPC VM farm. If it is found that the project is a good fit, the PI will provide the desired VM specifications and server name. CHPC will work with the researcher to determine the appropriate security model (CHPC administered, shared administration, or self-administered, with the latter choice unavailable in the protected VM farm).

It is the customer’s responsibility to protect private sensitive information in accordance with the University Of Utah Acceptable Use Policy as well as Policy 4-004 (University Information Technology Resource Security Policy). Under NO circumstances will any protected data be placed on a VM in the standard VM farm.

Customer/User Responsibilities
• Provide current contact information.
• Provide necessary network information.
• Provide a list of software required for the VM.
• Prompt reporting of issues and/or changes to services to the CHPC issue tracking system.
• Provide account maintenance for any application level user accounts.
• Respond in a timely manner to all security concerns.
• Negotiate further backup requirements (backups of data within VM).
• For a self-administered VM, the researcher is responsible for all system administration of their Virtual Servers and is expected to keep the OS updated.
• For VMs in the protected farm, all users will complete the University’s HIPAA training, and keep this training up to date. Users will also agree to any other compliance requirements for the pertinent data.

CHPC responsibilities
• Provide key contacts to coordinate communication, incident management and problem management processes.
• Protect private sensitive information in accordance with the University Of Utah Acceptable Use Policy as well as Policy 4-004 (University Information Technology Resource Security Policy).
- Adhere to maintenance windows for infrastructure changes (have a link to published maintenance windows).
- Maintain data center physical and virtual security.
- Provide appropriate notification to customer for all scheduled maintenance and unscheduled down times or service degradation.
- Provide an estimated timeline for the provisioning of the VM. This timeline is dependent on the software requested for the VM.

**CHPC Hours of Operation and contact information**

Phone: 801-581-6440 (during normal University Working Hours)

E-mail: [issues@chpc.utah.edu](mailto:issues@chpc.utah.edu)

Normal CHPC business hours are Monday-Friday 8AM-5PM, except on University holidays and closed days. CHPC personnel strive to acknowledge the receipt of messages submitted to the issue tracking system within three hours during these business hours.