


Central Site Equipment:

Present
 Four Sun Fire 6800s each with 24CPUs (750MHz) and 24GB of RAM
 Four Sun Fire 6800s each with 24CPUs (900MHz) and 24GB of RAM
 6.5TB of Sun StorEdge T3 disk storage

Sun HPC4500 with 8 CPUs and 4GB of RAM
 IBM SP with eight 4-CPU (333MHz 604e) nodes

Future (summer 2002)
 Four Sun Fire 6800s each with 24CPUs and 24GB of RAM
 2.6TB of Sun StorEdge T3 disk storage
 Upgrading of the 750MHz boards



Other Sites:

Carleton University (Ottawa)
 Sun Fire 6800 with 20CPUs and 20GB of RAM
 1.3TB of Sun StorEdge T3 disk storage
 Beowulf cluster with 64CPUs --> 128CPUs

University of Ottawa (Ottawa)
 Sun Fire 6800 with 20CPUs and 20GB of RAM
 1.3TB of Sun StorEdge T3 disk storage

Royal Military College of Canada (Kingston)
 Sun HPC4500 with 12CPUs and 12GB of RAM
 Direct fibre connection to Queen's University

User Support

Queen's University	4
Carleton University	1
University of Ottawa	1.3



Environment:

Present

Solaris with CRM, Cluster Tools, GridEngine and Forte Developer
Interconnects by Gigabit Ethernet.
User connections via ssh, sftp, Putty.
Information availability through the web site (www.hpcvl.org).

Future

Developing PKI based solutions with our partners to raise the security level and protect intellectual property.
Developing a portal solution that is consistent with our goal of secure access from anywhere using the web.



Present users:

Sun systems are now used by over 100 users in 32 research groups.
(systems averaging 90% utilization)

Significant users in the following areas

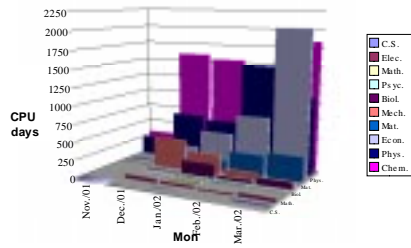
Chemistry, Biology	Computational Chemistry, Drug Design
Physics	Polymer Science, SNO, Quantum, Solid State
Computer Science	Genomics, Cryptography, Geomatics
Economics	Policy Decisions
Psychology	Memory Modeling
Engineering	CFD, Electrical

Future users:

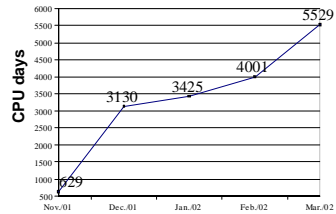
Negotiations involving large data storage may bring in more groups.
Commercial contract usage (security).
IP intensive groups (security).
Areas include
Math and Stats, Medicine
Engineering (many fields)



Sun Usage (CPU days)



Sun Fire Usage (Central)





Successes:

User acceptance

Recruiting highly qualified people.

Genomics sequence alignment (Dr. Frank Dehne and coworkers) and the minimum vertex problem.

Training -- successful workshops.

New research thrusts.

New collaborations.

New partnerships.

Special Interest Groups (SIGs).

