

Tim Wickberg

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EDUCATION

Master of Science, Computer Science
Rensselaer Polytechnic Institute December, 2011
Thesis: *A method of accelerating I/O performance on HPC systems using RAMDISKS*

Bachelor of Science, Computer Science and Computer & Systems Engineering
Rensselaer Polytechnic Institute May, 2007

EXPERIENCE

Senior HPC Systems Administrator Summer 2013 - Present
Division of Information Technology, The George Washington University

- Responsible for maintenance and support of *Colonial One*, GW's new cross-school shared HPC resource.
- Coordinating user support, application installation and maintenance, and direct system expansion plans.

Senior Systems Programmer Spring 2013
Senior Systems Administrator Summer 2007 - Spring 2013
Office of Research, Rensselaer Polytechnic Institute

- Responsible for maintenance, setup, and administration of systems in all Institute-wide research centers. Act as a liason between research center staff and central IT services; provide additional system capabilities (dedicated file servers, web servers, application-services) where called for.
- Lead technical design for a \$3-million NSF MRI proposal (NSF award #1126125); system involves large-scale HPC (100 TeraFLOP compute asset), alongside a PetaByte filesystem, as well as advanced data visualization capabilities and a novel RAMDISK storage acceleration system. System as deployed to date includes \$8-million in hardware, and 400TFLOP/s of compute power.

TECHNOLOGIES

Expert in Linux, especially Debian-derived distributions. Comfortable working with RHEL and related systems (CentOS, SuSE), Solaris, Mac OS X, and Microsoft Windows.

I have worked with systems involving Xen virtualization, as well as a variety of storage systems connecting over SAS/FC/iSCSI, and exported of systems through NFS and SAMBA/SMB. I have previously held a Cisco CCNP certification, and am comfortable with routing/switching on a variety of platforms including Cisco, Force10, Brocade, and software routing/filtering stacks on OpenBSD/FreeBSD/Linux.

My research interests include parallel filesystems, including Ceph, PVFS, Lustre, and GPFS. HPC systems expertise includes beowulf-style Linux clusters, and specialized machines such as IBM BlueGene/L and /Q. These systems include a wide variety of interconnects including 56Gbps Infiniband and 10-Gigabit Ethernet.