Five Gigabytes Of Temporary Storage Now Available To All Students Who Use RCC Facilities

From: Office of Program Director, Operations and Technology, Rogers Communications Centre

September 1, 2009 – The Rogers Communications Centre is pleased to announce that all 2,300 students that use its facilities now have access Five Gigabytes of personal online storage that can be used to hold temporary media files. The system that was put in place at the request of the Rogers Communications Centre Operations Committee and was designed to assist students with temporary storage that can hold small media files that can be accessed between the various labs in the Centre.

The robust storage system was constructed by Rogers Centre staff members Bill Brishna and Many Ayromlou and employs industrial grade off the shelf hardware as well as "open source" Openfiler 2.3 64-bit FreeNAS software that runs the storage service. "Employing off the shelf hardware means we can take advantage of the economies of SATA based hard drives," commented Brad Fortner, Director of Operations and Technology, for Ryerson's Rogers Communications Centre. "And by selecting open source software we get free updates that the open source community continually updates. This solution is flexible, very economical and as robust as any higher priced system that vendors would have supplied us." he added.

The 13TB network attached storage system (NAS) robustness comes from its RAID 6 storage configuration. Practically RAID 6 means that it would take at least two of the systems 18 hard drives to break before any data is lost. Since the system employs inexpensive and readily available SATA hard drives the technical staff have extra drives on hand in the event of a hard drive failure that can be swapped in and the data integrity rebuilt.

To make the storage system even more robust the Centre's staff added a second NAS that is a mirror storage system. As soon as a student's file is sent to the storage it's duplicated on the second NAS. That second NAS has all of the RAID 6 capabilities and in the case of the main NAS going offline, it can act as a back-up unit to keep the service operating.

"Even with all of these failsafe technologies employed with the system no network based storage system is absolutely foolproof," Fortner warned. "Although unlikely unpredictable events like a fire, a flood or a large electrical power surge can wipe out systems and data." As such the RCC advises users that this NAS system should be used for temporary storage only. Students are required to keep their own data backups of files in case of a catastrophe. In addition students who use the system need to note that the files are purged in all storage accounts on May 1 of each year.

Information on how students access the system can be found at
http://www.rcc.ryerson.ca/media/2009RCC_NAS_login_procedure.pdf

More information on the Rogers Communications Centre, the shared FCAD facilities it operates and the specifics of the labs that it operates can be found at
http://www.rcc.ryerson.ca/technology/index.htm