

Media Server System Established for FCAD Schools

If you're reading this document you should be aware that it originated from the new Media Server System that's employed in the Rogers Communications Centre. The server system, that was the result of a multi-year process initiated by the RCC's Operations Committee, became operational September 1, 2006. It was put in place to provide a single supported Media Server System that would integrate a number of aging and technologically disparate systems that had appeared in the Centre with the adoption of on-line media. The system targeted technology to serve SPIRIT Radio, The Canadian Broadcast History Website, the Rogers Communications Centre website and to meet the serving needs related to the establishment of Journalism's on-line program.

Where possible the planning and execution group chose to work to open standards for the implementation of the system as a go forward. This means that These open standards include the use of an Apache (v1.3.33) webserver complete with MySQL (5.0.24) and PHP (5.14-5) employed for webserving. To distribute media Shoutcast Streaming Technology is employed to distribute streaming audio in MP3 format while H.264 MPEG-4 was selected as the primary video distribution format. The design of the system also includes a Windows Media server that provides the ability to server proprietary live Windows Media formats. SPIRIT radio's archive of Real Media will be served as downloadable files.

During the planning process both the Operations Committee and consultation with the School of Journalism reiterated the need for a quality serving system that included enterprise level failover system and data back-up. For servers the system employs two Apple G5 based Xserve's fashioned in an automated failover mode. These units host the Apache, MySQL and PHP software for serving webpages, the Shoutcast server for MP3 distribution and a Quicktime server for TV. A Dell PowerEdge 2950 server that includes a Dual-Core Intel Xeon processor is employed as the Windows media server. All of the programs that are used to run the server employ advanced RAID configurations arranged to secure their integrity during day-to-day operation.

To simplify both streaming and website content distribution in the case of a server failure the system employs an Apple's Xserve RAID media that's part of the Xsan based storage employed in the Rogers Communications Centre. This content is also protected in two ways; first the Xsan is arranged to provide maximum of content placed on its SMART hard drives. In addition the data is backed up daily by an offsite Quantum SuperLoader 3 that employs DLT S4 tape. The Dual-Core Intel Xeon Dell PowerEdge 2950 server that controls this tape back-up unit is also configured to act as the failover system in the event of a failure in the primary Windows Media server unit. The combination of all of these systems make the RCC's Media Server system one of the most reliable and data secure installations at Ryerson University.

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