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Acacia Claims Streaming Royalties

Acacia Research is claiming patent ownership of several video on demand applications. This excludes live streaming. According to Streamingmedia.com, several universities and colleges have received licensing solicitations from Acacia. The claim is legitimate. If you are interested in the Acacia claim, visit http://www.streamingmedia.com/patent/. If you receive a letter from Acacia, contact your organization's legal department and alert Streaming Media Inc.'s Dan Rayburn, by phone at (917) 523-4562 or by e-mail at dan@streamingmedia.com. The patent claim is serious and should not be disregarded.

Streaming on Campus

Delivering streaming media across your local area network can be accomplished inexpensively and easily. In the summer streaming corner column, I recommended that most institutions use ISPs for streaming to customers located off of their campuses. In short, the greatest expense for streaming is bandwidth. When streaming to campus workstations, I recommend establishing your own streaming server. This should be available as an intranet service. It is important to use firewalls to keep outsiders from accessing your content and bandwidth.

The three big streaming architectures, Real, Windows Media, and QuickTime can be delivered from nearly any server operating system and even from desktops. This column does not address Flash streaming or the Flash Communications Server. Novell file servers can be used for content storage, but may not be suitable for the streaming application server. Streaming services can run on the same hardware as other application servers, provided that there is enough storage, processor and memory.

Each streaming architecture offers attributes. In spite of rapid technology changes and adoption in the field, the big three streaming systems will sustain themselves for the near future. Each offers a free player client for Macintosh and Windows, free development tools, a graphical administration component, and either an affordable of free server software.

While technologists and faculty may develop in one or more streaming architectures, a critical success factor is how an institution's technology team will support end users and installation of players. It is possible to operate more than one type of streaming server on the same hardware. For example, an institution could operate a Windows Media Server and a Helix Community Server (Real) on the same hardware. Before making any streaming infrastructure decisions, discuss your intentions with the technology staff. Be sure to address workstation hardware needs and predicted software rollouts. Students will need either headphones or speakers, an easy way to attach the headphones and possibly additions to your campus's and labs acceptable use policy.

If you want to experiment with a streaming, the software server can usually be hosted on as old of a machine as a Pentium II with 10 Gigabites of storage. However, if you are going to offer a more robust system that supports authoring by more than one staff member, it would be wise to plan accordingly. Because streaming files are much larger than most other traditional electronic files, your team should determine storage strategies, potential expansion plans, and file allocation and management. Plan and experiment, prior to implementing!

The web is full of good resources and Real, Microsoft, and Apple offer great tutorials and free tools for crafting your content. The next streaming corner will discuss content creation tools for encoding and automating production.

If you need further help, consider contacting me or joining the Triangle Streaming User's group discussion list. Information and links are in the accompanying table.

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Streaming Format	Operating System	Server Software	URL
Windows Media [1]	Windows 2000 Server Windows 2003 Server	Microsoft Windows Media Services	Included on CD www.microsoft.com/windowsmedia
Windows Media Real QuickTime MPEG4 [2]	Unix, Windows, Linux,	Real Networks' Helix Universal Server (Commercial) Helix Server (Commercial, but Real Format Only)	www.realnetworks.com
Real [3]	Unix, Windows, Linux	Helix Community Server (open source - free)	www.helixcommunity.org
QuickTime MPEG4 [4]	Mac OSX	QuickTime Streaming Server	www.apple.com/quicktime/products/qtss/
QuickTime MPEG4 [5]	Unix, Linux, Windows	Darwin Streaming Server	http://developer.apple.com/darwin/projects/streaming/

Notes
1. Included with cost of operating system.
2. Universal version supports multiple formats. Licensing available by concurrent connections or unlimited connection.
3. Visit the web site for software agreement, downloadable binaries and source code.
4. Download the binary for OSX.
5. Visit the web site for license agreement and software.