BitTorrent Creator Dismisses M$ P2P Project

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Yesterday, BitTorrent creator Bram Cohen called Microsoft Research's attempt to create its own version of the person-to-person application "vaporware" and "complete garbage."

In Cohen's blog, he said Microsoft Corp.'s boast that the new P2P protocol, codenamed Avalanche, would fix transfer rate problems and disconnections was unfounded.

Cohen added that since the Microsoft experiments were done via "simulations," the results were flawed-the tests do not take varying transfer rates into consideration, nor the limitations of all the users' computers.

"Particularly worrisome for their proposed scheme is disk access," Bram said in his blog. "If the size of the file being transferred is greater than the size of memory, their entire system could easily get bogged down doing disk seeks and reads, since it needs to do constant recombinations of the entire file to build the pieces to be sent over the wire."

Despite the criticism, Avalanche still seems to be holding its own in the word-of-mouth department. While the Microsoft P2P protocol has a few different elements than BitTorrent, the premise remains the same: If someone needs to transfer a huge file, such as a video or a form of software, to many people, a server usually cannot handle the workload. Instead, the file "swarms" across the Web, and can be downloaded in bits and pieces from many destinations, each containing small pieces of the entire file.

The main problem with this system is that downloading a file can take a long time, because at the end of the process, users usually have to wait to find and download a last bit of information, called the "rarest bit." Sometimes waiting for the rarest bit can take 12 hours or more, depending on the popularity and size of the downloading file in question.

Microsoft, much to Cohen's disapproval, says it's found a way to avoid the waiting game by recoding all of the pieces of a file so that each one shared is a linear combination of the pieces. After a user has downloaded a few of these, the user can generate new combinations from the pieces and send those on to other peers.

At that point, instead of having to wait for more important pieces of the puzzle, any piece can be used to complete the entire picture. And, since the same information will no longer have to travel back and forth, overall network traffic will decrease as well. In fact, Avalanche researchers said this new transfer method made download times 20 to 30 percent faster.

Keeping in mind that this research is just that-research-David Card, an analyst at JupiterResearch of Jupitermedia Corp., said it's hard not to wonder why Microsoft would want to create its own P2P services, especially as Microsoft is actively involved in regaining and maintaining the trust of entertainment companies by taking an active role in digital rights management.

Full Story [3].

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