

Peer-to-Peer (P2P) Backgrounder
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On September 16, 2004, governor Schwarzenegger signed executive order S-16-04. The order charges Clark Kelso, the CA state CIO, with the development of a statewide policy on Peer-to-Peer (P2P) technology. Despite mentioning the potential for legitimate uses for P2P, the executive order makes it clear that the goal of the policy is to heavily limit its use by state agencies, including the UCs and CSUs. With that in mind, I have put together this backgrounder to give librarians more information and context on this controversial issue.

Peer-to-Peer (P2P) describes a computer network architecture where any number of peer nodes on a decentralized network function as both clients and servers to other nodes. Any node is able to initiate or complete any supported transaction. Peer nodes may differ in local configuration, processing speed, network bandwidth, and storage quantity (definition quoted from <http://wikipedia.org>). Popular examples where P2P is used are file sharing-networks like Napster, Grokster and Gnutella, distributed bulletin boards like Usenet, and ICQ instant messaging.

P2P is part of the larger copyright debate currently being played out at the federal and state levels of government. This debate, and the legislation that comes out of it, will have a profound effect on libraries and universities in California and across the nation. The legal controversy over P2P lies in its use for file-sharing on P2P networks and the possibility for copyright infringement caused by the unregulated sharing of copyright-protected files. The entertainment industry – in particular, the Recording Industry Association of America (RIAA) and the Motion Picture Association of America (MPAA) – has been very aggressive in attempting to restrict P2P networks. They have vigorously lobbied for legislation like DMCA and the INDUCE Act and have brought suit against P2P network users for alleged copyright infringement.

Copyright issues notwithstanding, there are many current legitimate uses for P2P applications within the library- and academic communities:

- LOCKSS (“Lots of Copies Keep Stuff Safe”) and LOCKSS-DOCS are viable library projects which use P2P architecture to share digital collections and assist in digital archiving.
- IT departments commonly use P2P networks like BitTorrent to download patches and critical updates for web servers, operating systems and staff computers – in fact, many people got their Windows XP service pack 2 from P2P networks because the Microsoft website was inundated with requests!

These as well as future innovative projects that utilize P2P are threatened by the Governor’s executive order which will restrict its use. ALA Washington Office has stepped up their lobbying effort to challenge federal legislation that would restrict and/or criminalize the use of P2P.

Gary Lawrence and others at UCOP’s Office of Systemwide Library Planning are tracking this issue as well. The UC perspective communicated to the State’s Relations and strategic communications staff is:

- UC has taken several affirmative steps through policy and practice to address P2P file-sharing issues;
- UC policies prohibit the use of UC networks for infringing purposes and ensure expeditious handling of DMCA infringement complaints;
- UC makes regular, constructive and non-infringing use of P2P technology for legitimate academic purposes, and "rather than restricting access to specific technologies, UC is pursuing other avenues to discourage illegal file sharing."
--29 Sep 2004 email from Gary Lawrence to Tricia Cruse at CDL

Links to more information:

Text of Executive Order S-16-04 can be found at the Governor's website in the Pressroom section [<http://www.governor.ca.gov>]

ALA's stance on copyright (including links to pending Federal legislation):
<http://www.ala.org/ala/washoff/WOissues/copyrightb/antipiracylegislation/antipiracy.htm>

Kuchinskas, Susan. "California to set P2P policy." *Internetnews.com*, Sept. 20, 2004.
<http://internetnews.com/bus-news/article.php/3410411> [Last accessed on 10/15/04].

Lessig, Lawrence. *Free Culture: how big media uses technology and the law to lock down culture and control creativity*. New York: Penguin Press, 2004.
<http://www.free-culture.cc/freecontent/> [Last accessed on 10/18/04].

Schwartz, John. "The attack on peer-to-peer software echoes past efforts." *New York Times*, Sept. 22, 2003, p. C3.

Stewart, Joe. "BitTorrent and the Legitimate Use of P2P". *panel discussion on P2P technologies held by the Forum on Technology & Innovation in Washington, D.C. on February 26, 2004*.
<http://www.joestewart.org/p2p.html> [Last accessed on 10/15/04].

Library- and other projects using P2P:

- LOCKSS: <http://lockss.stanford.edu/>
- LOCKSS-DOCS: <http://lockss-docs.stanford.edu/>
- P2P Directory (O'Reilly): http://www.openp2p.com/pub/q/p2p_category
- Aspenleaf Active Distributed Computing Projects:
<http://www.aspenleaf.com/distributed/distrib-projects.html>

Organizations opposed to P2P	Organizations supportive of P2P
Recording Industry Association of America (RIAA) http://www.riaa.com/default.asp	P2P United http://www.p2punity.org/
Motion Picture Association of America (MPAA) http://www.mpaa.org/	Personal Technology Freedom Coalition http://www.personaltech.org/
	Electronic Frontier Foundation http://www.eff.org/