

PEER-TO-PEER

what is peer-to-peer:

Definition: Peer-to-Peer computing is defined as the sharing of resources (such as hard drives and processing cycles) among computers and other intelligent devices. Individual users connect to each other directly, WITHOUT need for a central point of management.

We can make this two questions:

- a. Does it allow for variable connectivity and temporary network addresses?
- b. Does it give the nodes at the edges of the network significant autonomy?

If yes, then it's peer-to-peer.

About history:

Since it's inception, the entire premise of the Internet centered on file sharing. The Internet has always existed to promote the sharing of information.

But until 1994 we had one basic model of connectivity in Internet:

- . Machines were always connected to a permanent IP
- . DNS designed for their environment

From 1995 to 1999 there was a boom. The network model as we know it today. The Internet changed its shape radically; it became a mass medium, a cultural phenomenon. We have now few servers and many, many clients.

This new model affected ability to create peer-to-peer applications. The way we use network changed: a major breakdown of cooperation on the Net happened. Firewalls popped up all over, asymmetric network links such as ADSL and cable modems didn't help it either.

In 1996 ICQ appeared - The first pc based chat system, marked the first time those intermittently connected Pc's became directly addressable by average users.

What happened:

ADDRESSES BYPASS DNS -

SPORDICALLY INTERNET NODES START TO EMERGE

P2p technologies return the internet to its original vision:

EVERYONE CREATE AS WELL AS CONSUMES

The basic conclusion I get is that peer-to-peer systems are changing the economics of storing and transmitting intellectual property in general.

Some References I used for this seminar:

Andy Oram: Peer-to-peer: harnessing the benefits of a disruptive technology, O'Reilly, 2001. (McLuhan Documentation Center)

<http://www.napster.com>

<http://www.gnutella.com>

<http://www.kazaa.com>

<http://www.microsoft.com/net/>

<http://www.intel.com/cd/ids>

<http://www.nwfusion.com/research/2001/p2papps#p2papps>