

Pp

P2P Applications: an application over a peer-to-peer network. The best-known applications are Freenet, eMule, and Skype. (Ibáñez Fernández, 2008)

P2P Collaborative Environment: an environment specially designed for supporting distributed collaborations using peer-to-peer computing techniques and tools (Pham, Lau, & Dew, 2010)

P2P Collaborative Network: a network based on a peer-to-peer architecture to share digital resources in a free and equal way among members. The resources could be digital contents, processing power, bandwidth, and storage. (Videira Tavares, 2008)

P2P Communication: a networking paradigm where collaborating peers or partners play similar roles in the communication, in opposition to the Client/Server paradigm that defines clear functions for the parties involved: either consume or provide resources. In the P2P paradigm, the parties involved are assumed to both consume and provide services. (Kamienski et al., 2010)

P2P Computing: a type of distributed computing application where there is no notion of

clients or servers but a number of peers are connected together to form an overlay network structure and function as both clients and servers for resource sharing (Han, 2010)

P2P File Sharing: a file distribution type based on peer-to-peer architectures. P2P file sharing systems have become the single most popular class of end-user Internet application in this decade and have attracted a lot of attention to peer-to-peer architectures. Some P2P file sharing software offers a larger user base and greater numbers of files to choose from. Some software better handles network resources. Also, some P2P file sharing programs are increasing in popularity while others are declining. (Pouzols et al., 2008c)

P2P Hybrid Network: the fusion of the P2P architecture with the client/server architecture, where the characteristics of the first are remarked; this architecture is classified as a variant of P2P architecture (Cunha, Putnik, & Silva, 2008)

P2P Interaction: a dynamically created social network on the Internet within which people can collaborate by sharing and retrieving information (Stojmenovic, 2008)

P2P Key Update: a process that ensures data integrity between peers whenever a peer is inserted or deleted from a P2P network (Tsolis & Sioutas, 2011)

P2P Model: a communication model where each node has the same authority and communication capability. They create a virtual network, overlaid on the Internet. Its members organize themselves into a topology for data transmission. (Richly, Hosszú, & Kovács, 2008)

P2P Network: a network, often ad hoc, in which every node (peer) of the system acts as both client and server and provides part of the overall resources/information available from the system. In a pure P2P system, no central coordination or central database exists and no peer has a global view of the system. Each node has the same authority and communication capability. Participating peers are autonomous and self-organize the system's structure, i.e., global behavior emerges from local interactions. P2P technologies have many applications, such as file sharing and exchanging, distributed computing, collaborative systems, P2P computing, and enterprise applications. (Ding, Zhang, & Ren, 2009; Turner, 2009; Venkataramu & Stamp, 2009)

P2P Networking: a distributed networking structure composed of participants (so-called peers) that make a portion of their resources (such as processing power, disk storage or network bandwidth) directly available to other network participants, without the need for central coordination instances (such as servers or stable hosts) (Cong-Vinh, 2012)

P2P Protocol: the P2P network layer implementing communication and transmission functionalities of the network (Cuzzocrea, 2009c)

P2P Storage System: a paradigm that aims to leverage the combined storage capacity of a network of storage devices (peers) contributed typically by autonomous end-users as a common pool of storage space to store and share content (Datta et al., 2010)

P2P System: a collection of autonomous nodes providing or requesting data. A peer in such a system can act both as a client and a server. It can request services from other entities as well as provide services to other entities in the system. Characteristics commonly attributed to peer-to-peer systems include node autonomy, large scale and dynamicity. (Caroprese, Greco, & Zumpano, 2009; Konstantinos & Karatza, 2010; Dimakopoulos et al., 2010)

P2P Topology: the network connections that link the peers participating in a P2P system (Hughes & Walkerdine, 2008)

P2P Traffic: the network traffic generated by distributed applications (i.e. Gnutella, KaZaa, or Skype to name a few) that organize the communication among its participants using the peer-to-peer (P2P) communication model in contrast with the classic client-server model (Ziviani, 2008)

P2P Usage Mining: a data mining field that aims at discovering frequent behaviors among users in a peer-to-peer system (Masseglia, Poncelet, & Teisseire, 2009)

P2P-F: the federation based solution for P2P network management (Ni & Wang, 2010)

P2PTunes: a digital rights management system designed to provide the benefits of a decentralized P2P network while providing DRM content protection that is at least as strong as that found in Fairplay. P2PTunes

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