The peer resource market

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Abstract

Today many peers (that is, Internet-connected computer systems) possess surplus bandwidth, storage and CPU resources; for example, a peer with a broadband DSL connection typically utilizes only a small fraction of its transmission, storage and computation capacity. When aggregated together across all peers worldwide, these unused resources constitute a huge, untapped resource pool. This resource pool can potentially be used by many applications, including peer-driven content distribution, globally distributed archival storage, massively parallel computation and P2P file sharing. Of course, applications can only harness the resource pool if peers make available their surplus resources to them. In this talk we'll survey our research on creating an online marketplace where entities—such as peers, companies, users and so on—buy and sell surplus resources.