

# CREATING AN ADAPTIVE NETWORK OF HUBS USING SCHELLING'S MODEL

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*Adjusting the overlay network topology in a peer-to-peer network to satisfy performance criteria.*

he term peer-to-peer (P2P) refers to distributed systems without any central control, where all the nodes (called peers) are equivalent in functionality. In a P2P system, peers can collaborate and communicate with each other without the need for centralized components. P2P systems organize the peer computers in a virtual communication network called an overlay network. Overlay networks generally have self-organizing characteristics, which means they are established and maintained by P2P software without any human intervention and that P2P software manages events such as peers joining and leaving the network. This self-organizing nature of P2P helps reduce the management cost of the computer infrastructure. However, the decentralized nature of P2P networks makes it difficult to develop efficient algorithms for tasks such as clustering and search, which are required by many P2P applications.