D2D communication can reduce the burden on base stations

Can cellular D2D communication improve spectrum efficiency?

Cellular D2D communication can improve spectrum efficiency,increase system capacity,and reduce base station communication burdens by sharing authorized cell resources; however,can also cause serious interference.

What are the benefits of D2D communication?

2. Benefits of D2D Communication D2D communication offers several advantages that make it a promising technology for future wireless networks. Since data is transmitted directly between devices without passing through a base station or core network,D2D communication significantly reduces latency.

What are the benefits of D2d multicast communication?

The introduction of D2D multicast communication can also reduce base station transmission loads for matching information; for users located at the edge of a cell,system capacity (i.e.,the number of access users) can be greatly improved using the content distribution method.

How can D2D communication improve Isac scalability and offload BS resources?

To enhance ISAC scalability and offload BS resources, D2D communication offers a promising solution. D2D enables direct communication between nearby devices, reducing latency, increasing spectral reuses, and alleviating the load on base stations, which is especially beneficial in the complex environment of ISAC .

Integrate D2D communication with RIS (Reconfigurable Intelligent Surface) to increase the EE and link reliability, and Multi-access Edge Computing (MEC) to reduce the load on central base ...

By allowing user equipments (UE s) to communicate directly without routing data through the base station (BS), D2D communication can improve spectral efficiency (SE) and energy ...

The increase in cellular users (CU) caused data traffic congestion on the Base Station (BS). Device to Device (D2D) communication can be used to reduce the traffic on BS. D2D ...

Adding D2D communication into cellular network can reduce the burden of base stations, reduce communication delay and improve spectral efficiency. However, the limitation ...

Explore the architecture, benefits, challenges, and real-world applications of Device-to-Device (D2D) communication in 5G networks, enabling direct connectivity between devices.

As a new communication method, Device-to-Device (D2D) communications are proposed in Long-Term Evolution Advanced systems to increase network capacity [2], [3], whereby under the ...

Device-to-device (D2D) communication technology, in which users receive their requests through a high-speed link and another device near them without a central station, is one of the ...

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Device-to-device (D2D) communication is a technology that allows devices communicating with other devices directly instead of going through the base station (BS), and it can ...

Integrating device-to-device (D2D) communication into cellular networks can significantly reduce the transmission burden on base stations (BSs). Besides, integrated sensing and ...

Cellular D2D communication can improve spectrum efficiency, increase system capacity, and reduce base station communication burdens by sharing authorized cell resources; however, can ...

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