Can the introduction of D2D communication in cellular networks reduce the burden on base stations

---

What are the advantages of D2D communication in cellular networks?
Optimization of Power Levels: since D2D links exist between proximate devices,over a small distance,transmission power is less. This enhances the battery life of the devices. As a result,higher energy efficiencycan be achieved with D2D communication in cellular networks. 4.

What is the difference between D2D and conventional cellular communication?
Conventional cellular communication is supported by the macro cell tier, while D2D communication is supported by the device tier. These cellular networks thus are similar to the existing networks. The difference lies in the fact that faithful services can be achieved by the devices at the cell edges and those in the congested areas within the cell.

What technologies use D2D communication?
Common short range wireless technologies that use D2D communication include Wi-Fi Direct,Bluetooth,and LTE Direct. In this technique,the network authorizes the two devices to communicate directly under its control. The network maintains control over devices and can determine traffic routing between direct and network paths.

Is D2D communication in cellular networks a public safety feature?
Another organization involved in examining D2D communication in cellular networks is 3GPP (Third Generation Partnership Project) (3GPP,2013a,2014a,2013b). D2D communication is under investigation by the 3GPP as Proximity Services (ProSe). It is expected to function as a public safety network feature in Release 12 of 3GPP.

In contrast to traditional cellular connection, device-to-device (D2D) communication is a direct connection amidst adjacent mobile users that does not pass through the base ...

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

Can the introduction of D2D communication in cellular networks reduce the burden on base stations

Source: https://aides-panneaux-solaire.fr/Mon-19-Jul-2021-18848.html
Website: https://aides-panneaux-solaire.fr

Being a relatively new architecture for network communication, D2D communication has many challenges that should be tackled in order to successfully execute the planned communication ...

Device-to-device (D2D) communication with direct transmission enhances the network performance by reducing the latency. However, it ...

Explore the benefits and challenges of Device-to-Device (D2D) communication in LTE and 5G NR, including latency, coverage, and security considerations.

D2D communication replaces the normal 2 hop cellular communication link through a base station to a single hop direct communication link. This reduces the network overhead on the base ...

Explore the benefits and challenges of Device-to-Device (D2D) communication in LTE and 5G NR, including latency, coverage, and ...

With the introduction of device-to-device (D2D) communication, direct transmission between devices is possible. This is expected to improve the reliability of the link between the ...

Device-to-device (D2D) communication with direct transmission enhances the network performance by reducing the latency. However, it is difficult to allocate resources ...

Device-to-device (D2D) communication is expected to play a significant role in upcoming cellular networks as it promises ultra-low latency for communication among users.

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

Device-to-device (D2D) communication in cellular networks represents a paradigm shift wherein mobile devices communicate directly with one another, bypassing traditional base station...

Web: https://aides-panneaux-solaire.fr