# How does D2D communication communicate without a base station

## Overview

Device-to-Device communication refers to a technology that allows two or more mobile devices to communicate directly, without the need for a base station or network controller.How does D2D communication work in LTE-direct?

In LTE-Direct, D2D communication-enabled devices can interact with each other using a secure transmission protocol similar to the devices communicate with the base station. In order to have stable communication and uninterrupted service, mobile devices must be within the proximity of the base station.

What are the different types of D2D communication?

There are multiple types of D2D communication based on the underlying technology and use case: Network-Assisted D2D: The cellular network helps in device discovery, authentication, and resource allocation. Autonomous D2D: Devices communicate independently without any network assistance.

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.

What is device-to-Device (D2D) communication?

Device-to-Device (D2D) communication is a wireless communication technology that enables two or more devices to communicate directly without routing data through a central network infrastructure. This direct connectivity improves data transfer speeds, reduces network congestion, and enhances overall system efficiency.

# How does D2D communication communicate without a base station



## D2D Communication Architecture and Use Cases Enabling ...

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## What is D2D? Device-to-Device Communication Explained

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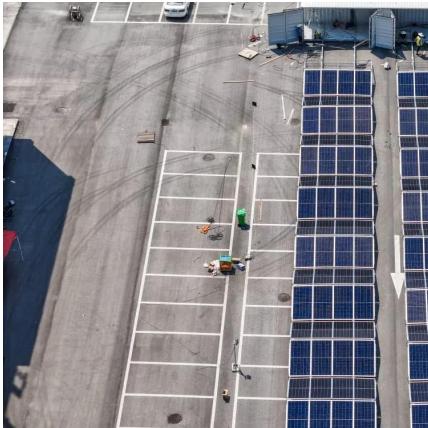[D2D Communication: Advantages and Disadvantages](#)

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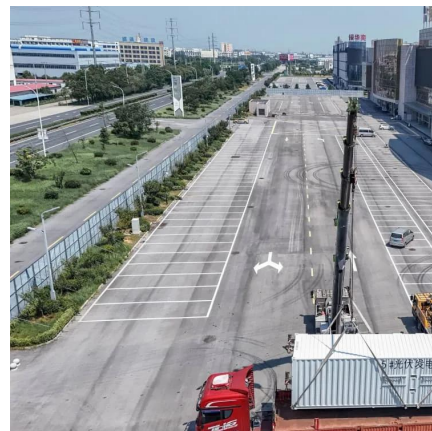


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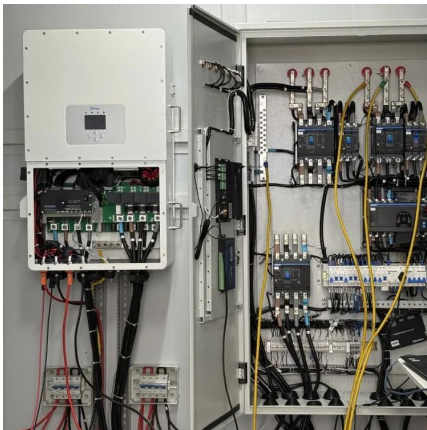


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Jan 1, 2014 · A key motivation for D2D connectivity is its potential for operators to offload traffic from the core network, and the framework for a ...

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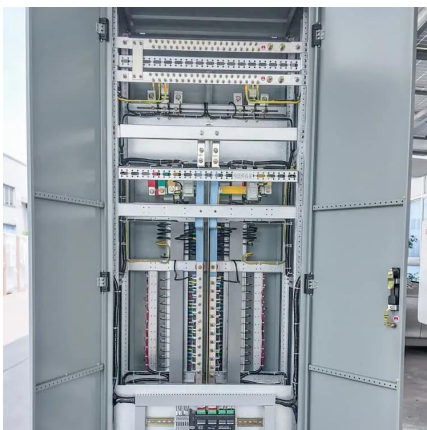




## A survey on device-to-device (D2D) communication: Architecture and

Jan 15, 2017 · Fundamentals of D2D (Fundamental architecture, Classification on the basis of spectrum accessed and degree of involvement of base station, channel models).

## IEEE COMMUNICATIONS SURVEYS & TUTORIALS, ...

Feb 18, 2017 · Device-to-Device (D2D) communication represents a promising technique to enable devices to communicate directly without the interaction of access points or base ...





## How does device to device communication works

Standardization Groups For Lte and WLANAdvantages of D2D CommunicationLimitations of D2D CommunicationSecurity ConcernsSignificance in Future ApplicationsComplex algorithms are required to handle devices without interference efficiently. Signal transmission power to a particular device needs to be increased from the base station to overcome surrounding interference. D2D communication is a proximity-

based protocol; thus, the distance between devices is limited due to power requirements. Device compat See more on rfpage telecomtrainingpro

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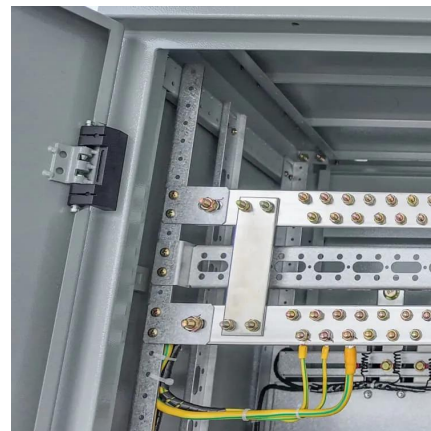
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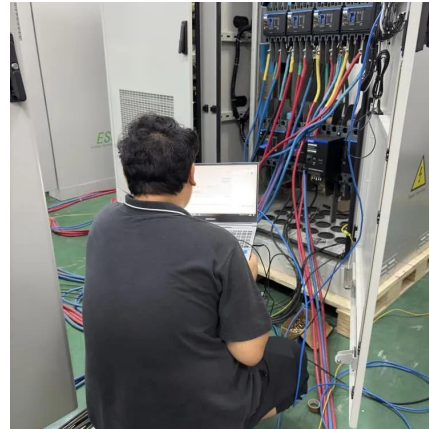
[Device-to-Device Communication in Cellular Networks: A ...](#)

Aug 1, 2016 · D2D communication allows communication between two devices, without the participation of the Base Station (BS), or the evolved NodeB (eNB). Proximate devices can ...

[What Is Device-to-Device (D2D) Communication in 5G?](#)

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