

NFC TECHNOLOGY

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NFC, which means “Near Field Communication,” is a candidate to be one of the critical trends in the technology world in the coming years. The technology began to be tested by major financial institutions, and phones with NFC chips were distributed in Europe and America.

Apart from payments, NFC has the potential to reach many industries, from location-based services to ticketing and public transport. For example, NFC can enable us to pay for a purchased item, open doors, replace our ID card, or act as a virtual ticket in transit. So get ready to say goodbye to keys, wallets, and anything that weighs in your pocket.

Of course, some points need to be worked on, such as strengthening the infrastructure and fixing security problems before the technology is used daily.

NFC is data transmission between “lead” and “target” devices by interacting electromagnetic radio fields. It is similar to Bluetooth because it has a short-range and is considered a subset of the RFID standards. However, NFC’s unique characteristics determine its real-life use.

Instead of Bluetooth’s 10 meters target, NFC can transfer data at much shorter distances, such as 4–10 cm.



Although the short range of NFC reduces the risk of being tracked, it alone does not guarantee security. Applications are required to use higher-level encryption protocols such as SSL.

NFC establishes the connection more quickly than Bluetooth 3.0. For example, the relationship between two NFC devices occurs in less than a second.

NFC operates at the universally available and license-free radio frequency of 13.56 MHz and 424Kbps. Can reach speed. On the other hand, Bluetooth is 2.1Mbps at a 2.4GHz frequency.

How does NFC work?

Only one of the NFC devices needs power. In this way, battery-free objects such as tags and cards can also benefit from NFC.

To give a simple example, you can bring your NFC smart pocket close to a labeled cinema poster and get all the necessary information in seconds. In this case, your phone becomes the leading and the tagged poster passive target.

A part of this technology can also be obtained with today's QR codes. Therefore, NFC is a technology that will increase our comfort rather than being something new.

Where will we benefit from NFC?

It sounds pretty good that NFC will replace credit cards and other cumbersome payment methods. So what other areas will NFC be used in?

- **Keys:** You can get rid of the weight in your pocket by getting rid of your keys. With a phone with NFC, you will be able to open the lock, start your car's engine, and access everything that needs a key with one device by bringing your phone close to the door of your apartment or office room.
- **Tickets:** Movie tickets, live shows, conferences, sporting events, flight tickets, etc.
- **Public Transportation:** You will be able to pay with your phone in public vehicles in cities with high population density.
- **Comparison Shopping:** Whether it's apparel or an electronic item, you'll be able to access product reviews and prices in other stores by just zooming in on your phone. This is similar to what we can do with the barcode but much faster.



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