Business

RFID, EMV or NFC? How do contactless payments work and why does it matter?

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It was over 15 years ago that people still had to type in their PIN for authentication when purchasing a cup of coffee. However, this all changed in September 2007 when contactless contacts were first introduced.

They were an instant hit and contactless payments exploded in popularity, with contactless accounting for a quarter of all transactions for 2020. Whereas the first contactless limit was £10, you can now tap your card for any purchase under £100.

Have you ever wondered what happens when you tap your card on a terminal or smartphone? Are you 100% sure that everything is completely safe and secure?

This article will look into the various technologies that are powering your transactions.

A brief history of contactless payments

Commercial manufacturers started developing smart card technology in the 1970s. It was was in 1979 when Michel Hugon developed the first computerised smart card which combined a processor with local memory.

This technology was adopted by phone companies and transport operators who began to develop SIM cards and travel passes.

The first-ever contactless cards were developed in 1995. They were known as UPass cards and were used to navigate South Korea's transport system.

Experiments with contactless payment cards began in 2005. In 2007 Barclaycard issued the first contactless payment card for the UK

called the OnePulse.

In 2011 Google brought Google Wallet to the market which allowed consumers to use their smartphones to make purchases at point-of-sale (POS) terminals.

Alipay also began experimenting with QR codes, using them to facilitate payments for retailers and customers in Asia.

By 2015 Apple had developed wearable technology which allowed customers to make payments with their smartwatch.

The pandemic accelerates the use of contactless card payments with worldwide transactions totalling $2.5 trillion for the year 2021.

Contactless technologies

Contactless covers everything from NFC to QR codes. We look at the various technologies that underpin your contactless transactions and the difference between them all.