**What is M-Commerce?**

Mobile commerce or simply M-Commerce means engaging users in a buy or sell process via a mobile device. For instance, when someone buys an Android app or an iPhone app, that person is engaged in m-commerce. There are a number of content assets that can be bought and sold via a mobile device such as games, applications, ringtones, subscriptions etc.



**How does M-Commerce Work?**

Let’s look at some of the points that you need to remember as a business, while engaging in m-commerce −

**Decide Where to Sell**

Before you sell your products or services via m-commerce, you need to decide what type of outlets or stores suit your business best. Let us suppose you have created ringtones − you can sell them either at specific third-party outlets or to independent aggregators who charge you a commission for the service.

You can also sell your ringtones on mobile stores or app stores such as Android marketplace or App store (Apple). These stores are frequently visited by many buyers and hence ideal for making sales easily and efficiently. Finally, you can also sell via your own mobile store by creating a mobile website specifically for sales or as by setting-up an m-commerce page on your main website.

**Set up Mobile Billing**

Once you have decided where to sell, the next step is to set up your merchant account. For instance, you can use third-party services such as PayPal. This is ideal for small businesses or also large companies. A third-party application makes it really easy for you as well as your customers to make the payments, but then they do charge commission on the transaction.

You can also set-up your own billing and payment gateway, but make sure that you make it really easy for users. Mobile users do not use keyboards or a mouse so make sure that the design of your m-commerce site is intuitive, with easy navigation tools and the right display sizes. Basically, make your m-commerce site optimized for Smartphone users.

**Benefits of M-Commerce**

The major benefit of engaging in m-commerce is the sheer size of potential sales. The probability of your potential customers owning a Smartphone is very high, so you can safely assume that you will get much more positive response from mobile devices than your website. M-commerce is recommended for every business irrespective of its type, scale, and size.

## Why M-commerce is growing so fast

The growth of mobile commerce is directly connected to how users are accessing the internet. As smartphones become accessible and high-speed internet is no longer a premium infrastructure in many countries, users have ditched PCs in favor of the smaller gadgets for internet browsing.

Naturally, brands need to be where the users are, and it means embracing mobile commerce on top of the existing e-commerce platforms. Retailers started launching shopping apps and furnishing it with easy-to-browse catalogues and hassle-free checkout process.

The fact that consumers are inseparable with their mobile phones doesn’t go unnoticed to bankers and payment providers. Banks started introducing banking apps that allow transactions to be made on the mobile screen.

The emergence of mobile commerce also changes how brick-and-mortar business operates, particularly in adopting cashless payment. Technological giants rushed to the fore with their versions of digital-payments.

In the US, Amazon Pay and Paypal seem to be the favorite, with Apple Pay jumping into the fray in 2014. Still, digital payment is not widely-adopted as in regions like Europe or Asia.

Success stories

the most-read mobile news stories of 2018:

#### ****Nike sells out of Facebook messenger sneaker drop in less than an hour****

Nike didn’t just do well with its foray into selling sneakers on Facebook Messenger — it [smashed expectations](https://www.retaildive.com/news/nike-sells-out-of-facebook-sneaker-drop-in-less-than-an-hour/524065/). The retailer sold out of shoes on the platform in under an hour. Shoppers had to obtain a code of emojis from social influencers and then enter those emojis into Messenger’s chatbot before they were able to access the shoes. A smartphone could then be utilized to examine the shoe through a superimposed image over a real environment. The experience combined elements of a gamified shopping experience, social media, AR and mobile to become an entirely new means of interacting with a product.

[Read More »](https://www.retaildive.com/news/nike-sells-out-of-facebook-sneaker-drop-in-less-than-an-hour/524065/)

#### ****Amazon Go opens to the public****

Amazon Go formally [opened in Seattle](https://www.retaildive.com/news/amazon-go-opens-to-the-public/515240/) this past January and swiftly moved to open locations in Chicago and San Francisco. Shoppers need an Amazon account, the Amazon Go app, and a smartphone to walk out with products and have their accounts charged. The public responded positively with repeat visits and by staying in-store an average of [27 minutes per trip](https://www.retaildive.com/news/amazon-go-is-attracting-return-shoppers-long-visits/541016/).

The cashierless concept is quickly advancing from merely being a novelty to becoming a convenience store reality. This fall it was reported that Amazon is planning on opening up [to 3,000 Go locations by 2021](https://www.retaildive.com/news/amazon-reportedly-mulling-3k-amazon-go-stores-by-2021/532806/). In December the retailer opened its [first small-format Go store](https://www.retaildive.com/news/amazon-opens-first-small-format-go-store/544263/) with an eye on launching in a variety of spaces with a more compact footprint including offices and hospitals.

[Read More »](https://www.retaildive.com/news/amazon-go-opens-to-the-public/515240/)

#### ****Instagram drives jewelry sales****

When shoppers of discerning taste think of jewelry they may first cite luxury brands like Tiffany, Cartier or Harry Winston — heritage brands with high price points. Yet, the store that had the most impact over the accessories market this year wasn’t a store at all, but a social media platform.

Retail and fashion technology firm Edited calls it the Instagram effect. In an August report the company revealed that earrings, in particular, are pushing the entire category due to the popularity of selfies. While it might be easy to relegate Instagram’s influence as a fad, it’s important to note that accessories account for 18% of the apparel market. Additionally, Instagram has tremendous leverage over apparel retail overall, with nearly [75% of people reporting](https://www.retaildive.com/news/study-instagram-influences-almost-75-of-user-purchase-decisions/503336/) they have made fashion and beauty purchases based on something they saw on the platform.

[Read More »](https://www.retaildive.com/news/instagram-is-driving-jewelry-sales/531389/)

#### ****Social media influences Gen Z****

People love to read about — and the media loves to write about — Gen Z. In a study by Yes Lifecycle Marketing that surprises no one, [80% of Gen Zers are influenced by social media](https://www.retaildive.com/news/study-80-of-gen-z-purchases-influenced-by-social-media/447249/), specifically Instagram, Snapchat and YouTube when it comes to purchasing decisions.

What makes this group so fascinating? It might be that this generation doesn’t know a world without the internet, and thus has a remarkably different approach to most industries, including how [it interacts with retail](https://www.retaildive.com/news/gen-zs-need-for-speed-and-how-retailers-can-keep-up/522963/). It’s also the group that has harnessed the power of social media’s influence — where peers can get paid to rep products and partner with major companies who want to expand a brand’s influence.

This generation is examined because they represent everything that is coming to fruition — where mobile, e-commerce and online clout are combined in a way that translates to real-world revenues. Their combined purchasing power is pushing companies to examine their stance on [political issues](https://www.retaildive.com/news/is-it-time-for-retailers-to-get-political/539207/) and [social responsibility](https://www.retaildive.com/news/rei-announces-grants-to-rewild-5-american-cities/526436/).

[Read More »](https://www.retaildive.com/news/study-80-of-gen-z-purchases-influenced-by-social-media/447249/)

#### ****Walmart drops mobile Scan & Go checkout****

Scan & Go technology sounded so promising. Walmart customers could use an app on their smartphone or an in-store scanner to pay for items while they shopped in an effort to skip the checkout line. It was a great idea, and the mass merchant made a bold decision to expand the program to over 100 stores this year. Except no one wanted to use it.

Walmart made a smart move by pivoting and [quickly dropping the technology](http://www.mobilemarketer.com/news/walmart-drops-mobile-scan-go-checkout/523633/). But, the event acts as a concrete example of the distance between expectations and the reality of retail mobile experiences. On paper it should have worked — shorter lines! Cool tech! Consumers can use their own phones! However, too much friction remained in the process, thus pushing consumers away instead of bringing them closer to a smoother, branded experience. Walmart learned from the experience and adapted by [giving store associates mobile technology](https://www.retaildive.com/news/walmart-arms-store-associates-with-online-shopping-app/543620/) to aid customers throughout their stores

# 4 main technologies underlying mobile commerce apps

**SMS**  
SMS, or text messaging, is the oldest of these technologies and the most widely used.

SMS messages can transmit one-way ?push? notifications such as alerts, news, offers and other data from content providers to subscribers.

**USSD**  
USSD is nearly as old as SMS, but is available only for external services in a limited number of markets.   
Where it is available, which includes parts of Africa, Central America, Europe, India and Southeast Asia, it is generally very popular.

Unlike SMS, USSD establishes a real-time connection that allows for true session-based communications. Think of it as the mobile version of IVR systems that many companies use for customer service?but without the voice.

**WAP/Mobile Web**  
Using XHTML ? a variation of HTML ? for mobile Web access, WAP 2.0 has been available on most feature phones since 2004. Since the launch of iPhone, most smartphones have supported browsers that support HTML.

WAP 2.0 provides a mobile experience much closer to a desktop and laptop Web experience than the original WAP standards did, but it is still different enough that a WAP experience and Web experience will not be exactly the same.

**STK**  
Using SIM Toolkit (STK), developers can build an application that is stored on the Subscriber Identity Module (SIM) card and appears in the top-level menu of a feature phone.

STK allows these apps to request and receive information from SIM, give commands to the mobile device, ask for input from the user and communicate with external applications.

# What is WAP?

WAP is a protocol that is introduced in 1999, which stands for **Wireless application protocol**. It offers Internet communications over wireless devices, such as mobile phones. In the early 2000s, it accomplished some popularity and was mainly superseded by more recent standards by the 2010s. Also, it offers a way of creating web applications for mobile devices, and it is designed for micro-browsers.

WAP model and layers

**The WAP model works similar to the traditional client-server model but uses an additional WAP gateway as an intermediary between the client and server**. This gateway translates the WAP device request, from a microbrowser, into an HTTP URL request and sends it to the server over the internet.

# Generations of wireless communication

**0thGeneration:**

* Pre-cell phone mobile telephony technology, such as radio telephones some had in cars before the arrival of cell phones.
* Communication was possible through voice only.
* These mobile telephones were usually mounted in cars or trucks.

**1G (1st Generation):**

* First-time calling was introduced in mobile systems.
* It used analog signals.
* It used an FDD scheme and typically allocated a bandwidth of 25 Mhz.
* The coverage area was small.
* No roaming support between various operators.
* Low sound quality.
* Speed:- 2.4 kbps.

**2G (2nd Generation) :**

* Shifted from analog to digital.
* It supported voice and SMS both.
* Supported all 4 sectors of the wireless industry namely Digital cellular, Mobile Data, PCS, WLAN,
* Moderate mobile data service.
* 2G WLAN provided a high data rate & large area coverage.
* Speed:- 64 kbps.

**2.5G** came after **2G** which used the concept of GPRS. Streaming was also introduced and mail services too. Then came **2.75G** or EDGE which was faster in providing services than 2.5G. It gave faster internet speed up to 128kbps and also used edge connection.

**3G (3rd Generation) :**

* The Internet system was improved.
* Better system and capacity.
* Offers high-speed wireless internet.
* The connection used was UMTS and WCMA.
* Speed:- 2mbps.

**4G (4th Generation) :**

* IP-based protocols.
* LTE (Long term evaluation) was mainly for the internet.
* Vo-LTE (Voice over LTE) is for both voice and the internet.
* Freedom and flexibility to select any desired service with reasonable QoS.
* High usability.
* Supports multimedia service at a low transmission cost.
* HD Quality Streaming.
* Speed:-100mbps.

[**5G (5th Generation)**](https://www.geeksforgeeks.org/what-is-5g-wireless-technology-and-how-it-works/)**:** It is yet to come in many countries but here are some notable points about 5G.

* Higher data rates.
* Connectivity will be more fast and more secure,
* Data Latency will be reduced to a great level.
* Massive network capacity.
* It is 30 times faster than 4G.
* There would be more flexibility in the network.

|  |  |
| --- | --- |
| **CDMA** | **GSM** |
| It stands for Code Division Multiple Access. | It stands for Global System for Mobile Communication. |
| It uses a CDMA mechanism for data & call transmission. | It uses TDMA and FDMA mechanism for data & voice transmission. |
| The transmission rate is fast compared to GSM. | The transmission rate is slow compared to CDMA. |
| It uses EVDO data transfer technology. | It uses EDGE data transfer technology. |
| It is handset specific and does not require any SIM for communication. | It is SIM specific, hence requires a SIM card for communication. |
| During transmission, it is much prone to radiation emission. | During transmission, it is comparatively less prone to radiation emission. |
| It offers more secure communication compared to GSM. | It offers less secure communication compared to CDAM. |
| The signal detection is difficult in CDMA. | The signal detection is easy in GSM. |
| It provides built-in encryption. | It requires additional encryption as no built-in encryption is available. |
| It enables limited roaming. | It enables worldwide roaming. |

# What Is a VPN?

A virtual private network, or VPN, is an encrypted connection over the Internet from a device to a network. The encrypted connection helps ensure that sensitive data is safely transmitted. It prevents unauthorized people from eavesdropping on the traffic and allows the user to conduct work remotely.  VPN technology is widely used in corporate environments.

Uses of VPN

The term “virtual private network” (VPN) might sound intimidating, but they’re easier to use than you might think. A VPN can benefit large companies and individuals alike. Traveling and using public Wi-Fi, transmitting sensitive information or even just enjoying

1. Safety and Security

The first and the most important reason people use VPN is its safety feature. It provides an encrypted tunnel for transferring data to and from your device and the host site. This removes all chances of spying and snooping on your data. Even your own internet service provider ([ISP](https://www.maketecheasier.com/what-isp-knows-about-you/)) can’t access your data or track your activities.

2. Anonymity

Another crucial reason that people choose to use a VPN is because it respects and preserves your anonymity. VPN allows its users to explore the internet from different location servers. This way all the traffic is directed to and from the server, and your location as well as identity remain anonymous even to the host site. This anonymity can also help protect you from targeted cyber-attacks as no one can trace your information using your personal details.   
Even if you land on a malicious site while using VPN your identity will still be secured.

3. Breaking Geo-Restrictions

The Internet provides endless sources of entertainment and infotainment but unfortunately, these sources are not accessible for all. Most of the content on the internet is geo-restricted. This means that the content is available only for users living in certain geographical locations while its access is denied for users from other parts of the world.  
VPN allows its users to go beyond the geo-restrictions and surf the internet from any part of the world through its remote servers. This allows you to access websites and entertainment channels that may not be accessible in your region.

4. Subsidized Shopping and Traveling

Did you know you can get different rates for booking flights from different destinations regardless of your flight’s arrival and departure destination? Many online shopping sites have different price lists for customers from different countries. The same is the case with airfares.

5. Using Public Wi-Fi

Public Wi-Fi is mostly free and is easily available but there are several security threats associated with it like data breaches and attacking malware. These security threats make it completely unsafe for personal and business use.