

Today's Topics

History and future of SIM and eSIM

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History and future of SIM and eSIM

Subscriber Identity Module (SIM) a.k.a “Subscriber Identification Module”

A SIM is an integrated circuit that securely stores a unique serial number (ICCID) the international mobile subscriber identity (IMSI) number and key, and 2 passwords. A SIM is used in all GSM phones. For CDMA phones, a SIM is used to enable LTE handsets.

First SIM card used in a phone was developed in Germany in 1991.

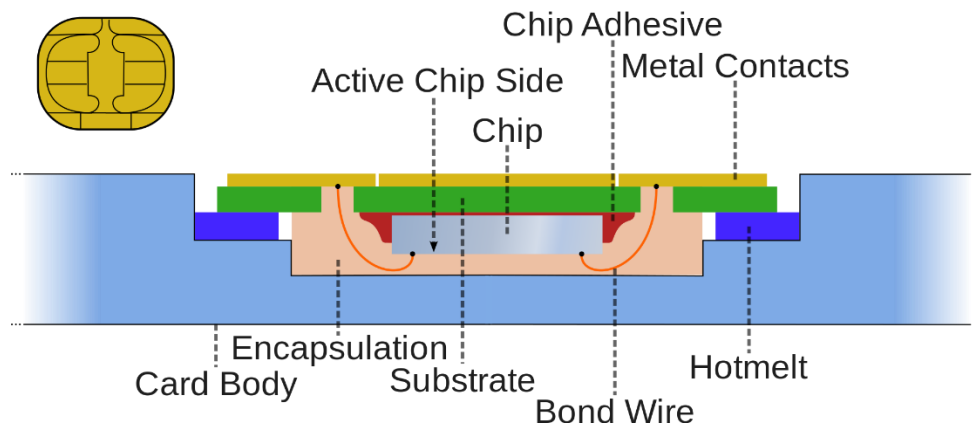
SIM cards were originally the size of credit cards but have been miniaturized over the years to fit into smaller devices.



Mini-SIM with micro-SIM cutout



T-Mobile nano-SIM in the SIM tray of an iPhone 6s



SIM chip structure and packaging

eSIM standards were established in 2016.

All eSIMs are programmed with a permanent eSIM ID (EID) at the factory. This number is used by the provisioning service to associate the device with an existing carrier subscription as well as to negotiate a secure channel for programming.

Apple has supported eSIM since 2017, starting with Apple Watch Series 3, and in the iPhone XS and XR and iPad Pro (3rd Generation), in 2018.

The US version of the iPhone 14 has no SIM slot. Outside the United States, all iPhone models continue to be sold with support for both eSIM and physical SIM cards, while in mainland China eSIM isn't supported at all.

Google Pixel 2 (2017), Pixel 3 (2018), Pixel 3a (2019), Pixel 4 (2020)

Motorola Razr foldable (2020) – no SIM slot

Microsoft Surface Pro LTE (2017)

Samsung Galaxy S20 and S21 (2020)

[eSIM on iPhone](#) (Apple)

[6 key points to understand what an eSIM is](#) (Thales)

Windows 10 22H2

- Microsoft has announced the next version of **Windows 10**, known as version 22H2.
- The update will be launching later this year as a servicing style release with build 19045.
- 22H2 for Windows 10 is expected to be a very minor release, focusing on a scoped set of features and changes that focus on Microsoft's enterprise customers.

Windows 11 22H2

Microsoft has announced the next version of **Windows 11**, known as version 22H2. It is expected to launch soon. Rumors that it will start to be generally available on September 20.

- App folders in Start menu
- Resizable pinned area in Start menu
- Drag and Drop on the Taskbar
- Focus Assist integration with Notification Center
- New "spotlight" wallpaper feature
- New Voice Access accessibility feature
- New Live Captions accessibility feature
- New gestures and animations for touch users
- New snap layouts bar when moving app windows
- New Task Manager app
- New "Suggested Actions" feature when copying dates/numbers
- Tabs in File Explorer

- Better OneDrive integration with File Explorer
- Numerous UI improvements and consistency updates

This is not a comprehensive list, but rather a quick run-down of the most notable changes and improvements that are expected to ship as part of version 22H2.

Of course, there are also hundreds, if not thousands of fixes and under the hood enhancements that Microsoft is baking into the next release that are not yet known.

Microsoft is also planning to roll out its first "moment" update for version 22H2 before the end of this year, which will add a handful of additional features that weren't finalized in time for the launch build such as tabs in File Explorer and Suggested Actions. Read more about future release plans [here](#).

Supplemental Reading

[What is an eSIM? Here's everything you need to know](#) (digitaltrends)

[Finally, a U.S. carrier – T-Mobile – touts the power of eSIM](#) (Fierce Wireless)

[AT&T, Verizon get on board with Apple iPhone 14 eSIM](#) (Fierce Wireless)