EHB415E\_10827 HW1 040170232 Mehmet Deha Diker 04.12.2021

US cellular providers plan to shut down 3G networks at the end of 2022 as bandwidth needs to be freed up to get faster LTE and 5G signals. In fact, this mentioned process has already been started and steps are being taken. Simply put, the sunset marks the gradual end of support for aging 3G networks by cellular companies. The slower, outdated networks are eventually being phased out as the cellular companies transition their equipment and support to the newer, faster networks. The new towers being built for the “next generation” of cellular data support both LTE and 5G networks, and the older towers that supported 3G and 4G are being eliminated. As such, the older technology is going dark, and soon.

As companies shut down their aging equipment to make room for 5G networks, older devices like phones, alarm systems, and wearables will lose functionality.

Support for 3G, the 20-year-old wireless network standard, is ending in the US next year, when the major wireless carriers are planning to phase out service. That means many Trac phones, older Kindles, early iPads, and classic Chromebooks—any device operating on 3G—simply won’t be able to connect to cellular data networks anymore. This so-called 3G sunset will come to pass at different times for different wireless providers. AT&T says it’s shutting down 3G services in February 2022. T-Mobile recently announced it would extend services to March 31 of next year, but not beyond. Verizon plans to pull the plug in December 2022. Carriers are shutting down 3G service in order to make way for the newer pieces of infrastructure that power the speedier 4G LTE and 5G networks currently expanding across the country.

this is what we know about the 3G sunset dates from the three major carriers in the US:

Verizon: Planning to shut down 3G service at the end of 2020

AT&T: 3G sunset scheduled for early 2022

T-Mobile/Sprint: 3G sunset date on or about January 1, 2022

Money is a major motivating factor behind the switch. LTE and 5G networks are just more logistically efficient to operate; get more users on one standard and there are essentially fewer moving parts to futz with. But there are also practical problems with continuing to service 3G customers. The connections operate on different signal frequencies. AT&T, for example, plans to reuse the spectrum that 3G currently runs on to fully enable its 5G capabilities. Without those wavelengths, the 5G signal simply won’t be as speedy. In order for the wireless future to flourish, providers say, 3G has to die.

That’s just because the standard was written 20 to 25 years ago. Unfortunately, when you go through some technology transitions, you don’t have backward compatibility. It’s just the nature of the way those standards and the architecture provide.