Microsoft says Surface devices don’t have Thunderbolt due to security concerns

Microsoft has explained why its range of Surface laptops and tablets don’t have Thunderbolt ports or removable RAM: security concerns. That detail was revealed in a Surface engineering webinar leaked on Twitter by WalkingCat, wherein a Microsoft employee lays out all the engineering involved in the company’s latest devices.

“No Surface device has Thunderbolt. Why not? Because that’s a direct memory access port,” explains the Microsoft employee. “If you have a well prepared stick that you can put into the direct memory access port, then you can access the full device in memory and all data that’s stored in memory. We don’t believe, at this moment, that Thunderbolt can deliver the security that’s really needed from the devices.”

The Verge has verified that the presentation is genuine, and that the Microsoft employee is a Surface technology specialist based in the Netherlands that has worked at the company for more than 10 years. In the hour-long presentation, it’s also revealed that Microsoft’s Surface devices don’t have removable RAM due to similar security concerns.

“If you’d be able to upgrade the memory… what you can easily do is freeze the memory with liquid nitrogen, get the memory out, and then put it in a specific reader… and then you can access all the data that was loaded into memory,” explains the Microsoft employee. “That’s why on all Surface devices the

memory is not physically upgradeable, because of security. We want to make sure the memory can not be tampered with.”

We asked Microsoft for a comment on the presentation, but the company says it has nothing to share about it. Other similar business-focused laptops from Lenovo, Dell, and HP have used Thunderbolt for years, but Surface devices have always been an outlier. Microsoft has also built in Kernel-level protection for Thunderbolt 3 into Windows 10.

It’s surprising to hear Microsoft blame security for the lack of Thunderbolt ports rather than incompatibility with its own Surface Connector. Microsoft’s propriety charging connector doesn’t support Thunderbolt, and its high data transfer speeds, but it does offer the uniqueness of data transfer, power delivery, and video support all in a single cable with magnetic positioning.

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