

The Tanenbaum-Torvalds debate was a debate based the email correspondence between Andrew Tanenbaum, the creator of Minix, and Linus Torvalds, the main developer of Linux. Tanenbaum started the discussion debating that microkernels are superior than the monolithic kernels and affirming that Linux OS architecture should be considered obsolete (DiBona et al., 1999).

A kernel is the core providing basic functions to all the other components of the operation system, and particularly helps with tasks such as process and memory management, file system, device control (Bigelow & Lulka, ND).

Microkernels are characterized by their level of flexibility which is not possible to have in monolithic kernels and furthermore they offer an higher level of security because in case a service fails the rest of system is unaffected and continues to operate. Instead for the monolithic kernels the whole system is going to shut down if a service fails(Bigelow & Lulka, ND).

In light of the above findings and considering that microkernels are easier to maintain, add new functionalities and having an easier debugging (GeeksforGeeks, 2021) I agree with Tanenbaum opinion that microservices and microkernels are the future.

REFERENCES

Bigelow, S.J., Lulka, J. (n.d.). *What is kernel? - Definition from WhatIs.com*. [online]
Available from: <https://www.techtarget.com/searchdatacenter/definition/kernel>
[Accessed 27 August 2022].

DiBona, C., Ockman, S., & Stone, M. (1999) Appendix A: the Tanenbaum-Torvalds debate. Open sources: voices from the open source revolution.

GeeksforGeeks. (2021). *Difference between Microkernel and Monolithic Kernel*.
[online] Available from: <https://www.geeksforgeeks.org/difference-between-microkernel-and-monolithic-kernel/> [Accessed 27 August 2022].