

“Torvalds has been proven wrong and it only took nearly thirty years. Microservices and microkernels are the future.”

The ‘Tannebaum-Torvalds’ debate (DiBona & Ockman, 1999) of the early 1990s concerned the superiority of Microkernel vs Monolithic systems. Torvald’s Linux OS is a monolithic OS, and in my personal experience, the one favoured by developers for its direct access all areas of the system.

Though microservices are gaining in popularity, especially as we move to more containerized, cloud-based infrastructure and architectures, for how long will this be the case? Microkernels and microservices have their advantages - they give improved extensibility, greater flexibility, separation of concerns and the ability to scale to meet demand. This is particularly suited to many of our systems that have variable traffic and variable need for CPU power.

Microservices also come with their drawbacks, particularly with regard to security. They have a much larger attack surface, and the communication channels between microservices are problematic, particularly vulnerable to attacks, despite increased abilities in cryptography and network security.

Though microservices are undoubtedly the flavour of the month, our industry evolves and progresses so quickly that it would be foolish to try to predict how long this will be the case.