

Fog computing is a key technology in the era of the 'smart world'

March 7 2023

	QoS	QoE (Callet et al.,2012)	QoE (Varela et al.,2014)
Stance	Utilitarian	Utilitarian or Hedonic	Utilitarian or Hedonic
Scope	Typically telecom services	Broader domain not necessarily network based	Broader domain not necessarily network based
Perspective	System's	User's	User's
Focus	Performance aspects of telecom systems; mechanism such as DiffServ	ICT services or application	ICT services, application or systems
Method	Technology oriented; empirical or simulated measurements	Multi-disciplinary and multi-methodological approach	Multi-disciplinary and multi-methodological approach

Differences and or similarities between the quality of service and quality of experience. Credit: Authors of the study

New research published in the *International Journal of Fog Computing* has shed light on the importance of quality of experience (QoE) in the field of fog computing, which has traditionally focused on quality of service (QoS). The study highlights the need for fog computing technologies to offer more than just QoS, as the emergence of the internet of things and artificial intelligence has led to a "smart world" where user experience is paramount.

Fog computing, which was first introduced in 2012, has been a key player in addressing QoS issues, but the new study argues that QoE must

also be considered to ensure a satisfactory [user experience](#). To better understand QoE, the researchers conducted a systematic literature [review](#), analyzing works that use fog computing to maintain or improve QoE.

The review found that while progress has been made in improving QoE, there are still significant challenges that must be addressed to maintain acceptable levels of user experience. The researchers identified several open research challenges that require intervention, including issues related to scalability, security, and privacy.

Despite these challenges, the researchers remain optimistic about the potential of fog computing to address QoE issues. "Fog computing remains a key technology in the era of smart world and the Internet of Things," the study concludes. "With further research and development, we believe that fog computing can continue to play a critical role in improving the user experience and meeting the needs of users in a variety of contexts."

More information: William Tichaona Vambe, Fog Computing Quality of Experience, *International Journal of Fog Computing* (2023). [DOI: 10.4018/IJFC.317110](#)

Provided by IGI Global

Citation: Fog computing is a key technology in the era of the 'smart world' (2023, March 7) retrieved 22 September 2023 from <https://techxplore.com/news/2023-03-fog-key-technology-era-smart.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.