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Secure Edge Computing Technologies

The full text is currently only available in the Deutsch version. A translation will follow.

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Complex tasks are often outsourced to the cloud because many small and mobile devices do not have the necessary computing power for such tasks. However, since the cloud is usually far away in terms of network distance and the connection therefore has increased latency, a lot of research has been done in recent years on so-called edge computing. Since in this paradigm the computing unit is only one link hop away (e.g. 5G base stations), the latency is relatively low in comparison. In this report, we have a look at how edge computing works. Then, we perform a security analysis and identify threats to the edge computing paradigm. Subsequently, we have a look at security mechanisms and measures suited for secure edge computing.