**ABSRACT**

Traditional medical privacy data is at serious risk of disclosure, and many related cases have occurred over the years. For example, personal medical privacy data can be easily leaked to insurance companies, which not only compromises the privacy of individuals, but also hinders the healthy development of the medical industry. With the continuous improvement of cloud computing and big data technologies, the Internet of Things technology has been rapidly developed.

RFID is one of the core technologies of the Internet of things. The application of RFID system to the medical system can effectively solve this problem of medical privacy. RFID tags in the system can collect useful information and conduct data exchange and processing with back-end server through the reader. The whole process of information interaction is mainly in the form of cipher text.

In the context of the Internet of Things, the article presents a lightweight RFID medical privacy protection scheme. The scheme ensures security privacy of the collected data via secure authentication. The security analysis and evaluation about the scheme indicate that the protocol can effectively prevent the risk of medical privacy data being easily leaked.