Safe Credential-Based Trust Protocols: A Framework
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Summary

Trust in semantic Web is established by either credentials or reputation. Credential-based trust protocols assume the possession of credentials and transfer them between parties in order to establish trust. Since credentials can be private data, the act of providing private credentials implies poor privacy management even if transferred through secure (encrypted) channels. Exchanging private credentials is a major risk in critical applications since it eases unauthorized usage of private data. This paper presents a framework for safe trust protocols that interactively proves the possession of credentials without the need of exchanging them.

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