Data Protection in Heterogeneous Distributed Systems: A Smart Meter Example

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Abstract: Usage control is concerned with how data is used after access has been granted. Enforcement mechanisms have been implemented for distributed systems like web based social networks (WBSN) at various levels of abstraction. We extend data usage control to heterogeneous distributed systems by implementing a policy enforcement mechanism for a smart meter connected to a WBSN. The idea is to provide users an opportunity to share their energy usage and other related data within their social group while maintaining control over further usage of that data. The implementation borrows from an existing usage control framework for a common web browser.