



## Joint Report



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## **Anonymous Attestation of Unique Service Subscription (AAUSS).**

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# Anonymous Attestation of Unique Service Subscription (AAUSS)

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**Abstract.** The users anonymity using a service seems to be in contradiction with the demand, that each user is allowed to have only one account. The requirement one vote per one user is very essential for ballot systems and reputation systems. We will show that it is possible to combine a user anonymous service with the hard requirement that each user can only get one account for that service. The use of trusted identity providers allows an effective and reliable control if a user (human) has already subscribed. This work helps to prevent Sibyl attacks on anonymous services, as ballot or reputation management services. We present a solution, which enforces the policy one account per real person for a service without breaking the anonymity of the user with respect to the service. In particular, it is an valuable extension to our proposed anonymous reputation system (ARM) [11]. The proposed solution is very general and can be adapted to many scenarios.

**Keywords:** Communication System Security, Privacy, Information Systems.

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