

Privacy Mechanisms for PEAS Workshop Panel

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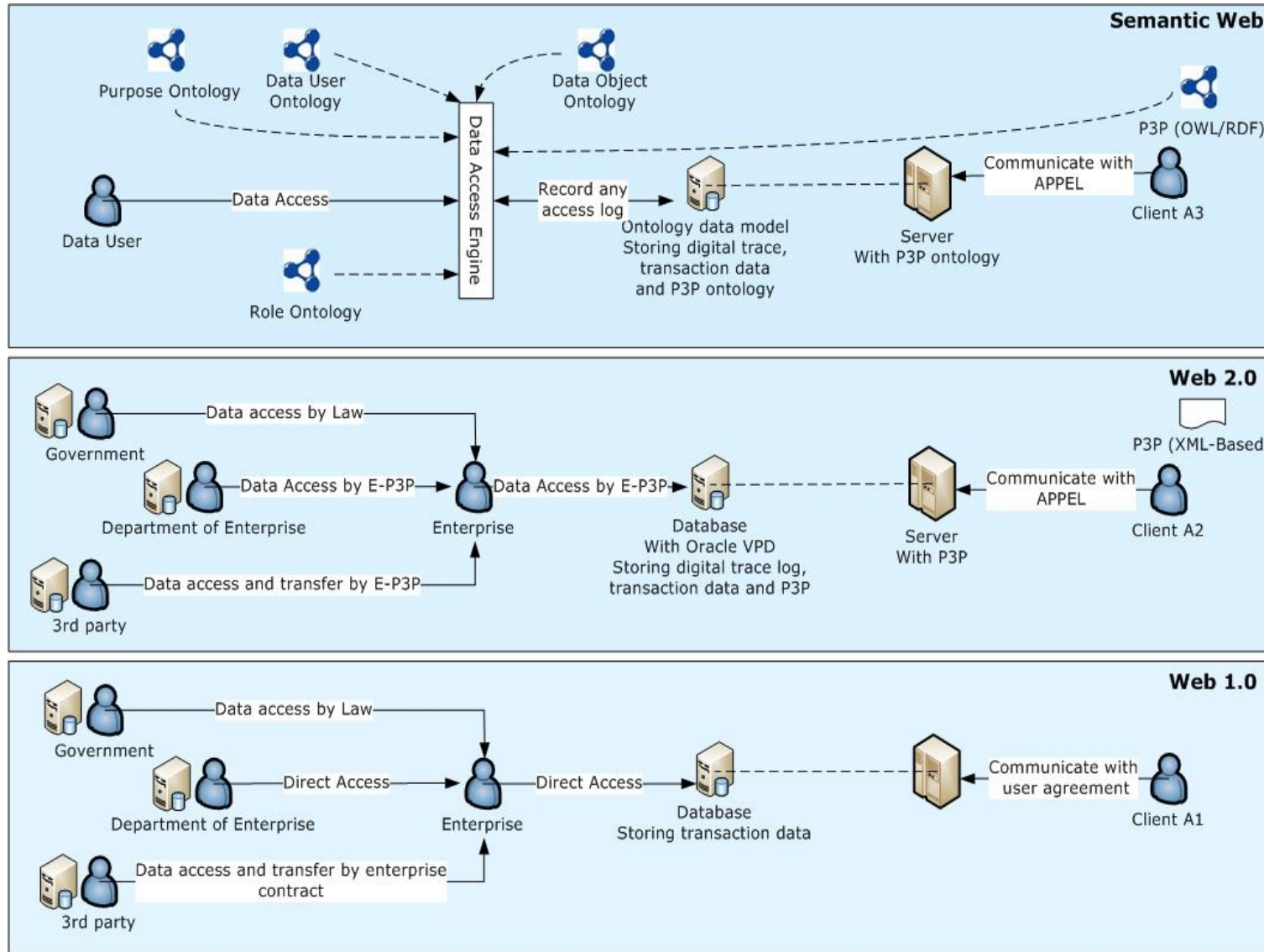
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Grand Challenges for a General Privacy Mechanism

- A *clear separation* of enforceable privacy policy from privacy mechanism
- Having *sound and complete* (enforceable) privacy policies and mechanisms derived from legal privacy laws or regulations
- Auditing and verifying the *compliance* of legal privacy laws or regulations for enforceable privacy policy and mechanism
- Successful enforcement of *interdomian* privacy protection policy and mechanism, including flexible information flow *exchange* with *composition* of associated privacy policy and mechanism in the interdomain

Privacy Protection Techniques for Different Web Generation



Privacy Protection Problems of the Semantic Web

- ✎ Whether current privacy policy and mechanism enforcement status will be improved or exacerbated using semantic web technologies is unknown *because*:
 - ✓ Vast amount of collected data, privacy protection policies and mechanisms are not semantic web enabled
 - ✓ Semantic enabled data and information are much more easy for bad guys to link together, which means . . .
 - ✓ Some of existing *ontologies+rules* combinations do not allow us to easily specify *negative* assertions and permission *deny* in the privacy protection policies
 - ✓ Ontology *matching* and *merging* are unavoidable for interdomain privacy protection. Furthermore, privacy protection policy *composition* are necessary.
 - ✓ Dealing with a general privacy protection problem, including protection all of end user *digital traces* on the Web is very hard