BOF: Security Based on Policy:
What Is It, How Much Is Reasonable and Is It Achievable?

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Need for Security

Arises from the sharing of resources:
1. Data/Information resources
2. Computational resources
3. Communication resources
4. Storage resources

within and across project, organizational, management, and technology boundaries
Qualities Related to Security

What the user wants (to varying degrees) -
- Confidentiality*
- Integrity
- Availability
- Accountability*

What the user needs -
- Assurance that the wants are provided in a communication, transaction, or session at a given level

*related to Privacy & Anonymity
The Security Contract

For a set of resources used in computation, communication, and storage during a given period of time, the providers and users of the resources to be shared agree to make decisions based on and to enforce the contract specifying the required confidentiality, integrity, availability, and accountability with a specific minimum level of assurance.
This BOF

1. What can we realistically include in the Security Contract in:
   • The next 5 years?
   • The next 15 years?
   • The next 25 years?

Given the state of organizations, management, technology, and assurance technology?
This BOF(2)

2. Can we find Policy expressions that are:
   • Necessary?
   • Sufficient?
   • Consistent?
   • Composable?

To represent the desired contract and the interactions that occur between groups sharing resources.
This BOF(3)

3. Do services and mechanisms exist (or will they exist) that will permit decision based on the policy (ies) and enforcement based on the policy (ies) with the desired degree of assurance while using an acceptable number of resources with an acceptable delay?