



Alice

Bob



Information Security and Privacy Advisory Board

IDENTITY MANAGEMENT FRAMEWORK

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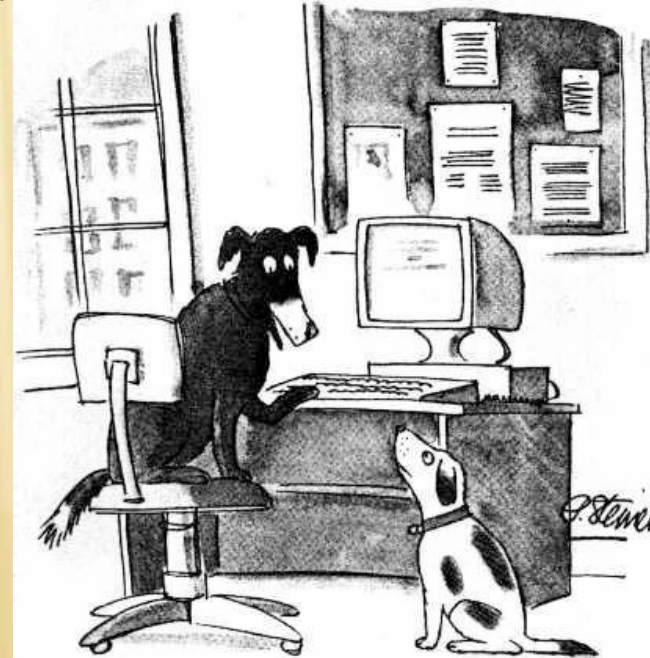
INTRODUCTION

- ✘ The topic of Identity Management was discussed at the December 2008 ISPAB Mtg.
- ✘ Elaine Newton of NIST described several activities underway touching upon ID Mgmt.
- ✘ Request was made to provide guidance for identity management efforts

IDENTITY MANAGEMENT – ONE DEFINITION

- ✘ The set of operations associated with the life-cycle maintenance of attributes associated with an entity
 - + Operations, policies and technologies
 - + Inclusive of non-human entities
 - + Covering *creation* through *destruction* (*beyond?*)

NIST: An Identity Management System is any system that creates, issues, uses, and terminates *electronic* identities. In other words, an Identity Management System provides lifecycle management for the digital credential sets that represent electronic identities.



"On the Internet, nobody knows you're a dog."

NIST AND IDENTITY MANAGEMENT

- ✘ NIST has already produced bodies of work on identity issues such as:
 - + SP 800-103 : An Ontology of Identity Credentials, Part I: Background and Formulation (DRAFT)
 - + SP 800-63 : Electronic Authentication Guidelines
 - + Several SPs related to PIV
- ✘ Other activities
 - + Global eID
- ✘ So where's the gap?

ASSESSING THE GAP

- ✘ Need to assess the state of both traditional and evolving identity frameworks
 - + Within government
 - + In industry and academia
- ✘ The past decade has been filled with many efforts
 - + CardSpace (Microsoft)
 - + OASIS (SAML 1 & 2, XACML)
 - + Liberty Alliance
 - + WS*
 - + OpenID, OAuth, and others
- ✘ What is the applicability of such efforts for government use?

LIBERTY ALLIANCE (JUST AN EXAMPLE)

- ✘ ID Federation Framework (leading to SAML 2)
 - + Related work: OpenID, SAML
 - + Using Identity across disparate boundaries
- ✘ ID Web Services Framework
 - + Building Identity Centric Core Services, XACML
- ✘ ID Governance Framework
 - + Related work: OAuth, Merkle Hash Trees
 - + Portable identity attribute use policies
- ✘ ID Assurance Framework (building upon 800-63)
 - + Normalization of Identity *value*
- ✘ ID Service Interface Specification
 - + Foundation abstraction to allow unique ID driven services

WHAT SHOULD NIST DO?

- ✘ Some proposed discussion topics include;
 - + Create a means to evaluate identity management frameworks
 - ✘ Their similarities and differences
 - ✘ In abstract terms that can cover the ID “universe”
 - + Identification of the interoperability of various identity schemes
 - + Catalog relevant identity related technologies and where they fit in the assessment framework