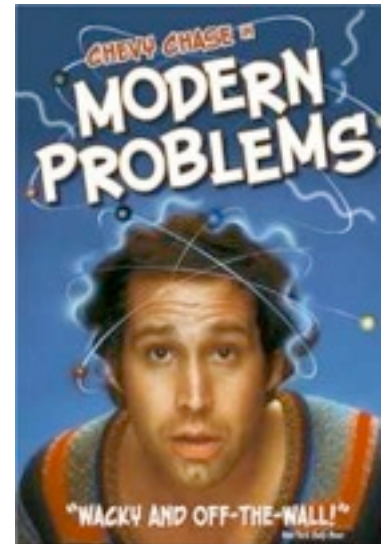


draft-peterson-modern-problems-02

MODERN WG
IETF 94 (Yokohama)



MODERN problems 02

- Many new definitions
- Reorganized the use cases around the three mechanisms
- Clarified the concept of a “delegate”
- Integrated distributed data store concept into some of the use cases

Problem statement

- Problem
 - Utilizing telephone numbers (TN) for Internet telephony
- Mission
 - IP-based mechanisms for management, administration and routing in an IP environment

New definitions

- Registry – expanded existing definition to include both:
 - Authoritative registry – single entity
 - Distributed registry – multiple entities sharing the same data
- Data types
 - Administrative data
 - Data related to the TN and actors
 - Service data
 - Data necessary to enable service
 - (Are credentials administrative data, service data or other?)
 - Public data
 - Available to the public
 - Semi-restricted data
 - Available to a relatively broad subset of actors, e.g., all CSPs
 - Restricted data
 - Available to a limited subset of actors, e.g., Govt Entity

New definitions

- Data management architectures
 - Data store
 - A service that stores and enables access to data
 - Reference address
 - A URL that dereferences to the location of a data store
 - Distributed data stores
 - The same data stored by multiple actors
 - Distributed registries
 - Multiple registries managing the same numbering resource
- Is it necessary to have separate definitions for distributed data stores and registries?
 - Registries have an acquisition component that other data stores do not

Mechanisms

- Three IP-based mechanisms for managing TNs
 - Acquisition – a protocol mechanism for acquiring TNs, including an enrollment process
 - Management – a protocol mechanism for associating data with TNs
 - Retrieval – a protocol mechanism for retrieving data about TNs
- Should “distribution” be a fourth mechanism?

Use cases – Acquisition

- CSP-Registry
- User-CSP
- Delegate CSP-Assignee CSP
 - This is new
 - For example, reseller to CSP
 - Similar to User-CSP
- User-Delegate CSP
 - Similar to User-CSP
- User-Registry
 - Similar to CSP-Registry
- Use cases focus on:
 - Transactions with Registry
 - Transactions with CSP (or Delegate of a CSP)

Use cases – Management

- Management of administrative data
 - CSP-Registry
 - User-CSP
 - Introduces the concept of a reference address
 - CSP maintains administrative data and provides a reference address to the registry for others
 - User-Registry
- Management of service data
 - CSP-CSP
 - User-CSP
- Managing change
 - Changing a CSP
 - Terminating service

Use cases – Retrieval

- Retrieval of public data
 - For example, numbering resources available for acquisition
- Retrieval of semi-restricted administrative data
 - For example, CSP contact data
- Retrieval of semi-restricted service data
 - For example, SIP URI
- Retrieval of restricted data
 - For example, User contact data
- These include the concepts of distributed data stores, distributed registries and reference addresses

Use case example – Changing CSP

Distributed Registry, Distributed Data Store

- User activates service with new CSP
 - Submits credential
 - Provides contact data
- New CSP provides new credential to User
- New CSP notifies old CSP
- Old CSP deactivates service
 - Deletes service data to all other distributed data stores
 - Deletes User contact data
 - Revokes credential
 - Updates its registry
- New CSP activates service
 - Updates new service data to all other distributed data stores
 - Adds User contact data
 - Updates its registry
- Old CSP's Registry updates all other distributed registries
- New CSP's Registry updates all other distributed registries

Next Steps

- Further integration of distributed data stores and registries
 - Add multiple scenarios for multiple CSPs providing different services to the same TN
 - Integrate 94 and list feedback
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- Thank you
 - Questions, Comments