

draft-peterson-modern- problems-04

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MODERN WG

IETF 95 (Buenos Aires)

What is this document?

- Problem statement

- Framework

 - Actor roles

 - Data types

- Use Cases

 - Acquisition

 - Management

 - Retrieval

Changes in -04

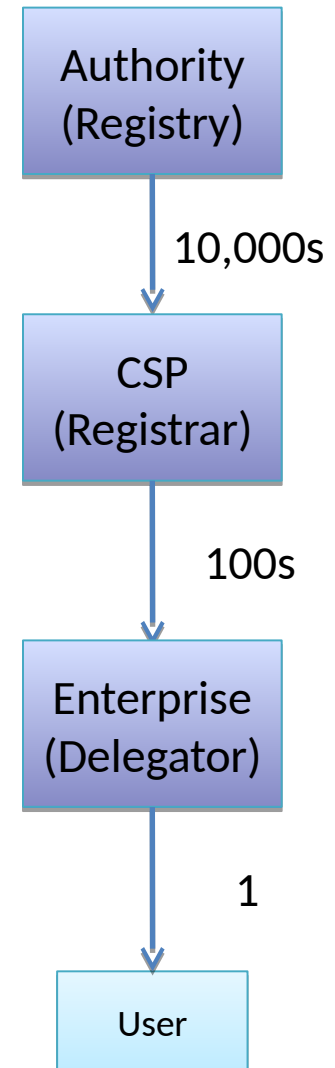
- We had an interim to review the -03
- Added a Registrar as an actor
 - Now has a more traditional registry/registrar split
- Changed a lot of end-user specific text
 - “Acquisition” of numbers controversial on the list
 - Now focuses much more on freephone RespOrg
 - This is a practical use case today
- Moved out text on distributed registries
 - Now mostly point to DRIP, beyond defining terms
- Fixed many of the use cases to conform with this

Roles of Actors

- **Numbering Authorities**
 - Regulators, etc.
 - Roots of authorities (never acquire blocks)
 - No “golden” root, all is relative
- **Registries**
 - Manages core number allocation functions, handles requests for numbers from registrars
- **Registrars**
 - *Has relationships with CSPs/Users to provide numbers – often is also a CSP*
- **Communication Service Provider (CSP)**
 - Provides services to users
 - May include traditional carriers, enterprises, OTT providers, etc.
- **Users**
 - Individuals reachable through a communications service
 - Operate clients, black phones, etc.
- **Government entities**
 - Privileged access to data

A Picture

- Roles are logical
- A numbering authority could act as a registry
 - Or delegate that to some entity
- A CSP could act as a registrar
 - One that keeps inventory
- An Enterprise could acquire numbers from a CSP/registrar
 - Then delegates down
- Users get numbers through delegation
 - In other pictures, users might contract with registrars themselves, as with freephone RespOrgs



Difference between CSP and Registrar

- **CSP**
 - **Manages service data**
 - Knows about communications endpoints
 - Queried in real time during call setup or text message routing
 - Might be a carrier, might be an OTT provider
- **Registrar**
 - **Manages administrative data**
 - Contact information
 - Billing data
 - Service CSP
 - Probably fields requests from Government Entities

Both are logical roles, often played by the same administrative entity

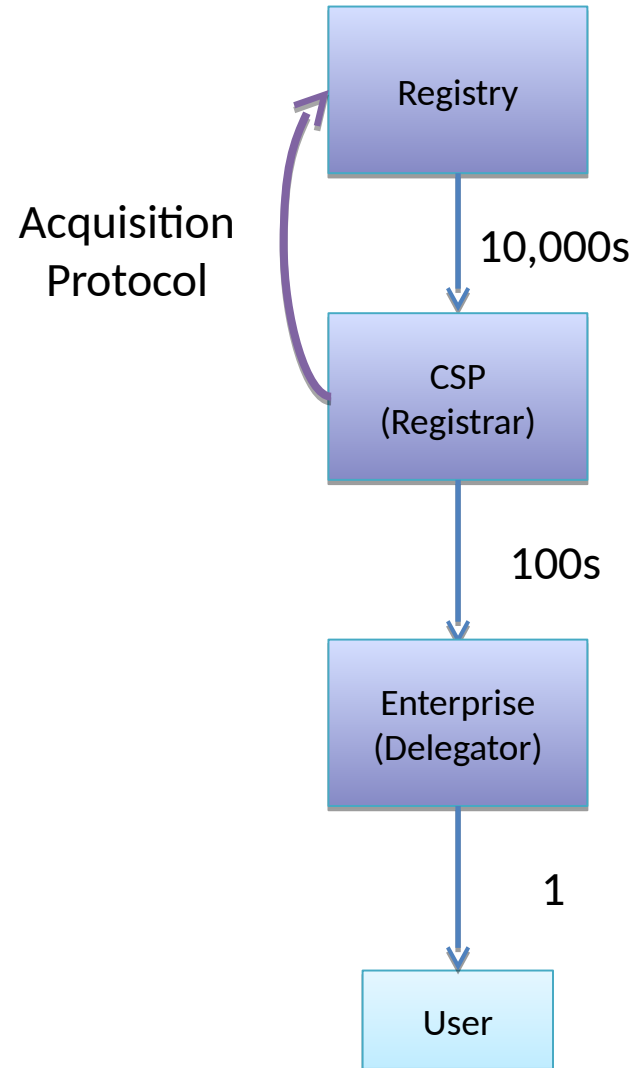
Use Cases

- Acquisition (activating numbers)
 - User Acquires TN from a Registrar/CSP
 - Registrar/CSP Acquires TNs from either Registry or another Registrar
- Management (provisioning for numbers)
 - User to CSP, or User to Registrar
 - CSP to CSP, or CSP to Registrar
 - Broken down into Service Data and Administrative Data cases
- Retrieval (querying about numbers)
 - Retrieving public data
 - Retrieving semi-restricted data (Service or Administrative)
 - Retrieving Restricted Data

Changes with the new registrar/registry model

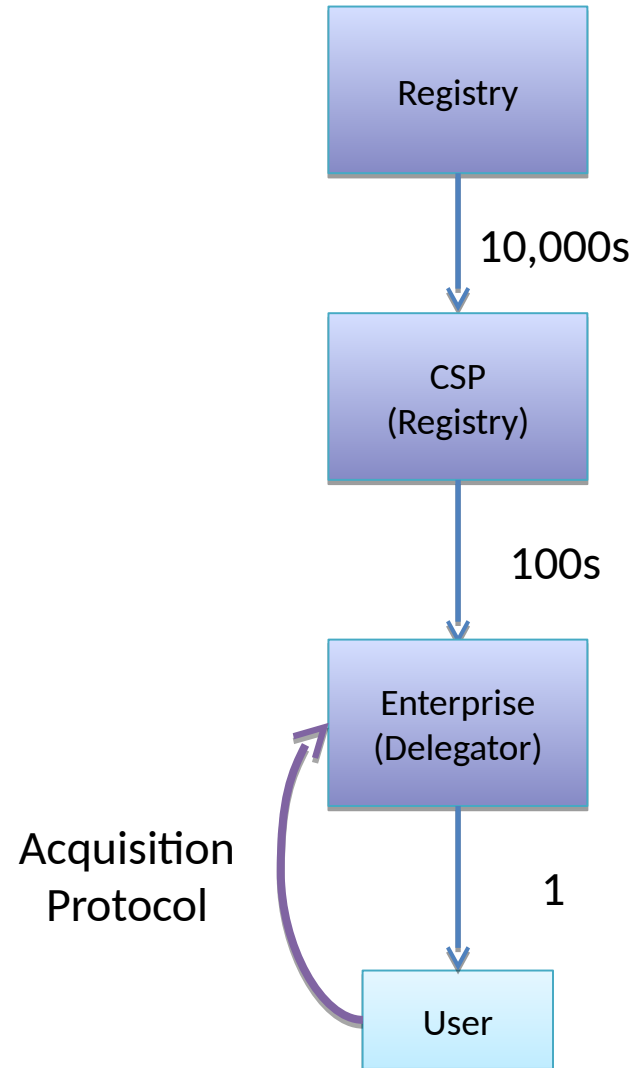
CSP gets a block

- Block number case
 - Credentials would indicate number ranges
- *CSP inventory runs low, it requests a new 1000 block from pooling admin*
- Infrequent enough that Excel-ware still might suffice for now



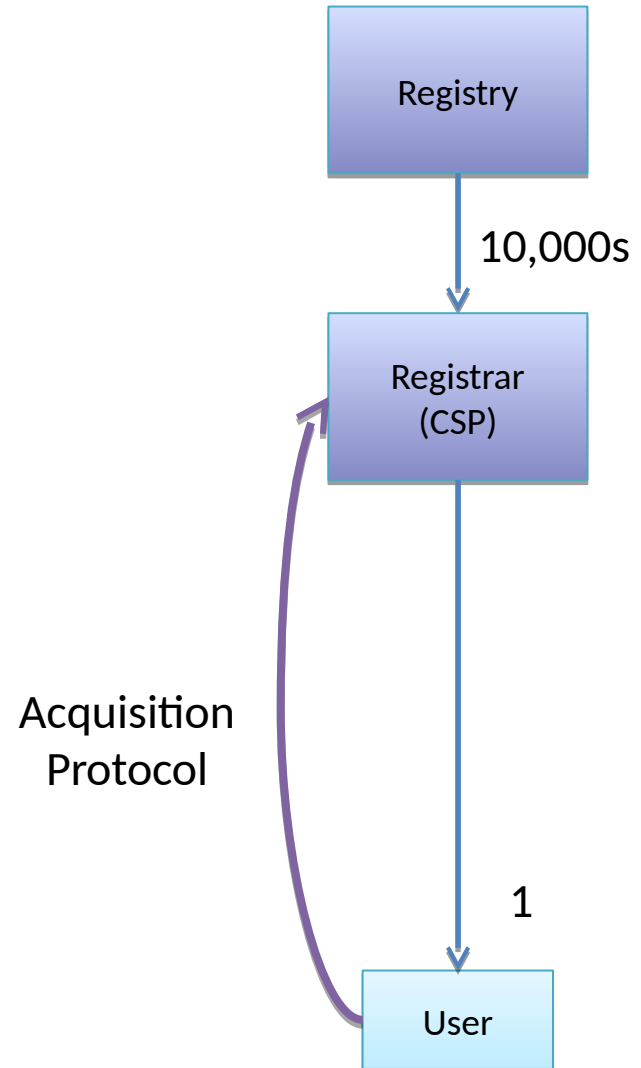
Acquiring a number

- The acquisition tool could let a new phone get a number from its enterprise
 - Phone gives some information, gets a number and any credential
- *Similar use case for Google, or Skype, or whatever*



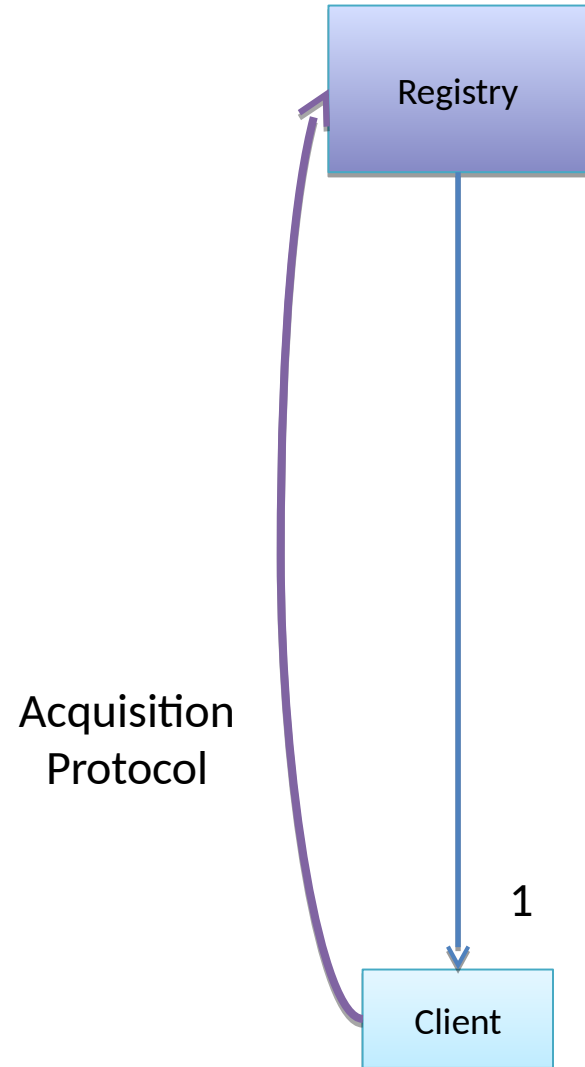
Customer to Registrar (CSP)

- The acquisition tool could let a new phone get a number from a CSP
 - Get a new number and any credential
 - Not necessarily a new number, just provisioning the number to a new device
- *You just bought a new phone at the Apple store, and want to replace an existing account*



~~Customer to Registry?~~

- Nah

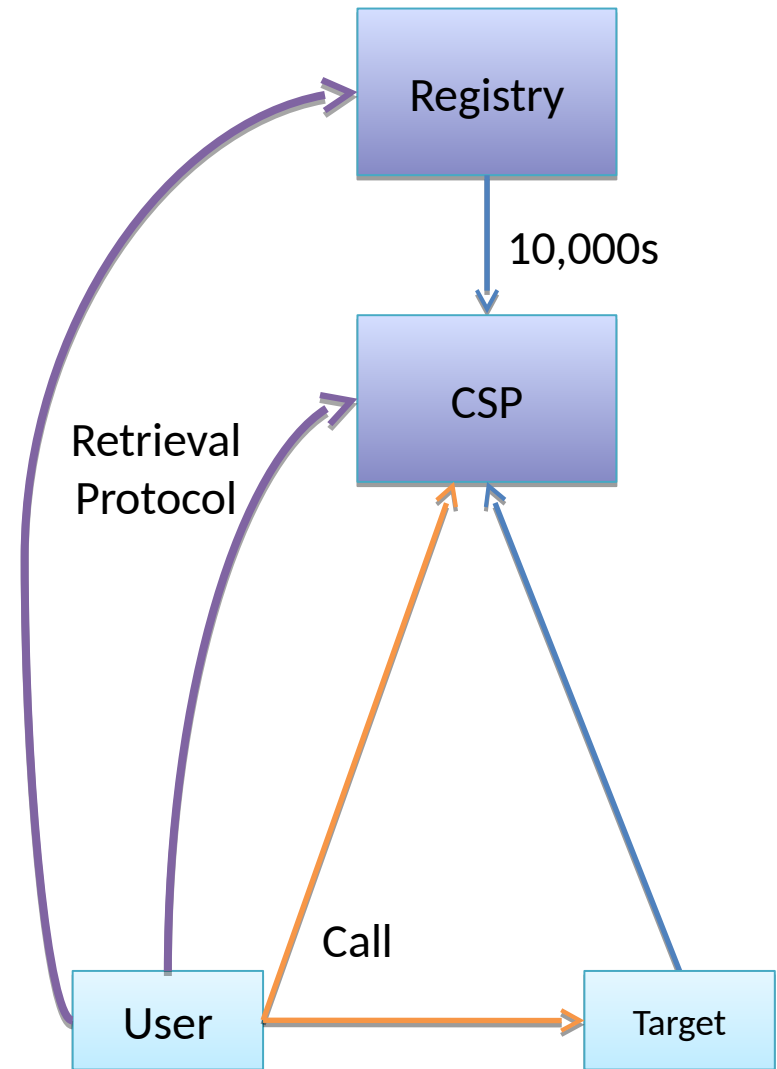


Eyes on the Prize

- Not presenting the TeRI work today
 - I would be happy to have agreement on this alone
- Helpful for things like STIR
 - Be great to tie this in to methods of credential distribution and access
 - Probably that is bound to acquisition interfaces
- And we ultimately do want to get this work to richer queries

Thin Registry (Retrieval)

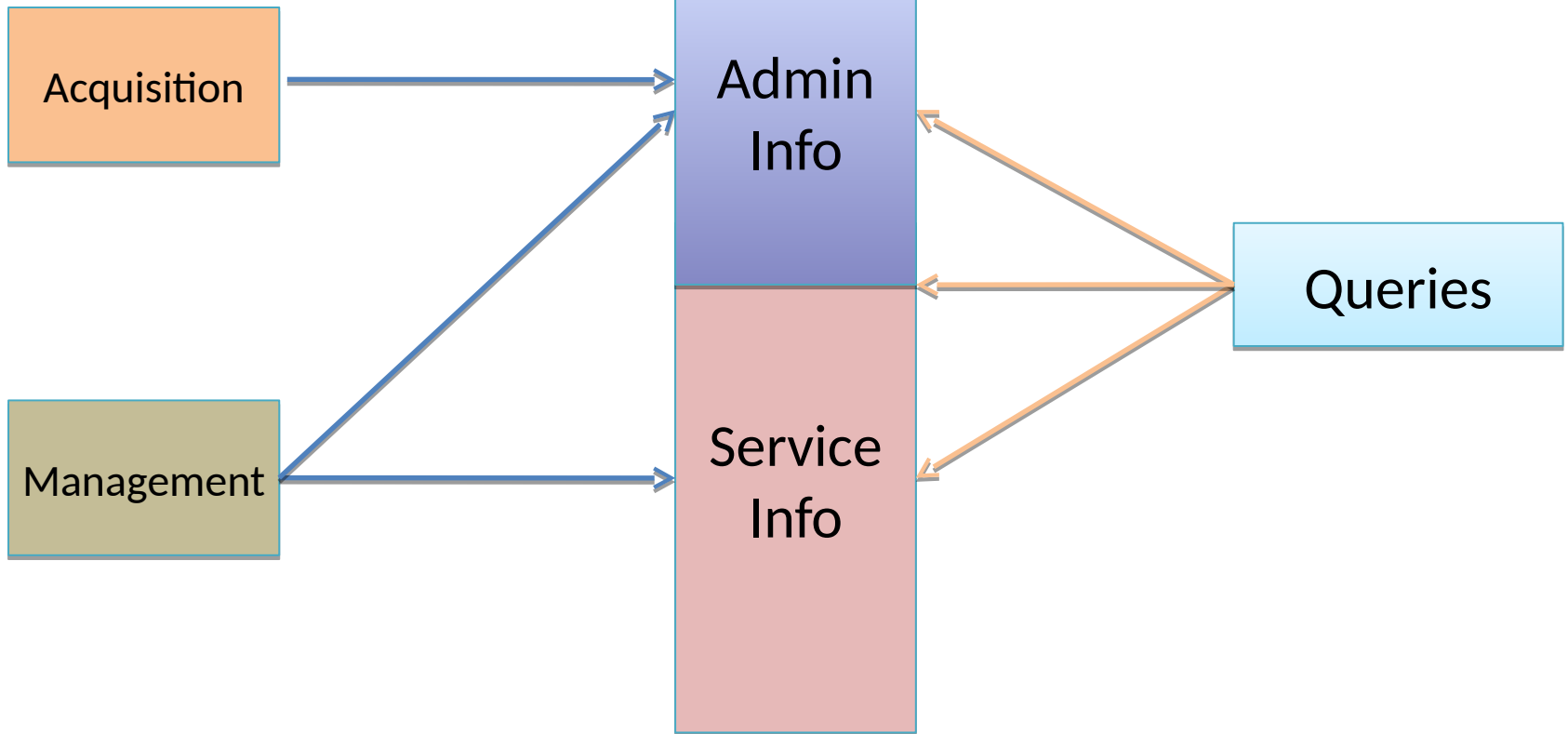
- Registry contains largely allocation data
 - Is this TN in use?
- Perhaps Registry also points to the CSP
- Some questions about how to architect this – thoughts welcome...



Telephone-Related Information

TeRI

Records



Just a logical picture

Adopt || Die

- We do need a direction here if the working group is going to move forward
- I'm not aware anyone has proposed an alternative
 - Apart from “do nothing”
- I'm not going to keep presenting this
 - Yeah, it's not ready for WGLC, but it's a good enough start
- If we're not adopting this version, I suggest we go do something else with our time than this WG