

draft-peterson-modern- problems-03

Jon Peterson

MODERN interim

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What is it?

- Problem statement
- Framework
 - Actors
 - Data Types
- Use Cases
 - Acquisition
 - Management
 - Retrieval

Changes in -03

- Added some intro text
 - Better explaining some motivation
- Cleaned up use cases
- Numerous fixes from Pierce
- Added some security text

- Still to do: more on distributed registries, very sketchy

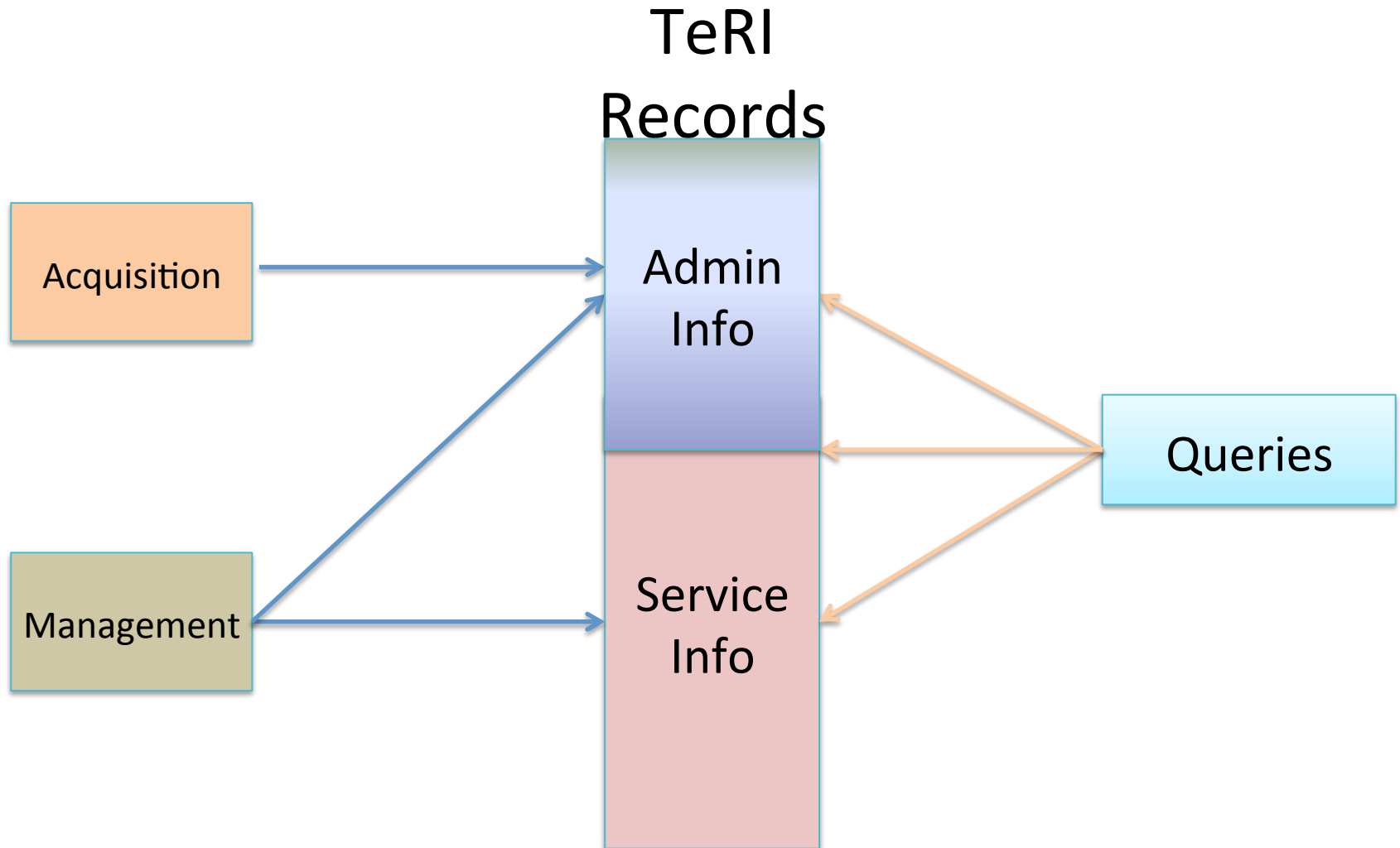
Actors

- **Numbering Authorities**
 - Regulators, etc.
 - Roots of authorities (never acquire blocks)
 - No “golden” root, all is relative
- **Registries**
 - Distribute numbering resources
- **Communication Service Provider (CSP)**
 - Provides services to users
 - May include enterprises, OTT providers, etc.
- **Users**
 - Individuals reachable through a communications service
 - Operate clients, black phones, etc.
- **Government entities**
 - Privileged access to data

Use Cases

- Acquisition (activating numbers)
 - User Acquires TN from either CSP, Delegate, or *Registry*
 - CSP Acquires TNs from either Registry or another CSP
- Management (provisioning for numbers)
 - User to CSP, or User to *Registry*
 - CSP to CSP, or CSP to Registry
 - All 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

Telephone-Related Information



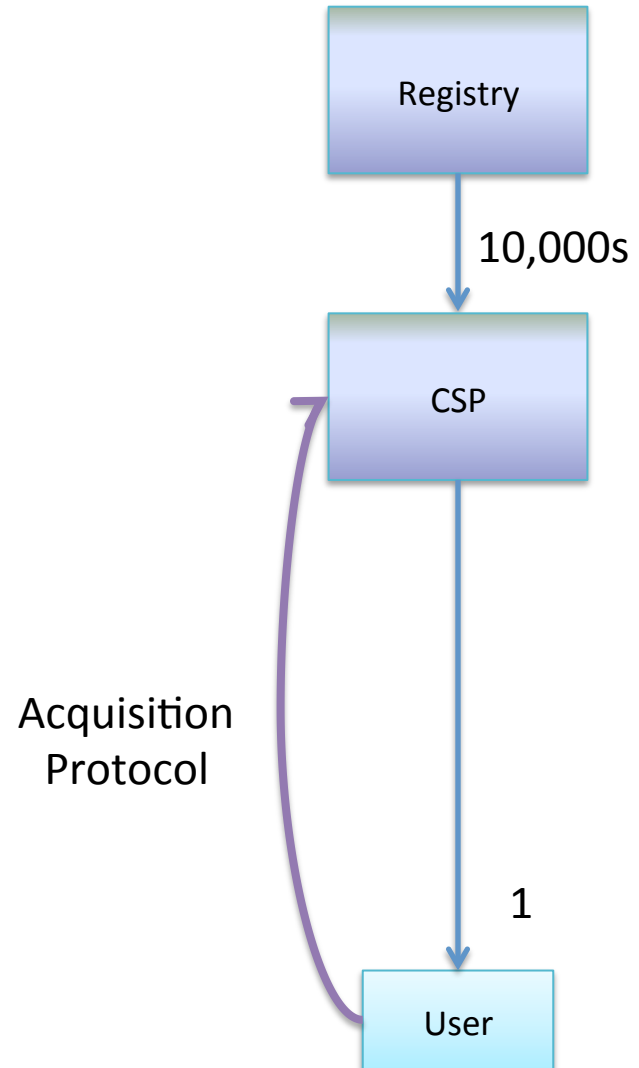
Just a logical picture

Acquisition controversy

- Pushback about an acquisition use case
 - User acquisition of numbers from the Registry
- This is one use case of 16
 - Well, two, if we count User provisioning to Registry
- MODERN takes a lifecycle approach
 - Tries to understand provisioning, acquisition, and retrieval as operations on the same information model
 - That's why acquisition is in our scope
- This User/Registry use case we get for free
- Let's walk through the other acquisition use cases

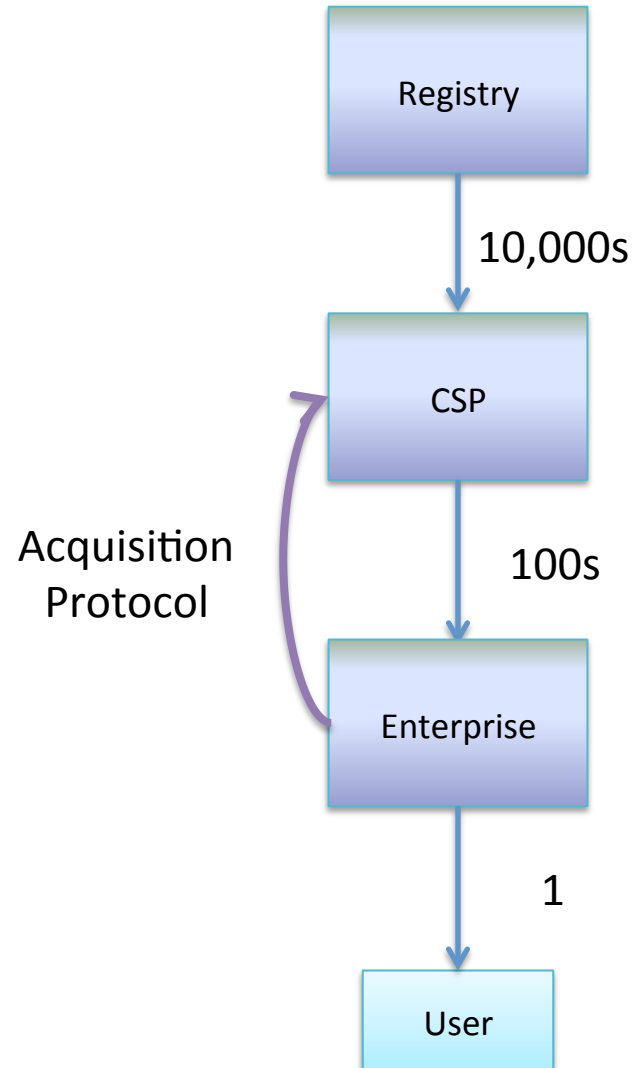
Customer to CSP

- The acquisition tool could let a new phone get a number from a CSP
 - Get a new number and any credential
- *You just bought a new phone at the Apple store, and want to replace an existing account*



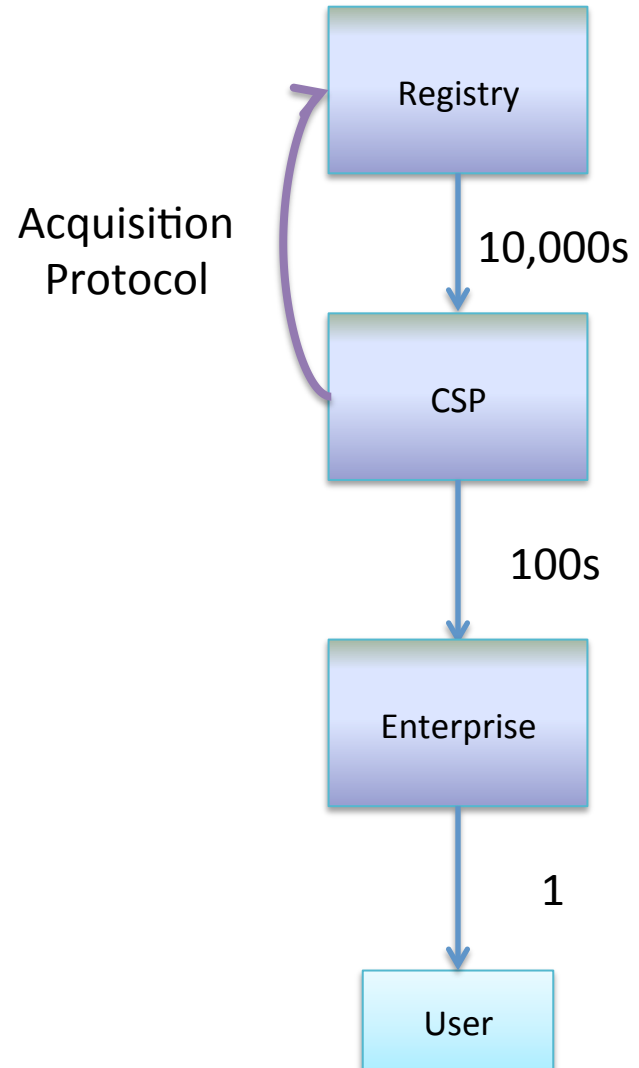
Acquiring a range

- Possible to request whole blocks of numbers
 - Credentials would indicate number ranges
- *Enterprise turns up a new PBX, needs to activate 100 new seats*



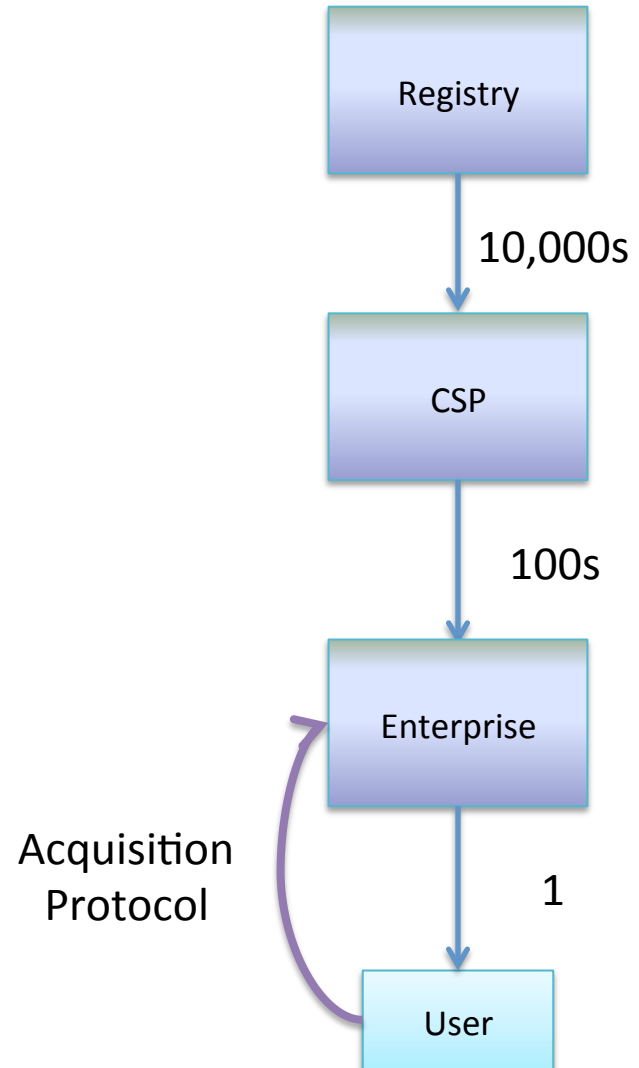
CSP gets a block

- Another 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



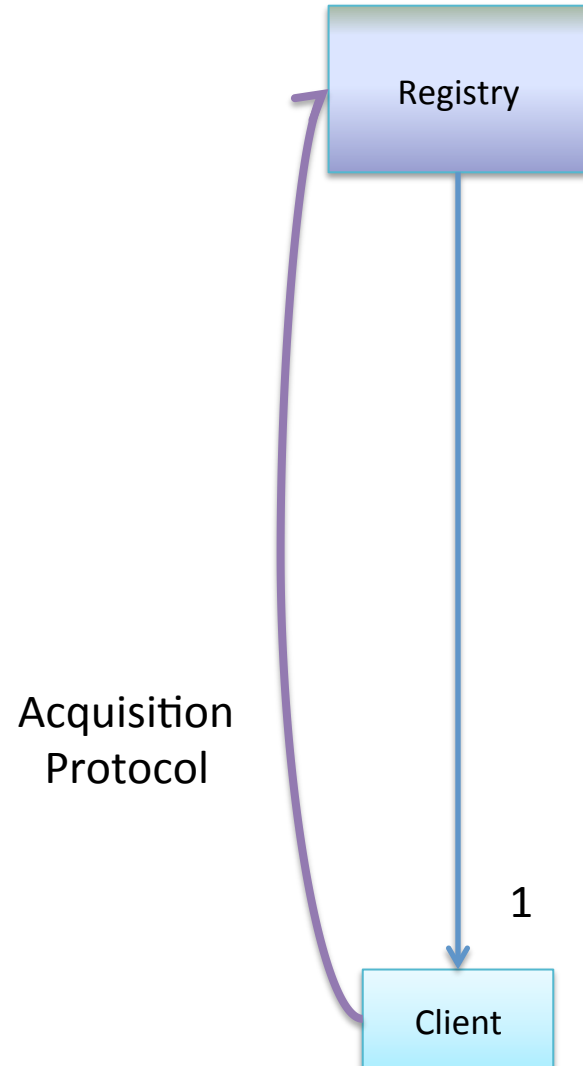
Acquiring a number

- 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 Registry?

- The acquisition tool could let an individual get a number directly from a registry
 - Get a new number and any credential
 - Then subsequently associate it with a CSP
- **Acquisition protocol requires nothing different to support this from what we saw in the last 3 slides**



Next Steps

- We do need a direction here if the working group is going to move forward