User-Managed Access

UMA Work Group

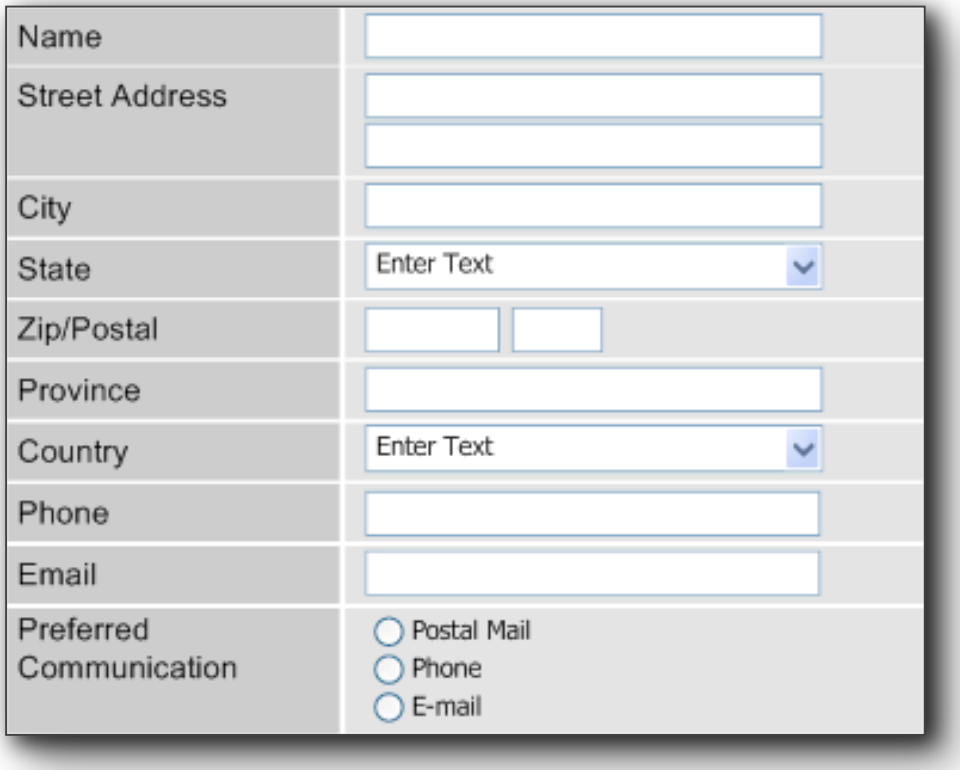
@UMAWG

tinyurl.com/umawg | tinyurl.com/umafaq

IIW 16, May 2013

The "data price" for online service is too high: typing…

- Provisioning by hand
- Provisioning by value
- Oversharing
- Lying!



The "data price" for online service is too high: connecting…

- Meaningless consent to unfavorable terms
- Painful, inconsistent, and messy access management
- Oblivious oversharing

The "data price" for online service is too high: private URLs…

- Handy but insecure
- Unsuitable for really sensitive data

Most data "sharing" today is back-channel and unconsented

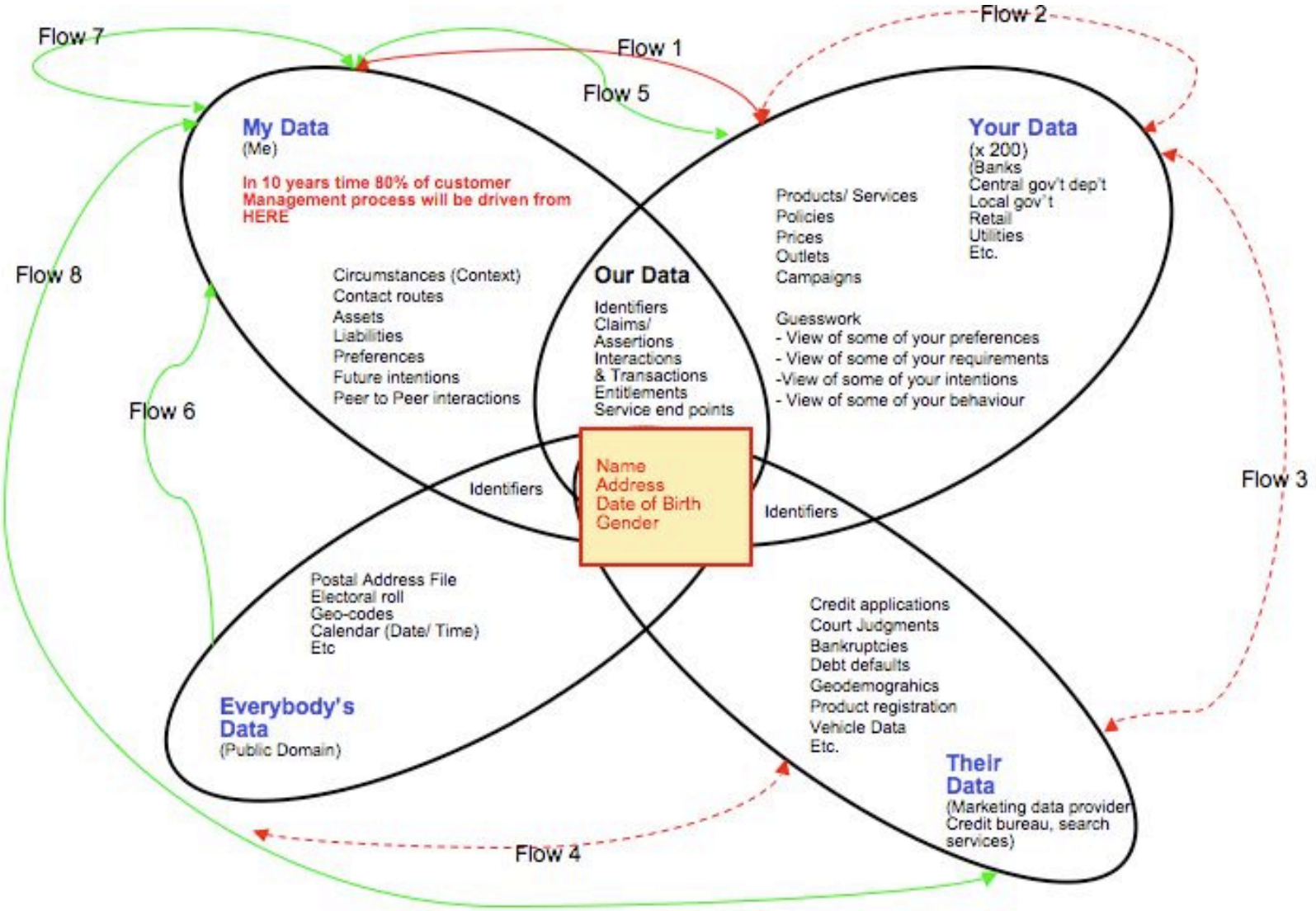


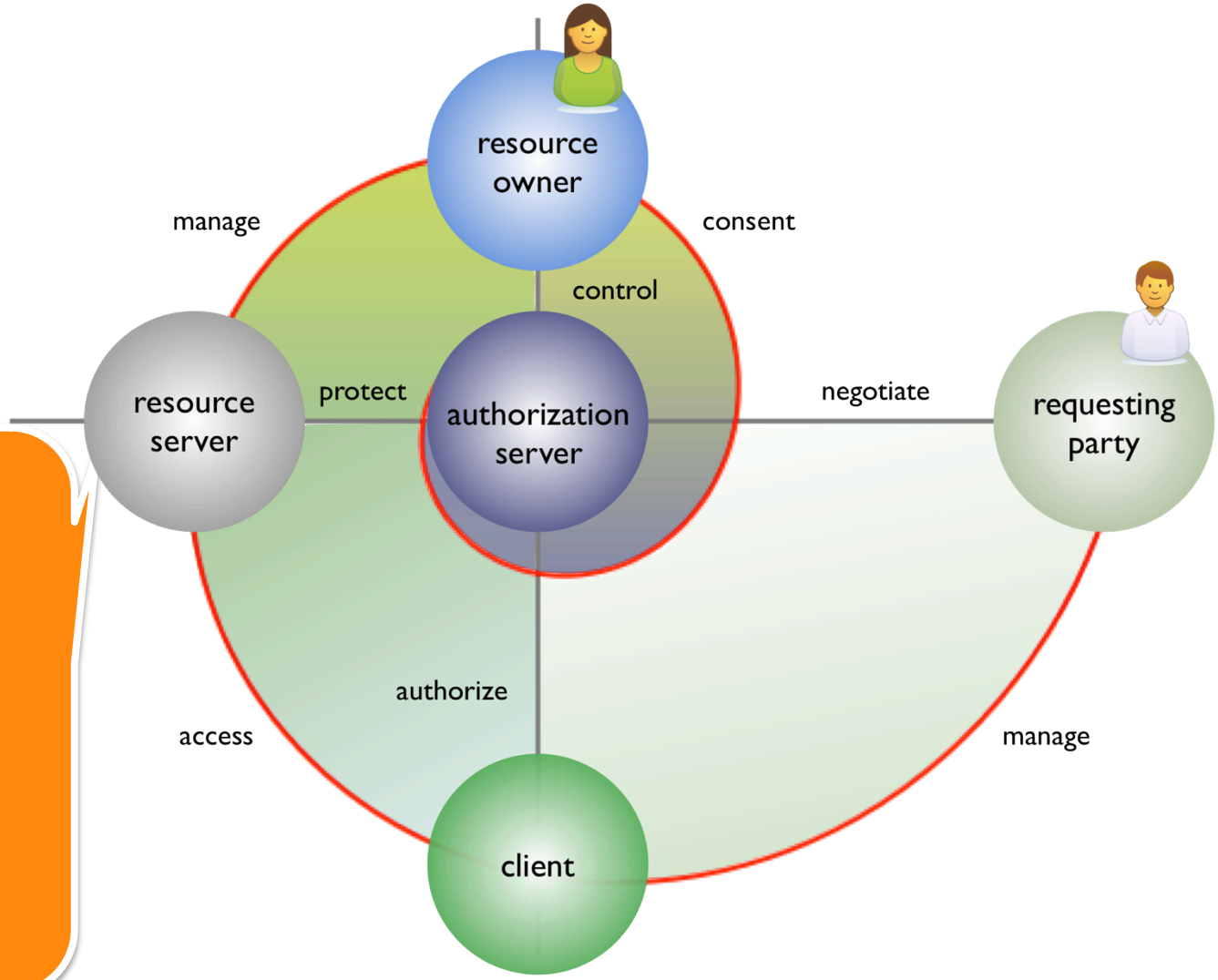
Image source: http://informationanswers.com/?p=283

Privacy is about context, control, choice and respect – so UMA enables a "digital footprint control console"

- *Web 2.0 access control is inconsistent and unsophisticated*
- *To share with others, you have to list them literally*
- *You have to keep rebuilding your "circles" in new apps*
- *You can't advertise content without giving it away*
- *You can't get a global view of who accessed what*

- You can **unify** access control under a single app
- Your access policies can test for **claims** like "over 18"
- You can **reuse** the same policies with multiple sites
- You can control access to stuff with **public** URLs
- You can manage and **revoke** access from one place

UMA turns online sharing into a privacy-by-design solution



- Historical
- Municipal
- Financial
- Vocational
- Artistic
- Social
- Geolocation
- Computational
- Genealogical
- Biological
- Legal
- ...

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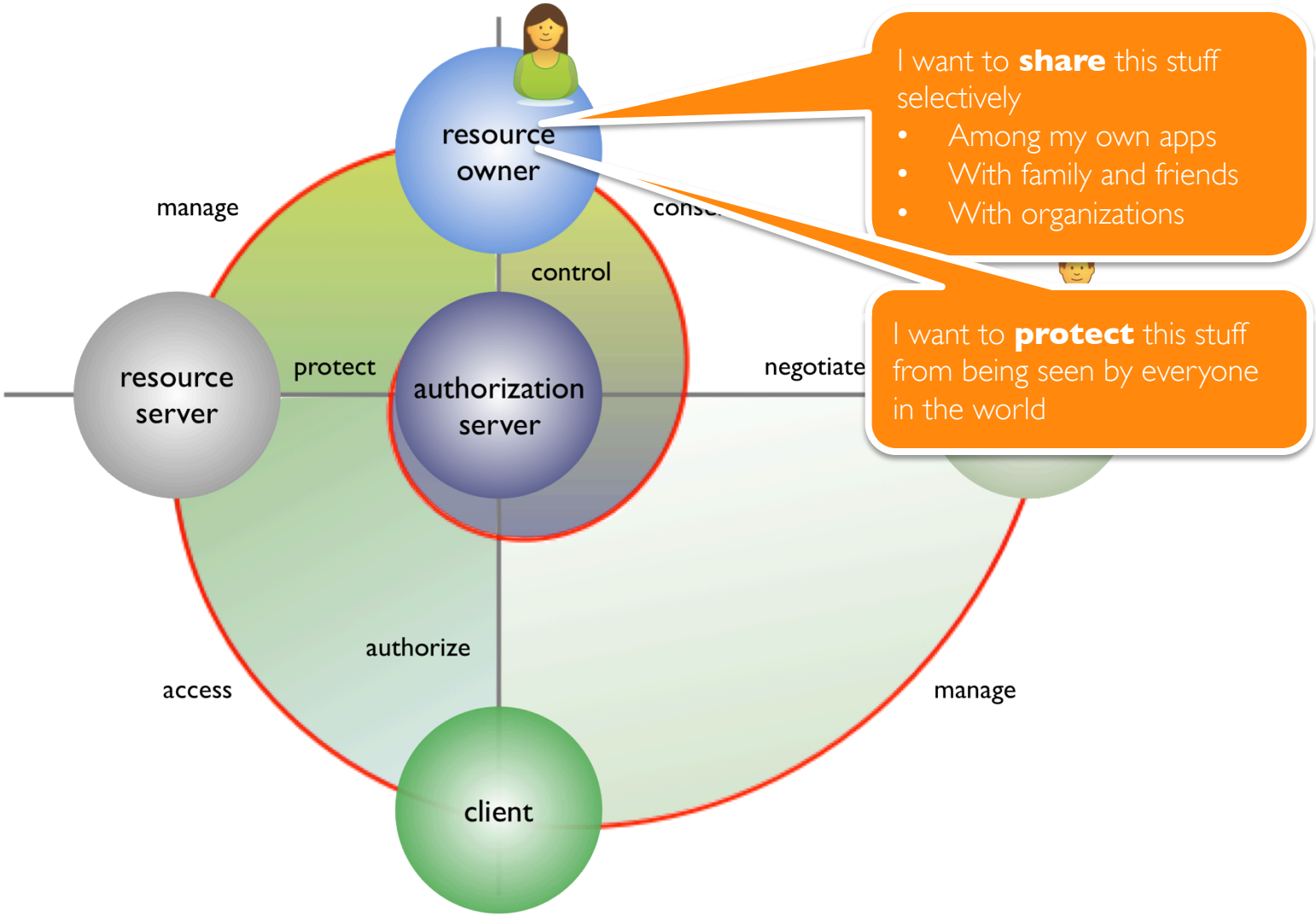

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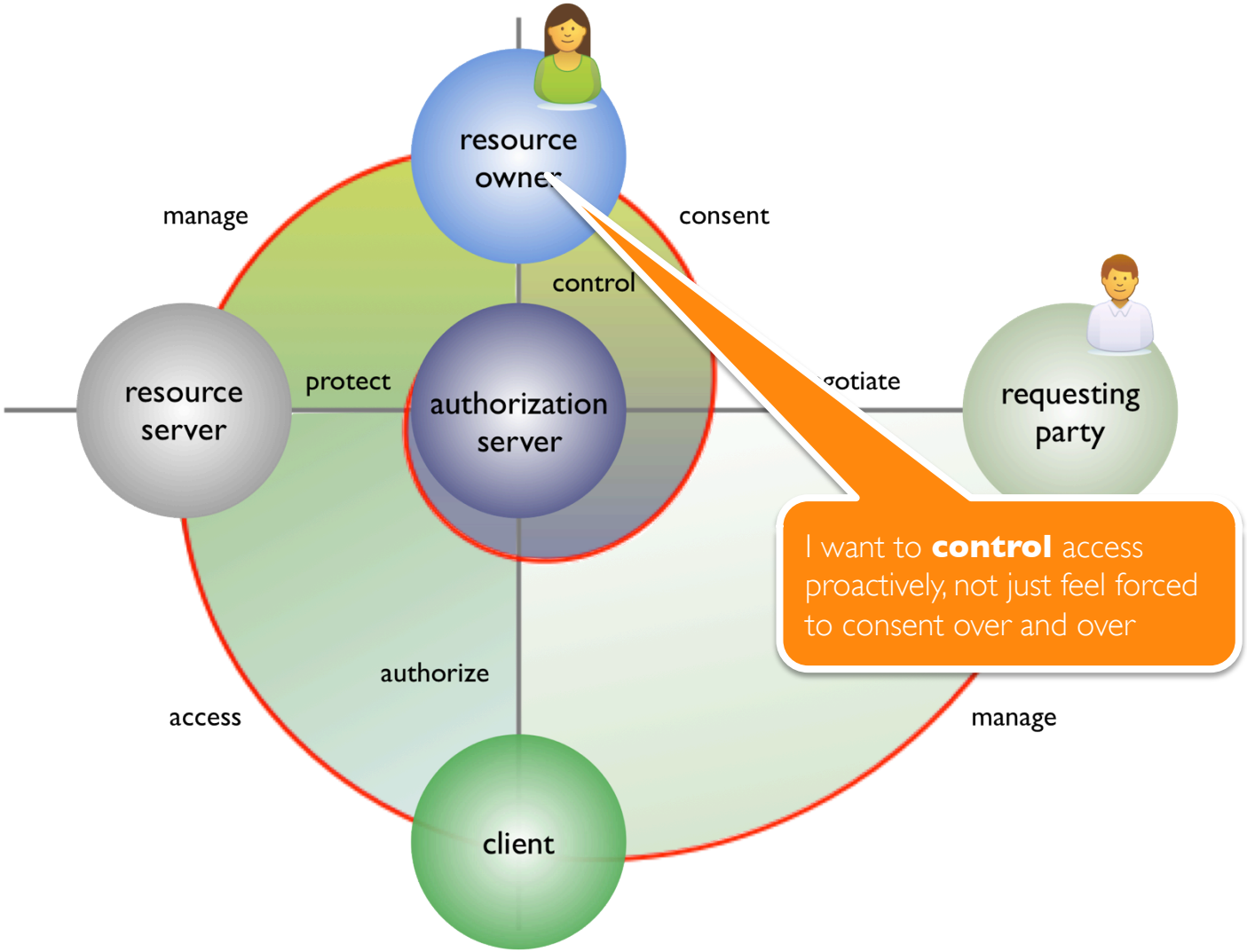
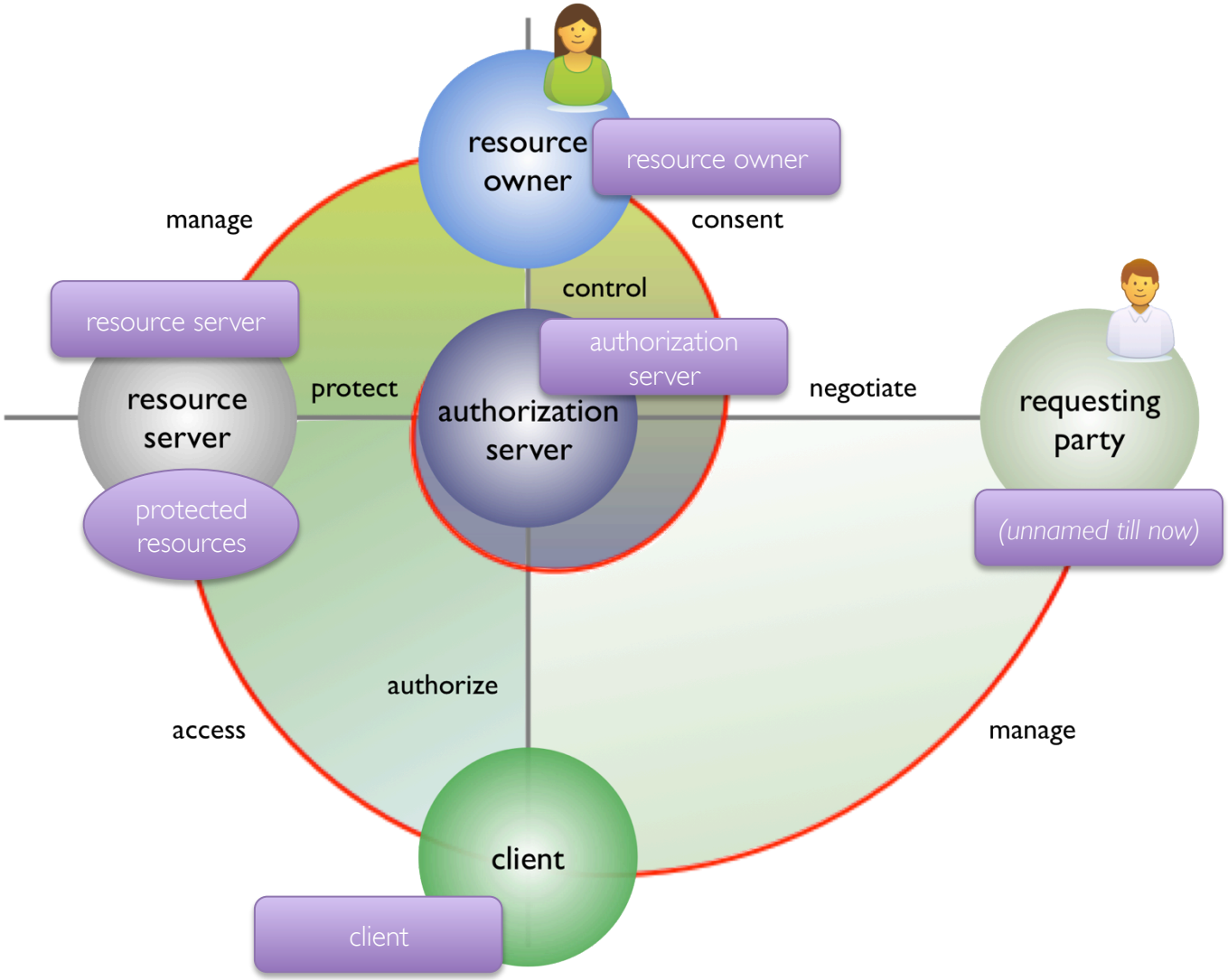
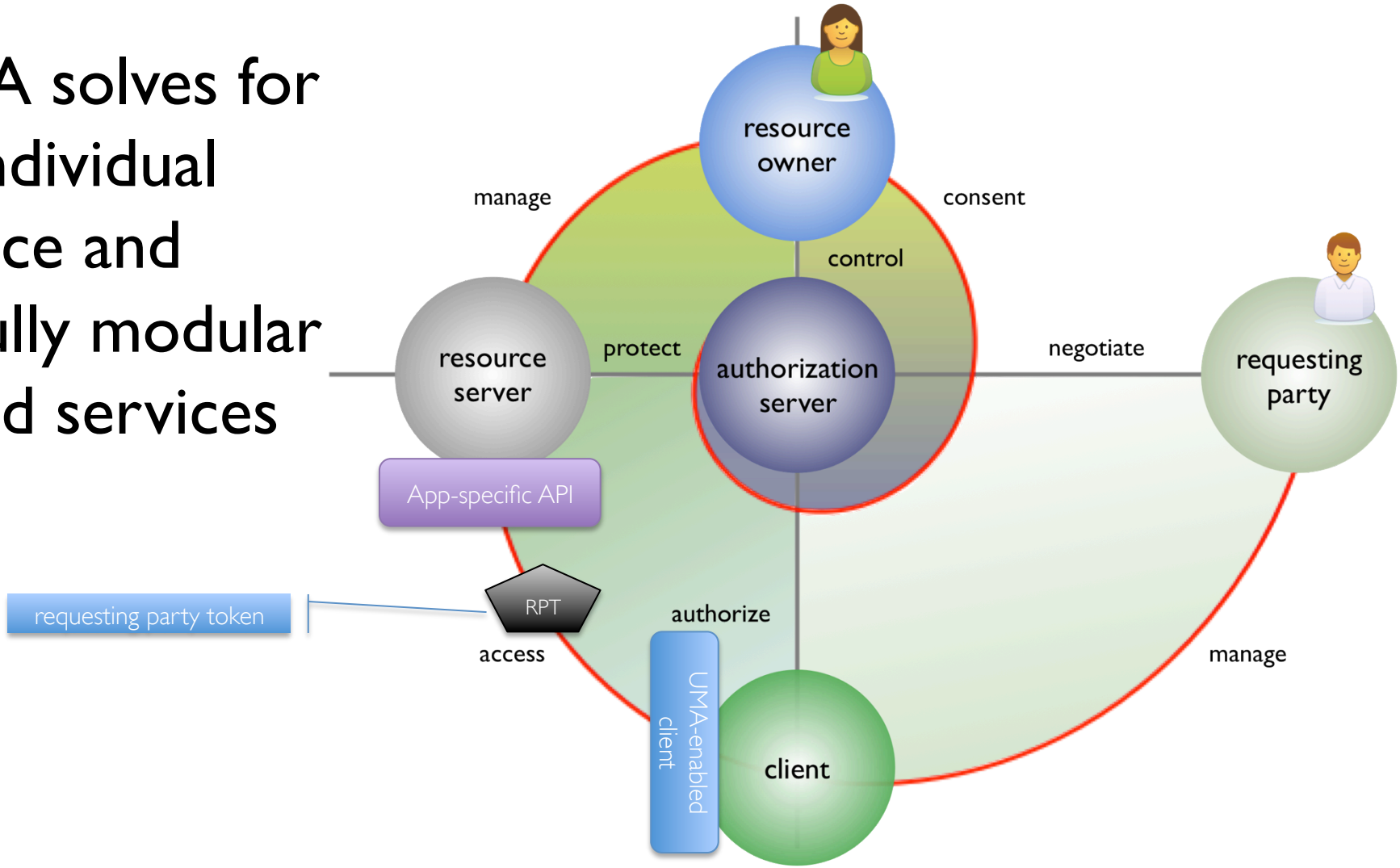


UMA is a profile of OAuth, with bits added for interop and scale



UMA solves for
1) individual choice and
2) fully modular cloud services



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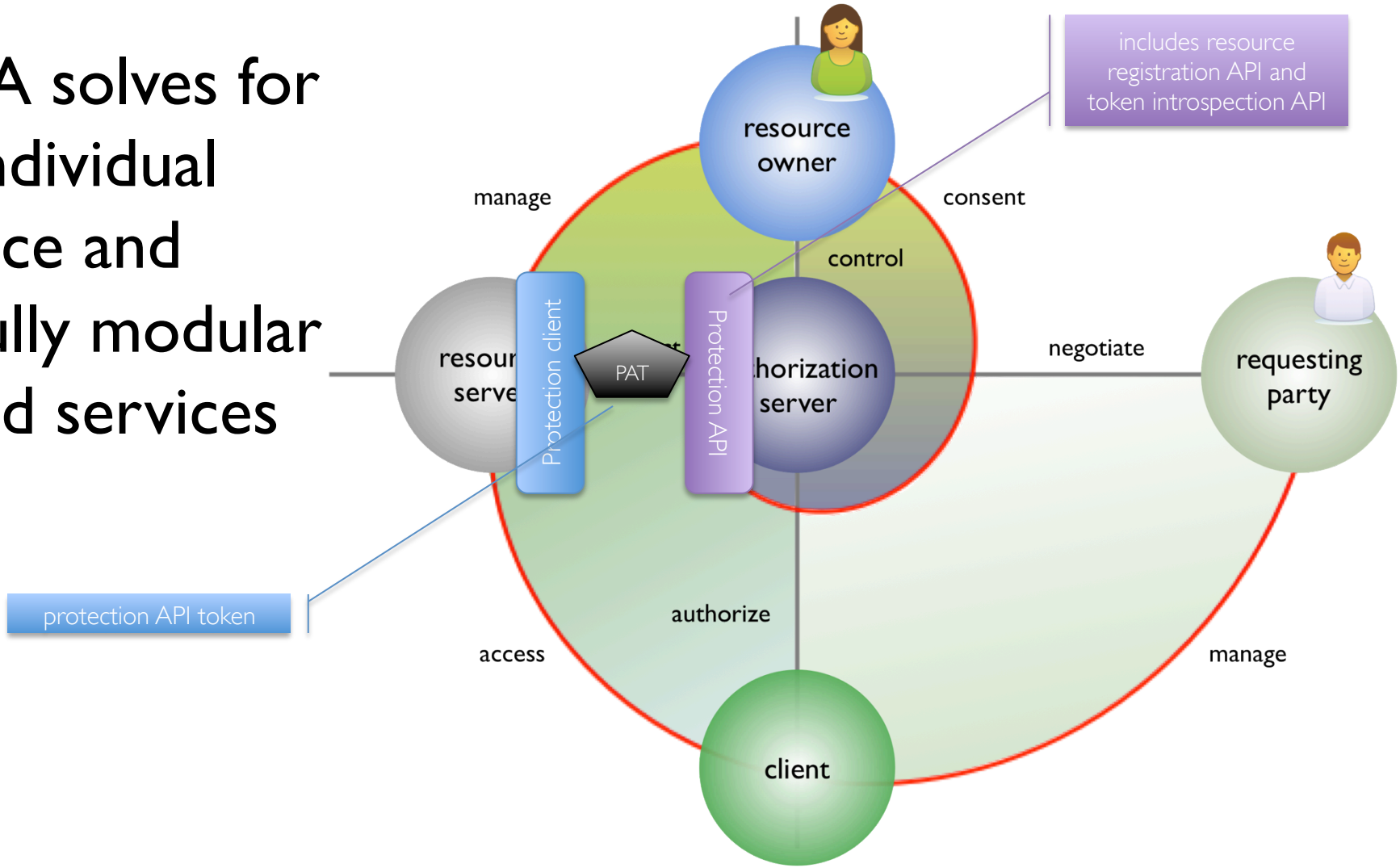

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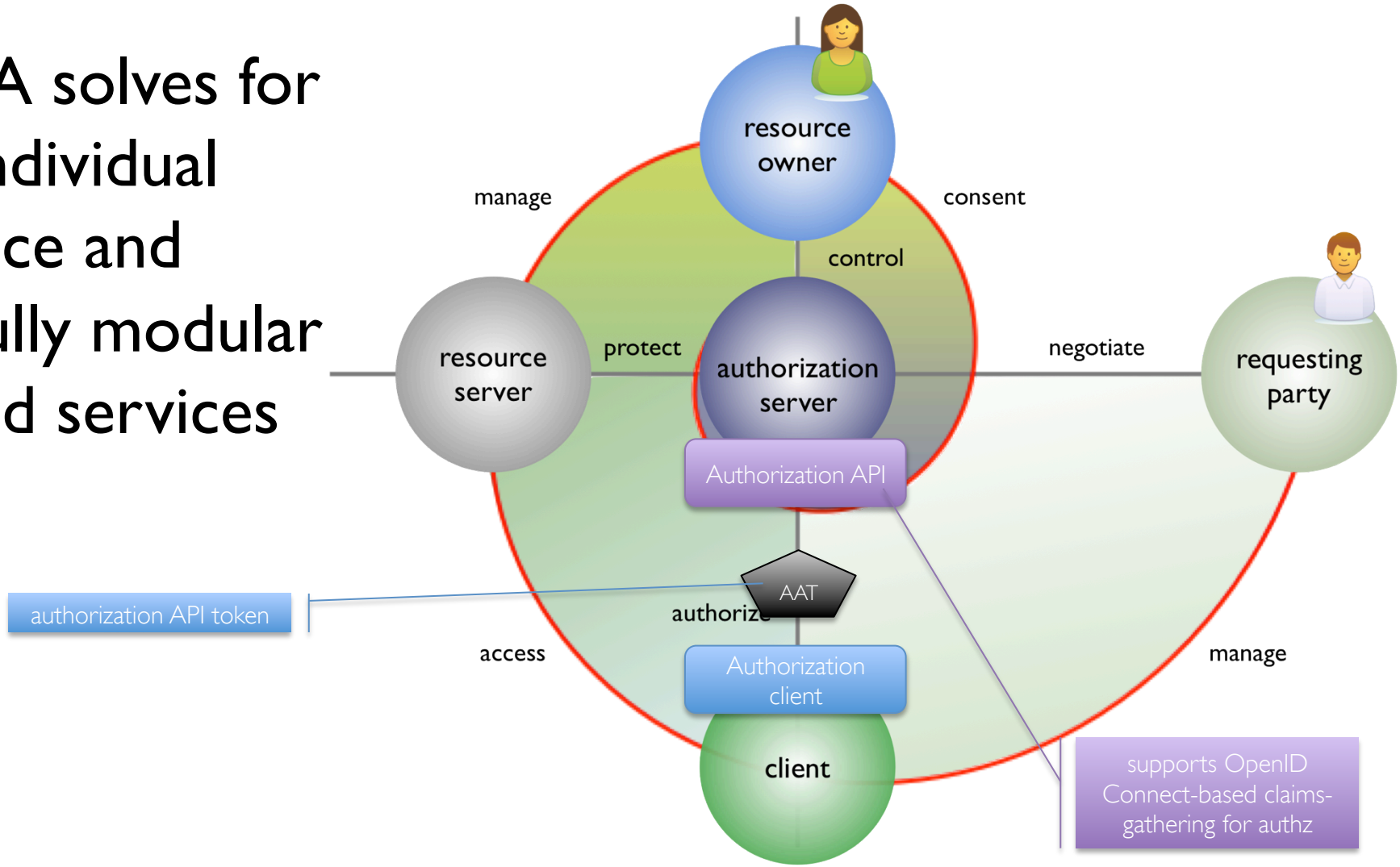
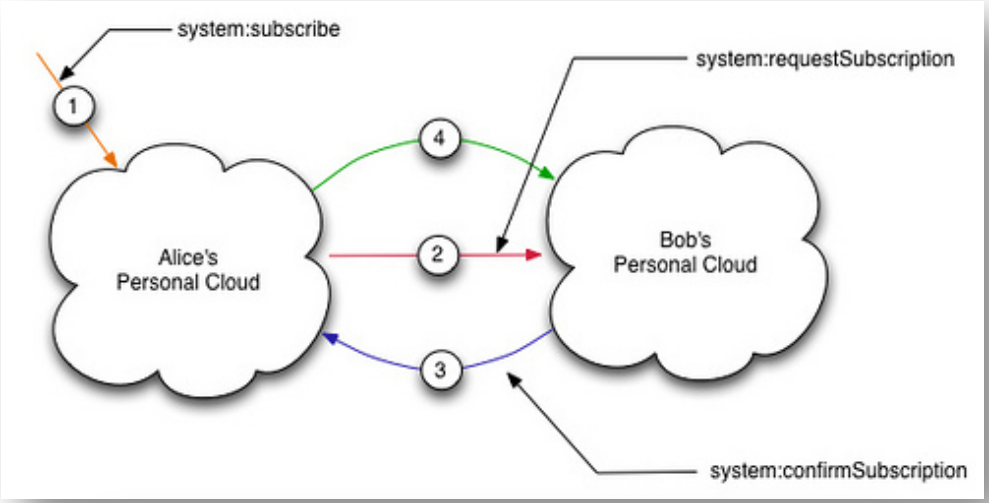
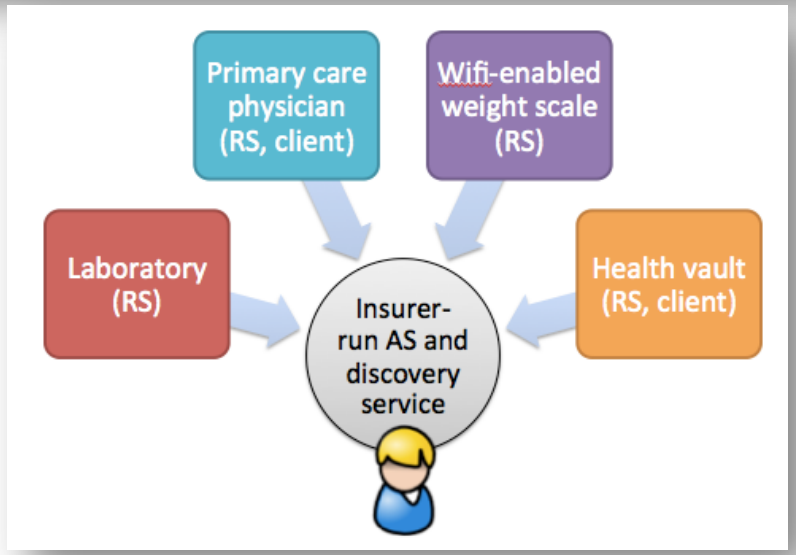


Key use cases

http://kantarainitiative.org/confluence/display/uma/Case+Studies

- Subscribing to a friend's personal cloud
- Sharing accessibility attributes ("GPII")
- E-transcript sharing ("HEAR")
- Patient-centric health data access
- Enterprise "access management 2.0"





Key implementations

http://kantarainitiative.org/confluence/display/uma/UMA+Implementations

- SMARTAM.net (running authorization service from Cloud Identity UK)
- Puma (Python libraries for RS- and client-enabling web apps) from ditto
- Fraunhofer AISEC open-source implementation in Java
- Gluu OX open-source implementation for Access Management 2.0 use cases

Next steps

- Work on optimization opportunities when UMA and OpenID Connect are used together
- Issue "Implementor's Draft"
- Continue to work with AXN, Scalable Privacy, and others in "trusted identities in cyberspace" ecosystem
- Profile UMA for higher ed, accessibility attribute sharing, healthcare use cases
- We welcome your involvement and contributions
  - Become an UMAnitarian!
  - Follow @UMAWG on Twitter and UserManagedAccess on FB

Questions?
Thank you

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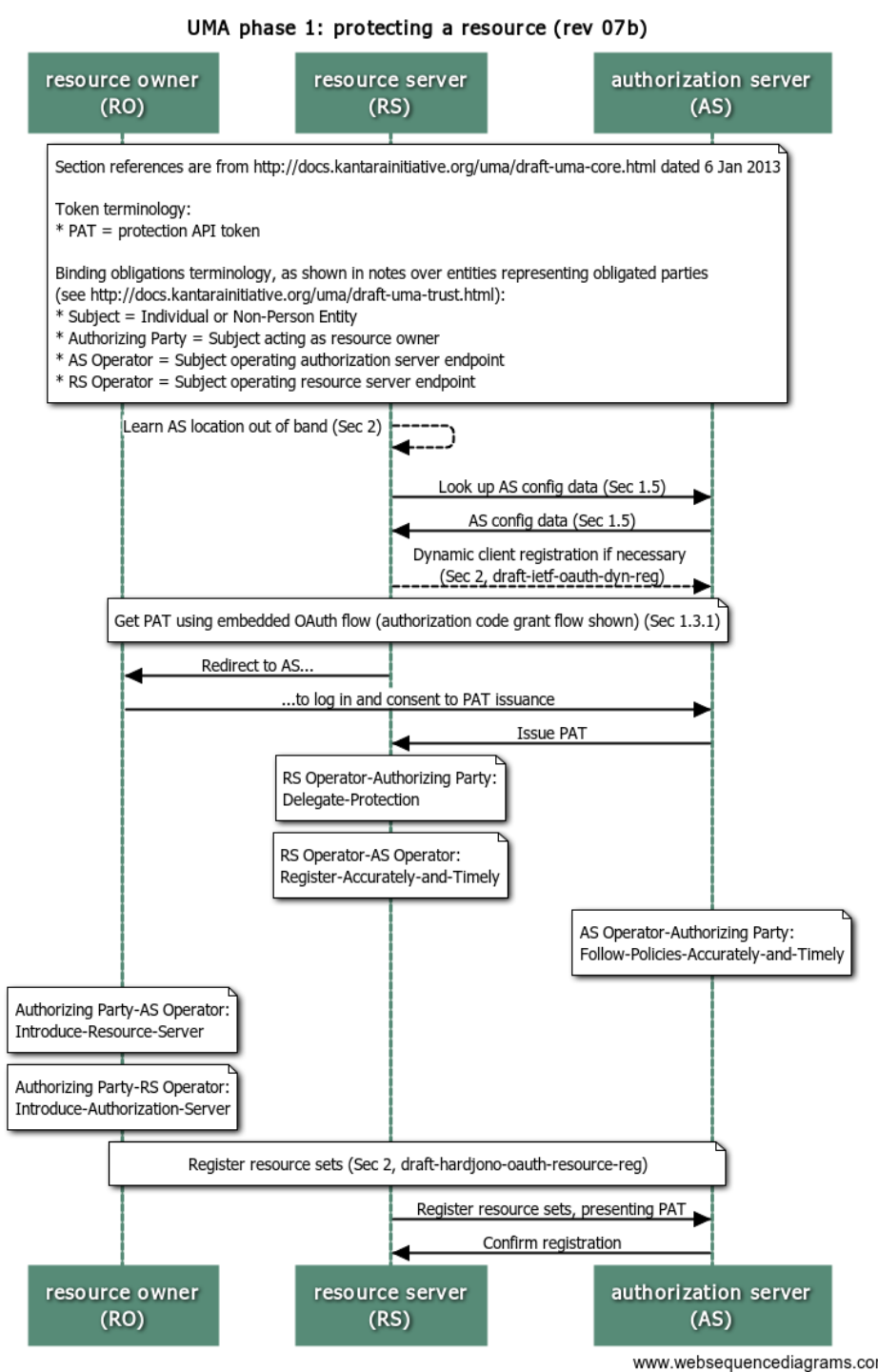
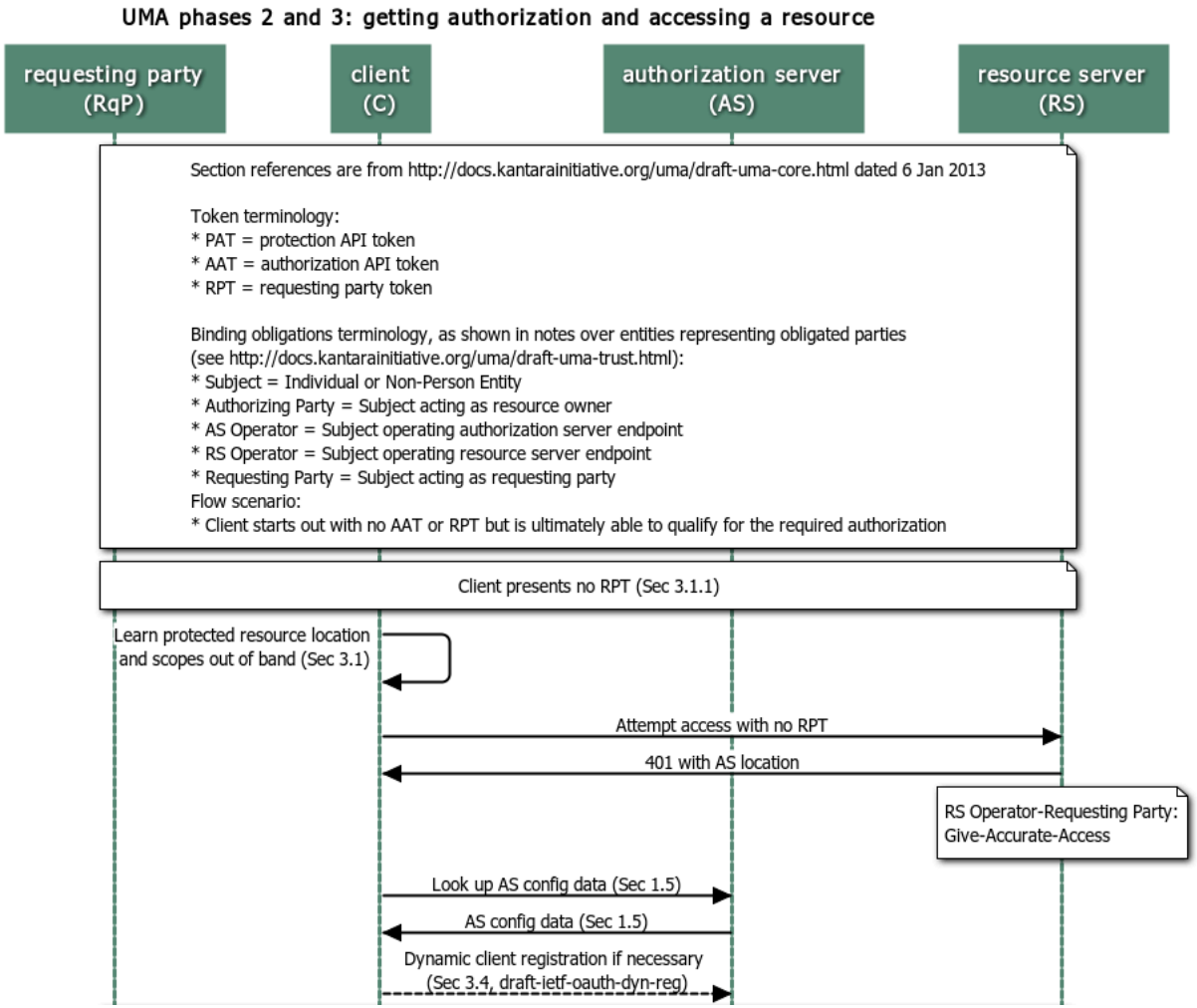
Phase 1: protect a resource



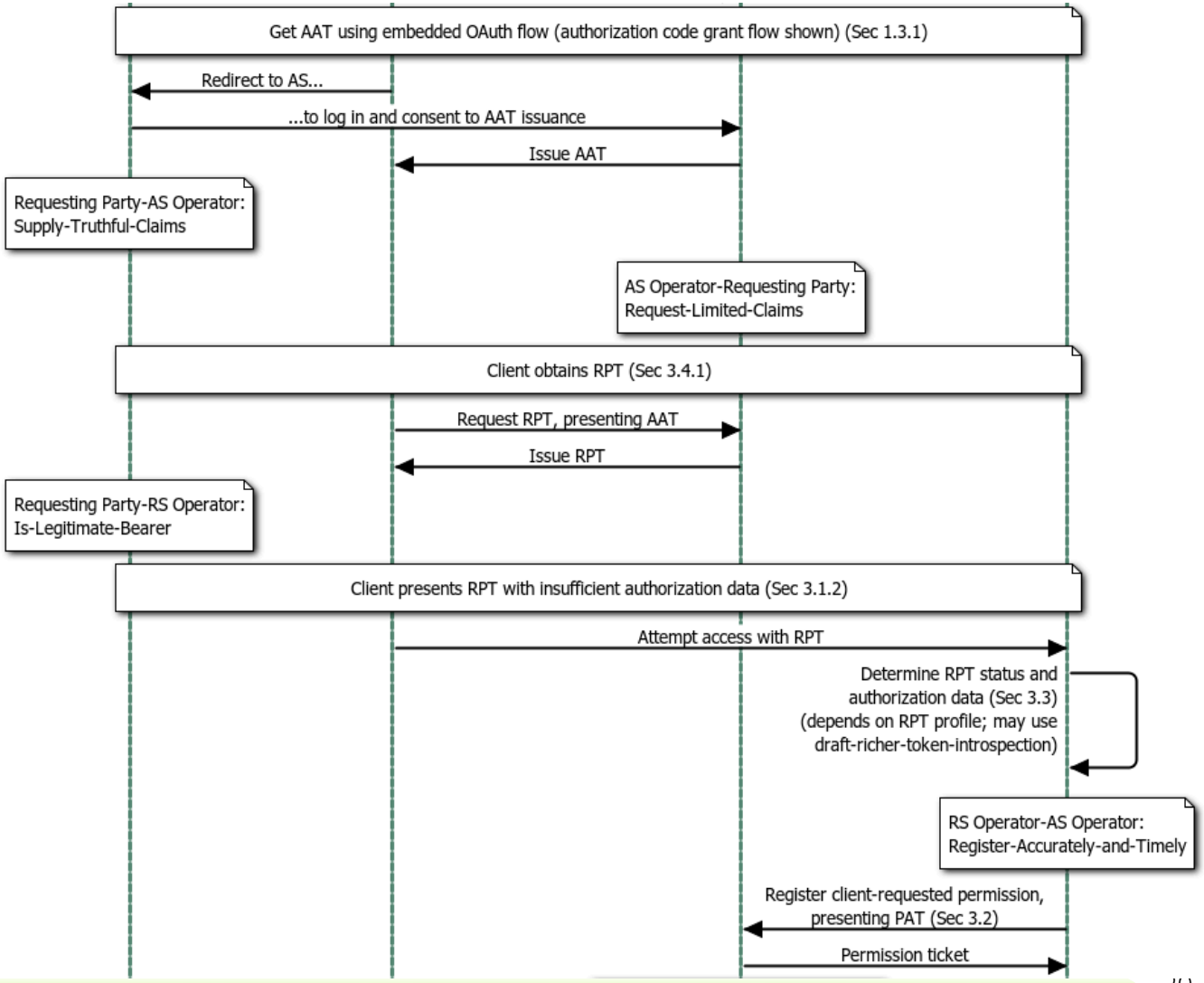
Phases 2 and 3: get authorization and access resource

1 of 3



Phases 2 and 3: get authorization and access resource

2 of 3



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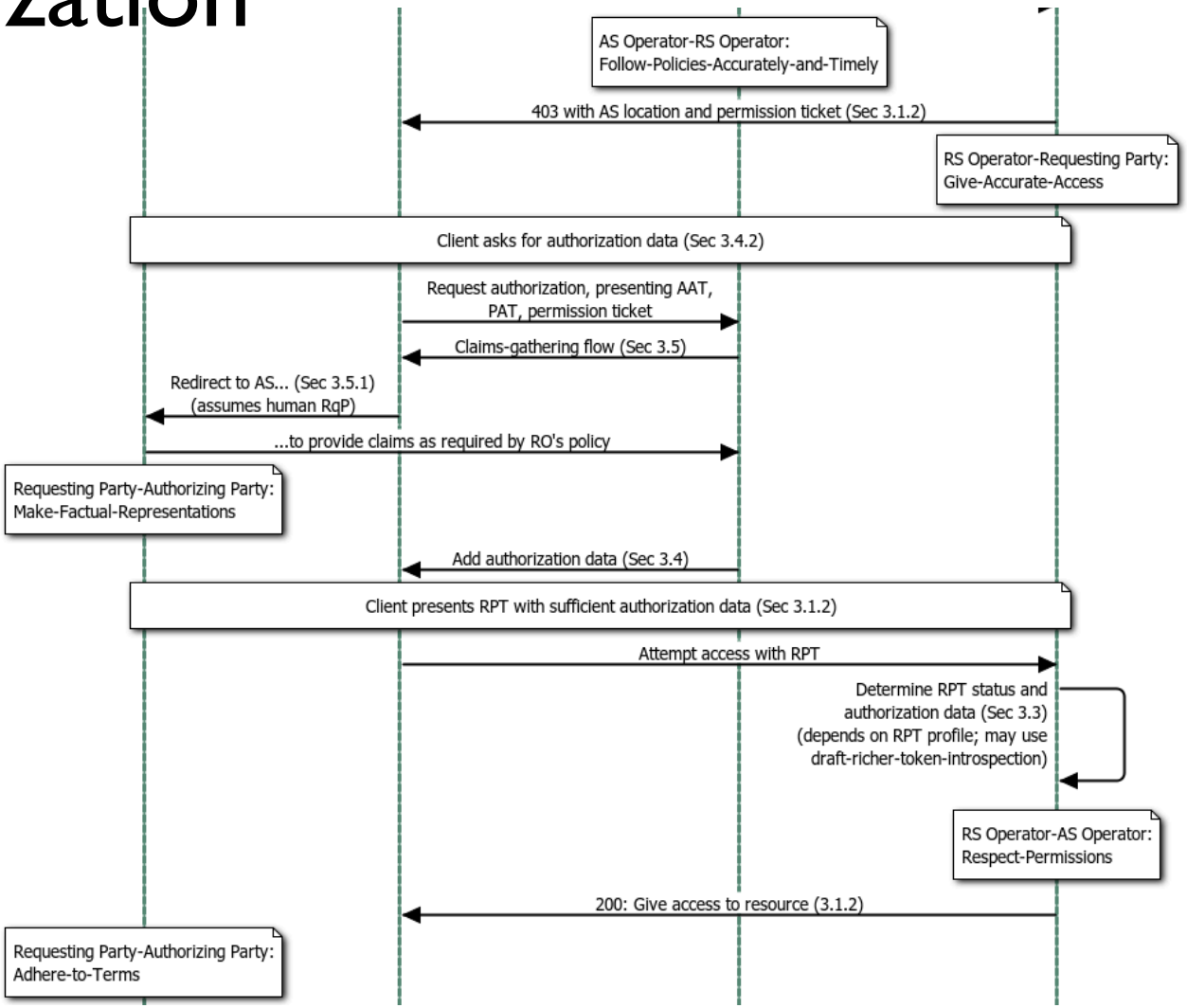
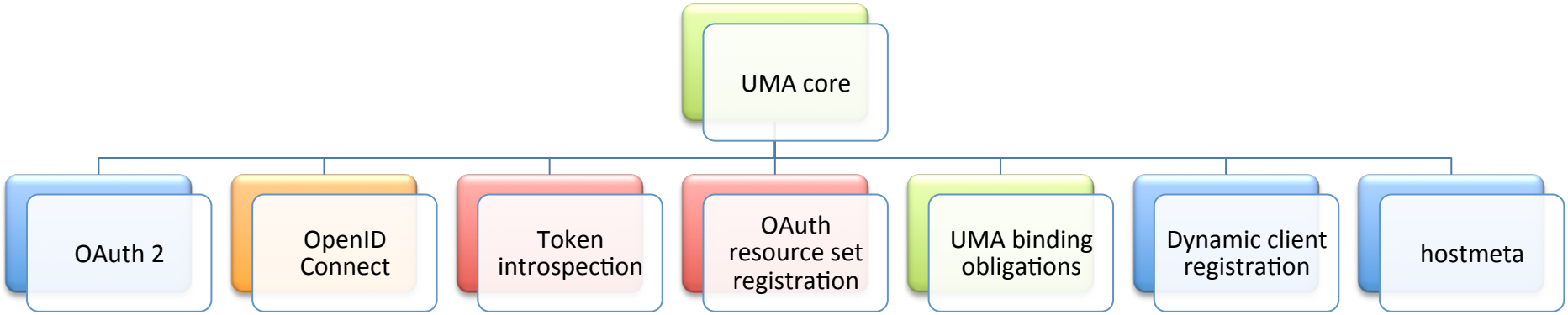


Spec call tree for the UMA profile of OAuth



UMA native spec

Required external component

Optional external component

Individual IETF I-D