

Making the World Safe for User-Managed Access

Eve Maler

PayPal Identity Services

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PayPalTM

Privacy is not about secrecy

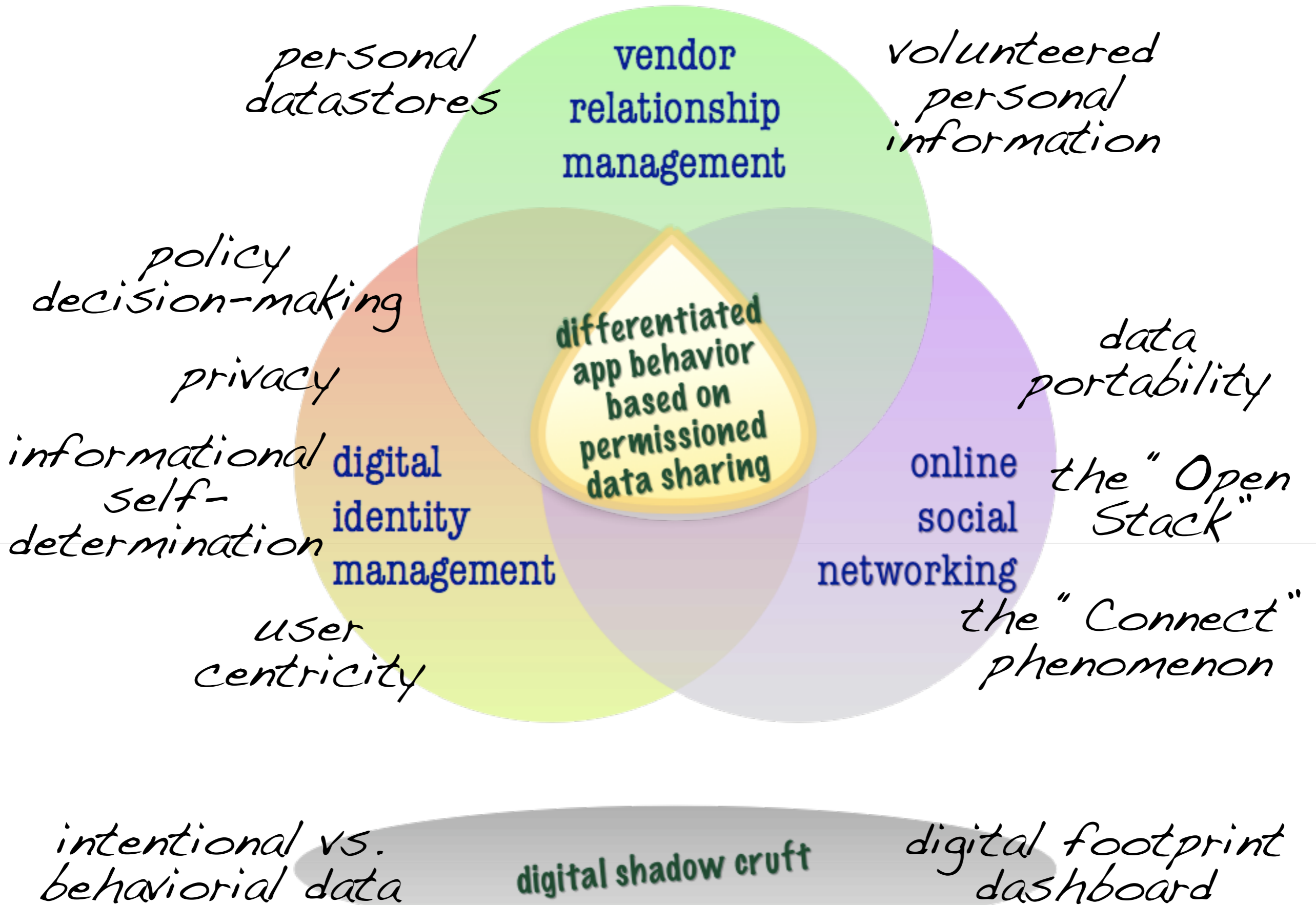


The goal of a flexible, user-centric identity management infrastructure must be to allow the user to quickly determine what information will be revealed to which parties and for what purposes, how trustworthy those parties are and how they will handle the information, and what the consequences of sharing their information will be”

– Ann Cavoukian, Information and Privacy Commissioner of Ontario,
Privacy in the Clouds paper



It's about context, control, choice, and respect



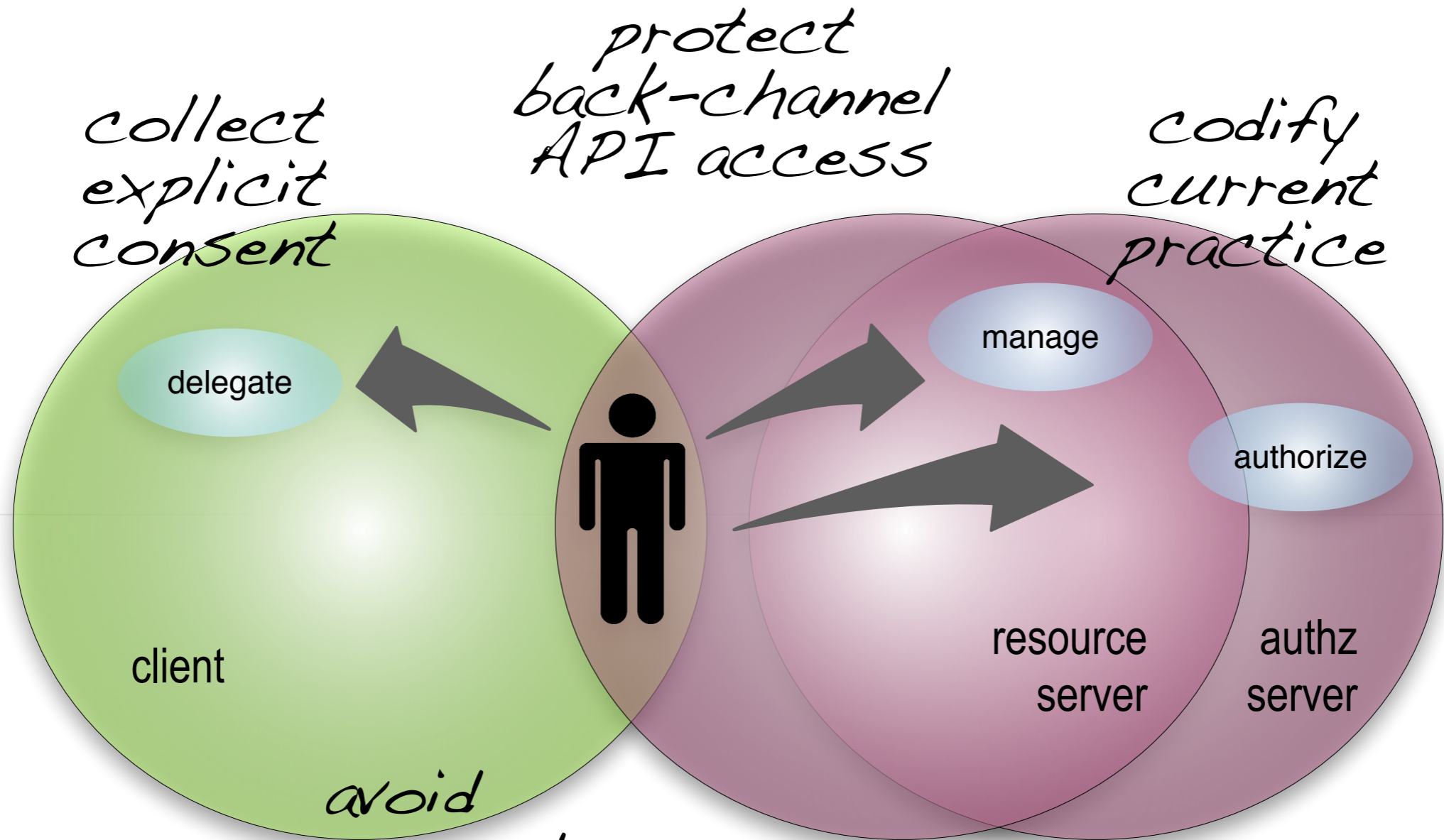


UMA is...



- A web protocol that lets you control authorization of data sharing and service access made on your behalf
- A Work Group of the Kantara Initiative that is free for anyone to **join** and contribute to
- A set of draft specifications that is free for anyone to implement
- Undergoing multiple implementation efforts
- Slated to be contributed to the IETF
- Striving to be simple, OAuth-based, identifier-agnostic, RESTful, modular, generative, and developed rapidly

OAuth themes

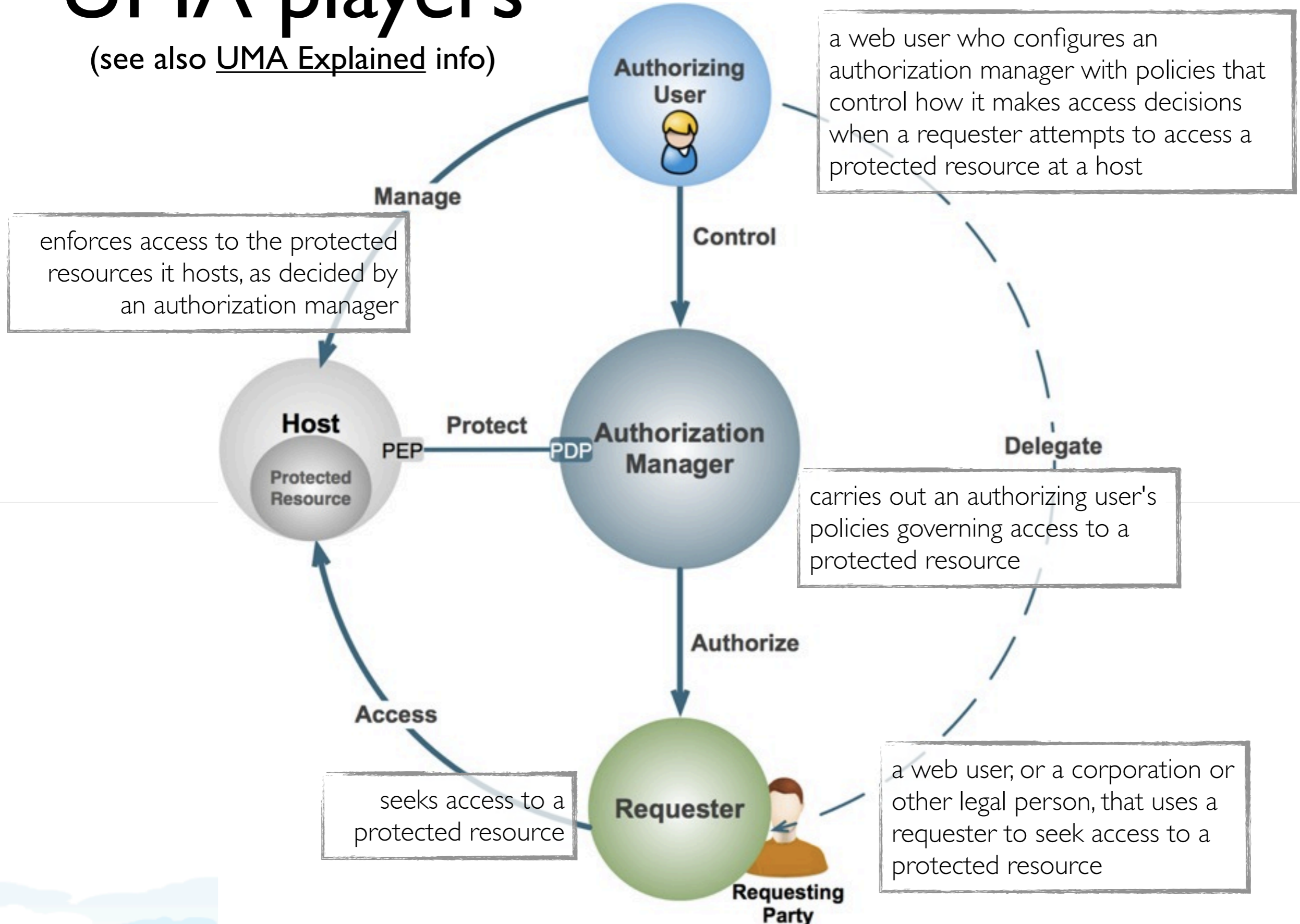


*avoid
password
anti-pattern*

*...substrate for SSO
...optimize for devices
...leverage STS model*

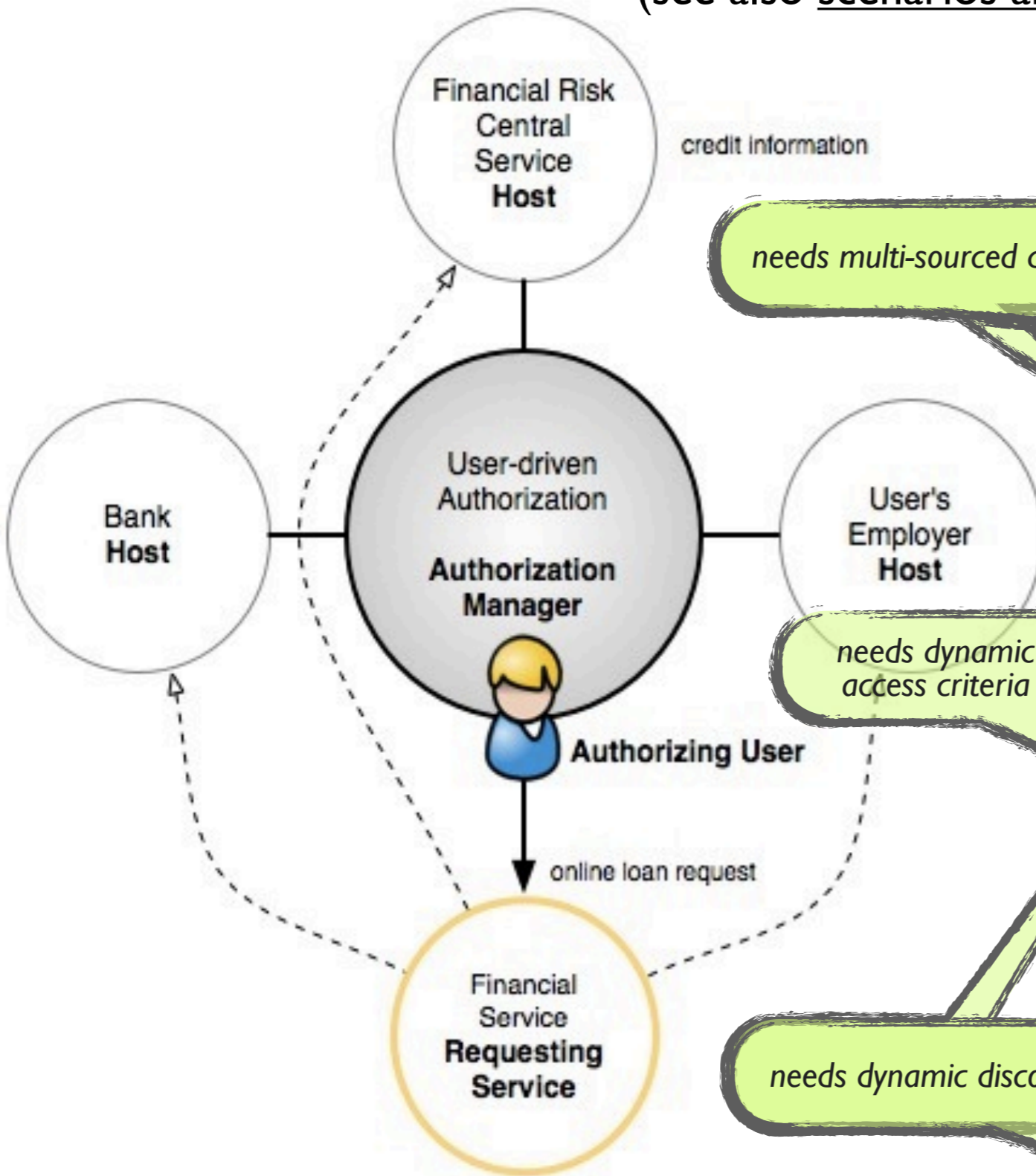
UMA players

(see also [UMA Explained](#) info)



Sample scenarios

(see also scenarios and use cases doc)



- Sharing a calendar with both vendors and friends

person to service

- Packaging resources for e-commerce vendors

person to person

- **Online personal loan request**

third-party authoritative

- Distributed social graphs

- Offering photos if recipient agrees to licensing

social

- CV sharing with future Employers

sensitive and regulated

- Controlling access to health data

Data-sharing relationship management is bigger than protocols

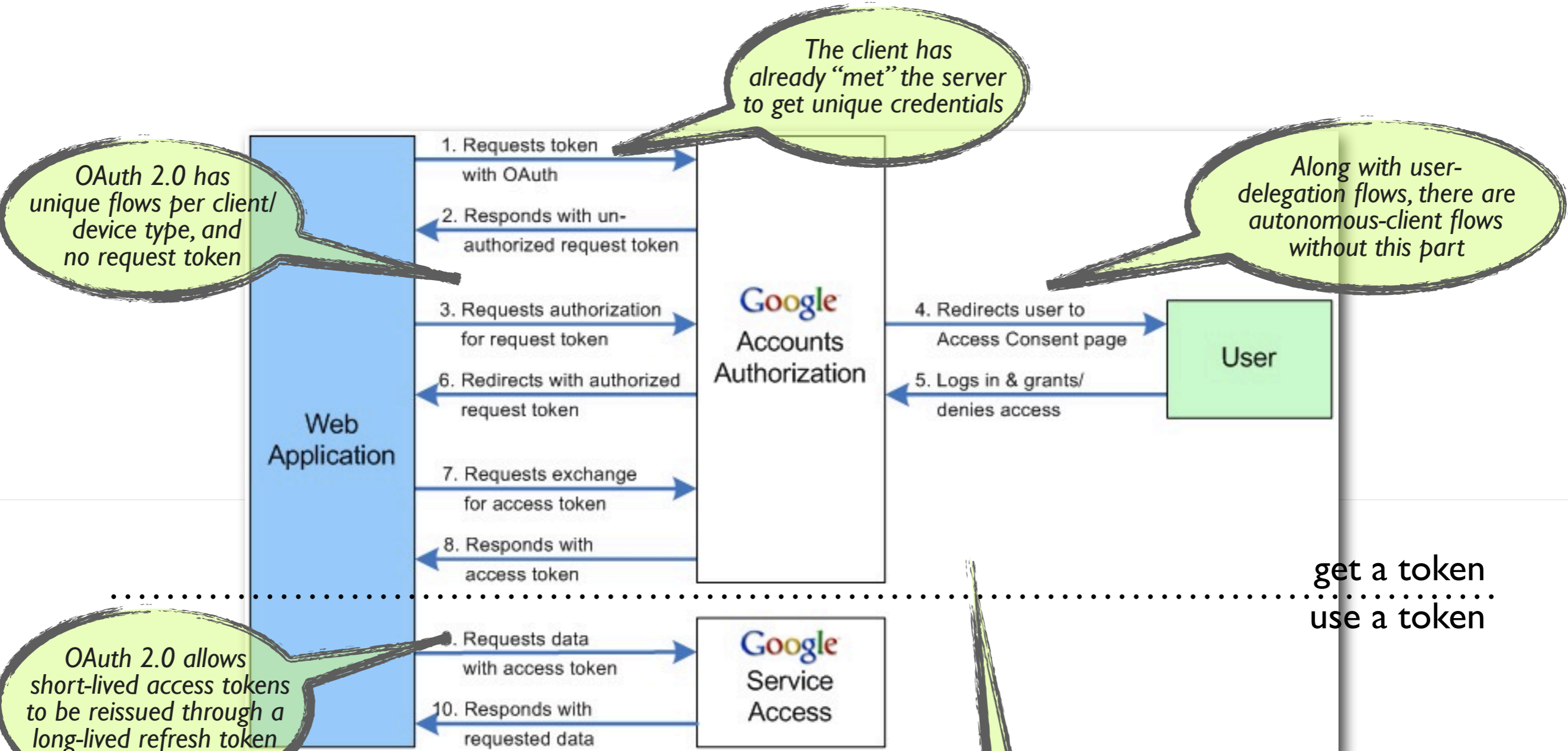
(see also [UX](#) and [implementation](#) pages)

The screenshot shows the 'smartam.' web application interface. At the top, there is a navigation bar with 'Welcome Bob', 'Logout', and 'Help'. Below this are tabs for 'My Applications', 'My Shared Items', 'People I want to share with', and 'Advanced Permissions'. The 'My Shared Items' section lists three items: 'Current CV', 'Last family trip video', and 'My classmates party photo album'. A detailed view of the 'My Shared Item' section shows the 'My classmates party photo album' with its URL and location 'Smart Gallery'. A 'Share It!' button is present. Below this, the 'Your current sharing settings' section shows 'Share with my classmates - Photos from my class events'. A yellow 'Shared Items Help' tooltip is displayed, explaining that items are stored at web applications like Smart Gallery and Smart FS, but their sharing settings are defined here at smartam. At the bottom, there are 'Details' and 'Remove' buttons, and the Newcastle University logo.



Student-Managed Access to Online Resources (SMART)

OAuth works roughly like this



The client has already "met" the server to get unique credentials

OAuth 2.0 has unique flows per client/device type, and no request token

Along with user-delegation flows, there are autonomous-client flows without this part

OAuth 2.0 allows short-lived access tokens to be reissued through a long-lived refresh token

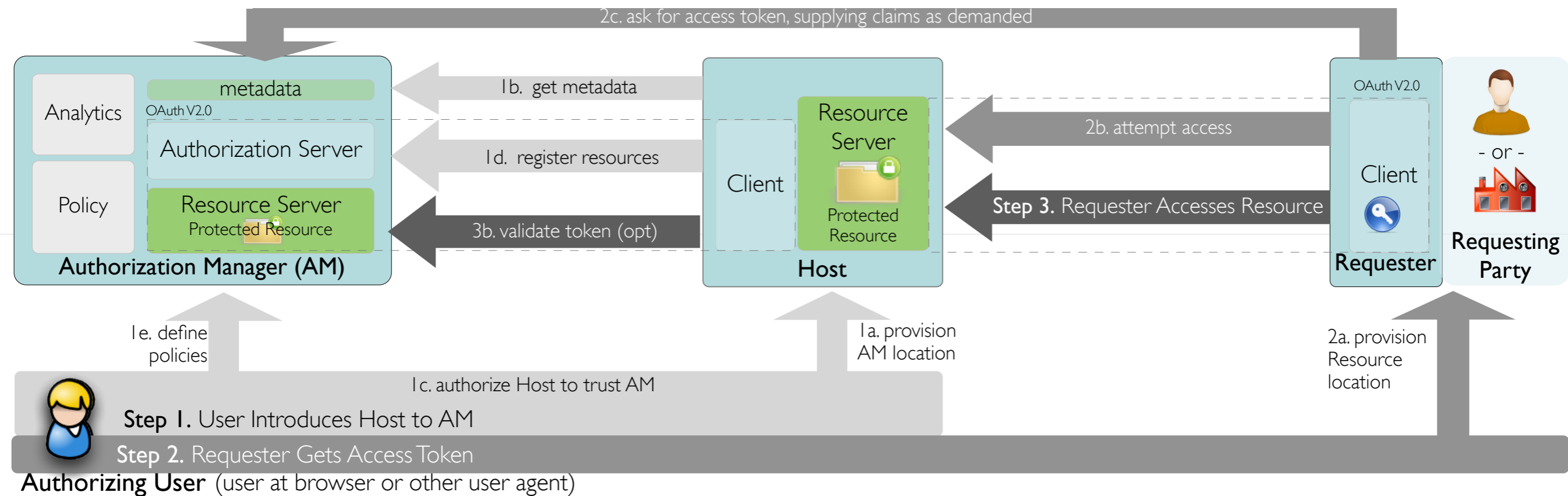
get a token
use a token

OAuth 1.0 relies on signed messages over insecure channels; OAuth2.0 relies on (mostly short-lived) opaque bearer tokens, borne by client over SSL

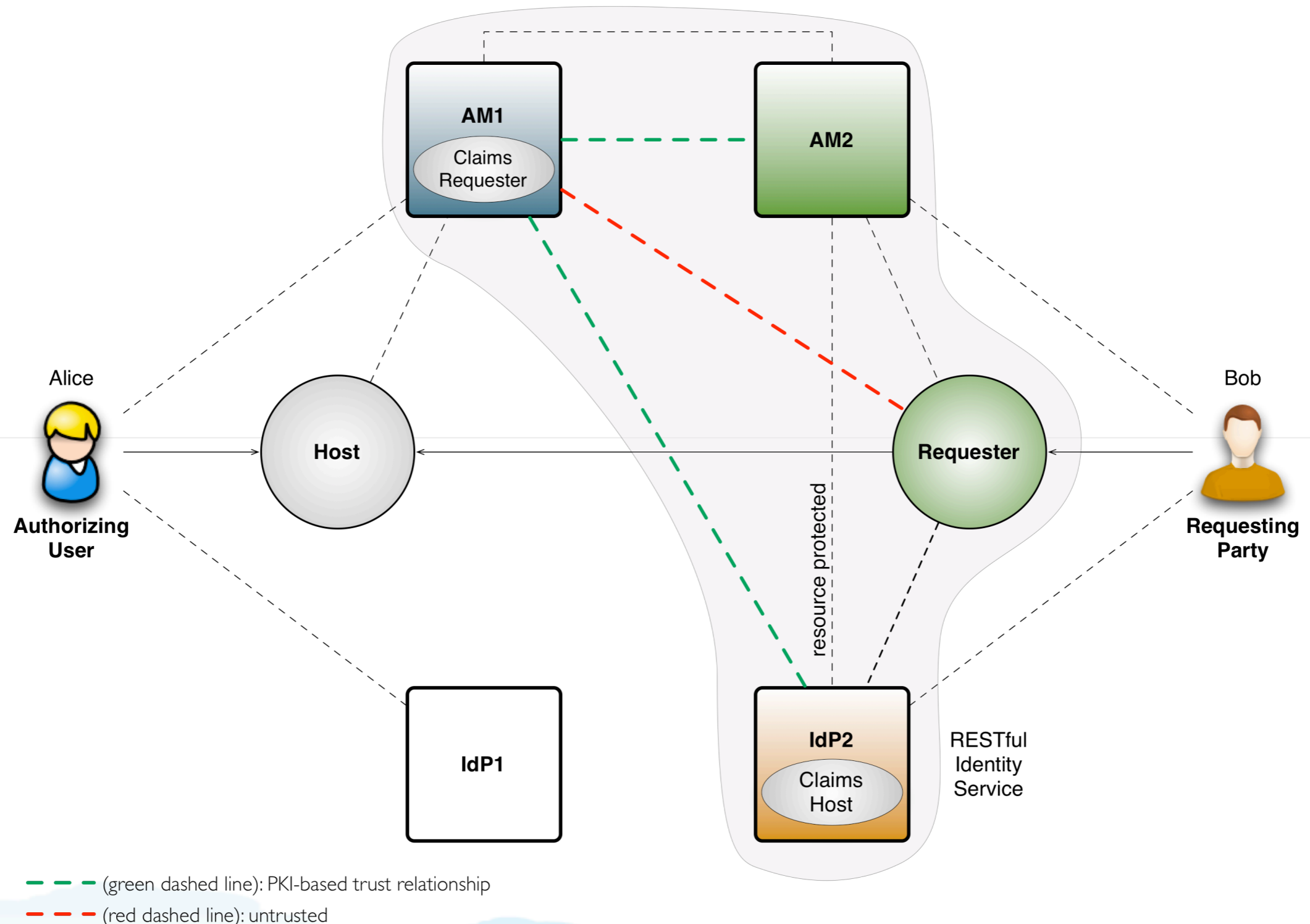
Classic [Google Code](#) diagram

The UMA protocol in a nutshell: trust a token, get a token, use a token

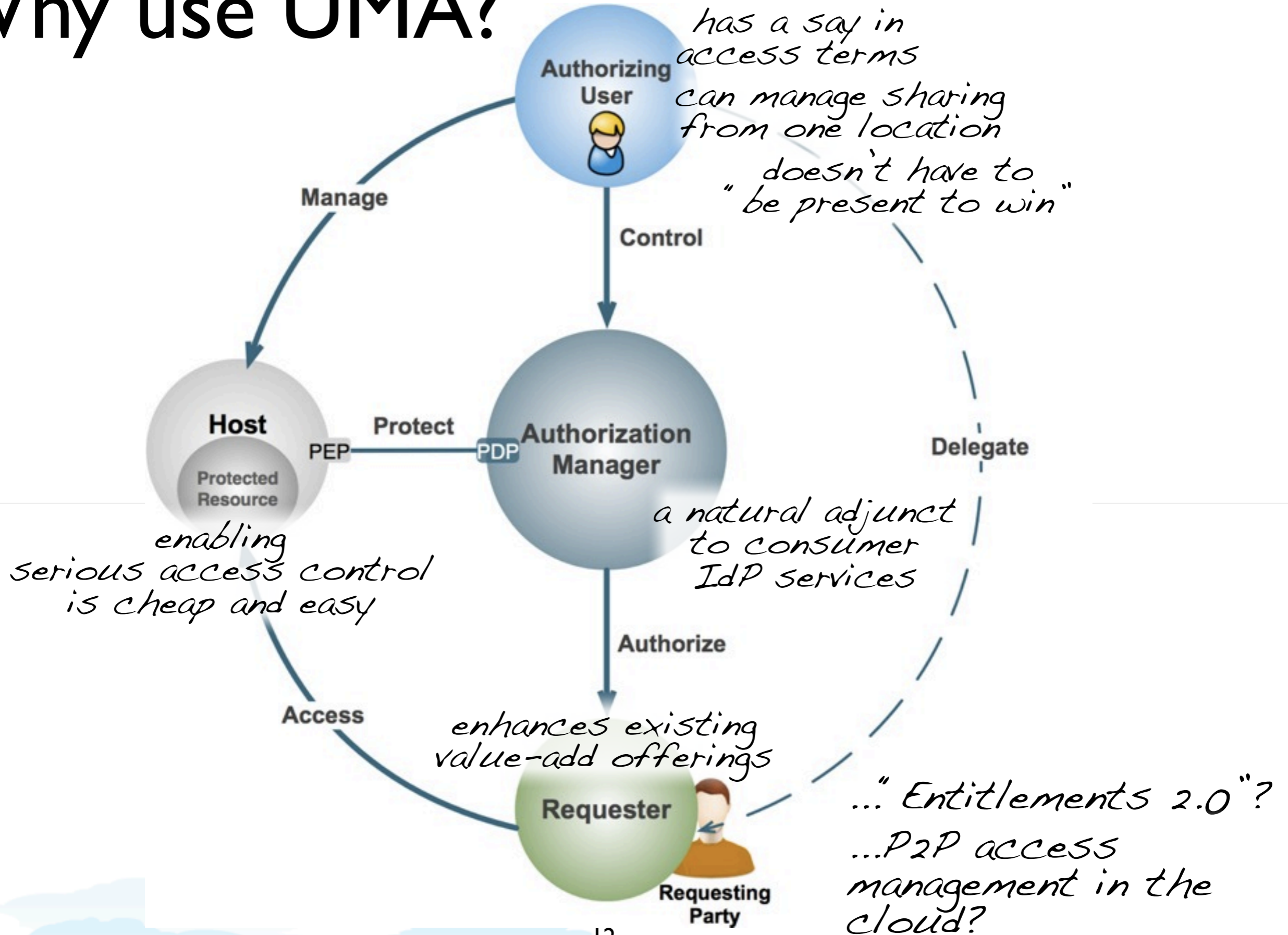
(see also spec [working drafts](#))



A potential claims trust model: make them UMA-protected resources



Why use UMA?



Thanks! Questions? Comments?

@xmlgrri
emaler@paypal.com
<http://tinyurl.com/umawg>

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