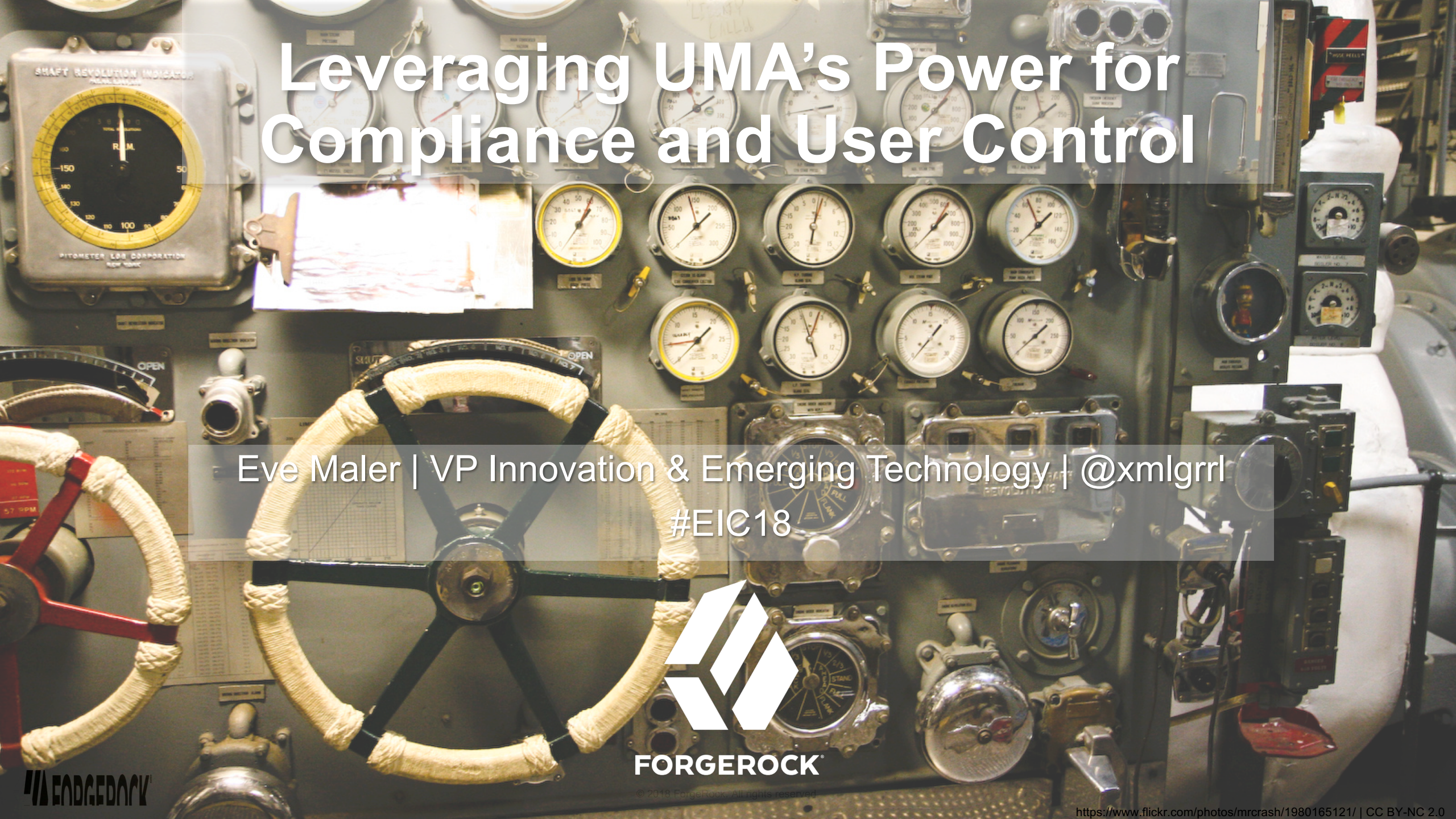
Leveraging UMA's Power for Compliance and User Control



Eve Maler | VP Innovation & Emerging Technology | @xmlgrrl

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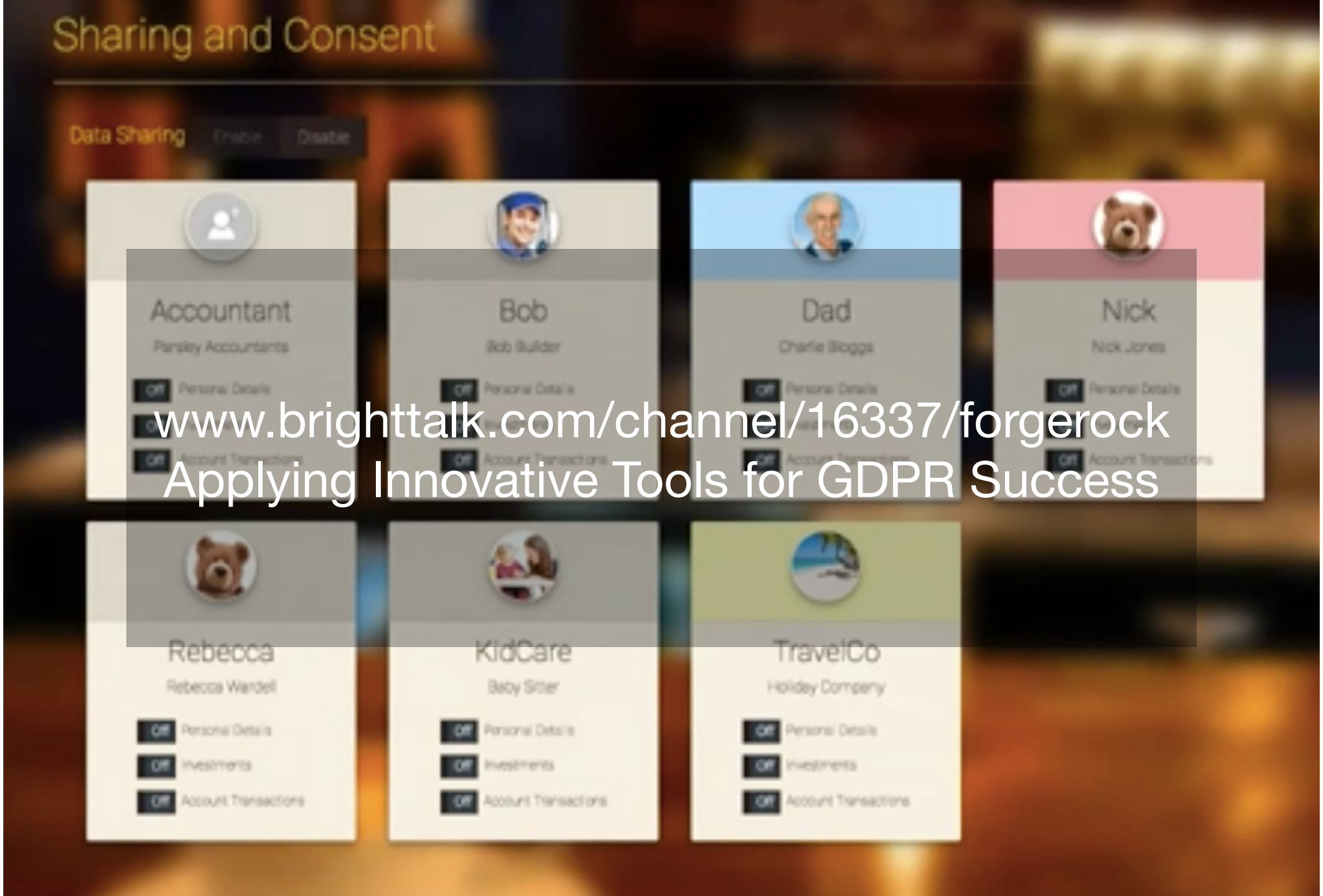
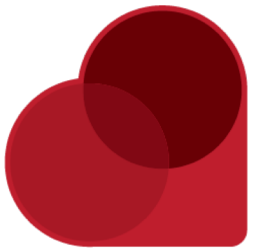

Sharing and Consent
Data Sharing
Enable
Disable
Accountant
Parsley Accountants
Bob
Bob Builder
Dad
Charlie Bloggs
Nick
Nick Jones
Rebecca
Rebecca Wardell
KidCare
Baby Sitter
TravelCo
Holiday Company
www.brighttalk.com/channel/16337/forgerock
Applying Innovative Tools for GDPR Success

Some use cases/ecosystems involving UMA

- Financial
  - Discovering and aggregating UK pension accounts and sharing access to financial advisors
  - Examining suitability for permissioning call center worker access
- IoT
  - “ACE actors” architecture identifies requirements for RqP authorization
- Healthcare
  - Profiled in Health Relationship Trust (HEART) at OpenID Foundation
  - Part of the new OpenMedReady framework, along with HEART



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OAuth, OIDC, and UMA2: breaking it down

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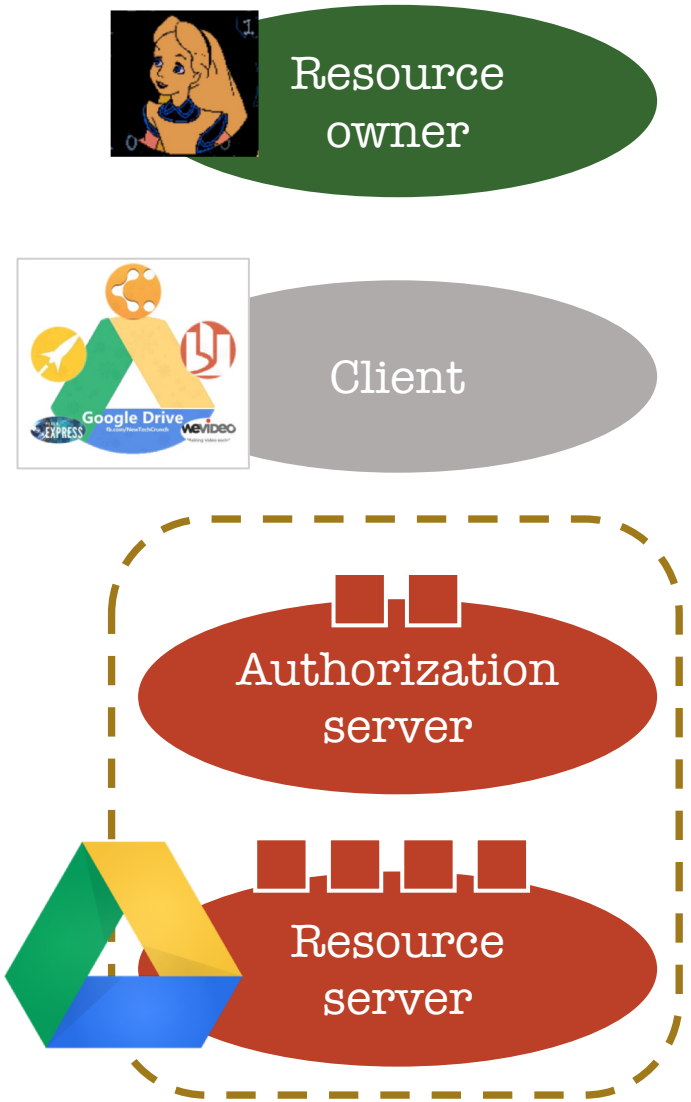
OAuth is for constrained delegation to apps

It has helped to kill the “password anti-pattern”



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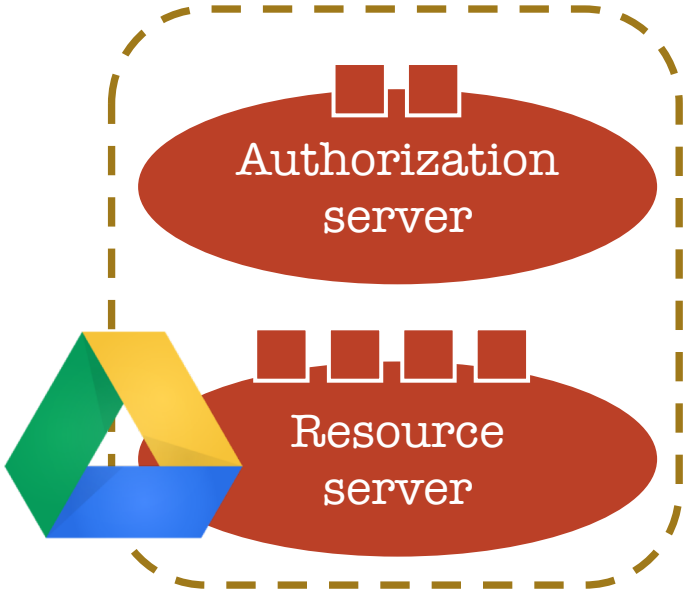
Authorizes (consents) at run time after authenticating, at the AS



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OAuth is for constrained delegation to apps

It has helped to kill the “password anti-pattern”

Resource owner

Authorizes (consents) at run time after authenticating, at the AS

Client

App gets consent based on the API scopes it requested; it has its own identity distinct from the RO’s

Authorization server

Resource server

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Standard OAuth endpoints for authorization and access token issuance

Resource server

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Some number of API endpoints that deliver the data or other value-add

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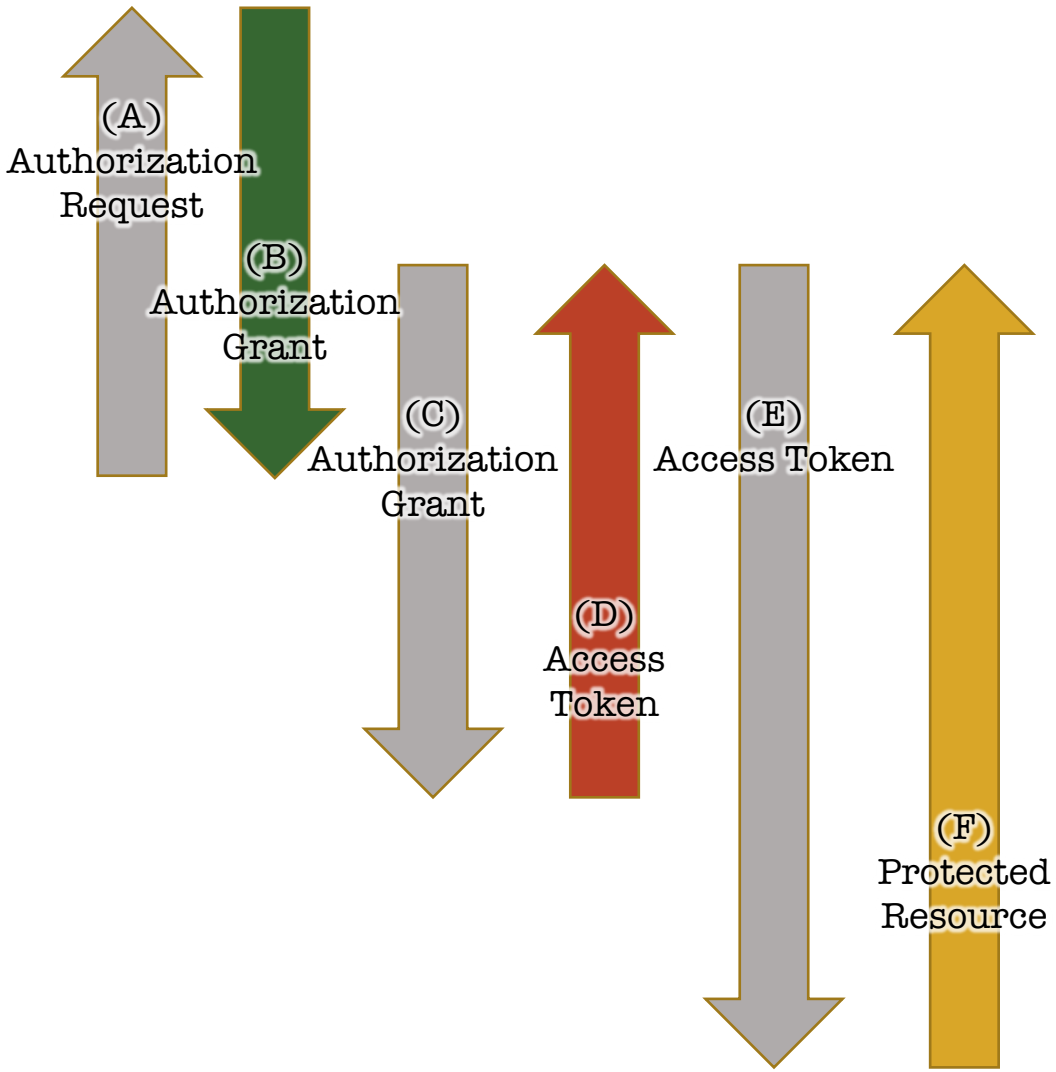

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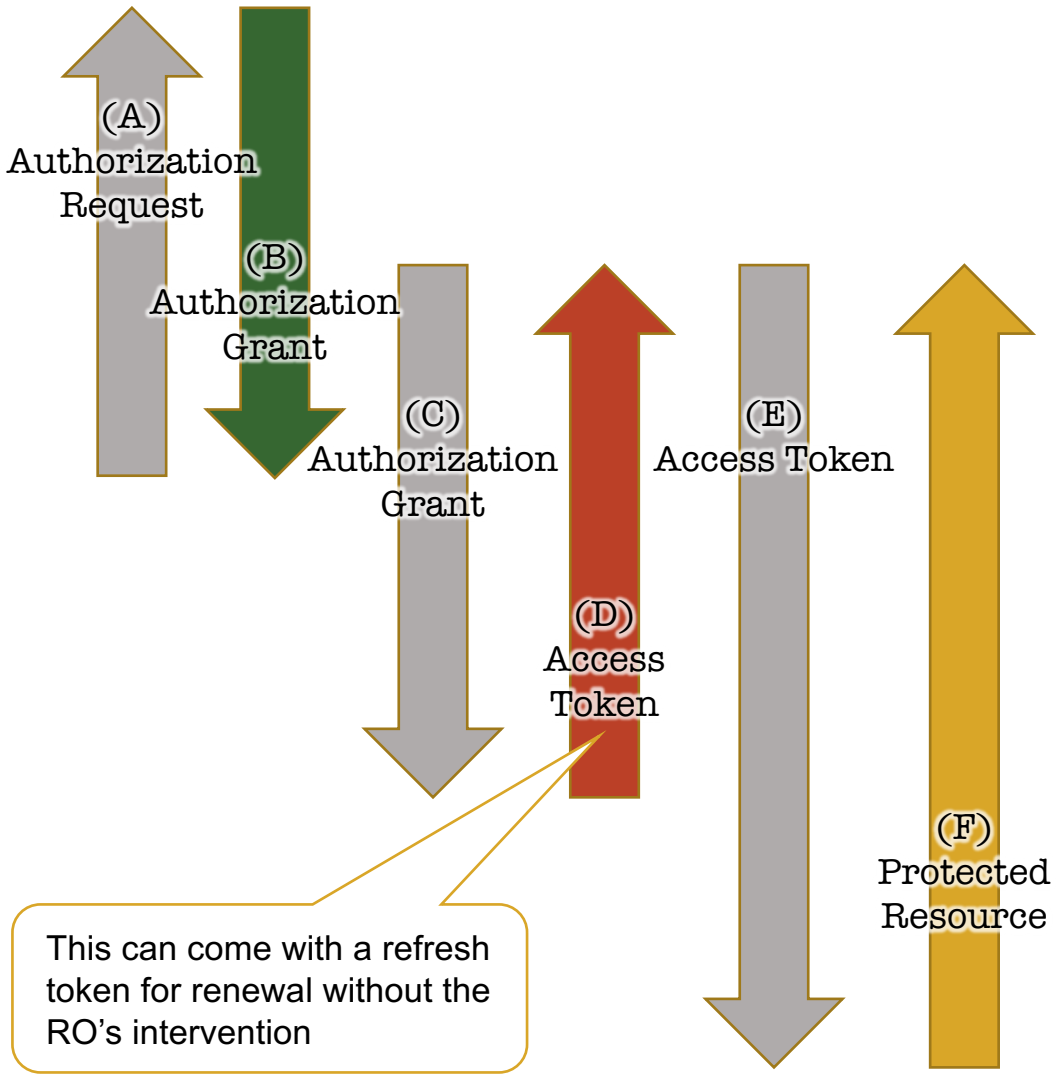

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Standard OAuth endpoints for authorization and access token issuance

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This can come with a refresh token for renewal without the RO’s intervention

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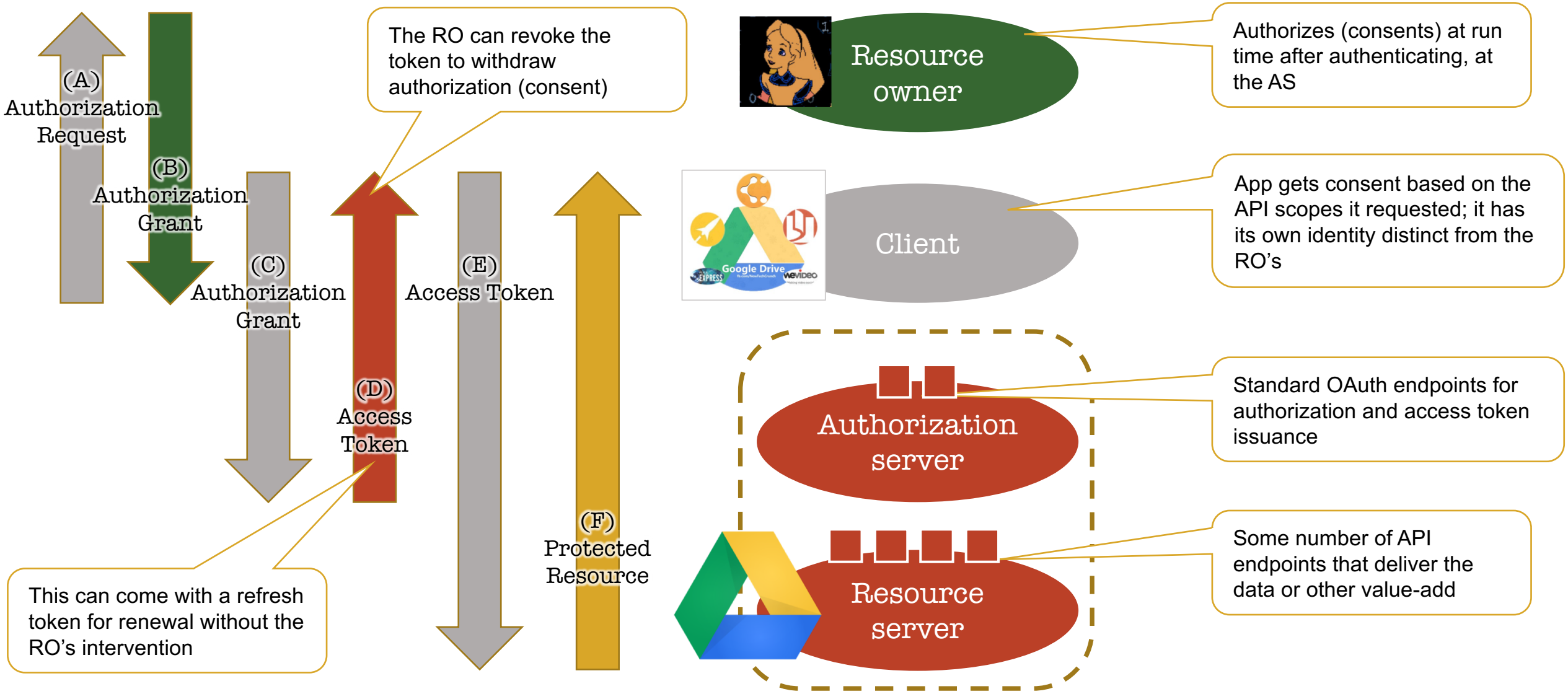

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OpenID Connect does modern-day federation

It is an OAuth-protected identity API, plus a bit more

Resource owner

Client

Authorization server

Resource server

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OpenID Connect does modern-day federation

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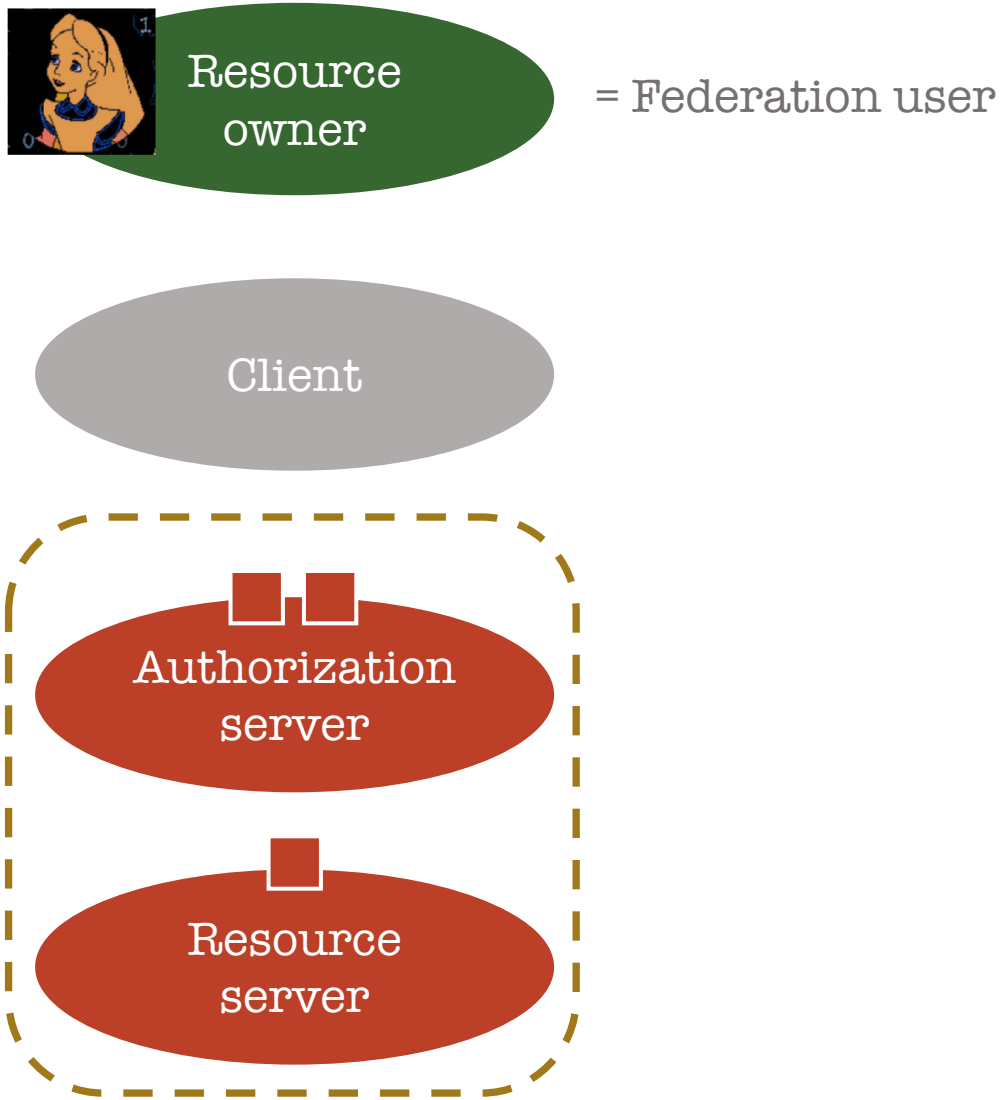

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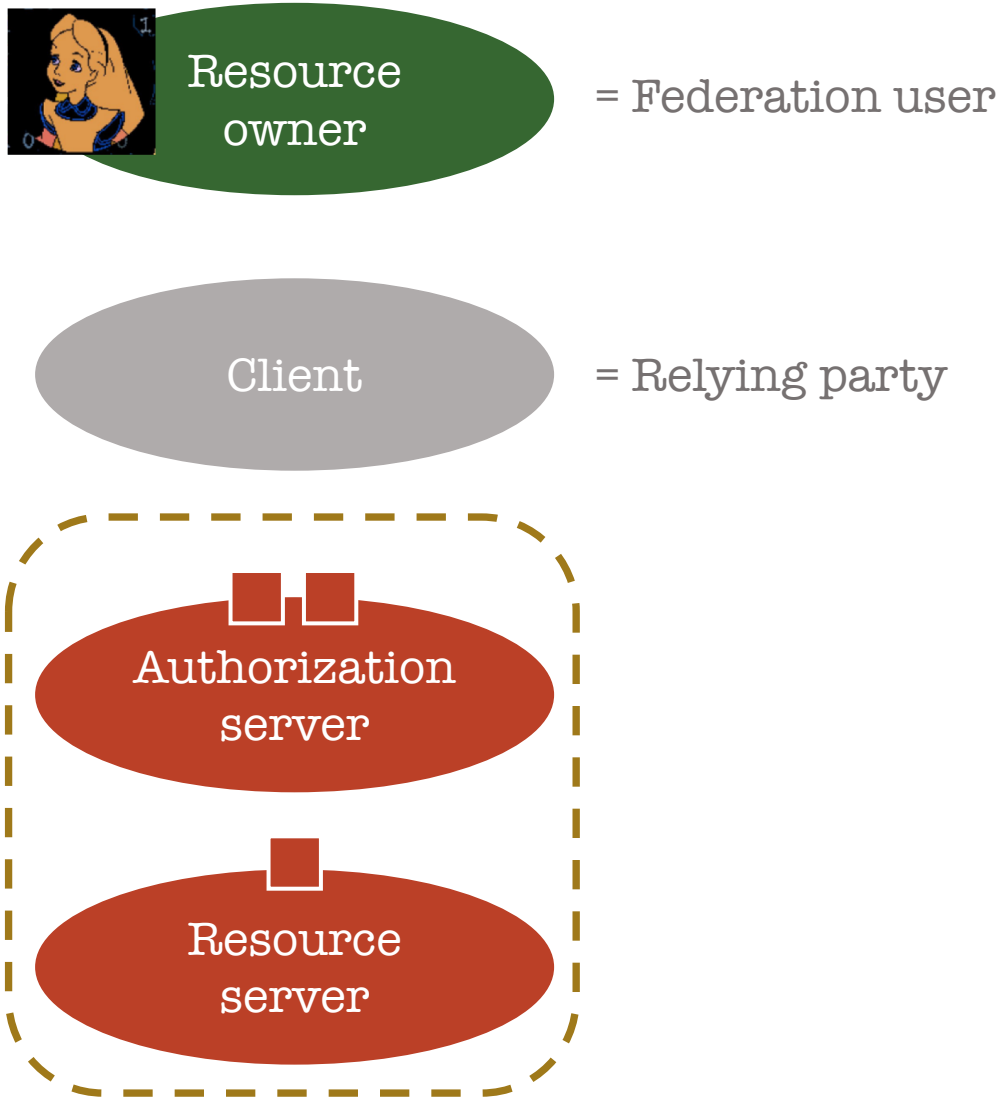

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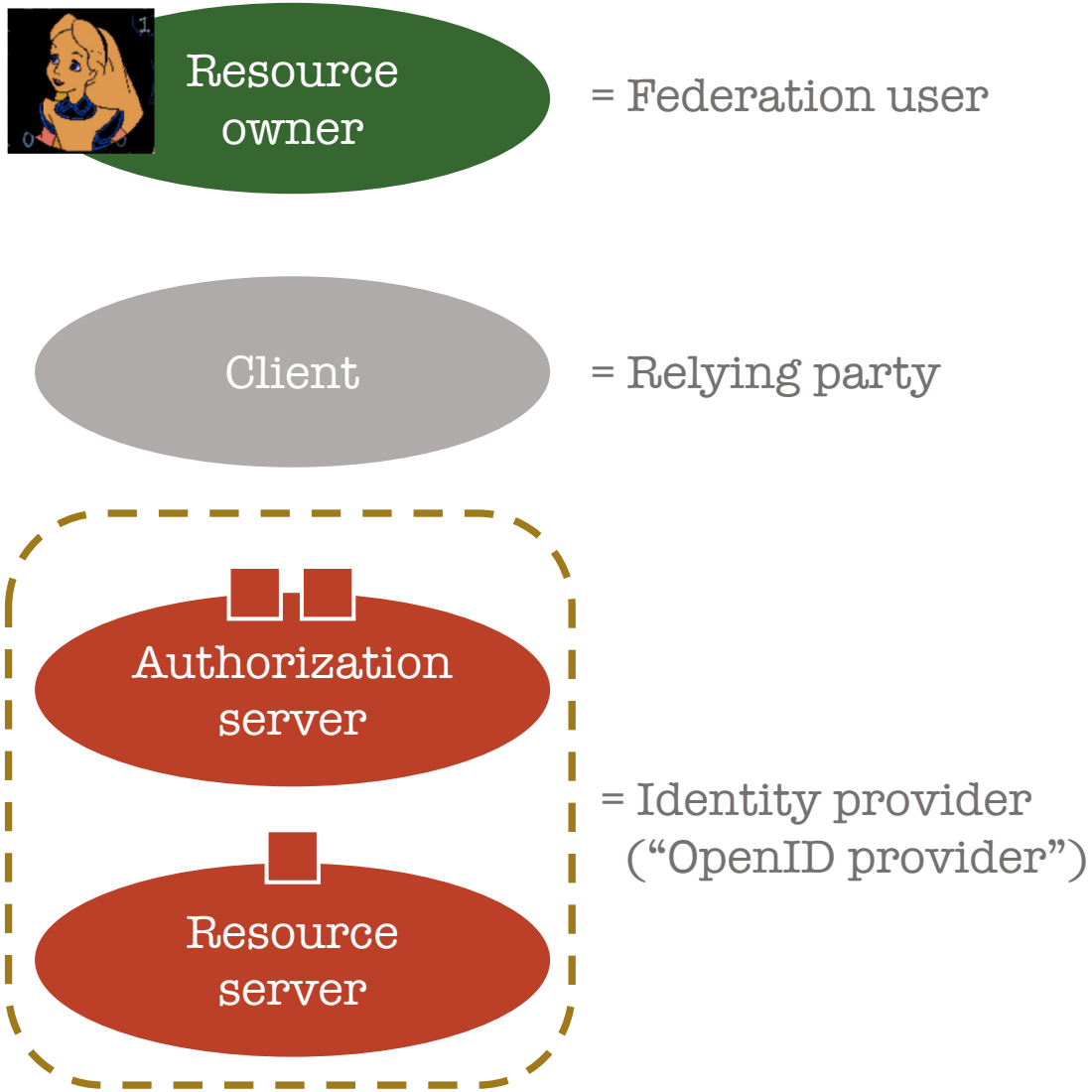

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OpenID Connect does modern-day federation

It is an OAuth-protected identity API, plus a bit more

Resource owner

= Federation user

Client

= Relying party

Token endpoint typically delivers an “ID token” similar to a SAML assertion

Authorization server

Resource server

= Identity provider (“OpenID provider”)

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OpenID Connect does modern-day federation

It is an OAuth-protected identity API, plus a bit more

Resource owner

= Federation user

Client

= Relying party

Token endpoint typically delivers an “ID token” similar to a SAML assertion

Authorization server

Standard UserInfo endpoint can be called with an access token to look up identity claims

Resource server

= Identity provider (“OpenID provider”)

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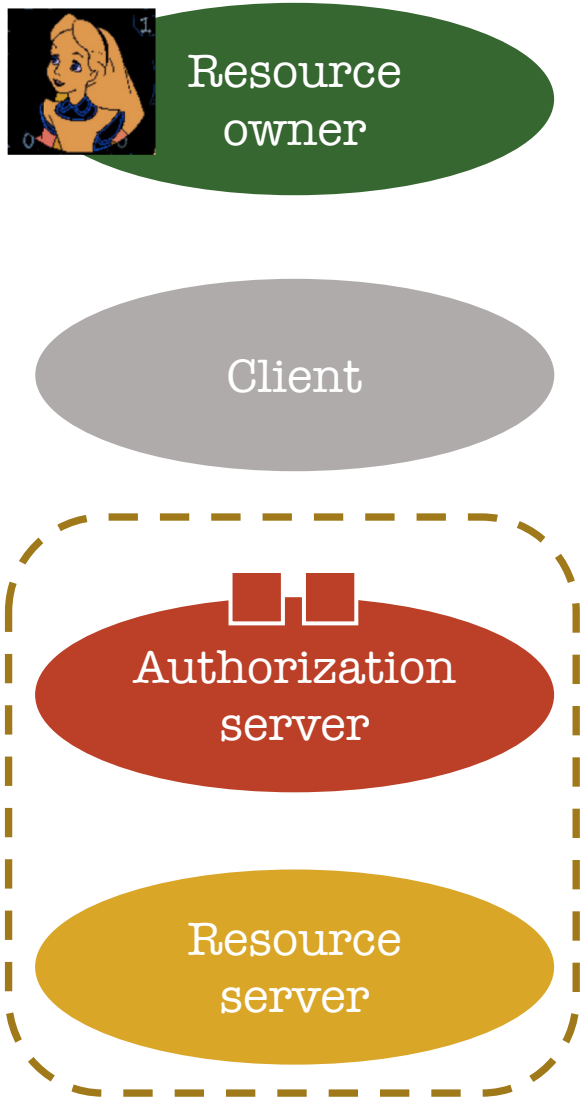
User-Managed Access is for cross-party sharing

UMA brings next-gen delegation and consent to OAuth



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User-Managed Access is for cross-party sharing

UMA brings next-gen delegation and consent to OAuth

Resource owner

Requesting party

Client

Authorization server

Resource server

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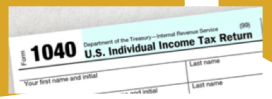

Resource server

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User-Managed Access is for cross-party sharing

UMA brings next-gen delegation and consent to OAuth

Resource owner

Requesting party

At run time

UX

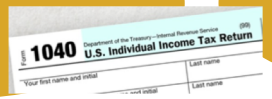
Opt in

Client

Authorization server

Resource server

Resource server



Resource server

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User-Managed Access is for cross-party sharing

UMA brings next-gen delegation and consent to OAuth

Resource owner

Requesting party

Ahead of time

At run time

UX

Share

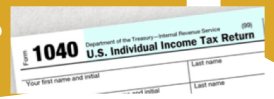
Opt in

Client

Authorization server

Resource server

Resource server



Resource server

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User-Managed Access is for cross-party sharing

UMA brings next-gen delegation and consent to OAuth

Resource owner

Requesting party

Ahead of time

At run time

After the fact

UX

Share

Opt in

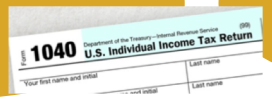
Approve

Client

Authorization server

Resource server

Resource server



Resource server

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User-Managed Access is for cross-party sharing

UMA brings next-gen delegation and consent to OAuth

Resource owner

Requesting party

Ahead of time

Anytime

At run time

After the fact

UX

Share

Monitor

Opt in

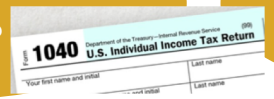
Approve

Client

Authorization server

Resource server

Resource server



Resource server

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User-Managed Access is for cross-party sharing

UMA brings next-gen delegation and consent to OAuth

Resource owner

Requesting party

Ahead of time | Anytime | Anytime | At run time | After the fact

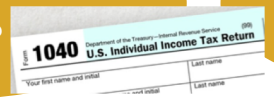
UX: Share | Monitor | Withdraw | Opt in | Approve

Client

Authorization server

Resource server

Resource server



Resource server

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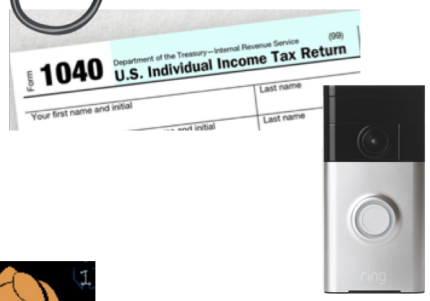
Key benefits of UMA to service providers

True security of delegated access

Scalability of resource permissioning



API-first protection strategy

Fosters control for compliance and trust

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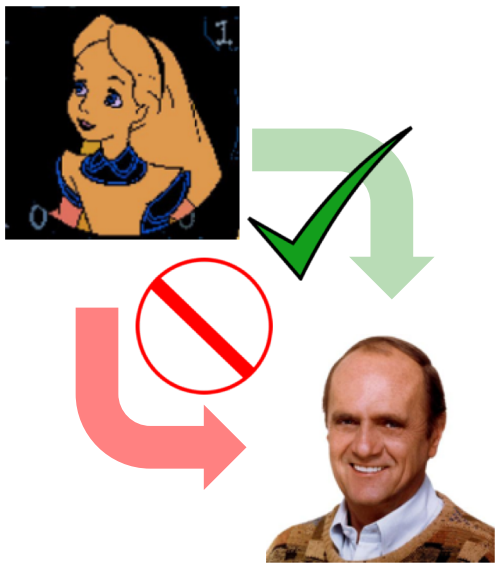
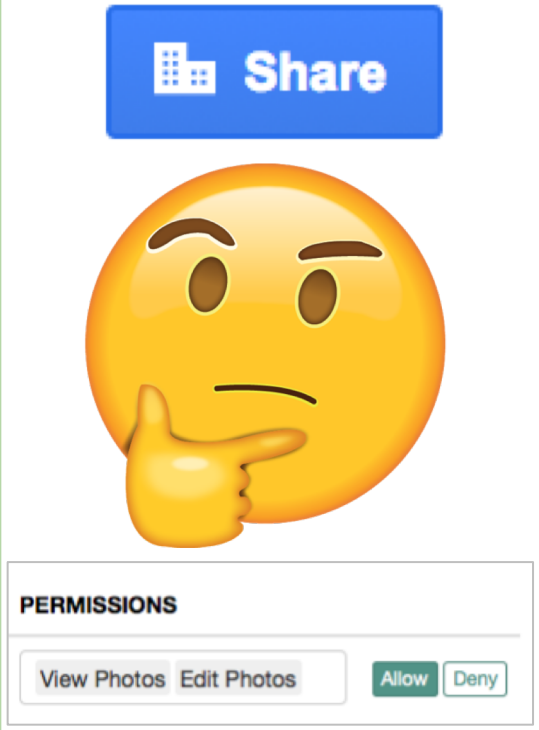
Key benefits of UMA to consumers

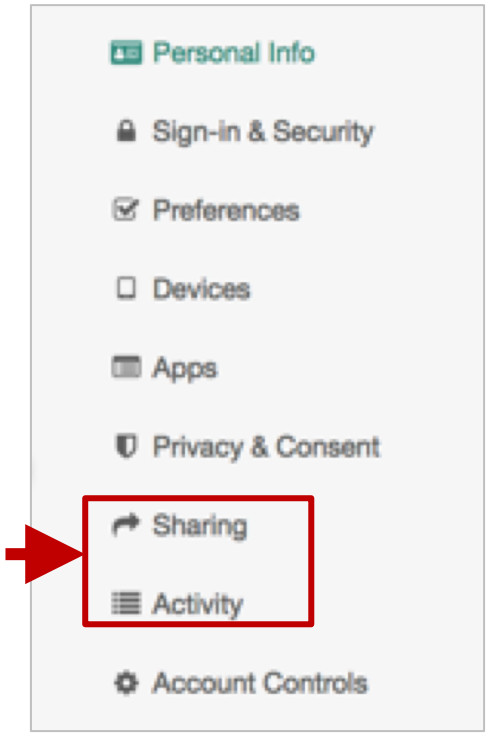
Constrained party-to-party delegation



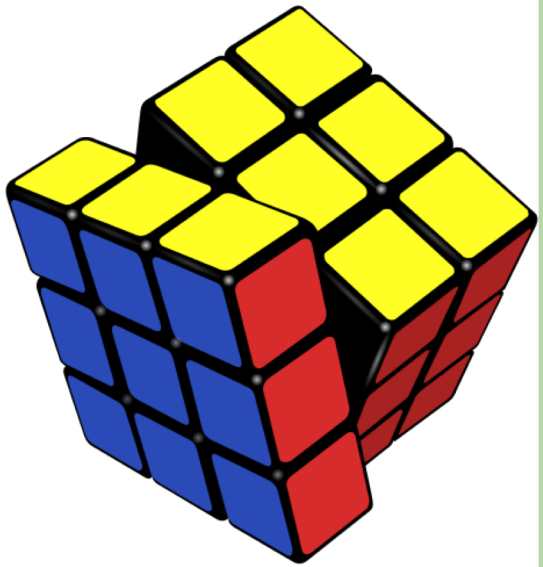
Granting consent without external influence



Centralized monitoring and management



Control of consents at a fine grain



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The BLT sandwich: Business scenarios needing solutions

- A “too-young” individual has a legal guardian managing their digital assets
- That individual starts using digital assets but is too young to consent to their use
- Multiple individuals manage digital assets jointly
- An individual who may become mentally incapacitated or die needs to designate someone else to manage digital assets for them
  - RUFADAA in the US and other laws

Custodians of digital assets – operators of resource servers – are concerned about the liability and risk of these situations too!

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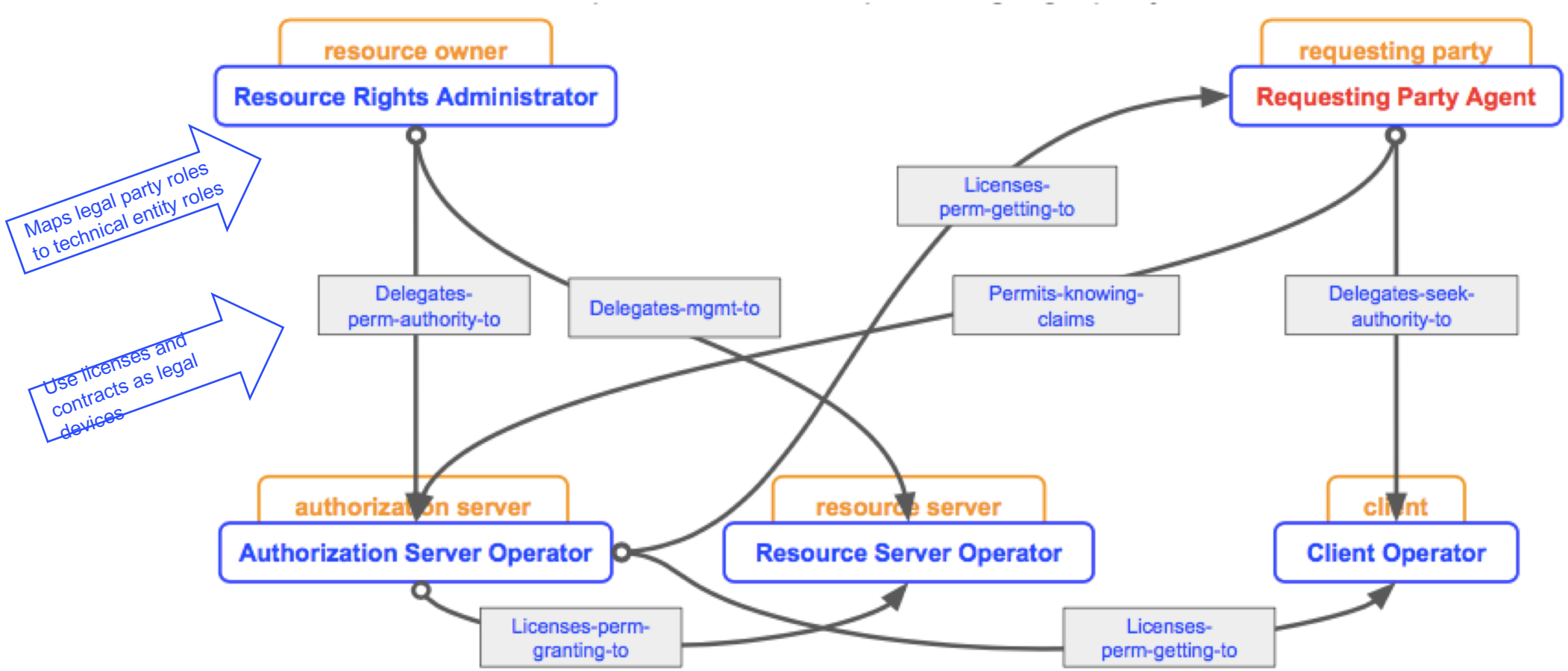
The new UMA business model defines how the UMA protocol enables a license-based model for controlling access rights to personal digital assets



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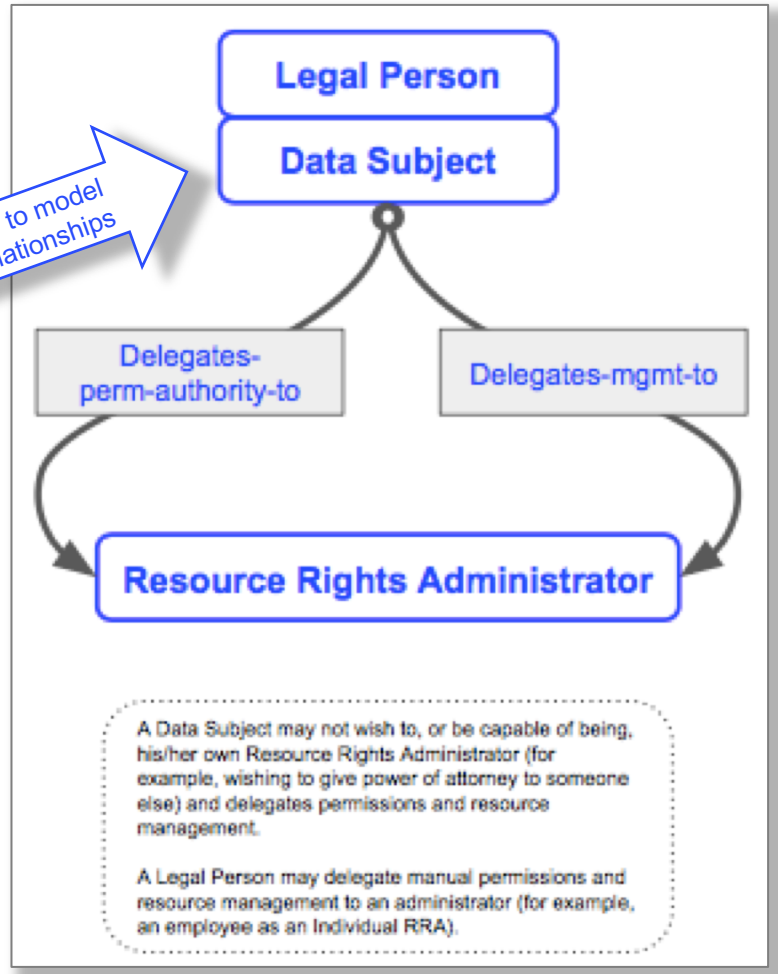

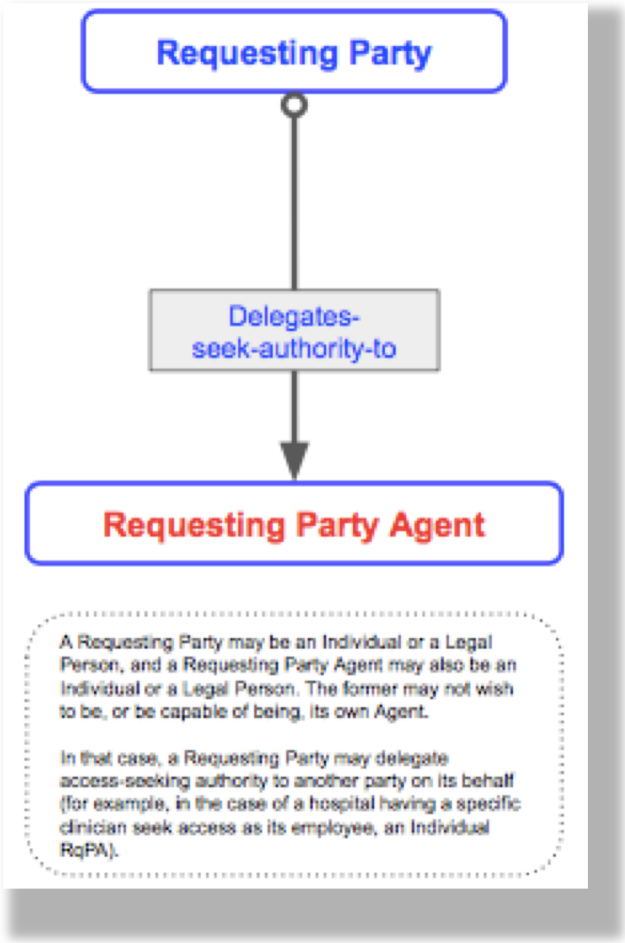

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UMA + identity relationship management

- Model the relationships in, say, a graph database
- Implement each life (relationship) stage in UMA
- We have mapped legal devices to technical artifacts: OAuth/UMA token, policies, etc.
  - These artifacts are auditable
  - UMA assists in unique properties for compliance and user trust
- When a relationship changes, the artifacts can be torn down and new ones can be built up
  - These changes themselves can be made auditable
  - Much like “right to erasure” workflows, they can be hardened

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Thank you!
Questions?

Eve Maler | VP Innovation & Emerging Technology | @xmlgrrl

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