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Distributed OAuth

ietf-oauth-distributed

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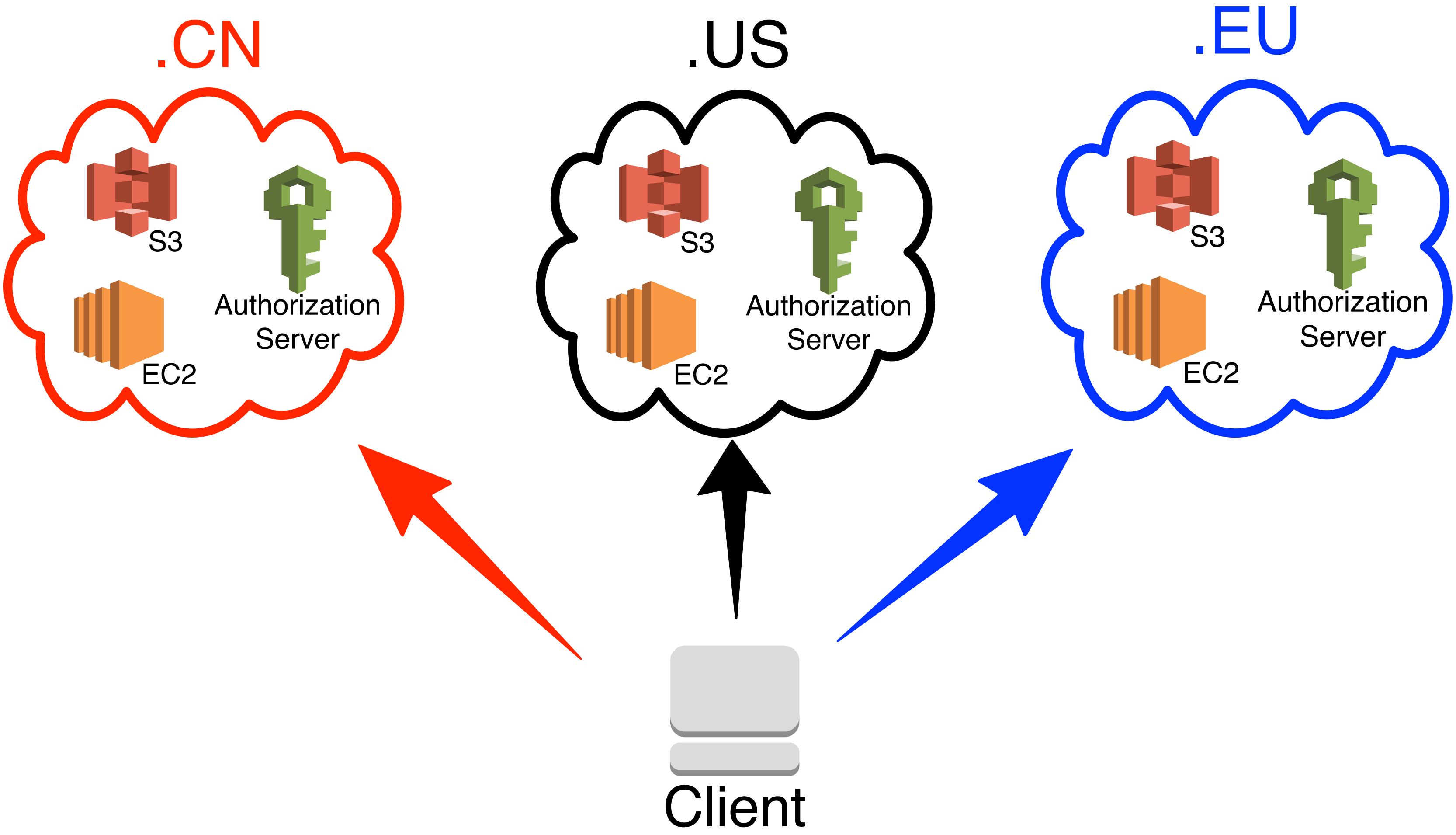
Distributed Oauth Refresher

AS Discovery Problem

- OAuth 2 presumes **static relationship** between authorization server and protected resource that is **known a priori** by client
- Global systems have similar protected resources, that are managed by different authorization servers. Eg. different geopolitical regions.
- Large, distributed systems need to evolve the relationship between authorization servers and protected resources.
- Clients need to **dynamically** learn the authorization server for a given protected resource **at run time**.

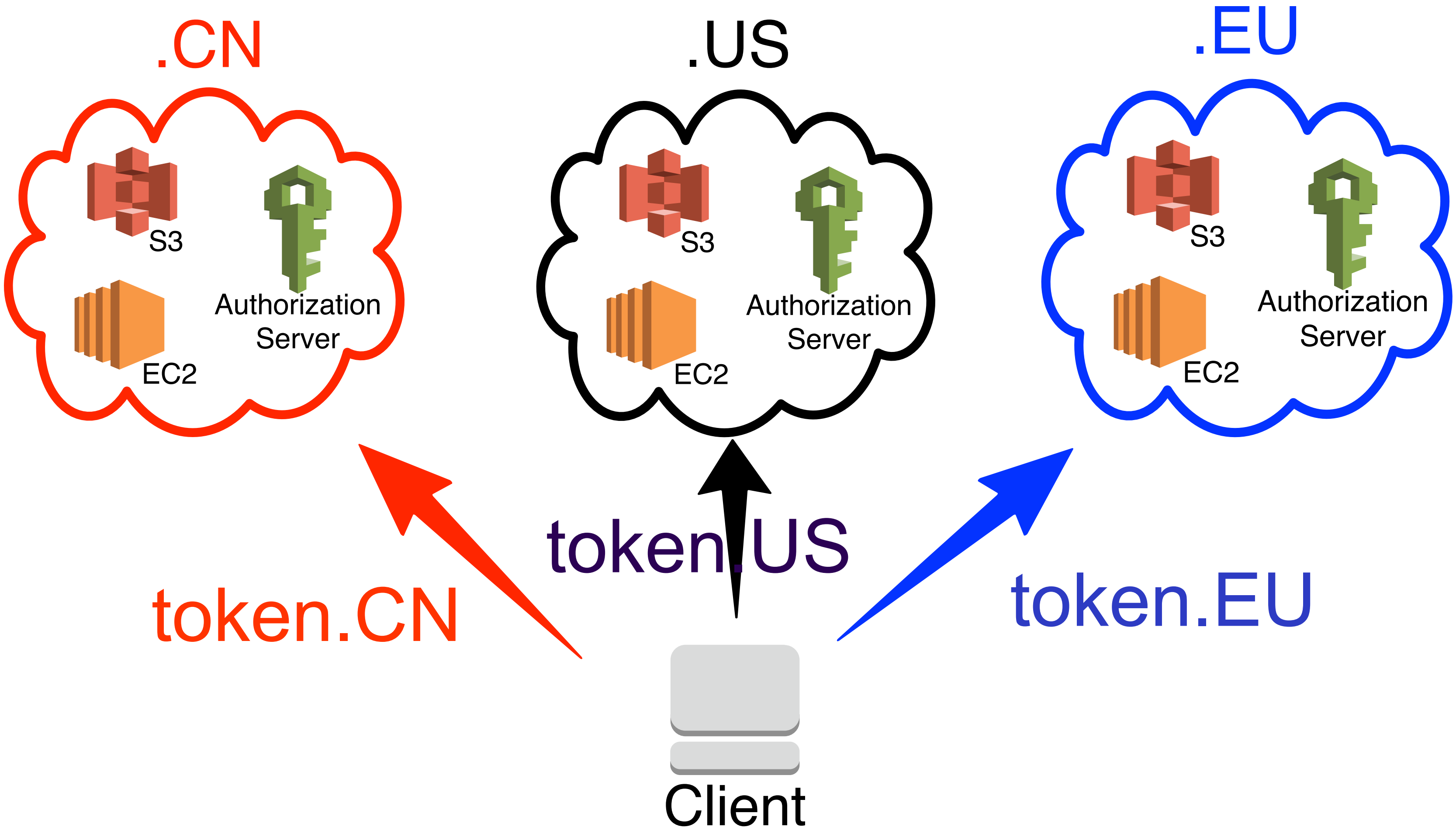
Client Accessing Global Protected Resources



Access Token Reuse

- Client accesses resource server it was not granted access to
- Resource Server reuses client’s access token at another resource server
- Solution:
  - Audience restricted access token

Audience Restricted Access Token



Discovery
HTTP 401 response

- Client discovers Authorization Server
- Client discovers resource identifier

```
HTTP/1.1 401 Unauthorized
    WWW-Authenticate: Bearer ...
    Link: <https://api.example.com/resource">;
       rel="resource_uri",
 <https://as.example.com/.well-known/oauth-authorization-server>;
       rel="oauth_server_metadata_uri”
```

- Client confirms resource URI in host and path

Access Token Request

- Client includes resource identifier in request per ietf-draft-resource-indicators

grant_type=client_credentials

&scope=example_scope
&resource=**https**%3A%2F%2F**api.example.com**%2F**resource**

Access Token Includes Resource Identifier

- If JWT, “aud” includes resource identifier
- Resource server checks resource identifier is in access token

Ietf-draft-distributed-oauth-01

- Reference ietf-draft-resource-indicators for resource identifiers

Distributed Oauth

Open Issues

Discovery

- Link headers vs www-authenticate header
- Existing libraries use www-authenticate

  - extra attributes allowed per RFC 6750
- Consensus?

AS discovery

- Currently full URL
- Change to just issuer value, and discovery per 8414
- Consensus?

Resource URL / URI

- Confusion on relationship
- ‘resource identifier’

  ietf-draft-resource-indicators
- ‘resource URL’

  URL client is calling

Next Steps

- Update draft