



Secure Dimensions GmbH
Holistic Geosecurity

GeoXACML Codesprint Demo

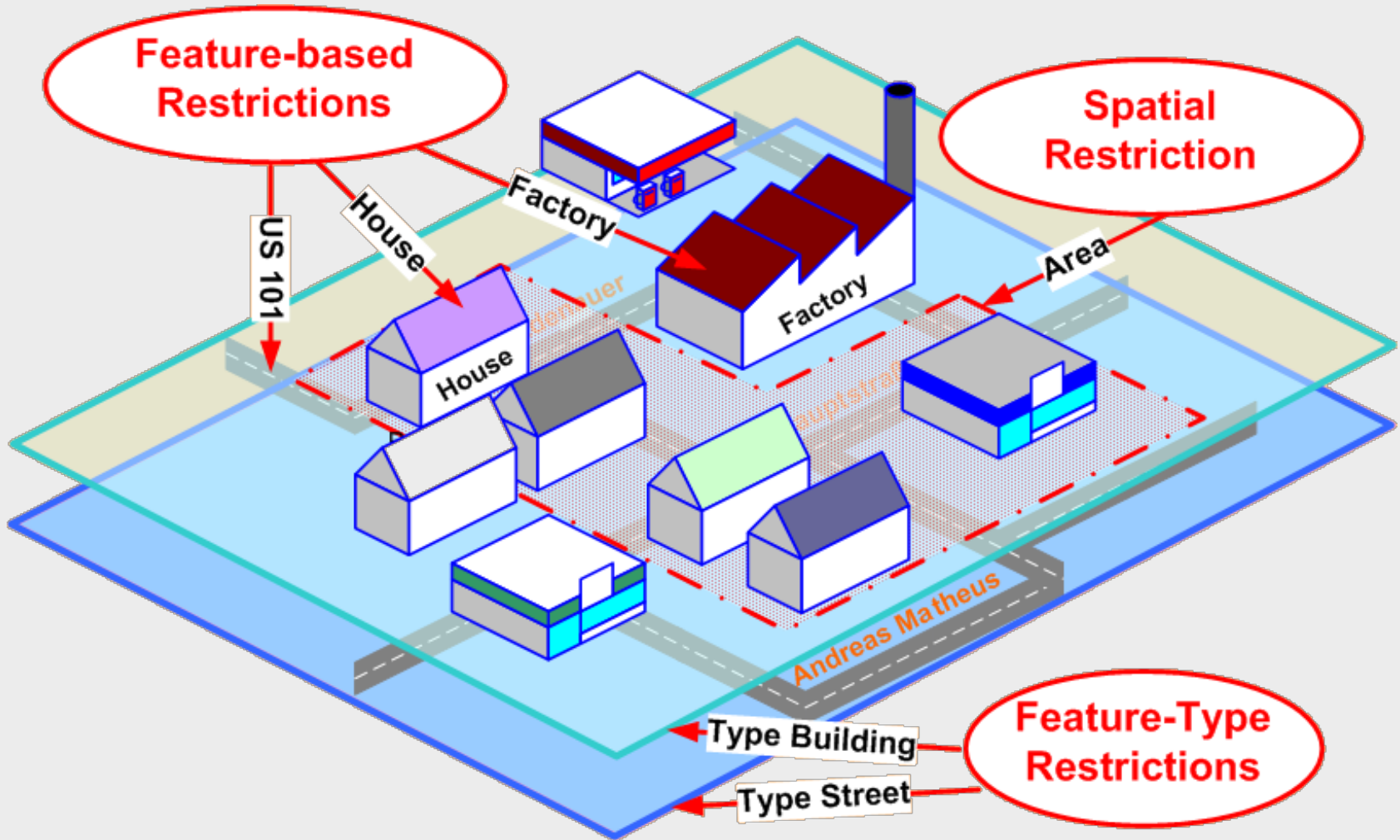
OGC Codesprint

Lausanne

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Andreas Matheus

The „Power“ of GeoXACML



Use Case for crafting a more complex Policy

Alice cannot see the features
inside Central Park

WFS

GetFeature

poly_landmarks

GeoXACML -> limit access to
WFS 2.0 by modifying the
FILTER parameter based on
GeoXACML policy



Writing a GeoXACML Policy in ALFA

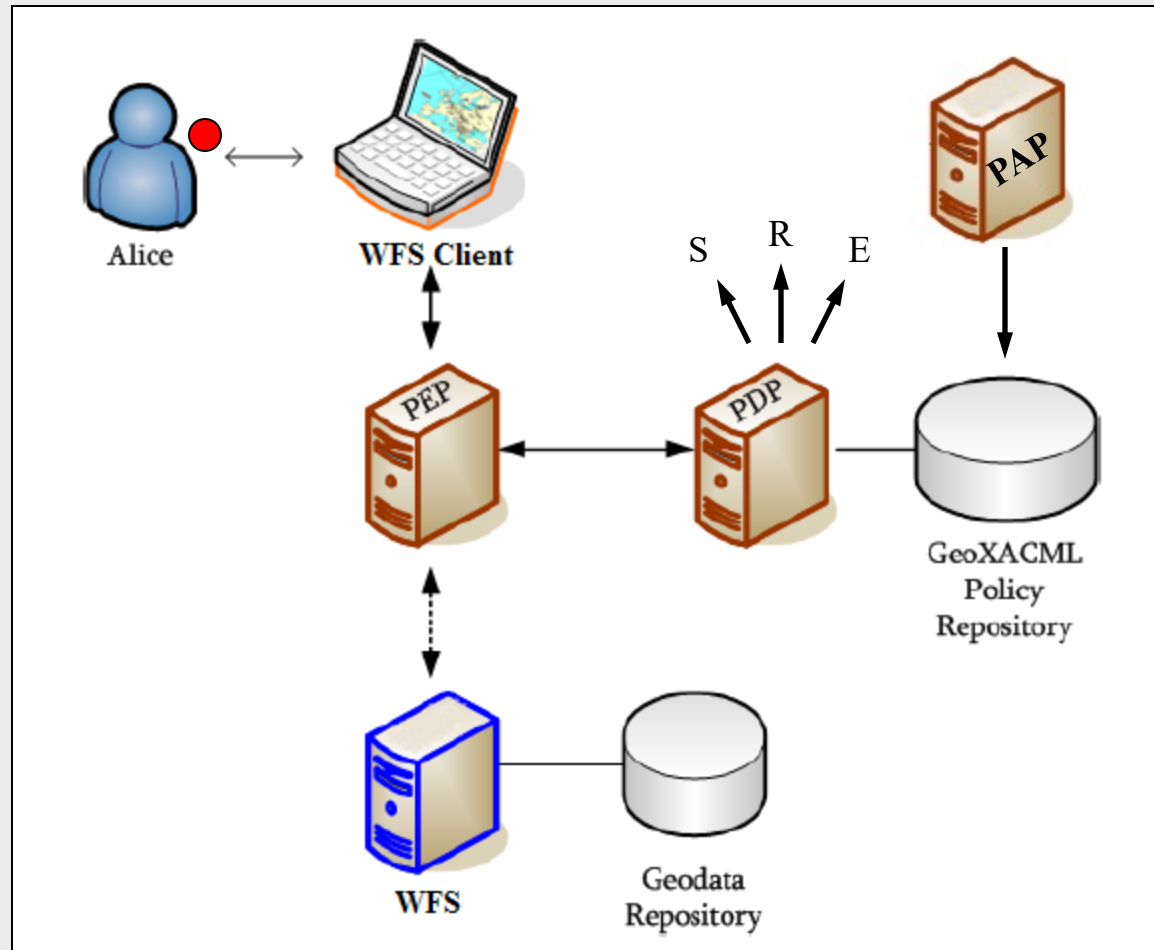
- [ALFA](#) is a draft standard from OASIS, originally developed by Axiomatics
- You need Visual Studio Code and the ALFA plugin

```
namespace ogc_codesprint {
  import GeoXACML.*
  import Attributes.*

  obligation Filter = "urn:secd:wfs:filter"

  policyset Manhattan = "root" {
    target clause service == "WFS"
    apply permitOverrides
    policy POLY_LANDMARKS = "poly_landmarks" {
      target clause feature_type == "tiger:poly_landmarks"
      apply firstApplicable
      rule CENTRAL_PARK {
        target clause request == "GetFeature"
        permit
        condition(geometryOneAndOnly(bbox) >< "POLYGON((40.767774 -73.981464, 40.768268 -73.98139"
        on permit {
          obligation Filter {
            Attributes.Filter.operation = "Disjoint"
            Attributes.Filter.geometry = "POLYGON((40.767774 -73.981464, 40.768268 -73.98139"
          }
        }
      }
      rule ALL_PERMIT {
        permit
      }
    }
  }
}
```

Deployment



OGC 07-026r2 (GeoXACML)

Implementing the Context Handler / PEP

- Service / API request must be re-written
 - WFS Request + FILTER
 - Geoserver WFS + CQ_FILTER
- My task
 - Tomcat Filter that re-writes WFS 2.0 request based on GeoXACML policy
- Demo...

OGC WFS / Geoserver + GeoXACML



poly_landmarks



Central Park is excluded

Questions?

