

Geo Rights Management

Standards supporting practice — and vice versa

ISO/TC 211 “Standards in Action” Workshop

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Outline

- ➔ **Rights Management**
- ➔ **Licensing**
- ➔ **(A) GeoRM Architecture**
- ➔ **Standards and customer requirements**
- ➔ **Conclusion**

What is Rights Management?

- ➔ No common definition
- ➔ Everything that deals with rights!
- ➔ Including:

Access rights definition

Usage rights definition

Access control

DRM

⇒ **Without enforcement**

⇒ **With Enforcement**

Why Rights Management?

➔ Data may be confidential

classified

personal data

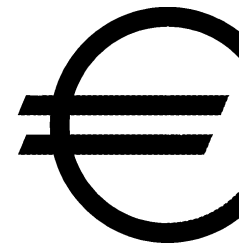
critical

➔ Data may be valuable

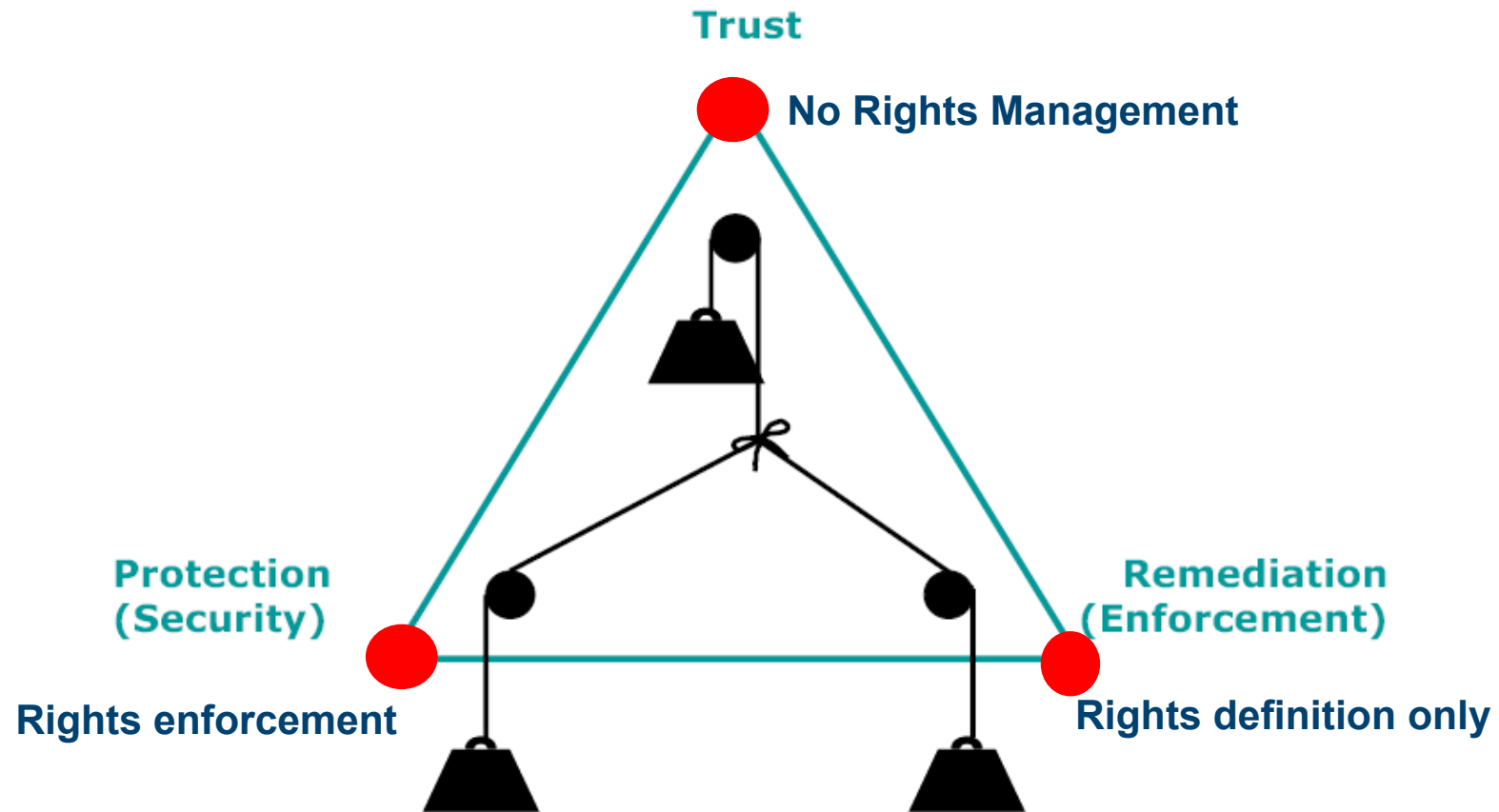
marketable

investment protection

➔ INSPIRE!!!



Enforcement?



Source: OGC Document 06-004r4 Geospatial Digital Rights Management Reference Model (GeoDRM RM)

What should be protected?

➔ Access control

Protects the service

Once the data is delivered, there is no further protection

➔ DRM

Protects the data

Controls what a user may do with the data

Rights move around together with the data

The data is the value!

➔ Does that lead to an easy answer?

The Data is the Value!

➔ That's where our customers come into play again!

They are typically data providers

They typically deal with known users

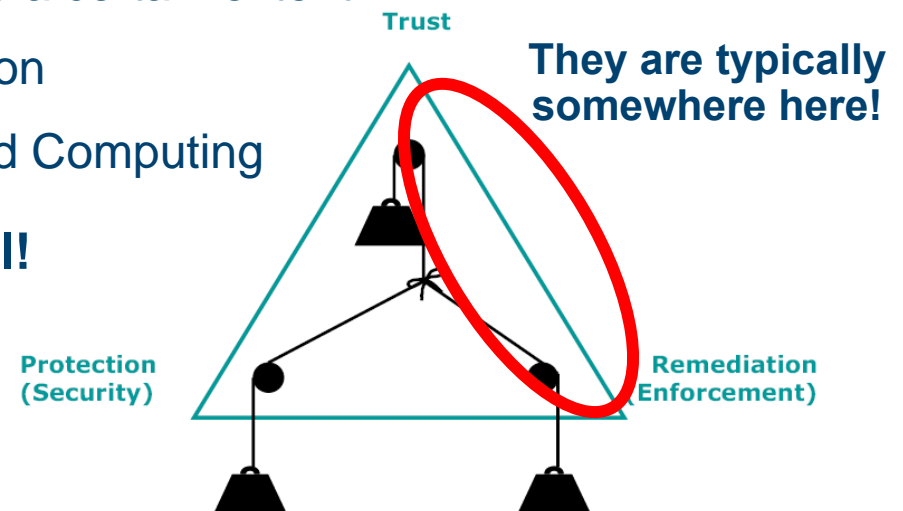
They are typically in a B2B relationship

They typically trust their customers to a certain extent

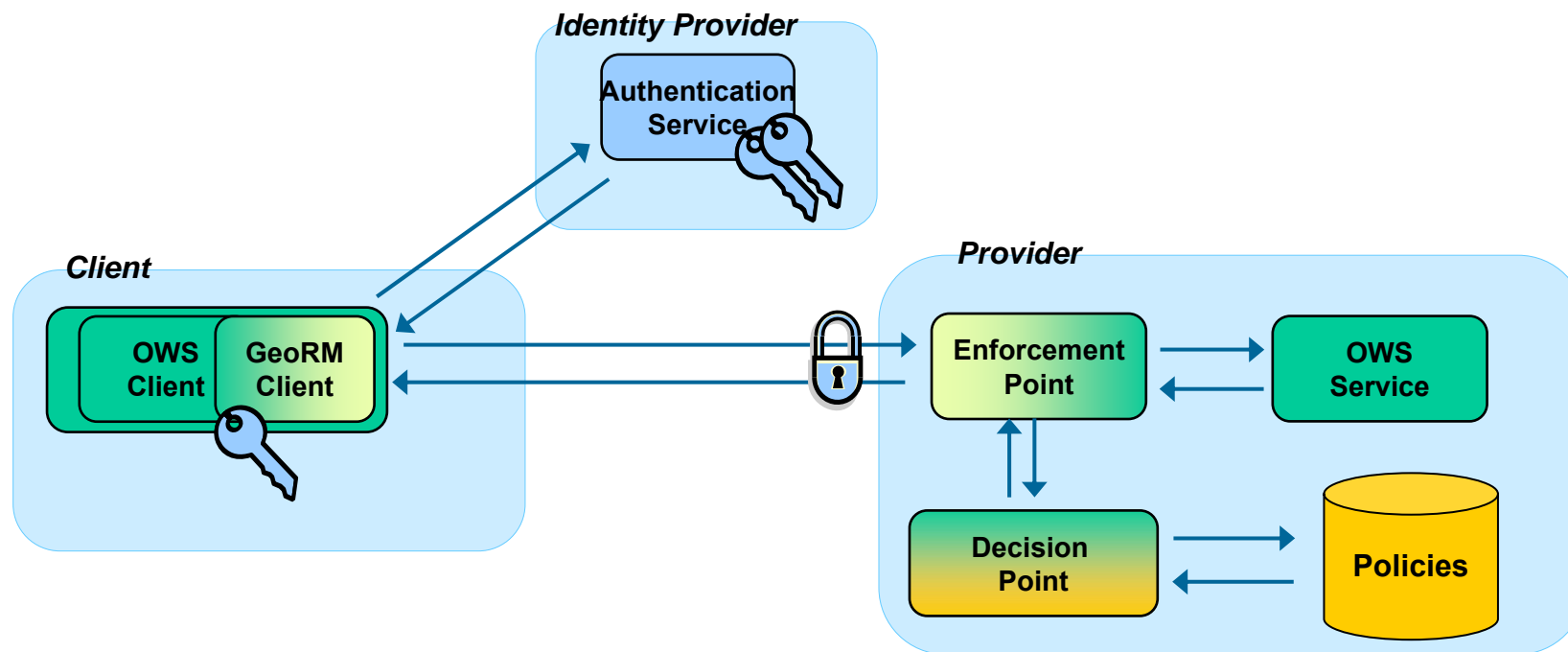
They typically rely on legal remediation

They typically don't believe in Trusted Computing

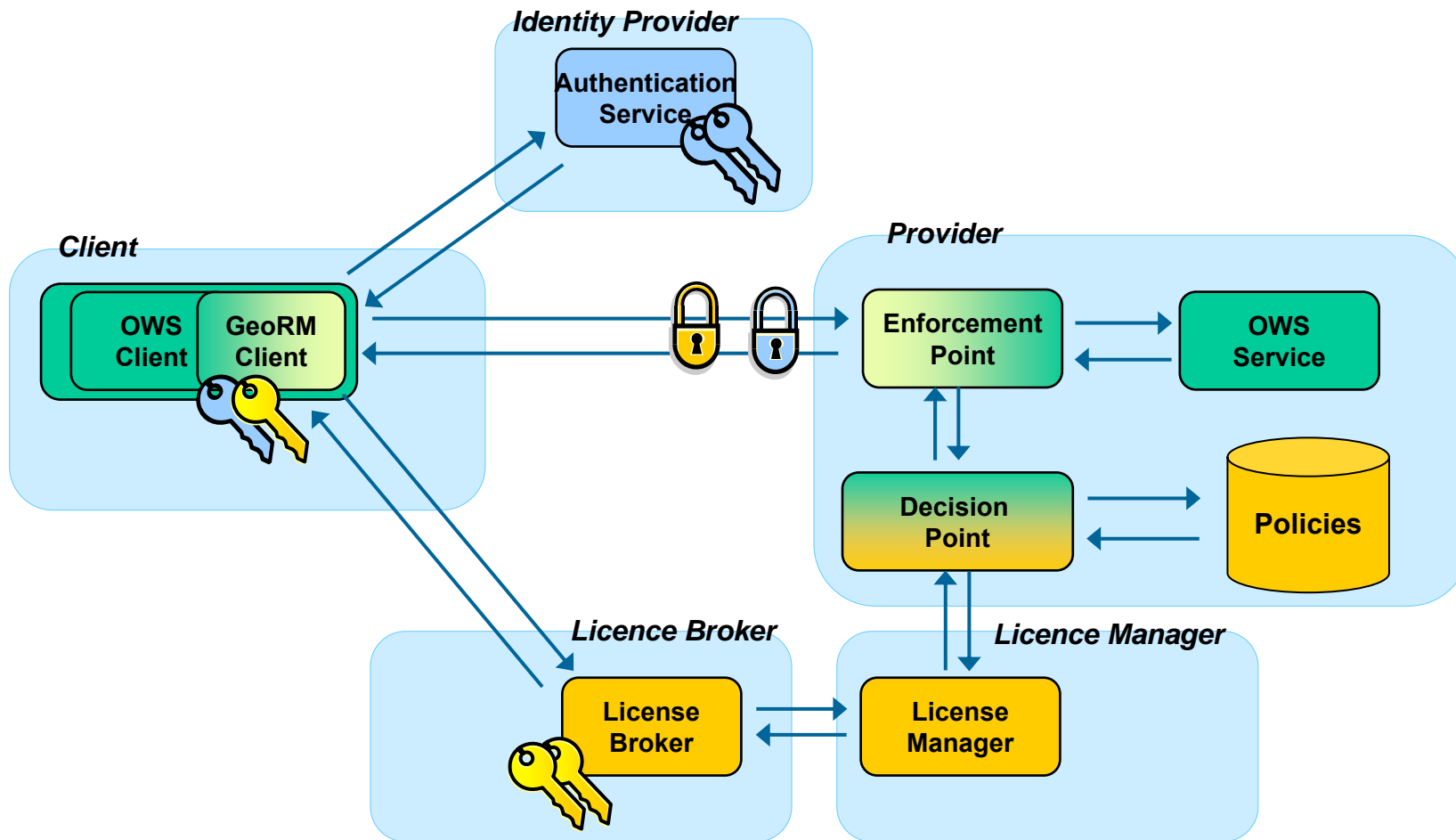
➔ They typically want access control!



Access Control Architecture



Licensing Architecture



So, are usage rights useless?

- ➔ **NO!**
- ➔ **Rights definition and rights enforcement are separate issues!**
- ➔ **Awareness is the key!**
- ➔ **Customers have to be informed about usage rights**
 - as text
 - as Creative Commons
 - as REL document (Rights Expression Language)
 - ...

Abstract License Structure

➔ ISO View (Technical Focus)

Grant (aka right, policy, ...)

Issuer details and signature (Licensor)

➔ Business Requirements (Legal Focus)

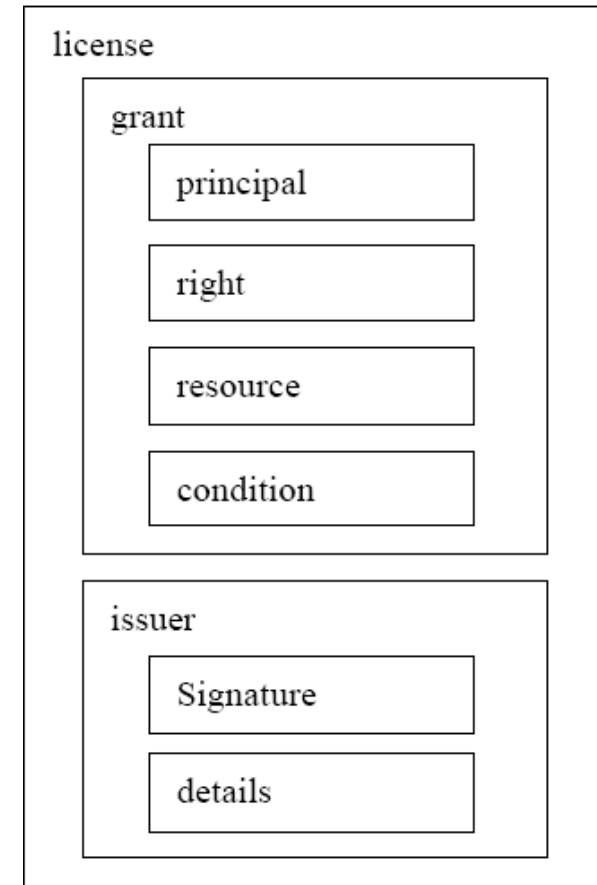
+ Licensee (explicit)

+ Disclaimers

+ Bylaws (linked)

+ Price models (linked)

+ ...



Source: ISO/IEC TR 21000-1
Information technology —
Multimedia framework (MPEG-21) — Part 1

Why Standards?

➔ Company's goals

Satisfy the customer
(rather than implementing standards)

but:

➔ Customer's goals are often

Interoperability

with enterprise systems
with customers
with partners

Use mature concepts

...

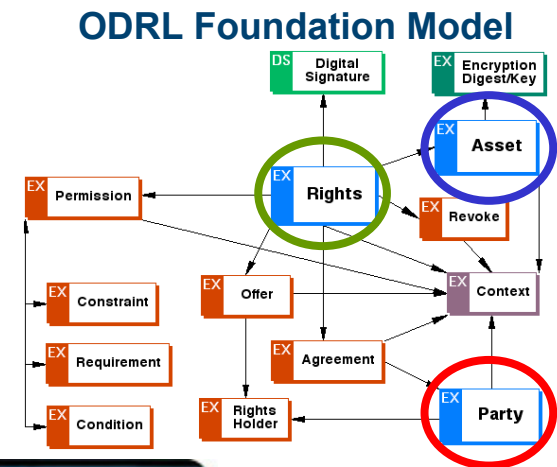
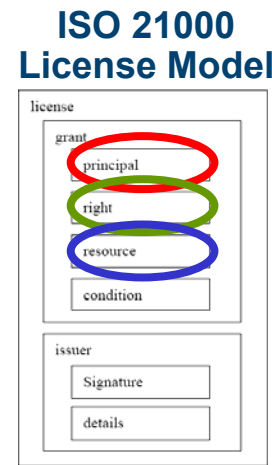
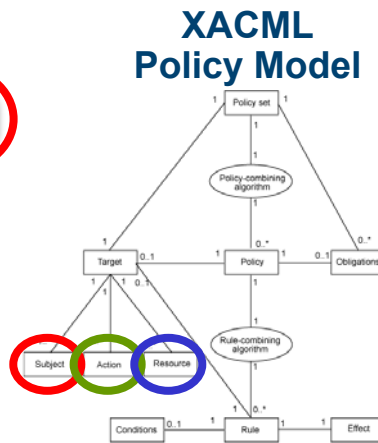
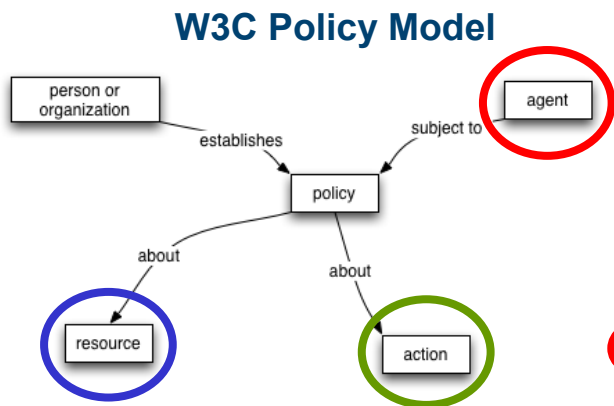
⇒ **Use of standards!**

Standards, Standards, Standards...

➔ "The good thing about standards is that there are so many to choose from" (A. Tanenbaum)

➔ Example: Rights aka Policies aka Grants aka ...

defining: **Subject** **Resource** **Action** (OASIS vocabulary)



...connecting worlds

Decisions

➔ Which standards to use?

XACML (OASIS standard) to define access rights

SAML (OASIS standard) to wrap them in licenses

WS-Security (OASIS standard) to submit licenses and identities

Consistent to OGC GeoDRM Reference Model

Broad support in mainstream IT!

➔ What about the others?

ISO 21000 / GeoREL:

Focus on DRM ⇒ does not match our customer's requirements

Our Input to Standardization

➔ OGC

OGC Testbeds:
Prototype implementation

GeoRM Common:
Extension to support Rights Management for OGC Services
(the full triangle!)

Identity management, license management for service licenses:
Next steps

➔ INSPIRE

DT Network Services:
Choose appropriate standards for INSPIRE implementing rules,
fulfilling the requirements of European data providers

Principles for Standardization in the Geo Domain

- ➔ Specify geo-related issues only
- ➔ For everything else (security, licensing, orchestration, ...) reference external standards
- ➔ Extend / profile them, if necessary
- ➔ Keep them interchangeable
- ➔ Agree on common (selected) standards among communities (INSPIRE?)
- ➔ **Problem to solve:
How to combine standards in a standardized way?**

Thanks for your attention!

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