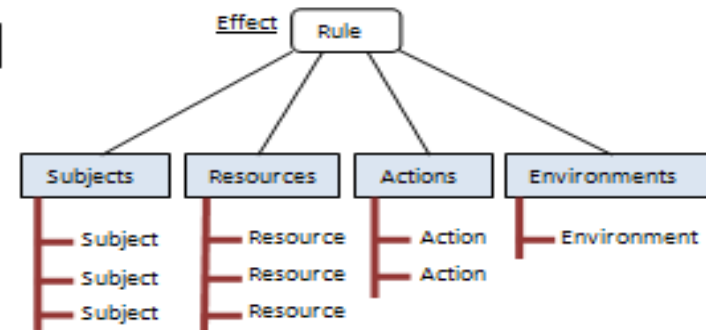# Translation of XACML into RIF (Work in Progress)
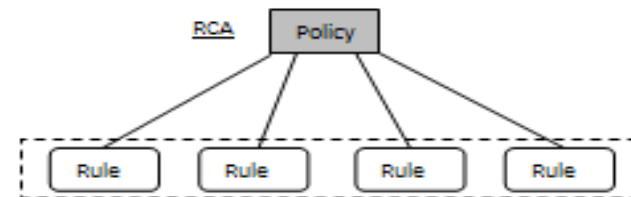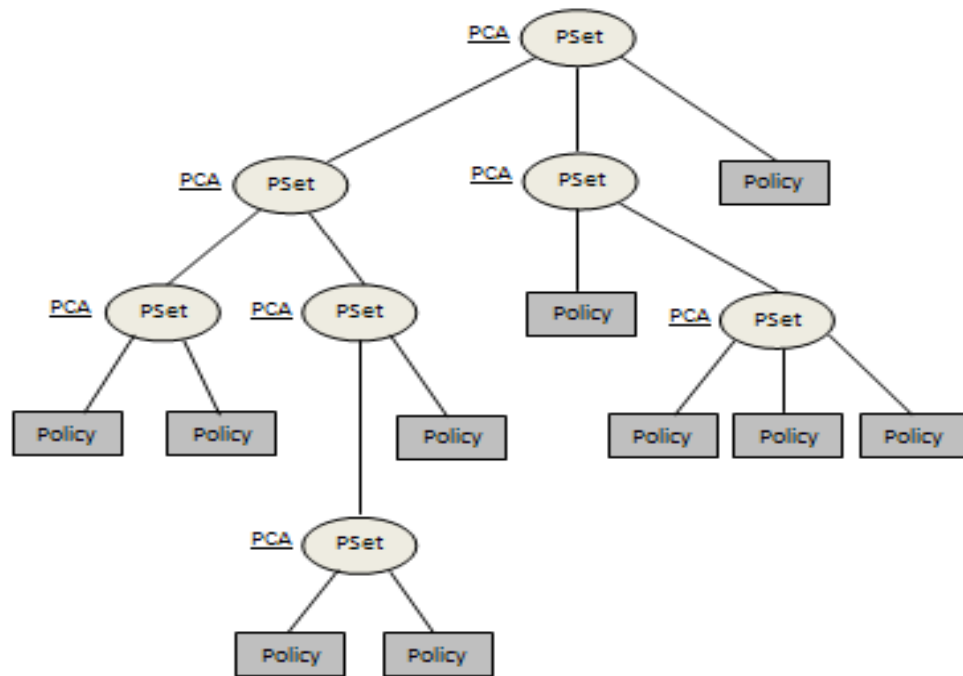
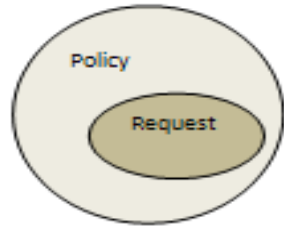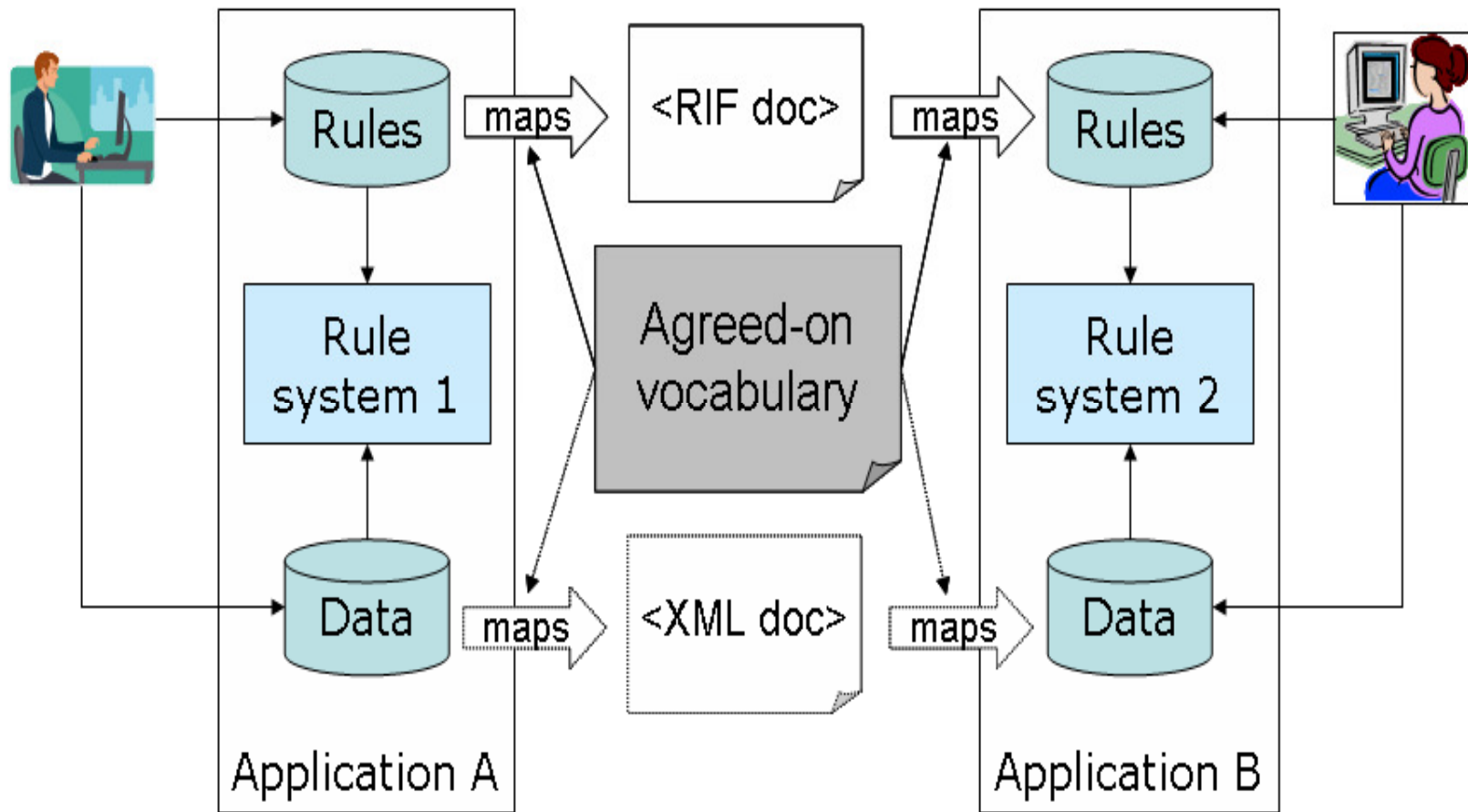Fatih Turkmen (University of Trento)

Lalana Kagal (MIT)

XACML & RIF

•**RIF Working Group** envisions a generic platform for the exchange of rules among different parties in a machine processable way.

•XACML most widely deployed access control language.

XACML & RIF (Cont.)

PCA : Policy Combining Algorithm
RCA : Rule Combining Algorithm

XACML & RIF (Cont.)

Ref: RIF Working Group Specs.

XACML & RIF (Cont.)

•RIF-BLD corresponds to the language of definite Horn rules with equality and a standard first-order semantics

Match (?T ,? R) :- And(

                                        Inc(?T.Subject req:Subject)

                                        Inc (?T.Resource req:Resource)

                                        Inc (?T.Action req:Action)

                                        Inc (?T.Environment req:Environment)

)

XACML & RIF Challenges

Deny-overrides

Permit-overrides

First-Applicable

Ordered-permit-overrides

Ordered-deny-overrides

First-Applicable

Only-one-applicable

We have to traverse all policy and make sure that there is only one policy applicable.