CATCert

Agència Catalana de Certificació

Identity and capability management and federation

Administració Oberta de Catalunya

Generalitat de Catalunya

Consorci de governs locals per a la societat de la informació

The need to manage identities - 1

- Increment of digital identity complexity
  - Password, dynamic password, one-time password, based on portable secure devices (like USB tokens, mobile phones, smart cards).
  - Identity X.509 digital certificates, issued by different providers, to public employees, businesses and citizens, specially in roaming and non-physical presence scenarios.
  - National electronic identifications (DNI and others).
  - Remote/delegated authentication assertions, based in SAML, Liberty, Shibboleth, WS-S/WS-I and others, in distributed and collaborative environments.
  - Identity federation rules and trust models management.

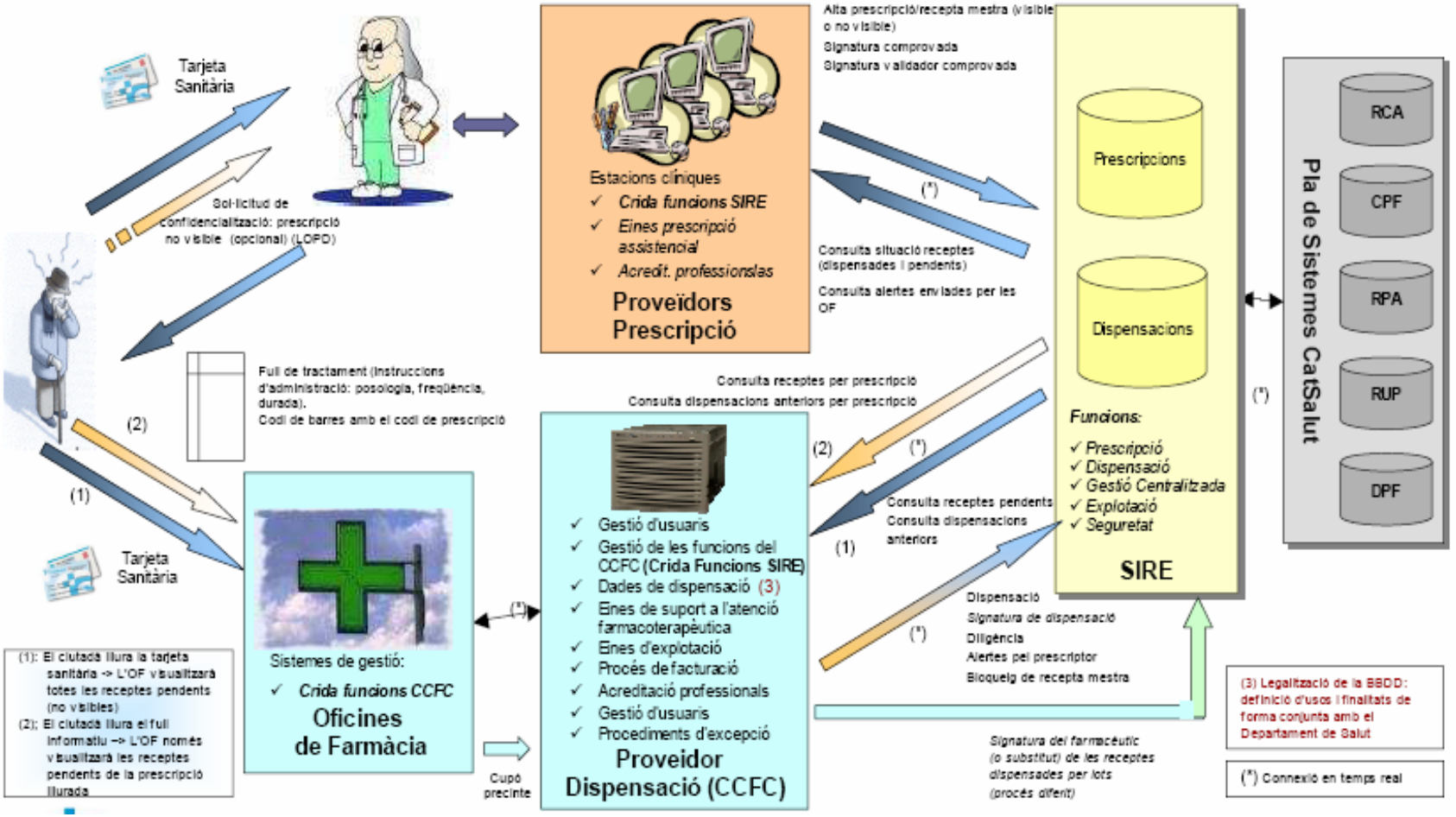
- Merging of identity management and business processes
  - Market is going beyond the trend to integrate or synchronize identity and other attribute information in “unique directories”.
  - Trend to hide organizational directories behind SOAs (less LDAP and proprietary applications, more web services).
  - Emerging middleware to integrate applications and business logics requiring identification and attribute information.

The need to manage identities - 2

- Orientation to distributed identity and attribute management
  - Perception: Distributed management may help extending the public service provision to all persons, especially in a transnational environment.
  - European initiatives like FIDIS or MODINIS consider identity and attribute management as the solution to integrate public transactions at a European-wide scale, in an interoperable form, and in concrete may leverage the national electronic identifications, and other regional identifications, like eHealth cards or citizens cards.
  - GUIDE project, built complying with European Commission's IDABC initiative, currently works in profiles and messaging based in SAML/Liberty to integrate European identities.
- Appearance of business protocols to manage identity federation (Liberty WSF, SAML…) and access control in a highly distributed form (XACML).

A Catalan identity federation for eHealth - 1

– The Catalan Health Service has implemented an ePrescription project, which is up and running in a real production environment.



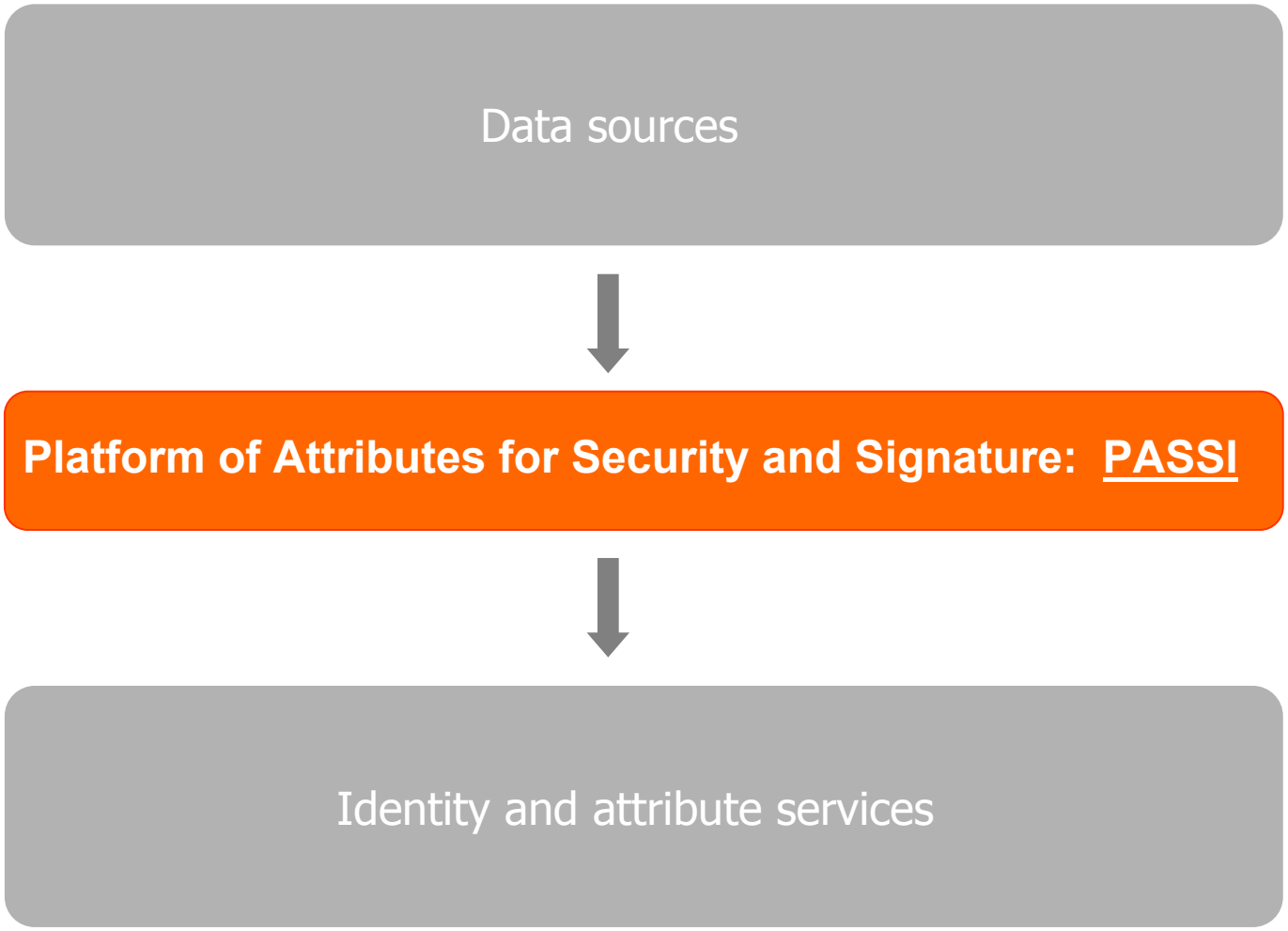
A Catalan identity federation for eHealth - 2

- The project authentication mechanisms are based in an identity federation:
  - Medical doctors authenticate using UID and password / X.509v3 qualified certificate.
  - Hospitals issue SAML assertions that are consumed by the Catalan Health Service, giving access to the ePrescription application.
  - Pharmacies authenticate using UID and password / X.509v3 qualified certificate.
  - The Catalan Council of Pharmacies issue SAML assertions that are consumed by the Catalan Health Service, giving access to pending ePrescriptions (additional controls apply to protect personal identifiable information).
  - ePrescriptions are also signed by medical doctors, and the dispensed medicaments are the reported to the Catalan Health Service with a signed message.

Strategic considerations

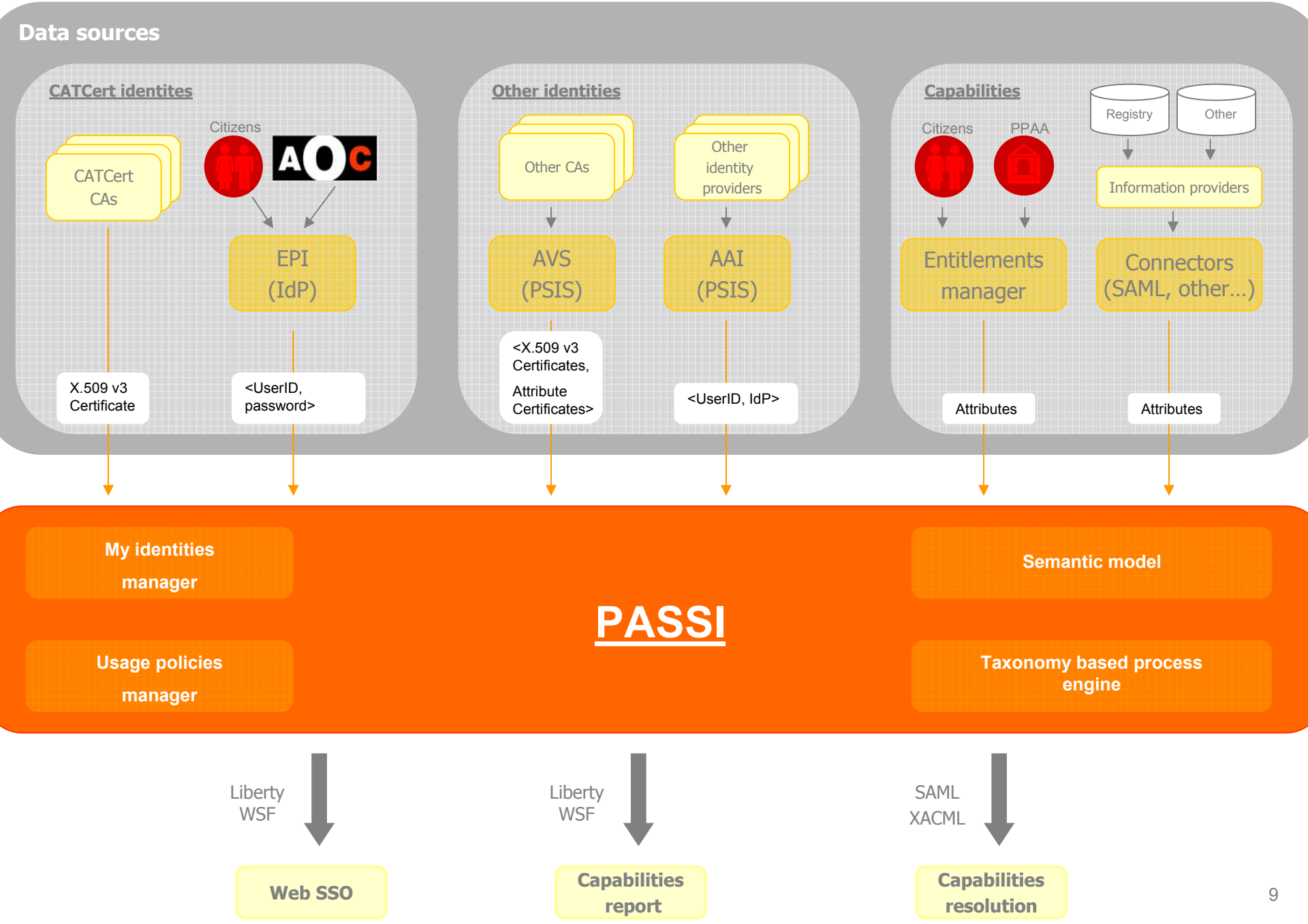
- Current and future situation
  - Many identities (although with more quality): public, private, national, regional, local, healthcare, finance... Trend to reduction and generalization of identities (more DNI/idCAT, less password)
  - Many networked providers regarding attributions and capacities of people: public administrations, notaries and legal registries, private entities. Trend to high specialization and on-line consumption, using webservices.

- Strategy
  - Today: Validate different identities, generate evidence and archive it (**PSIS**).
  - Evolution: Facilitate authentication, using a common module (**PASSI**).
  - Evolution: Manage persons, instead of separate identities (**PASSI**).
  - Novelty: Manage capabilities, persons able to do things (**PASSI**).


Data sources
Platform of Attributes for Security and Signature: PASSI
Identity and attribute services

Platform of attributes for security and signature

- Main objectives
  - Creation of a repository containing the identity data sources managed by CATCert (wide “metadirectory” concept).
  - Definition of a semantic model, and of connectors with identity providers.
  - Provision of “Attribute Authority” services, using a SOA paradigm.
- Ancillary objectives
  - Foster the adoption of different identity systems by any administration (“Web Single Sing-On common module” concept).
  - Achieve interoperable identity and attribute services between administrations.
  - Being the Catalan public identity and attribute services broker (migration of previous identity mechanisms, like UID and password from CAT365).
  - Provide to public administrations tools to manage entitlements and other forms of legal representation.
  - Allow citizens and businesses the maximum self-management level for their privacy and sensitive data.


Data sources
CATCert identites
CATCert CAs
Citizens
AOC
EPI (IdP)
X.509 v3 Certificate
<UserID, password>
Other identities
Other CAs
Other identity providers
AVS (PSIS)
AAI (PSIS)
<X.509 v3 Certificates, Attribute Certificates>
<UserID, IdP>
Capabilities
Citizens
PPAA
Registry
Other
Information providers
Entitlements manager
Connectors (SAML, other…)
Attributes
Attributes
My identities manager
Usage policies manager
PASSI
Semantic model
Taxonomy based process engine
Liberty WSF
Web SSO
Liberty WSF
Capabilities report
SAML XACML
Capabilities resolution

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