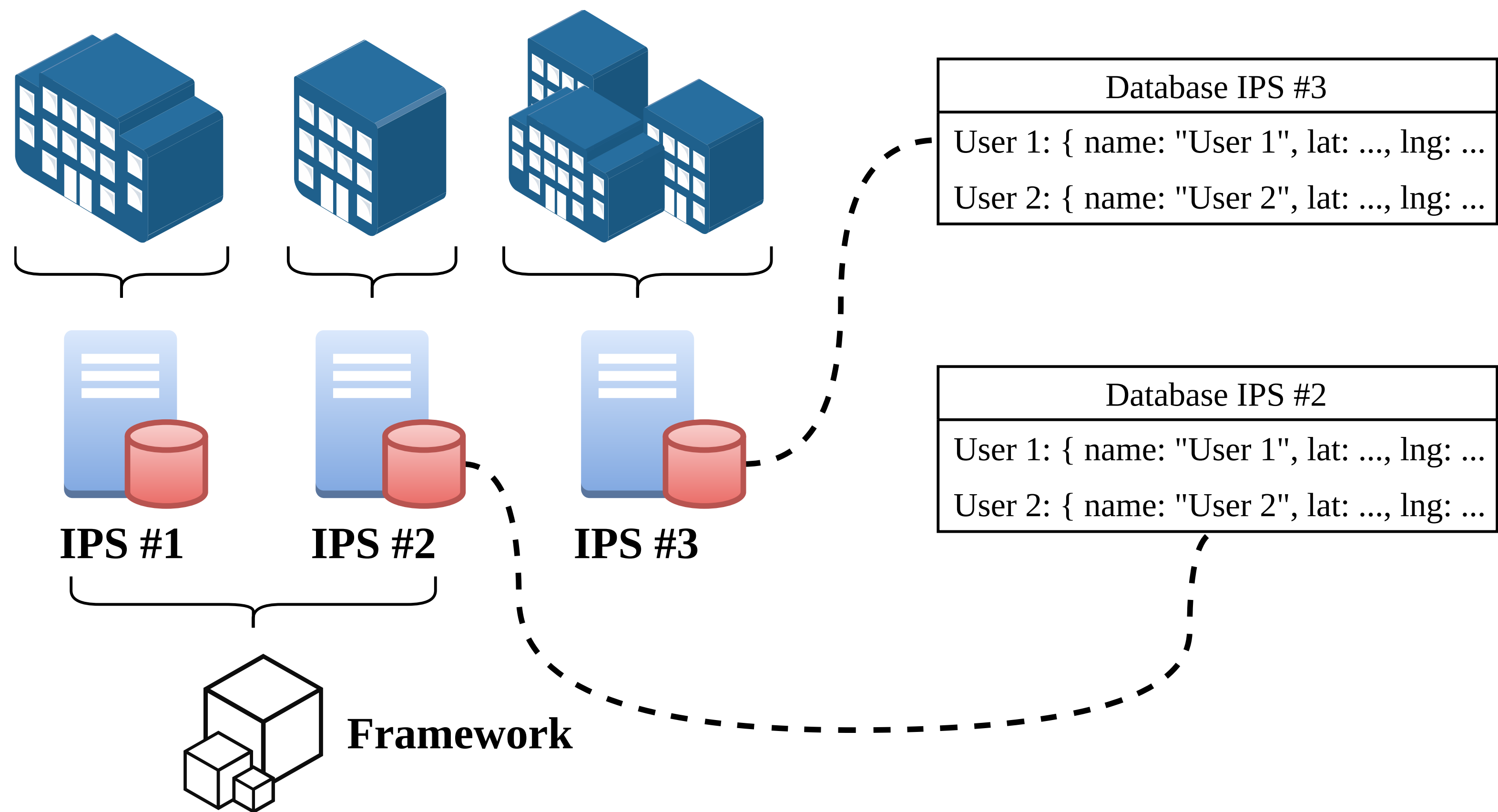


A Solid-based Architecture for Decentralised Interoperable Location Data

Maxim Van de Wynckel, Beat Signer

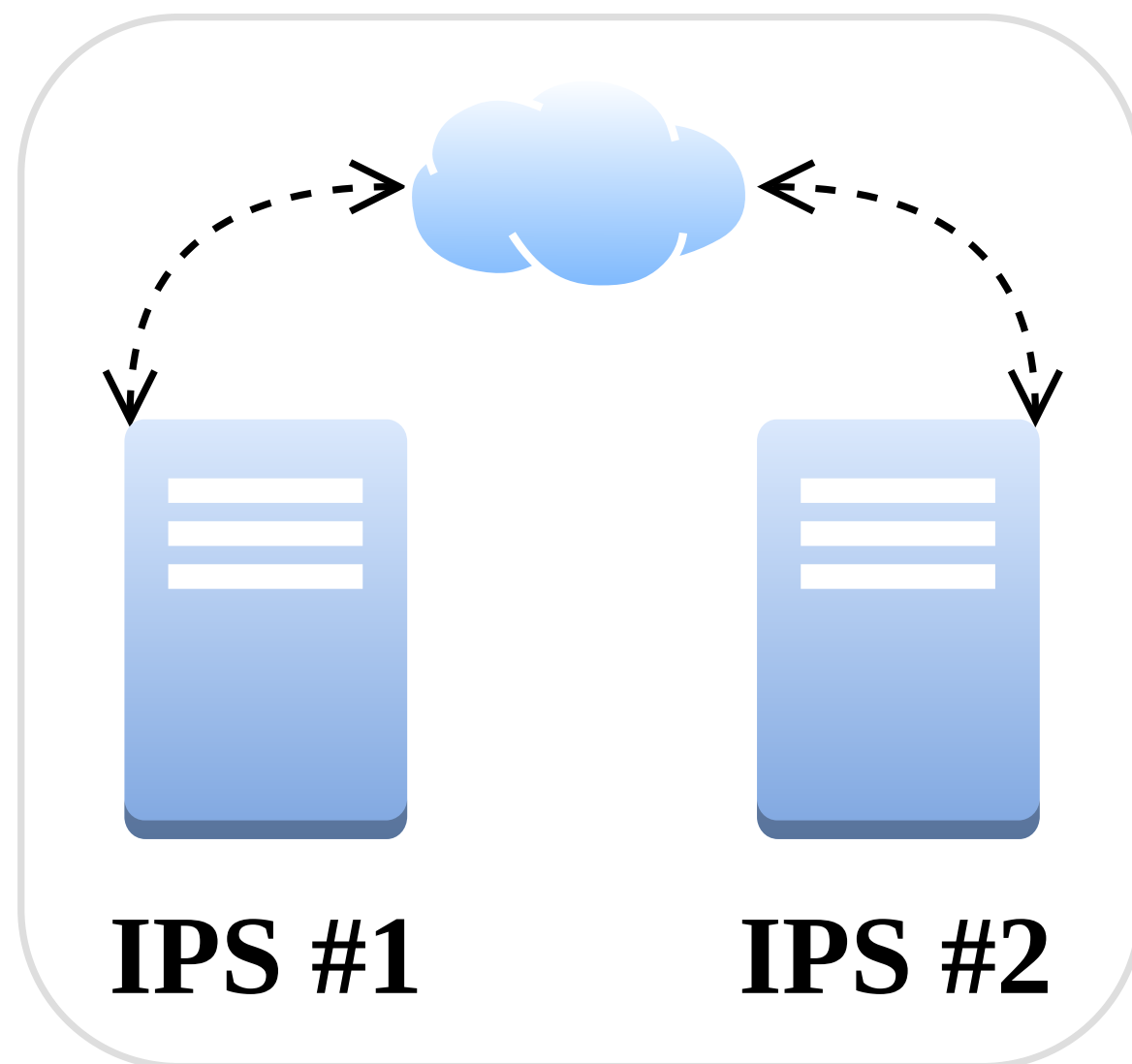
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Vrije Universiteit Brussel*

Current indoor positioning systems (IPS)



Problems with current IPS'

1. Users not in **control** of their **data**
2. No **interoperability** between positioning **systems**
3. No **interoperability** between (navigation) **applications**



Accessibility

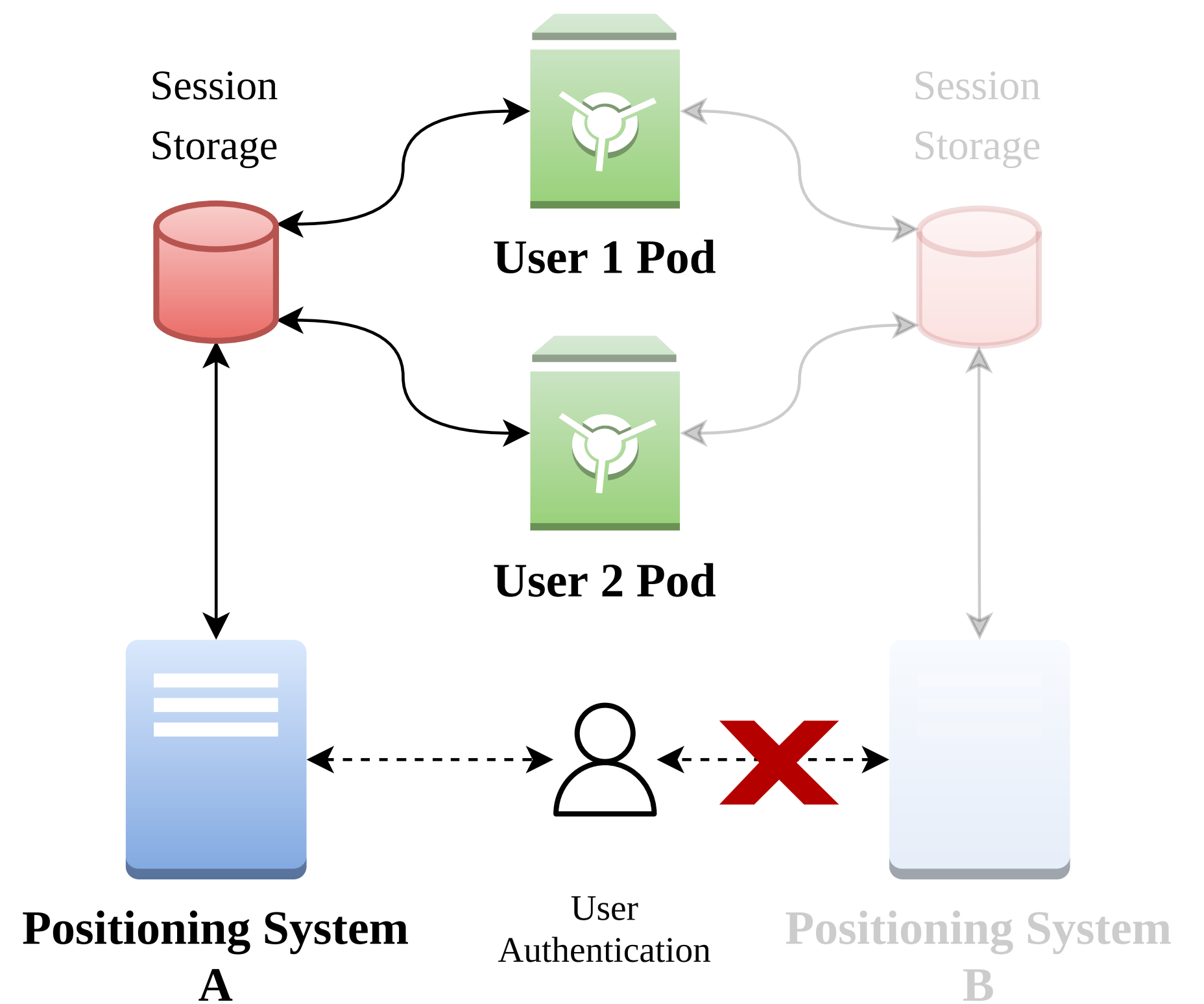
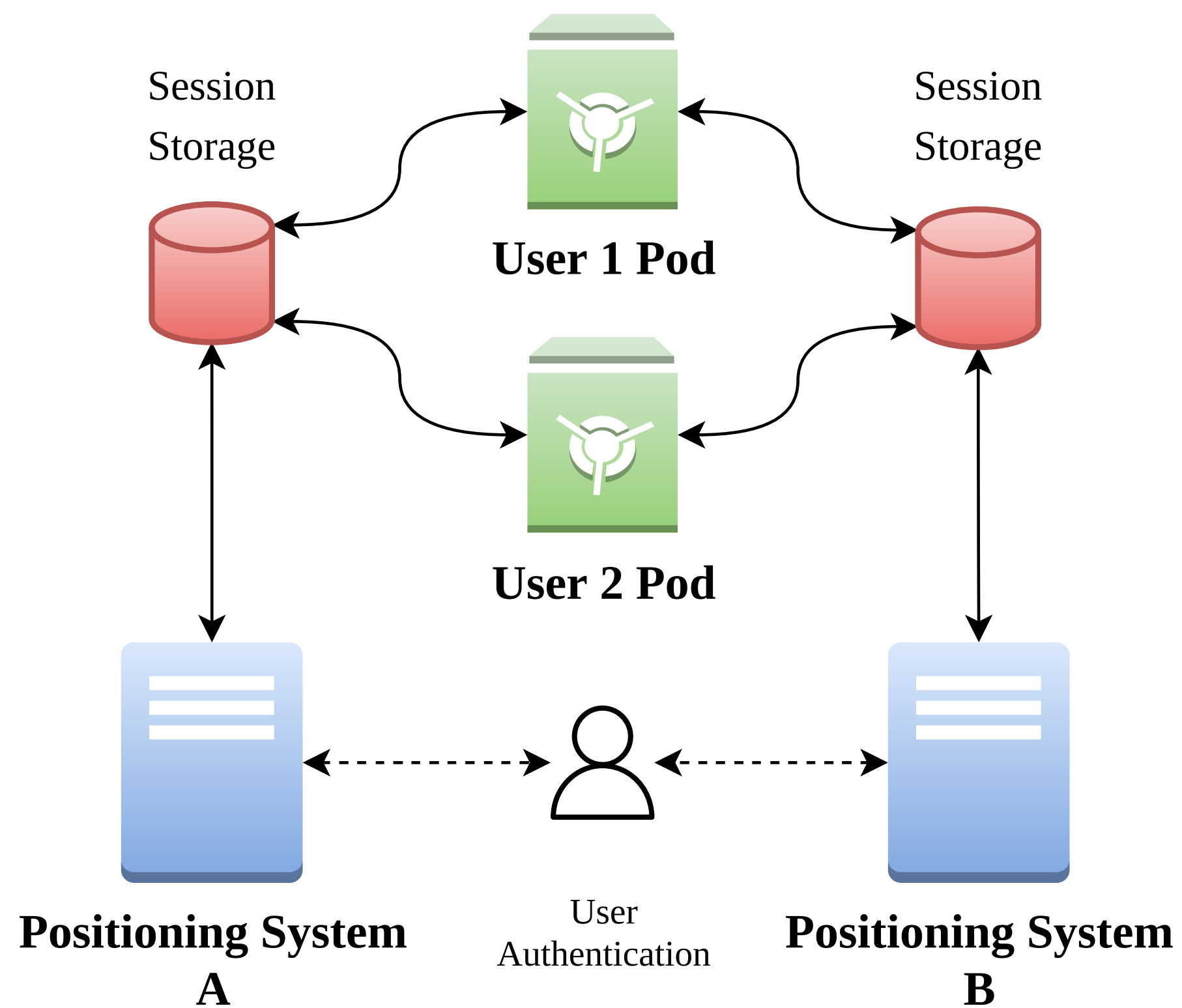


Readability



Understandability

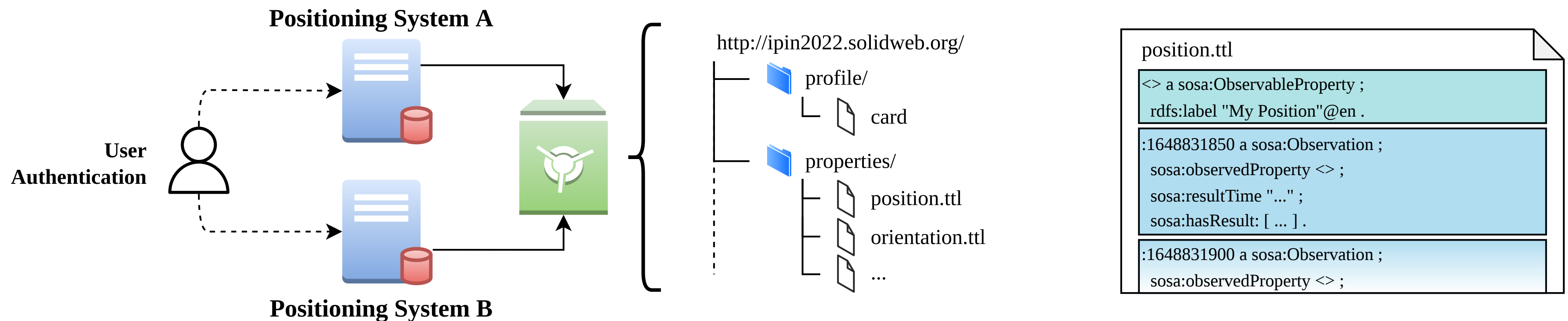
Decentralised interoperable architecture



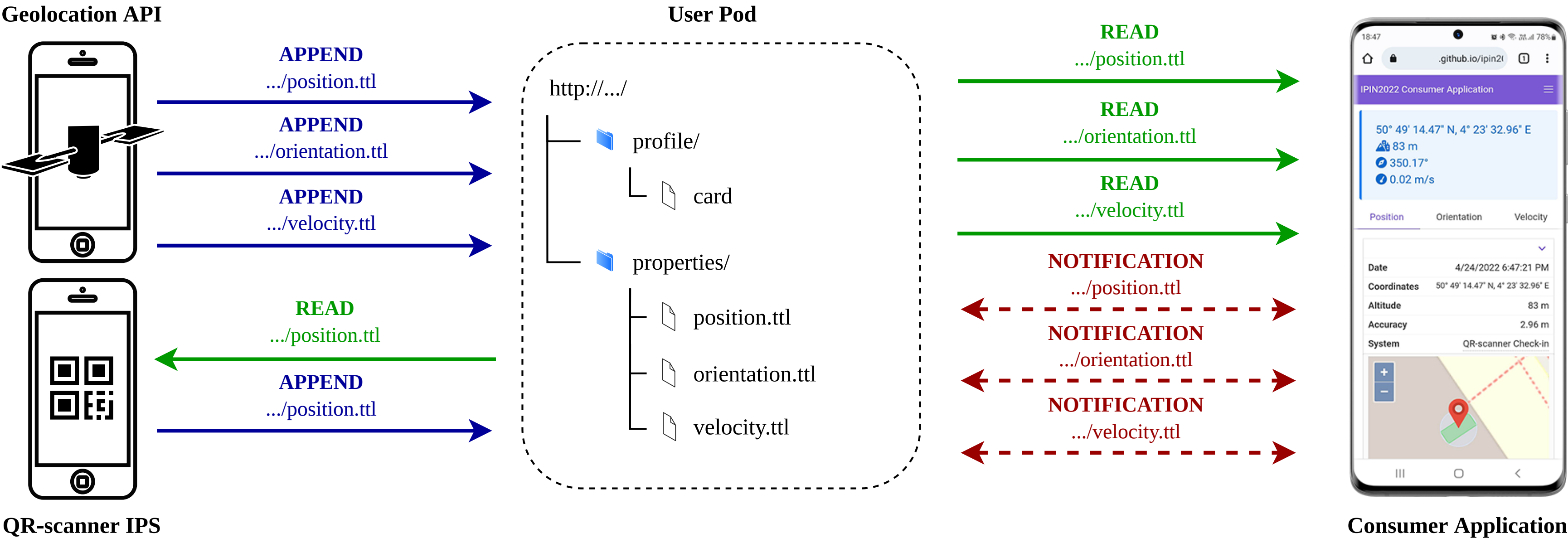
Decentralised interoperable architecture

Core vocabularies: SOSA, SSN (W3C®)

Alignment vocabularies: GeoSPARQL (Open Geospatial Consortium®), QUDT



PoC demonstrator



Conclusion and future work

- ▶ Novel architecture for **decentralising** location **data**
 - **User** remains **in control** of their data
- ▶ **Interoperability** between systems and applications
 - High level decision fusion
 - Single **navigation** application
 - **Handover** of tracking between systems
- ▶ **Scalable** to raw sensor data

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