Gaia-X – technical deepdive

From the governance model to implementation

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Gaia-X goals

- Promote European values and digital sovereignty / control.

- Create bigger and richer dataspaces by connecting interoperable ecosystems

- Create a federation of ecosystems enabling services stacks composition across multiple services providers.
Data-Infrastructure Ecosystem Federation Conceptual model

Need a common framework for:
- Business support
- Provisioning and Configuration
- Portability / Interoperability

NIST 500-332: Cloud Federation Reference Architecture (§2)
Gaia-X Reference Architecture and Interoperability

- Usage plane
  - GXFS, OceanProtocol, Dawex, ...
  - OIDC / SIOP / ...
  - Catalogue query language, ...

- Management plane
  - Ecosystem’s governance rules
  - Descriptions & Vocabularies (Portability, Licenses, T&C, Services, Ownership, Contract, Consent, ...)

- Trust plane
  - Trust Anchors definition
  - Governance and Voting mechanism
  - Catalogues addresses
  - Remediation and Revocation
Implementation

- Service #1: Gaia-X association issues association membership W3C Verifiable Credentials
  - https://gitlab.com/gaia-x/gaia-x-compliance/gaia-x-vcIssuer

- Service #2: bootstrap Gaia-X Compliance service (compliance.gaia-x.eu) to validate VCs (Self-Description) for ongoing lighthouse projects (Catena-X, AgDataHub, ...)
  - Basis for the Gaia-X Compliance & Labels framework

- Test Driven Development approach / EYOF
- GXFS-DE and GXFS-FR
- Hackathon #2
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