LiDA Technical Infrastructure

The Representatives of the LiDA Technical Partner

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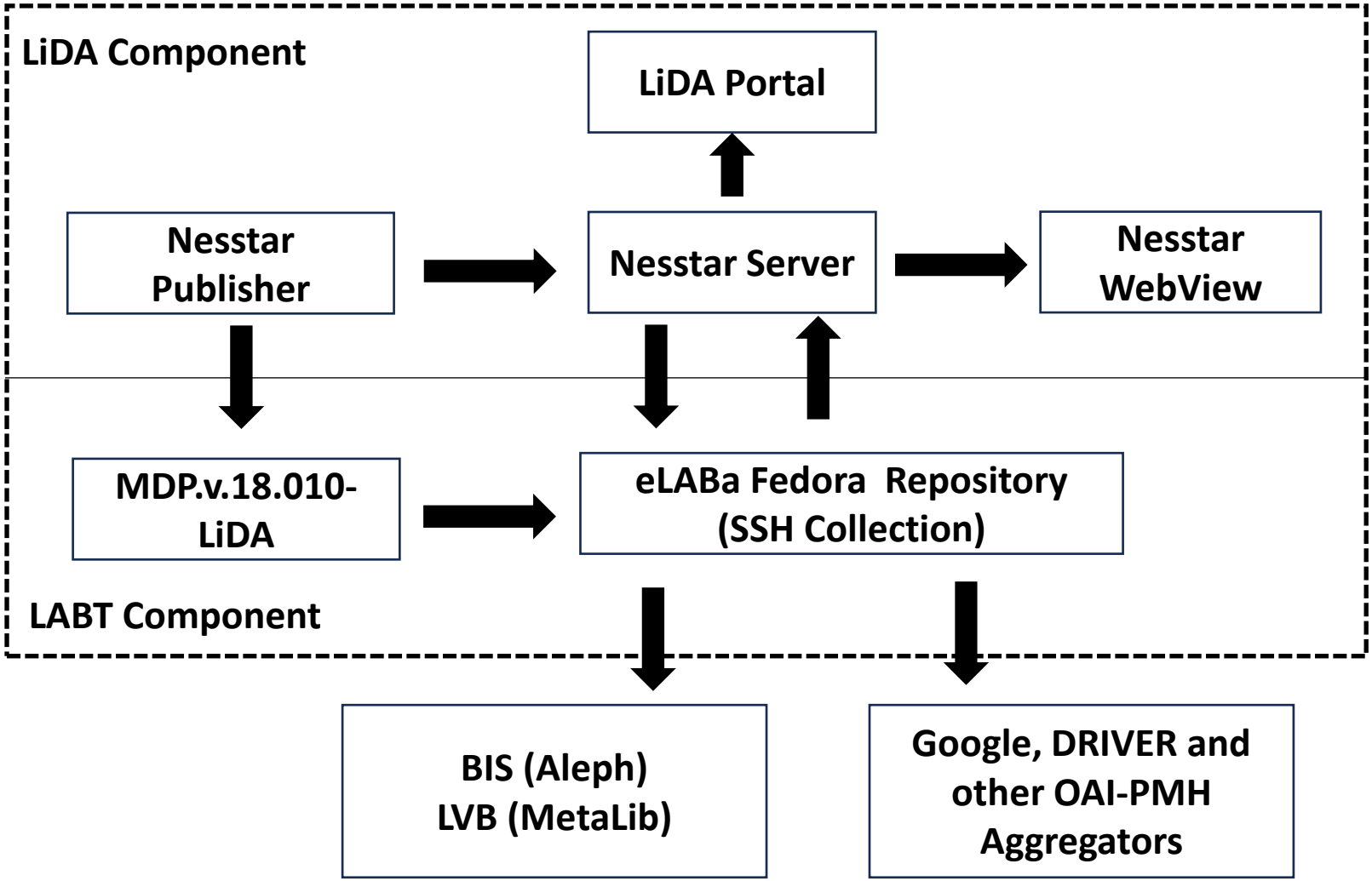
Agenda

- About the LiDA Technical Partner
- General Schemes of the Three Phases of the LiDA Development
- Current Structure of the LiDA Technical Infrastructure
- Specifications of the Three LiDA Virtual Machines
- Primary Responsibilities of the LiDA Technical Partner
- Instead of Conclusions
- Q&A

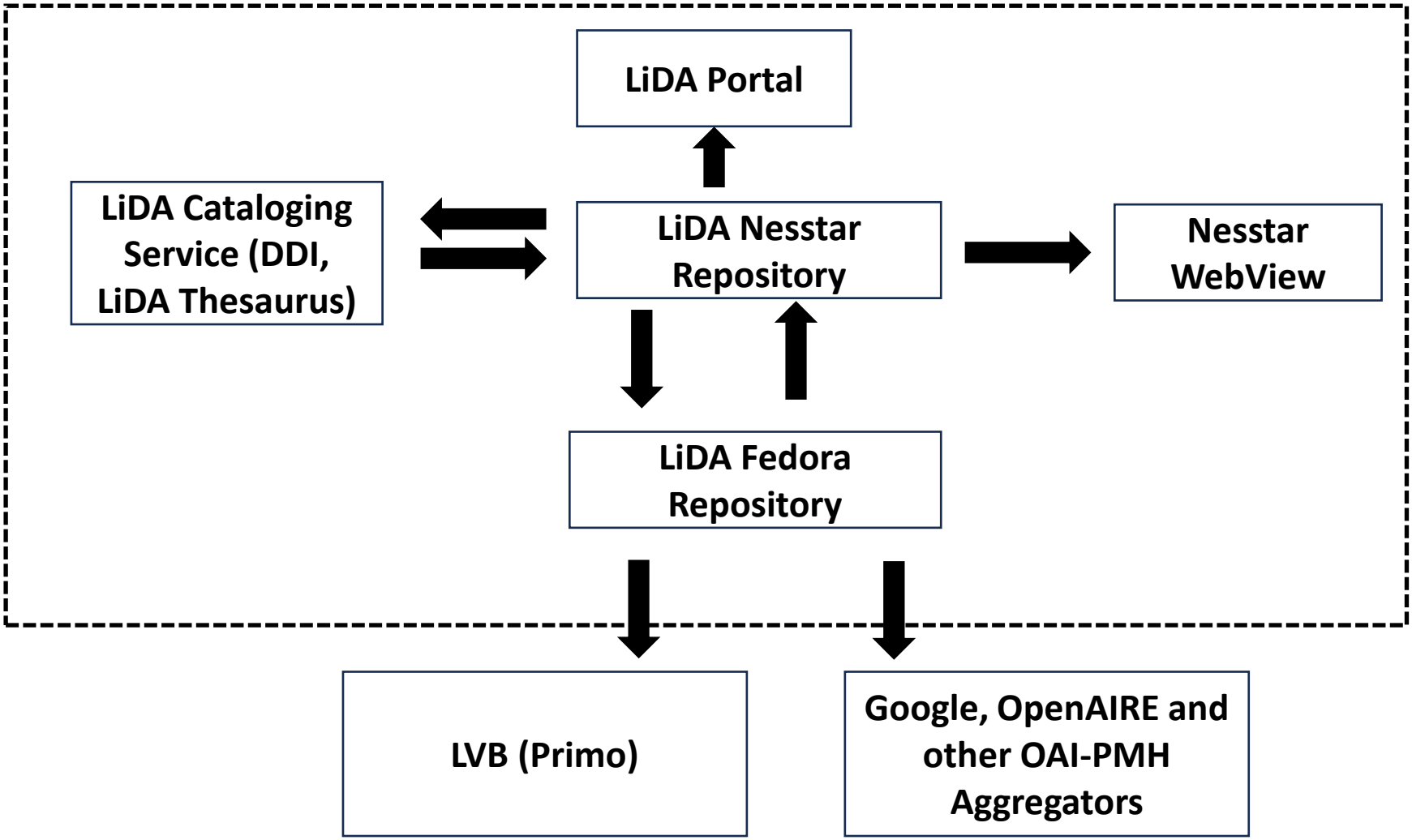
LiDA Technical Partner

- 2005–2012
  - **Faculty of Informatics**
- 2013–2024
  - **Information Technology Services (ITD)**
    - **Information Resources Development Centre**
      - **Office of Information Technology Services**
      - **Library Information Systems Office**

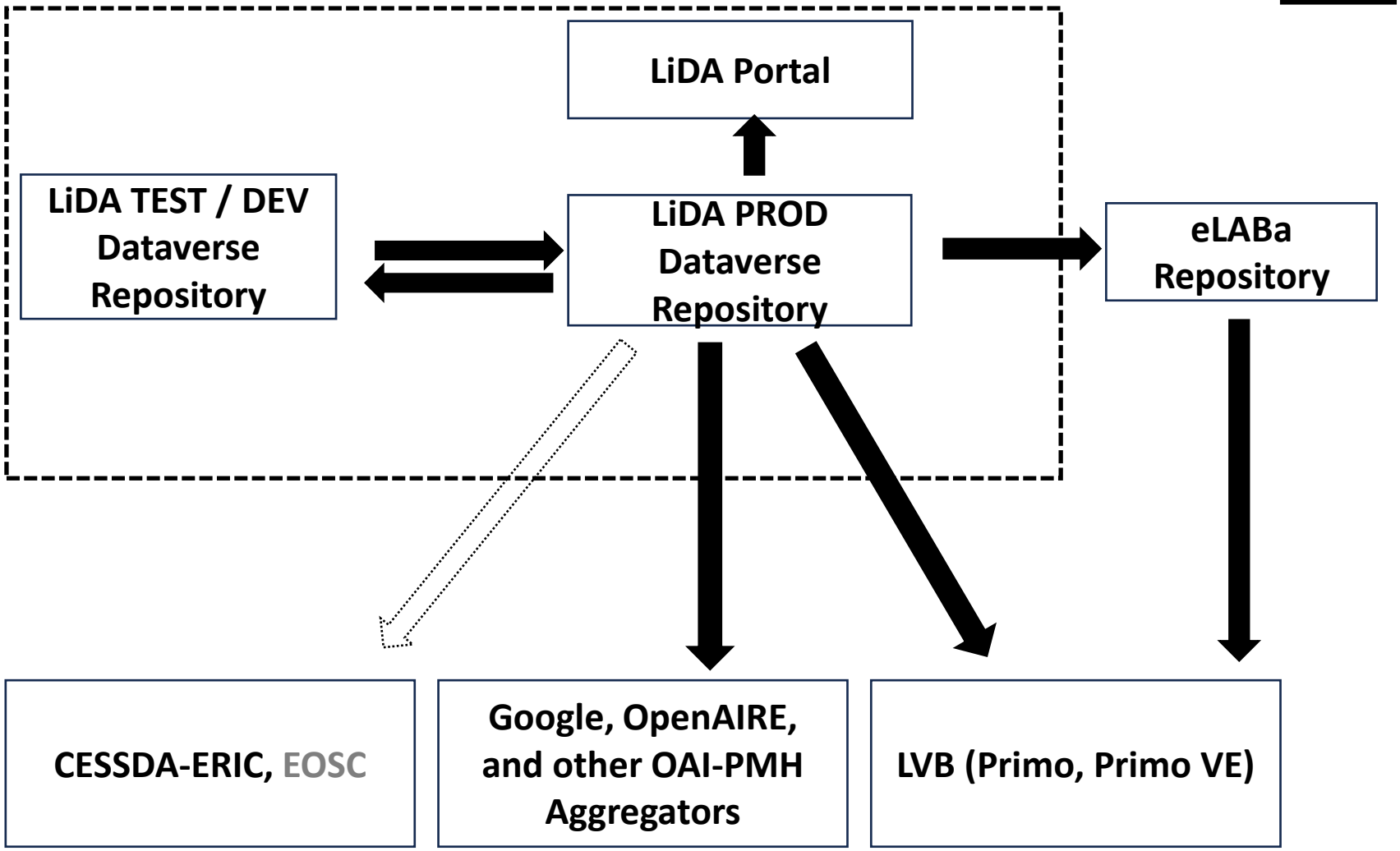
Phase I (2005–2010). General LiDA Scheme



Phase II (2011– 2020). General LiDA Scheme



Phase III (2021–2024). General LiDA Scheme



Basic Software of the LiDA Technical Infrastructure

- **Dataverse is a modern open-source research data repository software (*https://dataverse.org*)**
  - Extensible
  - It supports (almost all fully) FAIR Data Principles
  - Provides OAI-PMH (Harvesting)
    - DDI, Dublin Core, DataCite, OpenAIRE, etc.
  - Allows login via Shibboleth (SSO), Google, etc.
  - Supports internationalization
  - Includes versioning capabilities
  - Etc.

Equipment of the Current LiDA Technical Infrastructure

- **LiDA Technical Infrastructure consists of three virtual machines (VM)**
  - These VMs are hosted on modern and powerful workstations, as well as data arrays and archiving systems located at the KTU ITD data center and on a rented cloud service comparable to AWS S3
  - The KTU ITD data center is practically classified as Tier 3, which ensures that LiDA meets modern safety and reliability standards

LiDA PROD Dataverse Repository *(https://lida.dataverse.lt)*

- **LiDA PROD VM**
  - CPU (vCPU) – 4
  - RAM – 20 GB
  - HDD – 770 GB
    - 446 LiDA PROD objects occupy ~24 GB
  - Operating System – Rocky Linux 8.4
  - Data Repository – Dataverse v. 6.2 build 1603-a218417
    - Java 17, Payara 6, Solr 9, PostgreSQL 13, Apache 2.4, etc.

LiDA Portal (*https://data.ktu.edu*)

- **LiDA PROD CMS VM**
  - CPU (vCPU) – 2
  - RAM – 4 GB
  - HDD – 24 GB
  - Operating System – Ubuntu 18.04
  - CMS – WordPress 5.5.15
    - Apache/2.4, etc.

LiDA TEST / DEV Dataverse Repository (*https://test-lida.dataverse.lt*)

- **LiDA TEST/DEV VM**
  - CPU (vCPU) – 2
    - RAM – 6 GB
    - HDD – 50 GB
      - 446 LiDA TEST/DEV objects occupy ~24 GB
  - Operating System – CentOS Linux 7
  - Data Repository – v. 6.4 build 1609-906f874
    - Java 17, Payara 6, Solr 9, PostgreSQL 13, Apache 2.4, etc.

Primary Responsibilities of the LiDA Technical Partner

- Participate in joint projects focused on the development of LiDA technical infrastructure
- Allocate, maintain and support LiDA VMs:
  - Promptly resolve any technical issues that arise
  - Install new versions of Dataverse along with the necessary extensions
  - Ensure the submission metadata of LiDA objects into OpenAIRE, *EOSC (possibly in the future)*, **CESSDA (certainly in the nearest future)** and other aggregators
  - Ensure integration with National Repository eLABa

Instead of Conclusions (1)

- *https://zenodo.org/records/13827905*

September 23, 2024 (v1) | Publication | Open

LiDA Persistent Identifier Policy for Data Sets

Morkevičius, Vaidas

- *https://zenodo.org/records/7152184*

October 6, 2022 (1.1) | Report | Open

Report on descriptors of data types in popular generic descriptors, most important distinct types of social science data objects, and most relevant metadata fields for discovering social science data objects

Morkevičius, Vaidas; Blažinskas, Andrius; Štreimikis, Antanas; and 1 other

- *https://zenodo.org/records/7178346*

October 6, 2022 (1.2) | Report | Open

Report describing the developed prototype of a use case of servicing metadata of social science data objects from the Lithuanian Data Archive for Humanities and Social Sciences Dataverse Repository to the Lithuanian Academic Electronic Library

Štreimikis, Antanas; Blažinskas, Andrius; Morkevičius, Vaidas; and 4 others

Instead of Conclusions (2)

- We will continue to work closely with LiDA owners to achieve the following goals
  - Ensure timely updates of Dataverse versions and their extensions
  - Implement the necessary technical solutions for LiDA to meet all the requirements to be recognized as a trusted digital data repository (**CoreTrustSeal**)**,** paving the way for LiDA to become a full member of CESSDA ERIC
  - Actively engage in the activities related to LiDA's strategic directions and priorities for the years 2024 to 2028

Q&A

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