



CENTRAL DATA ARCHIVE (CDA)

University Library in Bratislava
Bibiána Žigová

PROJECT

- The LTP solution for Cultural Heritage in Slovakia.
- In 2011 The University Library in Bratislava was charged with setting up a powerful Infrastructure for the Long Term Preservation of digitized Cultural Heritage across „the National Memory“ Institutions. The Central Data Archive (CDA) is realised in the Framework of the Operational Programme Informatisation of the Society (OPIS), prevailingly financed by the EC Regional Development Fund (33 184 470,48 €).



TERMS AND STANDARDS

- Based on International Standards
 - OAIS ISO 14721
 - LTP ISO 16363
 - ISO/IEC 27001
- Methodical Manuals by Ministry of Culture Slovak Republic
- Long Term Preservation of digitized Slovak Cultural Heritage
- 25 PetaByte Capacity
- 3 Locations
- 3 Data Copies

LOCATIONS

- CDA-A
Data Center
University Library in Bratislava
- CDA-B
Data Center
Slovak National Library in Martin
- CDA-C
Safe Depozit
University Library in Bratislava



DESIGN

- Redundant Technology
- Twins Site
- Components

Servers

IBM Power 770 / 48 proc.
 HP DL 320, 360, 380

Storage

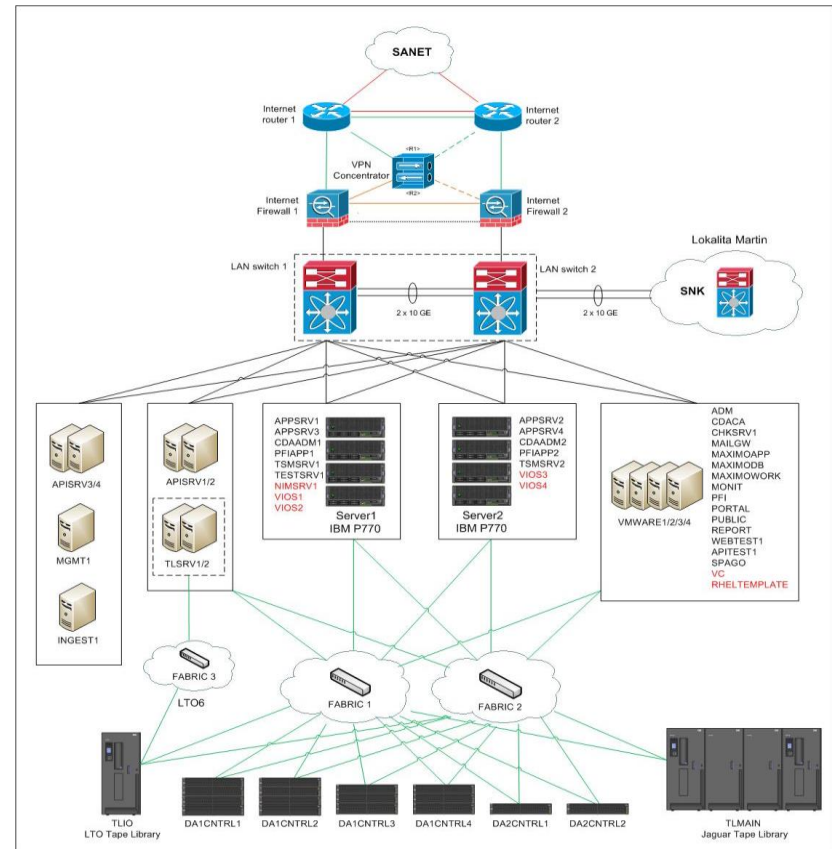
IBM Storwize V 7000

Tape libraries

IBM 3584 25 PB
 IBM 3500 LTO5, LTO6

IBM SAN Switch

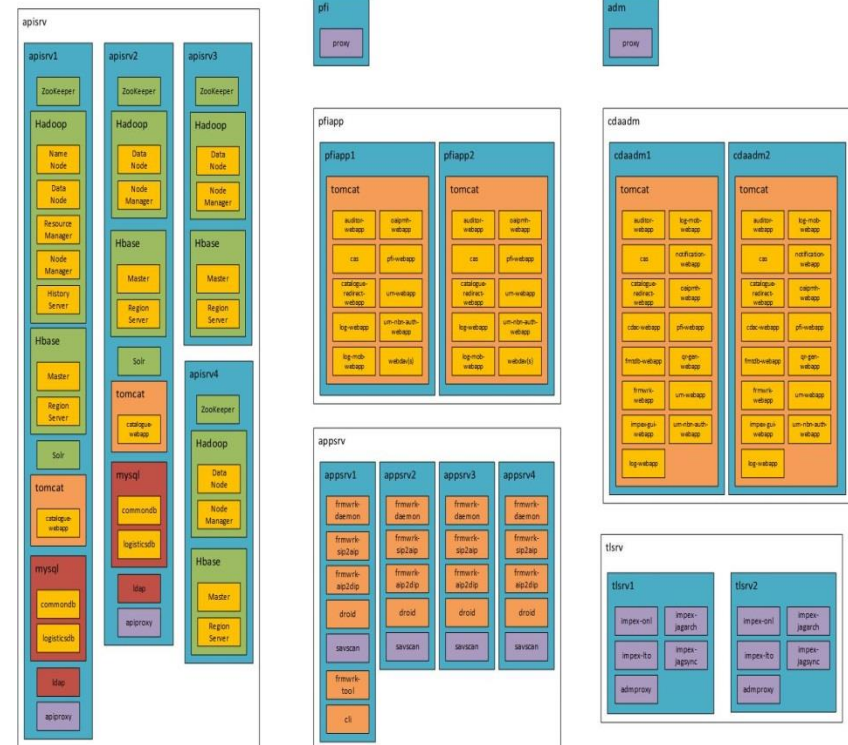
HP Network components



SOFTWARE

- **Operational SW**
AIX, RedHat, Windows
- **System SW (IBM)**
LTFS, GPFS, HSM, TSM
- **Application SW (Tempest)**
CDA Application Server
CDA Database Server
CDA System Directory
CDA Impex (JAVA)
CDA Framework

- **Deployment Diagram**



DATA SOURCE

- **Digitized Slovak Cultural Heritage**
- **Slovak National Memory Institutions united in Designated Community**
- **Designated Community**
 - ❖ Museum of the Slovak National Uprising
 - ❖ The Monuments Board of the Slovak Republic
 - ❖ Slovak National Library
 - ❖ Slovak National Archive
 - ❖ Slovak Film Institute
 - ❖ Slovak National Gallery
 - ❖ National Education and Culture Centre
 - ❖ The State Science Library in Prešov
 - ❖ University Library in Bratislava

LOGISTICS

- **INGEST**
 - Online
 - Offline on LTO5, LTO6 Magnetic Tapes transported in special Cases
 - Offline on HDD
- **SYNCHRONISATION**
 - Offline on Jaguar Magnetic Tapes transported in special Cases between 2 CDA Sites
- **DISSEMINATION**
 - Online
 - Offline on LTO5 Magnetic Tapes transported in special Cases
- **SAFE DEPOSIT** Jaguar Magnetic Tapes



USER INTERFACE

Catalogue



Ingest



Dissemination

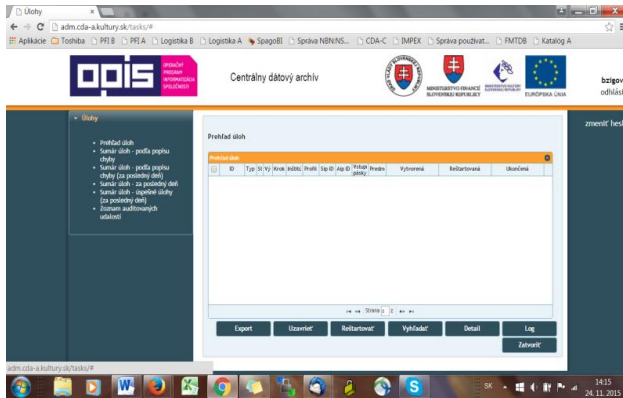


User Management

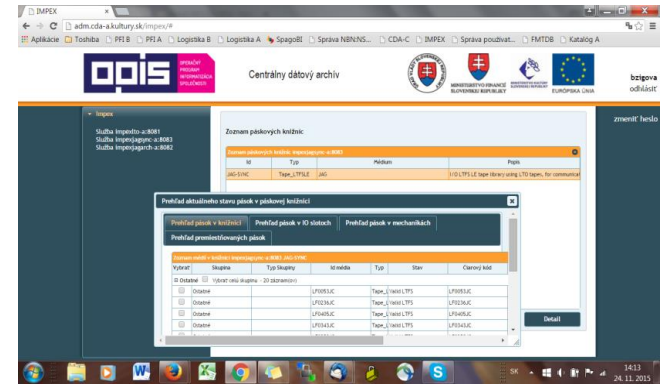


ADMIN INTERFACE

Task Management



Media Management



```

[1] name: [1]@vivo -] $ bash /home/jstrnisk/bin/ingest.sh
Host: name: [1]@vivo acct date: Tue Nov 24 12:10:15 CET 2015
1/2 report od 2015-11-09
Warning: Using a password on the command line interface can be insecure.
-----
| state | step | sips | TiB | pfi | profile | LastExecDate |
-----
| FAILED | STORE_AIP_TO_HSM_CHECK | 6 | 0.000 | urn | SYNC_1 | 2015-11-24 11:46:57 |
| FAILED | IMPORT_SIP_CHECK | 9 | 0.000 | urn | ProfFileD1 | 2015-11-24 12:17:46 |
| IN_PRO | SIP_2_AIP_METS_TRANSFORM_CHECK | 1 | 0.000 | urn | SYNC_1 | 2015-11-24 12:18:09 |
| IN_PRO | SIP_2_AIP_METS_TRANSFORM_CHECK | 24 | 0.000 | SFU | SFU_01 | 2015-11-24 12:18:09 |
| IN_PRO | SET_SIP_ARCHIVED_CHECK | 69 | 1.959 | urn | SYNC_1 | 2015-11-24 12:18:10 |
| IN_PRO | SET_SIP_ARCHIVED_ASYNC | 1 | 0.031 | urn | SYNC_1 | 2015-11-24 12:18:09 |
| IN_PRO | IMPORT_SIP_CHECK | 2231 | 0.000 | urn | ProfFileD1 | 2015-11-24 12:18:10 |
| IN_PRO | IMPORT_SIP_CHECK | 28 | 0.000 | SFU | ProfFileD1 | 2015-11-24 12:17:44 |
| IN_PRO | EXPORT_TO_CDA_C_CHECK | 2 | 0.000 | SFU | SFU_01 | 2015-11-24 12:11:03 |
| IN_PRO | DUMP_FINAL | 1 | 0.000 | SFU | AipDirPat | 2015-11-24 12:18:09 |
-----
2/2 report od 2015-11-14
Warning: Using a password on the command line interface can be insecure.
-----
| profile | state | step | sips | TiB | MaxClosedDate |
-----
| 2015-11-20 | SYNC_1 | CLOSED | FINISHED | 2480 | 9.992 | 2015-11-20 23:47:06 |
| 2015-11-21 | SYNC_1 | CLOSED | FINISHED | 1545 | 24.877 | 2015-11-21 21:35:17 |
| 2015-11-22 | SYNC_1 | CLOSED | FINISHED | 13434 | 16.264 | 2015-11-22 22:33:08 |
| 2015-11-23 | SYNC_1 | CLOSED | FINISHED | 22104 | 17.209 | 2015-11-23 20:30:57 |
-----
[3]+ Stopped bash /home/jstrnisk/bin/ingest.sh
  
```

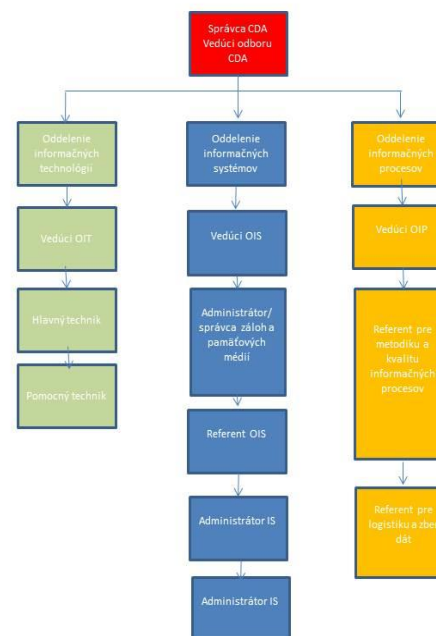
```

[1] [redacted] $ mysql -hcommondb-a -ureadonly -preadonly -Dcommon_db < A-SFU-LT06-20151124-0820_count.sql
Warning: Using a password on the command line interface can be insecure.
count(id) state step TiB
1 FAILED FINISHED ON BUSSINES ERROR 0.000
13 IN_PROGRESS EXPORT_TO_CDA_C_CHECK 0.000
21 IN_PROGRESS IMPORT_SIP_CHECK 0.000
19 IN_PROGRESS SET_SIP_ARCHIVED_ON BUSSINES_ERROR_CHECK 0.000
19 IN_PROGRESS SIP_2_AIP_METS_TRANSFORM_CHECK 0.000
[1] [redacted] $
  
```

HR

- **12 Employees in CDA**
7 CDA-A, CDA,C Bratislava
5 CDA-B Martin
- **3 Departments**
Information Processes
Information Systems
Information Technologies

- **Org Chart**



CERTIFICATIONS

- **ISO 16363**
2014 Internal Audit
2015 Drambora
2016/2017 Preparation for
Data Seal of Approval
- **ISO/IEC 27001**
2014 External Audit
2015 Supervisory Audit
2016 Supervisory Audit
2017 New External Audit

ZERTIFIKÁT ◆ CERTIFICATE ◆ 証明書 ◆ CERTIFICADO ◆ CERTIFICAT



CERTIFIKÁT

TUV SÚD Slovakia s.r.o.
Certifikačný orgán systémov manažérstva
akreditovaný SNAS
osvedčenie o akreditácii č. R-074
potvrďuje, že organizácia



Univerzitná knižnica v Bratislave
Michalská 1
SK – 814 17 Bratislava
IČO: 00 164 631

zaviedla a používa
systém manažérstva bezpečnosti informácií
v oblasti

Správa systému Centrálného dátového archívu.

Prehlásenie o aplikovateľnosti z 22.10.2014

Audítom, správa č. 1384/2014//AS/C
bolo preukázané, že sú splnené
požiadavky normy

ISO/IEC 27001:2013

Certifikát je platný do 2017-11-26
Registračné číslo certifikátu I 1384-1

Bratislava, 2014-11-27




TUV SÚD Slovakia s.r.o.
Certifikačný orgán systémov manažérstva
člen skupiny TÜV SÜD
Jaskovce 6, 821 03 Bratislava

F-IQ-01925

REPORTING

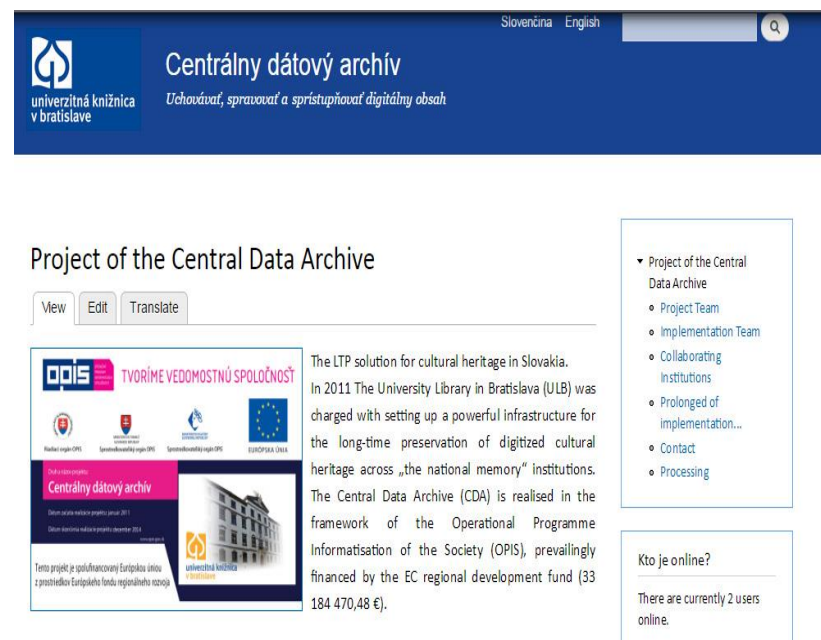
- **Daily**
 - Ingest
 - Dissemination
 - Synchronisation
- **Monthly**
 - SIP/DIP quantity
 - TB/PB amount
- **Accumulative**
 - SIP Total Volume **1 524 081 SIP**
 - TB/PB Total Volume **3707,84 TB/3,6 PB**



CDA WEB

cda.kultury.sk/eng

- News
- Photos
- Project
- Operations
- Reporting
- Documents
- Presentations



The screenshot shows the website header with the logo of the University Library in Bratislava and the text "Centrálny dátový archív" and "Uchovávať, spravovať a sprístupňovať digitálny obsah". Below the header, there is a section titled "Project of the Central Data Archive" with a search bar and a list of links: "Project of the Central Data Archive", "Project Team", "Implementation Team", "Collaborating institutions", "Prolonged of implementation...", "Contact", and "Processing". On the right side, there is a box titled "Kto je online?" with the text "There are currently 2 users online."

CDA TEAM

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