

Functional Access to Electronic Media Collections using Emulation-as-a-Service

Thomas Bähr¹, Michelle Lindlar¹ und Klaus Rechert²

¹ German National Library of Science and Technology (TIB)

² University of Freiburg, Germany

User-Layer



CD-ROM Collection Ingest Workflow

- Evaluate and prioritize data carrier migration
- License evaluation and rights clearance
- Creation of media images (e.g. ISO)

Curator



Access User



Workflow-Layer

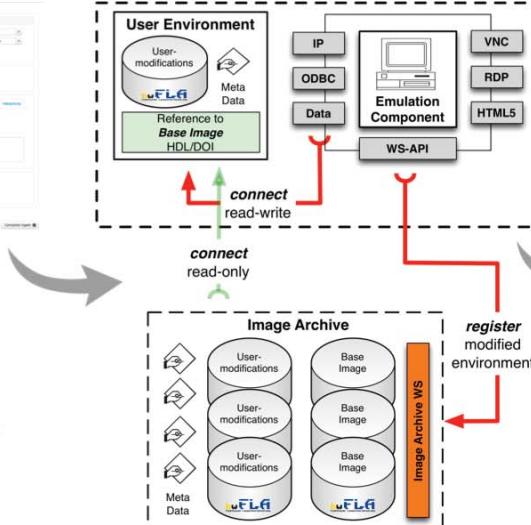
Ingest



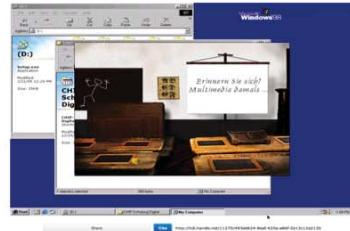
Creation of tech. metadata

- Select and retrieve CD-ROM image
- Select an EaaS base image
- Install additional software (optional)
- Configure environment (optional)
- Evaluate object rendering
- Create and save a citable environment
- Output of technical metadata

Tailored Rendering Environment



Access

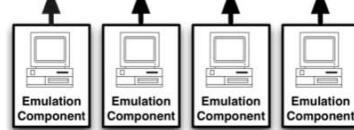


Object rendering

- Load technical metadata
- Allocate computing resources
- Prepare emulator node
- Load and deploy environment
- Inject object (CD-ROM ISO)
- Re-enact environment
- Provide interactive access to users

Technical-Layer Emulation-as-a-Service

Emulation-as-a-Service Base Environments



Local Computing Resources



Cloud Computing

Service Management
Resource Allocation

Demo



<http://tib-test.bw-fla.uni-freiburg.de>
user: tibtest
pw: tibtest2014