From desktop to Software as a Service:

transforming Greece’s most widespread library software “ABEKT” into a brand-new cloud service “openABEKT”

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2017 ELAG Conference
The National Documentation Centre / EKT
Our strategic pillars

- eContent
  econtent.ekt.gr
- Metrics
  metrics.ekt.gr
- Innovation
  innovation.ekt.gr
- e-Infrastructure
The digital content lifecycle

- **preservation**
  - preservator.ekt.gr

- **re-use**
  - mitida.gr

- **dissemination**
  - ekt.gr
  - epublishing.ekt.gr
  - repositories.ekt.gr
  - openaccess.gr

- **collection**
  - library.ekt.gr + eskep.ekt.gr + openabekt.gr

- **aggregation**
  - searchculture.gr

- **documentation**
  - didaktorika.gr
  - grissh.gr

- **single point search**
  - openarchives.gr
  - searchculture.gr
  - argo.ekt.gr

- **validation**
  - validator.ekt.gr

- **semantic enrichment**
  - semantics.gr
EKT and libraries
Part of our longstanding role is to:

• Develop ABEKT, EKT’s library automation system, for the past 30 years.
• Connect libraries with each other and with international library networks and databases
• Support the national Network of Research and Technology Libraries
• Develop the National Union Catalogue of Science Magazines
• Develop aggregators and union catalogues for digital content
ABEKT user base

ABEKT Distribution
Libraries: [877]

- Academic [38]
- Public [46]
- Municipal [153]
- National [3]
- Special [165]

- School [396]
- Bank [6]
- Military [10]
- Medical [13]
- Legal [15]
- Museum [8]
- Religious [24]
ABEKT community

Since 1999
2,830 people trained to use ABEKT

Since 2000
53,000 people supported through HELPDESK
Time for change

Need to **open up digital content** and link the contents of a library catalog to **web sources** and **applications**. Especially for educational purposes.

**Current economic situation** is preventative for costly hardware, upgrades and maintenance.

Most libraries operate in their physical space often neglecting the impact and benefits of a digital space.

The library system needs a user interface that can be used by non-experts.
Time for a new cloud-based service

- Demand of making full use of national infrastructures and economies of scale
- Flexible and immediate updates of metadata formats
- Digital content management
- Improved staff & end user interfaces
- Library workflows
- New content discovery options and services
- Linked data....
A cloud-based service. Easy to use & sustainable.
openABEKT allows you to have a ready-to-use, autonomous application

openABEKT wizard
a customization tool for your individual application
saas.wizard.ekt.gr

openABEKT Your application
a multi-tenant system generating your autonomous application
you.openabekt.gr

openABEKT Central Public Access Catalogue
content from all libraries, in a single interface
catalogue.openabekt.gr

openABEKT Central Public Access Catalogue
catalogue.openabekt.gr

Discover content from all the libraries using it
The platform offers 3 environments:

- **Catalogue**
- **Discover**
- **Workflows & Functions**
• Basic Form
• MarcEditor
• Digital files
• Selected content for publishing
• Validated metadata
• UNIMARC
• Full exploitation rules & field values

✓ Flexible Cataloguing
✓ Standardization
✓ Semantic links
- Open Catalogue
- Shareable
- Explorable
- Usable content

- Open Catalogue
- Shareable
- Explorable
- Searchable in all metadata fields
- Reusable content
- Digital files with CC or other license
- More links between bibliographic records & authorities
- Metrics and statistics
- Environment customization
Circulation control
Patrons
Statistics

• Holdings
• Patrons
• Circulation
• More workflows
• Open catalogues for staff
• Full loan history
• Metrics and statistics
Collaborative catalogue development

Facilitation through:

- New user roles (Reviewer, Cataloguer, Discover)
- New workflows (Accept/Reject/Under Review/Publish-Unpublish/Delete)

Collaboration with the libraries for:

- Defining processes and workflows
- Organizing tasks
Facilitation through:

- Multi-tenant public catalogue, with both unique applications & union catalogue
- Libraries management
- Unique ID for users that allows access to all network libraries

Collaboration with libraries for:

- Processes definition
- Developing the network
- Managing the network
Service workflow

1. CUSTOMIZATION

openABEKT wizard

2. PRODUCTION IMPLEMENTATION

openABEKT  Content Migration  EKT Cloud

3. TRAINING & SUPPORT

eLearning  eKnowledge Base  eHelpDesk

We fully cover your needs for your library operation and development
An integrated cloud service provided as Software as a Service (SaaS)

<table>
<thead>
<tr>
<th>Service components</th>
<th>What’s covered</th>
<th>Basic</th>
<th>Advanced</th>
<th>Gold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hosting</td>
<td>Hosting on EKTCloud and maintenance</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Storage</td>
<td>Till 5 times more storage for backup copies</td>
<td>100 GB</td>
<td>500 GB</td>
<td>1000 GB</td>
</tr>
<tr>
<td>Backups</td>
<td>Backups of your data hosted in our datacenter</td>
<td>3 months inhouse</td>
<td>6 months inhouse</td>
<td>9 months outsourced</td>
</tr>
<tr>
<td>Maximum downtime</td>
<td>Annual total of periods when expected performance is low or there are short downtime intervals</td>
<td>10 days/year</td>
<td>6 days/year</td>
<td>4 days/year</td>
</tr>
</tbody>
</table>
An integrated cloud service provided as Software as a Service (SaaS)

Support & Training

With our up-to-date helpdesk and e-learning services, you are supported all the way.

eHelpdesk responds to your every question, eKnowledgeBase offers FAQs and user guides and eLearning helps you learn how to use the platform.
deals with any existing, machine readable content a library has

reports and stats so that they have a clear picture of the situation and potential issues so that they can correct it in the future

ISO2709 UNIMARC or MARC21, examine data quantity and quality and we analyze patterns and problems, validations, enrichments and default corrections

Through our service, we fully cover a library’s migration needs through the procedures of statistical analysis and error correction so that the content that goes through each application is quality controlled and validated.
Metadata quality & interoperability

- UNIMARC structure and characteristic, UNIMARC schema depiction on openABEKT allows it
- Record label and coded values (country, language, operation, spaces, fill characters etc.)
- Error in ISBN/ISSN
- Missing fields
- Records without 7xx or $4
- Records without 6xx
- Mixed characters, i.e. Greek words with English characters etc..
- Cataloguing rules
- Other points as specified by the library

No data import for now

Libraries send us records we validate, perform some automatic corrections & we migrate them ourselves
develop a Migration tool
- Collaborative service design
- New model of service delivery
- Innovative aspects & future feature planning
- Prioritization for immediate needs
- Community engagement – online community building
- Distribution strategies

- More workflows automation
- Self-services for patrons
- Business intelligence tools
- Visualized statistics and metrics
- RFID technology
- Smart devices

- Service work-flow modelling
- Full advantage of what the cloud could offer us and our clients
- Gradual user familiarization with cloud services
The technical side

openABEKT Server Software 2013

Operating System: Linux  |  Web Server: Nginx  |  Cashing Server: Varnish

- MongoDB
- ElasticSearch
- Redis
- Z39.50 Zebra
- Ruby on Rails Framework
- Puma
- Bootstrap
- Sidekiq
- Capistrano

- PHP
- MySQL
- Nginx
- Bootstrap
Indexing Records
Some of our users

- The Acropolis Restoration Service Library Catalogue
- The European Public Law Organization Library
- The Library of the Greek Biotope/Wetland Centre (EKBY)
- The Catalogue of the Library of General Hospital Asklepieio
- The Public Library of Konitsa
- The Public Library of Levadia
- The Public Library of Serres
- The Public Library of Mytilene
- The Library of Holy Trinity's Sacred Patriarchal and Stavropegic Monastery of Jagaroli
We received:

4,314 bibliographic records in MS Access

with key word & without authorities

We converted that into:

4,314 bibliographic records

1,909 of them published

with 31,867+ semantics links

&

6,239 authorities

6,631 holdings

3,514 of them published

with 1,572 digital files

Monographs | Excavation calendars | Journals | Off prints | Reports

All digital files in openABEKT always come with CC or other license to enable legal reuse of digital content.
Social Sciences [10921]
- Psychology [513]
- Economics and Business [2476]
- Educational sciences [1715]
- Sociology [1981]
- Law [966]

Humanities [25681]
- History and Archaeology [10843]
- Languages and Literature [4494]
- Philosophy, Ethics and Religion [5933]
- Arts [3359]
- Other Humanities [1024]
The future

- Sustainability strategy
  - in-house development
  - external funding
- Community building
- Web patron services
- Inter-library collaborations
  - inter-library loan services
  - union catalogues development
- Time saving workflows
  - cataloguing
  - metadata quality
  - Library’s routines
- Linked open data and semantic connections
- FRBRized catalogue
- Data visualizations (metadata and metrics)
- Sustainability strategy in-house development external funding Community building Web patron services Inter-library collaborations inter-library loan services union catalogues development Time saving workflows cataloguing metadata quality Library’s routines Linked open data and semantic connections FRBRized catalogue Data visualizations (metadata and metrics)
The project team

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*Permanent staff
Full time Contractors*
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National Hellenic Research Foundation

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