E-GROUP
SOFTWARE & BEYOND

Eliminating papers and creating electronic archives by using clouds

(eDOX Archiver)

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Introduction

- paperless office

Does it remain a „buzzword” or will there be any improvement in the business or governmental sector?

economic crisis, cost-effectiveness → eliminate paper warehouses
both legal and technical background exist
immediate cost reduction (no fees for hiring, easier look-ups)

Legal background

- paperless office

legal regulations:
decree No. 13/2005. (X. 27.) of the Ministry of Information and Communications on the Rules of Digitization of Paper-based Documents

decree No. 83/2012. (IV. 21.) of the Government on the Mandatory Services of Government and on the Regulated Electronic Public Administration Services

decree No. 78/2012. (XII. 28.) of the Ministry of Interior on Unified Classes of Records at Local Governments

Legal background

- paperless office

legal regulations:
The list of Regulated Electronic Public Administration Services that must be provided:

38. The register of administration instructions of citizens'
39. The register of record validity
40. Governmental Certificate Authority (CA)
41. Governmental electronic signature verification service
42. Central identification, authentication and authorization
43. Unified service for sending filled forms
44. Central data authentication (e-Notary)
45. Authentic printing of electronic documents
46. Authentic digitization of paper-based documents
47. Electronic payment and settlement system

Technical background

- paperless office

technical regulations:
retrieved and attached metadata
(e.g. title, validity period)
advanced electronic signature
qualified timestamp

Decree No. 13/2005. (X. 27.) of the Ministry of Information and Communications on the Rules of Digitization of Paper-based Documents

4. §

(3) The digitized copy of a document must be created with the following metadata attached unambiguously:

a) the title of paper-based document
b) the physical size of paper-based document
c) the name of entity responsible for digitization
d) the digitization policy identifiers
e) the scanning date of paper-based document
f) the creation date of paper-based document

Technical background

- paperless office

  technical regulation:
  Retrieving metadata from the document itself is computation intensive (based on elements of Dublin Core – ISO 15836 – MIReG) and needs OCR functionality and intelligent relevancy algorithms.

Technical background

- paperless office

technical regulation:
The documents and records can be classified based on retrieved metadata (described in decree No. 78/2012. (XII. 28.) of the Ministry of Interior) and on other „best practices" of business sector.

identifier	title	retention period	archivation
[...]			
U111	Local government decree	non-discardable	15
[...]			
U212	Audit documentation of National Local Governments	non-discardable	15
[...]			
U311	Complaint, request, proposal, notification	2	-
[...]			
U402	Workflow management (documentation of workflows, supporting applications)	non-discardable	15
[...]			
U503	Wage board, salary register	75	-
[...]			
U601	Taxation	5	-
[...]			

Technical background

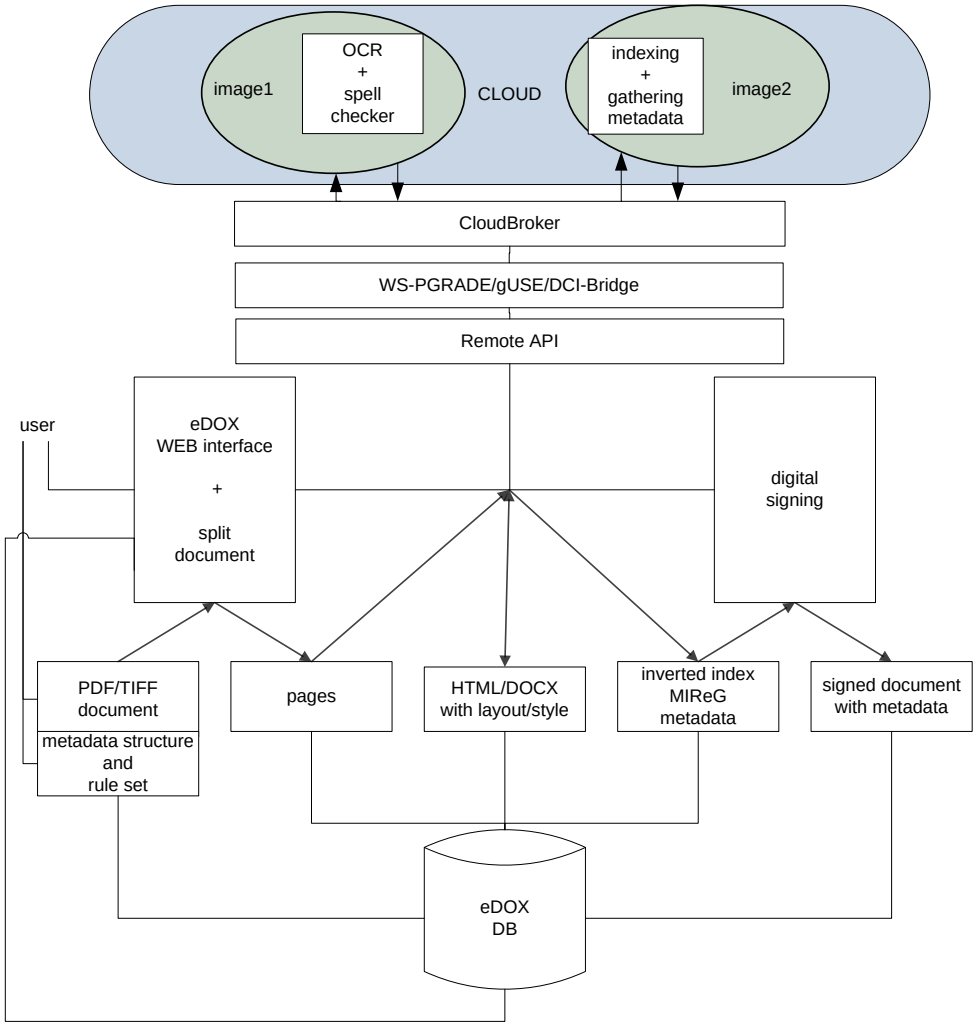
- paperless office

  technical regulation:
  digitization of documents (scan) (.pdf, .tiff)
  output of optical character recognition (OCR) (.txt, .html, .docx),
  retrieving metadata (MIReG) (.xml)
  → protect them together with electronic signature (XAdES)

Technical background

- cloud environment

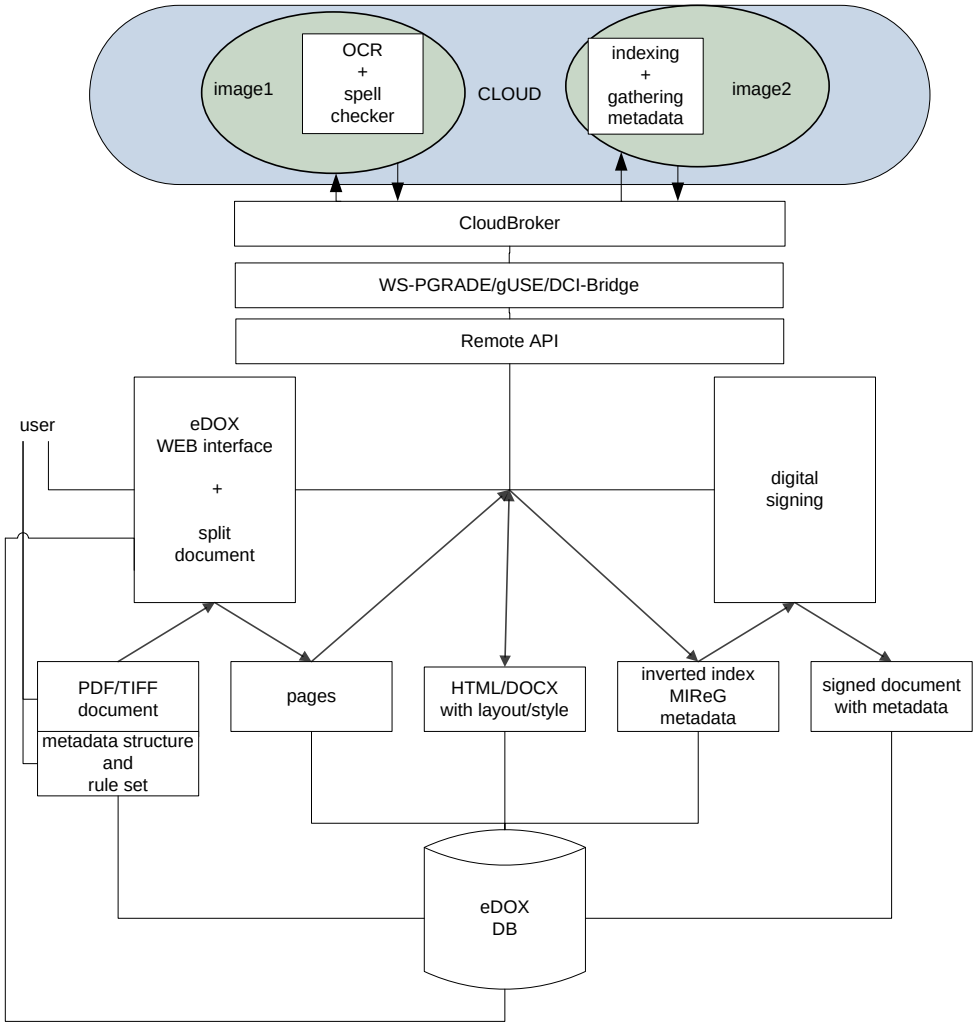
The computation intensive steps of document processing (OCR, spell-checking, word analysis, indexing, retrieving metadata, document classification) are executed in the cloud.



Technical background

- cloud environment

communications:
SZTAKI - Remote API
web service for uploading
SZTAKI – gUSE
workflow management
SZTAKI – DCI Bridge
setting cloud parameters
CloudBroker
management of code
running in the cloud
Amazon - EC2
cloud resource provider



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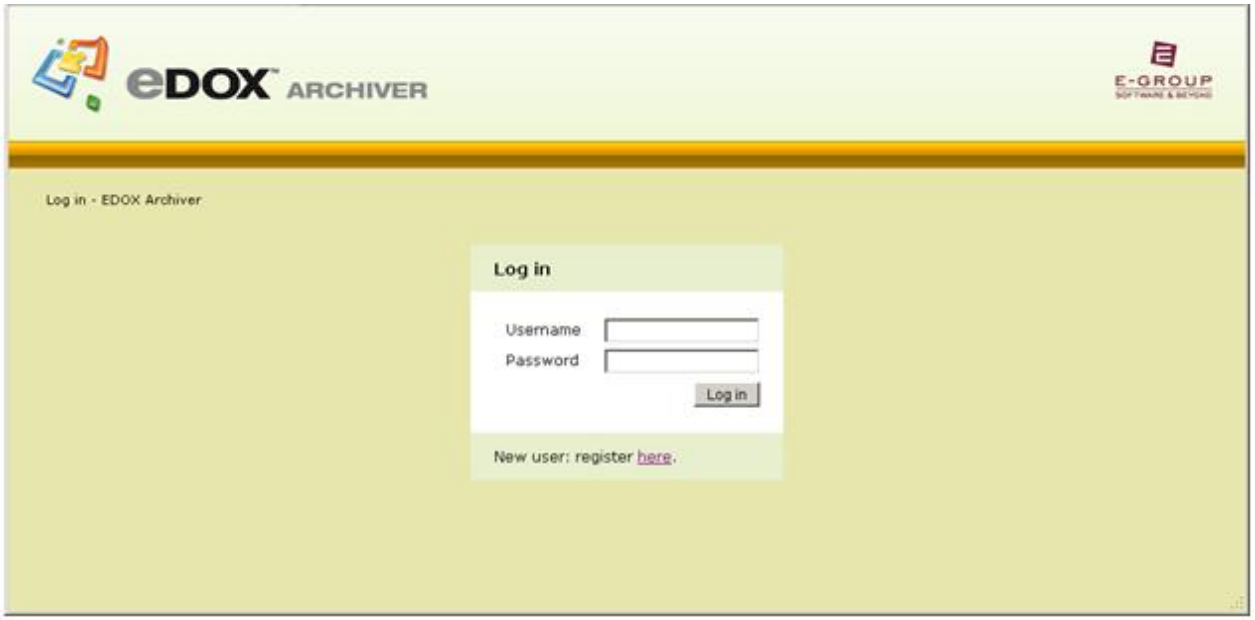

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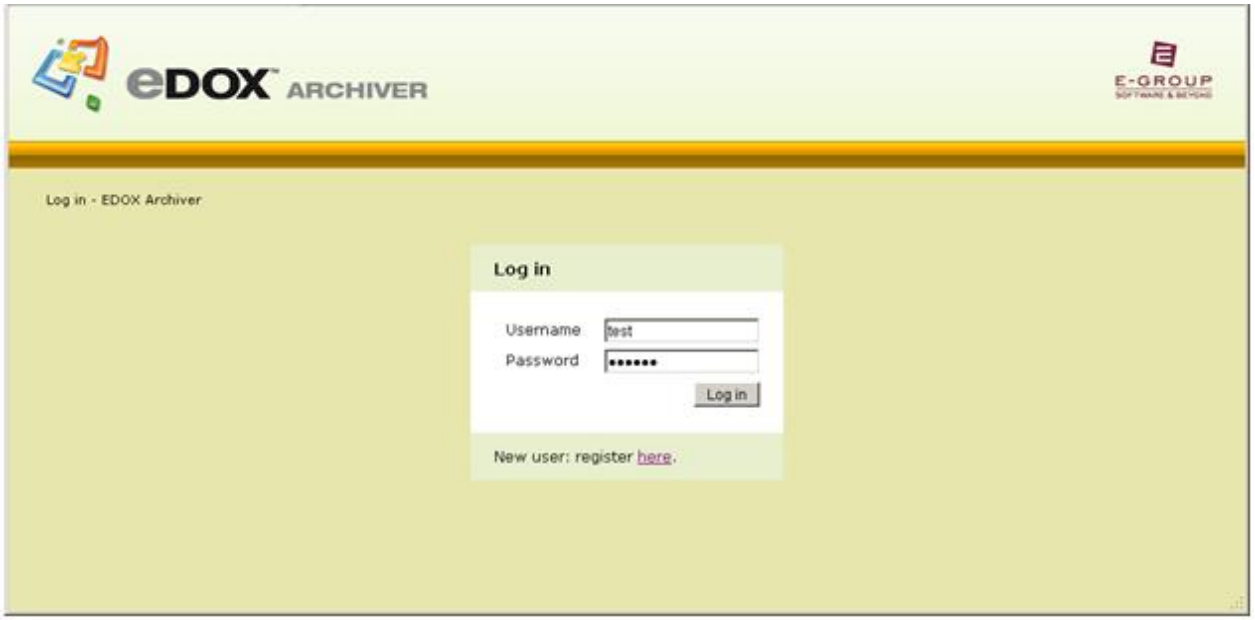

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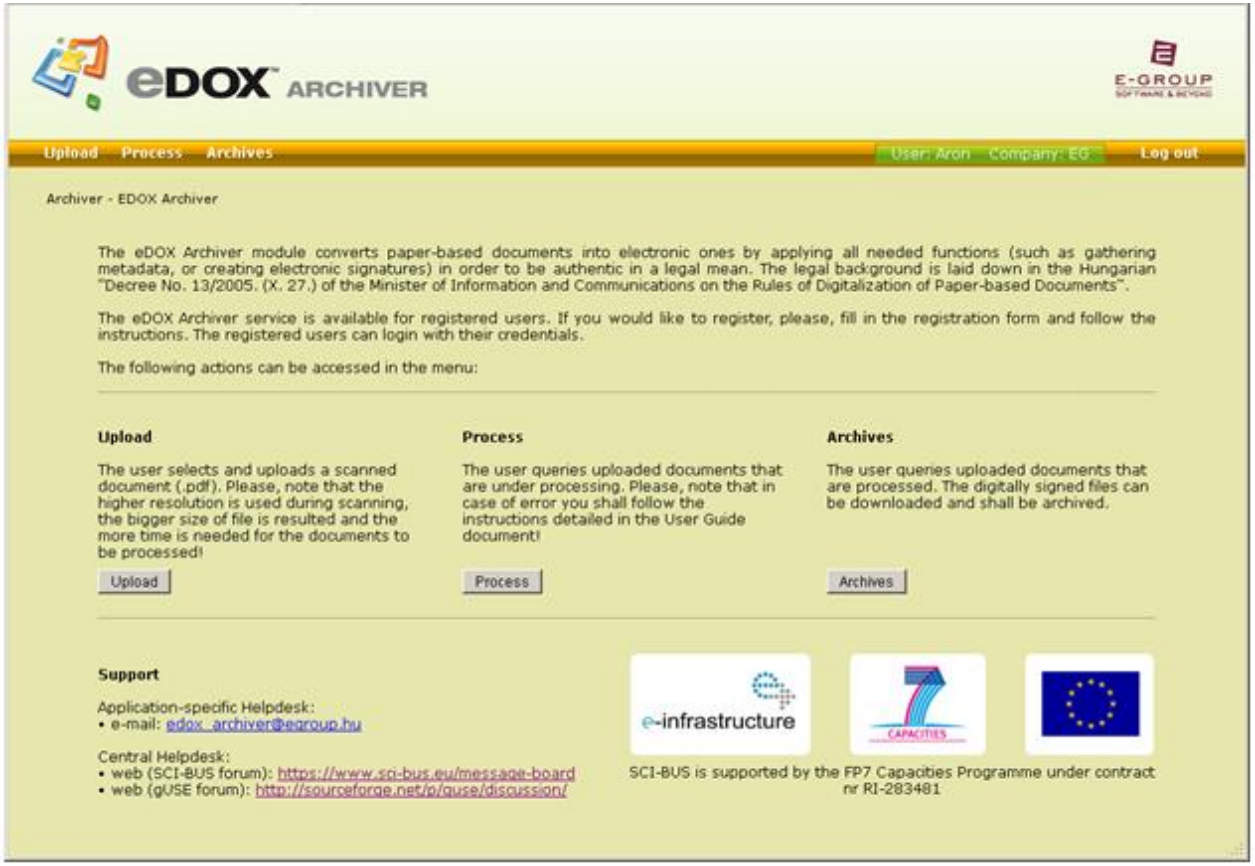

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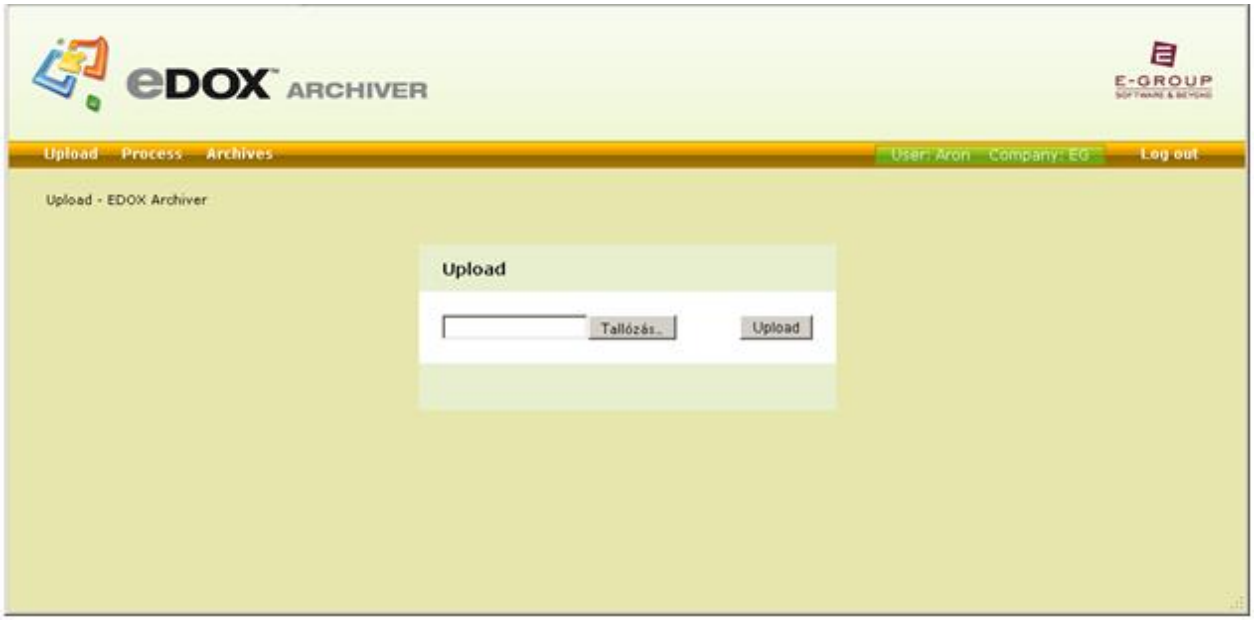

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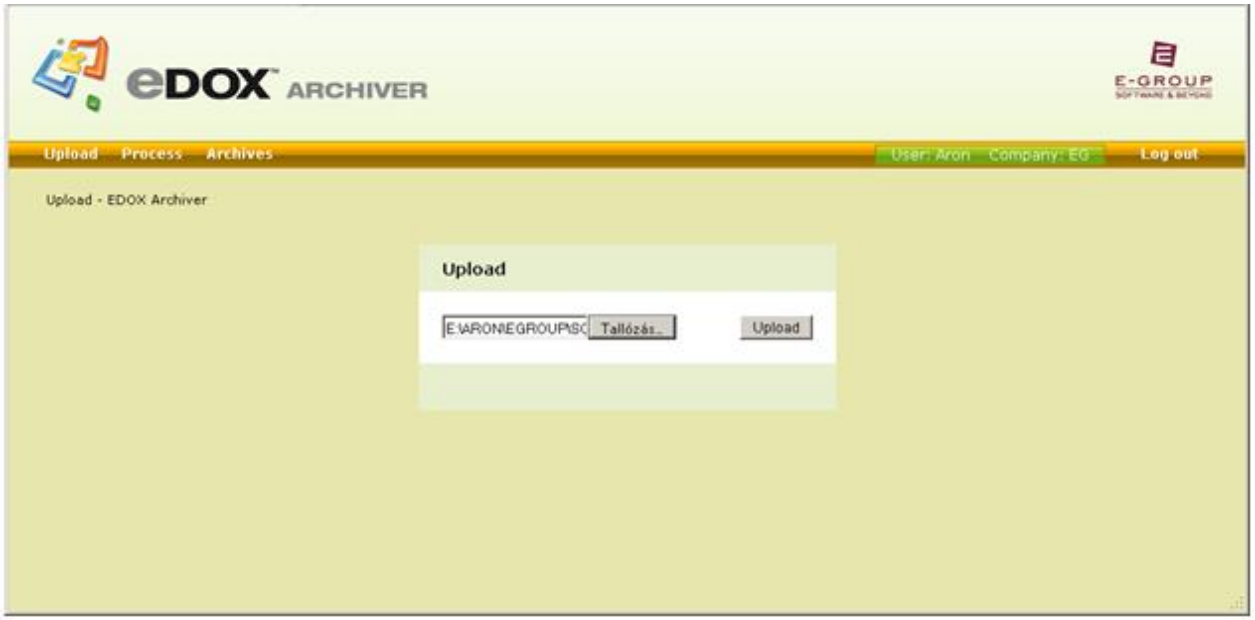

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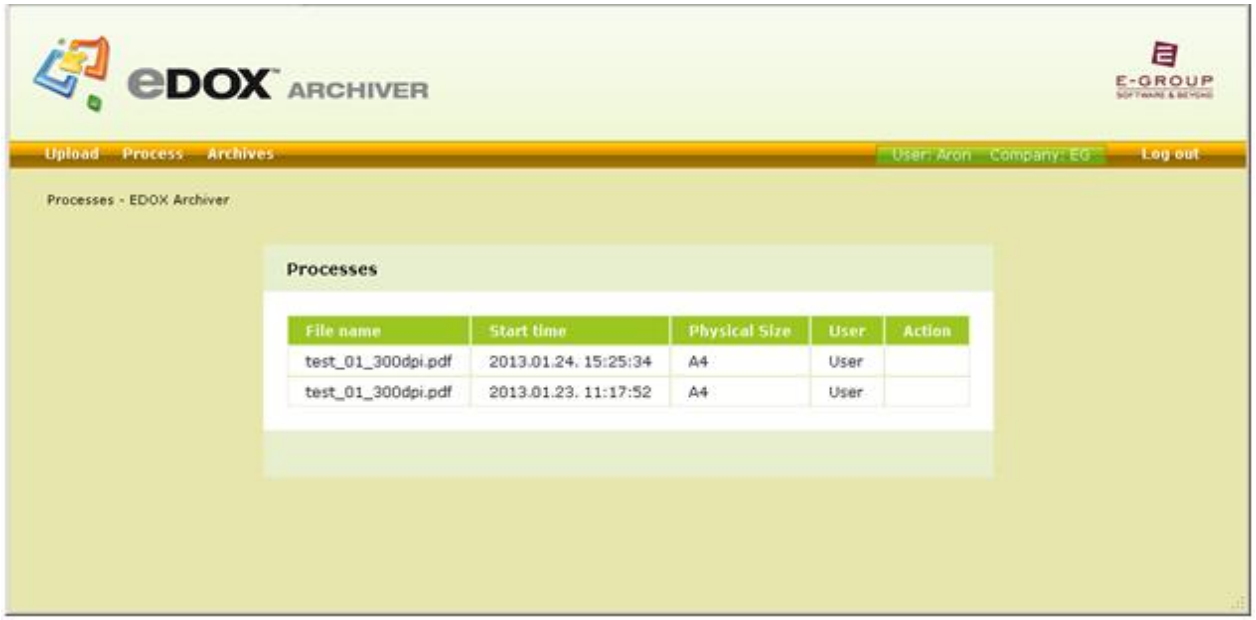

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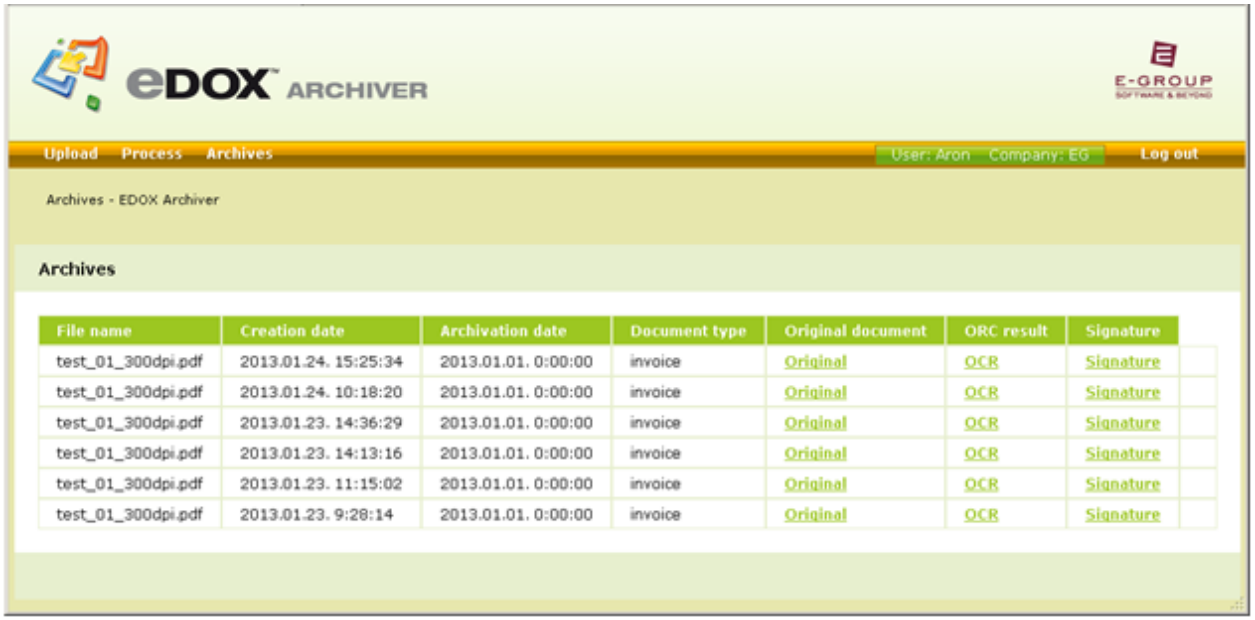

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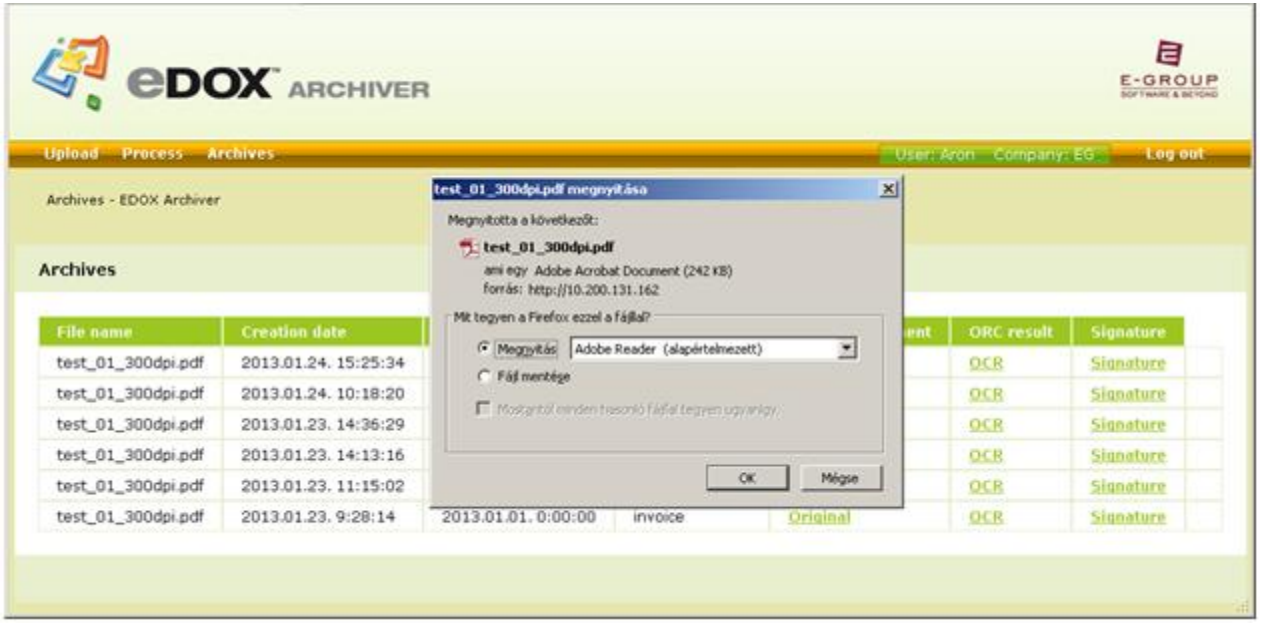

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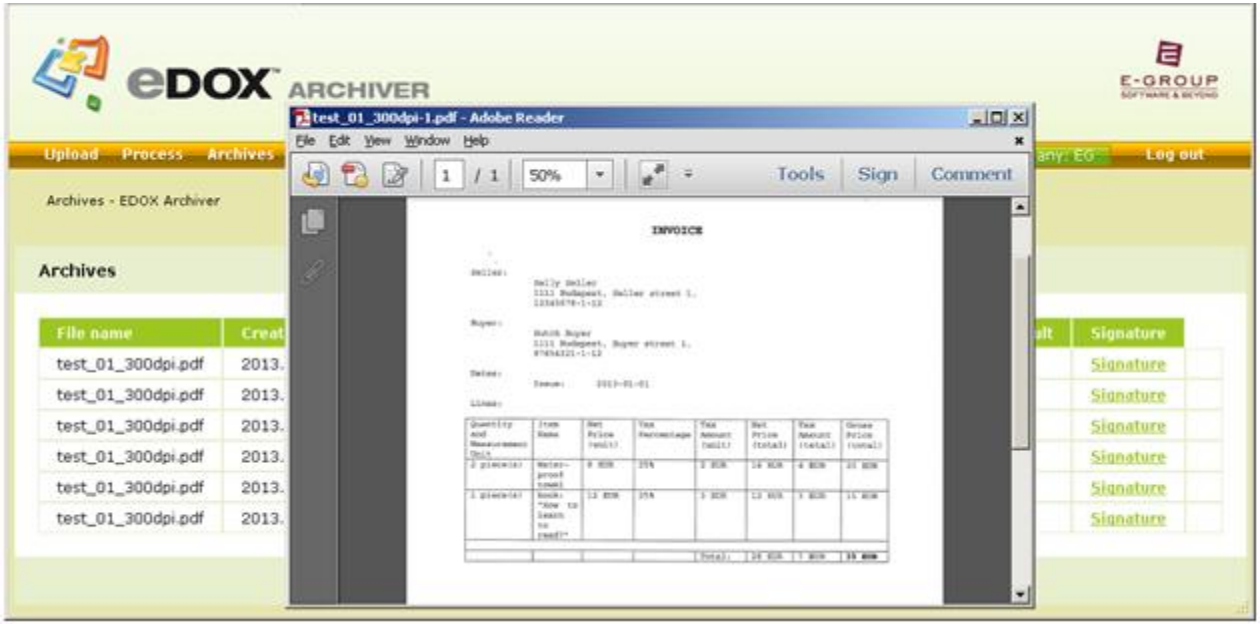

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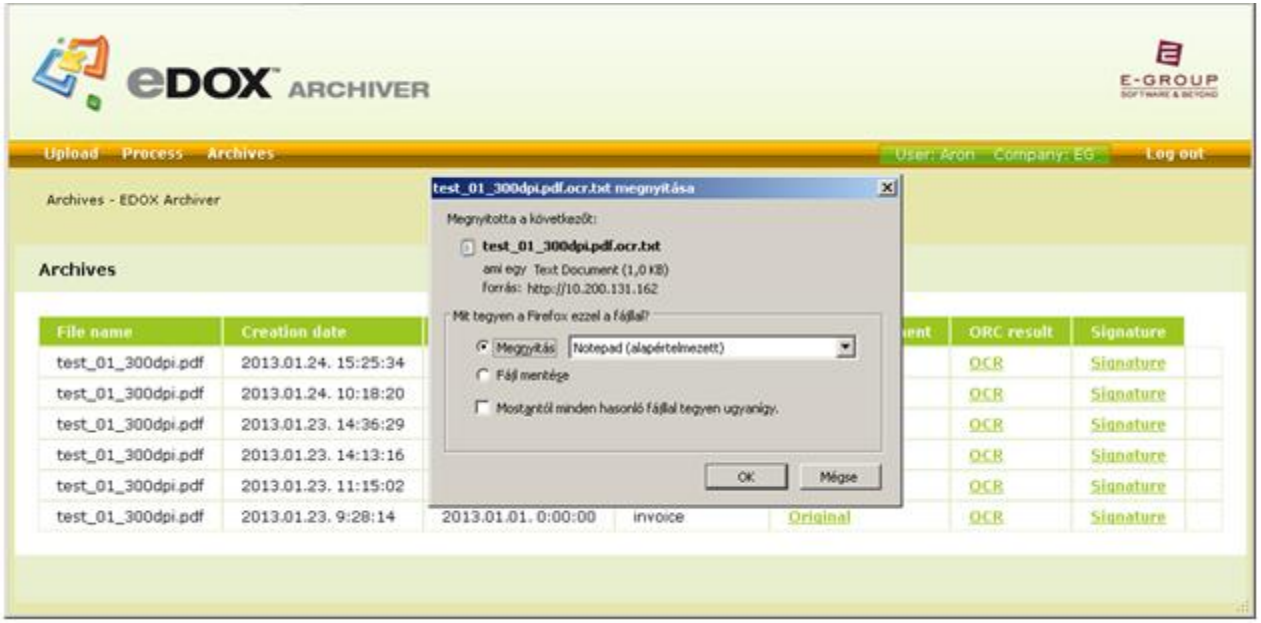

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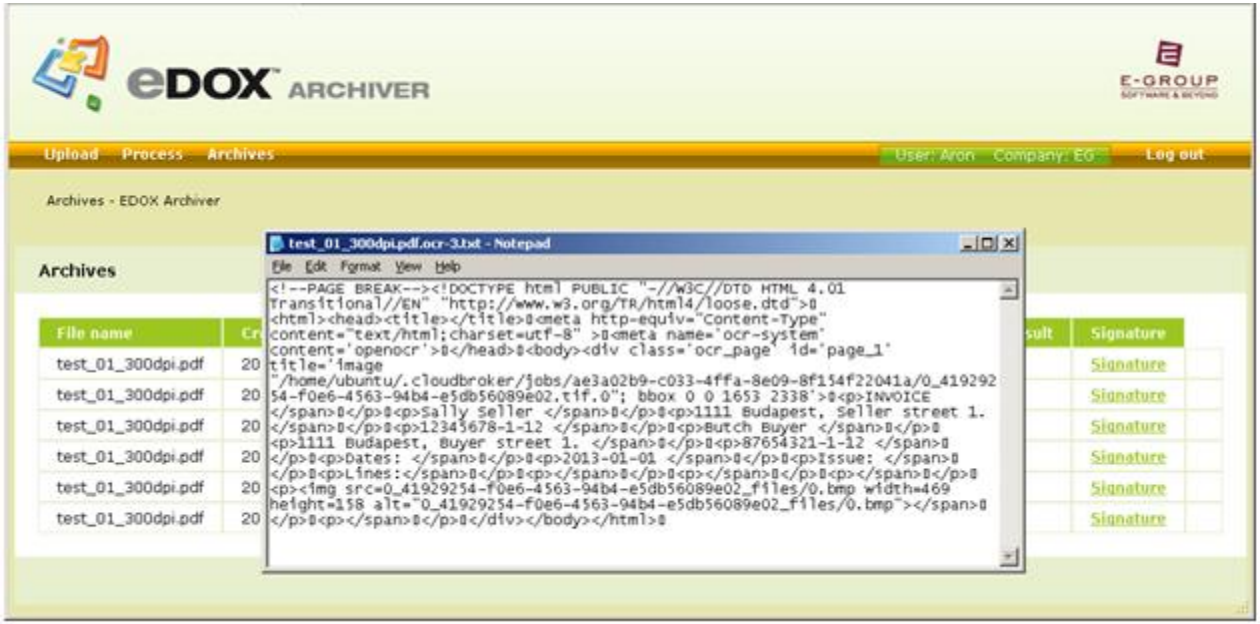

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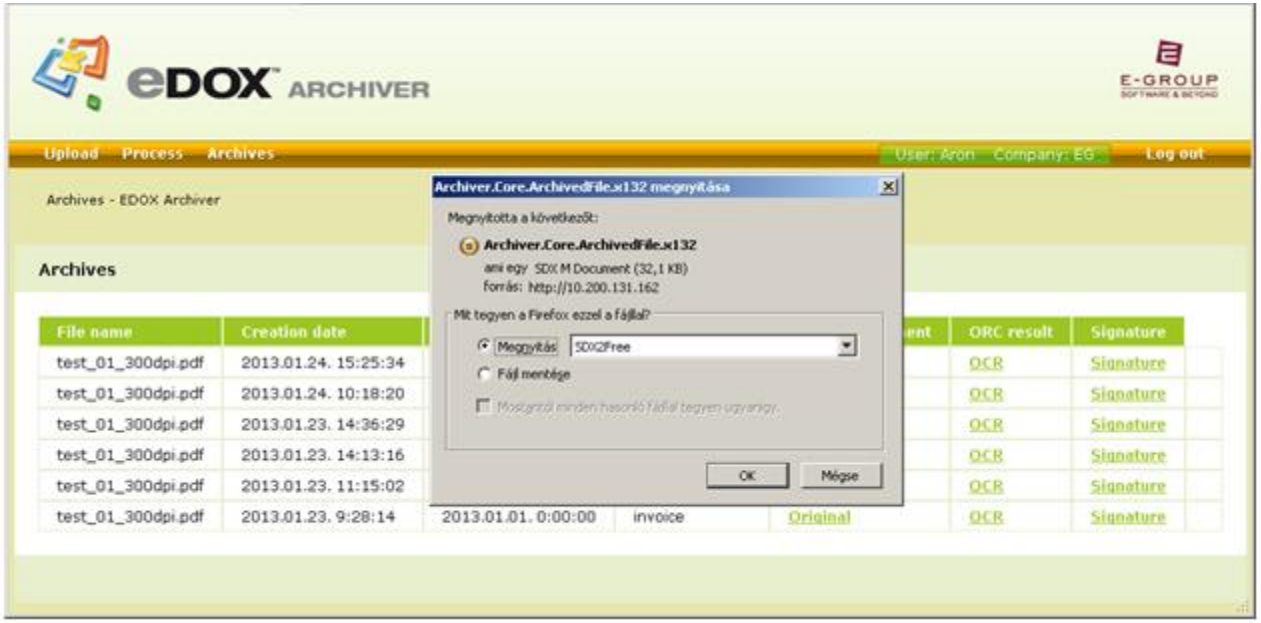

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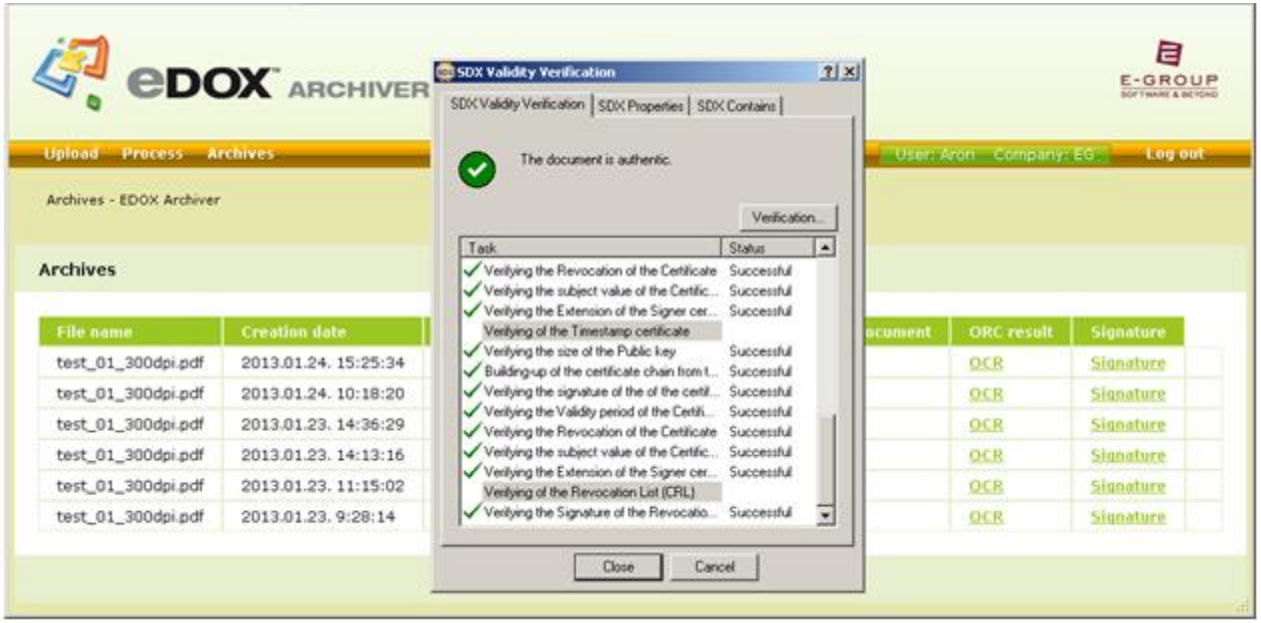

Thank you!

eDOX™ for Office System

DocMark

Secure and Authentic Paper Documents

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E-Group CUP Gateway

中国银联 China UnionPay

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