Data encryption and crypto-flexibility in collaboration
An eye-catching heading means a lot.

An informative subheading also does.

A perfect document always starts with a perfect heading. Although nothing on earth is perfect, any document is expected to be as close to perfection as possible.

Choosing an ideal heading is the first step when trying to draw up a well-structured and flawless-looking document. What else should be taken into consideration is important.

**YOUR TABLE**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter 1</td>
<td>45</td>
</tr>
<tr>
<td>Parameter 2</td>
<td>70</td>
</tr>
<tr>
<td>Parameter 3</td>
<td>158</td>
</tr>
<tr>
<td>Parameter 4</td>
<td>35</td>
</tr>
</tbody>
</table>

**IMPORTANCE OF TEXT CONTENT**

In addition to all the formatting tips, it is...
TECHNOLOGY

- HTML5 Canvas Element
- **Languages**: JavaScript / Node.js
EDITING FUNCTIONALITY

• **Full set of editing and formatting tools:** all operations with fonts and styles, paragraph and text formatting.

• **Creating and customizing** all kinds of objects: shapes, charts, text art and text boxes.

• **Academic formatting and navigation:** drop caps, footnotes/endnotes, cross-references, table of contents, bookmarks.

• **Plugins** for publishing, working with images and videos, translation, symbols and more.

• **NEW:** pivot tables, cross-references, endnotes, conditional formatting for viewing, new chart data manager, new autocorrection settings, auto macros and more.
COLLABORATIVE FUNCTIONALITY

• Flexible access rights: viewing, editing, reviewing, commenting only, field filling, custom filtering.
• Strict and Fast co-editing modes;
• Version and revision control;
• Review mode with Track Changes;
• Comments with mentions;
• Built-in chat.
• Document Comparison
• NEW: Sheet Views in spreadsheets
ONLYOFFICE

desktop and mobile apps
Native editors in Documents for Android

- Native document and spreadsheet editors
- **NEW**: native presentation editor
ARCHITECTURE: document editing service structure

- Load Balancer (HAProxy, nginx, etc.)
- Document Server
  - redis: Session storage, Lock storage
  - RabbitMQ: Conversion task queue, Result task queue, Event bus
  - PostgreSQL: Edited file change storage
  - Storage: NFS, NTFS, etc., Working file storage
- Document Converter
ONLYOFFICE Docs for a cluster

Load Balancer (HAProxy, nginx, etc.)

Document Server 1 → redis Cluster
Document Server 2 → RabbitMQ Cluster
Document Server N → MySQL NDB Cluster
NFS Server Cluster
Run on managed services that support Kubernetes.

Tested examples:

• Amazon EKS;
• Digital Ocean;
• IBM Cloud;
• minikube.
Integration NEW

Over 30 third-party platforms
New in 2020: Nuxeo and Plone
Nextcloud integration: what's new

- Co-authoring between federated clouds
- Version History with names and local time
- Nextcloud sidebar
- Document comparison
- File preview generation
- Review mode for viewing settings
- Co-editing docs in your Nextcloud app for iOS/Android using ONLYOFFICE editors
- Direct doc editing with ONLYOFFICE within Nextcloud Desktop 3.0
ownCloud integration: what's new

- Force Save
- Document Comparison
- File preview generation
- Review mode for viewing settings
- Version History with names and local time
- Support for Open Document Templates (.ott, .otp, .ots)
- Apache 2.0
Self-hosted solution

**Document access control:** JWT protection, flexible permissions, watermarking, copy/download/printing restriction.

**Encryption:**
- Full disk encryption-at-rest
- Data encryption in transit (HTTPS)
- End-to-end document encryption
Private Rooms
for end-to-end encryption in real-time document collaboration
• Higher security = more limitations?
• How to achieve up-to-date collaborative agility in working with sensitive data?
Reinvented end-to-end document encryption scheme;
Secure storage, editing and collaboration;
Familiar UI, same experience;
Open-source technology.

Private Rooms in ONLYOFFICE
Document encryption

- Encryption is made on client side
- Unbreakable AES-256 standard
- All inputs/changes including objects, images, etc. are transferred to the server in encrypted form
- Support for OOXML document formats: DOCX, XLSX, PPTX
Encryption in sharing and collaboration

- **All the changes** co-authors make are encrypted
- The changes are encrypted at one end, and decrypted on the other one.
- The password is asymmetrically encrypted and transferred automatically.
- **No passwords** need to be exchanged.
Familiar user experience

- Quick start
- No additional applications installed
- No complicated instructions to follow
- No passwords to invent, send or share
### Open Source

#### ONLYOFFICE

A free and open source office and productivity suite

254-22 Žmėta Bronėka-Uapishe street

[http://www.onlyoffice.com](http://www.onlyoffice.com)

[Support@onlyoffice.com](mailto:Support@onlyoffice.com)

<table>
<thead>
<tr>
<th>Repositories</th>
<th>Packages</th>
<th>People</th>
<th>Projects</th>
</tr>
</thead>
</table>

#### Pinned repositories

<table>
<thead>
<tr>
<th>CommunityServer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free open source office suite with business productivity tools: document and project management, CRM, mail aggregates.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Docker-DocumentServer</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONLYOFFICE Document Server is an online office suite comprising viewers and editors for text, spreadsheets and presentations, fully compatible with Office Open XML format: docx, xlsx, pptx, etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>onlyoffice-reactcloud</th>
</tr>
</thead>
<tbody>
<tr>
<td>The app which enables the users to edit office documents from Nextcloud using ONLYOFFICE Document Server, allows multiple users to collaborate in real time and to save back those changes to Nextcloud</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AppServer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platform for creating your own online office.</td>
</tr>
</tbody>
</table>
Scheme benefits

1. Reliable scheme with true end-to-end
2. Applicability for all activities in daily work
3. No complications in use
4. Open technology
Technical overview

- **Desktop interface**
  True end-to-end

- Reliable symmetric **256-AES algorithm**
  for document encryption

- Asymmetric algorithm - **one public and private key pair**
  for document password encryption

- **Database**
  for password storage and transfer

- **Private Rooms in ONLYOFFICE Workspace**
  Working environment
Enabling Private Rooms

What you need:
- ONLYOFFICE Workspace
- ONLYOFFICE Desktop Editors
Restrictions

- File and folder copying
- Moving items outside Private Rooms
- Moving items shared with user
- Recovering files from bin
- Recovering file versions
- File overwriting
End-to-end document encryption:

- Enabling Private Rooms in integration
- Mobile environment
- ONLYOFFICE Cloud
- PDF and ODF encryption
- Masterkey

ONLYOFFICE Desktop Editors for third-party clouds

Dark Mode
Conference attendance form

NAME
Your name

DATE OF BIRTH
Your date of birth

COMPANY SIZE
Choose your company size

YOUR GOALS
I want to
1. improve my skills
2. increase knowledge
3. find new business partners

PHOTO

EMAIL
Your email address

PHONE
Your phone number

PAYMENT METHOD
Choose an item

I want to get additional info
I don't want to get additional info
Questions?

Mikhail Korotaev

Senior Communications Manager

Mikhail.Korotaev@onlyoffice.com