



DOCUMENT PROCESSING & COLLABORATION WITHOUT BOUNDARIES

www.onlyoffice.com

ONLYOFFICE PROJECT: GENERAL INFORMATION



Company:

Ascensio System SIA

3 Divisions: Latvia (Riga), USA (Dallas), Russia (Nizhny Novgorod)

Product:

ONLYOFFICE™

web office + unique online editors

Customers:

Over 2,000,000 customers
in 92 countries worldwide

Documents:

About 1,093,000 files stored and shared online

Versions for:

Cloud, Server, Desktop, Mobile

Supported platforms:

Windows, Linux, Android, iOS

Source Code:

GNU AGPL v3

COMPREHENSIVE WORK WITH DATA STORED ONLINE



- Feature-rich toolset
- High-quality formatting
- All key formats support



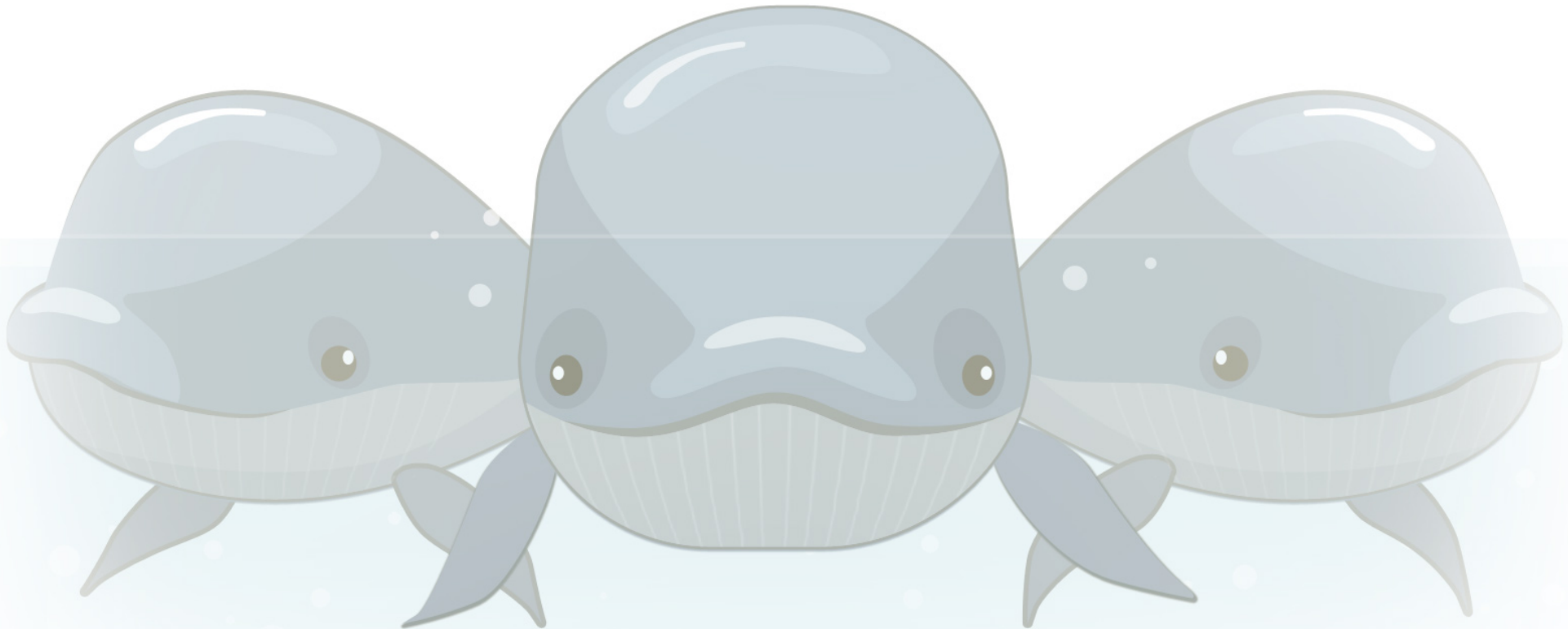
- Online access from anywhere
- Quick sharing
- Collaboration

THREE PILLARS OF ONLYOFFICE PROJECT

DATA PROTECTION

ADVANCED TECHNOLOGY

SMART ARCHITECTURE

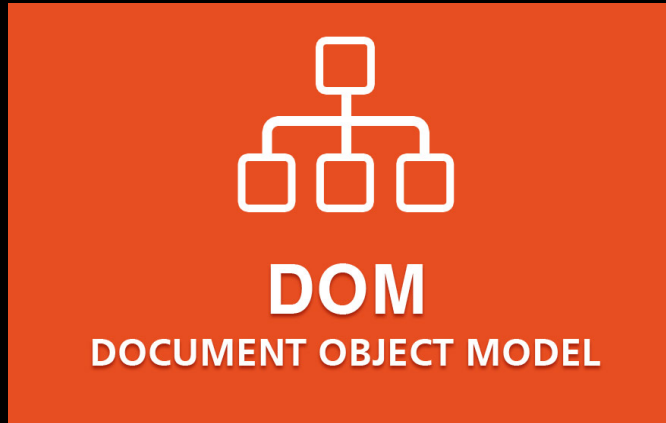


TECHNOLOGY

Desktop apps virtualization



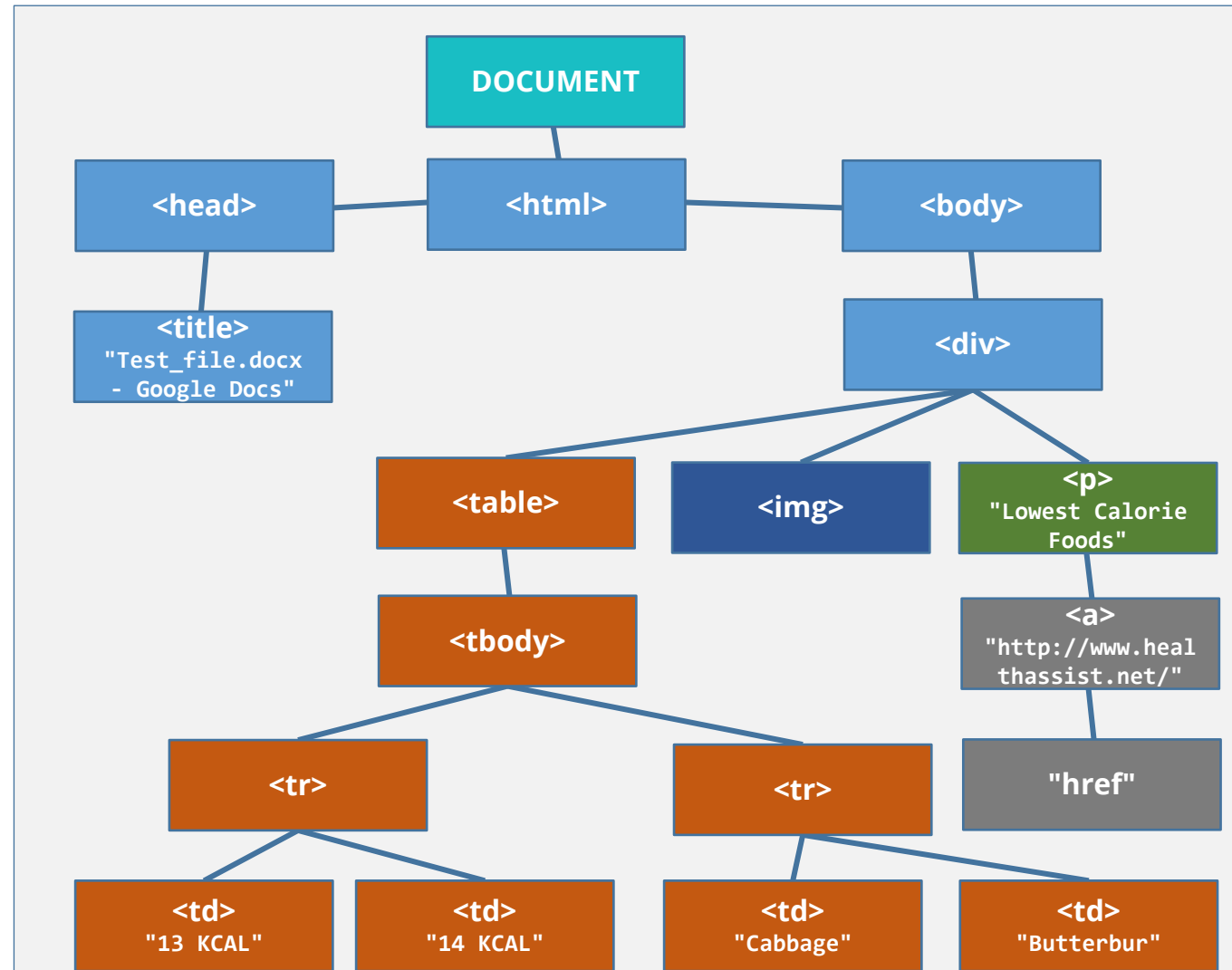
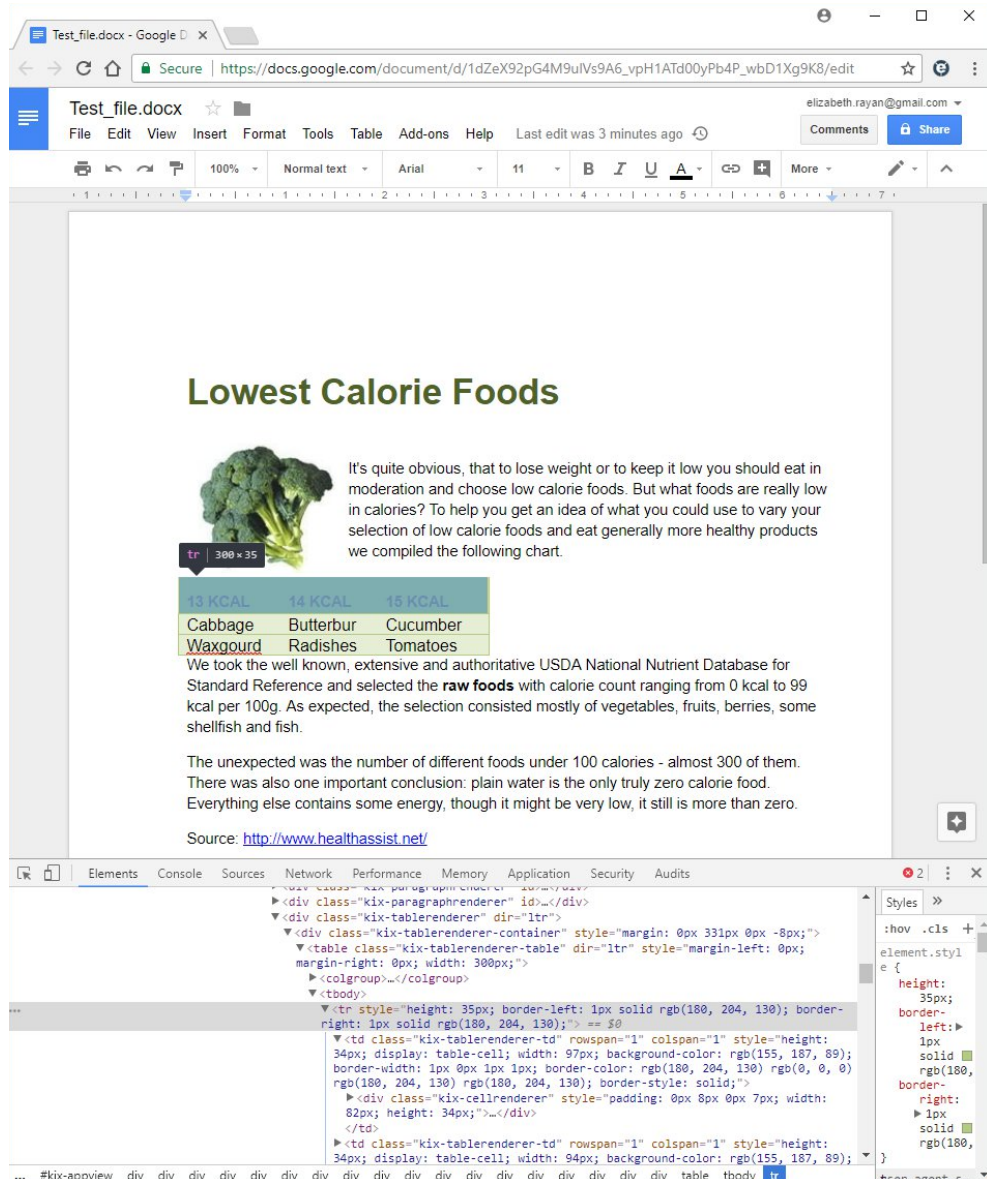
Web-based editing



TECHNOLOGY: DOM VS HTML5 CANVAS



TECHNOLOGY: DOM APPROACH TO ONLINE DOCUMENT EDITING



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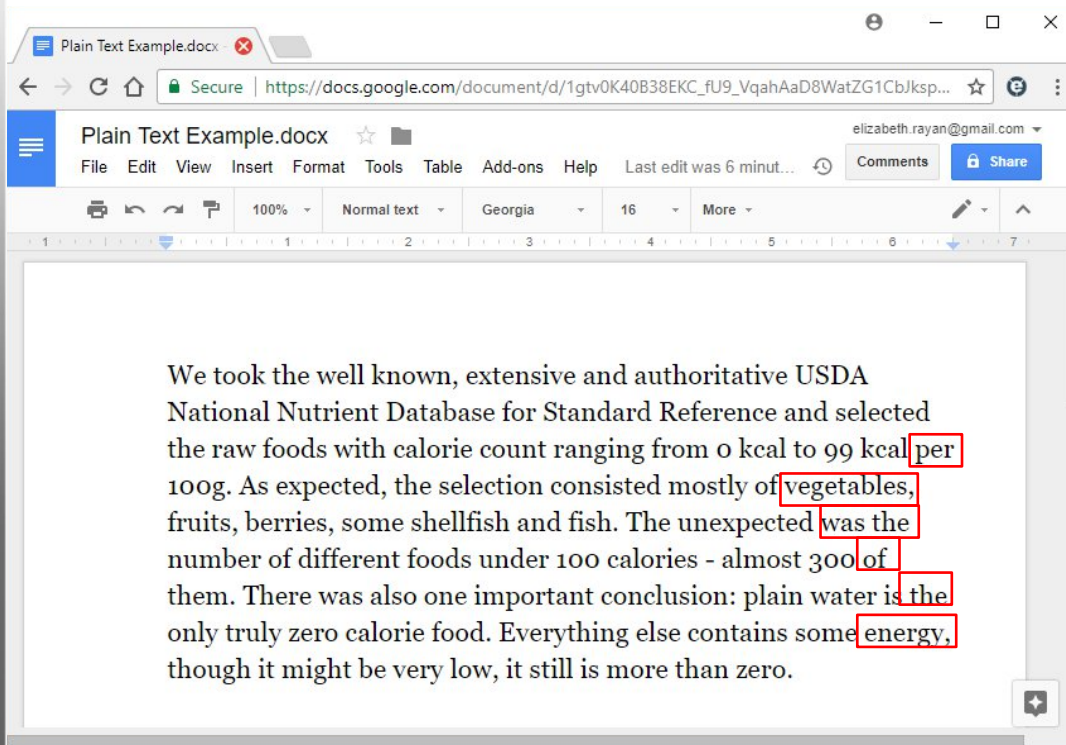
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TECHNOLOGY: BROWSER DEPENDENCY IN DISPLAYING CONTENT

Google Chrome



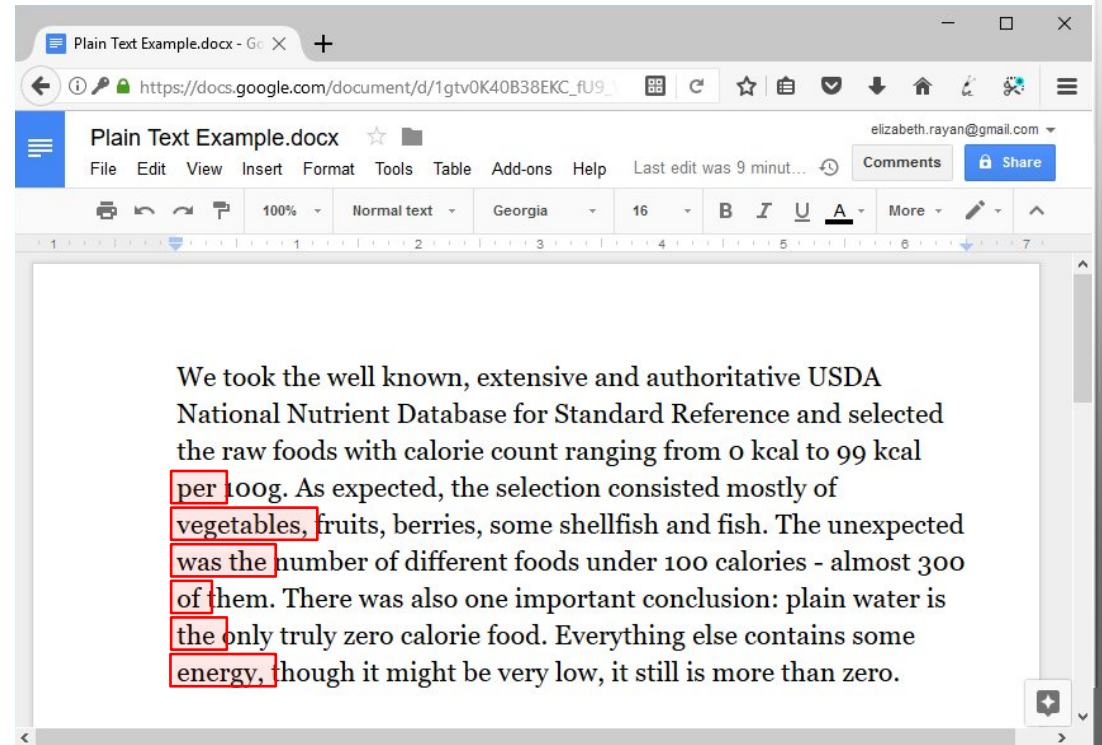
Plain Text Example.docx

File Edit View Insert Format Tools Table Add-ons Help Last edit was 6 minut... Comments Share

100% Normal text Georgia 16 More

We took the well known, extensive and authoritative USDA National Nutrient Database for Standard Reference and selected the raw foods with calorie count ranging from 0 kcal to 99 kcal per 100g. As expected, the selection consisted mostly of vegetables, fruits, berries, some shellfish and fish. The unexpected was the number of different foods under 100 calories - almost 300 of them. There was also one important conclusion: plain water is the only truly zero calorie food. Everything else contains some energy, though it might be very low, it still is more than zero.

Mozilla Firefox



Plain Text Example.docx - Go X +

File Edit View Insert Format Tools Table Add-ons Help Last edit was 9 minut... Comments Share

100% Normal text Georgia 16 B I U A More

We took the well known, extensive and authoritative USDA National Nutrient Database for Standard Reference and selected the raw foods with calorie count ranging from 0 kcal to 99 kcal per 100g. As expected, the selection consisted mostly of vegetables, fruits, berries, some shellfish and fish. The unexpected was the number of different foods under 100 calories - almost 300 of them. There was also one important conclusion: plain water is the only truly zero calorie food. Everything else contains some energy, though it might be very low, it still is more than zero.

TECHNOLOGY: PROBLEMS RELATED TO DOM

Drawbacks of DOM Approach

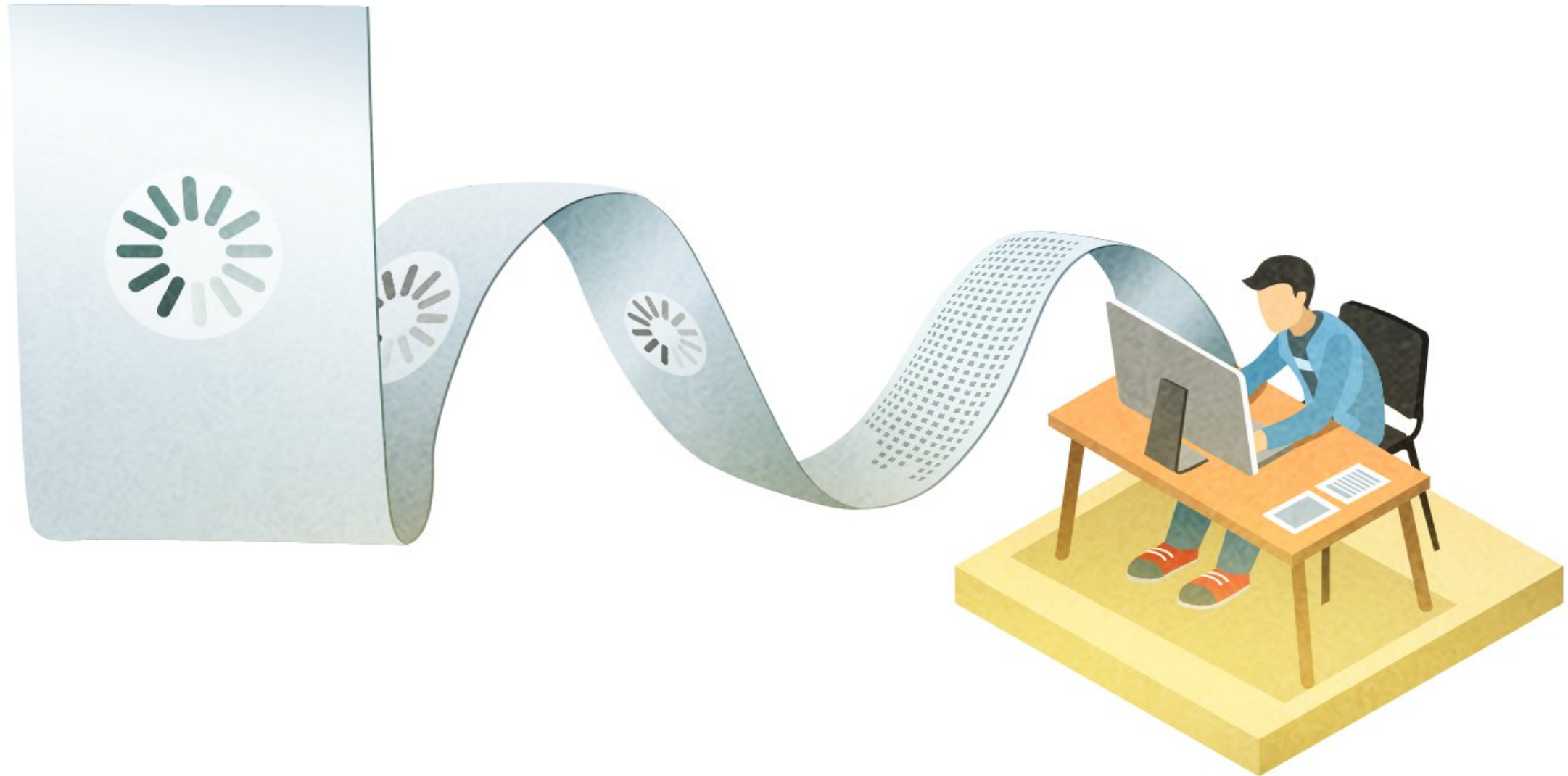
- Merging **single elements into larger objects**;
- **Browser dependency** - it uses browser tools for measuring and rendering fonts;
- **No real WYSIWYG**;
- **High memory consumption** caused by loading objects.



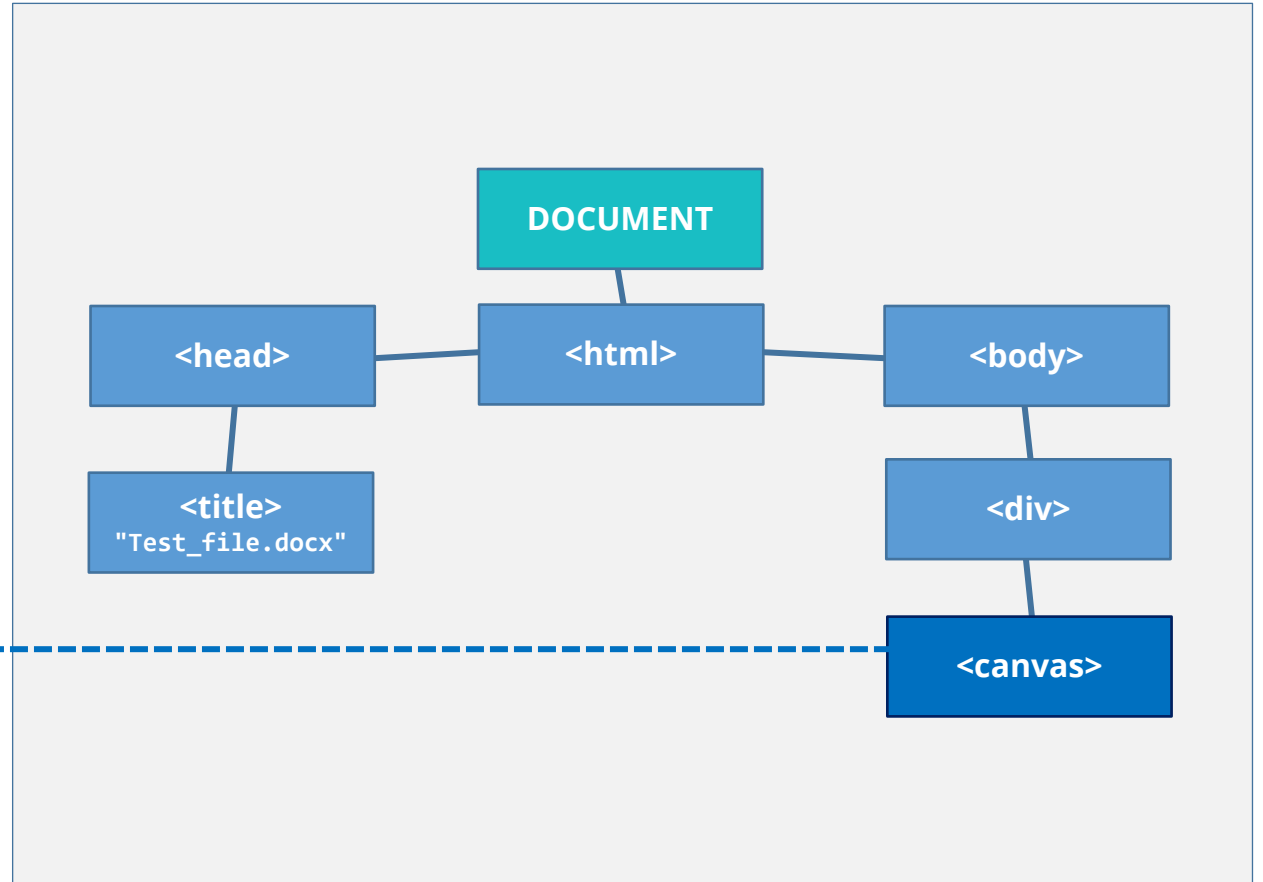
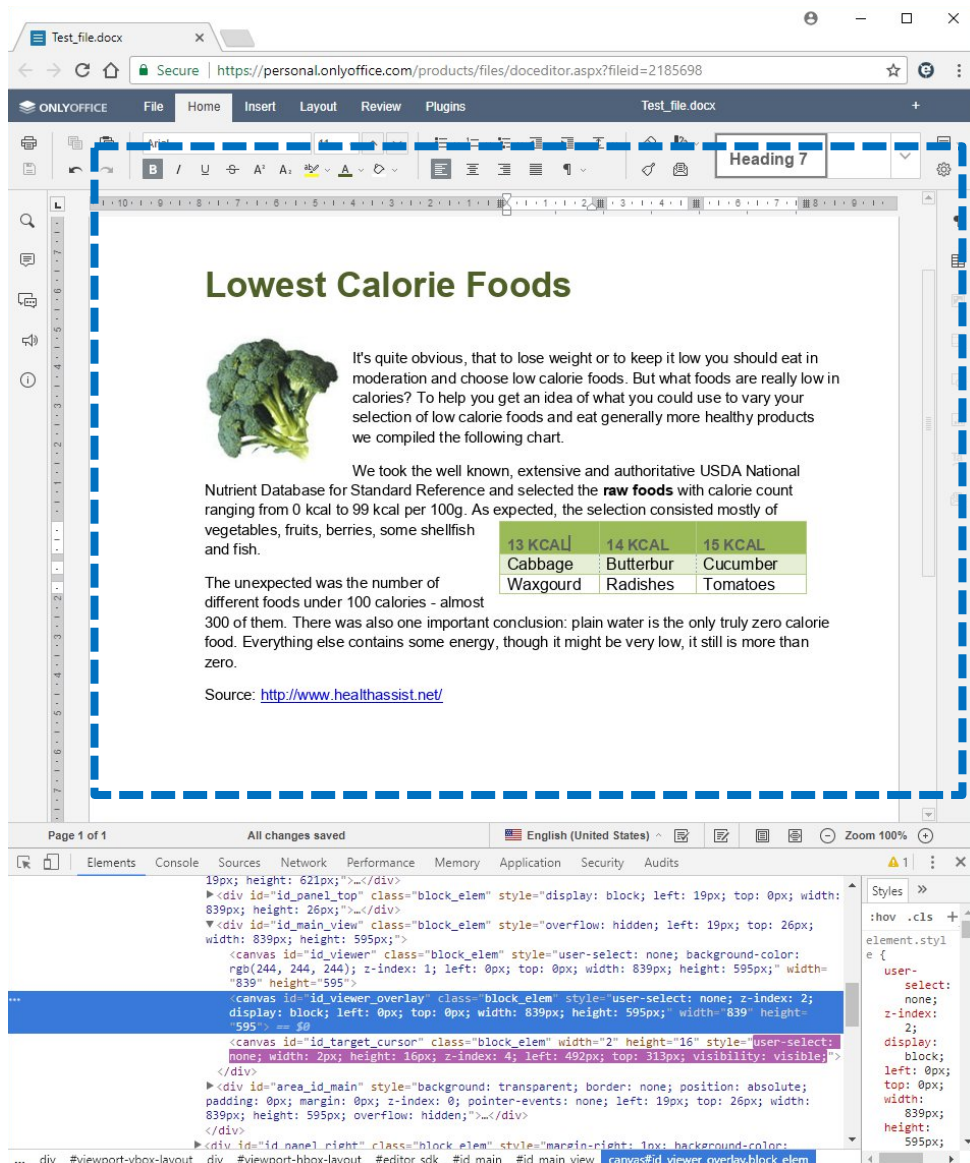
Issues in Document Editing

- **distortions in displaying** documents in browser;
- **unequal display** of documents depending on browser or device;
- **Weak compatibility** with popular formats and desktop standards;
- **Insufficient formatting quality**;
- limited **editing toolset**;
- **problems with loading and processing** large multi-page documents.

TECHNOLOGY: HIGH MEMORY CONSUMPTION



TECHNOLOGY: HTML5 CANVAS



TECHNOLOGY: MAIN ADVANTAGES OF HTML5 CANVAS



Browser-independent display of content

Internal tools for font metrics analysis and text rendering



100% compatibility with popular formats



High formatting quality due to pixel-level rendering



Advanced Toolset

Desktop editor functionality available online



WYSIWYG - 100% identity while viewing, editing and printing



Low memory consumption

Fast processing of large multi-page documents

TECHNOLOGY: NEW APPROACH TO ONLINE DOCUMENT EDITING



- Core technology: **HTML5 Canvas**
guarantees browser compatibility
- Base format: **Open XML (.docx, .xlsx, .pptx)**
guarantees file format compatibility
- Implemented exclusively in **JavaScript**
- **One Engine** for online, desktop and mobile editors
*guarantees **Seamless Switch from offline to online***



ONLYOFFICE ONLINE EDITORS

for Documents, Spreadsheets and Presentations

The image displays three overlapping screenshots of the ONLYOFFICE Online Editors interface, demonstrating its capabilities for different file types.

Spreadsheet Screenshot (Left): Shows a table with the Rio2016 Olympic logo and medal counts. The table data is as follows:

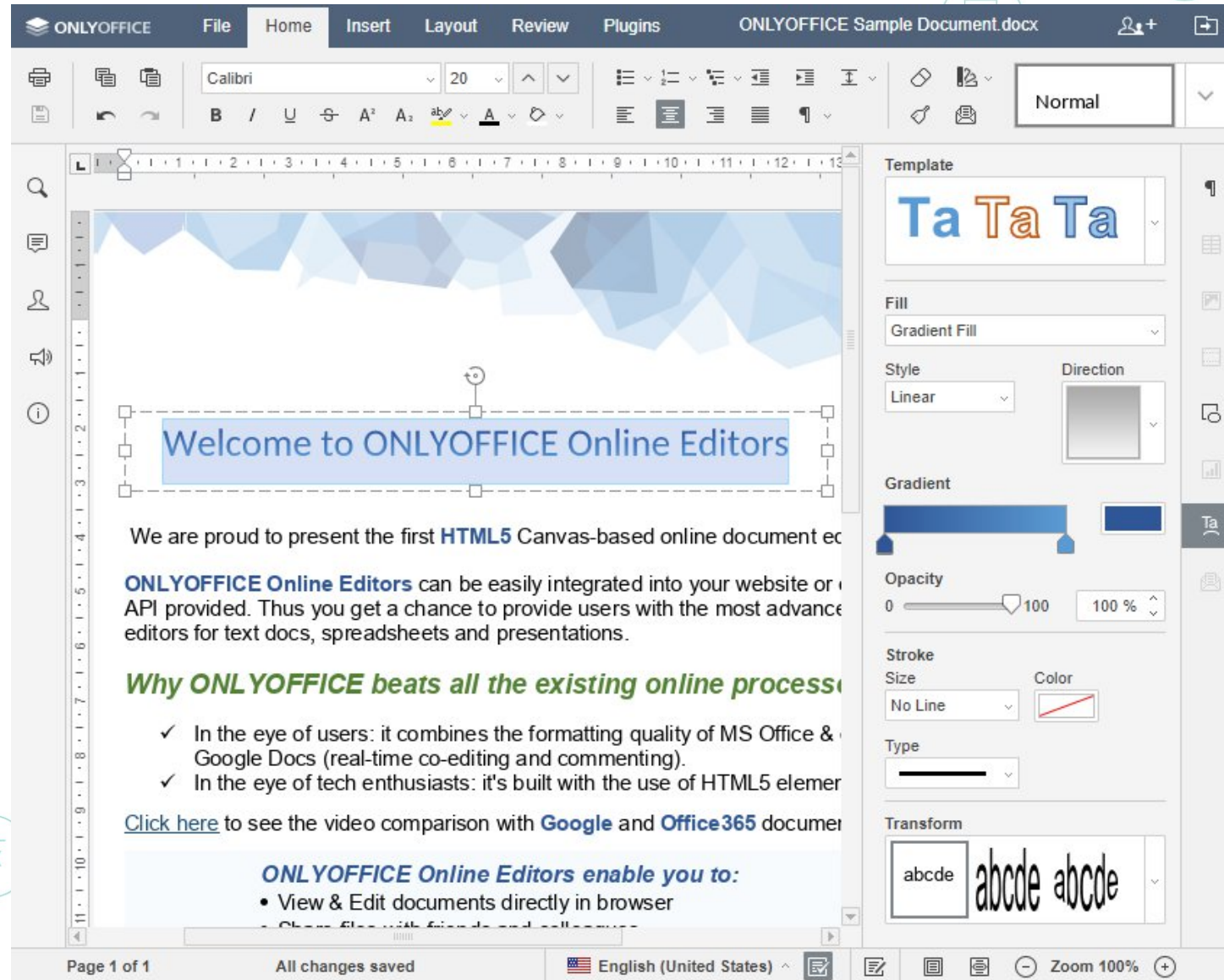
Rank	Country	Gold
1	USA	46
2	Great Britain	27
3	China	26
4	Russia	19
5	Germany	17
6	Japan	12
7	France	10
8	South Korea	9
9	Italy	8
10	Australia	8
11	Netherlands	8
12	Hungary	8
13	Brazil	7
14	Spain	7
15	Kenya	6
16	Jamaica	6
17	Croatia	5
18	Cuba	5
19	New Zealand	4
20	Canada	4
21	Uzbekistan	4
22	Kazakhstan	3
23	Colombia	3
24	Switzerland	3
25	Iran	3
Total:		258

Document Screenshot (Middle): Shows a document titled "sample (1).docx" with a "Head" section. It includes a welcome message, a list of features, and a "Sample Chart".

Presentation Screenshot (Right): Shows a presentation titled "Integration - White-Labeling benefits.pptx" with a slide titled "out to ONLY". It includes a "Background" section and a "Click to add notes" button.

FEATURE-RICH TOOLSET

- Insert section breaks;
 - Apply color schemes;
 - Edit Inline charts;
 - Work with auto-shapes;
 - Insert text boxes;
 - Add Text Art objects;
 - Position objects precisely;
 - Group objects;
 - Apply Advanced view settings;
 - Use Cell text formatting;
- and much more



COLLABORATION

- Flexible access rights;
- Strict and Fast co-editing modes;
- Version and revision control;
- Review mode;
- Track Changes;
- Comments;
- Built-in chat.

The screenshot displays the ONLYOFFICE Online Editors interface. The top menu bar includes 'ONLYOFFICE', 'File', 'Home', 'Insert', 'Layout', 'Review', and 'Plugins'. The 'Review' tab is active, showing a ribbon with 'Track Changes', 'Display Mode', 'Previous', 'Next', 'Accept', and 'Reject' buttons. A dropdown menu for 'Accept' is open, showing 'Accept Current Change' and 'Accept All Changes'. The document content includes a welcome message, a paragraph about HTML5 Canvas-based editors, a section titled 'Why ONLYOFFICE beats all the existing online processors?' with two bullet points, and a section titled 'ONLYOFFICE Online Editors enable you to:' with five bullet points. A comment box is visible on the right side of the document, showing a comment by 'Hamish Mitchell' dated '8/25/2017 12:36 pm' with the text 'Inserted: , review'. The bottom status bar shows 'Page 1 of 1', 'English (United States)', and 'Zoom 100%'.

ONLYOFFICE Online Editors

We are proud to present the first **HTML5** Canvas-based online document editors.

ONLYOFFICE Online Editors can be easily integrated into your website or cloud application API provided. Thus you get a chance to provide users with the most advanced online document editors for text docs, spreadsheets and presentations.

Why ONLYOFFICE beats all the existing online processors?

- ✓ In the eye of users: it combines the formatting quality of MS Office & online collaboration Google Docs (real-time co-editing and commenting).
- ✓ In the eye of tech enthusiasts: it's built with the use of HTML5 element, Canvas.

[Click here](#) to see the video comparison with **Google** and **Office365** document editors.

ONLYOFFICE Online Editors enable you to:

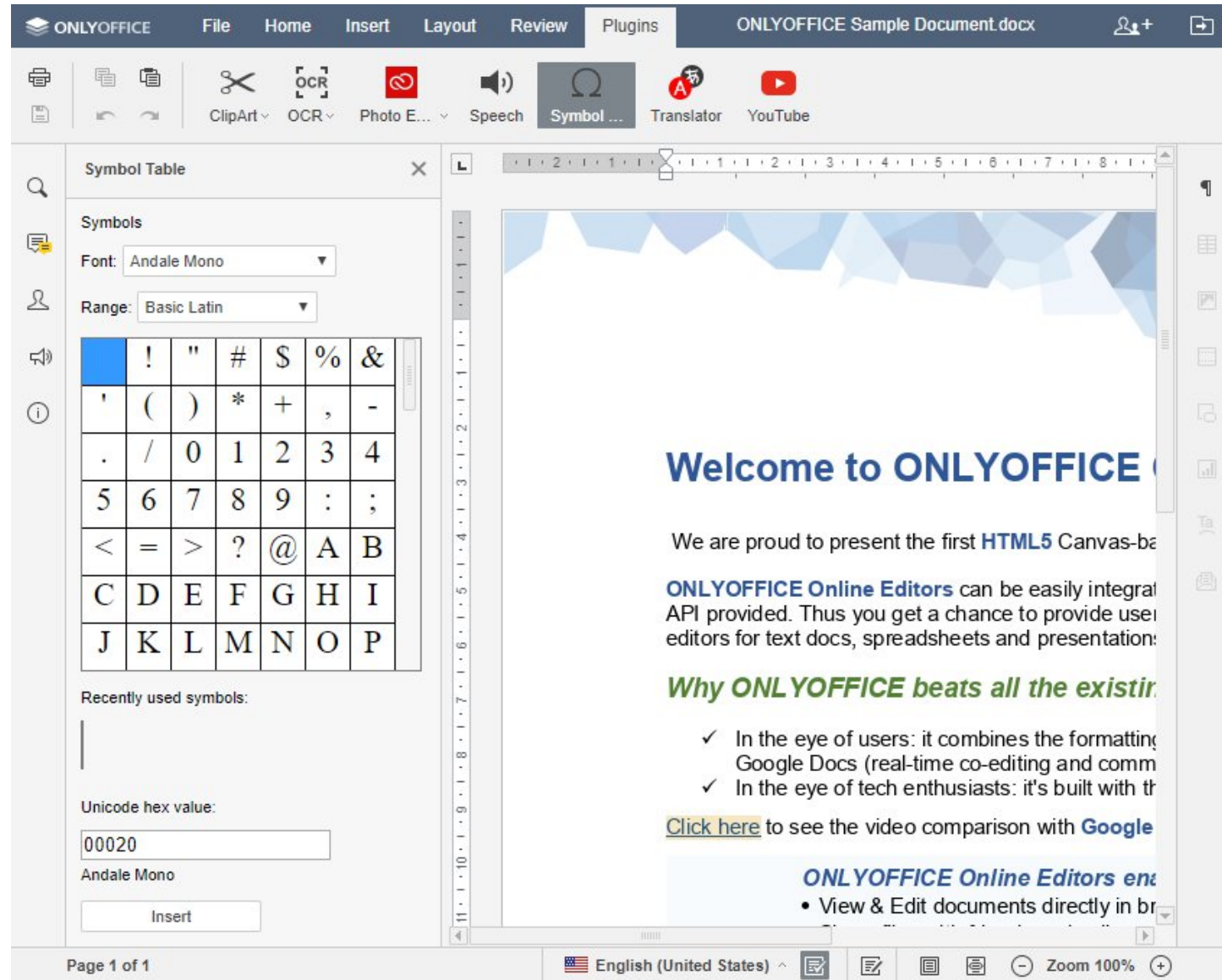
- View & Edit documents directly in browser
- Share files with friends and colleagues
- Co-edit **review** and comment them
- Embed documents to websites and
- Work with all the popular file types without formatting loss.

Hamish Mitchell
8/25/2017 12:36 pm
Inserted: , review

Page 1 of 1 English (United States) Zoom 100%

PLUGINS & MACROS

- Integrated third-party plugins:
 - Symbol Table;
 - Photo Editor;
 - Translator;
 - ClipArt;
 - and more
- The ability to create own add-ons.



SECURITY: DATA PROTECTION IN THE BROWSER

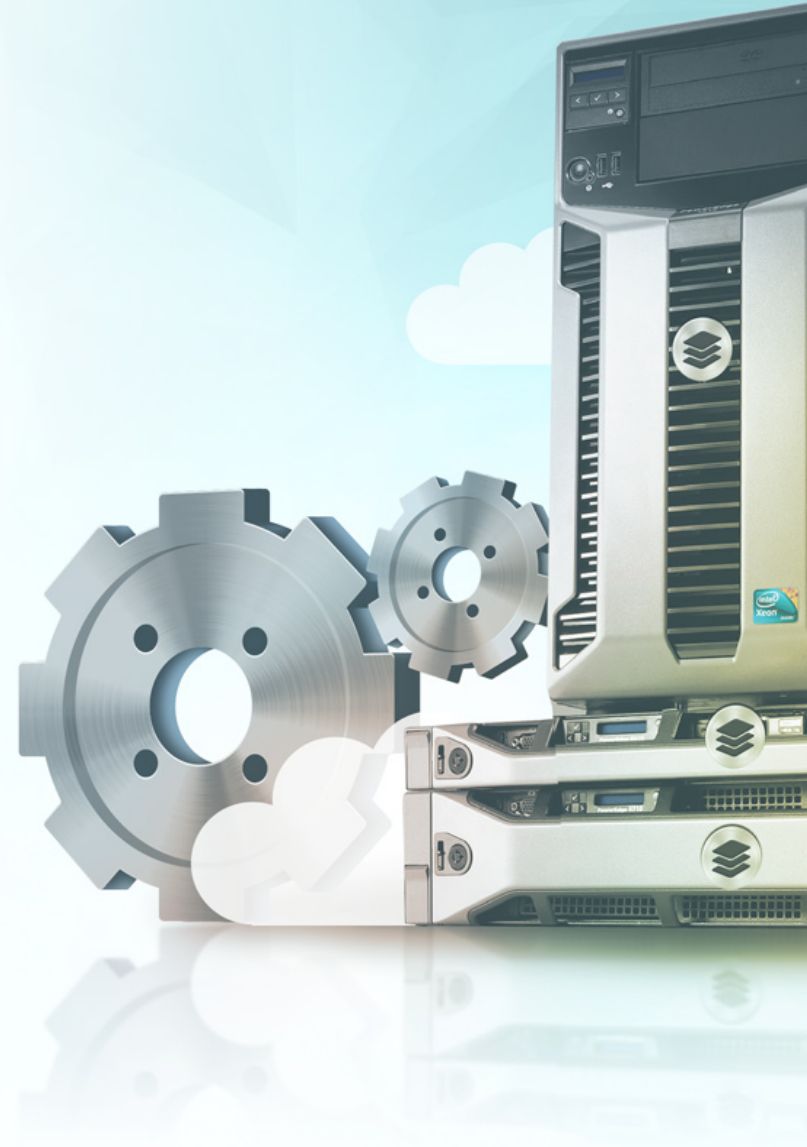
- Restrictions on copying and printing;
- Document lock feature;
- Signing documents with electronic signatures;
- Strict access control.

The image shows a document security interface with tabs for Main, Collaboration, Security, Blockchain, and Plugins. The Security tab is active, displaying icons for Document lock, Copy restrictions, Print restrictions, Signature, and Access control. Below these is a horizontal slider with a lock icon. The main content area is titled 'Basic principles' and contains text about document priorities. At the bottom, a developer console shows the source code for the interface, with the following HTML snippets highlighted:

```
<div id="id_panel_top" class="block_elem" style="display: block; left: 19px; top: 0px; width: 836px; height: 26px;">...</div>
<div id="id_main_view" class="block_elem" style="overflow: hidden; left: 19px; top: 26px; width: 836px; height: 192px;">
  <canvas id="id_viewer" class="block_elem" style="user-select: none; background-color: rgb(244, 244, 244); z-index: 1; left: 0px; top: 0px; width: 836px; height: 192px;" width="836" height="192">
    <canvas id="id_viewer_overlay" class="block_elem" style="user-select: none; z-index: 2; display: block; left: 0px; top: 0px; width: 836px; height: 192px;" width="836" height="192">
      <canvas id="id_target_cursor" class="block_elem" width="2" height="16" style="user-select: none; width: 2px; height: 16px; z-index: 4; left: 114px; top: 115px; visibility: hidden;">
    </div>
  <div id="area_id_main" style="background: transparent; border: none; position: absolute; padding: 0px; margin: 0px; z-index: 0; pointer-events: none; left: 19px; top: 26px; width: 836px; height: 192px; overflow: hidden;">...</div>
```

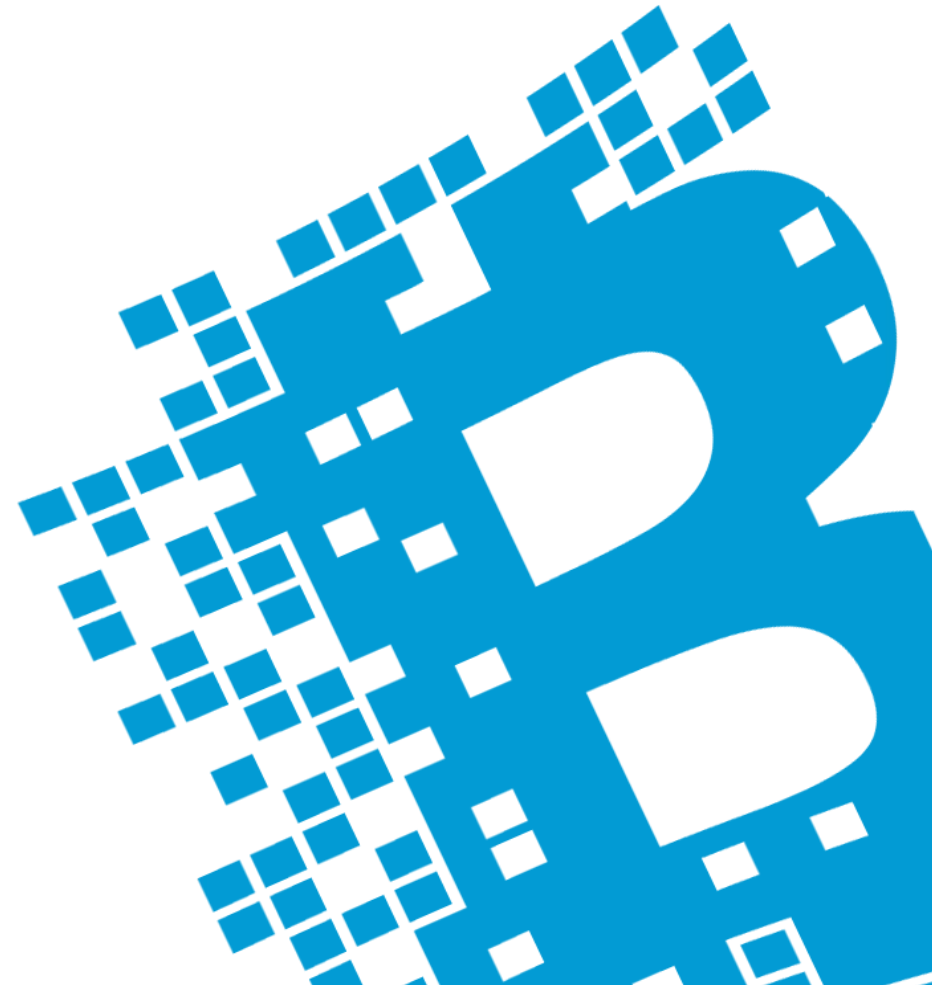

SECURITY: SERVER LEVEL MEASURES

- No user data stored on server;
- Support of 256-bit AES encryption;
- JSON Web Token;
- Configurable cache lifetime.

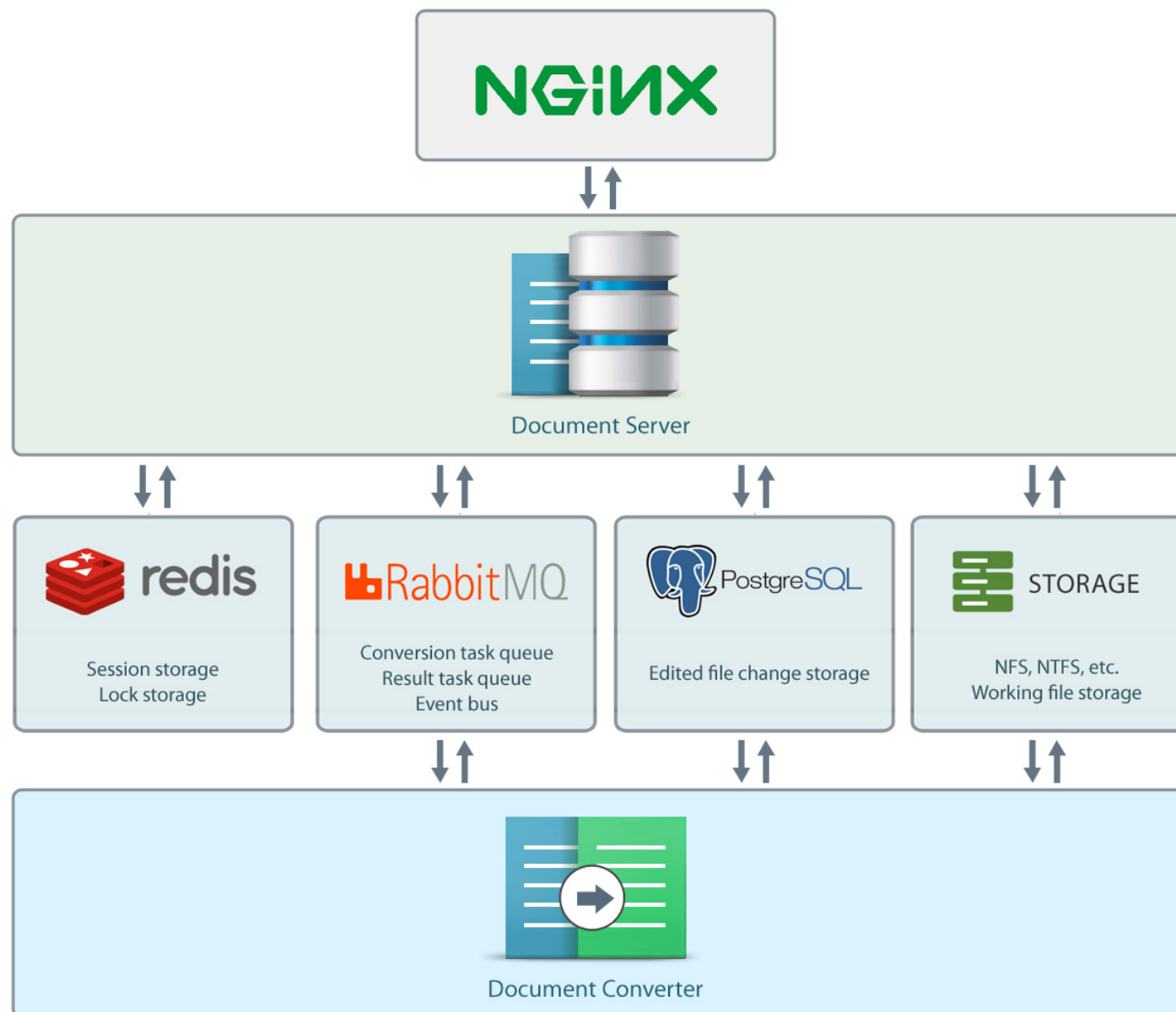


SECURITY: TRANSPARENT DATA PROTECTION WITH BLOCKCHAIN

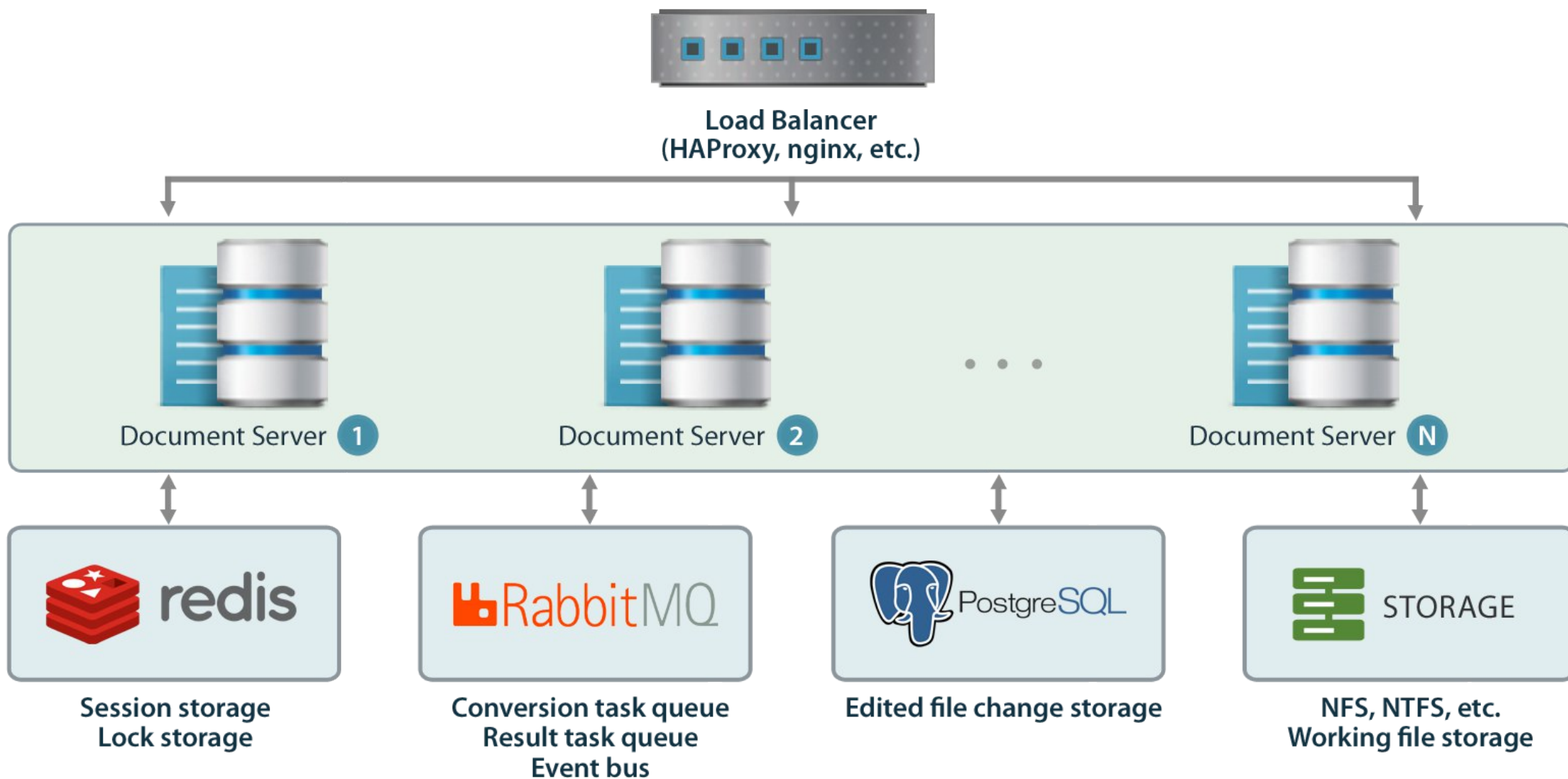
- User authorization and identification;
- Data encryption on the client;
- Protected data exchange;
- File protection in opening and saving;
- Digital signing;
- Protection against forgery.



SERVICE ARCHITECTURE: DOCUMENT SERVICE STRUCTURE



SERVICE ARCHITECTURE: CLUSTERIZATION



SERVICE ARCHITECTURE: INTEGRATION WITH ANY CLOUD SERVICE

ONLYOFFICE Connectors for:

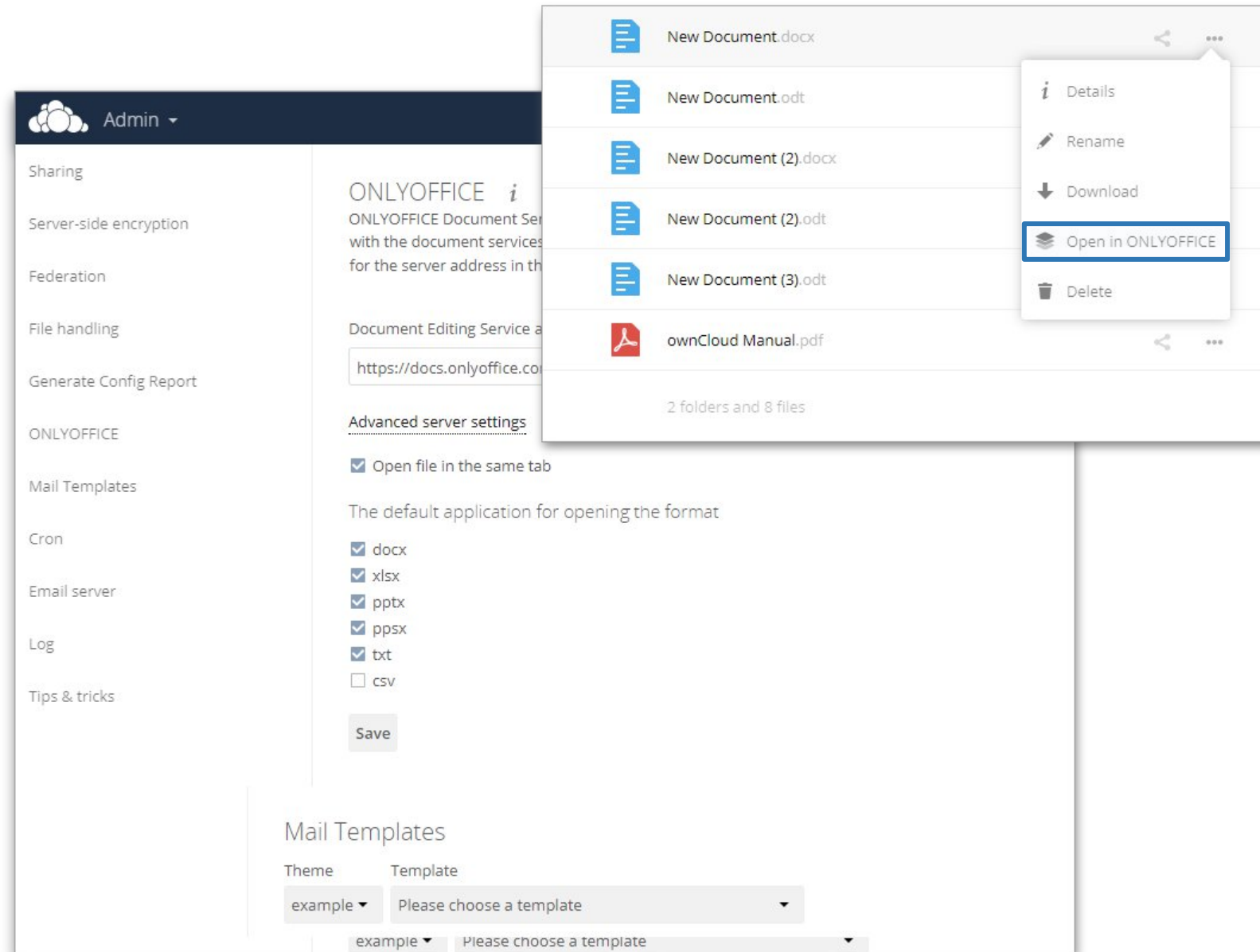


Integration API for third party services:



SERVICE ARCHITECTURE: INTEGRATION WITH OWNCLOUD AND NEXTCLOUD

- **File creation, editing, saving;**
- **All formats support: conversion to OOXML formats;**
- **File versioning;**
- **Federated share support;**
- **Editing of master key-encrypted files.**



| TEST US ON GITHUB

<https://github.com/ONLYOFFICE>



OPEN
SOURCE



QUESTIONS?

Ascensio System SIA.

www.onlyoffice.com