



**Collabora  
Productivity**  
Free your business

The driving force behind putting  
#LibreOffice in the #Cloud.



# Real Time, Secure Collaboration

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# Current Version 2.1.3

- High fidelity, WYSIWYG rendering
- Document Support:
  - DOC, DOCX, PPT, PPTX, XLS, XLSX + ODF.
  - Import/View Visio, Publisher, + 100 more
- Document Collaboration:
  - Basic Collaborative editing
  - Rich Collaborative editing → coming.





# Collabora Productivity

Free your business

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#LibreOffice in the #Cloud.

## Why Collabora online ?

- On-premise – control of your data
- On-premise – control of your CPU & network
- Secure
  - encrypted file support
  - elsewhere: disable print, download, edit, comment, water-marking etc.

## Bonus features

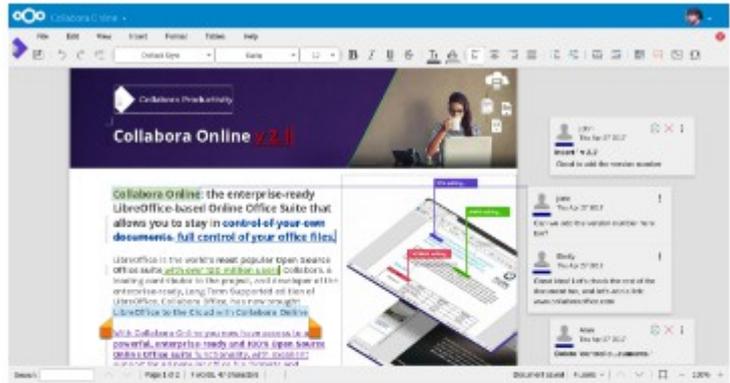
- A reduced feature-set sphere – can win.
  - light editing use-cases to match competition
- Document Formats – less relevant:
  - “in the cloud”
- Server / Certification / Revenue model ...



# CODE ...

- CODE – grab the latest Docker image and/or packages
  - <http://collaboraoffice.com/code>
  - **1 million+ Docker pulls**
- A simple ownCloud extension
  - No core changes required, easy to deploy

63 STARS	1M+ PULLS	> DETAILS
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**Collabora Online**

Edit office documents directly in your browser.

# Demo / what it looks like

The screenshot displays the Collabora Online v2.1 interface. At the top, there is a menu bar with 'File', 'Edit', 'View', 'Insert', 'Format', 'Tables', and 'Help'. Below the menu is a toolbar with various editing tools. The main content area is divided into three sections:

- Header:** A dark blue banner with the Collabora Productivity logo and the text 'Collabora Online v 2.1'.
- Main Text:** A paragraph describing Collabora Online as an enterprise-ready LibreOffice-based Online Office Suite. The text includes several highlighted phrases: 'Collabora Online: the enterprise-ready LibreOffice-based Online Office Suite that allows you to stay in control of your own documents. full control of your office files.', 'LibreOffice is the world's most popular Open Source Office suite with over 120 million users', and 'LibreOffice to the Cloud with Collabora Online'. Below this is another paragraph starting with 'With Collabora Online you now have access to a powerful, enterprise-ready and 100% Open Source Online Office suite functionality...'.
- Image:** A central image showing a laptop screen with a document being edited. Three callout boxes indicate editing activity: 'YOU editing...' (blue), 'ANNE editing...' (green), and 'THOMAS editing...' (red).
- Comment Pane:** A vertical sidebar on the right containing three comments from users: 'john' (commenting on the version number), 'jane' (asking about adding a version number), and 'Emily' (suggesting a link to the website). A fourth comment from 'Alan' is partially visible at the bottom, suggesting to delete a comment.

At the bottom of the interface, there is a search bar, a status bar showing 'Page 1 of 2 | 7 words, 47 characters', and a document control bar with 'Document saved | 4 users' and a zoom level of '100%'.

# Demo / what it looks like #2

SEO-Dashboard.xlsx - Office - Mozilla Firefox

www.collaboraoffice.com/

File Edit View Insert Cells Help

Calibri 11

=\$Data.E4

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	GuitarShopExample.com				1/1/2016 - 12/31/2016						john				
2	Top Keywords														
3	Guitar Straps														
4	Bass Guitar Pick														
5	Gibson Acoustic														
6	Marshall Amp														
7	Les Paul Guitar														
8	Gibson Acoustic														
9	Peavey Amp														
10	Fender Black amp														
11	Hollowbody guitar														
12	Mesa Boogie amp														
13															
14															
15															
16															
17		Page	Backlinks					Indexed URLs	URLs						
18		page-1/	30						637						
19		page-2/	79												
20		page-3/	97												
21		page-4/	285												
22		page-5/	18												

**SERP Rank**

01/01/16 01/04/16 01/07/16 01/10/16

Alan  
04/27/2017

Our top product ranks number 1

- Guitar Straps
- Bass Guitar Pick
- Gibson Acoustic
- Marshall Amp
- Les Paul Guitar
- Gibson Acoustic
- Peavey Amp
- Fender Black amp
- Hollowbody guitar
- Mesa Boogie amp

jane

**Non-Paid Search Traffic**

18000  
16000  
14000  
12000  
10000  
8000  
6000  
4000  
2000  
0

01/01/16 01/03/16 01/05/16 01/07/16 01/09/16 01/11/16

25.00%  
20.00%  
15.00%  
10.00%  
5.00%  
0.00%

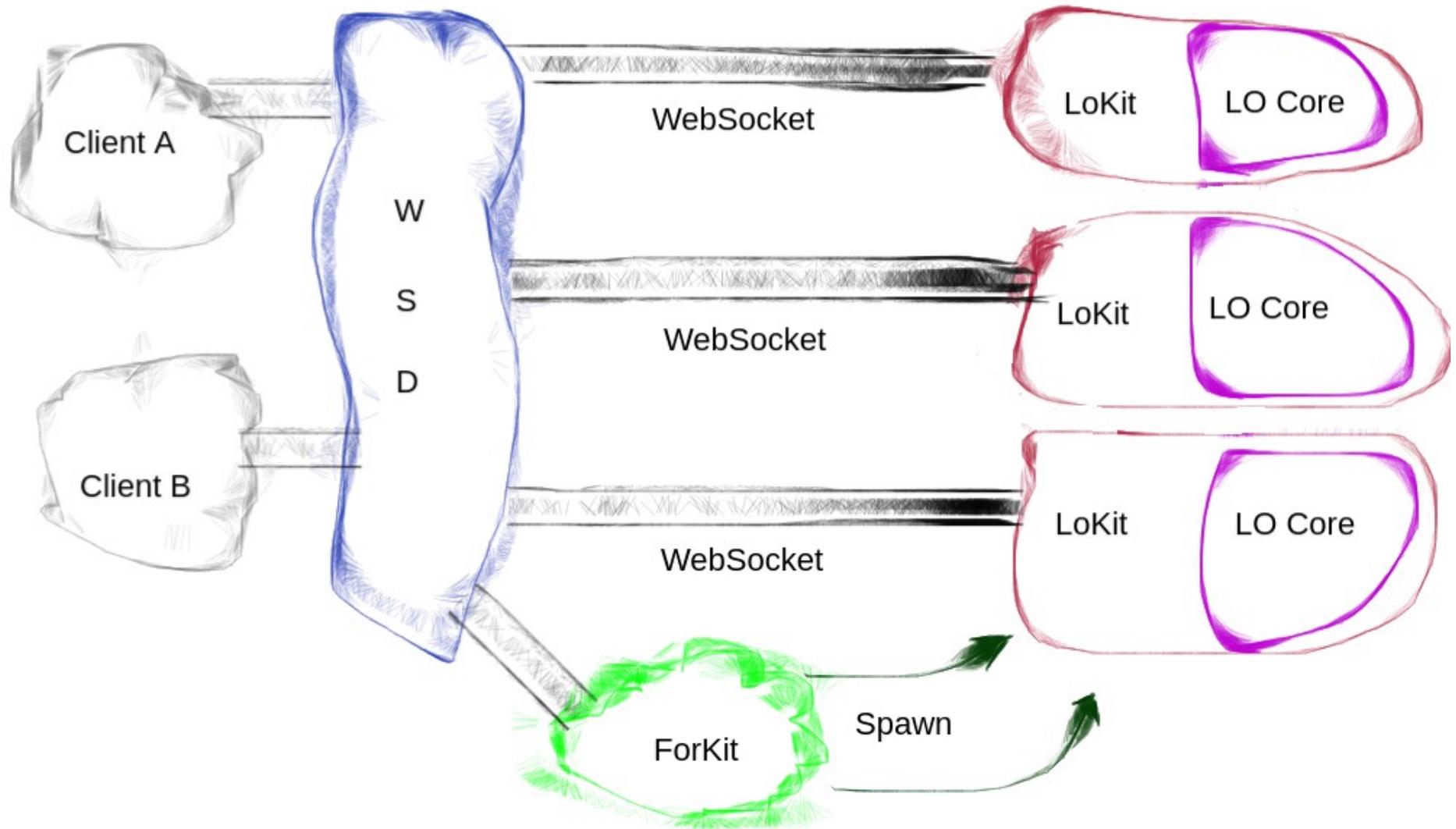
Emily

Search	Conversions	Signups
Guitar Straps	38	10
Bass Guitar Pick	236	197
Gibson Acoustic	143	90
Marshall Amp	550	391
Les Paul Guitar	90	37

Dashboard Data

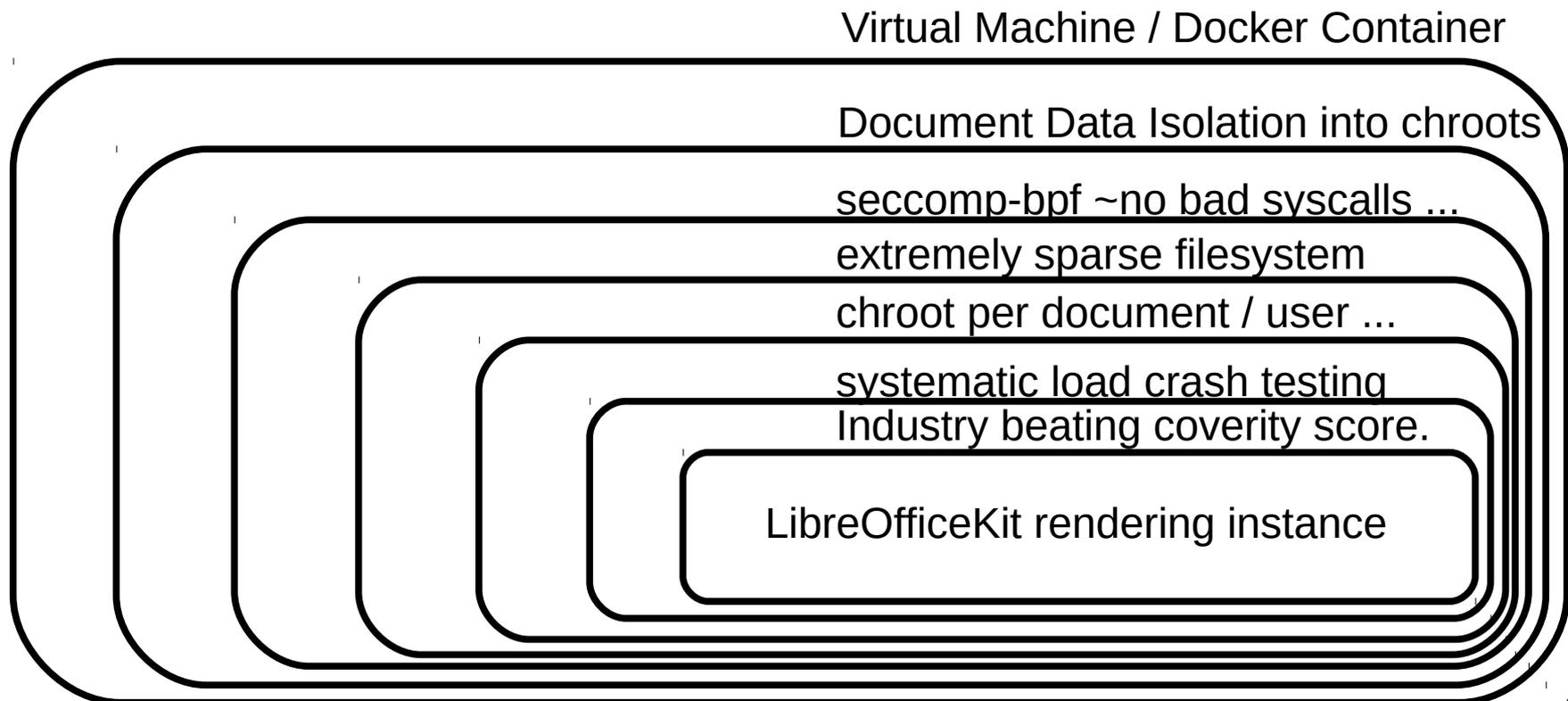
Search: Sheet 1 of 2 Standard selection Average: ; Sum: 0 4 users 100%

# Node Architecture



# Security: the onion ...

- Layered approach to protecting infrastructure ...



# What we did together in the last year ( since 1.0.5 )



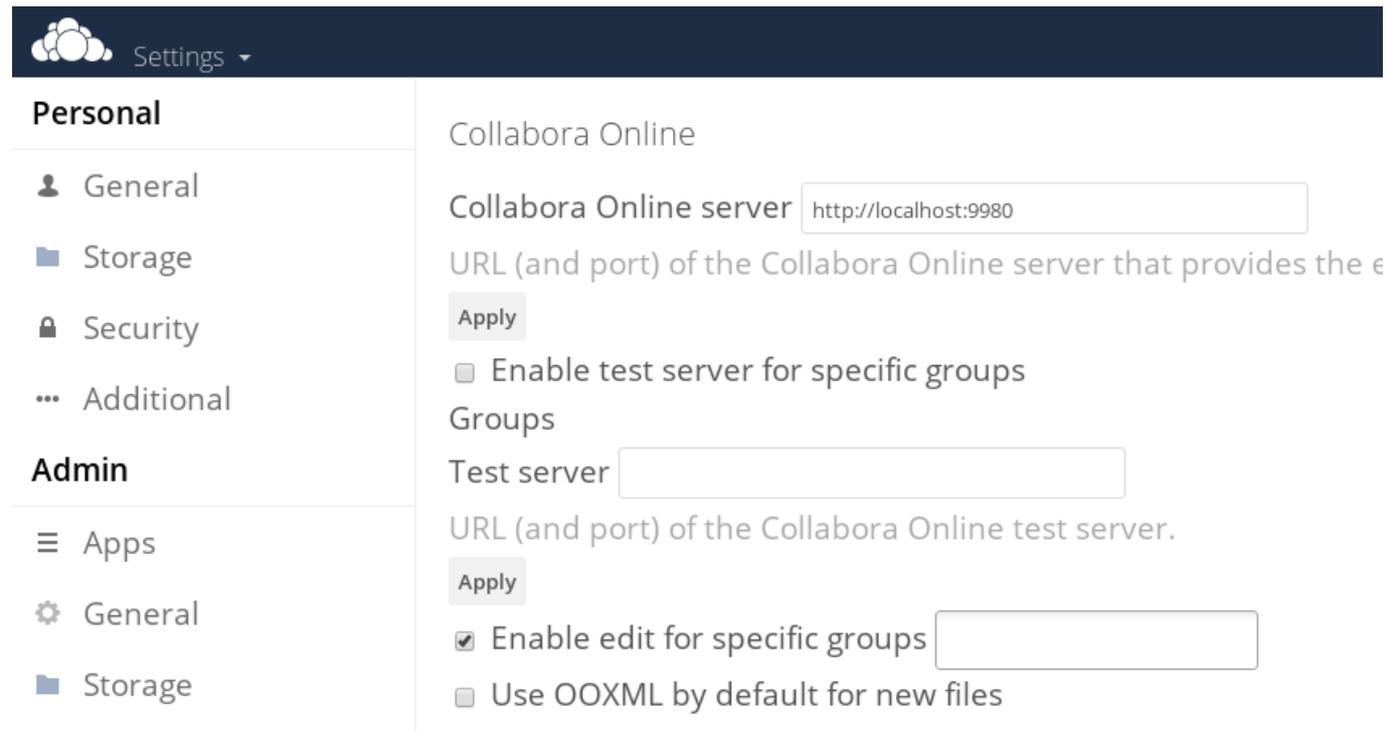
# ownCloud / integration wins:

- Server-side Encrypted file support
- Conflict / timestamp detection & re-load in 2.1.3

- Groups:

Test &  
Edit

- OOXML
- RTF &  
TXT



The screenshot shows the 'Settings' page in ownCloud. The left sidebar is divided into 'Personal' and 'Admin' sections. Under 'Personal', there are links for 'General', 'Storage', 'Security', and 'Additional'. Under 'Admin', there are links for 'Apps', 'General', and 'Storage'. The main content area is titled 'Collabora Online' and contains the following configuration options:

- Collabora Online server:** A text input field containing 'http://localhost:9980'.
- URL (and port) of the Collabora Online server that provides the e** (truncated): A text input field.
- Apply** button.
- Enable test server for specific groups**
- Groups:** A section header.
- Test server:** A text input field.
- URL (and port) of the Collabora Online test server.** (truncated): A text input field.
- Apply** button.
- Enable edit for specific groups** (with a text input field)
- Use OOXML by default for new files**

# Collabora Online 2.0 – Dec 2016

- Collaborative Editing
  - As demo'd last-year:
  - Multi-user, multi-cursor, etc.
- Followed up with a large number of improvements in regular minor point releases ...

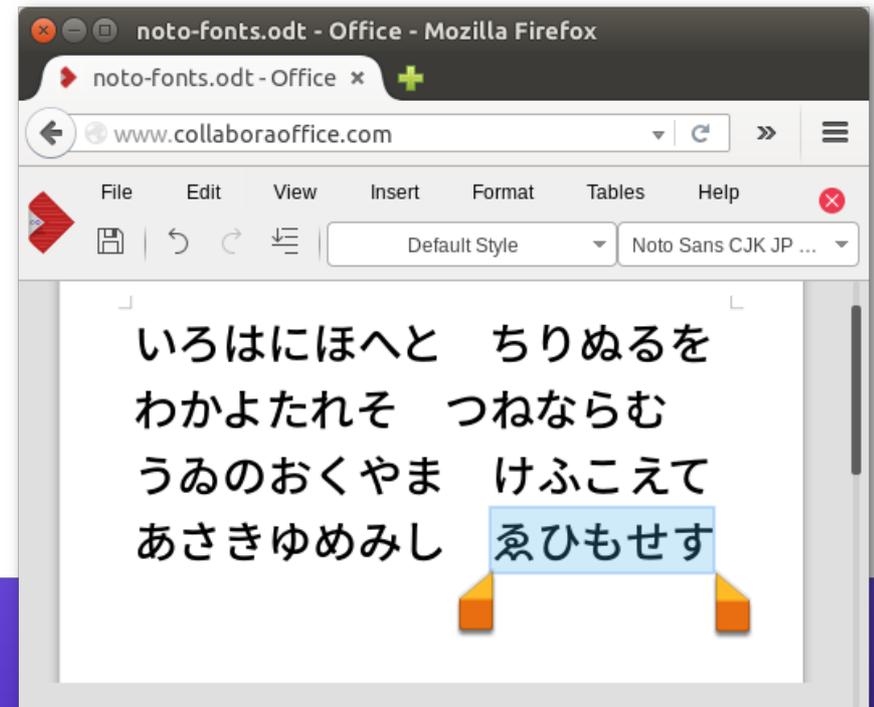


*"LibreOffice is the world's premier Open source office suite. Collabora is proud to be part of the LibreOffice community, and to build our supported product targeted at the enterprise on top of the freely available LibreOffice code."*

— Michael Meeks, Vice PresidentC

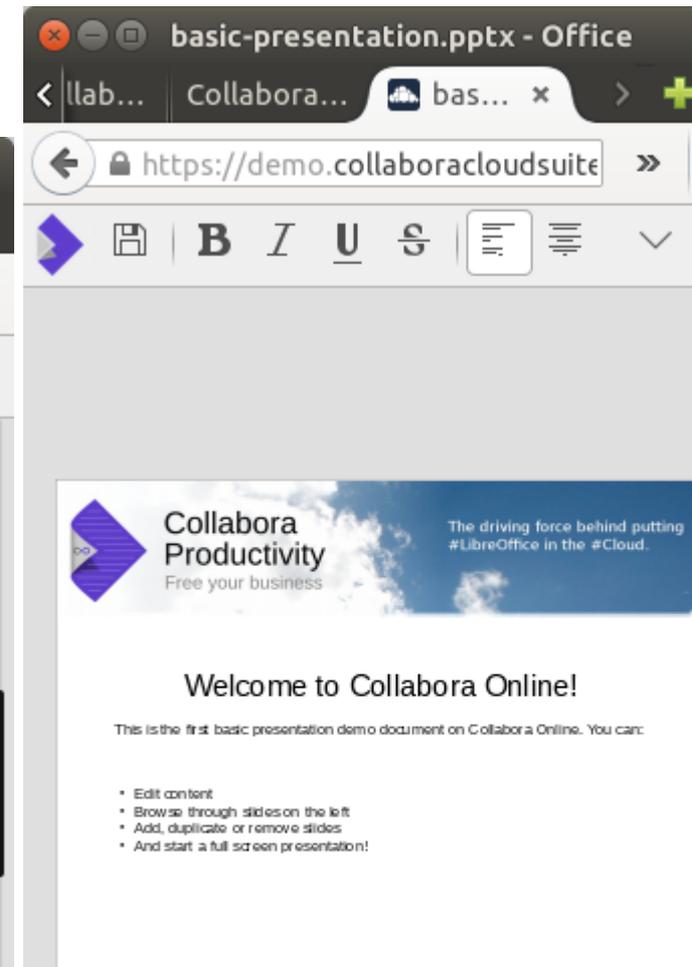
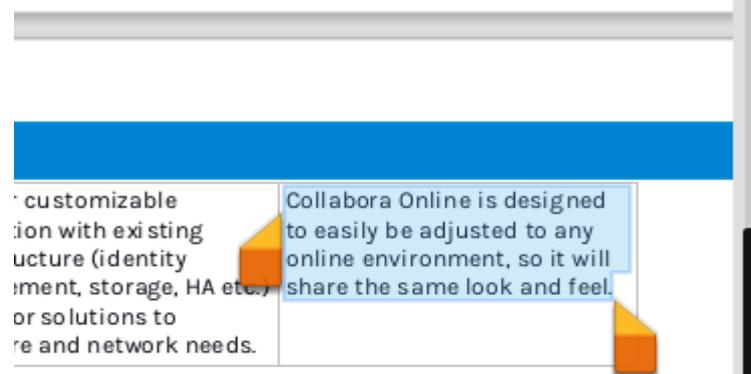
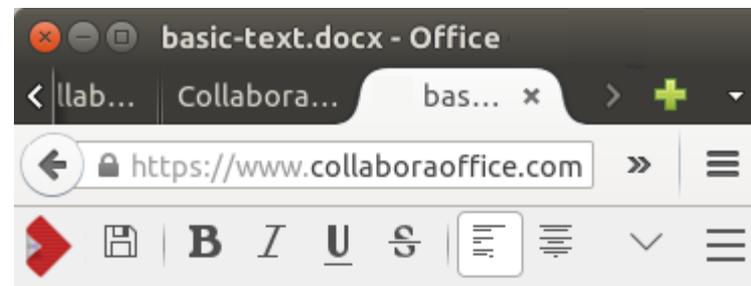
# Collabora Online 2.0.x

- UI extras:
  - Insert → Footnotes, EndNotes, Page-breaks, column breaks
  - Format → Page size / Orientation
- l18n
  - Noto fonts
  - basic Input Method support.



# Collabora Online 2.0.x

Responsive  
design  
tablets  
and/or  
phones



# Collabora Online 2.1 ...

- **Upgrade** to common code with Collabora Office 5.3
- Performance:
  - Memory reduction – reduce guidance 50% + **OOM**
  - CPU perf. wins + anti-aliased rendering
  - B/W reduction – avoiding un-changed tile updates
- Collaboration:
  - client-side JS / animated commenting
  - Change tracking / commenting



Collabora Online v 2.1



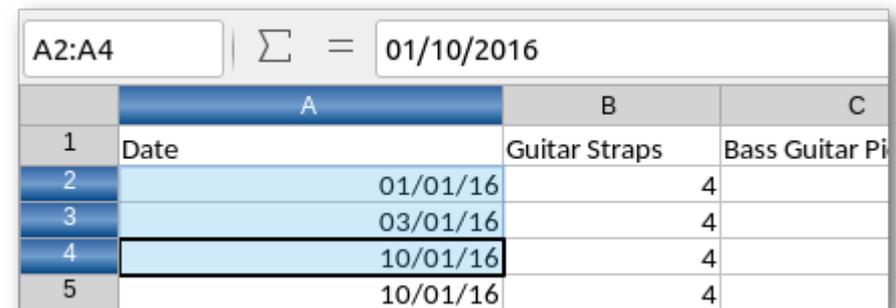
john  
Thu Apr 27 2017

Insert ' v 2.1'

Good to add the version number

# Collabora Online 2.1 ...

- Internal re-design: simplifying threading
- Security Improvements
  - seccomp-bpf: pre-emptive kernel API sub-setting
  - Content Security Policy / header improvements
  - stronger admin password hashing
- Calc
  - 500k rows re-work.
  - Active cell reference

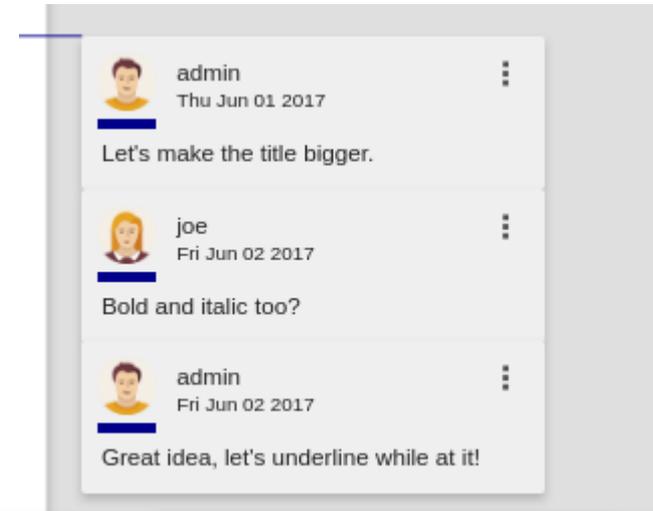


	A	B	C
1	Date	Guitar Straps	Bass Guitar Pi
2	01/01/16	4	
3	03/01/16	4	
4	10/01/16	4	
5	10/01/16	4	



# Collabora Online 2.1.x

- Avatar support
  - with optional 'verbs':
    - call / chat etc.
- Improved Admin Console
  - View by users
  - Modified?

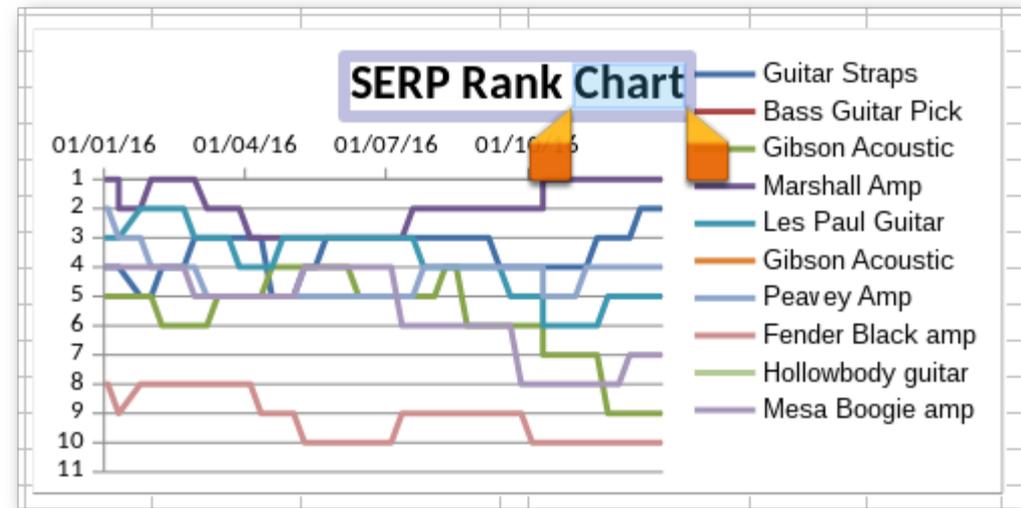


A screenshot of the Collabora Online Admin console dashboard. The dashboard shows three key metrics: 8 Users online, 3 Documents opened, and 410.2 MB Memory consumed. Below these metrics is a table with columns for PID, Document, Number of views, Memory consumed, Elapsed time, Idle time, and Modified. The table lists three documents: SEO-Dashboard.xlsx, Collabora Online.odt, and Collabora Productivity at Hostingcon 2017 in Los.

PID	Document	Number of views	Memory consumed	Elapsed time	Idle time	Modified
17569	SEO-Dashboard.xlsx	2	66.0 MB	45:30 mins	4:30 mins	No
17583	Collabora Online.odt	5	108.0 MB	21:53 mins	1:06 mins	Yes
17685	Collabora Productivity at Hostingcon 2017 in Los	1	36.7 MB	21:26 mins	21:26 mins	Yes

# Collabora Online 2.1.x

- Chart sub-object editing & position
- New platforms
  - RHEL6
  - SLES11SP4
  - Debian 9
- Config expansion
  - rlimits, memory handling, etc.



# Collabora Online 2.1.<next>

- Coming rather soon now:
  - Multi-language spell checking underlines

Ist das richtig?

- Save As – support
- PAM integration for admin-console
- Watermarked tiles:
  - Document as pixels with watermarks.

Secret Text

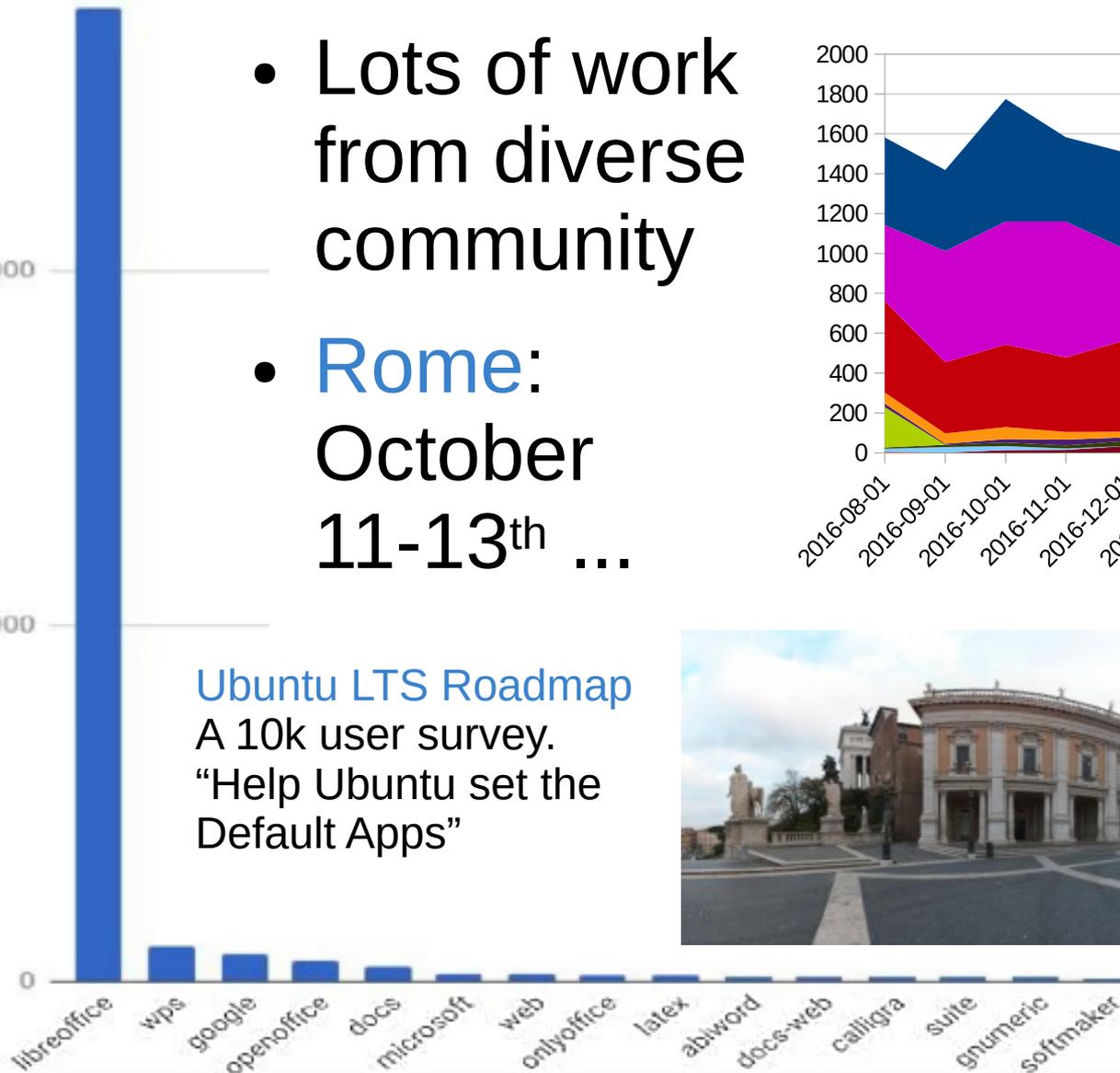
WaterMarked



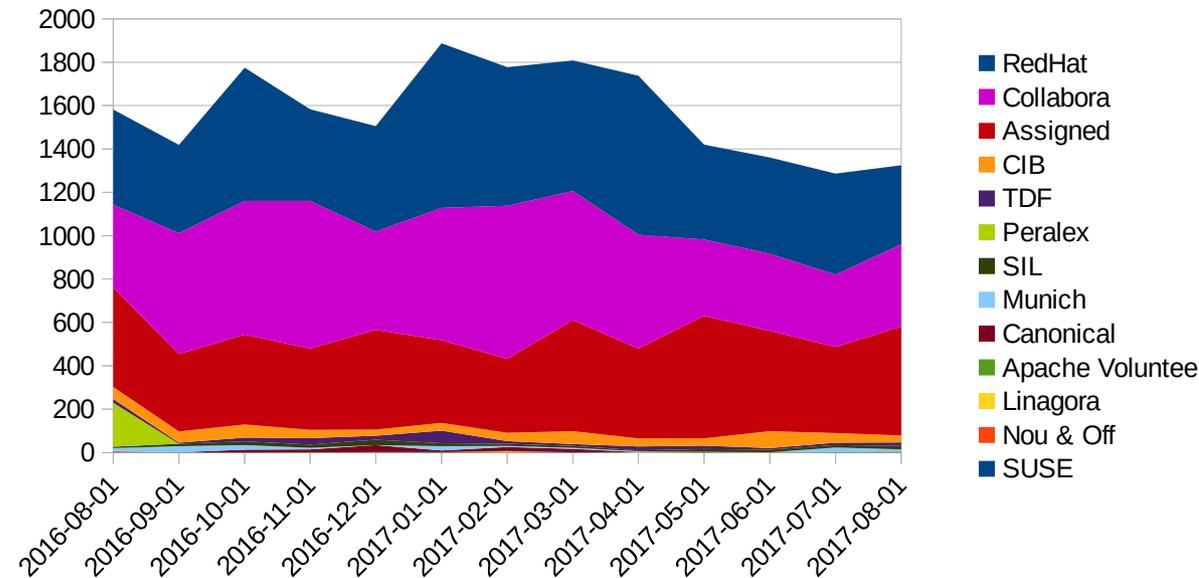
# Come see us in Rome ...

- Lots of work from diverse community
- **Rome:** October 11-13<sup>th</sup> ...

Ubuntu LTS Roadmap  
A 10k user survey.  
“Help Ubuntu set the Default Apps”

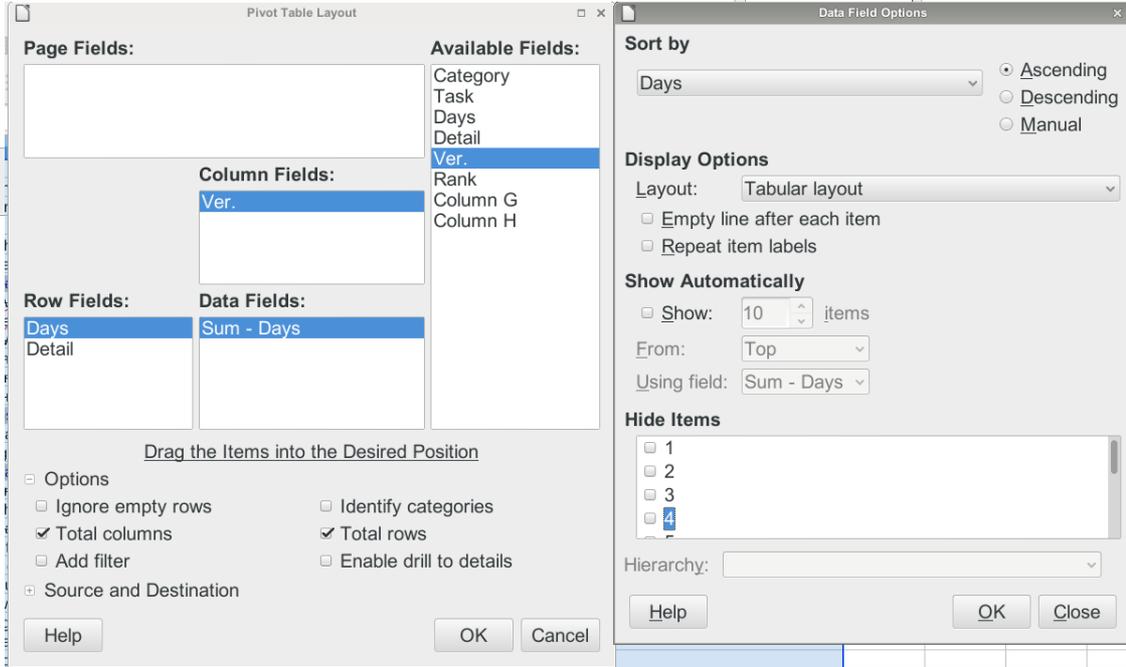
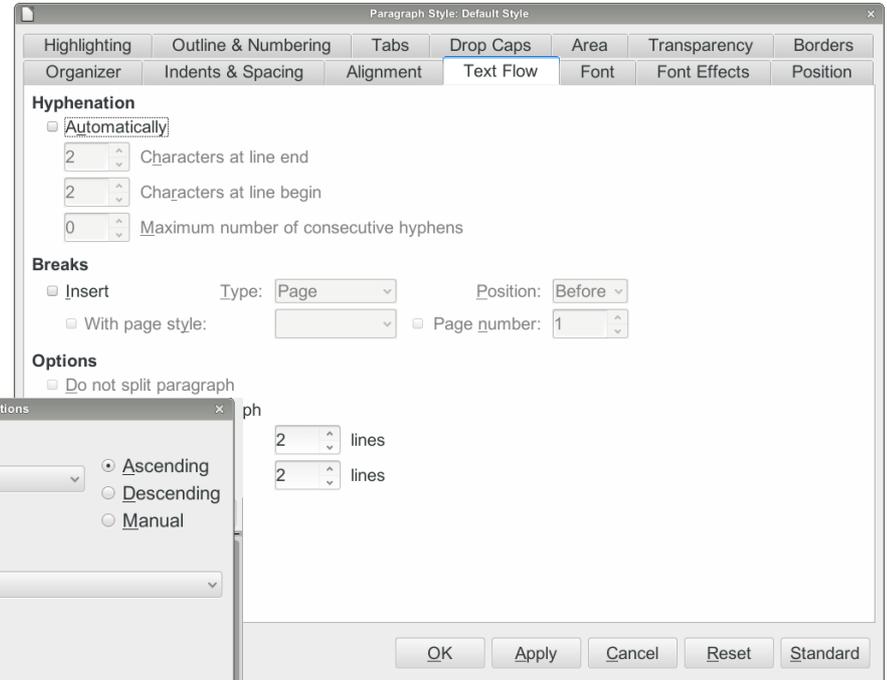
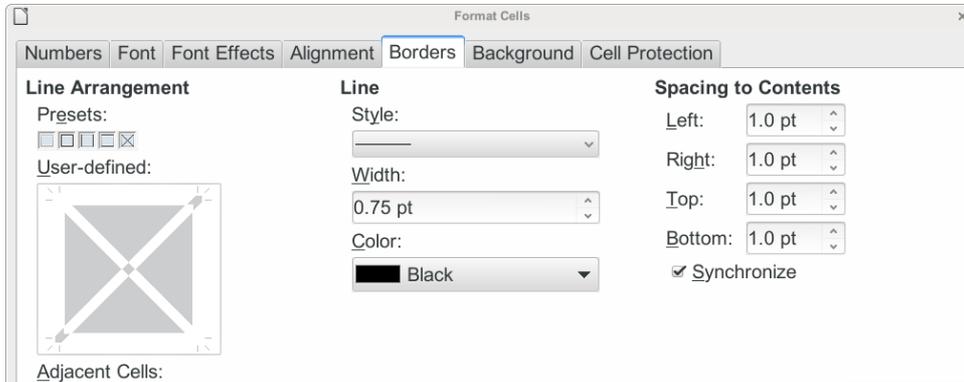


Commits per month by affiliation



# In-development: for Collabora Online 3.0

# Next: Rich Editing



2.1.x ... "Save As"

Your feature here ... ?

# Ongoing work for 3.0 & beyond

- **Interoperability**
  - inherited from LibreOffice
  - Big chunks of file-format fixing
  - PPTX export work → 2.1.x
  - Pivot Table export wins → 2.1.x
  - New Pivot Charts feature → 3.x
- EMF+/EMF rendering → 3.x
- Import/export performance, threading
- **Latency & Bandwidth**
  - Much improved tile compression ...
- And more ...



# Deployment bits

# Hardware Sizing

- Guidelines:
  - 10 active users / CPU thread
  - 50Mb RAM / active user
  - 100kbit/s / active user
- Capacity factor → not a hooster ...
- 5000 'users' → diversity → 500 concurrent users:
  - 50 CPU threads
  - 25 Gb of RAM
  - 50 Mbit of bandwidth
- Can setup today on a single large machine.

# HA / setup ...

- HA setup more fun

- Split into three 8 CPU machines, 8GB each



**Users**



https://

**HA balancer of choice: ha-proxy, or F5**



http://



**Collabora Online Worker Nodes**



*Key attribute is to ensure that all traffic related to the same document goes to the same worker – all collaborators end up in the same address space.  
Balancing on WOPISrc*

# Why Collabora ?

# What you get ...

- Customer Portal access
  - Access to Collabora Online binaries & update channels.
  - Full Technical Docs
    - Setup, deployment,
    - User manual
  - Support ticketing system – file & fix.
- Product Management interaction.

1 {  
2 {  
3 {  
4.1 {  
4.2 {

The screenshot shows the Collabora Productivity Partner Portal. The header includes the logo and navigation links for Overview, Tickets, Preferences, and Logout User. The main content area is divided into several sections:

- WELCOME PARTNER**: A header section for the partner.
- Latest news**: A list of recent news items, including recordings of LibreOffice talks and announcements about new partners and events.
- Upcoming events**: A list of upcoming events, such as asLAN in Madrid, Cloud Expo Europe in London, and WHD Global in Rostock.
- Your Customers**: A table listing customer information, including name, number of seats, priority levels, and subscription start dates. The table has columns for Name, Number of seats, L3 high priority, L3 medium priority, Subscription started, Switch to this customer, Edit this customer, and Add a user to this customer company.
- Collabora Online**: A section for Linux update repositories, providing a secret URL and technical documentation links.
- Collabora Office**: A section for Linux update repositories, providing a secret URL and technical documentation links.

The technical documentation sections include a table of files with columns for File type, Title, Size, and Date. The Collabora Online section lists files like 'Collabora Online Technical Documentation.pdf' and 'Collabora Online Installation Guide.pdf'. The Collabora Office section lists files like 'Collabora Office FAQ.pdf' and 'Collabora Office - Choosing Support 1067-800.jpg'.

# Conclusions

Georgeous, interoperable, ownCloud integrated, document collaboration

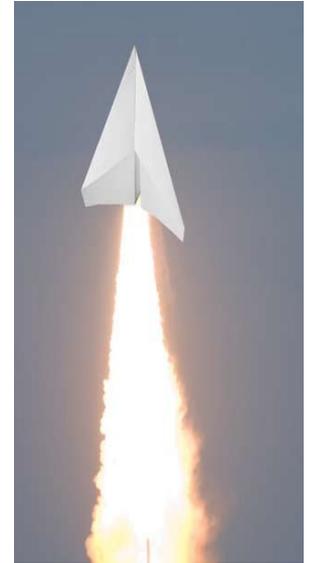
*“make user conflict resolution a thing of the past”*

Continuous, improvement based on a deep customer & partner discussion

Services & Support from Collabora

The driving force behind LibreOffice Online.

Thanks also - to all those who support & develop LibreOffice – much appreciated.



*Oh, that my words were recorded, that they were written on a scroll, that they were inscribed with an iron tool on lead, or engraved in rock for ever! I know that my Redeemer lives, and that in the end he will stand upon the earth. And though this body has been destroyed yet in my flesh I will see God, I myself will see him, with my own eyes - I and not another. How my heart yearns within me. - Job 19: 23-27*

