

# The Applications Ecosystem

Giuseppe Lo Presti  
On behalf of the CERNBox team

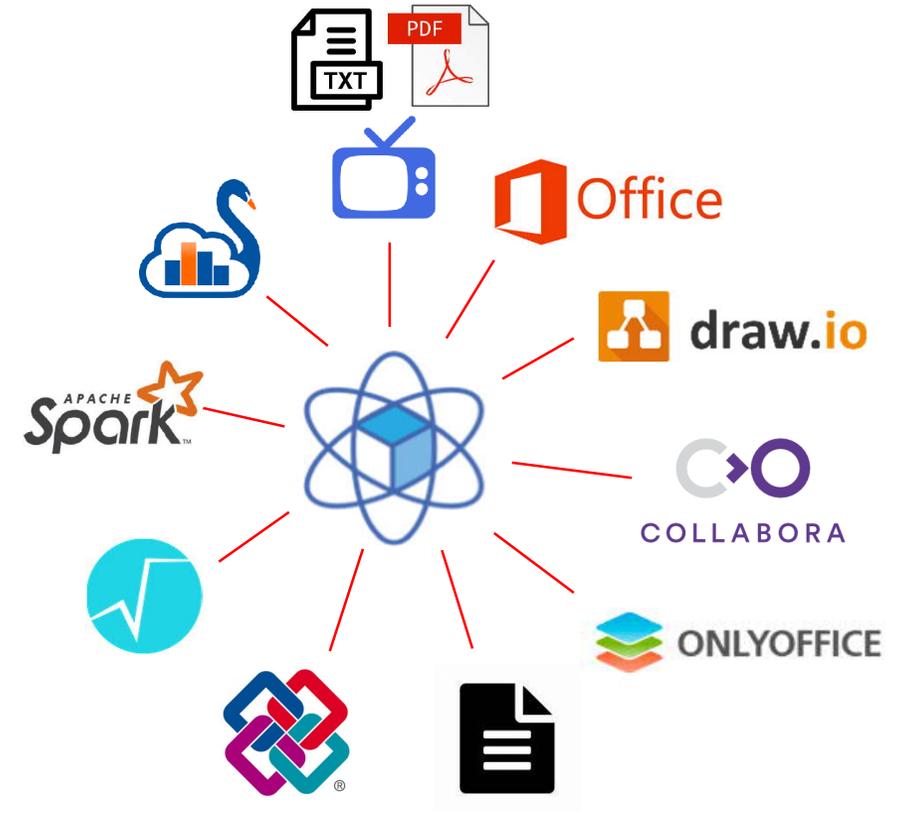
8 December 2021  
CERNBox User Forum





# A bit of history...

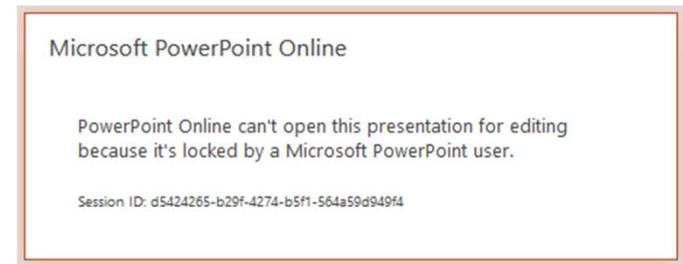
- 2014: Native text editor, PDF/picture viewer
- 2016: SWAN (Service for Web-based ANalysis)
  - 2017: ROOT viewer and iNotebook viewer
  - Later integrating Apache Spark for analysis at scale
- 2017: Microsoft Office
- 2018: DrawIO for flow diagrams
- 2019: OnlyOffice, Microsoft Project Gantt viewer
- 2020: Collabora Online (ODF), CodiMD (Text/Markdown)
- 2021: IFC viewer (Industry Foundation Class, CAD-like format)
- Today: [New framework to easily incorporate new applications](#)
- The apps portfolio is being reviewed, following the end of the MALT project





# Collaborative or concurrent editing?

- CERNBox is accessible as a filesystem for Desktop apps as well
  - Popular cloud storages do not offer such option!
- Interplay with web apps and sync clients can be challenging
  - Protections to **avoid silent file overwriting**
  - But then, “*who is editing my file?*”
  - And some apps (SWAN, text, DrawIO) do not support collaborative editing
- Plans
  - Ability to **lock/checkout** a file for exclusive usage:  
“*This file is mine now, please don’t touch it!*”
    - Clearly marked in the web UI and for the sync clients
  - More collaborative features to come - *see Roadmap later in this session*

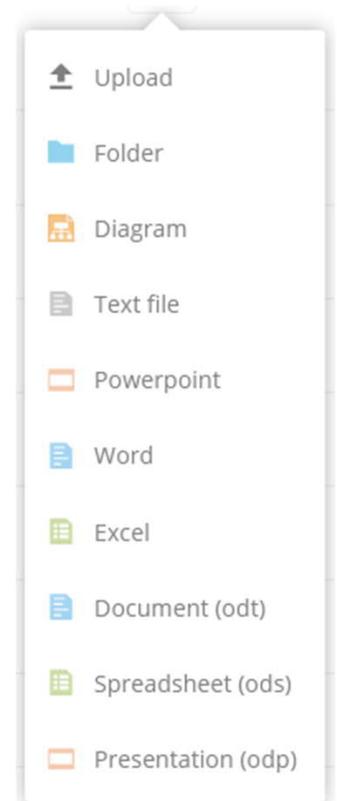




# What's next?

- Very diverse set of file types: 10,000+ different file extensions!
  - Code, TXT, ROOT, PNG, PDF prominently at the top
  - Lots of binary and text data, plenty of machine-generated files, ...
  - **Human-managed files represent use-cases from all CERN Sectors**
    - Examples: 5M Office, 10M LabView, 28M Python, etc.
- Any web app useful for your work that we should consider?
  - Viewer / Editor / Collaborative editor
- Likewise, any app we should discontinue?

**Please let us know in the Q&A doc!**





# The Applications Ecosystem

Thank you

**Giuseppe Lo Presti**

Giuseppe.LoPresti@cern.ch