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# Ensuring the Digital Sovereignty of Documents

Michael Meeks, CEO Collabora Productivity

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# Digital Document Sovereignty: a quick overview:

- » Intersecting problems
  - » Document leakage
  - » Document portability & platform tying
  - » Document collaboration
  - » Document software deployment
- » Potential Solutions
  - » Encryption & Key management
  - » Cloud deployment
  - » On-premise, Open Source

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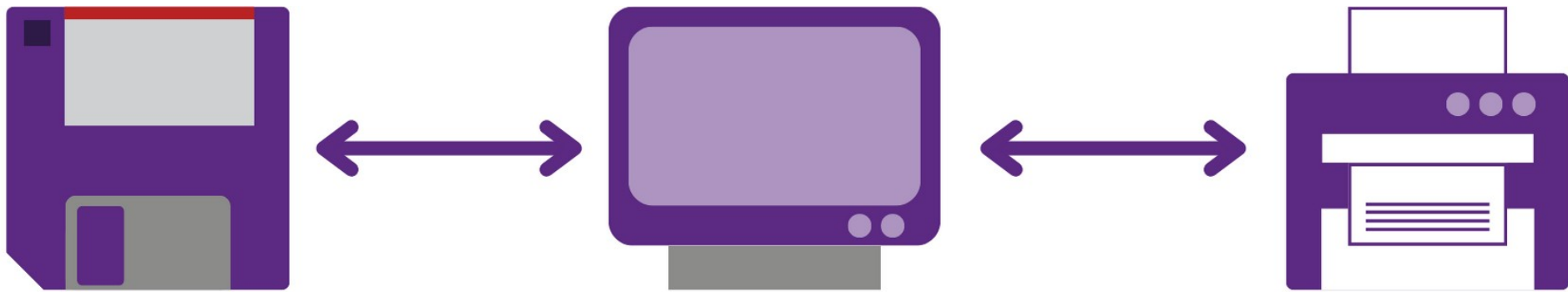
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**Some perspective:  
PCs & Networks &  
Documents**

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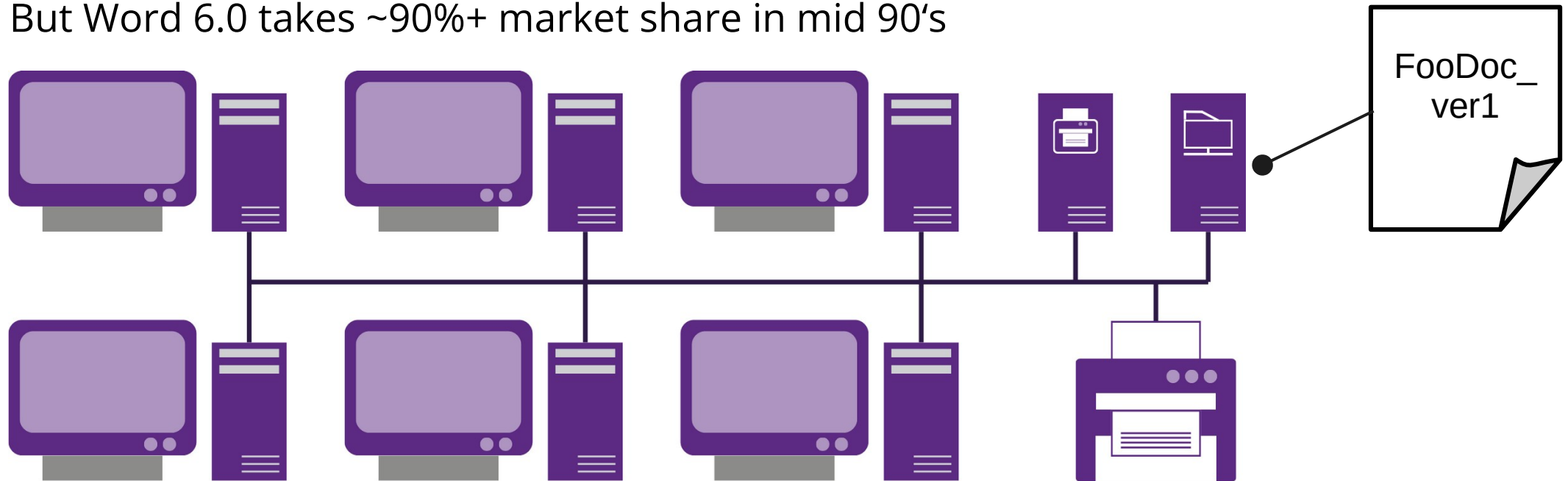
## The very old days: 80's - 90's

- » Collaboration ==
  - » Everyone comes & sits around the same CRT
    - » „Shared Documents“ via sharing the same PC
  - » Or – we print-out & post documents around the world, or floppies ...
  - » I **still** see footers: *“to avoid wasting paper, please don't print out this E-mail”*



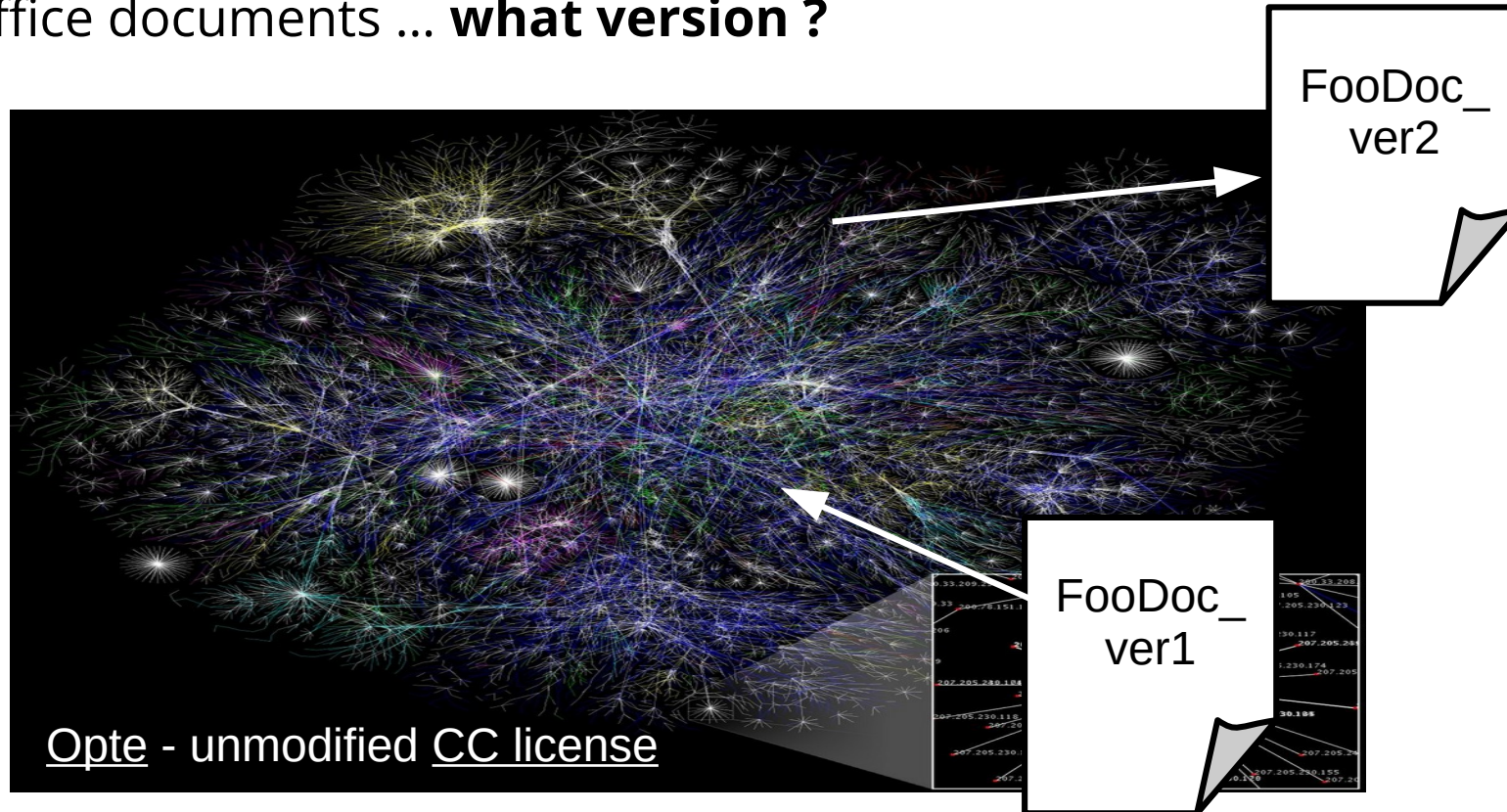
## LANs - Netware / NT / network effects ... 90's onwards

- » A feast of new networking protocols & standards:
  - » IPX/SPX, TCP/IP, DCE/SMB, Token-Ring, Ethernet, etc. etc. Storage + Auth ...
- » Document data – not standardized: RTF ? - DOC/XLS/PPT
  - » But Word 6.0 takes ~90%+ market share in mid 90's



## Global networks & E-mail - 2000's

- » E-mail projects standards across the world ... standard protocols
  - » Plain-text → *still* migrating to HTML E-mail ... TNEF ?
  - » Unencrypted posting of mails around the world
  - » attaching Office documents ... **what version ?**



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**Document Portability**

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# The problem of document portability

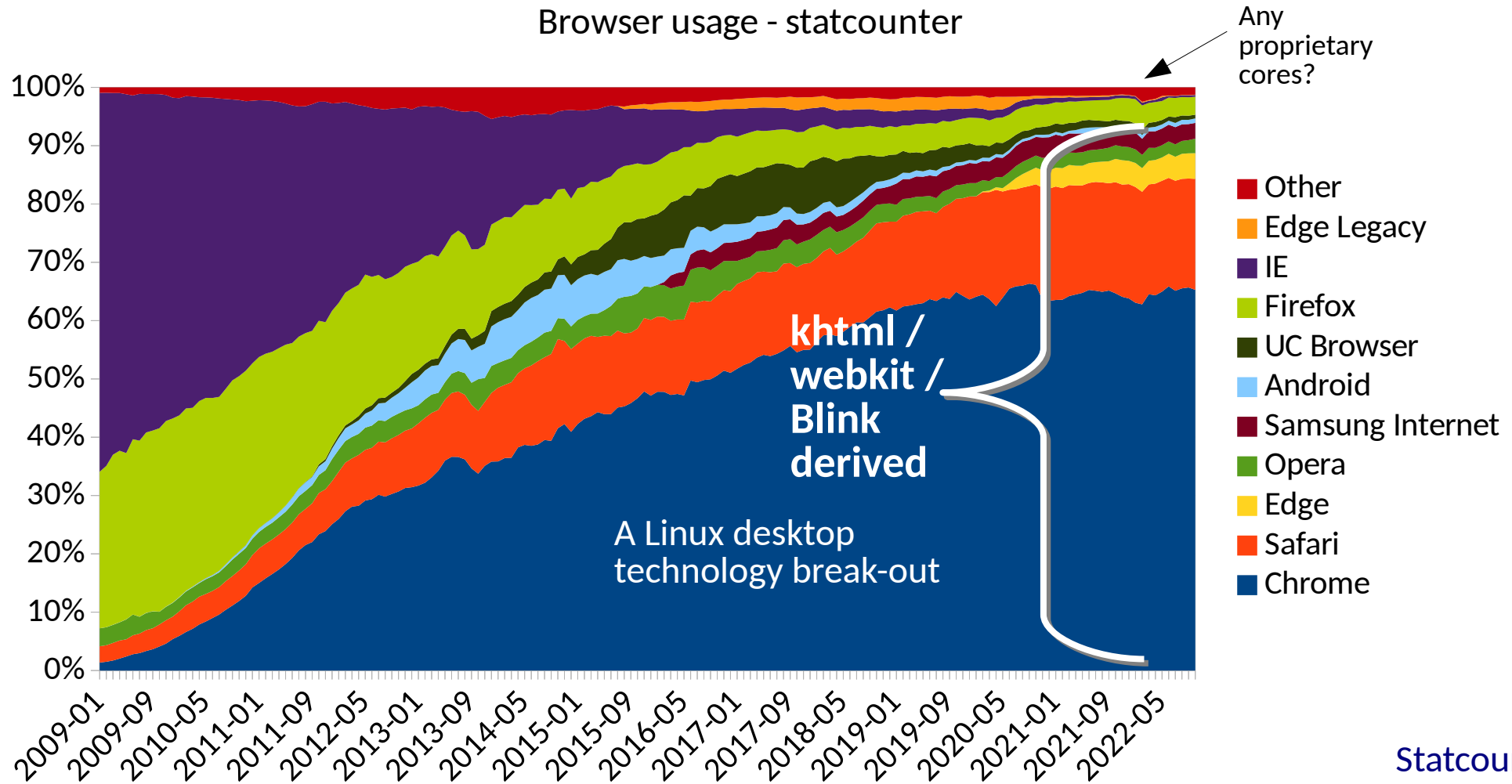
- » A „Legacy Rich“ feature-set
  - » Extremely complex Microsoft Office file format(s)
    - » A historic challenge for interoperability,
    - » many trillion Office documents extant
- » Open Document Format: ODF 2002 → onwards
  - » Encouraging open-ness, documentation, standardization in file formats!
- » Microsoft Open-XML – 2005 → onwards
  - » Excellent work: codifying decades of curious & arbitrary design decisions
    - » multiple, incompatible generations of form technology eg.
- » Still getting E-mailed all around the world - ~daily ...



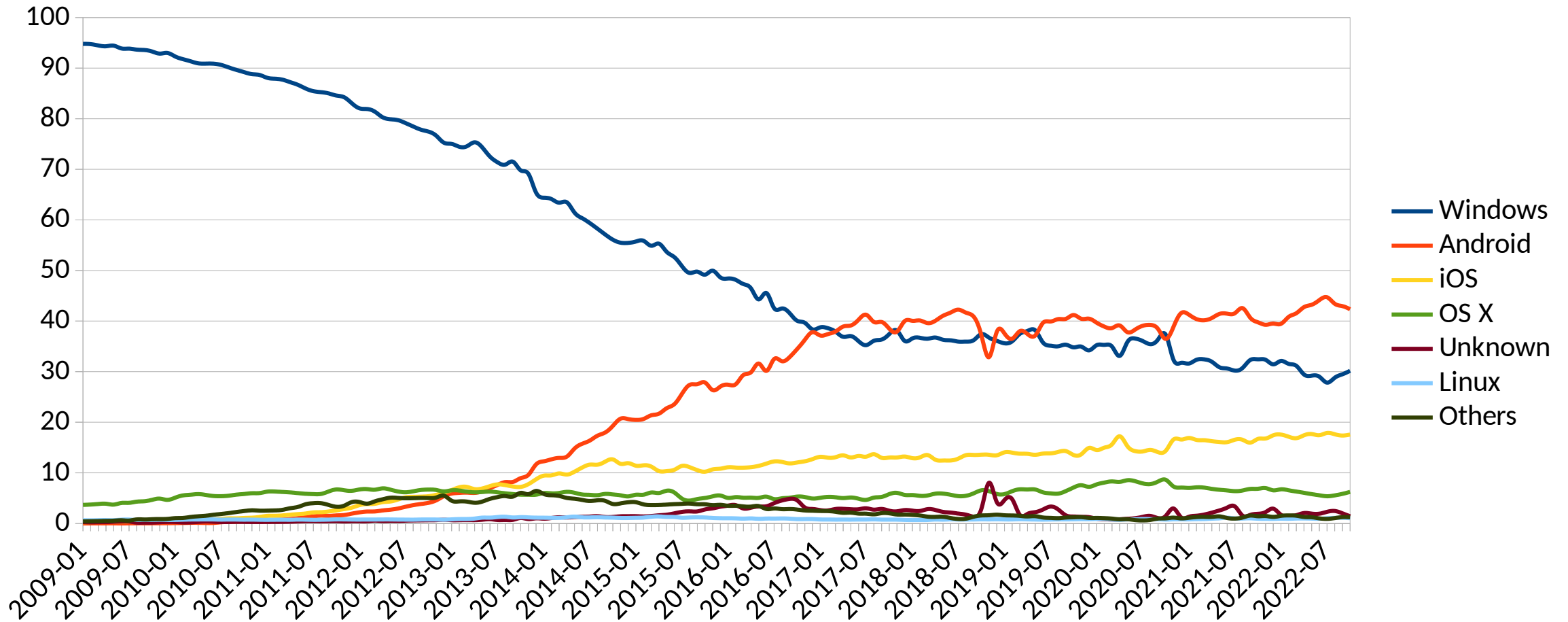
# Documents - tied to a closed platform ?

- » The Web – an Open Platform
  - » The dominant vertical application interface
  - » Cross-platform, cross device form-factor ...
    - » by **2012** (20+ of work) → we could even generate & play web-audio !
  - » Often a complete mess of cargo-culted, type-unsafe Javascript
  - » But delivers
- » Tie to Proprietary desktops:
  - » Mail ? → good alternatives around
  - » Office Productivity

# The amazing success of advert supported FLOSS:



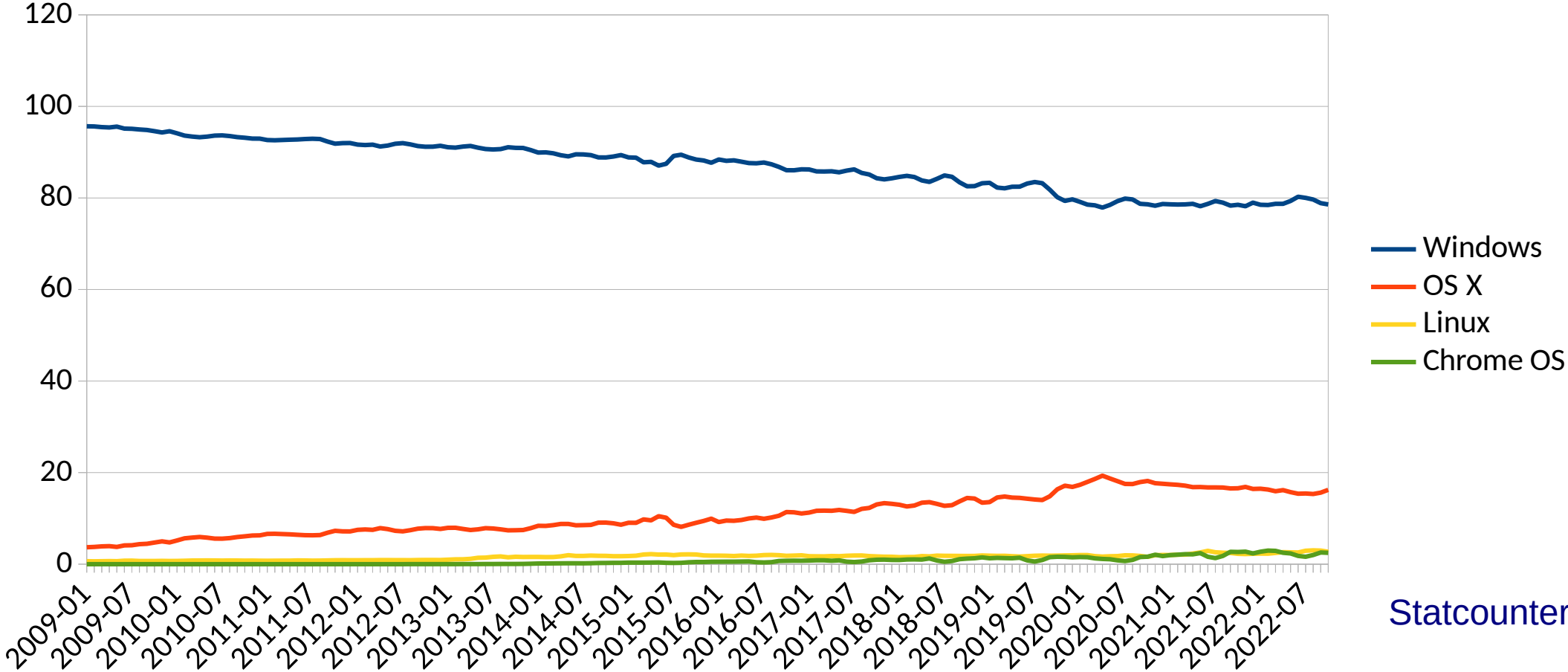
# Devices are changing: OS market share - statcounter



Statcounter - CC

# Desktops are changing more slowly

Desktop OS - statcounter



Statcounter - CC

# MS Office Online tied to Desktop / Windows

Microsoft Word Online

Sorry, Word Online can't open this document for editing because it has document protection enabled for one or more sections. To edit this document, please open it in Microsoft Word.

Tell us about this problem to help us fix it.  
[Give feedback to Microsoft](#)

Session ID: 735838fd-b0c7-4534-8d07-84df8f1158b9

[Edit in Word](#) [Open in Reading View](#)

Microsoft Word Online

Sorry, Word Online ran into a problem while opening this document. To view this document, please open it in Microsoft Word.

Session ID: bd60564a-5cbb-4d12-82b3-2496bf8eba30

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Microsoft Word Online

Sorry, Word Online can't open this document because it's too big.

Tell us about this problem to help us fix it.  
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Session ID: 9b5be095-bcc2-407b-984a-9b5d885174ee

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Couldn't Open the Workbook

Sorry, we can't open your workbook in Excel Online because it exceeds the 5 MB file size limit. You'll need to open this in Excel.

[Learn more](#)

[Open in Excel](#)

Edit a Copy?

To edit this in your browser, we will create a copy that doesn't include unsupported features.

To edit this workbook with all of its features, click Cancel and open it in Excel.

[Learn more](#)

[Edit a Copy](#) [Cancel](#)

Compatibility Report

We can't show these features in the browser:

- Shapes or other objects
- SmartArt (process, hierarchy, cycle and relationship diagrams)

But you can see all the content in this workbook by opening the file in Excel.

[Learn more](#)

[Edit in Word](#) Use the full functionality of Microsoft Word.

[Edit in Browser](#)

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**Document Software  
deployment**

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# Managing Document Editing Software ...

- » Control / Deploy
  - » Individual PCs:
    - » Touch + shoe leather
  - » Networked PCs
    - » Remote Machine Management
- » Previously – could test & deploy
- » Proprietary Cloud Software:
  - » Little to no control
  - » Hyper-Centralized

- » What does a Digitally Sovereign solution look like
  - » Control updates
  - » Control versions
  - » Custom support & bespoke feature / fixing.
  - » Federated

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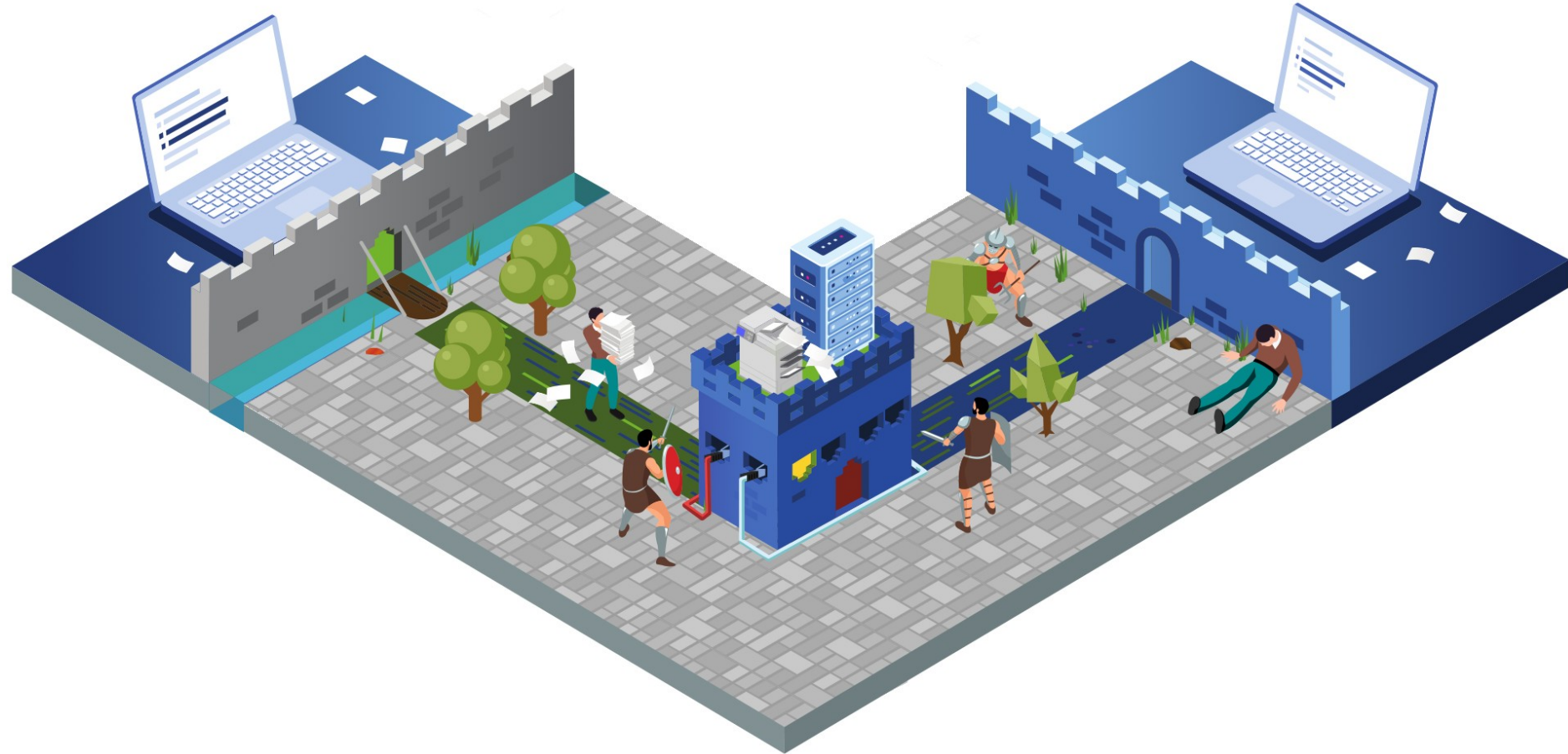
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**Security & Encryption**

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# What is the solution?



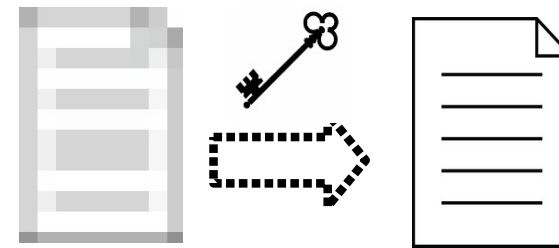
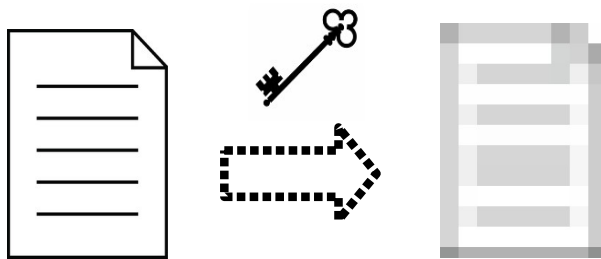
# Central Digital signing of everything (RMS)

How can we show people a document, and control their access: ?

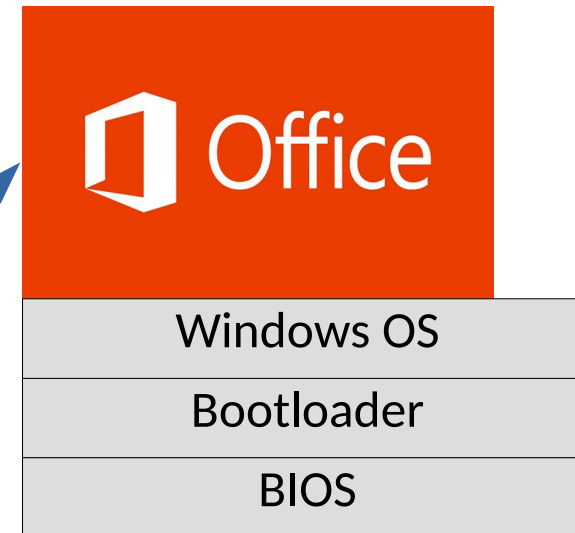
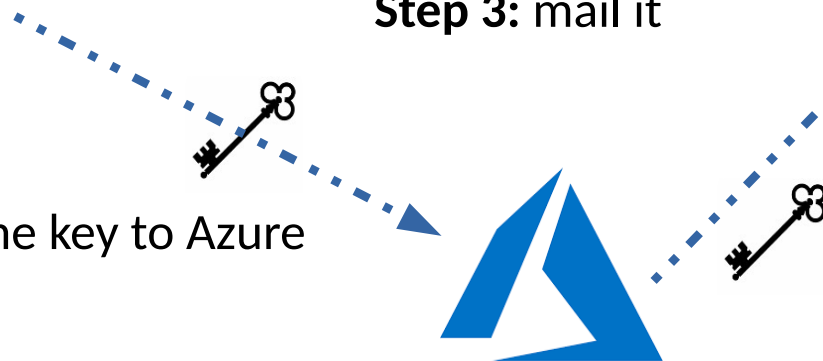
- e.g. disable copy/paste, print, save-as, control views etc.

**Step 4:** check **system** and **app** is fully **signed**, and policy is ok & Decrypt document.

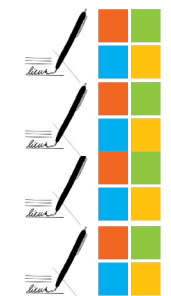
**Step 1:** encrypt the document



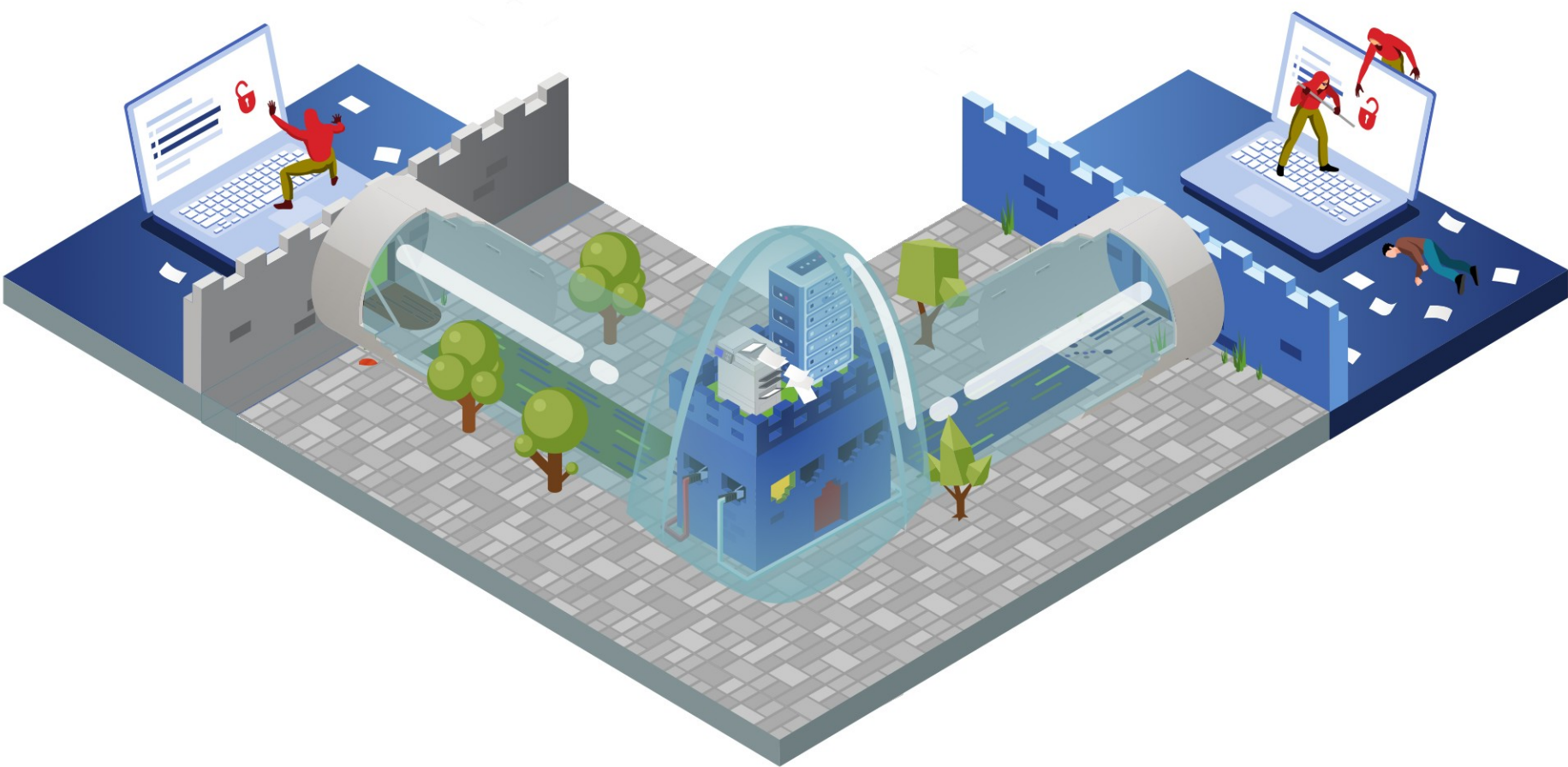
**Step 2:** send the key to Azure



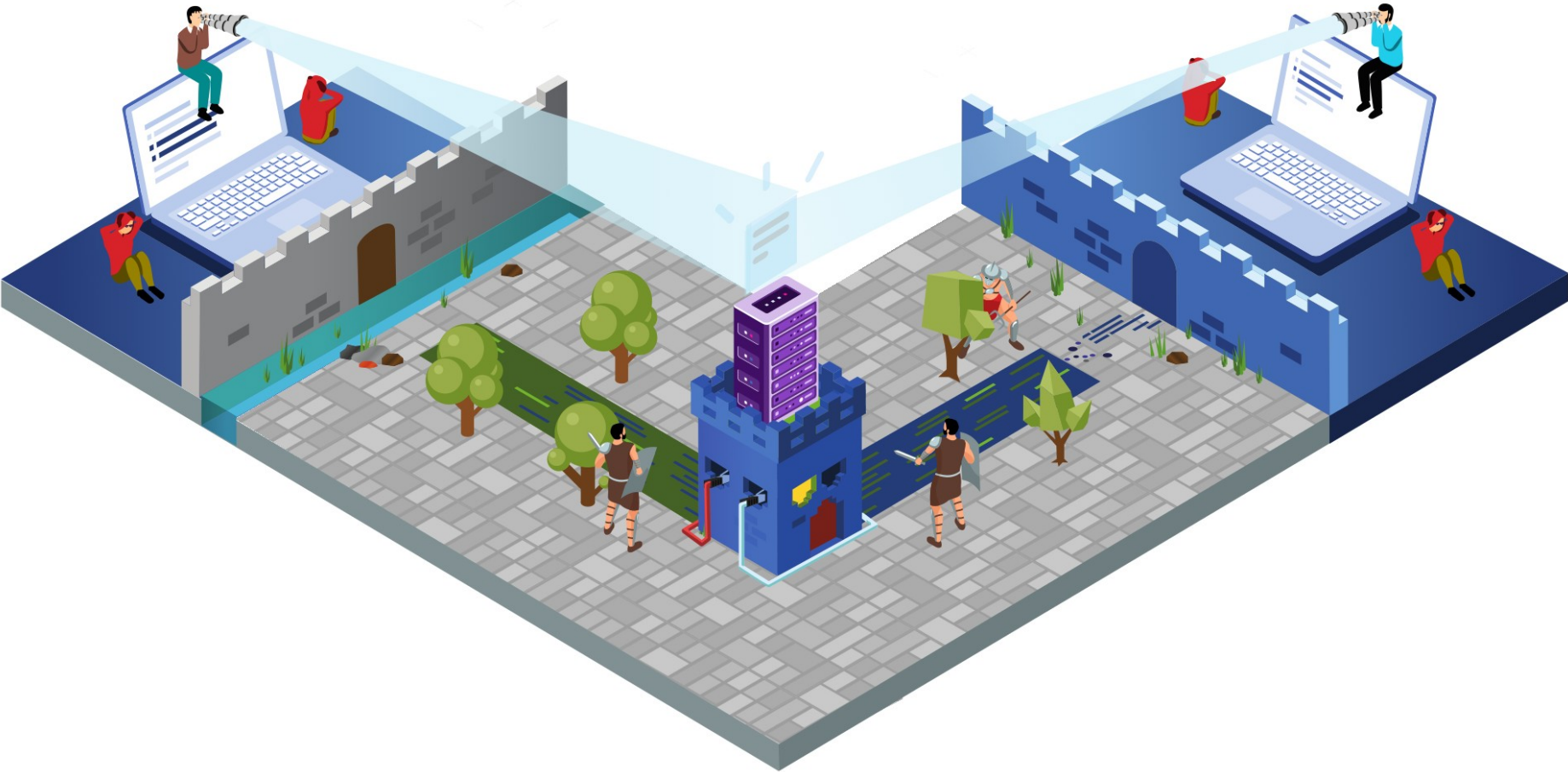
MS sign / revoke from bottom up



# End to end encryption?



# Documents never leave the server



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**Open Source**

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# Digital Sovereignty: Open Source

- » Scope for changing proprietary software:
  - » Approximately zero
- » Even simple UX wins
  - » Things that would take only seconds to fix
  - » Next-to-impossible ...
- » As software gets more complex
  - » As it gets „cleverer“
  - » We need to be able to fix it.
- » Open Source a pre-requisite for Digital Sovereignty



# Liberating your documents together



## Collabora Online



LibreOffice Technology



- Open Source Document editing
- Best of breed security
- Interoperability – bring your content
- Easy, centrally managed cloud deployment
- Excited to work here: come & see me for a demo.
- Coalition of partners working to restore people's freedom:



# COOL *days*



**APRIL, 2024**

**8TH - TEAM BUILDING**

**9TH & 10TH - COOL DAYS**

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**VIELEN DANK!**

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@collaboraoffice

**Any Questions ?**

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