

EU OS: an Operating System for the Public Sector Status and Next Steps

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EU OS: Why?

Motivation for an Open Source Operating System (OS) based on Linux



OS to support older Hardware

- With Windows 10 end-of-life, older hardware does not meet requirements for an update on Windows 11 (planned obsolescence of 240 Mio devices).
- With Linux, older (and newer) hardware can be used longer.
 - Schools and universities, libraries, public administration, etc.

OS to support high regulatory requirements (security, sovereignty, privacy)

- With Windows 10 and 11, connected (cloud) services are difficult to control.
- With open source software like Linux, a high level of control is achievable
 - Competition authorities, data protection authorities, courts
 - Embassies, secret services, armed forces, critical infrastructure sector

Perceived Problems with the Migration of Linux



Perceived Problems

- During migration two systems must be supported: Windows and Linux
- Expensive migration: cost-saving effects only for large desktop fleets
- Little in-house know-how and small ecosystems: shortage of expertise
- In the absence of role models: many unknowns and risk to fail
- User aversion against new or non-standard software (or change in general)

Possible Solution

- Synergies between organisations: common approach to Linux migration
- Synergies between building blocks: reuse cloud technologies and expertise

EU OS and its Unique Selling Point (USP)



What is EU OS not?

- It is <u>not</u> a project of the European Union, but it should be.
- It is <u>not</u> a new Linux distribution. It is not for private home users.
- It is <u>not</u> a project producing original code. EU OS reuses existing software.

What is EU OS then?

- It is a Proof-of-Concept (PoC) for the deployment of a Fedora-based Linux OS with a KDE Plasma desktop environment and bootable container technology in a typical public sector organisation (corporate environment).
- Private sector organisations with similar requirements may also use EU OS.
- EU OS is also a community and a knowledge data base.

EU OS: How?

Proof-of-Concept



What is already proven?

- Several public sector organisations have migrated to Linux, so that's proven.
 - French Gendarmerie (fleet with 82k seats)
 - Chinese Government (90% of seats in government on Linux, video)
- The European Commission has studied Linux on the desktop already in 2005:
 - 'In general, the Linux platforms that were tested show a very fair level of usability and compatibility. An environment based on Linux is today technically feasible for limited groups with specific needs. Although there are many other factors that could play a role in the decision in favour of the implementation of an environment based on Linux, the present testing shows that is not possible to implement it at this moment in time on a large scale. Amongst the most blocking factors is the availability of Commission and local applications.'
 - 'Apart from this technical evaluation, it must be said that the Commission has a political role to play in ensuring that the competition rules are respected.'

Map of Linux-on-the-Desktop in the European Public Sector





Proof-of-Concept (2)



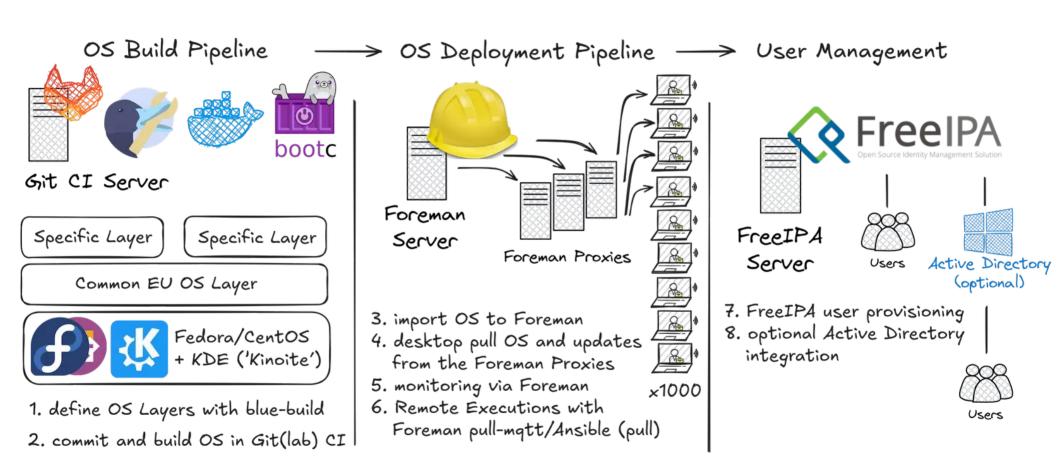
EU OS wants to proof that ...

- enough synergies exist, so that migration to Linux (EU OS) is feasible and economically viable in much more public sector organisations
- a migration is doable in rather 2 years than 20 years (check out use cases)
- Linux offers today an alternative to Windows that is more secure, sovereign, sleek (efficient/eco-friendly)
- Linux deployments can scale to thousands of users

Hence, EU OS PoC is more about **developing a common vision for and collaboration in digital transformation** than it is about code or technology.

Technical Design of EU OS (draft as of May 2025)





Properties of EU OS following from the Design



Based on ...

- open software and open standards: transparency, control, zero-margin costs
- wide-spread container technology (docker): in-house expertise often available
- wide-spread deployment technologies (Gitlab): infrastructure often available
- wide-spread enterprise linux (Fedora, possibly others): existing ecosystem
- hierarchy of shared containers:
 - synergies on many levels
 (EU, country, region, sector, ...)
 for building, testing, compliance
 - subsidiarity and flexibility
- Country 1
 Country 2

 Region 1 in Country 1
 Sector Education in Country 2

 City 1 in Region 1
 Primary Schools in Country 2

Automation tools: scalability for large fleets with many seats (goal: thousands)

EU OS: Who and When?

EU OS Community and Partners



- EU OS community is made up of
 - the project Gitlab https://gitlab.com/eu-os/
 - the Matrix chat space with ≈ 170 participants https://matrix.to/#/#eu-os-space:kde.org
 - the Fediverse account @eu_os with ≈ 2,3k followers
- EU OS partnerships with organisations offering pro bono help or a platform
 - French Government Hackdays in June 2025
 - ATIX/orcharhino https://orcharhino.com/en/ 💳
 - B1 Systems https://www.b1-systems.de/en/
 - GONICUS https://www.gonicus.de/
 - international information campaign https://endof10.org/
 - pending formalisation: a German public sector agency 🤫
- EU OS would like to have more partners from all over Europe!









EU OS Project Status (as of October 2025)



- awareness raising campaign in full swing (social media, personal networks)
 - EU organisations: EDPS, EC DIGIT/CNECT/HR, EC JRC, Parliament, Court, ...
 - International organisations: ICC, ICJ (the Hague), ICRC, UN
 - EU member states: DINUM 🔟, Zendis ≓, Schleswig-Holstein ≓, OSPO 🧮

on-going feasibility study with pilot comprising ≈ 150 seats running EU OS
 (scheduled from summer to end of 2025, so results expected in next months)

Thank you. Questions?

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