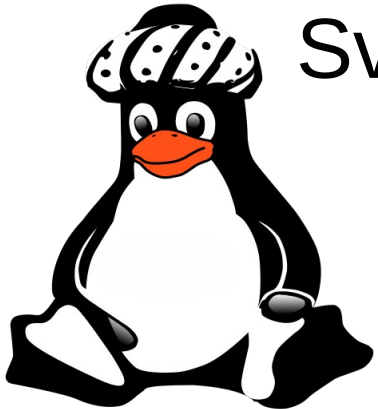# Dvadeset godina otvorenog koda – GNU/Linux, Mozilla i prijatelji jučer, danas i sutra

dr. sc. Vedran Miletić, Odjel za informatiku Sveučilišta u Rijeci, vedran.miletic.net

HULK-Ri/InfUniRi OpenClass
Sveučilišni kampus Trsat, **6.12.18.**

Meta OpenClass

OpenClass

- Zajednički projekt
  - Riječke podružnice Hrvatske udruge Linux korisnika
  - Odjela za informatiku Sveučilišta u Rijeci (ResearchClass, BusinessClass, StudentClass)

- Cilj: održavanje redovitih seminara o slobodnom softveru otvorenog koda

OpenClass jučer i danas

- 2009. započeo, 2010. dobio ime
- Predavanja ili događaji **svakih dva tjedna**
- Teme: Fedora, Ubuntu, OpenStreetMap, NumPy, InstallFestovi, obilježavanja Dana slobode dokumenata 2015, 2013, 2012, 2011, LibreOffice 3.3 release party, ...

Vedran Miletić

- Diplomirao matematiku i informatiku (UniRi)
- Doktorirao računarstvo, računalne mreže (FER)
- Postdoc računalna kemija (Heidelberg, DE)
- Interesi: superračunala, grafički procesori, računalne simulacije, slobodni softver otvorenog koda

Snimanje predavanja

- „Best effort" snimanje i objava
- Ranije snimke
  - Savršena oluja (2014.)
  - Ratovi web preglednika (2015.)
  - Dan slobode dokumenata 2015.
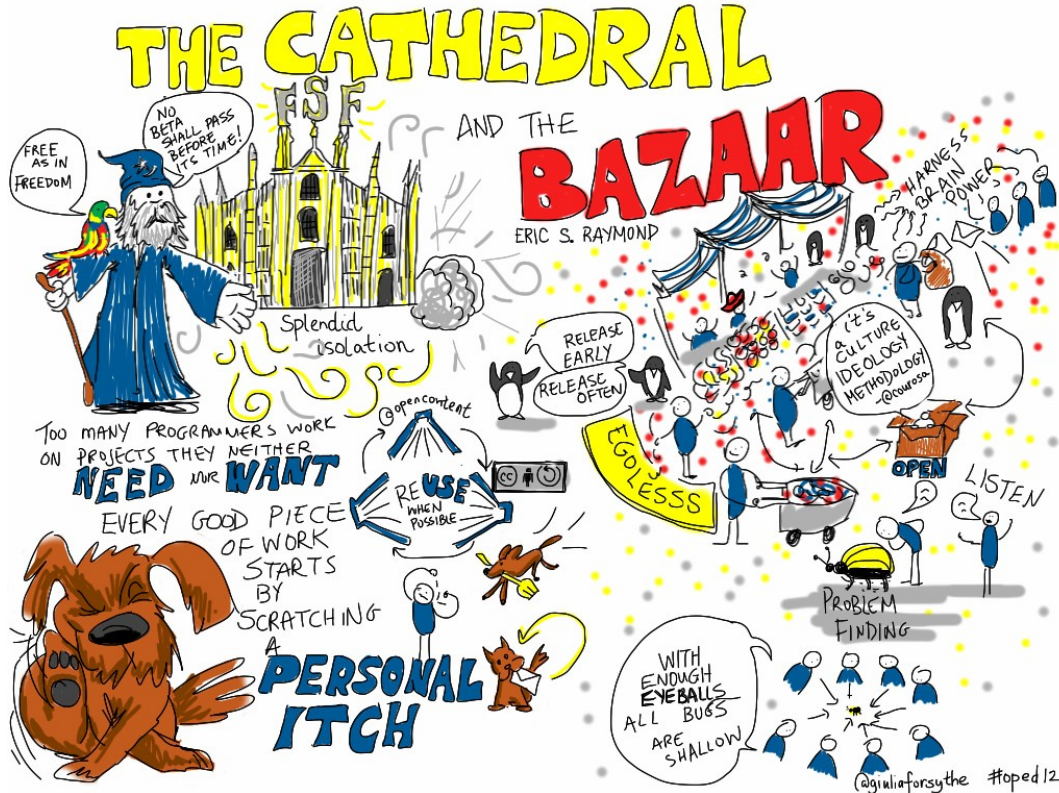
Kraj meta OpenClass

Richard M. Stallman, 1983.

Linus Torvalds, 1991.
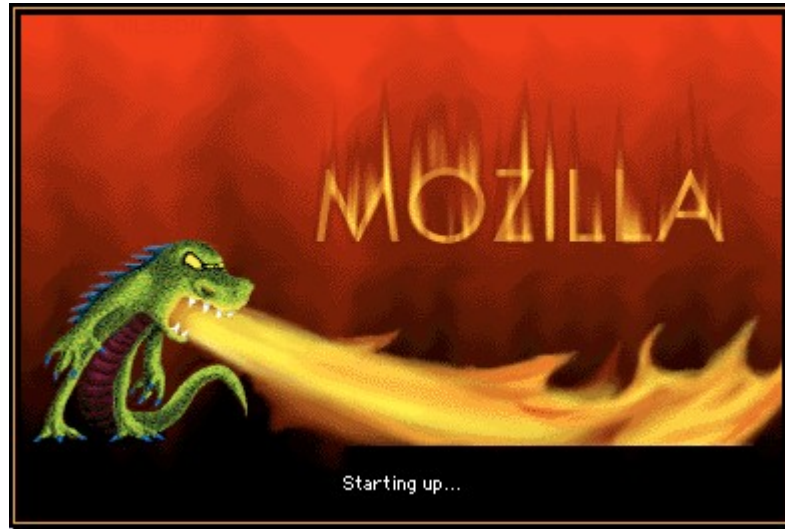
Eric S. Raymond, 1997.

Naziv **open source**

- Netscape najavljuje da će dati Communicator besplatno svima na korištenje i da će i njegov kod biti slobodno dostupan, siječanj 1998.

- Palo Alto, Kalifornija, 3. veljače 1998.
  - Free software (Stallmanov filozofski i politički naziv) => open source (pragmatičan i poslovni naziv)
  - Christine Peterson; Eric Raymond i Michael Tiemann, Open Source Initiative (OSI)

Mozilla, 31. ožujka 1998.

Halloween documents, 1998.

- Povjerljivi Microsoftovi memorandumi o slobodnom softveru otvorenog koda
  - Open Source Software: A (New?) Development Methodology
  - Linux OS Competitive Analysis: The Next Java VM?
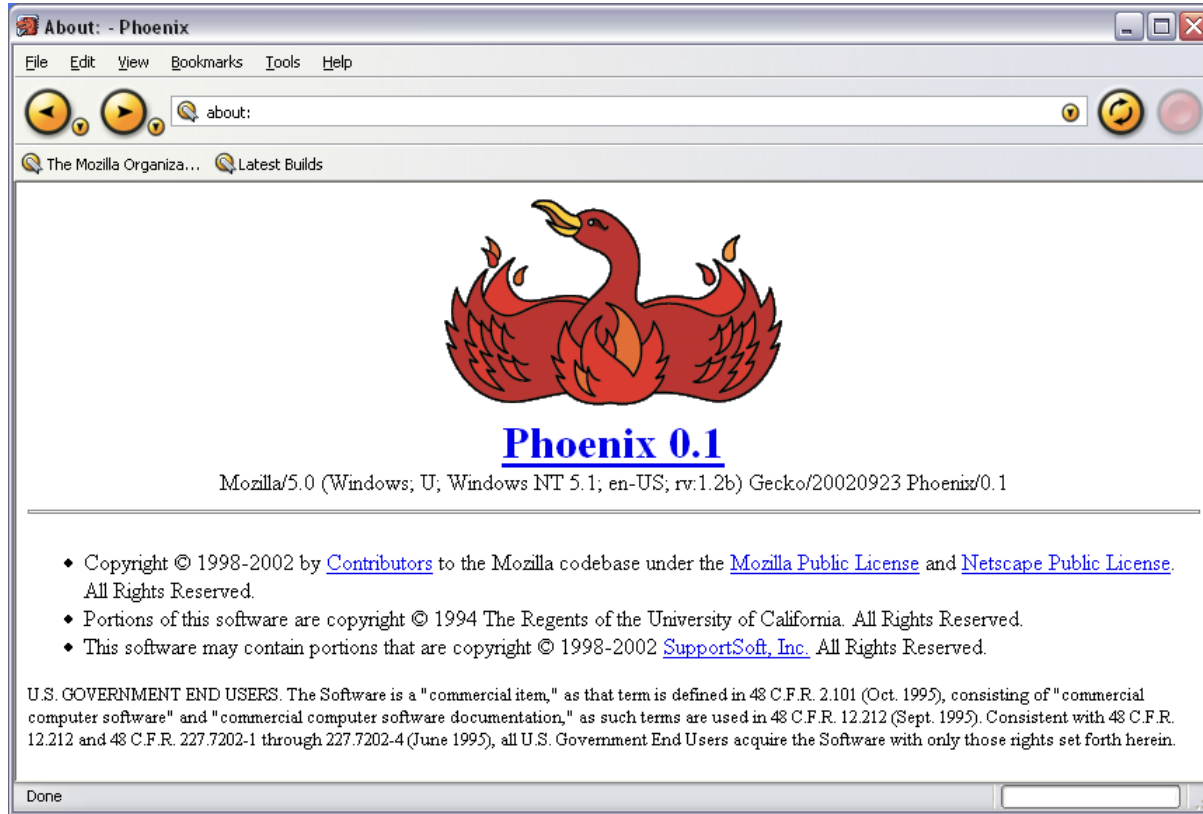 - Untitled statement

Eric S. Raymond odgovara

- When Software Things Were Rotten, 1998.
- The FUD Begins, 1999.
- The Fatal Anniversary, 1999.
- Slična razmjena internih dokumenata i odgovora u vremenu 2002 – 2004.
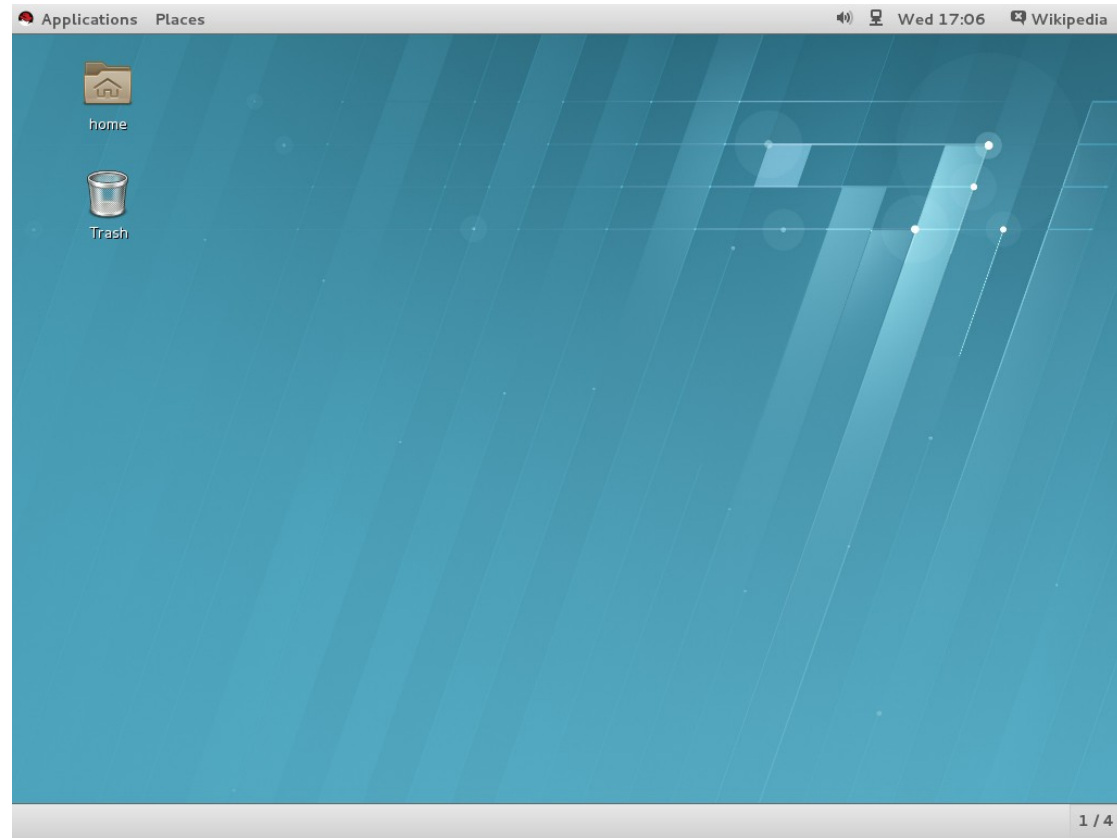
Firefox

OpenOffice/LibreOffice

- Srpanj 2000. najavljen, listopad 2000. izbačen

- „To create, as a **community**, the leading **international** office suite that will **run on all major platforms** and provide access to all functionality and data through **open**-component based APIs and an **XML**-based file format."
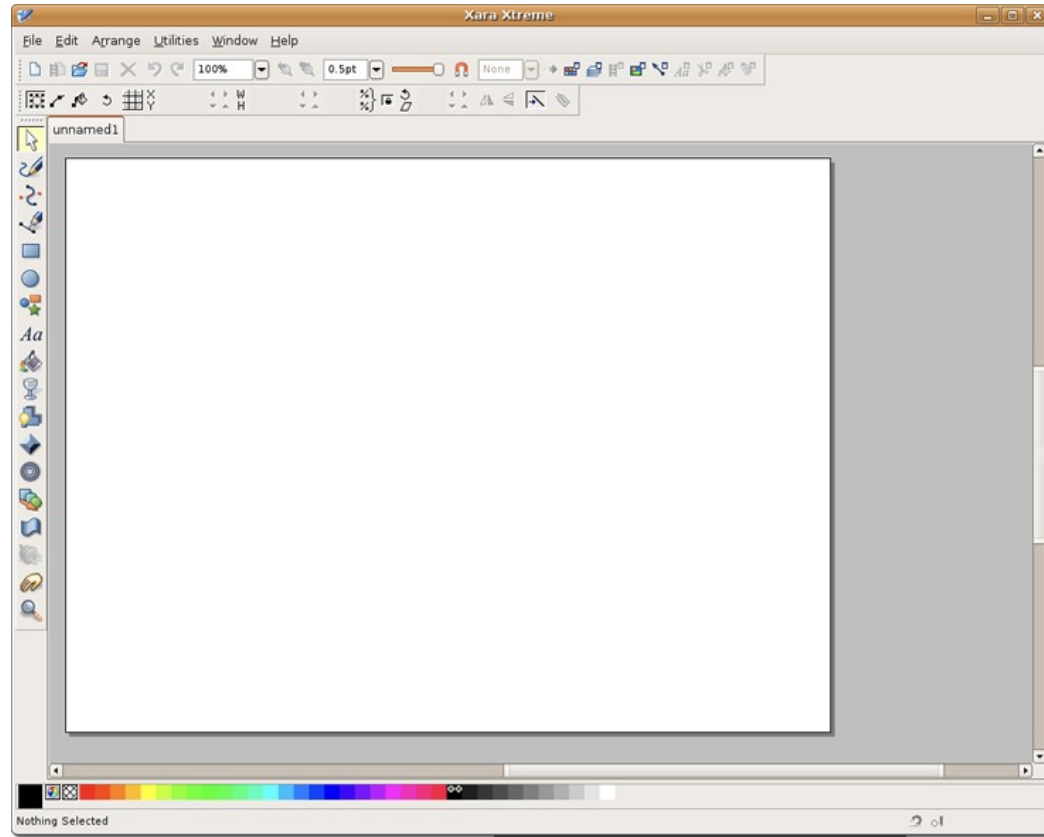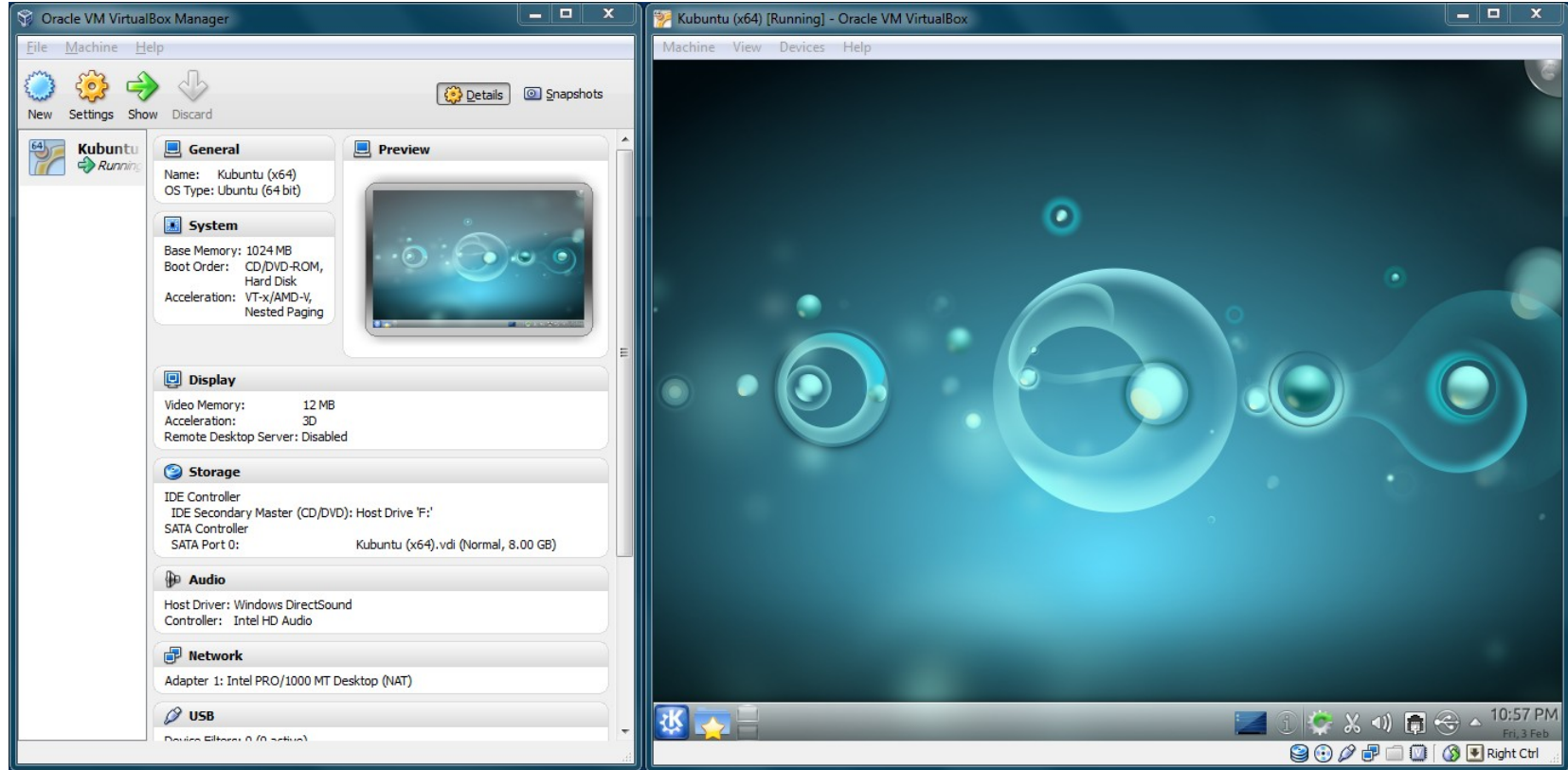
Red Hat Enterprise Linux, 2002.

Sun OpenSolaris, 2005.

Xara Xtreme, 2006.

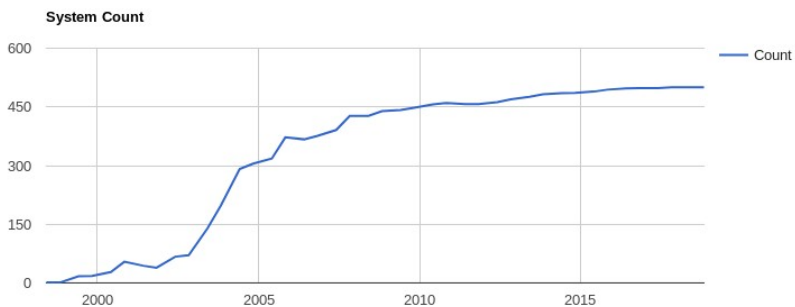# InnoTek VirtualBox, 2007.

Jesmo li pobijedili?

Top lista 500 najjačih superračunala

![Andy Patrizio]

DATA CENTER EXPLORER

By Andy Patrizio, Network World | NOV 27, 2017 5:29 AM PT

About |

Andy Patrizio is a freelance technology writer based in Orange County, California. He's written for a variety of publications, ranging from Tom's Guide to Wired to Dr. Dobbs Journal.

How did Linux come to dominate supercomputing?

All 500 machines on the TOP500 supercomputer list run Linux. Here's how the little OS that could, did.
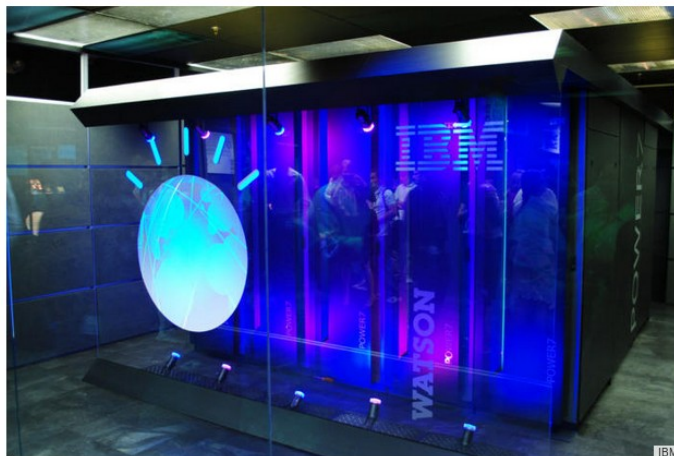
Budućnost Top 500?

- Student Cluster Competition na SC18:„Of the 15 teams participating, 11 of them are running their clusters on **CentOS**. There are 2 running **Ubuntu**, one running **Debian**, and one running **Fedora**.”

- **15 of them are running Linux**

Steam

Steam

GamingOnLinux, 2010.

Steam for Linux, 2012.

Steam Play i Proton, 2018.

New Release

Wine

Android

Worldwide device shipments by operating system

Source	Year	Android	iOS/macOS	Windows	Others
Gartner[3]	2015	54.16%	12.37% macOS = 1%	11.79%	21.66%
Gartner[4]	2014	48.61%	11.04%	14.0%	26.34%
Gartner[5]	2013	38.51%	10.12%	13.98%	37.41%
Gartner[6]	2012	22.8%	9.6%	15.62%	51.98%

Device shipments, 2015

Android	54.16%
iOS/macOS	12.37%
Windows	11.79%
Other	21.66%

OS Device Shipments, Gartner[3]
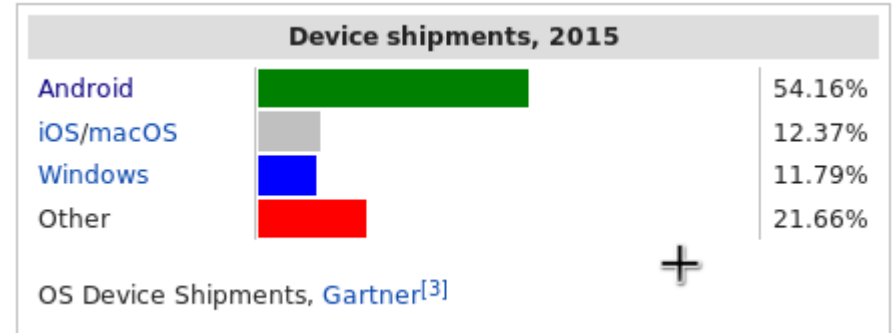
Source	Date	Microsoft Windows (kernel): ▼36.84%							Apple XNU: ▲18.46%		Linux kernel: ▲40.41%			Others[a]
		10	8/8.1	7	Vista	XP	WP&RT	Other	macOS	iOS	Linux	Android	Other	
StatCounter Global Stats[45]	Mar 2017	▲12.98%	▼4.57%	▼17.84%	▼0.41%	▼2.07%	0%	▼0.06%	▲5.17%	▲13.09%	▼0.75%	▲37.93%	—0.76%	▲7.21%
StatCounter Global Stats[45]	Dec 2016	▲12.5%	▼4.79%	▼18%	▼0.46%	▼2.24%	▼0.64%	▲0.09%	▼4.92%	▲12.71%	—0.86%	▲37.8%	▲0.72%	▼4.61%
StatCounter Global Stats[46]	Oct 2016	▲12.08%	▼5.21%	▼18.97%	▼0.6%	▼2.44%	▼0.7%	▲0.05%	▲5.3%	▲12.04%	▼0.85%	▲34.46%	▼0.63%	▼6.67%
StatCounter Global Stats[47]	May 2016	▲10.27%	▼6.68%	▼22.25%	▼0.73%	▼3.44%	▲0.83%	▼0.8%	▼5.05%	▲11.38%	▼0.91%	▲31.6%	▲0.64%	▲6.15%
StatCounter Global Stats[47]	Dec 2015	▲6.67%	▼8.5%	▼26.66%	▼1.0%	▼4.75%	▲0.92%	▲0.2%	▲5.51%	▲10.82%	▲1.03%	▲27.01%	—0.36%	▲6.57%

Fuchsia/Zircon?

STORY ALPHA

EMAIL

9:50 MONDAY JUL 3
IN SAN FRANCISCO

GoogleGuest 84%
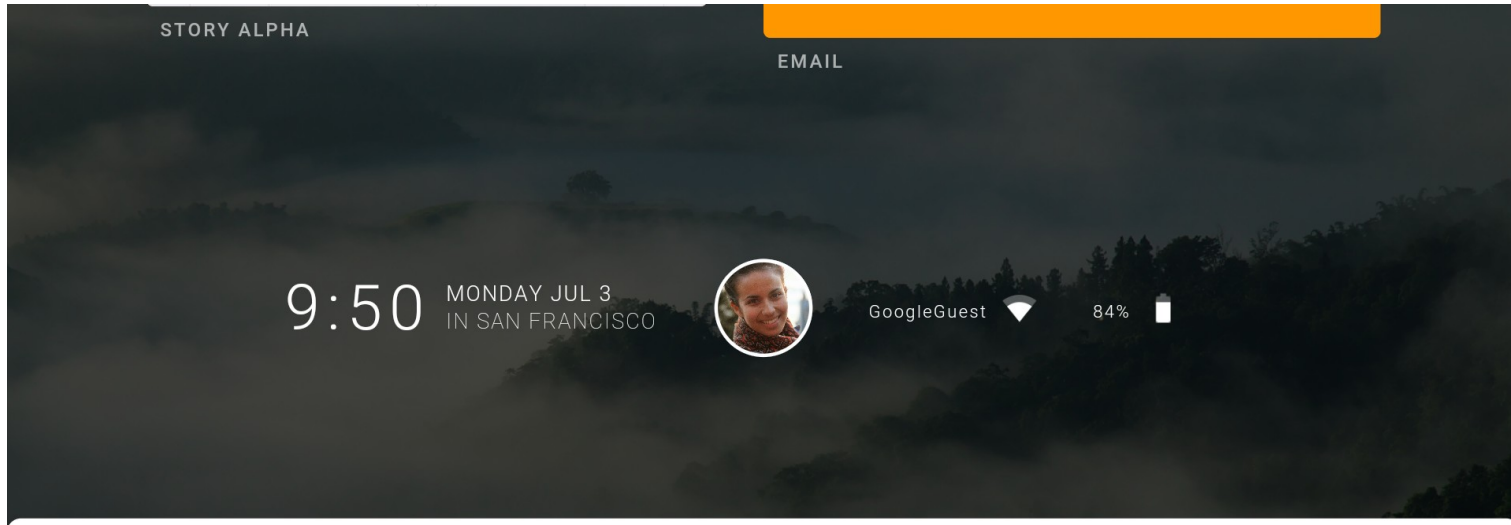
G Ask for anything

Suggestion Ichi

Suggestion Ni
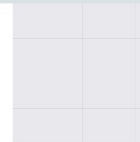
LineageOS
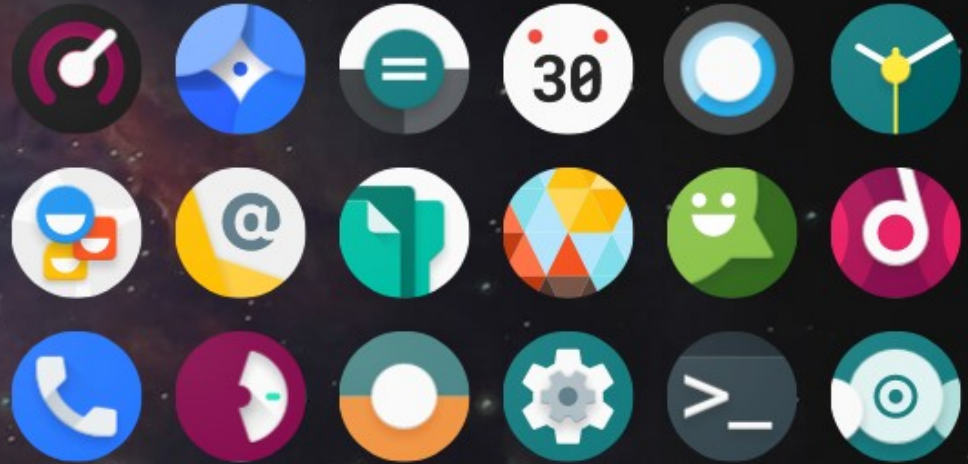
Ubuntu OTA-6

SOFTPEDIA® NEWS   REVIEWS   APPLE   MICROSOFT   MOBILE   LINUX & OSS   SECURITY   WEAR

☰ Softpedia > News > Linux
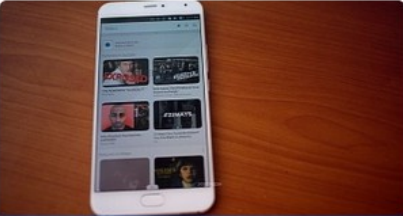
Ubuntu Touch OTA-6 Update for Ubuntu Phones Slated for Release on December 7th

UBports has put out a call for testing for all users

Nov 27, 2018 22:17 GMT · By Marius Nestor ▾ · Comment · Share:

UBports is currently working on the sixth OTA (Over-the-Air) update to their Ubuntu Touch port for Ubuntu Phone devices, and they recently put out a call for testing.

Coming only two months after the OTA-5 update, which finally rebased the mobile OS on the Ubuntu 16.04 LTS (Xenial Xerus) operating system series, the Ubuntu Touch OTA-6 release is expected to introduce more improvements like support for passwords that contain special characters for Nextcloud accounts.

🔍 Meizu PRO 5 Ubuntu Phone

The new Morph web browser received various improvements like support for restoring the previous browsing session at startup, ReCaptcha support, the ability to stop the media when closing a tab, themed scrollbars, better tabbed browsing experience, and support for web apps to access locally stored content on the device.

VR i AR

- Na PC-u: Occulus Rift i HTC/Valve Vive

- OpenVR/SteamVR

- Daljnja standardizacija Khronos OpenXR

Unreal Engine

Vizualni demo:

www.unrealengine.com
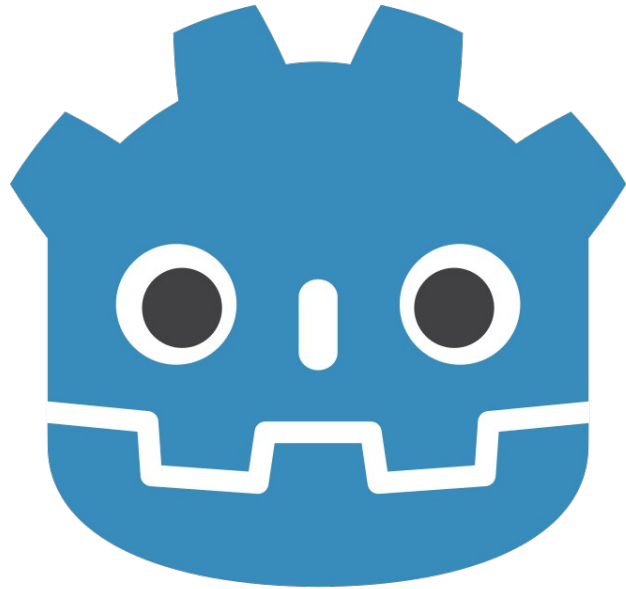
AR?

https://www.unrealengine.com/vr

Godot Engine

Nismo zasad pobijedili, ali idemo prema tome, zar ne?

Windows 10 S... mode
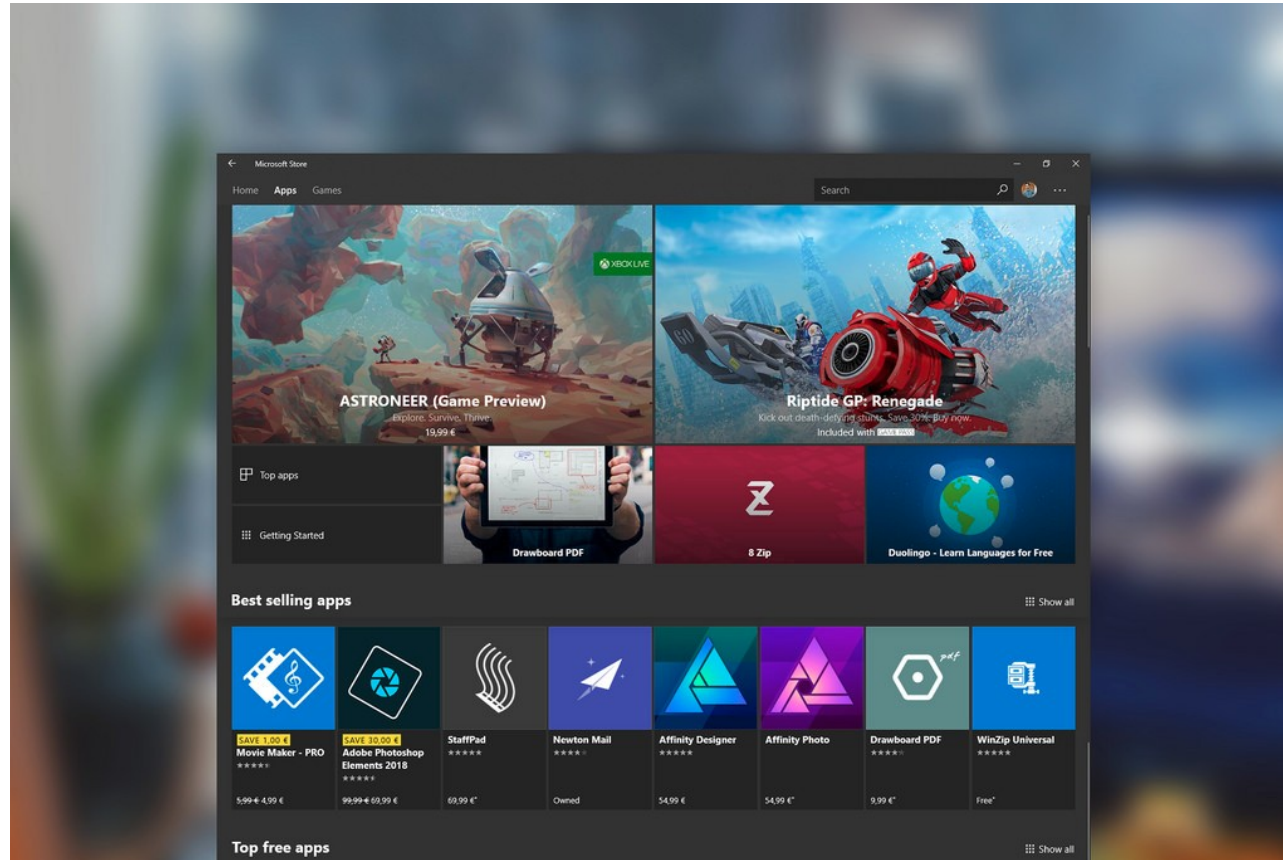
Nije problem, uvijek možemo koristiti Linux...

Secure Boot

- Ograničava pokretanje operacijskog sustava samo na one u koje ima povjerenja

- Standard razvijen na inicijativu Microsofta

- Ugradbeni softver kod pokretanja provjerava potpis
  - Ako je potpis dobar, predaje kontrolu nad računalom
  - Ako potpis nije dobar ili ne postoji, ne pokreće ništa

Microsoftova kontrola nad ekosustavom Secure Boota

- Microsoft Windows Production PCA 2011
  - Ključ za potpisivanje Windowsa
- Microsoft Corporation UEFI CA 2011
  - Ključ za potpisivanje svih ostalih OS-ova
  - (Zasad) potpisani Fedora, Ubuntu, openSUSE
  - **Opcionalan ključ**

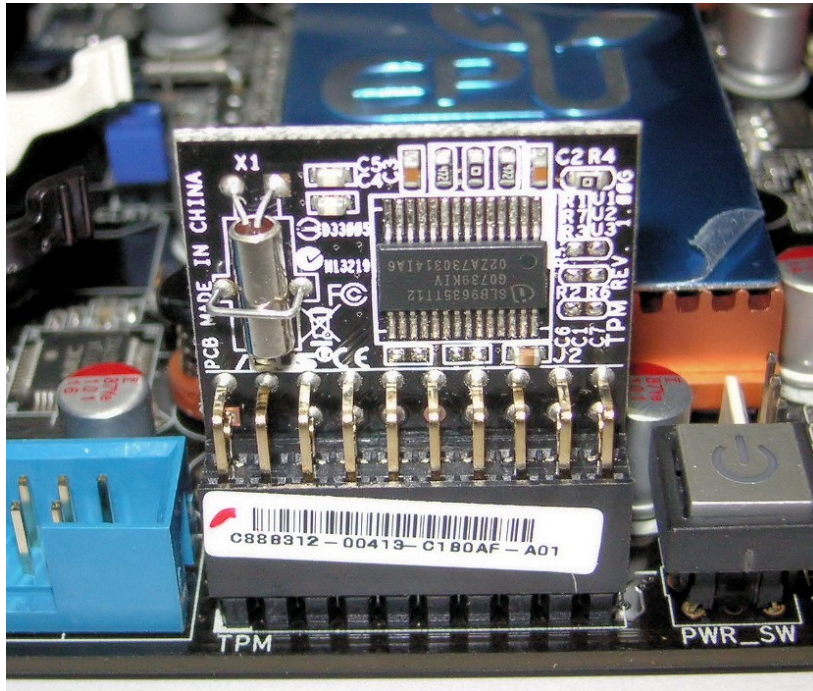# Nije problem, uvijek možemo koristiti Coreboot...

Coreboot

- Zamjena otvorenog koda za BIOS i UEFI
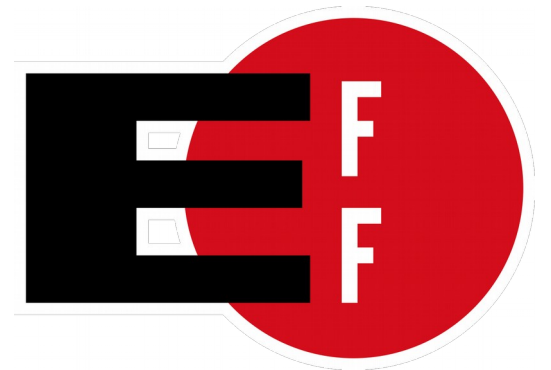
- Podrška za brojna postojeća računala

Trusted Platform Module

- **Intel Boot Guard** koristi TPM da ograniči zamjenu UEFI firmwarea na sustavu

„Rat protiv računarstva opće namjene"
-- Cory Doctorow, EFF

OpenClass sutra

- 20. prosinca 2018. Proslava **Dana slobode računalne grafike i računanja na grafičkim procesorima** (više na www.freedomday.club i www.gamingonlinux.com, lokalna najava na www.ri.linux.hr)

- 17. siječnja ?