openSUSE

MicroOS Desktop

The Road to Daily Driving
aka We Need YOUR HELP

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About Me

- ~15 years with openSUSE & other FOSS communities

- >7 years with SUSE

- Future Technologies Team Member

- openSUSE MicroOS & Kubic

Go To This Talk Too

Can MicroOS Desktop Be Your "Daily Driver"?
SPOILER ALERT: Probably YES!

Schedule

Presented by:

dfaggioli

from SUSE Labs

No video of the event yet, sorry!

Well, I do not know. What do I know, though, is that it has been my "daily driver" for a couple of months now. And it still is, and I am pretty happy about it!

But let's make a step back. I have almost always used rolling distribution as I --entirely out of personal taste-- can't live without updated (bleeding-edge?) software. So I'm use to the occasional breakage that comes with

Date: 2020 October 17 - 12:00

Duration: 30 min

Room: Room 1

What's the point of this talk?

- Dario has proven the MicroOS Desktop can be a "Daily Driver" for him

- We need to make it a "Daily Driver" for ~~everyone~~ more people

- We need your help to make this happen

What is MicroOS?

Why is MicroOS?

- Computer's are not just laptops, desktops, and servers any more.

- People don't even use laptops, desktops and servers the same way any more.

IP Webcam

Do you have an IP Webcam
or similar IoT Device?

Ever updated it?

IP Webcam

There are millions of these devices

- 78% of total detected malware activity is due to IoT botnets (2018)

- Failed update → Many, many unhappy customers
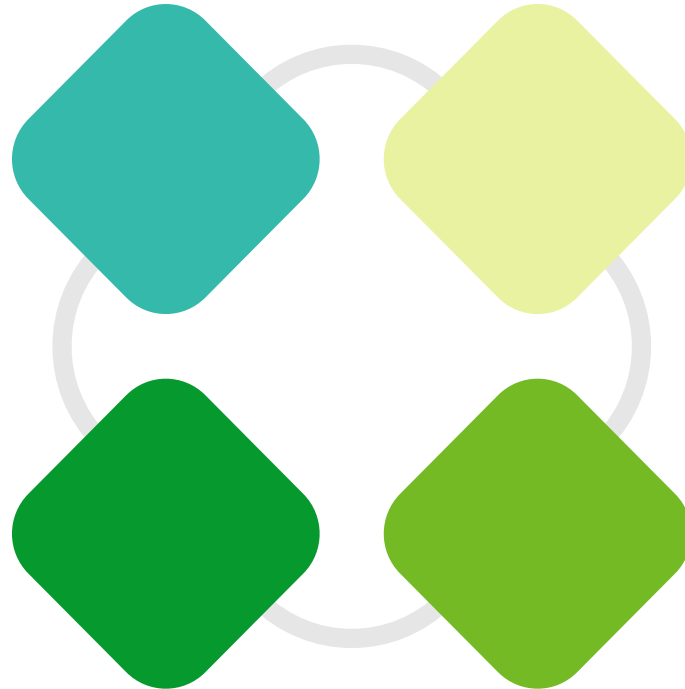
O2 UK Network Outage 2019

- Reliable Updates

- Automatic Recovery

- Outage can be very expensive

- Repair can be very time consuming

The New World

Cloud
More Hardware is always just a Credit Card away

IoT
Single-purpose devices are increasingly prolific eg. Raspberry Pis

Virtualisation
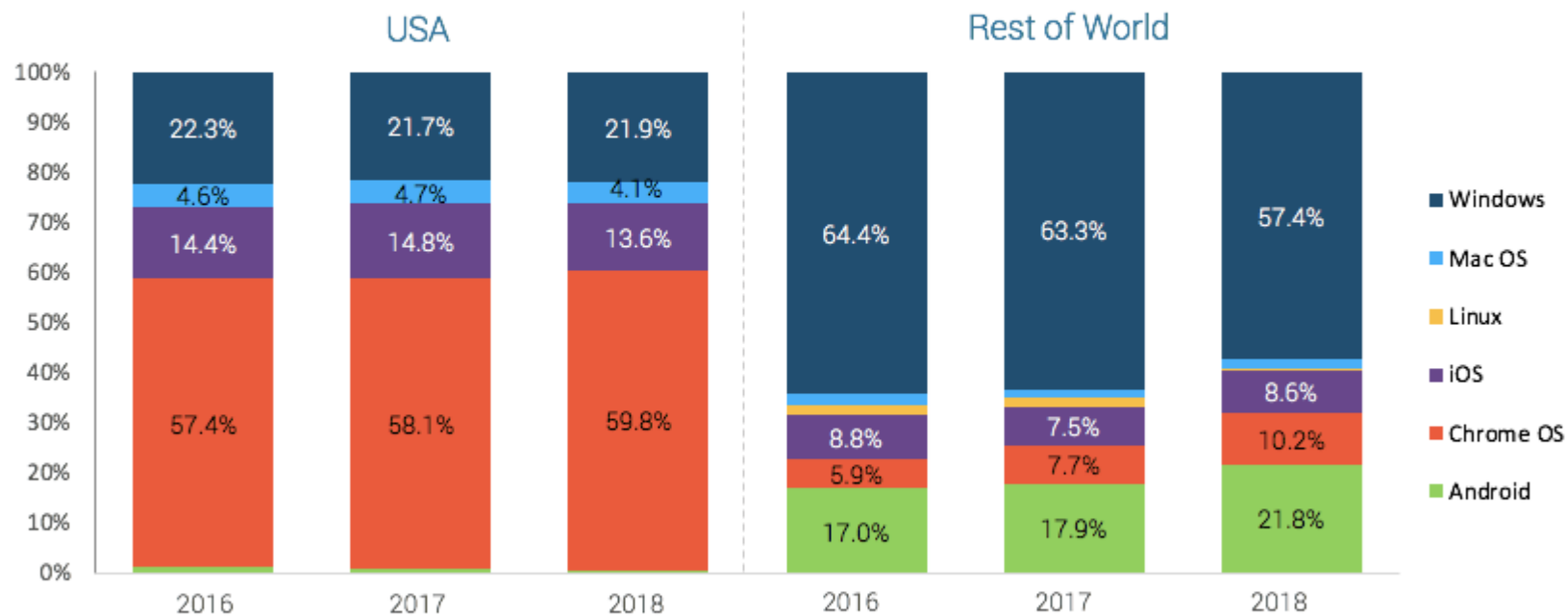More Services = More VMs, not more physical hardware

Containers
Limits incompatibilities, isolates service problems

Regular Linux Isn't Good Enough

- Regular Distros are all like Swiss Army Knives

- Lots of Services & Features
  - Increased chance of incompatibilities between services

  - A problem with service A can impact B, C, D, etc

MicroOS

openSUSE MicroOS is a predictable & immutable. It cannot be altered during runtime.

MicroOS is reliable with automated updates and automated recover from faulty updates.

MicroOS is small with only what is needed to run it's "one job". Applications/Services are expected to be Containerised or Sandboxed.

MicroOS Architecture

openSUSE MicroOS is a rolling release based on openSUSE Tumbleweed.

MicroOS is wholly built, developed, and tested as part of the Tumbleweed release process.

Any test failure detected before the release of either Tumbleweed & MicroOS can prevent the release of both distributions.

What is the MicroOS Desktop?

MicroOS Desktop is MicroOS where the "one job" is running as a Desktop.

MicroOS Desktop provides only a minimal base system with a Desktop Environment and Basic Configuration Tools ONLY.

All Applications, Browsers, etc are provided by FlatPaks from FlatHub.

Who is the MicroOS Desktop For?

It is not for everyone. Your Tumbleweed & Leap Desktops are Safe :)

It should be perfect for lazy developers, who no longer want to mess around with their desktop and just "get stuff done", especially if they develop around containers.

It should also appeal to the same audience now more used to an iOS, Chromebook or Android-like experience where the OS is static, automated & reliable and the Apps are the main thing the user cares about.

MicroOS Desktop Goals

MicroOS Desktop should be reliable, predictable & immutable, just like regular MicroOS.

MicroOS Desktop should be less customisable than regular openSUSE Tumbleweed/Leap.

MicroOS Desktop should be small, but not at the expense of functionality. Printing, Gaming, Media Production and much more should all work.

MicroOS Desktop should just work "out of the box".

MicroOS Desktop Status

MicroOS Desktop should be reliable, predictable & immutable, just like regular MicroOS.

MicroOS Desktop should be less customisable than regular openSUSE Tumbleweed/Leap.

MicroOS Desktop should be small, but not at the expense of functionality. Printing, Gaming, MultiMedia are all valid use cases.

MicroOS Desktop should just work "out of the box".

Current Team

Fabian Vogt – KDE – fvogt@suse.com

Dario Fagiolli – GNOME – dfagiolli@suse.com

Richard Brown– RelEng – rbrown@suse.com

Open Roles

- ALL OF THEM :)
  - GNOME, KDE, RelEng all need more help
  - openQA Test writers needed
  - UI/UX polish required
  - Marketing & Advocacy desperately wanted
  - Other DE's?
  - If you have other ideas, we want your help too!

Top Issues Generally

- Imperfect "out of the box" experience
  - Too much configuration required, eg adding flathub config to flatpak, no default flatpak apps

- No UI for Transactional-Updates
  - PackageKit Integration or alternative notification widget would be really nice

- PolKit Rules
  - Currently too many root password prompts, such as for shutdown

- No VM/Appliance Images

Top Issues in KDE

- Discover is unstable, related to PackageKit-zypper not being available?

Top Issues in GNOME

- adwaita-icon-theme missing (good 'first time' contribution)

- RPMs still shown in gnome-software

- system mounts showing in nautilus

- Dock not populated with key tools (eg. gnome-software)

Sway?

- GNOME and KDE make sense for the 'iOS, Android, Chromebook'-like use-case

- (Some) Developers may prefer an even more trimmed down, Window-manager-only experience.

- Should the MicroOS Desktop have an openSUSEway flavour also?

Just One Desktop?

- For the iOS/Android/Chromebook-like users the choice of "KDE or GNOME" is a scary one

- MicroOS Desktop GNOME currently has most active users & contributors

- Should we just focus on that?

- If you strongly feel "No" – then CONTRIBUTE :)

Key Packages

- **patterns-microos** in devel:kubic

  - Contains the MicroOS Desktop Patterns

- **https://github.com/yast/skelcd-control-MicroOS**

  - Defines system roles

- **openSUSE-MicroOS** in devel:kubic:images

  - Defines appliance/OEM/self-installing disk images

Contributing

- **opensuse-kubic@opensuse.org**
  - Mailing list

- **#kubic** on irc.freenode.net
  - IRC

- **openSUSE:Factory** & **devel:kubic** on build.opensuse.org
  - Build Service