Binary Package Feeds for Yocto Project

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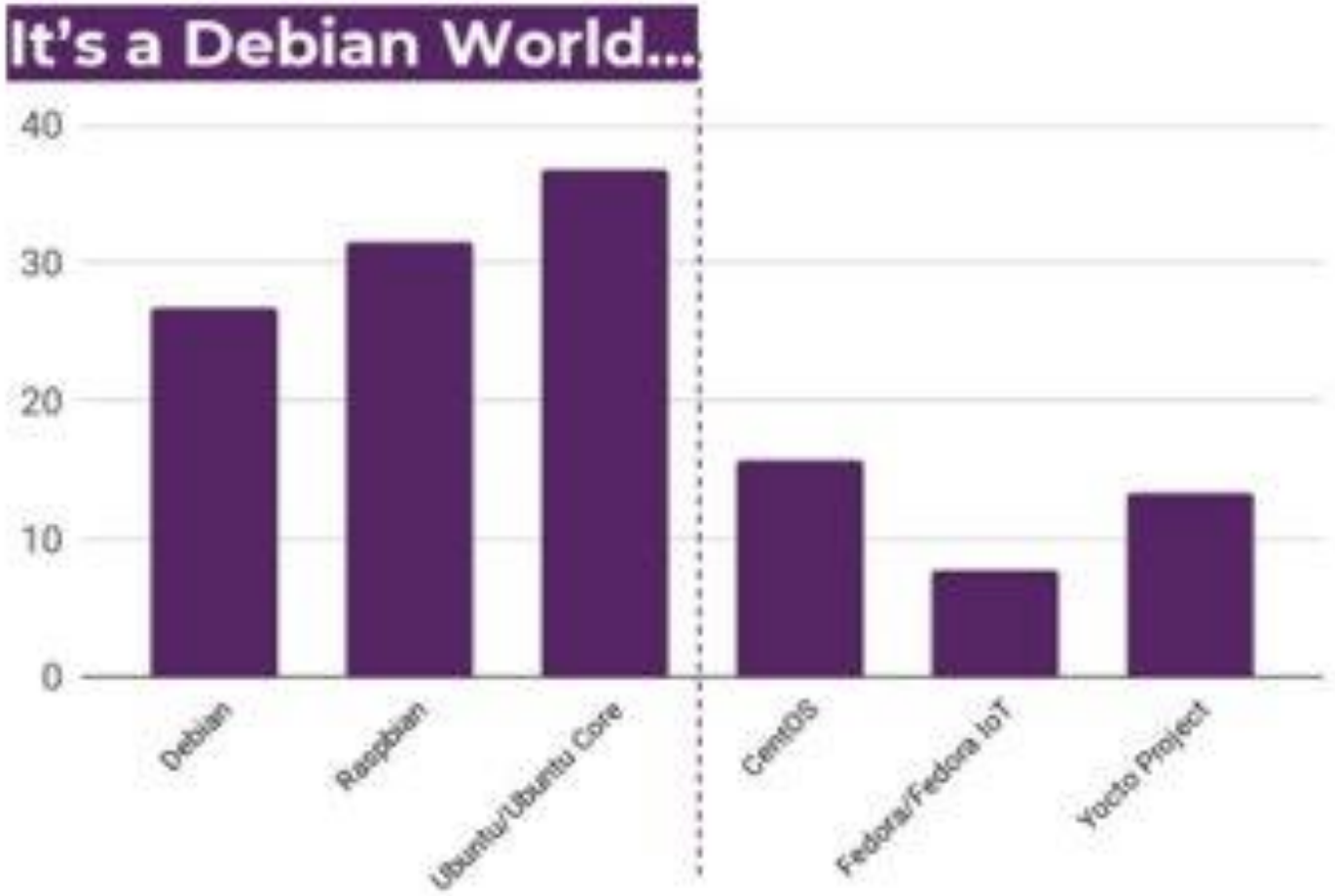
What scares Yocto Project people?

What should we be scared of?

Linux distributions



Why are people running full distros on embedded devices?

CPUs

x86

- Core 2 Quad (Q6600) - 2006 - 2-3GHz
- Phenom X4 9850 - 2008 - 4 cores @ 2.5GHz
- Phenom II X4 925 - 2009 - 4 cores @ 2.8GHz
- Via Nano QuadCore C4650 - 2015 - 4 Cores @ 2GHz
- Celeron 5205U - 2019 - 2 Cores at 1.9GHz
- Core i3-8300 - 2018 - 4 Cores at 3.7GHz

arm

- Broadcom BCM2711 - 2019 - Quad core Cortex-A72 - 1.5GHz
- Qualcomm Snapdragon 855+ Mobile Platform - 2019 - 485 Octa-core CPU @ up to 2.96 GHz
- SDM845 - 2018 - 4 + 4 cores (2.8 GHz + 1.8GHz)
- RK3399 - 2016 - 2 + 4 cores (2.0GHz + 1.5)

Others

RAM

Storage

Distros

- Easy to install
- Easy to update
- Easy to install new software

- The cost for this is the higher amount of resources (e.g., CPU, RAM, and Storage), but now embedded devices have similar amounts to desktops

What can YP do to address this?

- Make YP more like a traditional distro with Binary Package feeds!

BINARY PACKAGE FEEDS

- The biggest benefit of a traditional distro is their ability to install and upgrade packages

- Yocto already has the ability to build rpms, debs, and ipkgs. So, all we need to do is collect those into a standard location, and have a way of installing them

Alternative funding for software vendors?

- could provide a trusted package location for paying customers that contains packages with the latest CVE fixes for a given release
  - A way to fund LTS?
- Vendor lock-in for this, as the customer would need to keep paying as long as they wanted access

Open Questions

- How do we want to handle release upgrades?
- How do we want to handle arches, sub-arches, and other variants
- Initial installation?

Demo!!!

Thanks