OpenPrinting May 2020 Face-to-Face Plenary Session

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5 May 2020

Plenary Agenda

- **Administrivia**
- **Linux Markets and Distributions**
- **OpenPrinting 2019**
- **Google Summer of Code 2019**
- **OpenPrinting 2020**
- **Google Summer of Code 2020**
- **OpenPrinting New Look**
- **Next Steps**

Administrivia

- Welcome and Introductions
- Confirm Minutes Taker
- Review PWG Patent Policy
- OpenPrinting Agenda

PWG IP Policy

- "This meeting is being held in accordance with the PWG Intellectual Property Policy"
    - https://www.pwg.org/chair/membership_docs/pwg-ip-policy.pdf

- TL;DR: Anything you say in a PWG meeting or email to a PWG address can be used in a PWG standard
    - (but please do read the IP policy above if you haven't done so)

PWG Patent Statement

PWG standards may include the known use of essential patents and patent applications provided the PWG Chair receives assurance from the patent holder or applicant with respect to patents whose infringement is, or in the case of patent applications, potential future infringement the applicant asserts will be, unavoidable in a compliant implementation of either mandatory or optional portions of the standard. This assurance shall be provided without coercion.

PWG Patent Statement

This assurance shall be either:

- A general disclaimer to the effect that the patentee will not enforce any of its present or future patent(s) whose use would be required to implement either mandatory or optional portions of the proposed PWG standard against any person or entity complying with the standard; or

- A statement that a license for such implementation will be made available without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination.

PWG Patent Statement

The PWG is not in a position to give authoritative or comprehensive information about evidence, validity or scope of patents or similar rights, but it is desirable that any available information should be disclosed. Therefore, all PWG members shall, from the outset, draw PWG's attention to any relevant patents either their own or of other organizations including their Affiliates that are known to the PWG members or any of their Affiliates, although PWG is unable to verify the validity of any such information.

Inappropriate Topics for PWG Working Group Meetings

Do Not Discuss:

- The validity/essentiality of patents/patent claims
- The cost of specific patent use
- Licensing terms or conditions
- Product pricing, territorial restrictions, or market share
- Don't discuss ongoing litigation or threatened litigation

DO raise an objection if inappropriate topics are discussed

Agenda Overview – Day 1

(All times are US Eastern Daylight Time)

Tuesday – 5 May 2020 – Day 1
  10:00 – 10:30 OpenPrinting Plenary
  10:30 – 11:15 OpenPrinting: GSoC and Project Updates
  11:15 – 12:00 OpenPrinting: Printer Applications
  12:00 – 12:30 Break / Lunch
  12:30 – 1:15   OpenPrinting: Status of Ghostscript / MuPDF
    1:15 – 1:45   OpenPrinting: Status of Chrome OS Printing
    1:45 – 2:00   Break
    2:00 – 2:45   OpenPrinting: cups-filters and ippusbxd

Linux Markets and Distributions

- **Linux Internet public server market share in May 2020**
  - **32% Linux / 30% Windows / 38% other/unknown**

    https://w3techs.com/technologies/overview/operating_system/all

- **Linux Web Server market share in May 2020**
  - **32% Linux / 30% Windows / 38% other/unknown**

    https://w3techs.com/technologies/comparison/os-linux,os-windows

- **Linux mobile OS market share in May 2020**
  - **72% Android / 27% iOS / 1% other/unknown**

    http://gs.statcounter.com/os-market-share/mobile/worldwide

- **Linux distributions popularity on Distro Watch in 2020**
  - **Manjaro, Mint, Debian, Ubuntu, Fedora, openSUSE, CentOS**

    https://distrowatch.com/dwres.php?resource=popularity

OP Driverless Printing support in Linux

- **Developers – Till Kamppeter and Linux community**
- **Ubuntu 19.04 (18 April 2019) – Driverless Printing enhanced**
  – Automatic setup / Connect a printer as easily as a USB stick
  https://wiki.ubuntu.com/Releases – Disco Dingo
- **IPP Everywhere open standard from PWG mainstream in CUPS –**
  365 IPP Everywhere Printers now certified
- **CUPS 2.2.10 (7 December 2018) – included in Ubuntu 19.04**
  – 'lpoptions' for IPP Everywhere, USB & PPD fixes, Page
  accounting (2.3)
- **CUPS 2.2.11 (22 March 2019) –** *not in Ubuntu 19.04 release*
  – Bug fixes in Scheduler, IPP Everywhere, CUPS library, and USB
  printers
- **CUPS 2.3b7 (14 December 2018)**
  – Bug fixes and build failure fixes

OP CUPS Filters – accomplishments this year

- **Developers – Till Kamppeter and Linux community**
  http://www.openprinting.org/download/cups-filters/
- **cups-browsed**
  - **No new features added after last year's OpenPrinting Summit 2018**
  - **Focus on reliability this year**
  - **Bug fixes in Cluster Printing, IPPS upgrade, HTTP timeouts, etc.**
- **filters**
  - **pdftoopvp and pdftoijs deprecated**
  - **QPDF-based solutions – pdftopdf, bannertopdf**
  - **New options for scaling/fitting images/page content**
- **ippusbxd**
  - **No code changes, no new features, no functional changes**
  - **Need Avahi patch (not just Ubuntu) – now in progress**

OP CUPS Filters – the future

- Make cups-browsed re-startable in-process
- Make cups-browsed not use CUPS PPD APIs any more
- Make cups-browsed treat IPP network printers and remote CUPS
- printers equal
- Make cups-browsed auto-select printers in a cluster of very different printers depending on Job and option settings
- Make cups-filters not use CUPS PPD APIs any more

OP IPP System Service support – the future

- Full system admin support for MFDs and Printers
- Full driverless support for MFDs, including driverless IPP Scan

Google Summer of Code 2019

GSoC 2019 – OP Recruitment

- **Student selection process started in Jan 2018 – long before GSoC – Screened over 100 students from different universities**

GSoC 2019 – OP 5 Projects

- **Generic Framework to turn legacy drivers consisting of CUPS filters and PPDs into Printer Applications**
- **IPP: ipptool test suite for IPP System Service**
- **IPP: ipptool test suite updates for IPP errata updates**
- **Update pdftoraster to only use standard Poppler APIs**
- **Turn the scp-dbus-service of system-config-printer into C (from current Python implementation)**

GSoD 2019 – OP in Google Season of Docs

- **Bringing open source and technical writer communities together**
- **Linux Foundation was not accepted as a mentor organization**

OP Highlights since Joint PWG/OP F2F in May 2019

- **Linux Plumbers – Lisbon, Portugal – 9-11 September 2019**
  - **OP Micro Conference**
  - **Speakers: Aveek Basu, Till Kamppeter, Rithvik Patibandla**
  - **https://www.youtube.com/watch?v=0c_JaX4G7Zc**
- **OP Mini Summit – Mandi, India – 19 November 2019**
  - **Indian Institute of Technology – recruiting for OP and GSoC**
  - **http://www.iitmandi.ac.in/**
- **Linux Foundation Members Summit 2020 – canceled due to COVID-19**
  - **OP proposal was accepted**
  - **Speakers: Aveek Basu and Till Kamppeter**
  - **https://events.linuxfoundation.org/lf-member-summit/**
- **OP New Website – fully functional**
  - **https://openprinting.github.io**

CUPS Filters Highlights

- **Developers – Till Kamppeter and Linux community**
- **Releases – v1.22.5 (7 April 2019) thru v1.27.4 (9 April 2020)**
- **Ubuntu 20.04 (23 April 2020) – Driverless Printing enhancements**
- **cupsbrowsed – clustering, PPDs only local, DNS-SD enhancements**
- **libcupsfilters – get-printer-attributes enhancements**
- **filters – pdftoraster to stable Poppler APIs, zero-page input, scaling**

OP Driverless Scanning support in Linux

- **Developers – Till Kamppeter and Linux community**
- **Mostly for MFPs – put SANE under the hood**
- **Integrate several proprietary scan technologies**
- **Future direction is Scanner Application Snap**

OP CUPS Filters – the future

- **CUPS in a Snap – CUPS, cups-filters, cupsbrowsed, GS, QPDF**
  - **complete CUPS printing stack in a Snap**
  - **no support for classic drivers**
  - **first production release possibly before Ubuntu 20.10**
- **Printer Applications (PAPPL) – Mike will discuss**
  - **legacy driver conversions / replacements**
- **IPP-over-USB – ippusbxd versus ipp-usb (Go) – Till will discuss**
  - **compatibility and functionality issues**
- **Avahi – patch for DNS-SD advertising local services accepted**
  - **needed for Printer Applications and IPP-over-USB**

Google Summer of Code 2020

GSoC 2020 – OP Recruitment and Projects

- **Student recruitment process started in fall 2019 – long before GSoC – Screened many students from different universities**
- **Specific projects and accepted student proposals to be announced**

GSoC 2020 – Timeline Highlights

- **20 February 2020 – Accepted mentoring organizations announced**
- **31 March 2020 – Student application deadline**
- **4 May 2020 – Accepted student projects announced**
- **1 June 2020 – Coding officially begins**
- **24-31 August 2020 – Final week for coding**
- **8 September 2020 – GSoC 2020 results announced**

Google Season of Docs 2020

GSoD 2020 – OP in Google Season of Docs

- **Bringing open source and technical writer communities together**
- **OP applied under Linux Foundation umbrella**

GSoD 2020 – Timeline Highlights

- **11 May 2020 – Accepted mentoring organizations announced**
- **9 July 2020 – Technical writer applications deadline**
- **16 August 2020 – Accepted technical writer projects announced**
- **14 September 2020 – Doc development officially begins**
- **30 November to 5 December 2020 – Final week for standard length**
- **6 January 2021 – GSoD 2020 standard length results announced**
- **1-8 March 2021 – Final week for long-running projects**
- **15 March 2021 – GSoD 2020 long-running results announced**

OpenPrinting New Logo

OpenPrinting New Website

- **OpenPrinting Home**

  https://openprinting.github.io

- **OpenPrinting News**

  https://openprinting.github.io/news/

- **OpenPrinting Driverless Printing**

  https://openprinting.github.io/driverless/

OpenPrinting Next Steps

Call for Participation

- **OP is cost-effective for printer vendor support of Linux & UNIX**

PWG and OP Collaboration

- **IPP System Service 1.0 – Linux GUI app – future**
- **IPP Scan Service 1.0 – future**
- **IPP Shared Infrastructure Extensions 1.1 (Cloud) – future**
- **IPP 3D Printing Extensions 1.1 – future**
- **IPP Driverless Printing Extensions 2.0 – future**
- **IPP Enterprise Printing Extensions 2.0 – future**
- **IPP Production Printing Extensions 2.0 – future**

OP monthly teleconferences on Tuesdays

- **Tuesday 12 May 2020 1-2pm US EDT (F2F review/GSoC status)**
- **Tuesday 2 June 2020 1-2pm US EDT (GSoC status)**
- **Tuesday 7 July 2020 1-2pm US EDT (GSoC status)**

Other Questions / Comments