Internet Printing Protocol Meeting Minutes
August 25, 2022

Meeting was called to order at 3pm EDT on August 25.

Attendees

Smith Kennedy (HP)
Amitha Kundapur (Konica Minolta)
Jeremy Leber (Lexmark)
Ira McDonald (High North)
Piotr Pawliczek (Google - ChromeOS)
Michael Sweet (Lakeside Robotics)
Bill Wagner (TCS)
Uli Wehner (Ricoh)
Jimmy Wu (Microsoft)
Michael Ziller (Microsoft)

Agenda Items

1. Antitrust and IP policies, minute taker
   - https://www.pwg.org/chair/membership_docs/pwg-ip-policy.pdf
   - https://www.pwg.org/chair/membership_docs/pwg-antitrust-policy.pdf
   - Antitrust and IP policies accepted, Mike taking minutes
2. IPP + OAuth 2.0 discussion
   - F2F slides: https://ftp.pwg.org/pub/pwg/ipp/slides/ipp-wg-agenda-august-22.pdf#page=28
   - Use case slides: https://ftp.pwg.org/pub/pwg/ipp/slides/OAuth-2.0-Use-Case-Diagrams-2022-08-23.pdf
   - RFC 8628: Device Authorization Grant
     - Probably on printer control panel with a mobile device finishing the onboarding/access grant for the printer
     - Smith: How to configure which service to authorize with?
       - Mike: Would be for well-known/vendor services that are "known"
     - Jimmy: Will user token be accessible to printer?
       - Security considerations - how much access is given? Scoped?
       - Need to limit scopes to only necessary permissions/rights
       - Also need to validate token and access rights in all places
     - Where to document this?
       - Mike: Probably not IPP Auth since it isn't client auth
       - INFRA talks about Proxy (which uses DAG) while SYSTEM talks about the System which has Register-Device that uses OAuth

- DAG involves a lot of non-IPP stuff
- Separate BP for implementing cloud printing?
    - "IPP Cloud Printing Implementor's Guide"
    - Bill: Good idea, and it can be subject to change/adapt as things evolve
    - Smith: "IPP Everywhere Cloud Printing?"
    - It can tie all of the separate specs together in one higher level best practice/guidance document
- Scopes:
    - Mike: some using per-printer scopes, which probably doesn't scale
    - Scopes can map to IPP access roles (End User, Operator, Administrator)
    - No way to know what the scopes mean, just send the list of scopes from the printer to get whatever is available to an End User
    - No way to determine whether an End User has admin or operator privileges short of sending an admin/operator request and getting back an error
        - Mike: Add discussion of filtering operations-supported values from Get-User-Printer-Attributes (so a Printer can filter out operations that are not allowed for the authenticated user)
        - Smith will add to EPX
            - Get-Printer-Attributes reports that Get-User-Printer-Attributes is supported
            - Get-User-Printer-Attributes requires auth, Client does auth and gets back filtered results
            - Client then knows what things a user can do based on operations-supported (Pause-Printer, etc.)
    - What to say about scopes?
        - From a Client perspective, scopes are opaque strings (included in auth request)
        - From a Printer perspective, scopes need to be configured (out of band) to map to access roles or capabilities (e.g. can print color)
        - Client has to get separate tokens for multiple printers if the scopes and/or authorization servers differ
            - Token Exchange can reuse Access Token if the scopes are the same
        - Smith: Will that prevent SSO on a second printer with different scopes?
            - Mike: Probably will reuse login, so just a click through to authorize the second printer
        - Michael Z: Scopes can also be used for things like "can the printer email me?"
        - Consensus: Recommend OpenID to implement roles/ permissions instead of scopes in order to avoid caching issues
    - Smith: Should we document how to discover access roles?

- - Mike: Yes, as part of IPP AUTH. Applies to all auth schemes, not just OAuth, use Get-User-Printer-Attributes
  - Piotr: Want to share Google's spec and prototype
  - Next steps:
    - Start making OAuth discussions part of the regular calls, even if it is just a short status update
    - Mike will update wiki with minutes from this meeting
    - Make new draft of IPP Cloud Printing Implementor's Guide

Next Steps / Open Actions

- Next conference calls on September 1 and 15, 2022 at 3pm
- Action: Mike to start IPP WG Last Call on PPX until September 1
- Action: Mike to post IPP wiki page for OAuth to mailing list (DONE)