

# OAuth 2.0 Update Recommendations For PWG 5199.10-2019

Smith Kennedy, HP Inc.

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“Those who cannot change their minds cannot change anything.”

George Bernard Shaw

## PWG 5199.10

- Published in 2019
- Very helpful but the OAuth section is dated already
- A number of vendors are working to integrate OAuth 2.0 with print systems and solutions, including HP Inc.
- New OAuth 2.0 extensions have been defined since the publication of 5199.10
- Updates are needed to ensure that the best practices defined in 5199.10 properly guide vendors to interoperable solutions while accommodating some degree of allowable difference

## 5199.10 OAuth 2.0 Work To Be Done – Problems

- Discovery – no explicit connection between "oauth-authorization-server-uri" and RFC 8414 metadata discovery
- Resource identifiers for individual services or functions (e.g. print, scan, fax) are undefined
- Some terminology is incorrect or inconsistent with RFC 6749 (e.g. "Grant Token" ought to be "Authorization Grant" or "Authorization Code")

## 5199.10 OAuth 2.0 Work To Be Done – Enhancements

- RFC 8693 "OAuth 2.0 Token Exchange" to enable a more broadly scoped "user access token" that can allow access to other resources (e.g., print / scan / fax / whatever functions) without having to reauthenticate, and these functions could be on-device or cloud-based
- Resource identifiers for individual services or functions (e.g. print, scan, fax) are undefined but several proposals have been suggested
  - Token Exchange Request providing the IPP Printer URI (Google Chromium proposal from May F2F)
  - Send the "printer-uuid" value in the access token request for the "resource" parameter
  - Send an opaque device identifier in the access token request for the "resource" parameter
  - Others???
- Use Authorization Code with PKCE to let the authorization server to authenticate the client when the client isn't hosted back-end (like an IPP Client is)
- Consider recommending some OIDC conventions even if OIDC itself isn't used (e.g., use JWTs rather than opaque tokens)