Restricting access to IPP printers with OAuth2 framework

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Native printing in Linux leverages Internet Printing Protocol (IPP), the standard supported by the vast majority of printers available on the market. While it is quite sufficient for personal use, it has some drawbacks for enterprise customers, such as a lack of standard, OAuth2-based user’s authorization mechanisms necessary for print management systems. We tried to address this issue by developing a standard solution that can be implemented in various IPP-based systems.

The problem can be defined as a general protocol between an IPP client and a printing system, consisting of IPP printers and an authorization server. To get access to the printer’s resources, the IPP client redirects the user to the authentication webpage provided by the authorization server. When the user authenticates successfully, the server issues an access token that must be used by the IPP client during communication with the printer. The printer uses the access token to verify the user’s access rights.

We would like to discuss security-related issues of this problem and propose a general protocol working for printing systems with different architectures. Other possible solutions will also be discussed.

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Yes

Primary author: PAWLICZEK, Piotr (Google)

Presenter: PAWLICZEK, Piotr (Google)

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