

Charter of the PWG

Cloud Imaging Working Group (WG) Project

Status: PWG Approved

Copyright © 2011 The Printer Working Group. All Rights Reserved.
<ftp://ftp.pwg.org/pub/pwg/cloud/charter/ch-cloud-charter-20110620.pdf>

Cloud Imaging WG Chair:

Ron Nevo (Samsung)

Cloud Imaging WG Vice Chair:

William Wagner (TIC)

Cloud Imaging WG Secretary:

Michael Sweet (Apple)

Cloud Imaging WG Document Editors:

Ira McDonald (High North), Joe Murdock (Sharp), Ron Nevo (Samsung), Michael Sweet (Apple), and Peter Zehler (Xerox)

Problem Statement:

Cloud-based applications and solutions are increasingly common, and Cloud-based printing, scanning, and facsimile (collectively called "Cloud Imaging") are emerging in several different forms. Adopting standard protocols and schemas now will help interoperability, speed adoption, and address privacy, security, and legal issues involved in Cloud Imaging.

A basic functional model including a Client, Cloud Print Provider, Cloud Print Manager, and Printer was developed at five previous Cloud Printing BOF sessions. This model revealed several new requirements beyond the existing PWG semantic model including registration, enumeration/selection, the concept of late transforms to preserve fidelity, additional notification events, strict privacy and security policies, and logging.

The goal of the Cloud Imaging project is to develop the following new specifications to support Cloud-based printing and multifunction imaging using the PWG semantic model:

(a) Cloud Imaging Requirements and Model (CLOUDMODEL - wd-cloudmodel10-yyyymmdd) - define the reference model, terminology, and requirements for Cloud Imaging;

(b) Cloud Print Internet Printing Protocol Binding (CLOUDPRINTIPP - wd-cloudprintipp10-yyyymmdd) - define an IPP binding of Cloud Printing;

(c) Cloud Print SOAP Binding (CLOUDPRINTSOAP - wd-cloudprintsoap10-yyyymmdd) - define a SOAP binding of Cloud Printing with associated XML schemas/WSDL definitions and an equivalent informative REST binding;

(d) Cloud Multifunction Internet Printing Protocol Binding (CLOUDMFDIPP - wd-cloudmfdipp10-yyyymmdd) - define an IPP binding of remaining Cloud Imaging services; and

(e) Cloud Multifunction SOAP Binding (CLOUDMFDSOAP - wd-cloudmfdsoap10-yyyymmdd) - define a SOAP binding of remaining Cloud Imaging with associated XML schemas/WSDL definitions and an equivalent informative REST bindings.

47

48 **Out-of-scope:**

- 49 • OOS-1 Defining Cloud federation interfaces and associated protocols and technologies.
- 50 • OOS-2 Defining the interface between the Cloud Imaging Manager and Imaging Device, specifically the
51 interface for device and job status and job submission.
- 52 • OOS-3 Defining new protocols for authentication, authorization, and access control (AAA), enumeration,
53 transport, notification, and device management.
- 54 • OOS-4 Defining new document file formats.
- 55 • OOS-5 Defining new abstract job tickets.

56

57 **Objectives:**

- 58 • OBJ-1 Develop a requirements and model document for Cloud Imaging based on the previous BOF
59 discussions, including registration, enumeration/selection, the concept of late transforms to preserve
60 fidelity, additional notification events, strict privacy and security policies, and logging.
- 61 • OBJ-2 Develop IPP binding documents for Cloud Print and for Cloud Multifunction services.
- 62 • OBJ-3 Develop SOAP binding documents for Cloud Print and for Cloud Multifunction services with
63 associated XML schemas/WSDL definitions and equivalent informative REST bindings.
- 64 • OBJ-4 The model and bindings should be compatible with existing cloud computing infrastructure.
- 65 • OBJ-5 The model and bindings should be scalable from consumer-electronics clients to high-end servers.
- 66 • OBJ-6 The model and bindings should define requirements for document formats and job tickets to ensure
67 imaging fidelity and interoperability.
- 68 • OBJ-7 The model and bindings should be compatible with generic imaging clients for common operating
69 systems.

70

71 **Milestones:**

72 **Charter Stage:**

- 73 • CH-1 Initial working draft of Cloud Imaging Charter – March 2011 – DONE
- 74 • CH-2 Stable working draft of Cloud Imaging Charter – Late March 2011 - DONE
- 75 • CH-3 PWG Approval via Formal Vote of Cloud Imaging Charter – DONE

76 **Definition Stage:**

- 77 • CLOUDMODEL-1 Initial working draft of Cloud Imaging Requirements and Model – Q2 2011
- 78 • CLOUDPRINTIPP-1 Initial working draft of Cloud Print IPP Binding - Q3 2011
- 79 • CLOUDPRINTSOAP-1 Initial working draft of Cloud Print SOAP Binding - Q3 2011
- 80 • CLOUDMODEL-2 PWG Last Call of Cloud Imaging Requirements and Model - Q4 2011
- 81 • CLOUDPRINTIPP-2 Prototype working draft of Cloud Print IPP Binding - Q4 2011
- 82 • CLOUDPRINTSOAP-2 Prototype working draft of Cloud Print SOAP Binding - Q4 2011
- 83 • CLOUDPRINTIPP-3 PWG Last Call of Cloud Print IPP Binding - Q1 2012
- 84 • CLOUDPRINTSOAP-3 PWG Last Call of Cloud Print SOAP Binding - Q1 2012
- 85 • CLOUDMFDIPP-1 Initial working draft of Cloud Multifunction IPP Binding - TBD
- 86 • CLOUDMFDSOAP-1 Initial working draft of Cloud Multifunction SOAP Binding - TBD
- 87 • CLOUDMFDIPP-2 Prototype working draft of Cloud Multifunction IPP Binding - TBD
- 88 • CLOUDMFDSOAP-2 Prototype working draft of Cloud Multifunction SOAP Binding - TBD
- 89 • CLOUDMFDIPP-3 PWG Last Call of Cloud Multifunction IPP Binding - TBD
- 90 • CLOUDMFDSOAP-3 PWG Last Call of Cloud Multifunction SOAP Binding - TBD

91

Implementation Stage:

92

- INTEROP-1 Interoperability testing of IPP print implementations – Q2 2012

93

- INTEROP-2 Interoperability testing of SOAP print implementations – Q3 2012

94

- INTEROP-3 Interoperability testing of IPP Multifunction implementations - TBD

95

- INTEROP-4 Interoperability testing of SOAP Multifunction implementations - TBD