

# Cloud Imaging Model WG Minutes

## May 15, 2013

Meeting was called to order at approximately 9:30am PT May 15, 2013.

### Attendees

Danny Brennan  
Russell Brodnicki (Kyocera)  
Nancy Chen (call-in)  
Till Kamppeter (Canonical - call-in)  
Jeremy Leber (Lexmark)  
Hin-Tak Leung  
Kelly Lucas (Google)  
Daniel Manchala (Xerox)  
Andrey Markalkin (Samsung)  
Ira McDonald (High North)  
Naruhiko Ogasawara (Mirait Information)  
Glen Petrie (Epson)  
Roarke Randall (Toshiba - call-in)  
Michael Sweet (Apple)  
Randy Turner (Amalfi)  
Paul Tykodi (TCS - call-in)  
Michael Vrhel (Artifex)  
William Wagner (TIC)  
Marcus H. Woehrman (Artifex)  
Rick Yardumian (Canon)

### Agenda Items

1. IP Policy and Minute Taker
  - a. Policy accepted with Mike taking the minutes
2. Review of prior minutes
  - a. <ftp://ftp.pwg.org/pub/pwg/cloud/minutes/cloud-concall-minutes-20130429.pdf>
  - b. Approved as posted
3. Slides
  - a. <ftp://ftp.pwg.org/pub/pwg/cloud/slides/Cloud-WG-Meeting-May-2013.pdf>
  - b. Q: Do we have a cloud-based system object and system control service?
    1. Started with a simple one-to-one relationship between Cloud Print Service and Cloud Print Manager, now have one-to-many relationship to support SM/IPP fanout to devices
    2. How does defining a model for registration help? We aren't forcing Cloud providers to use our model, but will be providing sample bindings that can be used
    3. Important to have bindings to make things concrete - specific authentication framework (e.g. OAuth), endpoints, protocols, etc.
    4. Important for interoperability - standard interfaces for multiple cloud implementations
    5. Using the SM System object and System Control Service now for Cloud will allow us to expand into remote Imaging Device management in the future
    6. A: Consensus is "Yes"
  - c. Q: Does the cloud system control service affect the Imaging Device?
    1. A: No, all administrative operations act on the Cloud services, not on the Imaging Device
  - d. Q: What is an appropriate name?
    1. A: Cloud Imaging System and Cloud Imaging System Control Service
  - e. Slide 9:
    1. Rename "Cloud Service" to "Cloud Imaging System"
    2. Rename "Cloud Imaging Service" to "Cloud Imaging System Control Service"
    3. Clients and managers need to communicate separately to each service
    4. Two diagrams:

- One showing the Cloud and Cloud Imaging System in it
- One showing a closeup of the Cloud Imaging System and its services
- f. Q: Do we want a new name for the Cloud Imaging Device Manager?
  1. A: Yes, "Cloud Imaging Device Proxy"
  2. Action: Mike to change IPP Manager to IPP Proxy in IPPSIX
- g. Q: Do we want to define the Proxy interface at all?
  1. "We have email and XMPP"
    - but email is unreliable/limiting
    - XMPP is part of a SOAP/REST binding but not a complete solution
- h.
- 4. Review Cloud Imaging Requirements and Model
  - a. <ftp://ftp.pwg.org/pub/pwg/cloud/wd/wd-cloudimagingmodel10-20130508-rl.pdf>
  - b. <ftp://ftp.pwg.org/pub/pwg/cloud/white/Cloud%20Imaging%20Operations%20-6%20May.pdf>
  - c. Global: Change Cloud Imaging Device Manager to Cloud Imaging Device Proxy
  - d. Section 2.2:
    1. Transform Service interface not defined here since it is not necessary for Cloud
  - e. Figure 1:
    1. Some missing arrows for the SM WG to look at
    2. Tie it to cloud - show marker and scanner going through proxy
  - f. Section 3.2.1:
    1. This contains almost all requirements
    2. Remove it (but add bits to requirements and out-of-scope)
  - g. Section 3.2.2:
    1. Lines 425-436: Remove (and incorporate as needed into section 4 model)
  - h. Global: Do we need to keep saying the User operates through the Client?
  - i. Global: Do we need to keep saying the Device accessed through the Proxy?
  - j. Section 3.2.3:
    1. Lines 447-459: Remove (and incorporate as needed into section 4 model)
    2. Put in active voice - User loads document in ADF, ...
  - k. Section 3.2.4:
    1. Lines 469-478: Remove (and incorporate as needed into section 4 model)
    2. Put in active voice - User provides URL to print, ...
  - l. Section 3.2.6:
    1. Rework as a one-paragraph "Printing attached document data in a format not supported by the Imaging Device"
    2. Another as a "printing referenced document data in a format or scheme not supported by the Imaging Device"
    3. Another "Scan hardcopy document and provide in a format not supported by the Imaging Device"
  - m. Q: Can we link services?
    1. A: Yes, but it is a black box - the Cloud service handles orchestration of services and transforms
  - n. Section 3.2.7:
    1. Make a use case for Cancel
  - o. Section 3.2.8:
    1. Make a use case for Abort by the System/Service?
    2. Or add a new section 3.3 Exceptions to hold all of the exceptions
    3. Action: Randy to propose alternative text/organization of use cases and exceptions
  - p. Justin's comments:
    1. Section 1: I understand the motivation for specifying an interface from device -> service, but should it live this spec? Will that reduce clarity?
      - Focus on and introduce the Cloud Imaging Device Proxy
      - "What is south of the proxy is not our concern"
    2. Section 2.2: The definitions below assume the reader knows what "cloud" means, but the term is never properly defined. Do you mean a server? Do you mean a server that is off premise? Do you mean a server that is off premise and available over the internet? We need to be clear about those assumptions, and I'd recommend establishing it early.
      - Define "Cloud" inline using NIST definition

3. Section 3.2: Some of these sections aren't use cases at all. Are they supposed to be? Wikipedia: "a use case is a list of steps, typically defining interactions between a role... and a system, to achieve a goal".
    - Will review and update as needed
  4. Section 3.2.1.2: This is a new term in this doc. What is it? (Cloud Print Server)
    - Typo
  5. Section 3.2.1.2: This would be much more clear if the steps used active voice. I'm having a difficult time following who's doing what. For example:
    - Prerequisites: The Imaging device owner has created a Cloud Imaging Device Manager.
    - 1. The Imaging Device Owner assigns a Cloud Imaging Device Manager to the Device.
    - 2. The Cloud Imaging Device Manager queries the Device to determine available services and persists those in a database.
    - 3. The Imaging Device Owner assigns the Device's Cloud Imaging Service a data retention policy.
    - Postconditions: Cloud Imaging Service is configured and ready to accept user operations.
  1. Section 3.2.1.3, item 1: This part makes the explanation muddy. Isn't a Client already defined to be a device, operating system or application?
  2. Section 3.2.1.3, item 2: How does the user know ahead of time that the credentials are acceptable? Seems they would need to have an authentication ceremony whereby the exchange credentials and authenticate.
  3. Section 3.2.1.3, item 3: How does the user know where this Cloud Service is?
  4. Section 3.2.6: Since each Service that works on this request creates a Job for it, there would be three Jobs requesting from this request. There are various ways that the rollout could consider contributing Job states.
  5. Section 3.4.5: Are the job events and parameters in the Log Spec sufficient?
- q. Operations
1. Job operations: operating solely on the job in the cloud
  2. Proxy operations:
    - Put operation addresses input services, but there will likely be some challenges with storage (what is accessible to client, cloud, and proxy?)
    - Maybe also define Get/Set<service>DeviceElements that allow the proxy to update the configuration/description elements for the Imaging Device

## Next Steps / Open Actions

- Cloud conference call on June 3, 2013 at 3pm ET
- Continue discussion of Model document on the cloud mailing list
- Action: Mike to change IPP Manager to IPP Proxy in IPPSIX
- Action: Randy to propose alternative text/organization of use cases and exceptions
- Action: Bill and Larry to work together to post an updated Cloud Imaging Requirements and Model document based on F2F comments
- Action: Bill to post correction as wd-cloud-charter-2013mmdd for approval by PWG steering committee (DONE)
- Action: Bill and Larry to work together to post updated Cloud Imaging Requirements and Model prior to the face-to-face (DONE)
- Action: Bill and Ron to work together to post slides for Cloud Imaging WG session (DONE)