Cloud Printing BOF Face-to-Face Minutes  
February 1, 2011

Meeting was called to order at approximately 9:00 am (local) February 1, 2011.

Attendees

Nancy Chen (Oki Data)  
Peter Cybuck (Kyocera)  
Peter Reibert Hansen (MPI Tech - call in)  
Niels Hoy (MPI Tech - call in)  
Constantinos Kardamilas (Samsung)  
Ira McDonald (High North/Samsung - call in)  
Andrew Mitchell (HP)  
Joe Murdock (Sharp)  
Ron Nevo (Samsung)  
Tyler Odean (Google)  
Shin Ohtake (Fuji-Xerox)  
Glen Petrie (Epson - call in)  
Sanjeev Radhakrishman (Google)  
Ole Skov (MPI Tech - call in)  
Brian Smithson (Ricoh - call in)  
René Søndergaard (MPI Tech - call in)  
Michael Sweet (Apple)  
Jerry Thrasher (Lexmark)  
Randy Turner (Amalfi)  
Paul Tykodi (TCS - call in)  
Peter Ultved (MPI Tech - call in)  
Bill Wagner (TIC)  
Rick Yardumian (Canon)  
Pete Zehler (Xerox)

Agenda Items

1. IP Policy and Minute Taker  
   a. Policy accepted with Mike taking the minutes
2. Discussion:  
   a. We have defined a general reference model for what cloud printing is  
   b. Pete: Maybe remove printer from functional model? Cloud Print Manager->Printer will likely be proprietary, not part of our definition  
   c. Printer - Cloud Print Manager relationship  
      - Dashed line around the two  
      - One or both follow PWG semantic model  
      - SM amended to cover cloud use cases as needed  
      - No focus on communication between them  
   d. Requirements  
      - Registration is both client and printer  
      - Move away from driver-centric approach to support new platforms  
      - Focus on high-level interface, the what not the how  
      - Late transform for better fidelity  
      - Add security ticket to Encryption/privacy/security discussions and registration and job ticket  
      - Add recommendations slide based on requirements?  
      - Separate privacy and security requirements, also other physical and virtual privacy issues (eavesdropping,  
      - Make job ticket separate from document(s)? Recommendation vs. requirement - out of scope for functional requirements  
      - Update fidelity to cover document data and job tickets and security tickets  
      - Retitle as “Functional Requirements/Considerations”  
      - Remove Cloud Print Manager/Printer events  
      - Remove Printer from encryption discussion
- Firewall/router not really a requirement, but a consideration
- Discovery and registration can provide supported formats to/from Client/Manager (what
  formats client supports and what formats Cloud supports can limit list of printers to select)

**e. New Attributes**
- Public key information from printers - included in security ticket as a credential
- printer-mandatory-job-attributes name conflict with 5100.7’s job-mandatory-attributes; use
  ”job-creation-attributes-required” to parallel ”job-creation-attributes-supported”?

**f. Existing Document formats**
- Retitle “Existing Client Document Formats”
- Add bullet - cloud print provider can support arbitrary formats provided by client and provide
  transform to printable formats

**g. Existing Protocols**
- Technically SMTP can carry the same payloads as HTTP, just no auto-response and multi-
  hop which limits things
- Email address to the cloud print provider
- SMTP = store and forward, HTTP is interactive
- JSON+Print-Document is possible (LIMITED)
- JSON+Job Tickets is possible (YES)
- Drop WSDL since REST and SOAP cover the encoding of WSDL
- Print via FTP + HTTP PUT for drop folders (another store-and-forward example)

**h. Cloud-based PIN printing (where job stays in cloud until the user picks it up)**
- Job ticket may not be valid for printer
- Parallel selection process from Cloud Print Manager - pick jobs for printing, directing print
  jobs at print service shops, etc.

**i. Next Steps**
- Options: Do nothing, best practices, or standard(s)?
- Best Practices Document that makes recommendations? Concerns that it won’t be read or
  considered by companies - important to have Cloud Print vendors endorse it?
- Standards: Cloud Print Model standard + protocol mapping document (IPP?)
- Appears to be sufficient interest to develop a standard
- Just printing, or scan + fax as well? Should be all services, will discuss further
- Ron Nevo, Andrew Mitchell, and Pete Zehler, both volunteer as officers for a potential Cloud
  Printing WG
- Paul Tykodi and Sanjeev to participate
- Cloud Printing WG charter: to develop protocol(s) for clients, cloud print providers, and cloud
  print managers (one or more bindings)
- Action: Mike to add agenda item to plenary to specify charter, officers, and editors, time slots
  for Cloud Printing WG
- Documents: Requirements and model (including rationale), IPP binding, RESTful/SOAPy/
  WSDL binding
- One year window to specs for prototyping
- Bake-offs - virtual bake-offs very feasible, collate and anonymize results
- Mention blind (SMTP/FTP/etc) transports but not provide bindings or rule them out of scope.

**Next Steps / Open Actions**

- Form Cloud Printing WG to develop standards for Cloud Printing
- Action: Mike to add agenda item to plenary to specify charter, officers, and editors, time slots for Cloud
  Printing WG
- Action: Steering committee to setup liaison with CIP4 in order to maintain, share, and publish a JDF<->IPP/
  PWG job ticket mapping document (OPEN)