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 Sondergaard (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)