Semantic Model Face-to-Face Minutes
April 26, 2012

Meeting was called to order at approximately 9:00am local on April 26, 2012.

Attendees

Danny Brennan (GTS)
Russell Brudnicki (Kyocera)
Nancy Chen (Oki Data)
Shane Lin (Monotype)
Till Kamppeter (Canonical/OpenPrinting)
Ira McDonald (High North/Samsung)
Peter Mikalac (Shinesoft)
Joe Murdock (Sharp)
Naruhiko Ogasawara (Independent)
Glen Petrie (Epson)
Robert Shibata (Thinxstream)
Michael Sweet (Apple)
Anil Thakkar (Thinxstream)
Jerry Thrasher (Lexmark)
Larry Upthegrove (End-user - call-in)
Bill Wagner (TIC)
Jay Wang (Toshiba)
David Williams (Ricoh)
Rick Yardumian (Canon)
Peter Zehler (Xerox)

Agenda Items

1. IP Policy and Minute Taker
    a. Policy accepted with Mike taking the minutes
2. Status
    a. New PWG Namespace Registry on SM web page
        - also added to main PWG home page
3. Named Transforms
    a. Format of names is a keyword:
        - verb-noun-noun for PWG standard named transforms
        - com.example.verb-noun-noun for vendor named transforms
        - Provide vendor registry on pwg.org (like we do for Vendor IPP operations)
        - Also register vendor names in IANA IPP registry with pointer to transform spec
        - Link to PWG registry in transform spec
        - Include ABNF for names
    b. Collate
        - collate-manual-two-sided-pages
        - collate-split-color-mono-pages
        - collate-split-by-media-type
            - Drop "-type"
    c. Convert
        - convert-document
            - also thumbnail generation
        - convert-job-ticket
        - convert-localized-document
        - convert-secure-document
            - Encrypt and/or sign
            - Embeds any user security ticket information used in the job creation
    d. Extract
        - extract-evaluation
            - Looking for keywords or other content
        - extract-images

- extract-ocr
- extract-metrics (preflight)
  - Generates metrics - color/black pages, coverage, time to process, etc.
  - Cost is computed in client software using metrics returned in the job receipt for the transform job
  - Q: Isn't this print with 0 copies and follow with resubmit?
    - A: Yes, but there are implementation concerns (bandwidth, etc.)
    - Also, job can be saved in transform service and then resubmit for convert
- extract-metadata
- extract-signature
  - Cryptographic signature of document
  - Uses any user security ticket information used in the job creation
- extract-summary
- extract-searchable-document
  e. Image
- image-monochrome
- image-red-eye-removal
- image-down-sampled
- image-color-space
- com.example.image-half-tone
  - Halftoning and other special effects (not for a PWG standard transform, but an example)
  f. Imposition
- impose-number-up
- impose-redaction
- impose-Watermark
  - Includes written signatures, logos, other letterhead kinds of things
- Variable data printing examples (not standardized)
  g. Other
- other-unforseen-transform
  h. Example Vendor named transform (implies "application/")
- com.vendor.our-transform
  i. Document Management Stuff?
- Validation of format/content
- Examination to look for confidential information
  j. Q: Why have names if we don't define the input/output?
- A: Define some named transforms with input/output, additional ones we don't define can be listed as examples for each class/category with vnd.example-foo names
  k. Q: Security category?
- Adds requirement for audit logs, etc?
- A: No, just cover in convert and extract classes
4. Lifecycle of named transform
   a. Capability of service
   b. Q: Do we need "ready" transforms?
- A: No, transforms are configured and availability due to resource constraints can be handled using existing "server busy" errors and queuing of transforms until resources are available
- Multiple transform jobs can run simultaneously - implementation deals with resource contention (e.g. hardware acceleration of N transforms)
5. Cost attribute?
   a. Uses:
- "Shopping" for transforms of a given type (find the best)
- Billing of transform services (need metrics)
   b. Lots of variables
- bandwidth, memory, cpu, etc.
   c. X per unit time? or an arbitrary scoring value?
   d. pages-per-minute/-color, but nothing for images-per-minute
- Static or dynamic?
- Dynamic keeps a running average since last power-cycle (and perhaps for life - implementation defined)
- Need both
- Per-transform hundredths-of-images-per-minute (consumed images per minute)?

e. Some transforms are better characterized by bytes per second or other criteria
  - Each transform defines a "performance"/"figure of merit"/"score" number, its units, and its usage
  - MUST define numbers such that bigger is better
  - About the same level of guidance as pages-per-minute
    - So also include running, weighted average
  - Also need a property in the job receipt that includes the number calculated for that job
    - Will be needed for accounting
f. Focus on metrics for accounting, don't bother with cost comparison
  - Counter MIB has additional properties, could be added to job receipt
  - Identify which counter properties apply for each transform
  - Also include total counter values on a per transform basis

Next Steps / Open Actions

- Next conference call May 17, 2012 at 3pm (ET)
- Talk about leveraging "off box" (external) transforms - management, discovery
- Work on Transform Service
- Schema updates
- Prototyping of transform services