PWG MINUTES - SAN DIEGO - AUGUST 29, 1996

Attendees

In order of sign-up.

Lloyd Young - Lexmark
Scott Isaacson - Novell
David Murphy - Lexmark
Larry Fitzpatrick - Eastman Kodak
Rob Whittle - Novell
Jay Cummings - Novell
Rob Rhoads - Intel
Harry Lewis - IBM
Alan John - Intel
Ron Talwalkar - Intel
Bob Pentecost - HP
Pete Loya - HP
Bob Setterbo - Adobe
Carl-Uno Manros - Xerox
Raymond Lutz - Cognisys/MFPA
Chris Buchals - Lennig
Peter Lennig - Lennig
Atsushi Yuki - Kyocera
Tomoaki Emdoh - Canon
Lee Farrell - Cannon Information Systems
Chuck Adams - Tektronix
Don Wright - Lexmark
Randy Turner - Sharp Labs

Agenda

- No Sense - no Jay Martin
- No Job - no Ron Bergman, Tom Hastings
  - As chair of the JMP, Ron Bergman should submit our Job Monitoring MIB stuff to the TIA TR29 (Fax standards committee). They will meet in October . Ron can coordinate through Ray Lutz.
- Ray Lutz - MIME registration of Printer MIB Interpreters added to agenda

Next meeting

1-800-843-4898
Marriott, NYC
$209/$219

Move NY to Thursday/Friday for IEEE? (no).
Move October meeting as requested by Jay Martin? (no)
Adopt Jan '97/Dec '97 LA/Albuquerque swap
Shift *some* 1997 PWG meetings to Thursday/Friday for Saturday stays - Miami/Tampa

New Projects

Job Submission and Job Control Protocol

Novell - Scott Isacson

Discuss/Propose Internet printing standard. What is the PWG role?
Cited
- W3C April conference
- Emerging Internet printing products
- Web servers in printers for management

- WBEM

Historically, PWG has not been willing to address print job submission, only job monitoring.

What is internet/intranet printing?

- W3C - document presentation or representation
  - PDLs, Markup languages (HTML printer)
- Printer Management
  - Printer MIB
  - Browser/WEB server in the printer
- Application printing
  - Finding/Identifying/Locating printers
  - Installing printers on the Desktop
  - Install via browser?
- Printing to a URL
  - Creation of a Print specific Domain?
  - Submission/Control
- Enabling Print Commerce on the Web
  - Negotiate cost and schedule
  - Quality of Service
- Security
  - Print stream encryption
  - Firewall ramifications
  - Authentication
  - Access control

Ray Lutz (comment) -

FAX groups are having identical discussions. Remote printing, remote copying. Merging FAX technology with the internet. Brand-X terminal sends FAX on internet which re-transmits onto conventional fax machine elsewhere using local calls. This is a form of internet printing. Next generation fax machine will use internet protocols to do the dial-up. Let's look at the larger picture. Public Telephone Switched Network is still a factor. With internet printing, some layers will still use fax. Some people still like the feeling of pushing the button and knowing a fax is coming out on the other end. Really need to determine how to print to any machine on earth in a very standard way.

Ray stated that there are 85 other standards bodies or known standards requirements that need to be reviewed.

Rob Whittle (comment) -

There are differences in Print and Fax paradigms. Yes we should attempt to harmonize, but fundamental differences make it feasible for the PWG to pursue inter/intranet printing standards within the IETF/W3C.

Carl Manros (comment) -

Fax is tied to small pages per job.

Harry Lewis (comment) -

People want the "feeling" of pushing a button and knowing their job is coming out somewhere and 'till now, because everyone has had a phone, they've gotten this feeling with FAX. In the future, browsers will be more prevalent - like the phone. FAX is a good paradigm, and FAX/SCAN may be part of any particular solution. Standards are important to making this work. Today there is no standard for making this feeling happen on the web.

Bob Setterbo (comment) -

There is a distinction between defining the technology vs adopting the technology. Does not want to work on defining a technology that will not be adopted.

Don Wright (comment) -

Our work will have to go the IETF, W3C etc.

General (discussion) -

Is PWG the right group?
What is in Ray's list of 85? Performance monitoring, Auto config, Registration/de-registration...
Can 85 groups really harmonize? This is why we have goals to go IETF/W3C.

Carl Manos (comment) -

We can start the technical work here, in the PWG, before going to the IETF.

Randy Turner (observations) -

Standards groups looking at Internet FAX and Internet Printing with e-mail already exist or are in formation. One is looking at MIME tags for complex documents, PS segments, PCL segments, intermediate store and forward of document content, phone dialing etc. Reference BOFs at the last IETF plenary. At San Jose, in December, more work will be done (see Marshall Rose, Randy). The nice thing about printing via e-mail is that it already flows through firewalls. The internet FAX standard provides for embedding a User.phone attribute in or around the job. Someone in the chain picks up the phone number and dials. Do a web search on tcp.int.

General (discussion) -

MIME describes a format not a PROTOCOL. The internet already has Mail protocols, file protocols, but no printing protocols. It is possible to express a print job in MIME. Also possible to print via FTP. E-mail and mime have the advantage that some security is already handled (digital signatures for example).

What about job control? You need to be able to cancel a print job on the intranet. How do you get receipt notification (mail is looking at this - half done). Granularity of control in your domain is one thing. Cross domains - loose control. On the internet, the print job would be passes off at a higher level of abstraction.

The PWG can't probably handle the entire internet printing scheme and should look at what already exists and what is now in development. But, anyone seriously addressing inter/intra net printing should have PWG representation.

Internet vs Intranet. Intranet - implies local control. Internet - you can get lied to. Think you are printing but goes directly to glass etc.

Carl Manos (comment) -

ISO vs. Internet. Messaging area. Receipt notifications origin in X.400 protocols from OSI. Similar X.500 directory services going to LDAP. DPA is an ISO standard. DPA would be interested in a light weight protocol that works in the internet environment - analogous to these examples. Other DPA vendors would also probably be interested.

Novell statements - not a formal motion. Just collecting thoughts etc.

Ray Lutz - Look again at Transportable Document Format.

General (conclusion) -

Open the reflector to discussion, comments, written proposals etc. No group created today. Use September to think, discuss. Novell will summarize today's discussion and initiate the e-mail topic with a list of issues, advantages, options. We will decide on chartering a project in the next couple meetings.

General (after-burn) -

How does this fit with WBEM?

Standard Printer Adapter Project

Lexmark - Don Wright

Is the PWG interested in developing a standard printer adapter hardware interface and API?
This would allow 3rd parties to develop adapters that they know will work in more than one printer vendor's product. Components of this endeavor would include:

- Electrical (PCI, IEEE 1284, PCMCIA, other)
- Mech (Form Factor, Connector)
- Firmware (Interfaces, APIs, Memory Map)

Why?

- Simplify task for non-printer vendor developers
- Leverage general industry trends (PCI chip sets)
- Provide wider variety of solutions for more brands of printers.
- Facilitates niche industry approach to low volume solutions (ex. ATM adapters)

General (discussion) -

Who would be focusing on this? The IEEE or PWG or Microprocessor Standards committee? PWG should help with requirements but place it in the proper domain. Scanners may also want to use the same interface.

General (conclusion) -

Don will kick off discussion on the reflector.

End