DMTF Printer Management Working Group
Denver, Colorado
September 19, 1994 - September 20, 1994

Attendees:

Craig Whittle - Novell
Harry Lewis - Pennant
Don Wright - Lexmark
Tim Hathaway - Pacific Data Products
Andy Davidson - Tektronix
Steve Zilles - Adobe
Randy Turner - QMS
Michael Bringmann - QMS
Jeff Horowitz - Peerless Systems
Bill Wagner - DPI
D.R. Palmer - Pennant
Stan McConnell - Xerox
Alan Hlava - Pennant
Stuart Walker - Pennant
Bob Herriot - Sun
Rick Rodgers - HP
Joel Gyllenskog - HP
Jay Martin - Underscore

The meeting began at 8:40AM.

Don Wright reviewed the DMTF events held at Interop+Networld.

The group began by re-examining the open issues related to the MIF. Harry Lewis will work through all the MIB object and compare to the current MIF draft. DMI unique group(s) will be added to include objects referenced by the MIB but not included in the MIB.

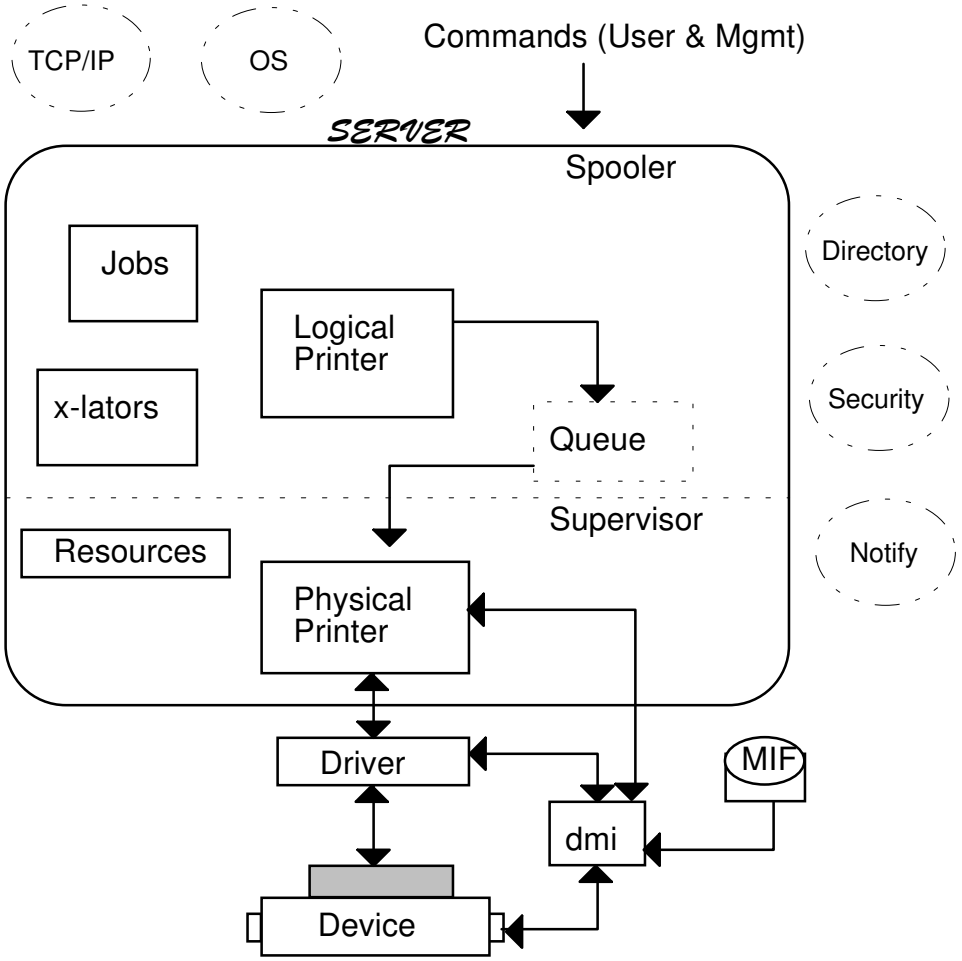
Harry Lewis reviewed the issues raised at the last meeting regarding doing a job MIB/MIF.

Stuart Walker from Pennant Systems, gave the group an overview of DPA, Posix, Palladium, etc.

DPA(ISO 10175) - defines printing objects and attributes, and printing management operation (mailing list is dpa@woden.eng.sun.com)

Posix(IEEE 1387.4) - CLI and API, job operations, management operations
Palladium - Developed at MIT as a part of Athena project
X-Open - Attempt to fill in what Posix and DPA don't cover. (Former COSE printing group members are now part of X-Open) (mailing list is xopen@woden.eng.sun.com)

Palladium Model



Discussion on the issue of precedence. What happens when the job stream specifies one thing and commands/etc. into Palladium specify something else. Will the job stream be "cleaned up" to remove any commands being overridden?

Monday Afternoon Agenda:

1) Control versus Submission
2) MIF/MIB Requirements
3) Given that DPA, Palladium, Posix and MIF/MIB solution will co-exist, how can they be made useful to each other?

4) Concrete example - such as check which page of a previously submitted job is currently printing.
5) Charter - print MIB, new MIB?

The group broke for lunch at 12:30PM and resumed at 1:45PM.

Harry Lewis continued to chair the meeting with the initial discussion focused on print job control ---

1) Who owns the print job?
2) Who can cancel a print job?
3) Job status --- tied to a job?
4) Does Job mgmt at the device require single channel for PDL & MGMT commands?
5) How do we sync job status and control with the jobs datastream?

The group agreed that additional security/authorization process would be needed to perform job control functions versus job status viewing functions.

The group discuss for a long time the different concepts of "what is a job?" The group explored a "job table" concept where the various attributes of a job including some unique name fields.

What does DPA want in the way of objects?

1) Current Status (pages complete)
    Impressions
    Pages
    Sheets
2) Thresholds exceeded (warnings, errors, etc.)
3) Defaults
    Paper Size
    Paper Name
    Duplex/Simplex
    Stacking Order
4) Choices - Fonts, etc. (overrides)
5) Range prints (pgs 5 to 10)
6) Substitutions
    Default font for the job

After discussing these concepts loosely, the group agreed to approach this problem in a manner like the way we started this effort. We will presume some job submission means but will identify the information that must necessarily be included with job submission. In a like manner, we will initially only define the printing management object related to jobs and then map those objects to SNMP/DMI/etc.

The DPA group will parse through the DPA specification and identify the job submission (both job identification information and job submission/setup information) and status information that should be set to the printer (job submission) and from the printer (job status, results and accounting).

The working group recommends that as many of the DPA and X-Open representatives as possible attend the next three meetings for continuity reasons.

The group discussed the next meeting which will probably be held in Burlington (a suburb of Boston.)

Joel reviewed his presentation made at Networld/Interop.

The meeting adjourned for the day at 5:25 PM.

The meeting resumed at 8:45 AM on Tuesday.

Joel Gyllenskog started off the meeting by reviewing the issues identified on the mail list.

Objects referenced by the MIB (such as from the Host Resources MIB) that need to be included in some MIF group.

- Status
- Storage
- Device
- Interface

The Printer MIB RFC states that all the aspects of the system controller are represented in the MIB world by the Host Resources MIB. Since there is no exact duplicate of the Host Resources MIB in MIF structure Joel Gyllenskog has agreed to take the Host Resource Storage Group and the Host Resources Device Group from the Host Resources MIB and translate them into appropriate MIF groups.

Harry Lewis will translate the MIB II, Interfaces groups into MIF syntax to solve the problem of the Channel Groups object - prtChannelIfIndex.

The group identified a major error in the August 19th version of the MIB which has prtStorageRefTable and prtDeviceRefTable currently as {prtGeneral 2} and {prtGeneral 3} must be at the top level {printMIB x}. This is verified by the enums shown for prtAlertGroup.

prtOutputType needs enum(7) or continuousFanFold added.

Question for Pete Grillo: Are we required or is it necessary to allow "other" and "unknown" in table templates?

The prtGeneralTable currently defined as {prtGeneral 1} needs to be promoted up to the {printMIB x} level so that is can be mapped to DMI.

Harry will be posting version 3 of the MIF to the ftp server.

Andy Davidson will be taking the results of the compilation of the MIF, the Host MIB groups from Joel and the Interfaces group from Harry and running that result through the MIF-to-MIB converter.

Oct 25/26 - Meeting in Burlington, Mass (outside Boston). The agenda will be:
- Finalize MIF (10/25)
- Jobs (10/26)

The meeting adjourned at 3:00 PM.