DMTF/IETF Printer Management Working Group
Pittsburgh (Carnegie Mellon)
May 24, 1994 - May 25, 1994

The meeting began at 8:20AM, Eastern time.

Attendees:

Joel Gyllenskog - Hewlett-Packard
Steve Zilles - Adobe
Randy Turner - QMS
Andy Davidson - Tektronix
Bill Wagner - DPI
Ron Smith - TI
Mike Timperman - Lexmark
Don Wright - Lexmark
Lloyd Young - Lexmark
Harry Lewis - Pennant Systems
Jay Martin - Underscore
Steve Waldbusser - CMU
Stan McConnell - Xerox

Agenda items:

1) Issue of "At-work" type printers
2) How do multi-function devices relate to the model
3) Schedule

Started a review of the issues and their status. See Meeting #7 minutes for previously listed issues (1 through 39).

1 - Closed
2 - Closed
3 - Closed
4 - Closed
5 - Closed
6 - Remains open
7 - Remains open
8 - Remains open

9 - Closed
10 - Closed
11 - Closed
12 - SNMP doesn't normally use "Snapping". Some of the integer objects' maximums and minimums are available as other objects. Those that are not available can be limited via RANGE values within the MIB that is shipped with the printer. All invalid values (both ENUMS and INTEGERS) will be rejected. The issue will be re-opened pending a review of the number of R/W integers that do not have mins/maxs available as another object.
13 - Closed
14 - Closed
15 - Closed
16 - Closed
17 - Closed
18 - Review needed by SNMP expert
19 - Remains open
20 - Closed
21 - Closed
22 - Closed
23 - Closed
24 - Closed
25 - Review needed by SNMP expert
26 - Closed
27 - Closed
28 - Review needed by SNMP expert
29 - Remains open - discussion continued on the applicability or usability of the channel concept. Is this implementation enough? Should it be a more complex implementation? Or, is this enough to get by one for the purposes of the MIB/MIF? Should we add a "Channel Name" object?
30 - Review needed by SNMP expert
31 - Review needed by SNMP expert
32 - Closed
33 - Closed
34 - Closed
35 - Closed - discussion occurred on whether to make the channel less ambiguous by adding revision, version, etc. object. Discussion on adding a string to allow each manufacturer to uniquely identify specific version/level of a channel.
36 - Closed
37 - Closed
38 - Closed
39 - Closed
40 - The prefix for SNMP MIB object names is **prt**; do the DMTF MIF attribute names have to have this same prefix or can they avoid having such a prefix,

since MIF names are quoted strings which can be any case and because the MIF names are displayed directly to users, correct?
*** CLOSED - one set of names

41 - Should the DMTF MIF attribute names include "-" when the word in naturally hyphenated, such as in the Interpreter Language **line-data**, or include "/" such as in the channel **OS/2 LAN Manager**?
*** CLOSED - No, see resolution of #40.

42 - Need upper bounds on each object of type String.
*** CLOSED - DisplayStrings maximum size of 255, standardized strings will have a maximum of 63. This is a change from what was published in prtspec1.doc.

BREAK FOR LUNCH at 12:05PM.
RESUMED AFTER LUNCH at 1:05PM.

43 - The DMTF Component ID attributes seem to be quite different from the System Group in the MIB-II RFC 1213. Is this difference a problem? How will the MIF to MIB translator handle this difference?
*** OPEN - We need DMTF experts help here.

44 - Should we change the name from “Skins” to “Doors” to be more PC?
*** CLOSED - We are going to use "Covers".

45 - Should MediaType and MediaColor string value names be localized?
*** CLOSED - No.

46 - Is a constraint of 63 octets enough for translating MediaType and MediaColor string values into all languages and character sets (two octet character sets use up two octets per character) sufficient?
*** CLOSED - Not localized.

47 - Is the prefix of **lang** and **chan** the proper thing to have for MIB and MIF enum value symbols, so that the proper names and acronyms won’t have their first letter made lower case?
*** CLOSED - use as previously defined.

48 - The LineStatus enum isn’t used by any object/attribute. Should ChannelStatus use LineStatus, instead of EntStatus?
*** CLOSED - delete LineStatus.

49 - What objects from the System Group (MIB-II RFC 1213), Host Resources MIB (RFC 1514), and Interfaces Group of MIB-II (RFC 1573) shall be listed in the Printer MIB as being required for conformance to the Printer MIB?
*** CLOSED - Only the storage and devices groups from the Host MIB are useful. We can implement only the needed parts of the MIB. Steve W. will be making changes to the HOST MIB to reflect a reduced level of compliance. Each manufacturer will have to make a determination of what to include. From the MIB 2, only the SYSTEM and INTERFACES group need to be supported to be compliant with this MIB.

50 - Are all enums of the type that we want?

a. Make MrkSupplyType enum type 2.
b. Leave ResetType enum type 3.
c. Leave ColorantRole enum type 1, instead of type 2 because adding another ColorantRole changes the table organization.
d. Make ChannelState enum type 2 to allow someone to implement separation of command and data.
e. Leave AlertGroupCode enum type 1 because it maps so closely to the model.

51 - Are the names of the objects/attributes what we want, especially since the MIF names are displayed to users directly (assume that for the MIF, each word in an attribute name is space separated). Some of the names are quite long, containing a lot of words which have been abbreviated beyond many DMTF user's recognition. Should we remove some of the words and make the remaining words be full words, except for obvious abbreviations, like Max and Lang?
*** CLOSED - as per issue #40.

52 - Community names - what is the applicability of this to both internal and external print servers?
*** OPEN - Community names wouldn't work with Host based printing where the community name applies to the whole PC not just the printer. Steve W. will attempt to solve the problem with printer MIB and the HOST MIB using an index otherwise we will go with an SNMP v2 only solution for the multiple printers on a single IP address.

53 - Should the finisher group be removed and left to a finishers WG?
*** CLOSED - take all of it out.

54 - Should strings be DisplayStrings, octets, or something else?
*** CLOSED - we will use InternationalDisplayString for localized strings, non-localized strings will be type DisplayString.

55 - Should the console object be dropped? What about key presses?
*** CLOSED - Keep the console. Do not include key press function.

56 - Do we need a Key Operator field?
*** CLOSED - No, use SYSCONTACT from MIB II.

57 - Add TIFF to interpreters?
*** CLOSED - Steve Zilles will send info to Joel.

58 - Add Diagnostic/Hex Dump interpreter?
*** CLOSED - Joel will add to the interpreter enum list.

59 - Press Release? Schedule?
*** OPEN - Discussion on need for a press release in conjunction with the release of the MIB and MIF. Discussion on schedule and the impact of hitting or missing the schedule.

60 - Remove references from the channel group of the 7 layer model?
*** CLOSED - Done.

61 - Replace OS/2 LAN SERVER with DLL, VxD, DCE RPC, ONC RPC.
*** CLOSED - Done.

62 - What DMI class name should we use: DMTF?, DMTF Printer Working Group?, Printer Working Group?, Joint Printer Working Group?
*** CLOSED - DMTF/IETF Printer Working Group.

The meeting adjourned for the evening at 6:30PM.
The meeting resumed at 8:25AM.

Discussion on having the July meeting in Toronto in conjunction with the IETF plenary session. Maybe a jobs BOF? Meeting to finish the MIF? The general opinion was that having a jobs meeting/BOF. Randy will be putting the Palladium V2 spec and a White Paper overview of it on the ftp server in a Palladium directory. Under the assumption that we will finish this project on schedule, we will investigate having a BOF at the next available IETF meeting discussing Jobs Management and/or Fonts.

Harry Lewis will post how to contact the FINISHER group on the PMI mailing list.

June meeting will be at the Radisson San Jose Airport. Call Mary Ann Verboon at 408-452-0200, maybe also 1-800-333-3333. June 28,29.

ISSUES:

63 - How do we model host-based printing solutions?
*** CLOSED - We believe that our printer model covers the case of host based printers. We will leave in the various Microsoft requested channels applicable to host based printing.

64 - Multifunction Devices - Do we handle these and if so, how?
*** CLOSED - We believe our printer model covers (with extensions) scanner/copier/fax multi-function devices. Scanner may have an additional media path, fax might have additional channels, etc.

65 - How do we report range information?

*** CLOSED - We reviewed the R/W Integer objects that do not inherently have a range. The only objects which need a range were in the input group: *Declared*MediaDimXFeedDir and *Declared*MediaDimFeedDir. We discussed and agreed to use the SNMP method for doing something like a snap but using two objects. The new objects are read-only and called *Granted*MediaDimXFeedDir and *Granted*MediaDimFeedDir

66 - Do we need to add a version string to the channel group?
*** CLOSED - We will add a string to allow a manufacturer to further identify the channel.

67 - Are other and unknown valid for integers?
*** CLOSED - We will review and include on a case by case basis.

68 - Should we add an "uninitialized" state to go along with "other" and "unknown"?
*** CLOSED - No one in attendance made a case to add the "uninitialized" state.

Second pass through the still open issues:

6 - Too many objects?
*** CLOSED - after removing the finisher, we feel the number of objects is OK.

7 - Interlock needed?
*** CLOSED - we have not found a case where we need to use an interlock means because atomic actions could not fit in a packet.

12 - CLOSED see #65 for closure information.

18 - CLOSED - we will address this on a case by case basis.

19 - CLOSED - see #68 for closure information

25 - CLOSED - Yes, we need an index column in each table. We should name all the fields now called "ID" "Index". The document will be changed to reflect this change.

28 - CLOSED - see #67 for closure information.

29 - DMTF issue - additional details for channels will be specified in separate groups one per channel type and the association to these groups will be based on the association of the channel type enumeration in the same way that the association of additional details on interfaces is based on the interface type in the interface table (reference by analogy)

30 - CLOSED - device and storage groups of the host resources MIB will be adequate.

31 - CLOSED - see #30 for resolution

Steve W. passed out the first version of the MIB at 3:15PM -- rah, rah!!!

Steve Zilles walked through the MIB/MIF document and identified needed corrections.

Steve will be reordering the common MIB/MIF specification in the following order:

1. General Printer
2. System Controller
3. Interface
4. Channel
5. Interpreter
6. Input
7. Media
8. Media Path
9. Marker
10. Output
11. Finisher
12. Console
13. Alerts

We will determine if one of the output features is not present by adding an enum value of "not present" to the a new enum list like YesNoOnOff.

Slipsheet was removed from "Output-Features-Optional"

Discussion on logical versus physical lines of the display. No changes made.

The Group went through and looked at each ENUM and INTEGER to determine which should allow "other" and "unknown". The Word document and the MIB will be updated to reflect this review.

Adjourned at 7:00PM.