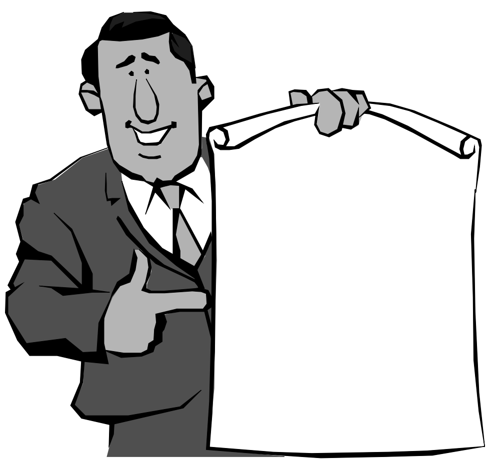
IPP Protocol White Paper Discussion



IPP Request-Message

- IPP Request-Line
- Entity-Header
- CRLF
- Entity-Body

IPP Request-Line

- Operation
  - Print
  - Cancel-Job
  - Get-Attributes
  - Get-Jobs
- IPP Version

Entity Body

- Data
  - Documents
  - Attributes
- Content-Headers
  - Boundary Markers
    - Field type
    - Length
  - Protocol flags

Content-Headers

- Syntax: Content-*"field-name"* : *"field-value"*
- Content-Type
  - Boundary marker (job, document, etc)
- Content-Length
- Content-Segment-Flag
  - first, middle, last
- Content-Sequence-Number
  - 1,2,3, ...
- Content-Response-Required-Flag
  - yes/no

Print-Job

- Print-Job-Marker
  - Content-Type : IPP Print JOb
- [Job Attribute List]
- 1#(Documents)
- End-of-Job Marker

Documents

- Document-Marker
  - Content-Type : IPP Document
- [Document Attribute List]
- #1(Document-Part)
  - Content-Type : vendor/pdl/version
  - Content-Length : length of this part

Examples

Mapping to MIME

- IF Necessary - - -
  - First Choice would be Application/IPP
    - entire structure just discussed as is
  - Last choice would be existing MIME
    - Multipart/mixed
    - have to live with boundary-strings, no lengths
    - have to live with all existing fields and usage

Mapping to HTTP

- HTTP is just the transport
  - remember the traditional protocol stack picture
  - every request is an HTTP POST
  - no IPP protocol visible at HTTP level