WBMM Device Model Requirements Brainstorm
May 21, 2003

1. The model can be *extended* to support new capabilities and functionality.
2. The model must be *scalable* to support a wide range of printing and imaging devices, including low-end, high-end, and multi-function devices. The selection of the mandatory versus optional elements in the model will determine to a large degree the scalability of the model.
3. The model can support the management of *services* and their capabilities; for example, software services distinct from the device, such as a PSI service that is running on an end-user's workstation.
   - For clarity, I think we need an example of something we would want to manage for a PSI service.
4. The model can support both Get and Set operations on managed elements.
5. The model can represent complex *structures* (e.g., an OO-type representation of paper-handling elements), *relationships* (e.g., relationships between elements, such as the constraint that you cannot duplex transparencies), and *operations* (e.g., FW upgrade) that SNMP cannot easily support.
6. The model can accommodate the remote installation and upgrade of device features.
7. The model's structure should be based around how the information is consumed, not the physical structure of the device.
   - Not agreed upon by group….more debate needs to occur on this topic.
8. The model will support policies, e.g., Access Control Lists (ACL)
9. The model will support the reporting of events and errors.
10. The model can be used for application interoperability, e.g., application to back-end web service.
    - I don't think the following belongs here since this document contains requirements for the device model: In addition to a schema, we will also define some operations in WSDL to support interoperability with web services.
11. The model should be *reasonable* to implement on devices with certain capabilities. The presence of an embedded web server on the device should indicate that the device has the capabilities to support WBMM.
12. The model should provide for the dynamic consumption of elements and dynamic UI creation. It should allow for the inclusion of optional information, such as UI hints and localized strings, to be used by the consuming application so that new features can be supported without having to revise the consuming applications (end-user clients, management application, etc).
13. The model will support a reduced set of mandatory elements. In order for a device to be "WBMM-compliant", it must support all of these mandatory elements in this "basic profile". The model will define several levels of compliance, with the minimal level being the basic profile. Management applications can determine dynamically which profile, if any, beyond the basic profile a discovered device supports.