

Web-based Imaging Management System Working Group

**Printer Working Group
Face-to-Face Meeting
October, 2008
Lexington, Ky**

WIMS WG Agenda



- 8:30 – 8:45 Introduction
- 8:45 – 9:15 Futures Discussion
- 9:15 – 10:00 Print Services CIM Schema
- 9:30 – 10:15 Rick's Update on CIM Provider
- 10:15 – 10:30 Wrapup

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Inappropriate Topics for PWG WG Meetings



- Don't discuss the validity/essentiality of patents/patent claims
- Don't discuss the cost of specific patent use
- Don't discuss licensing terms or conditions
- Don't discuss product pricing, territorial restrictions,
or market share
- Don't discuss ongoing litigation or threatened litigation
 - Don't be silent if inappropriate topics are discussed ... do formally object.

Current Activities



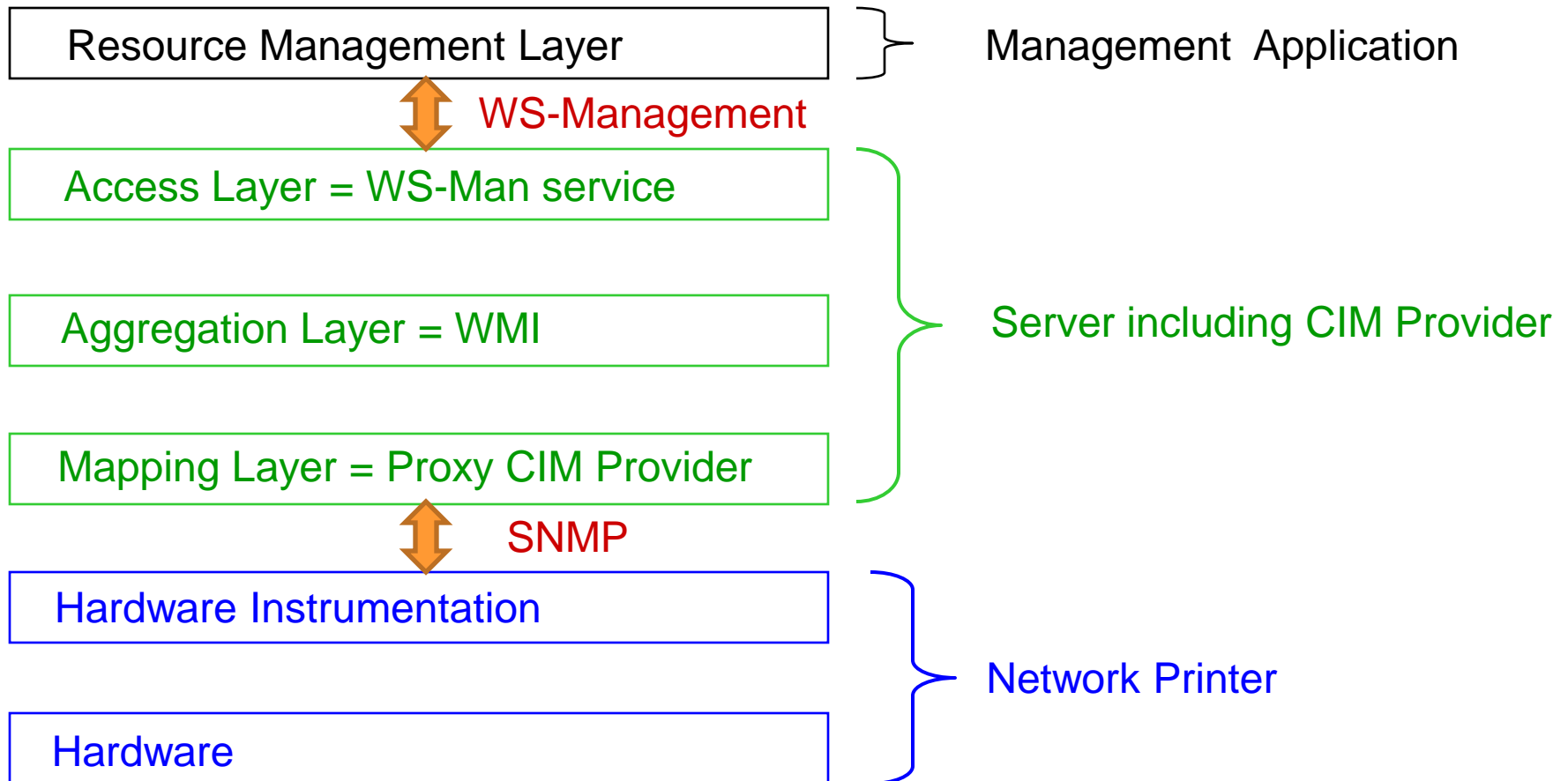
- The CIM Printer model and Imaging Counter model are both complete. All CRs have been approved for inclusion in CIM Schema v2.20.
- Ira has started work on the update of Print Service Schema, based on IPP semantics and following the considerations of the IPPV2 WG
- Rick is continuing with the Proxy CIM Provider prototype implementation. Ira has supplied enum mapping information and several others have provided MIB walks from various printers for debugging and exercising the prototype.

SNMP to Proxy CIM Provider



- Investigated as instant Web Services Support for printers, but two problems:
 - Dell Prototype not a production level implementation
 - Considered PWG sponsoring development
 - Considered Open Printing Project, but they are not interested
 - CIM Provider plus existing utilities does provide WS-MAN interface for Imaging Device Managing Application, but no such application exists.
 - Suggestion to make developers aware that WS-MAN access to existing printers is/will be possible
 - Suggestion to make customers aware that web services management of imaging devices possible (customer demand)
 - Suggestion to lobby OS suppliers to include imaging devices in web services management capability

Management Stack - Proxy Provider



Futures Discussion



- Evangelizing and perhaps sponsoring development activities for Web Service Management of Printers
 - Decision at last F2F was to look at ways to encourage customer and ISV interest in Printer management by Web Services
 - WIMS WIKI was updated to present the arguments for.
 - But is “creating demand” within our charter?
 - Should we restrict our WS activities to creating CIM schema?
 - Should we (and can we) do anything to encourage standardization of printing schema rather than the current tendency for manufacturer-specific approaches?

Futures Discussion



- Expanding management considerations to MFDs
 - MFD WG is developing semantics for the imaging services associated with Multifunction Devices
 - Should we start work on CIM schema for MFD management?
 - Wait until semantics is manifest in multiple manufactures' equipment
 - DMTF requires the CIM schema be multiply implemented before they can be considered "final"
 - Would it be useful to do work on MFD MIBs, as precursor to WS effort, just as Counter MIB was done a precursor to CIM Counters?
 - Most suppliers do have private MIBs, but no standardization
 - Establishing baseline management elements for MFD's would assist customers in supporting these devices, which are now the predominant SOHO and enterprise imaging device
 - Manufacturers (our employers) may find this an advantage
 - If implemented, management elements would form the basis for CIM schema for MFDs.

Futures Discussion



- Assuming responsibilities of PWG MIB WG
 - The PWG MIB WG has a continuing maintenance function for support of existing MIBs, and the PWG should ensure that this is covered.
 - Despite our interest in Web Services, SNMP will be the predominant imaging equipment management mechanism for the foreseeable future.
 - WIMS-CIM is concerned with Management, as distinguished from protocols or semantics for utilization of functions (e.g., job delivery).
 - We have done MIBs as an extension of the management element definitions for Web Services.

- Existing CIM structure includes several classes beyond Printer. One of these is Print Service.
- Current Print Service is minimal
 - PaperTypesAvailable : string[]
 - LanguagesSupported : uint16[] {enum}
 - MimeTypesSupported : string[]
 - Capabilities : uint16[] {enum}
 - CapabilityDescriptions : string[]
 - AvailableFilters : string[]
- It does not follow the PWG Semantic Model (which is largely evolved from IPP)

Print Services CIM Schema



- Original Printer CIM Schema included elements that more properly belong under Print Service. However update of Printer could not eliminate them until they were relocated in Print Service.
- Ira is aligning Printer Service elements with “mandatory” elements selected for IPP 2.0 by IPP2.0 WG (plus Media Names)
- Ira>>

Dell CIM Provider Prototype



- An SNMP to CIM Provider is being prototyped by Rick Landau. The primary purposes of this prototype are to:
 - Validate the updated Printer CIM Schema.
 - Provide one implementation of the CIM Schema to help advance the new elements from the experimental state.
- Rick >>

Prototyping Observations



- In reviewing the MIB Walks, some observations were made that affect the CIM provider implementation and probably affect other management applications.
 - Non-support of the extended input group (and to a lesser extent, the extended output group)
 - Enclosing string values in single or double quotation marks.
 - Few devices support the optional groups in Printer MIB.
 - It was also noted that some printers don't implement some basic SNMP variables such as sysName.
- Although some of these practices are not in violation of RFC3805, they do interfere with the usability of management applications. It was suggested that a Printing MIBs FAQ might be a good way to publicize these and other MIB pitfalls.

Wrapup



- Summary of Conclusions
- Schedule Estimates
- Action Items

Thanks for your participation!