

PWG WIMS-CIM WG Status

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Done with the Bulk of Editing



- CRs adopted: 36
- All changes will be in CIM Schema v2.19
- Current state updated in the wiki
<http://pwg-wiki.wikispaces.com/DMTF+CIM+Core+Schema+Change+Requests>

Look at Final Classes



- Major surgery on CIM_Printer
 - Properties removed
 - PaperSizesSupported, CurrentPaperType, CurrentLanguage, CurrentMimeType, Capabilities, CapabilityDescription, DefaultCapabilities, CurrentCapabilities, HorizontalResolution, VerticalResolution, MarkingTechnology
 - Properties added
 - CurrentOperator, ServicePerson, SerialNumber, CriticalAlerts, AllAlerts, ConsoleDisabled, ConsoleNaturalLanguage, ConsoleDisplayBufferText
 - Properties to be removed later
 - MaxCopies, DefaultCopies, MaxNumberUp, DefaultNumberUp, MaxSizeSupported
 - Descriptions improved
 - Printer (class), PrinterStatus, PrinterDetectedErrorState

Minor Repairs on other Classes



- PrintInputTray
- PrintOutputTray
- PrintFinisher
- PrintSupply
- PrinterElement
- PrinterComponent

Status of Printer Classes



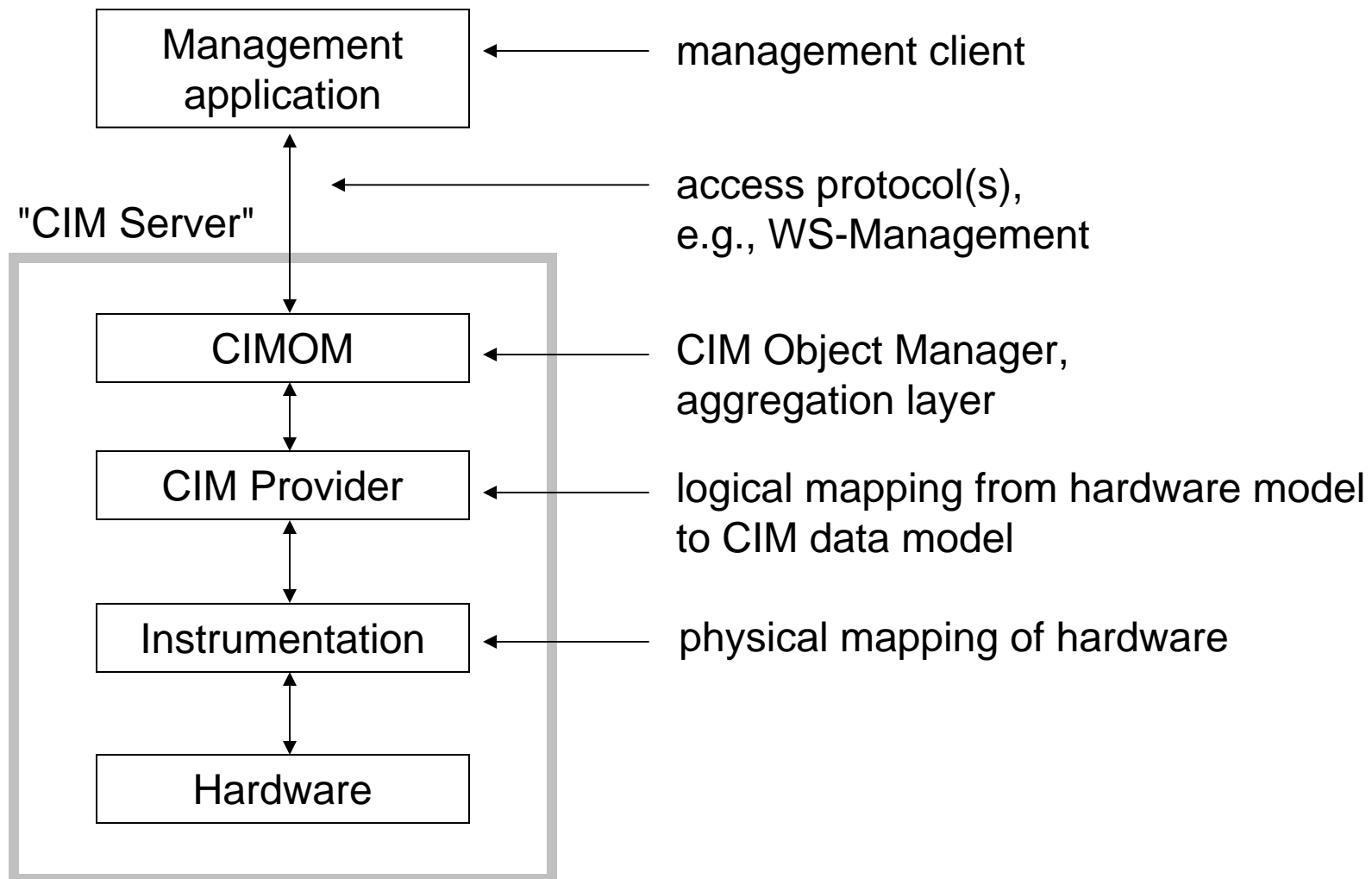
- All the new classes are Experimental
 - In the CIM Schema v2.nn Experimental branch
 - Experimental classes *may* change without notice in incompatible ways, though this is rare, so implementers beware
 - E.g., we just changed a few property names
- Want classes to go final as quickly as possible
- Need **TWO** claims of implementation to promote the classes to the v2.nn Final branch
- One prototype in the works soon
- **NEED ONE MORE IMPLEMENTATION**

Prototyping

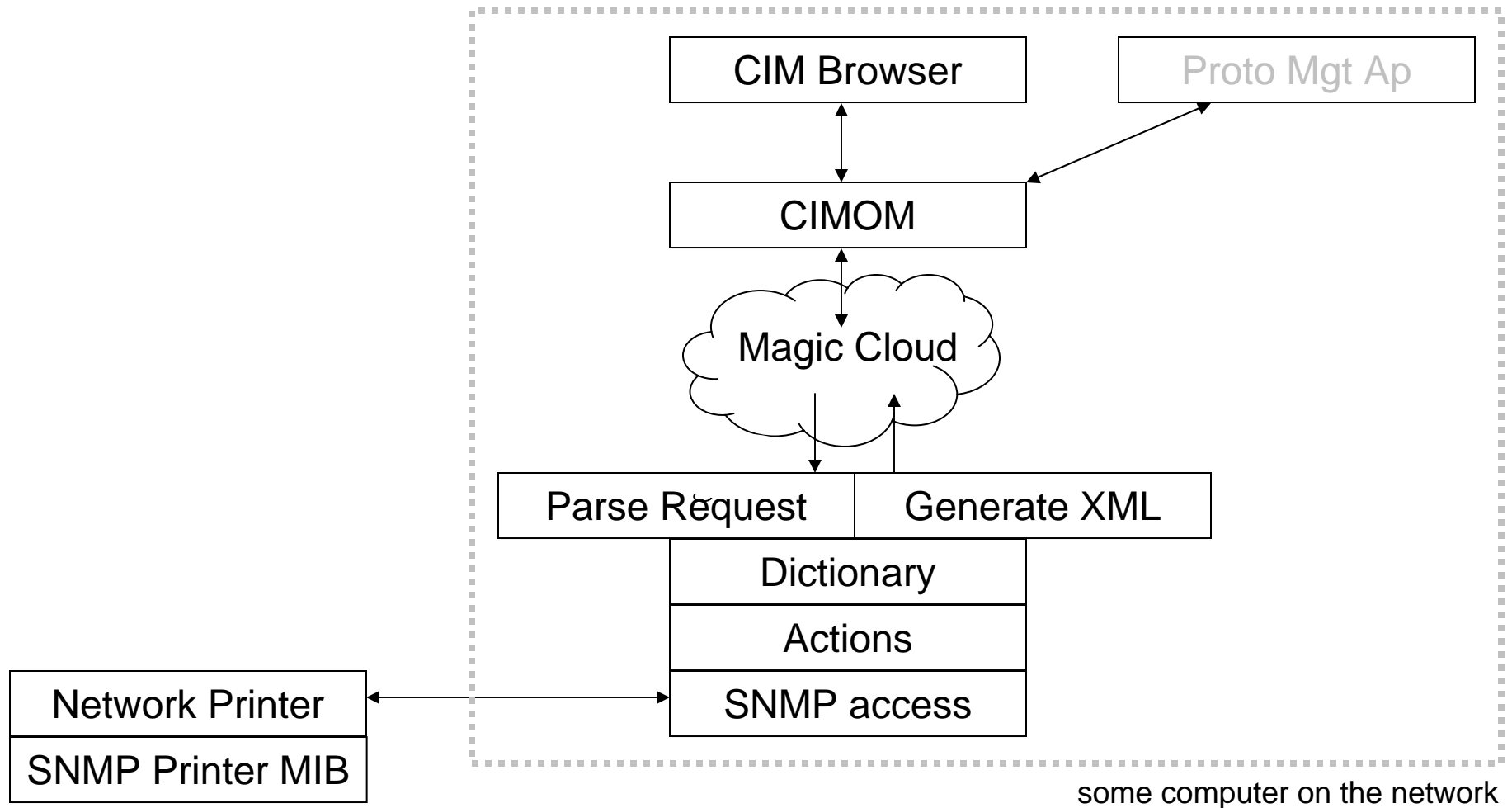


- Goal: Build a CIM Provider that populates CIM properties for a network printer
- Method: Proxy from SNMP to CIM
 - Should be able to find content for all properties if the network printer has a good PrinterMIB implementation
 - Plus MIB-2 and HostResources, of course
 - We think we transcribed the semantics correctly. This is the test.

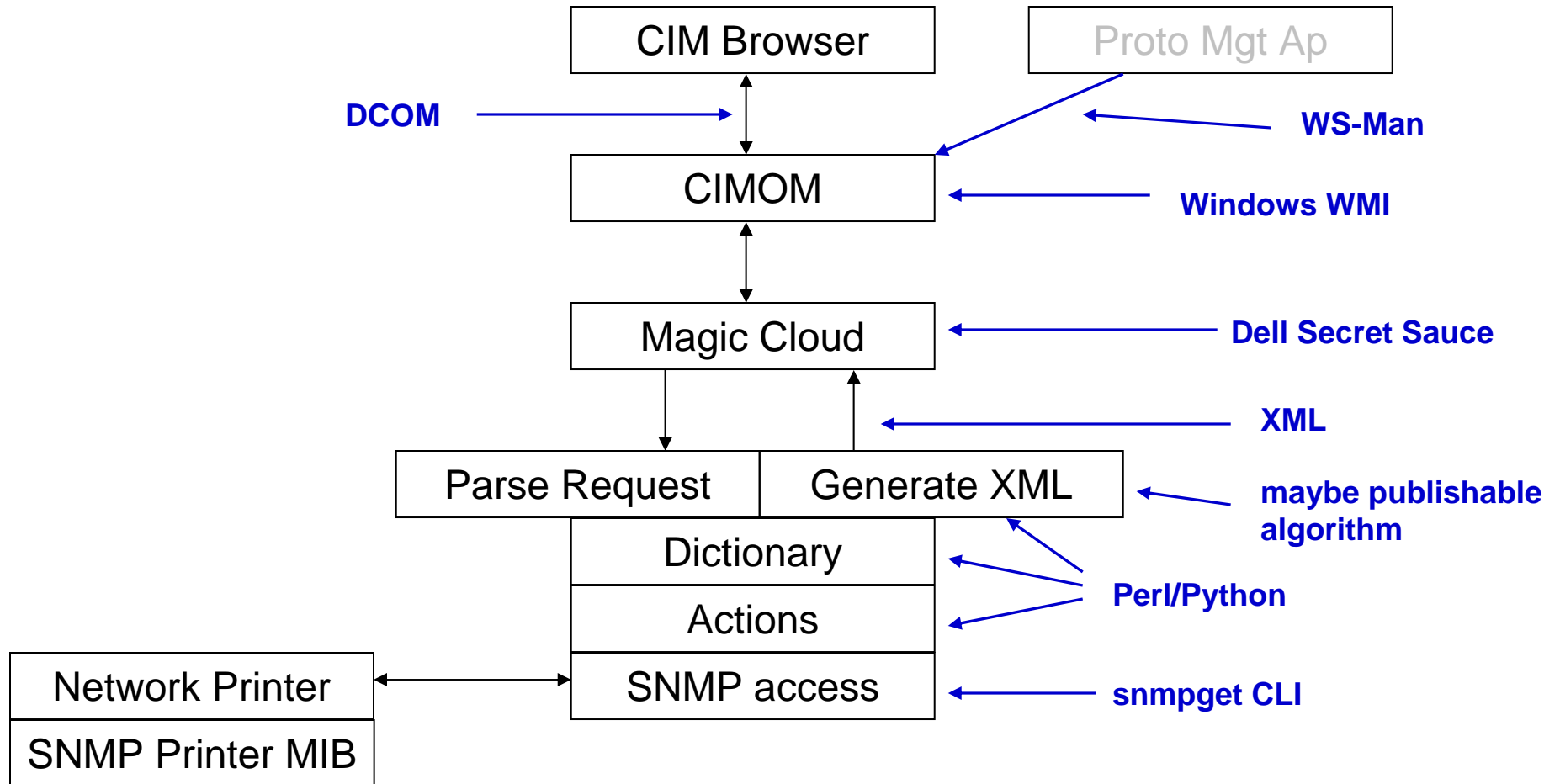
CIM Server Model



Structure of Proxy Provider - 1



Structure of Proxy Provider - 2



What Can be Made Public?



- Maybe translation algorithms from SNMP vars to CIM properties
- Maybe the XML format output from this translation
- Both guaranteed to be not pretty but possibly instructive

How to Test?



- CIM Browser application, free from MS
 - WMI Tools kit on MSDN
 - WMI CIM Studio
 - WMI Object Browser
 - Shows classes and instances in WMI
 - Examine root Printer instance, associations, and associated instances
 - May be able to script WMI CLI tools for ease of testing.

An Opportunity for Fame and Fortune!



- Someone want to write a WS-Man ap?
- Be the first kid on your block to manage a printer through a modern web service!
- Proof point requires only a simple application
 - Enumerate all instances of all the related classes and print the returned XML
 - Can't be more than a couple hundred lines of VB or Perl on top of WinRM CLI or .NET

Next CIM-Related Activities



- Add statistics class(es) for counters derived from the Counter MIB and abstract spec

Future



- Write a Network Printer Profile
 - Network printer is a network computer system that includes a Printer device
 - Structured as an instance of CIM_ComputerSystem plus a pile of associated devices and services
 - Specify what classes and properties are mandatory?
 - Specify what other profiles must or should be implemented?
- Later:
 - Define CIM device alerts for printers
 - Update the PrintService and PrintJob classes based on IPP and Semantic Model