

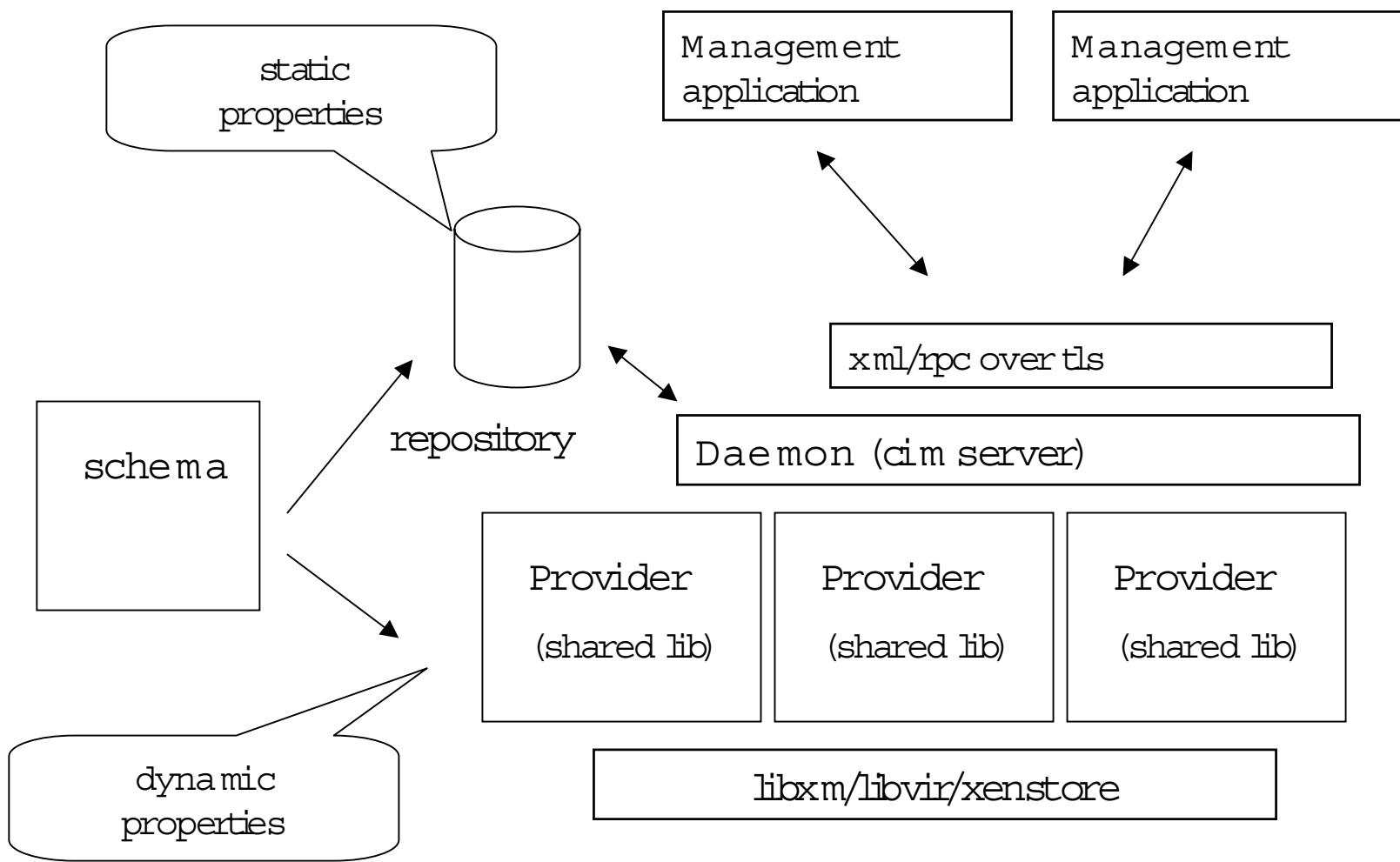
Xen Management Interfaces using DMTF CIM Technology

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CIM Technology Overview

- What is CIM Technology?
 - Schema Description Language
 - Object semantics
 - Inheritance of schema elements
 - Methods and Properties
 - Standardized Schemas
 - Normalized descriptions of computer systems, operating systems, applications, adaptors, devices, networks, etc.
 - Processing Model
 - CIM Server: a daemon that provides network access to schema instances
 - Provider: a shared library that instantiates schema instances
 - Network Protocol
 - XML-RPC/TLS



Pros/Cons of CIM Technology

- Excellent Abstraction Layer
 - Protect apps from changes in lower-level interfaces
- Good interoperability characteristics
 - Well supported protocol
- Extensible
 - Object semantics, inheritances
- Flexible licensing
 - Providers are shared libs
- Industry momentum
- Open-source CIM Servers
 - Pegasus
 - OpenWbem
- Complicated Models
 - Standard Schemas too cluttered
- Relations (connection classes) make for inefficient implementation
- Never the simplest option
 - Implementation
 - Model
- DMTF politics

Standard Virtualization Schema

- DMTF Workgroup is standardizing virtualization schema
 - Hypervisors
 - Partitions (domains)
 - Storage virtualization
 - Virtualization Control Points (dom0)
- Novell, VMWare, IBM, Unisys, many others
- Projected standardization eoy 2006



Xen CIM Development

- Novell
- IBM
- Unisys
- Xensource
- Others?

Proposal

- Move provider development into open
- Incorporate into Xen project
- Host on xenbits
- Contribute existing providers