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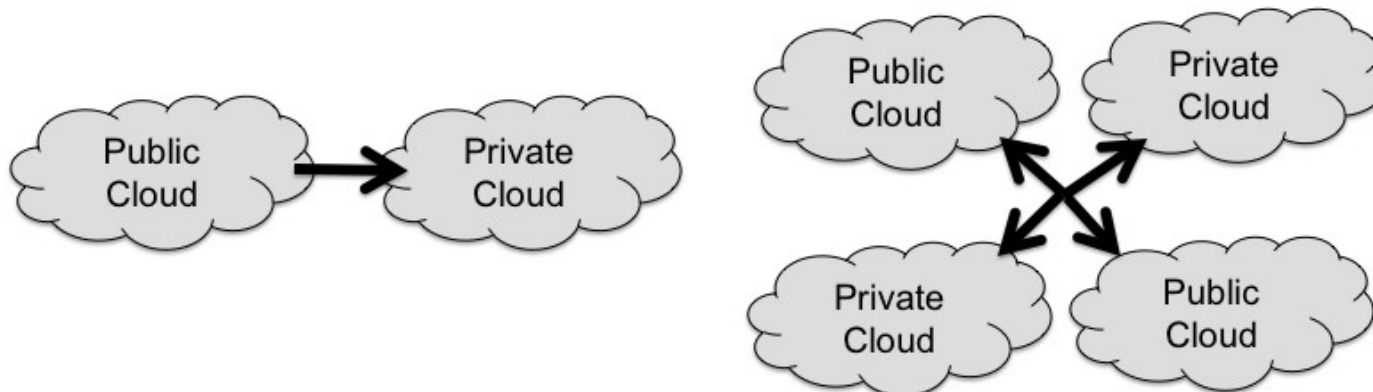
Using DMTF CIMI as a unified multi-cloud interface

The OW2 Sirocco project

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Motivation

- Accessing a single Cloud provider is not enough
 - Cloud bursting from a private to a public cloud
 - Placement (migration) of an application on multiple geographically-dispersed clouds
 - Availability : fail-over from one cloud to another
- Hiding IaaS provider heterogeneity
 - Different APIs
 - Different infrastructure models : compute, storage, network



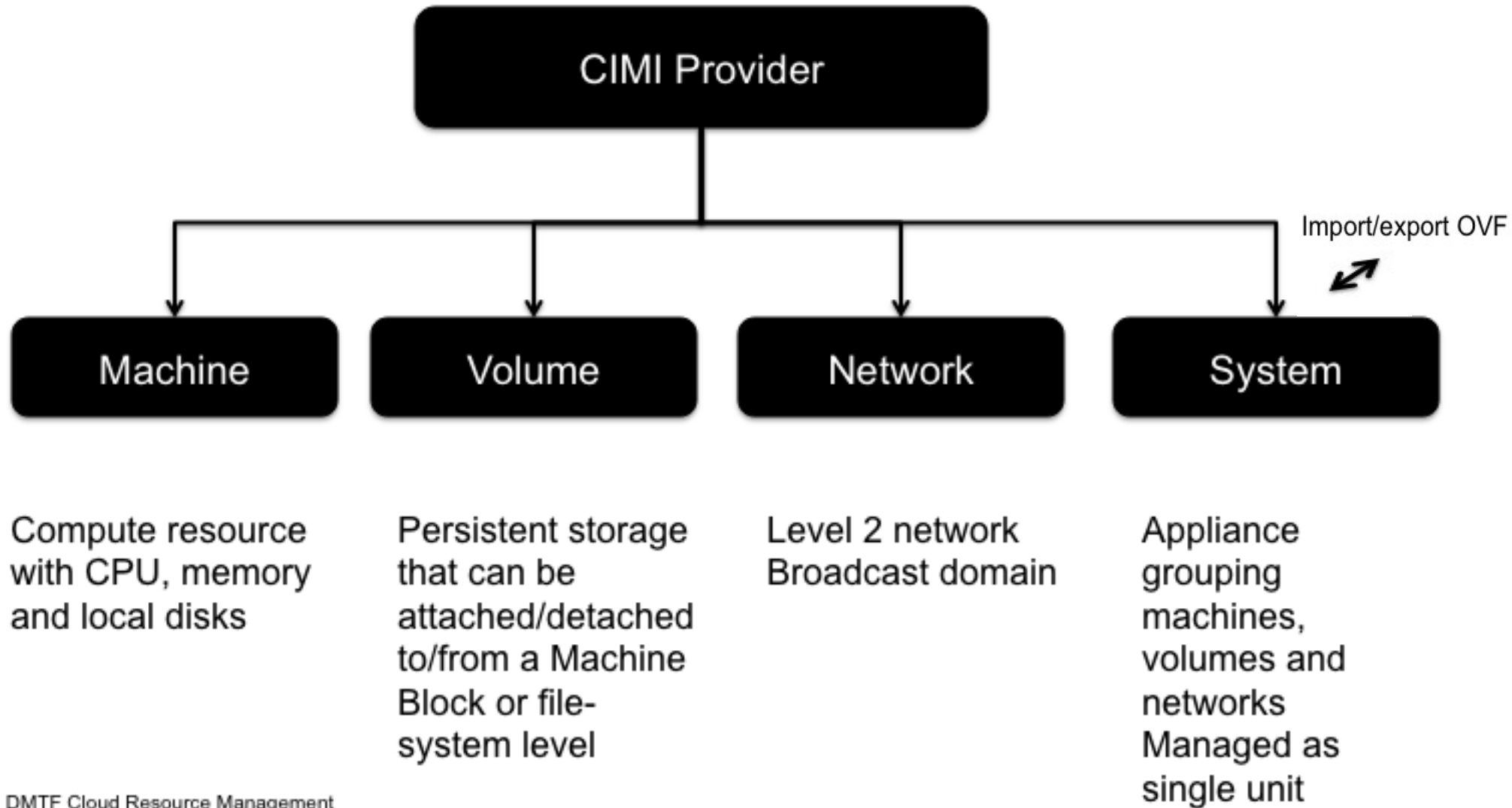
Requirements

- Single point of control
- Programmatic access and unified portal
- Vendor-neutral IaaS API
- Pivot model : rich infrastructure resource model
- Runtime discovery of IaaS provider(s) capabilities
- Policy/mechanism separation
 - match-making policies
 - workload placement policies

About the DMTF CIMI 1.0 (1/2)

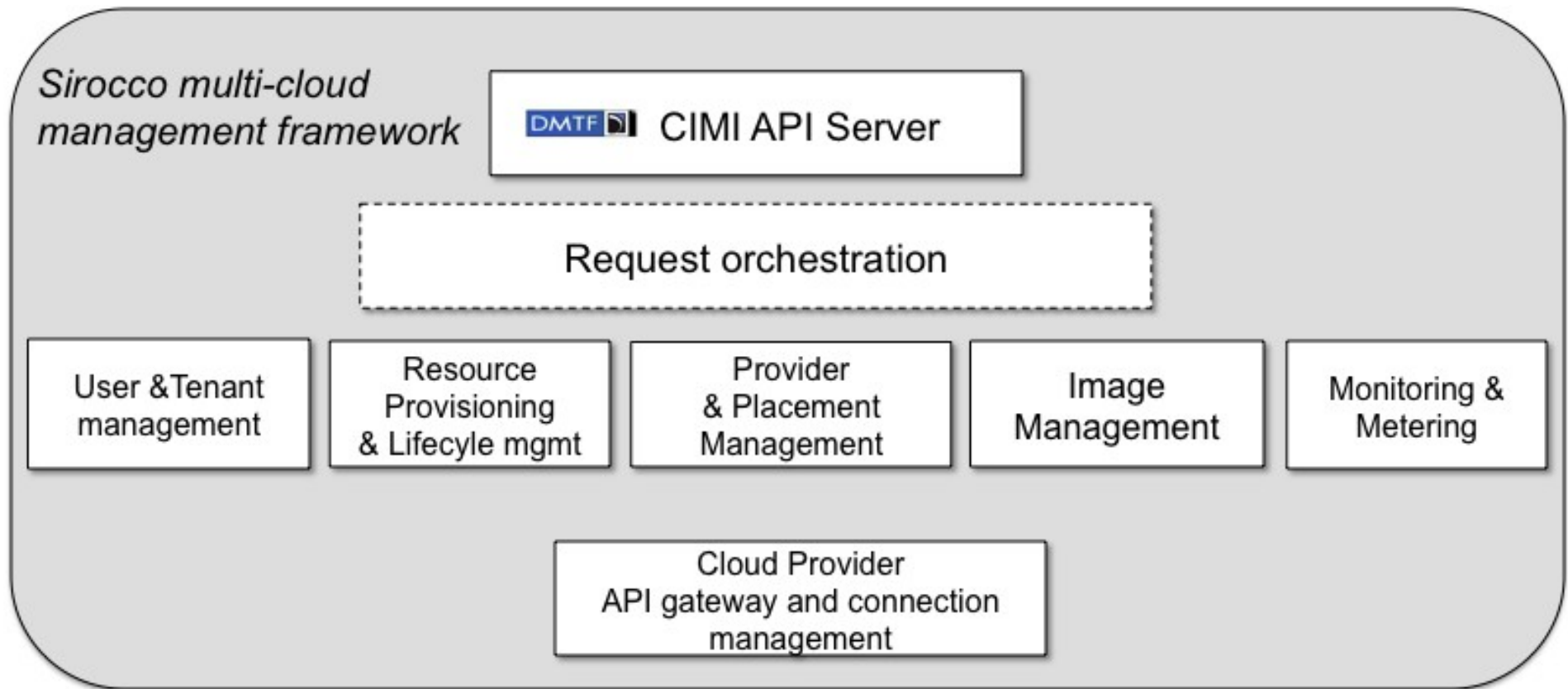
- Cloud Infrastructure Management Interface
- v1.0 published in August 2012 by the DMTF Cloud Management Working Group
 - IBM, CA, Cisco, Citrix, Fujitsu, HP, Huawei, IBM, Microsoft, Oracle, Red Hat, Telecom Italia, Telefonica, VMWare, **France Telecom**...
- Scope of CIMI specification
 - Focus on IaaS exclusively, not PaaS or SaaS
 - Provisioning of compute, storage and network resources
 - Support for monitoring and metering
 - Capabilities and extensions discovery through Resource metadata
 - REST/HTTP binding, XML and JSON serialization support

About the DMTF CIMI API (2/2)



DMTF Cloud Resource Management

Sirocco multi-cloud manager



public & private clouds



Roadmap

- Q4 2012 :
 - DMTF CIMI Toolkit
 - JavaEE Web module
 - Java client library
 - Alpha version of Sirocco multi-cloud manager
- S1 2013
 - Interoperability testing
- S2 2013
 - Beta version

Pointers

- Sirocco Project web site:
 - <http://sirocco.projects.ow2.org/xwiki/bin/view/Main/>
- OpenCloudware collaborative project
 - <http://www.opencloudware.org/bin/view/Main/WebHome>
- Related work
 - Apache DeltaCloud : <http://deltacloud.apache.org/>
 - CIMI API for OpenStack : <https://github.com/osaddon/cimi>
- DMTF Cloud Management Working Group
 - <http://dmtf.org/standards/cmwg>

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Questions ?

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