

A holistic Service Provisioning Solution for Federated Cloud Infrastructures

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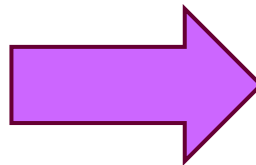
Highly dynamic service environments require a novel infrastructure to handle on demand deployment and decommission of service instances.

Cloud computing allows:

- ❖ Outsourcing the infrastructure to a external provider (IaaS)
- ❖ Constructing extensible service-based applications
- ❖ Utilizes the latest achievements of Grid Computing, Service-oriented computing, business-processes and virtualization



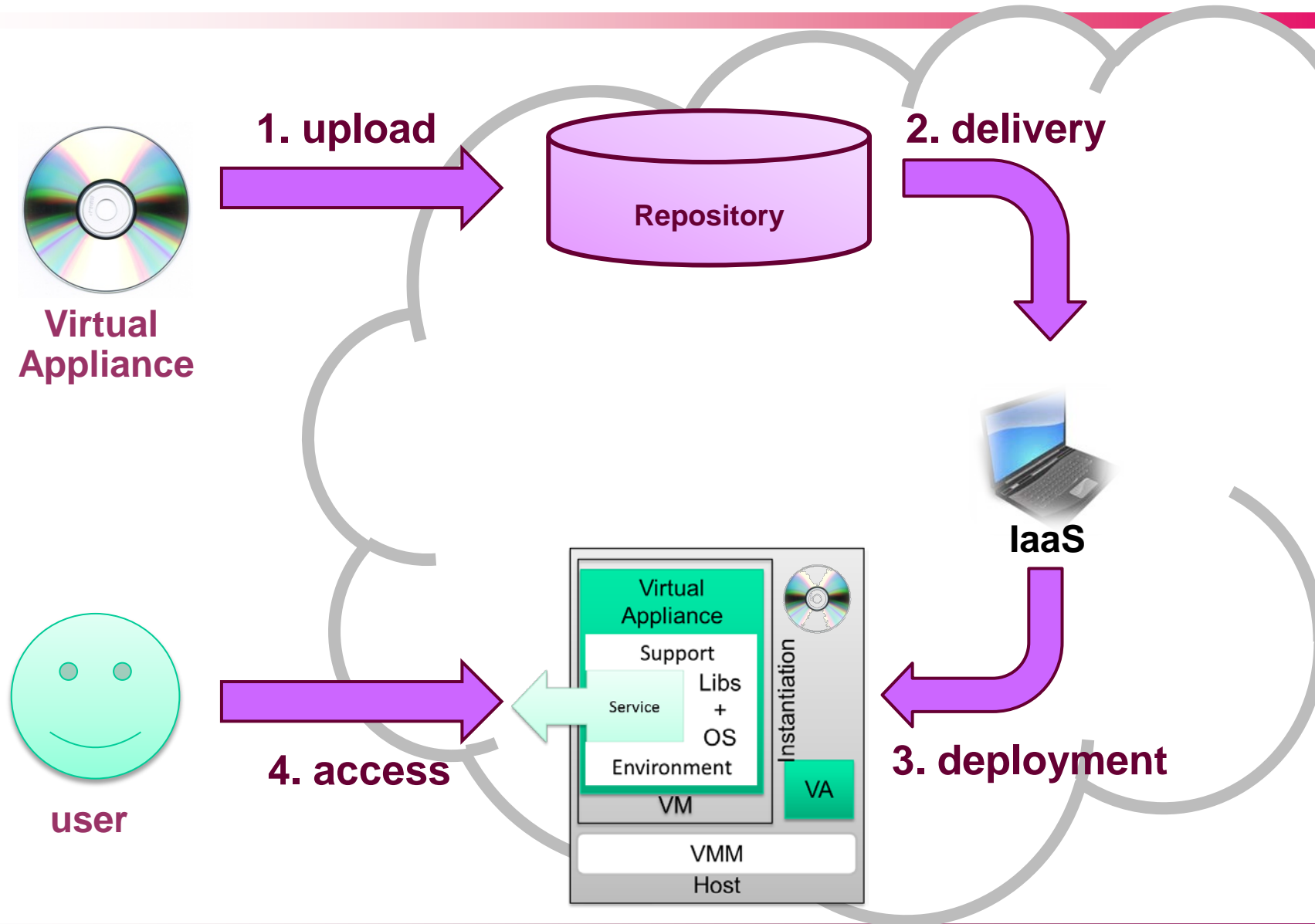
**Virtual
Appliance**



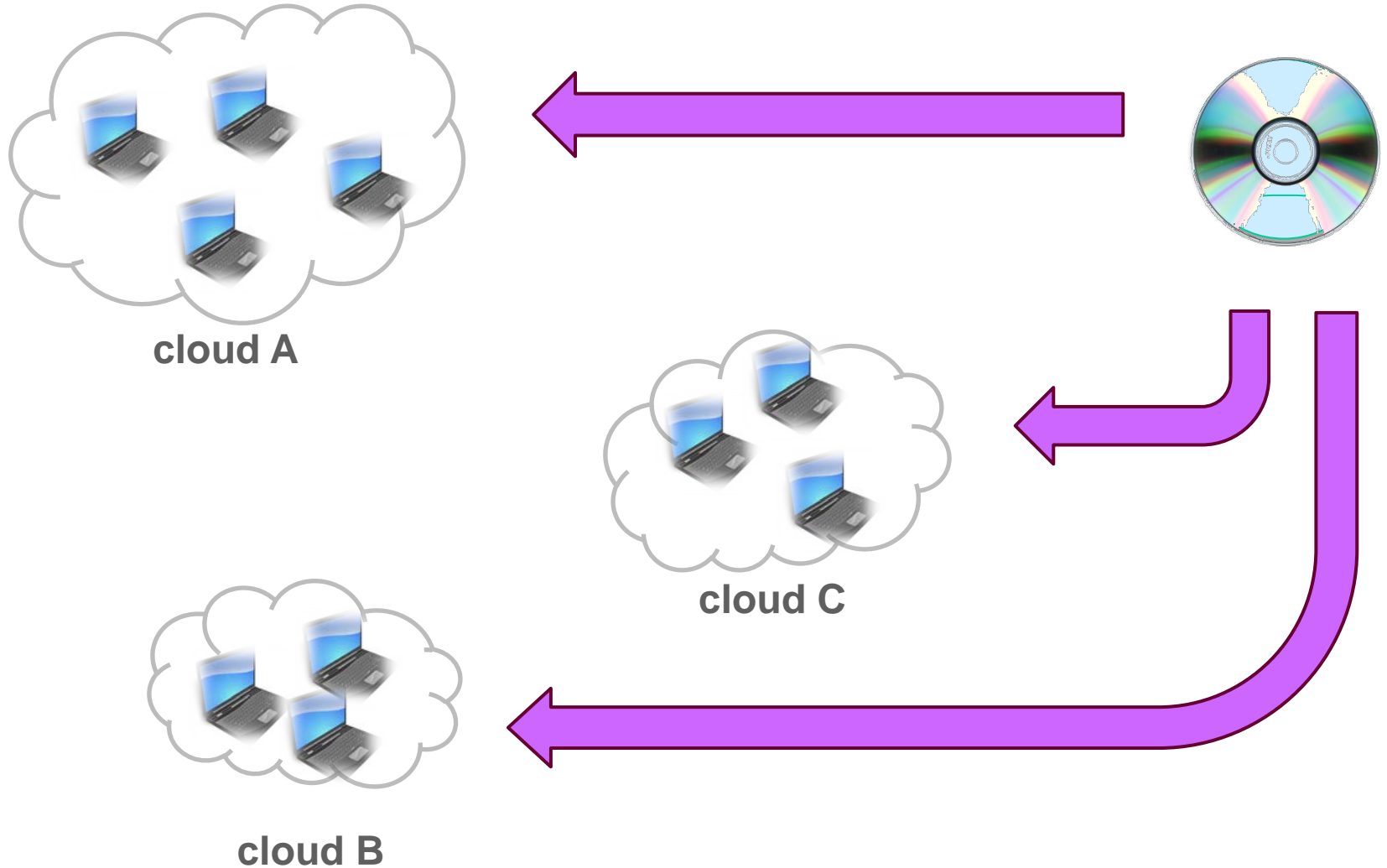
**Virtual
Machines**

IaaS

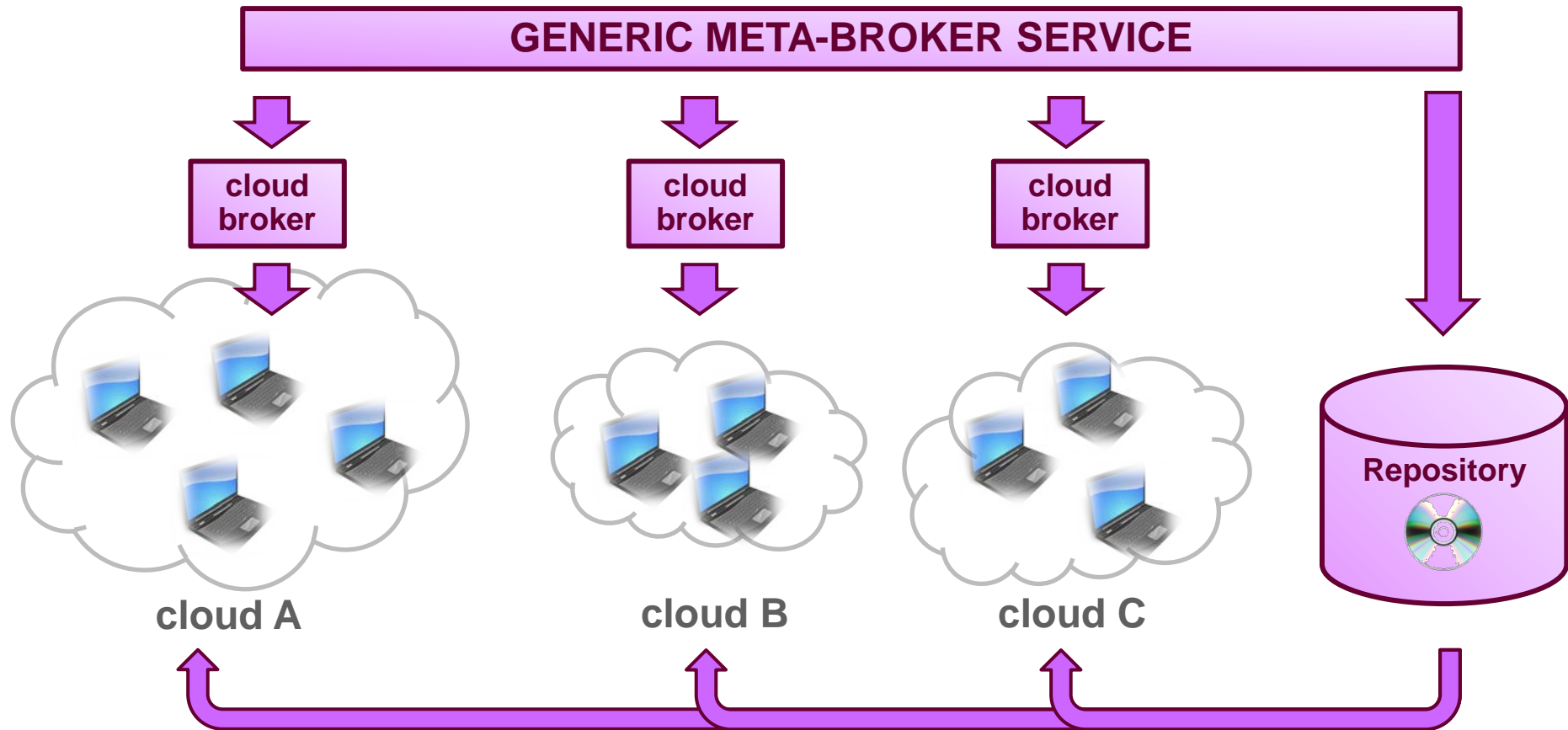
Introduction



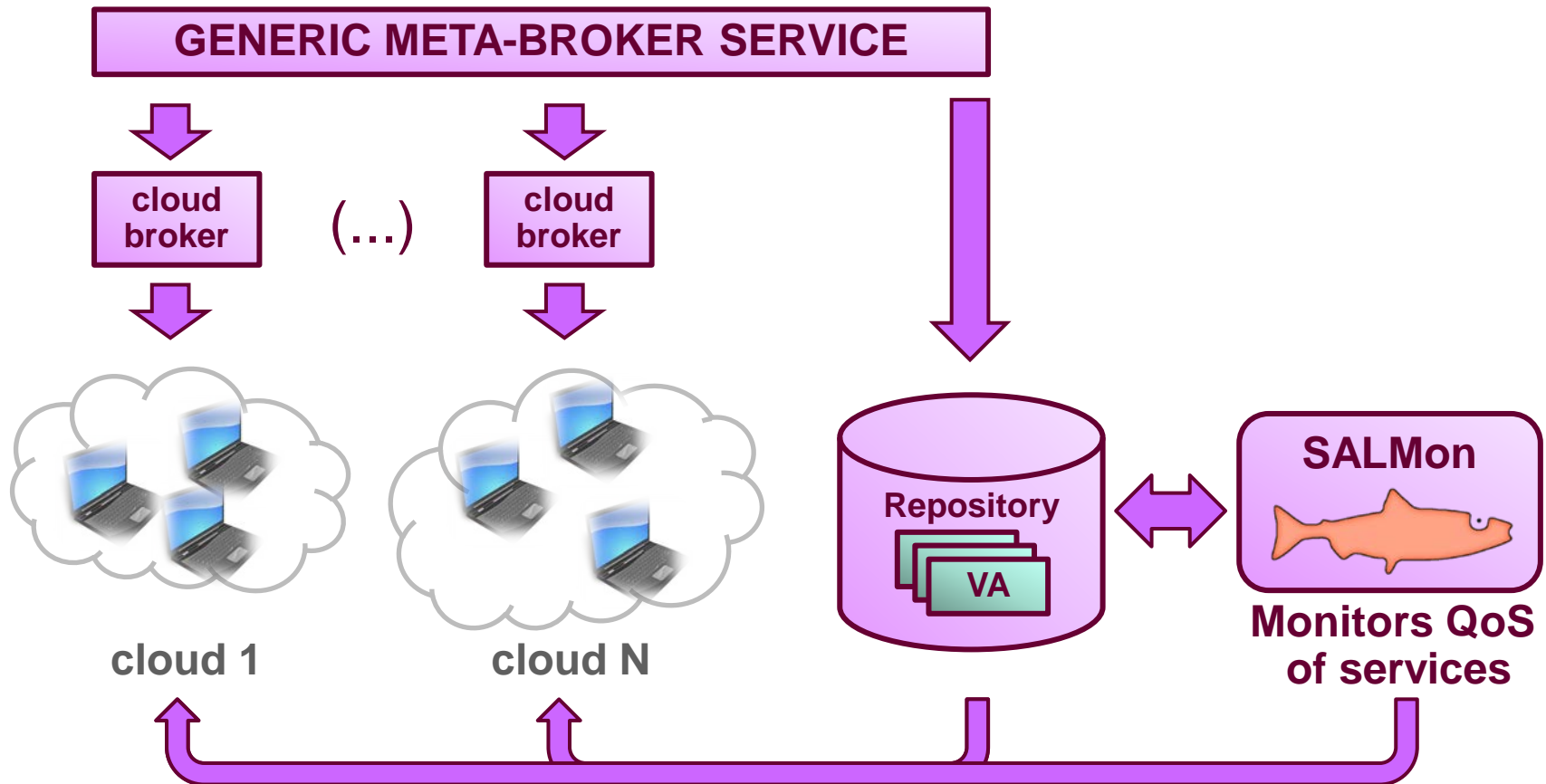
Introduction



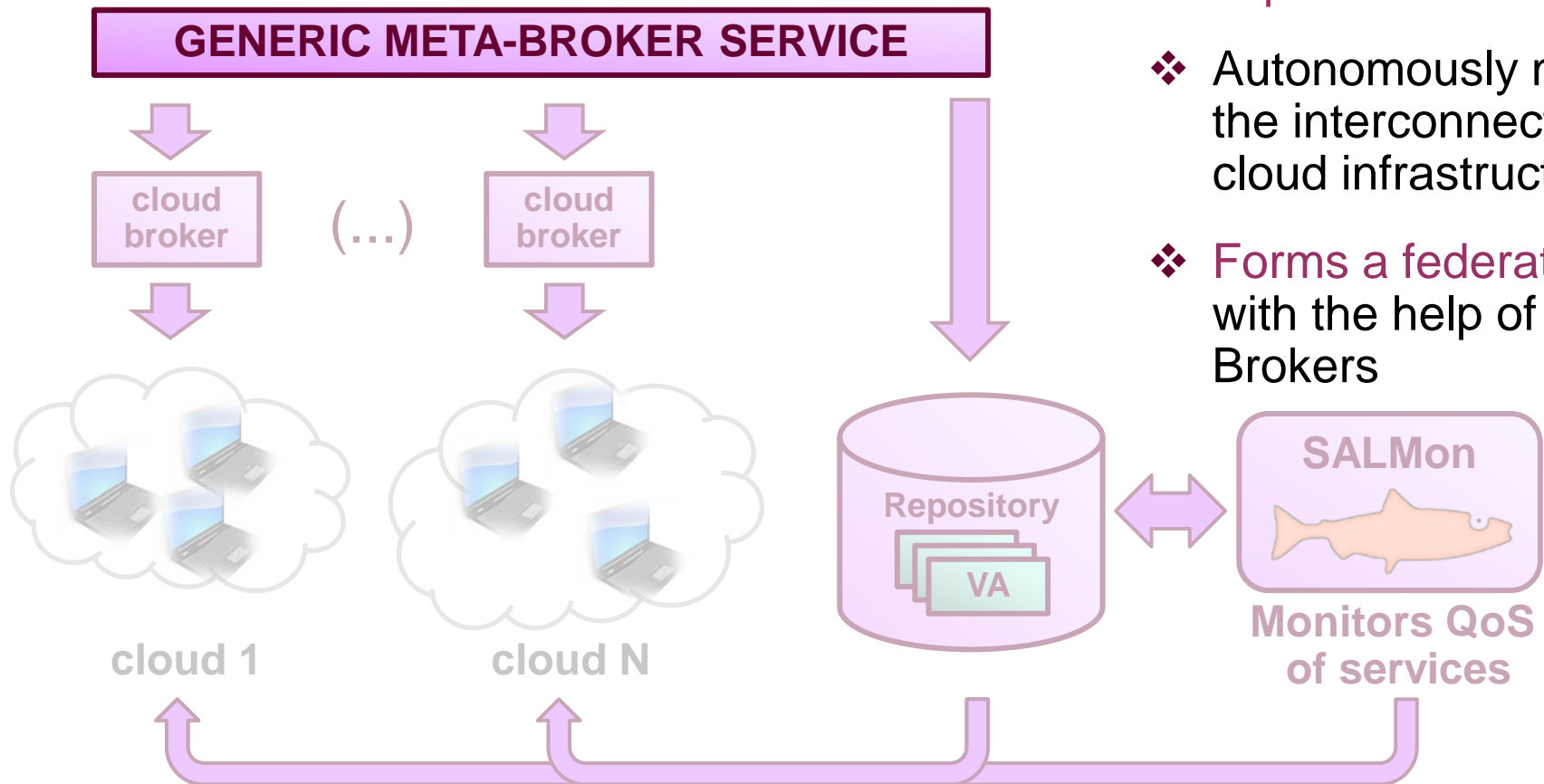
Federated Cloud Management (FCM)



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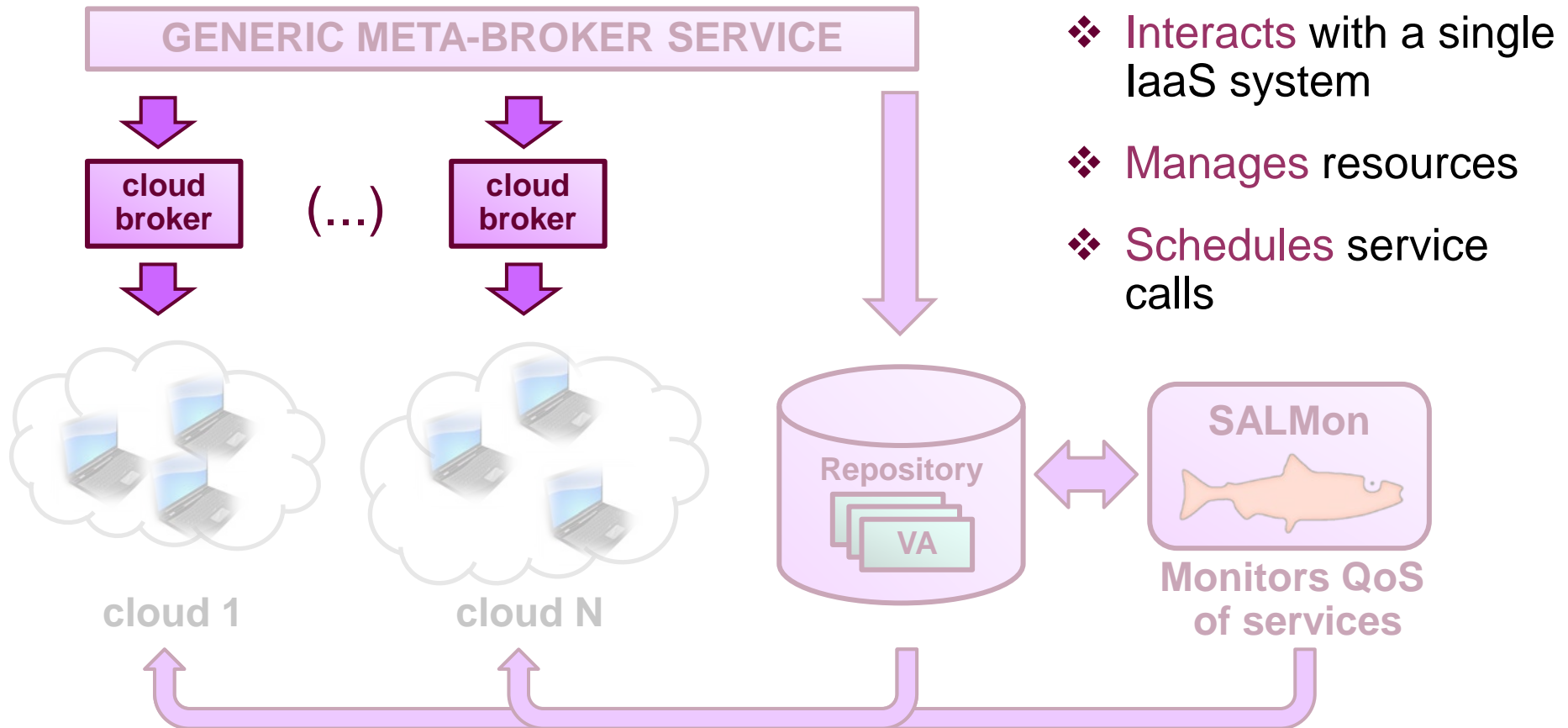


Federated Cloud Management (FCM)

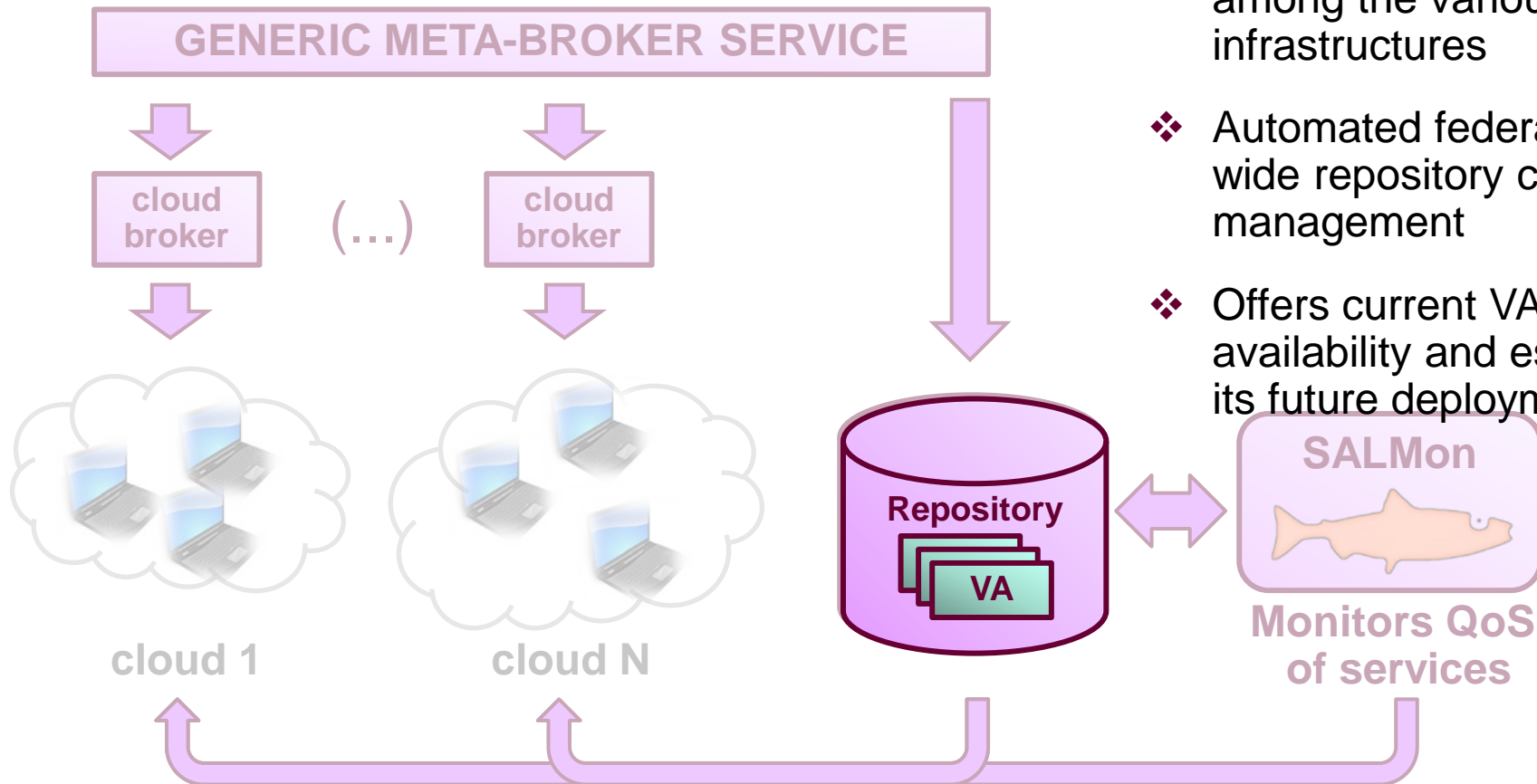


- ❖ Top-level brokering
- ❖ Autonomously manage the interconnected cloud infrastructures
- ❖ Forms a federation with the help of Cloud Brokers

Federated Cloud Management (FCM)

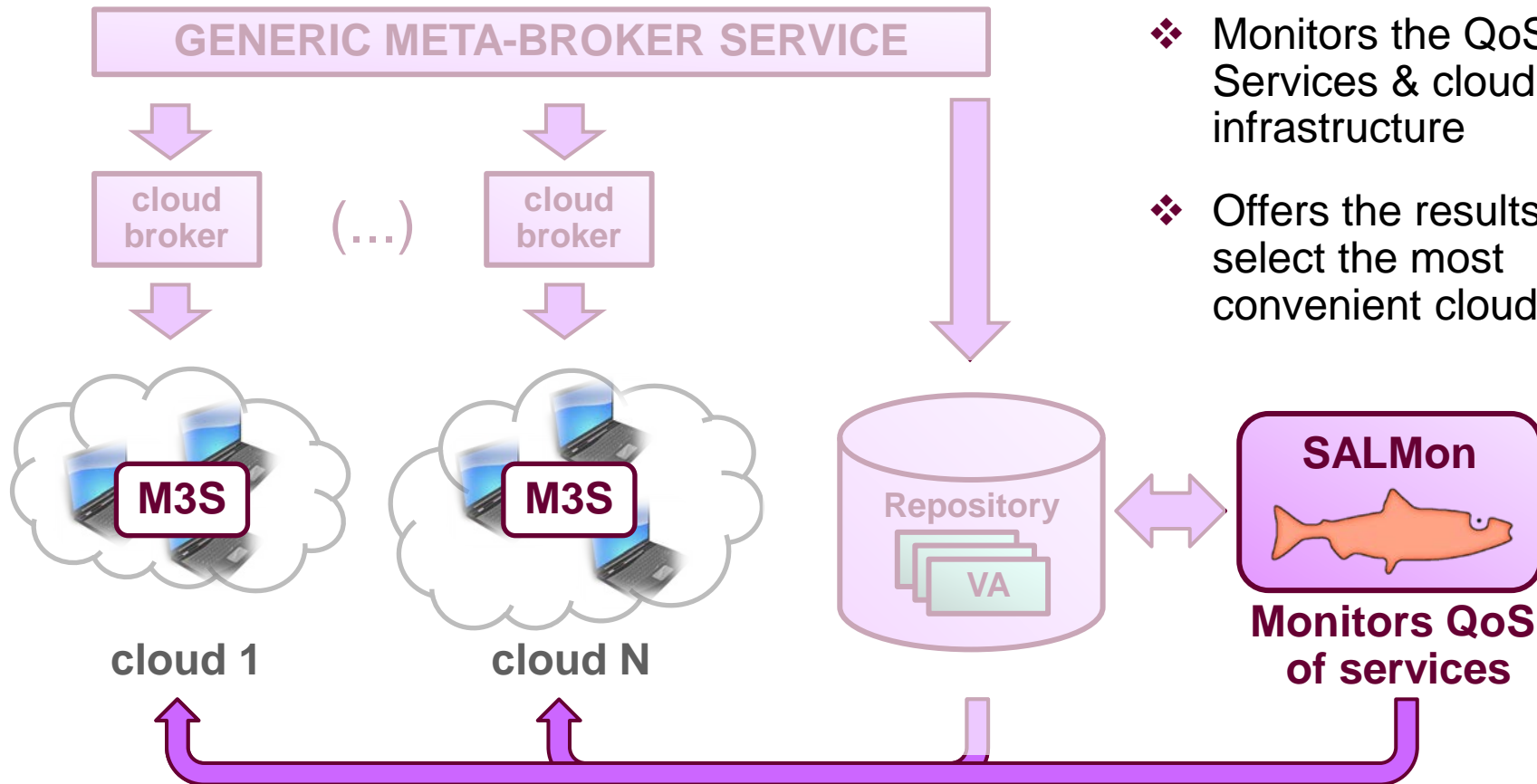


Federated Cloud Management (FCM)



- ❖ Manages VA distribution among the various cloud infrastructures
- ❖ Automated federation-wide repository content management
- ❖ Offers current VA availability and estimates its future deployment

Monitoring the cloud



SBA to monitor the QoS

- ❖ Monitors the QoS of Services & cloud infrastructure
- ❖ Offers the results to select the most convenient cloud

- Availability
- Computing capability (CPU)
- Data transfer capability (bandwidth)

- ❖ We have designed a **Federated Cloud Management** solution that acts as an **entry point** to cloud federations
 - Meta-brokering, cloud brokering and on-demand service deployment
- ❖ Transparent service execution for the users by allowing the system to interconnect the various cloud broker solutions managed.
- ❖ We have *extended* FCM with **enhanced monitoring** capabilities with SALMon

That's all!

**Thank you
for your attention!**



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