

OpenCache

Experimentation on a Grand Scale

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What is OpenCache?

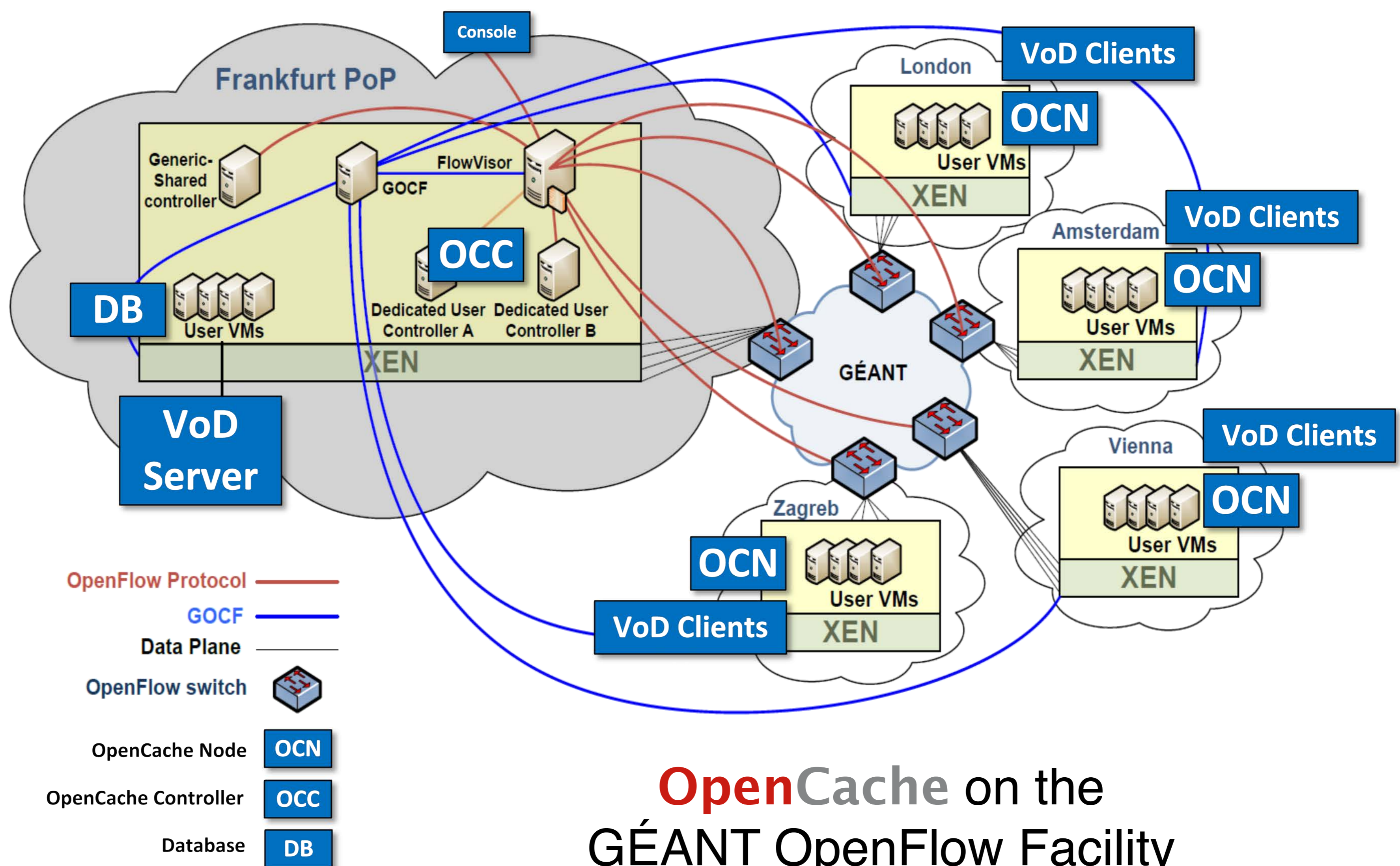
A distributed, transparent and modular cache that offers a white box approach to content caching using Software Defined Networking, coupled with an open interface for experimentation and administration.

Transparent

- Cache delivery undetectable to client
- No need for new client hardware or software
- Underlying delivery mechanism the same
- Works with existing caches and CDNs

Adaptive

- Uses realtime metrics from OpenFlow switching hardware
- Supplemented with live cache hit and miss metrics
- Guarantees informed decisions by operators



OpenCache on the GÉANT OpenFlow Facility

API

- Expose an interface for third parties
- Enables part or all of the cache to be provisioned at the behest of the cache owner
- New revenue stream for the network operator

Efficient

- Reduces the repeated delivery of identical content
- Requests can be satisfied locally
- Reduces inter-domain traffic and the associated monetary cost

Extensible

- Can be deployed and controlled across multiple physical and logical locations
- Simple integration of new instances
- Retains unified point of control