Intelligent QoS Grid for Virtualized Workloads

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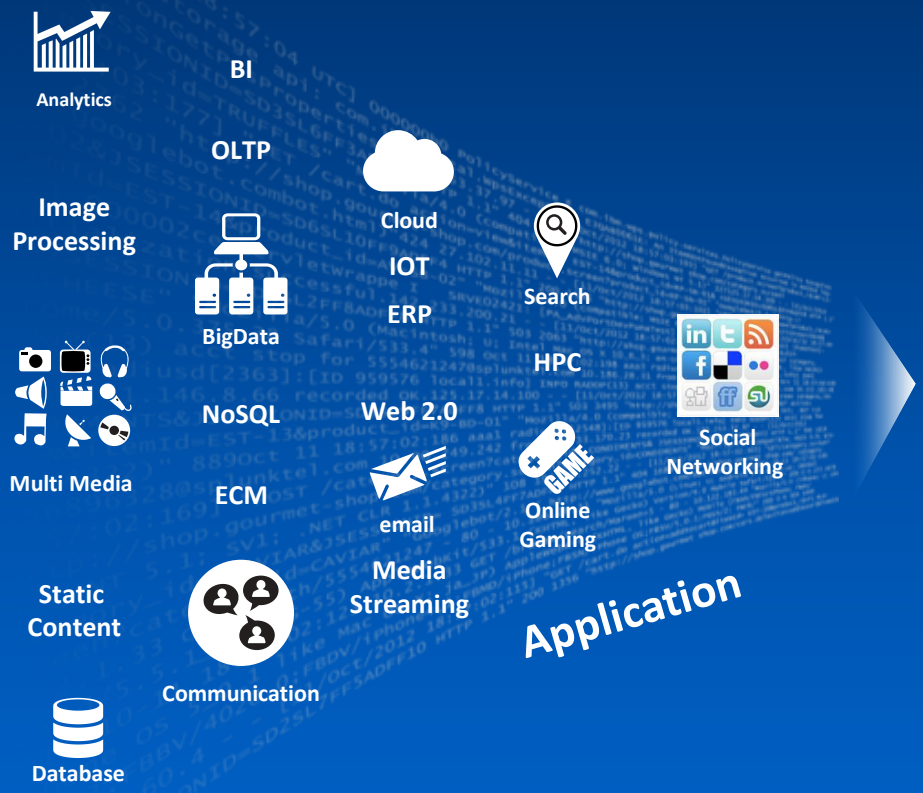
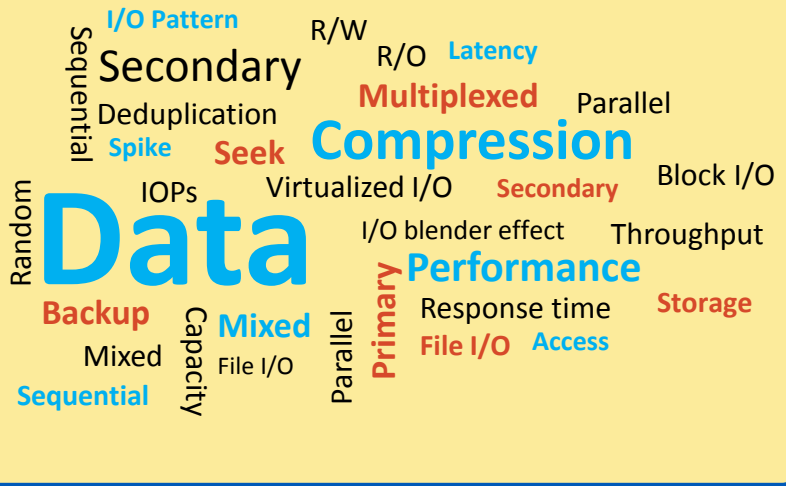
Characteristics of Data





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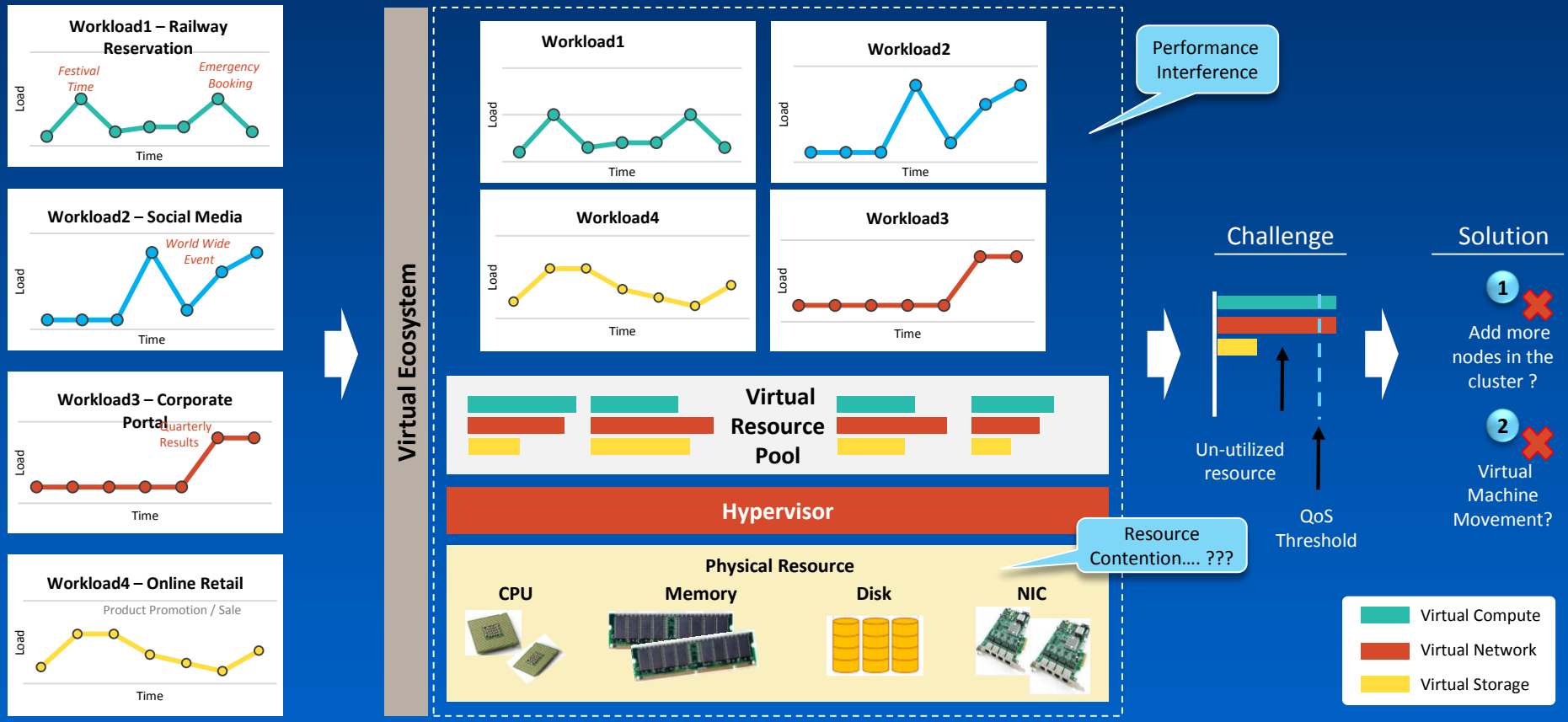
Application Lifecycle & Challenges in Virtual Environment



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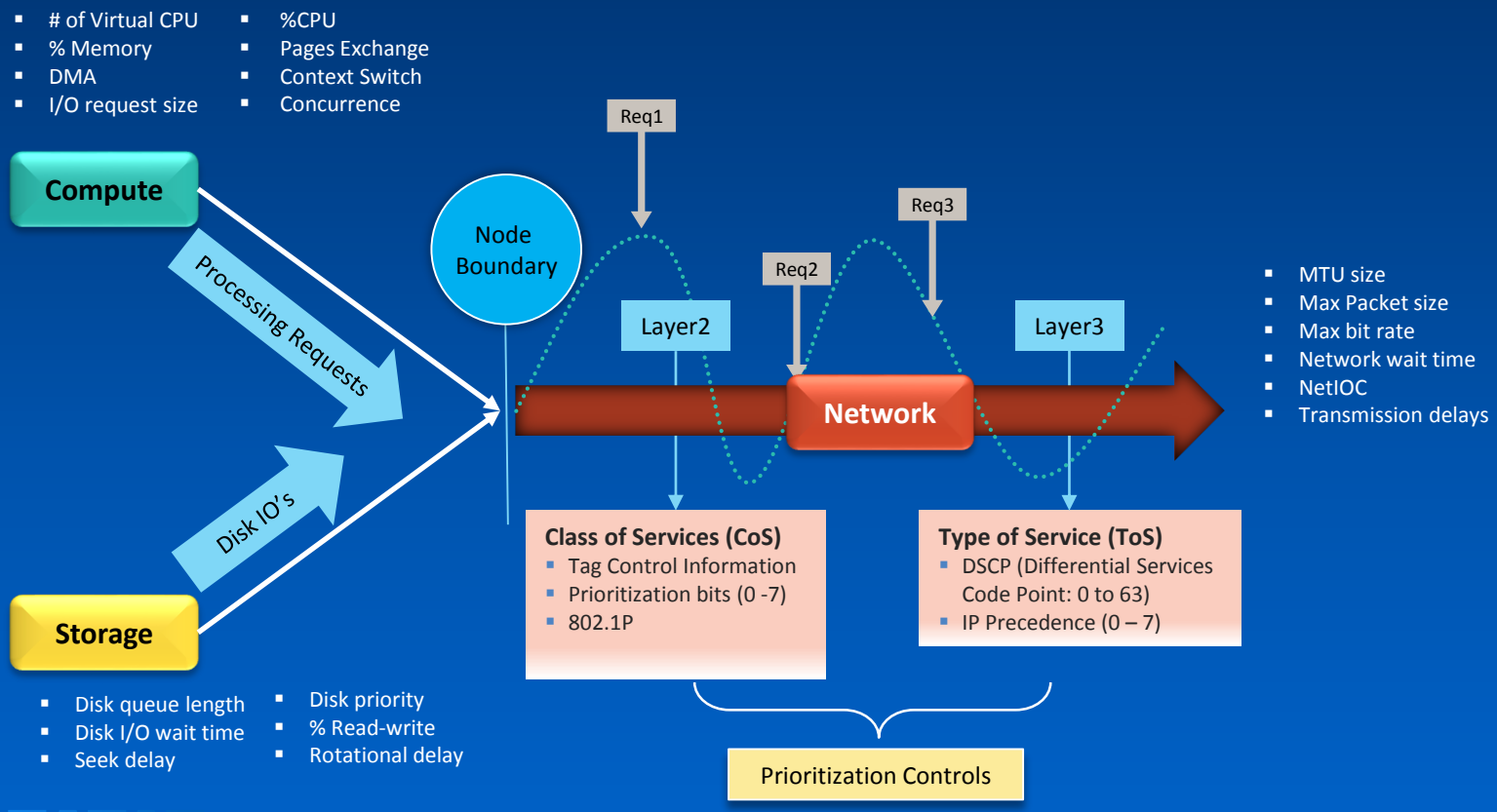
Elastic Controls - Key QoS



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QoS Grid – An overview

Federated

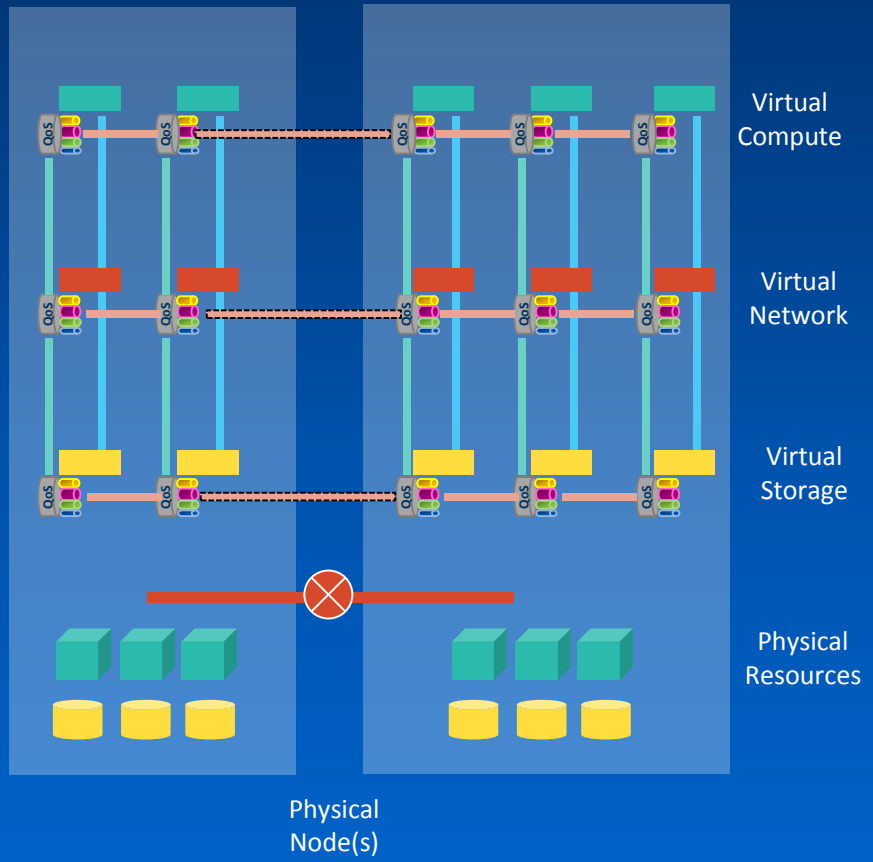
- Distributed architecture
- Allows grouping of virtual resources & QoSs
- Scales up to cluster limit

Intelligent

- Senses the change in workload behavior
- Dynamically leases virtual resources to others
- Implements bandwidth-as-a-service model

Analytic

- Takes into account the historical usage
- Prioritizes resource allocation



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QoS Grid - Building Blocks

Extender

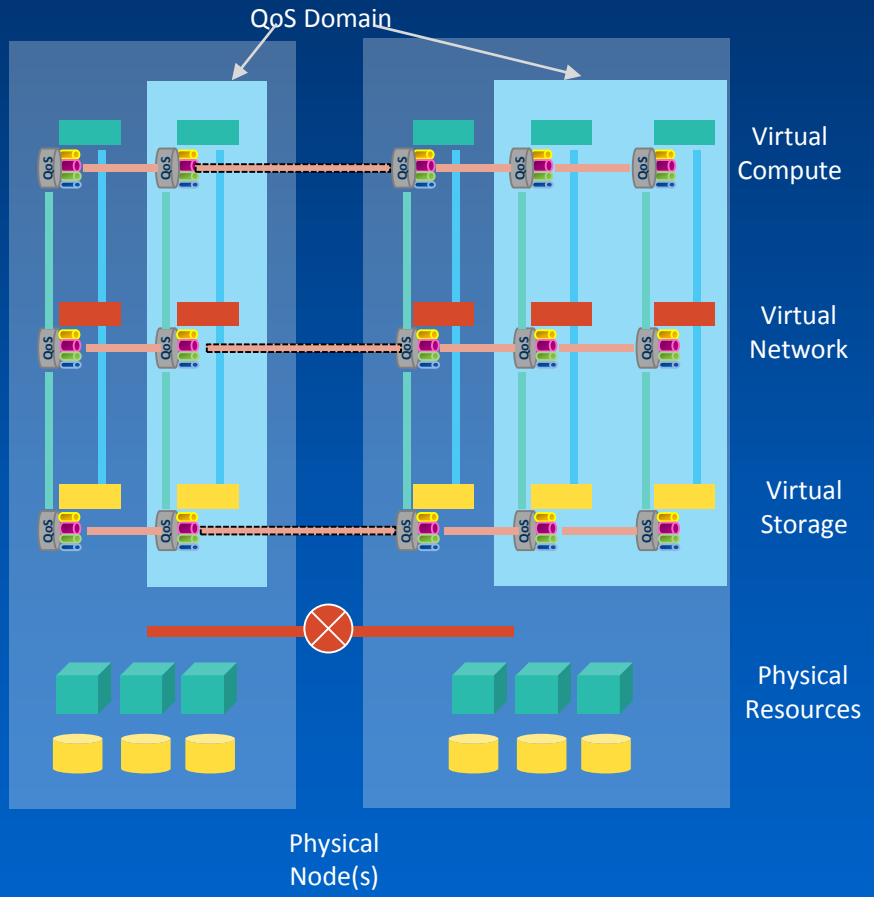
- Discover all virtual stacks in the cluster
- Allows forming domain for sharing virtual resources

Sensor

- Senses the change in workload behavior
- Dynamically releases virtual bandwidth to others in the domain

Regulator

- Throttles resource bandwidth across nodes based on change in requirement



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QoS Grid Operations

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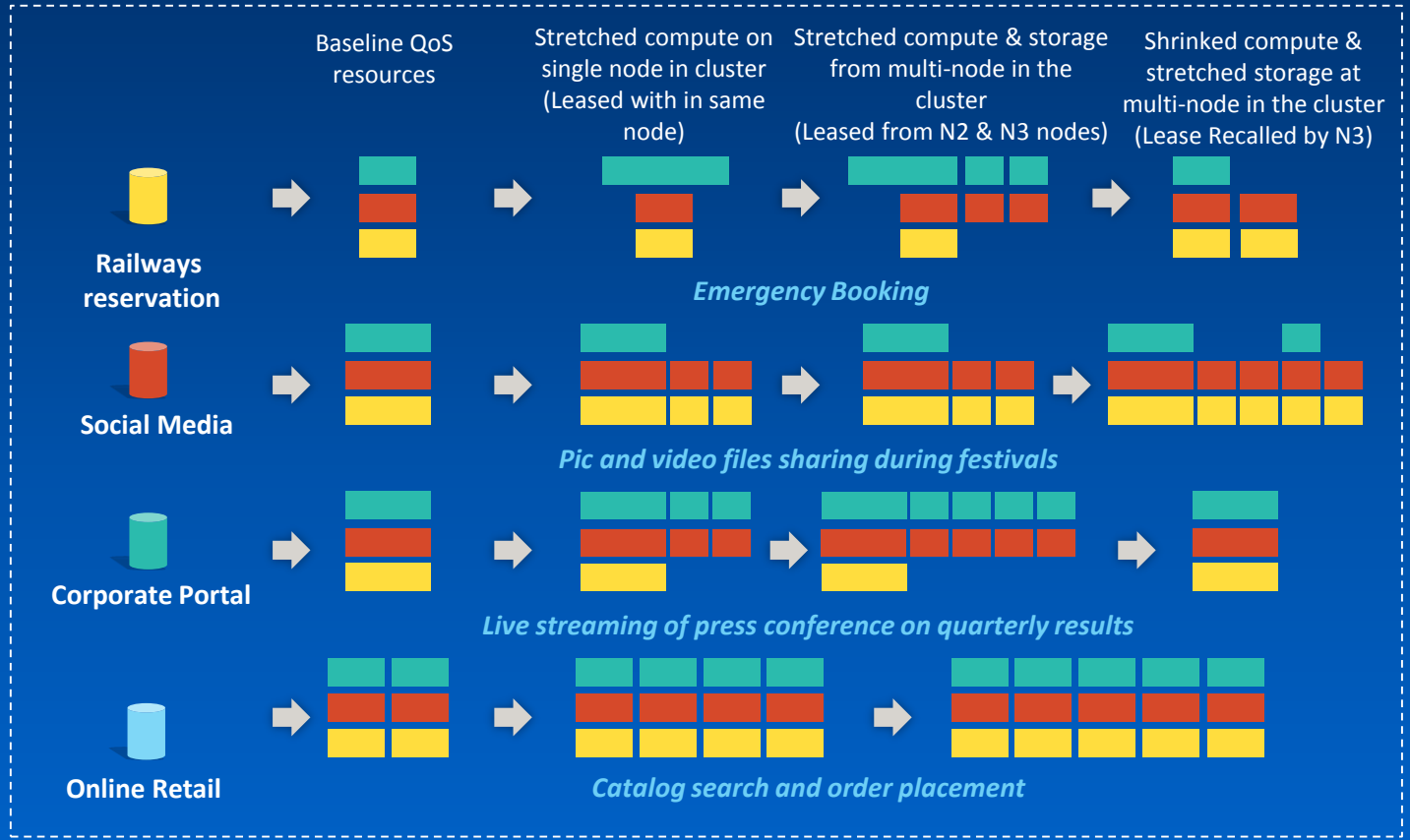
Co-existence of workloads through QoS Grid effect (Indicative)



Domain1
N1-2VMs, N2-1VM, N3-1VM

Domain2
N1-N5: 1VM each

Domain3
N1-N5: 1VM each

Virtual Compute
Virtual Network
Virtual Storage

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Q&A

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