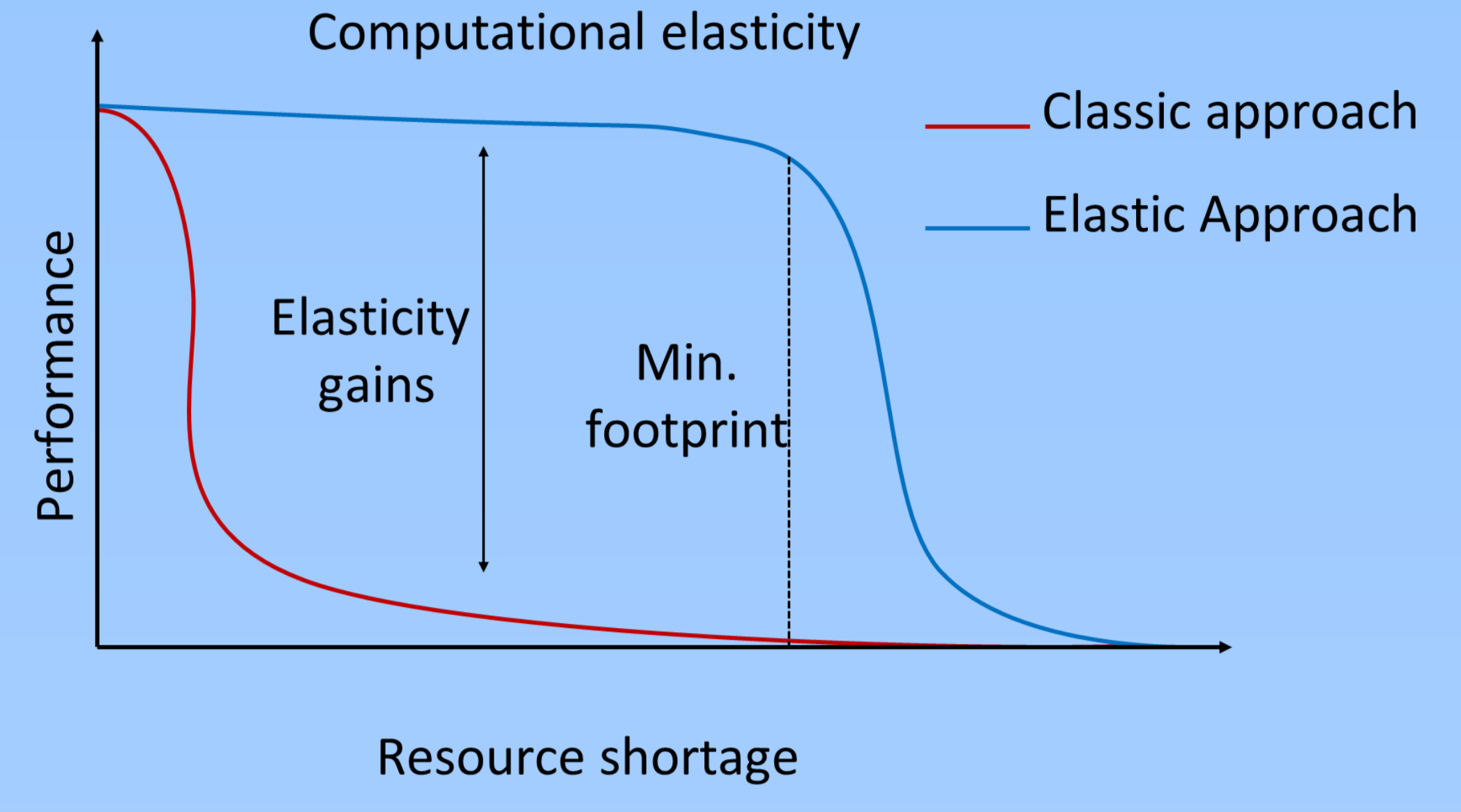


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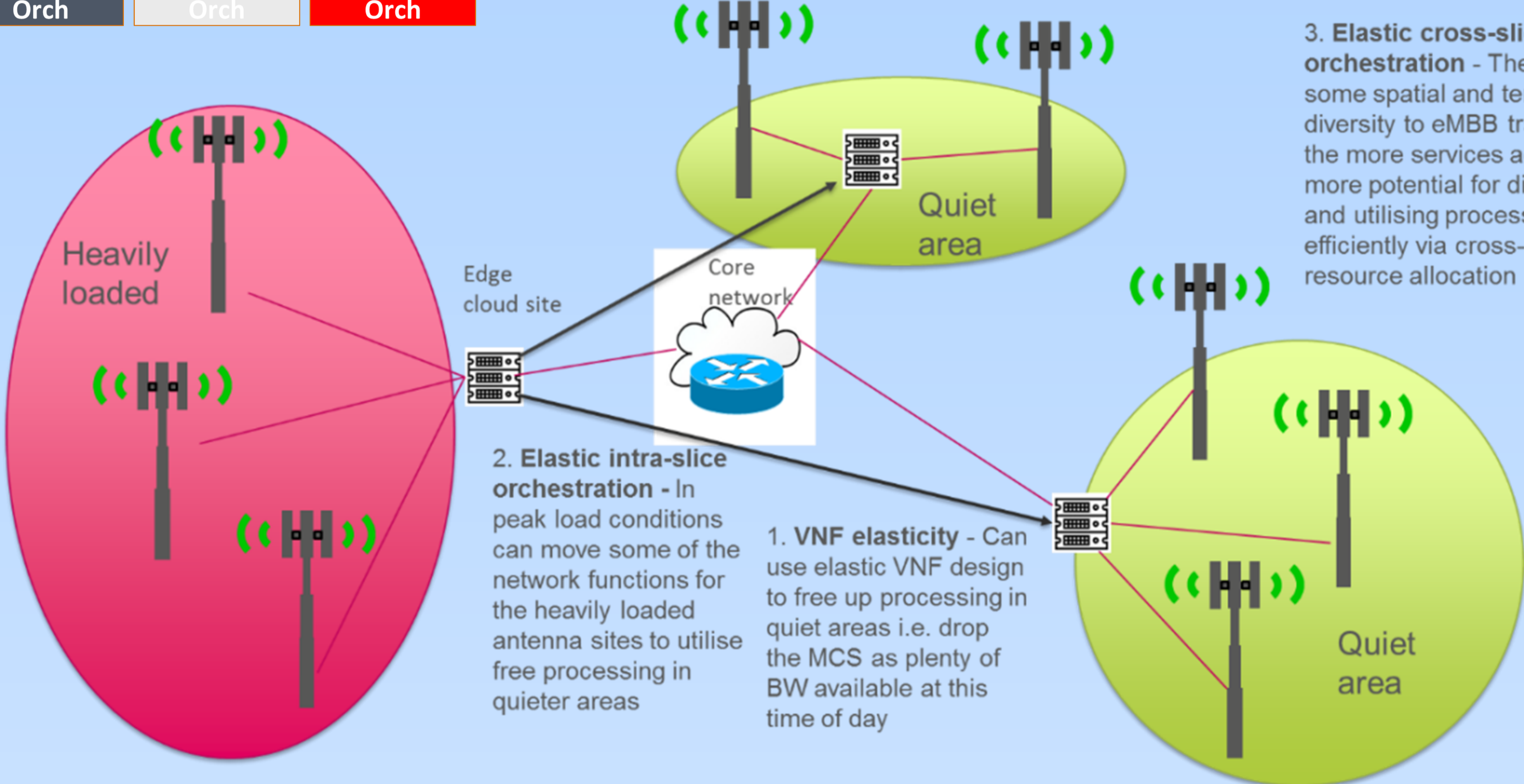
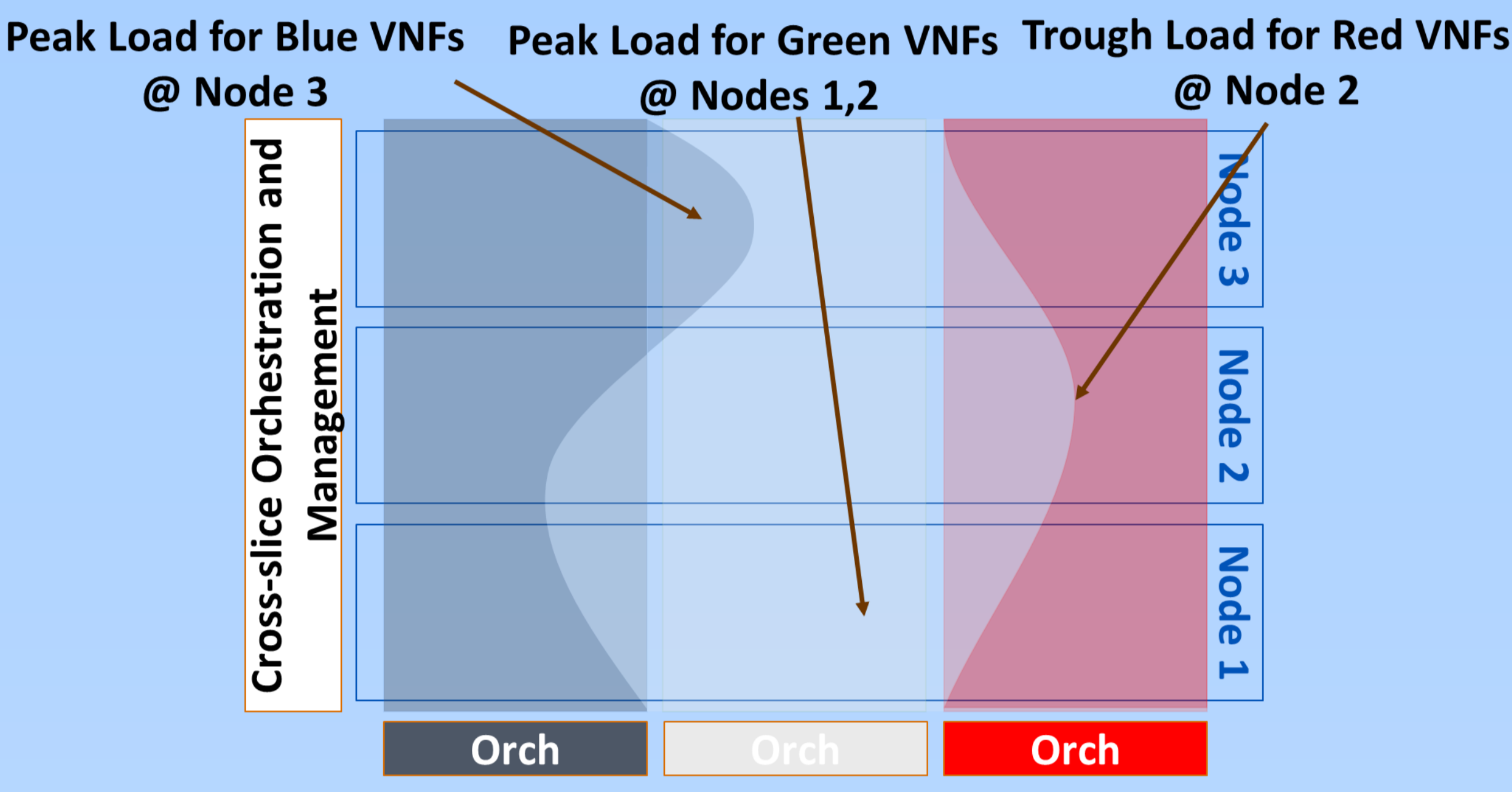
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Resource Elasticity for 5G Networks

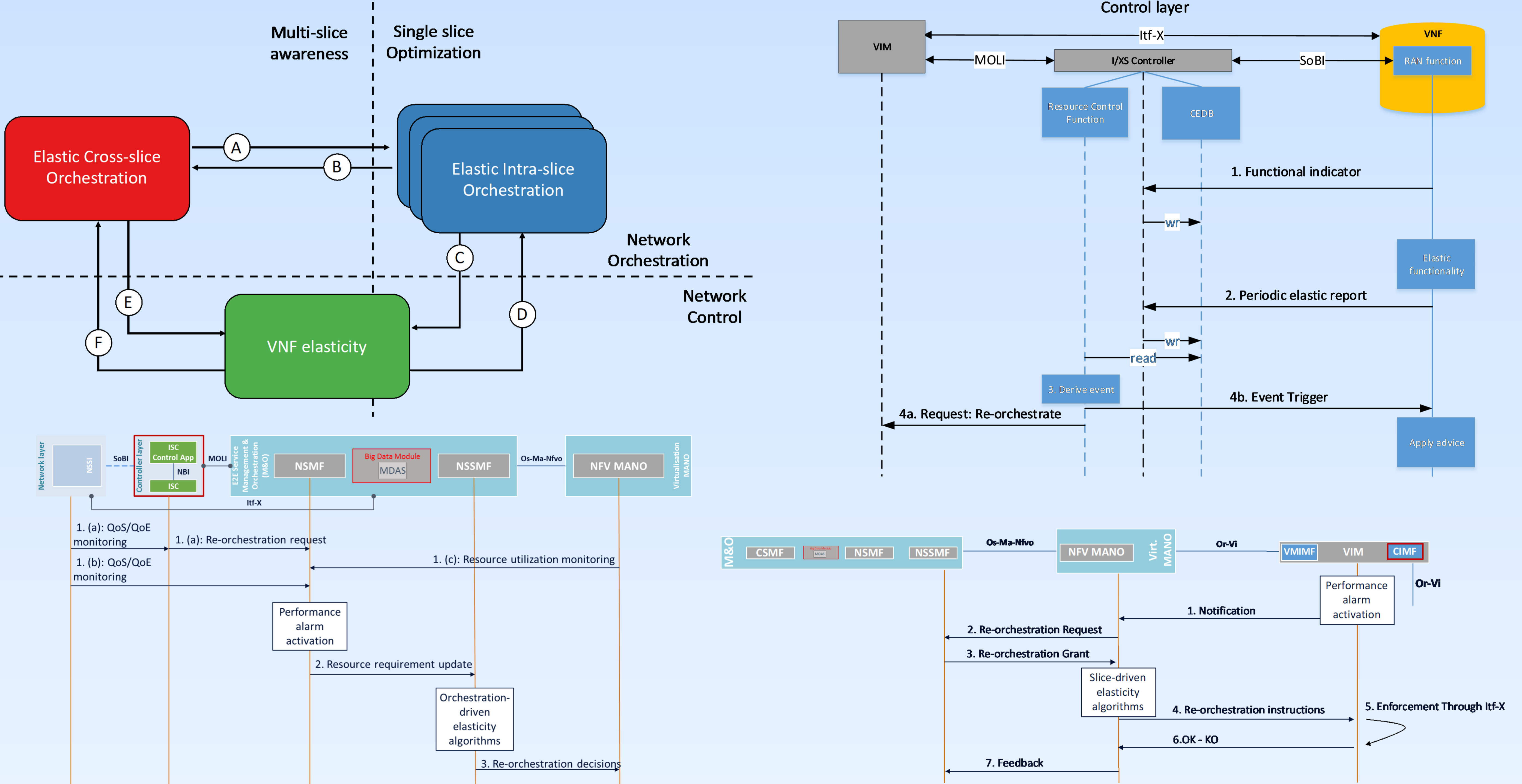
Dimensions of Elasticity		
Innovation areas	Challenges	Potential solutions
Computational elasticity	Graceful scaling of computational resources based on load	Elastic NF design and scaling mechanisms
Orchestration-driven elasticity	NF interdependencies	Elastic cloud-aware protocol stack
Slice-aware elasticity	End-to-end (E2E) cross-slice optimisation	Elastic resource provisioning mechanisms exploiting multiplexing across slices



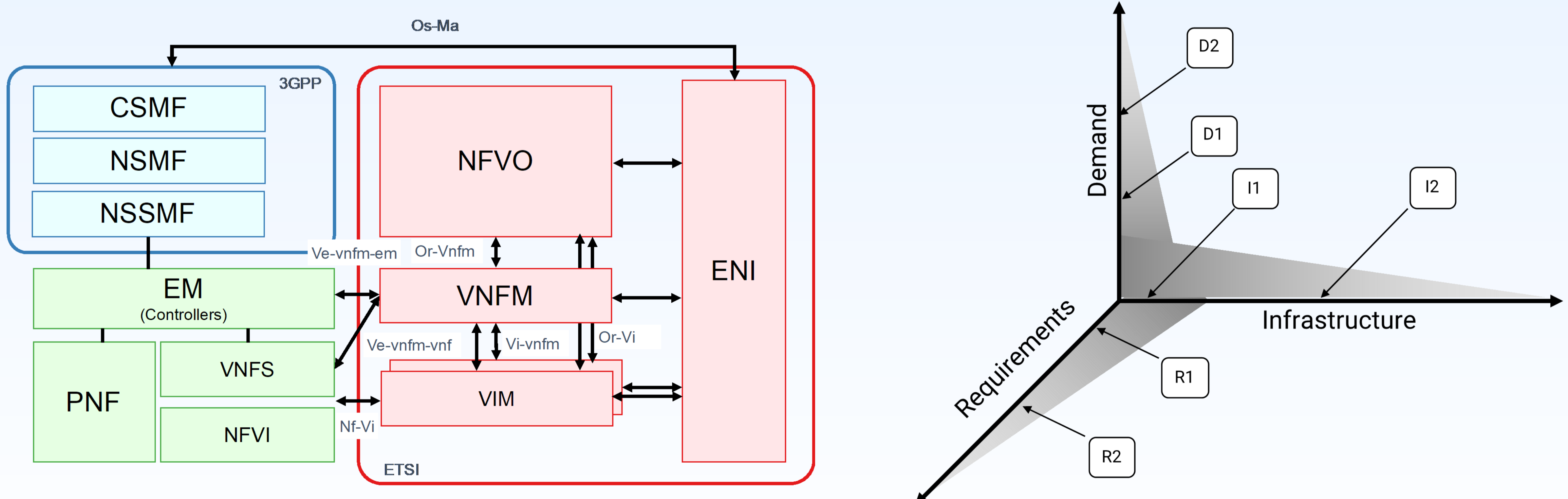
Elasticity KPIs	
Minimum footprint	Minimum resource set to provide any output
Reliability	Percentage of time in which a VNF provides optimal operation
Graceful degradation	Perceived degradation utility vs resource shortage
Rescuability	Ability of overcoming an outage until new resources are available
Cost efficiency	Increased number of slices to be hosted on the same infrastructure



Architectural Implications



AI for Elastic Management & Orchestration



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