Google

Istio Ambient Mesh as Managed Infrastructure

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Resource Savings*

	Total Memory Used	Total CPU Used	Memory Allocated	CPU Allocated
Sidecar	6220 Mi	0.974 vCPU	18432 Mi	14.4 vCPU
Ambient (L4 only)	**99% savings**	**82% savings**	**98% savings**	**98% savings**
Ambient (L4 + L7)	**89% savings**	**40% savings**	**90% savings**	**90% savings**

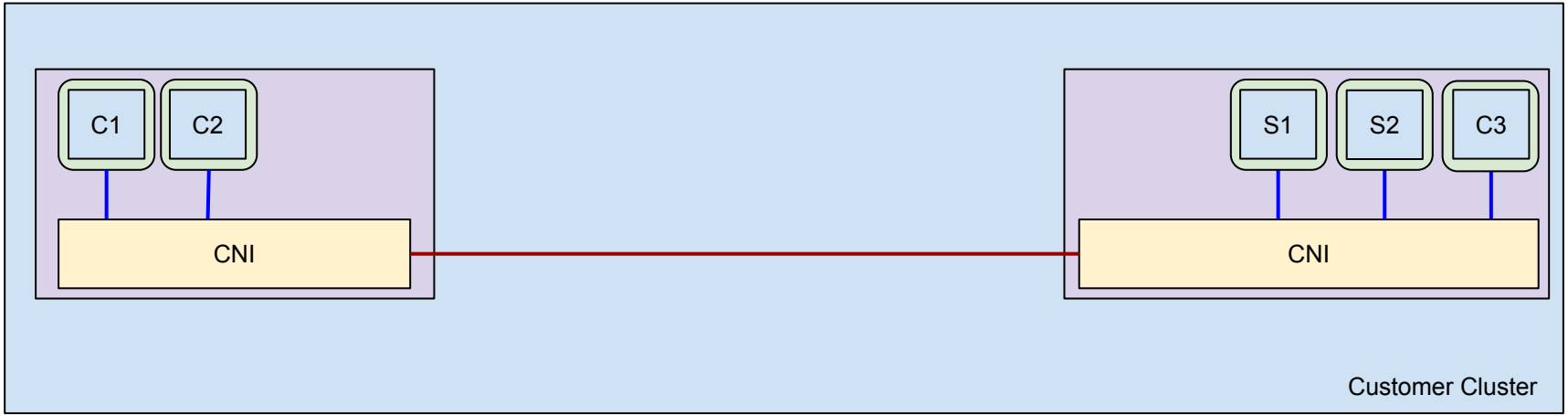
* https://github.com/istio/istio.io/pull/13179

Cost Savings*

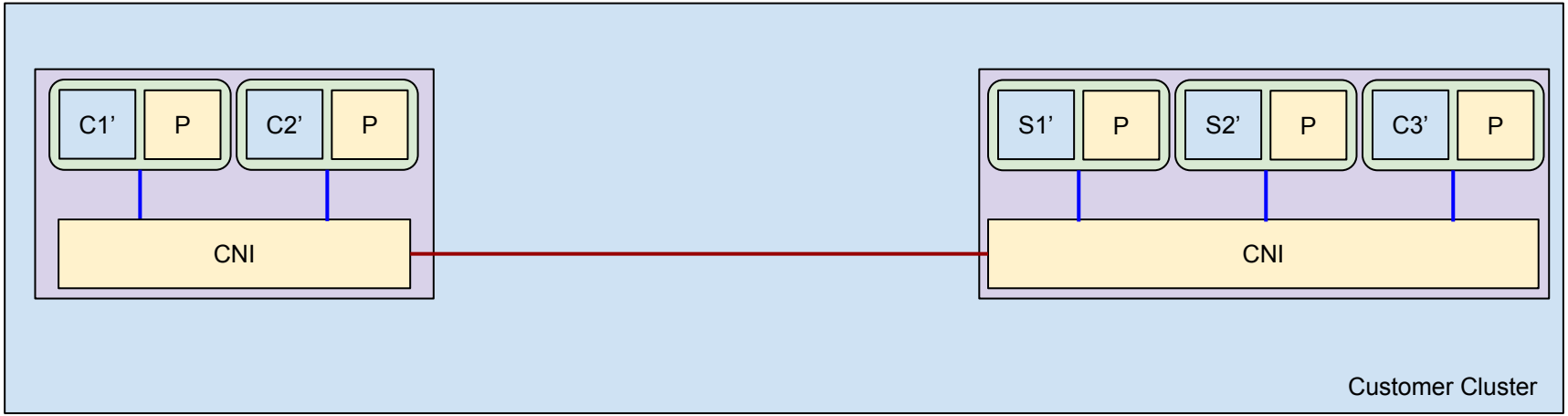
	# Istio Proxy Containers Required	Total Allocated CPU	Total Allocated Memory	Total $ Memory / Month	Memory Savings	Total $ CPU / Month	CPU Savings
Sidecar	144	14.4 vCPU	18432 Mi	$61.38	-	$331.20	-
Ambient (L4 only)	3	0.3 vCPU	384 Mi	$1.20	**98%**	$7	**98%**
Ambient (L4 + L7)	15	1.5 vCPU	1920 Mi	$6.39	**90%**	$34.50	**90%**

* https://github.com/istio/istio.io/pull/13179

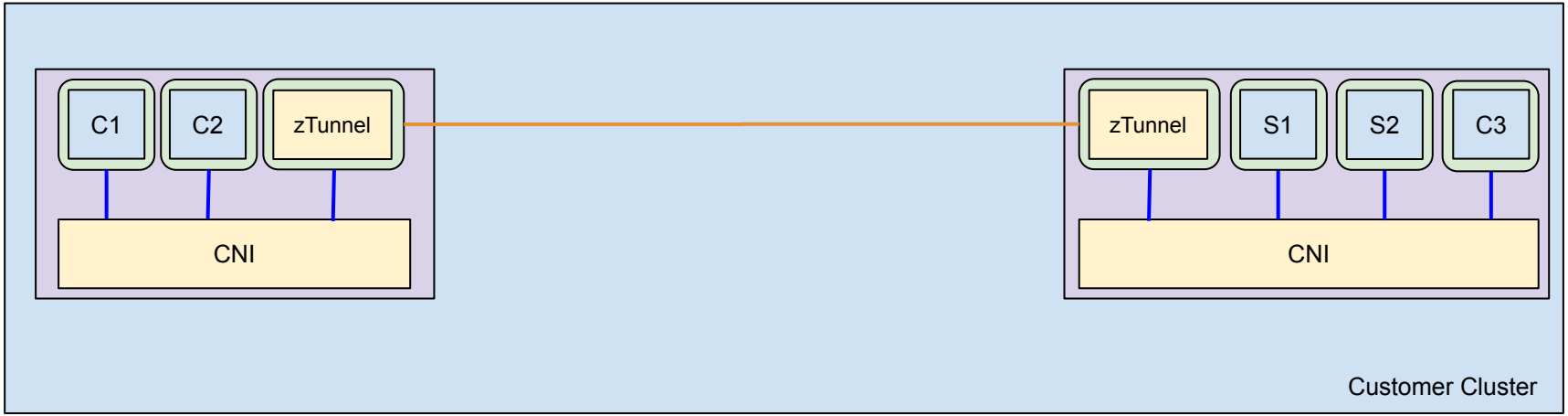
Traditional Kubernetes Network



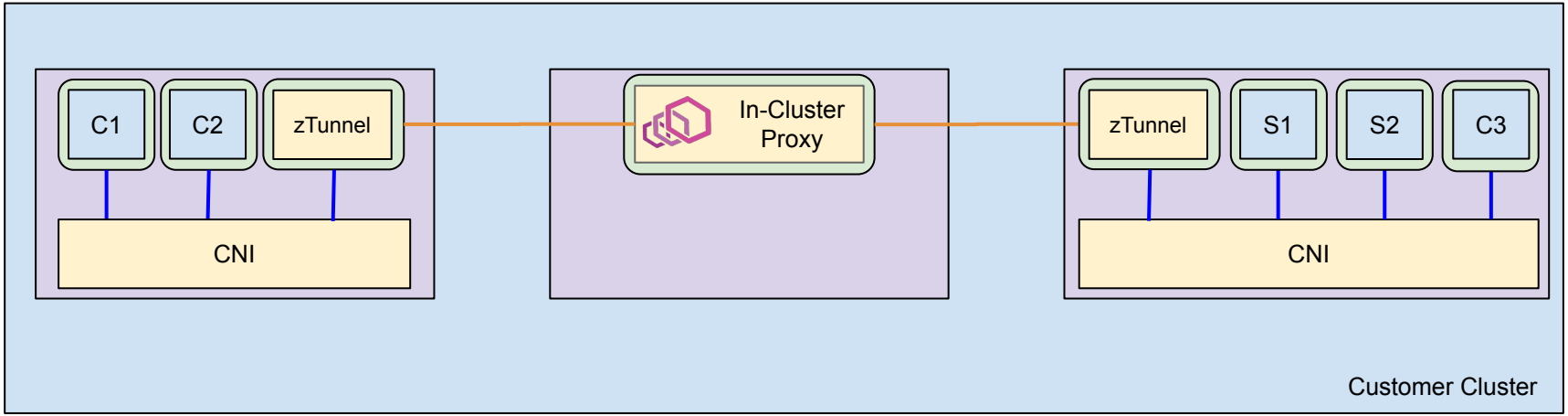
Istio Sidecars



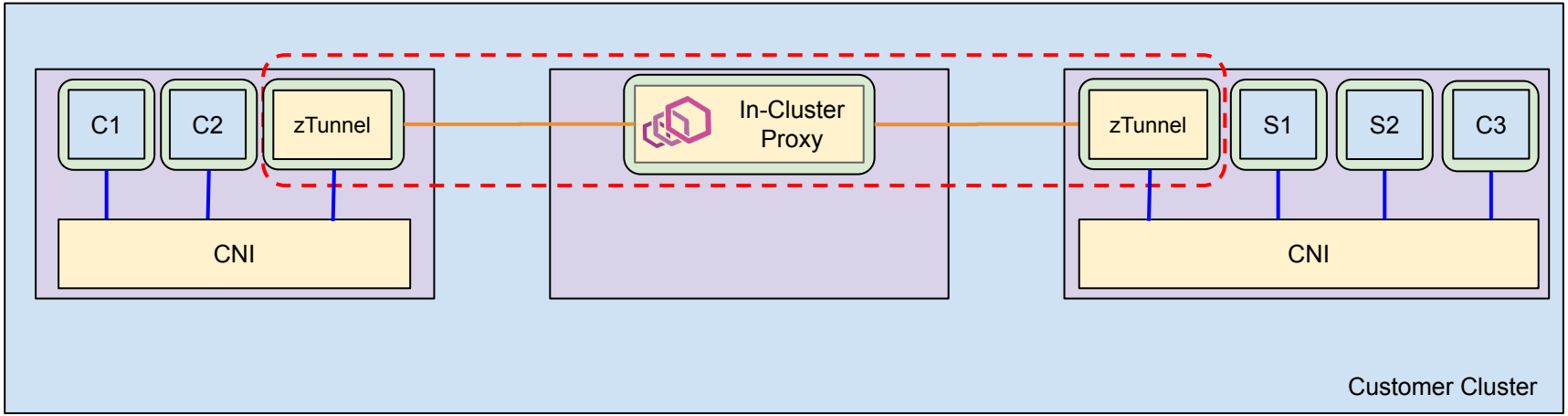
Ambient Mesh Reference Architecture



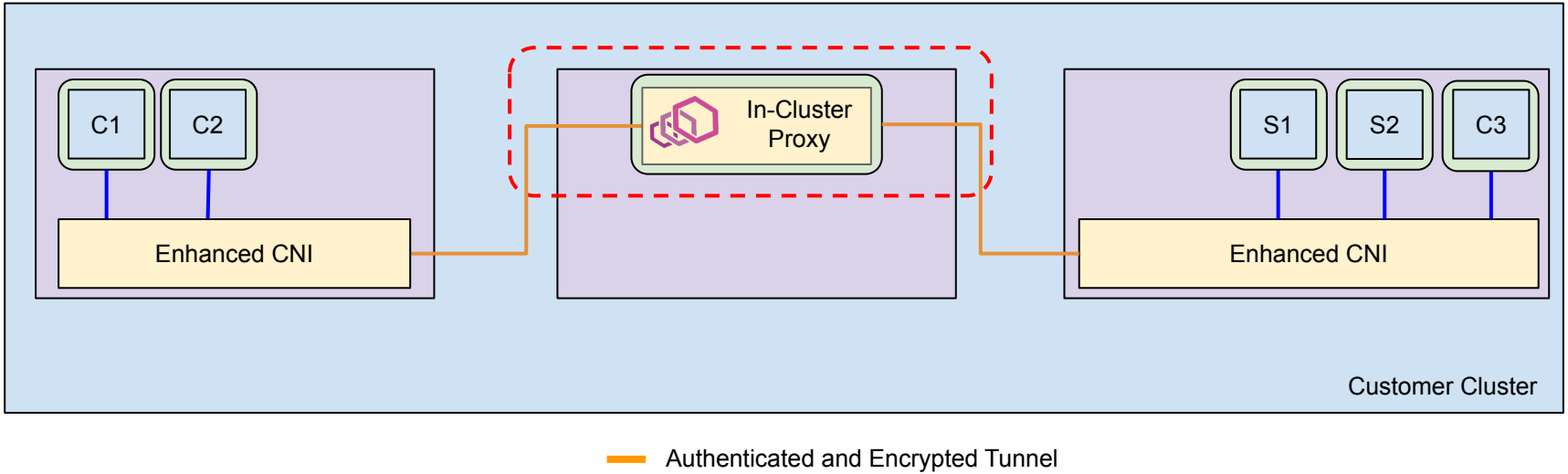
Ambient Mesh Reference Architecture



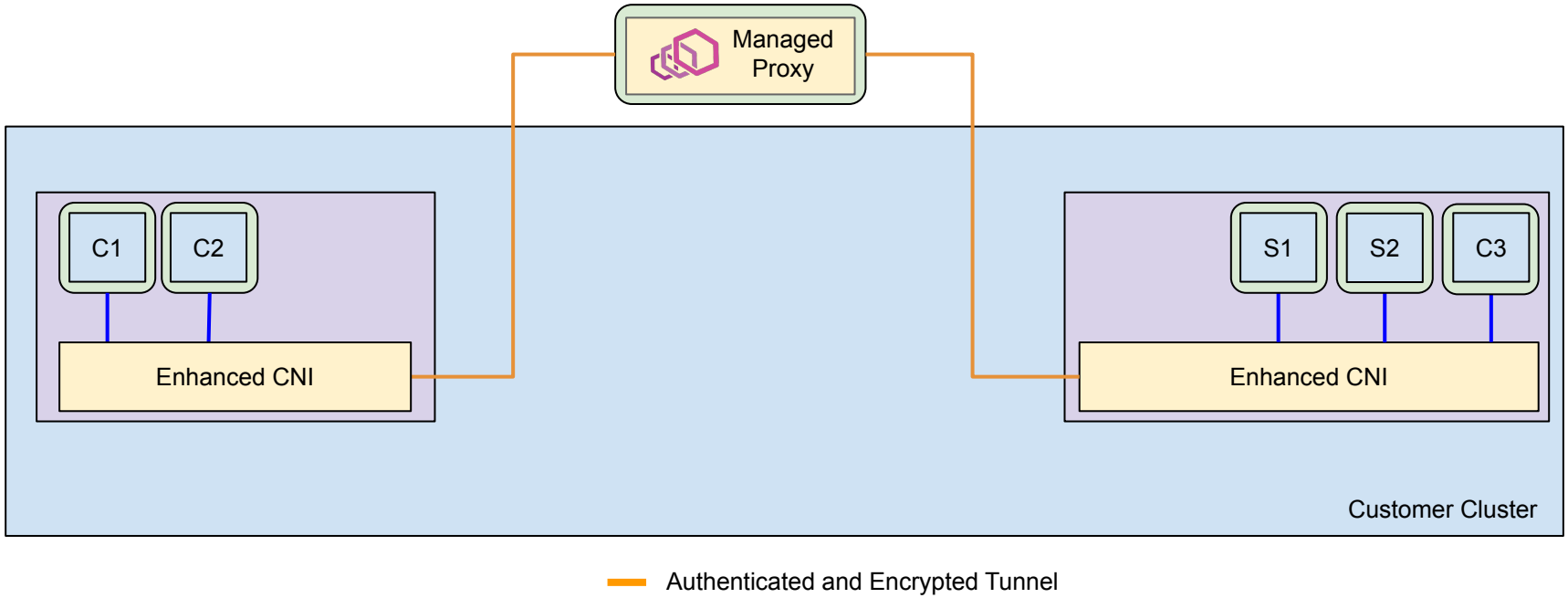
Ambient Mesh Reference Architecture



Ambient Mesh with Enhanced CNI



Ambient Mesh with Managed Proxy



Ambient Mesh with Provider-Managed Mesh