Typically, each HPC organization does a partial or complete cluster refresh every three to five years. Due to the maturity of cloud hardware and software providers, when your organization is refreshing your HPC cluster you need to consider cloud bursting as part of your overall strategy.

HPC organizations that utilize cloud service providers (AWS, Azure, Google, Oracle, etc.) in conjunction with Adaptive NODUS’ cloud bursting software can significantly reduce their on-premise cluster sizes and costs by as much as 40-50 percent, and burst the rest of their HPC workload to the cloud, by implementing this hybrid approach.

Each workload that is run in the cloud can be matched with the exact hardware stack that is best suited for that particular workload. This approach will assure all workloads are completed in the timeliest and most cost-efficient manner, typically saving millions of dollars on “on-premise” HPC cluster capital expense. These savings can be moved to a manageable cloud-bursting op-ex cost (pay-as-you-go).

With the reduction of on-premise HPC cluster sizes, additional savings are achieved by reducing power consumption, cooling costs and support personnel.