

RHEL BU pricing recommendation

RHEL for HPC 3P marketplace offering

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Problem Statement

- > RHEL for HPC is a discounted use-case based offering
 - discounted from commercial offering to meet market willingness to pay constraints
- > RHEL for HPC available by subscription only, not through cloud RTMs
- Microsoft has identified multiple customers wanting to burst workloads to Azure
- > Existing offering structure is too complicated to be replicated in public cloud
- GOAL: implement a simplified cloud HPC offering structure with future reconciliation with commercial (on-premises) offerings
 - Minimize pricing arbitrage
 - Self service with minimal pricing escalations required
 - Reconciled against competitive offering(s)

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Financial Analysis Current Pricing



Version number here V00000

Current Commercial Pricing

RH00584	Red Hat Enterprise Linux Server for HPC, Single System, Premium (Physical or Virtual Nodes)	USD	494			
RH00585	Red Hat Enterprise Linux Server for HPC, Single System, Standard (Physical or Virtual Nodes)	USD	329			
RH00559	Red Hat Enterprise Linux Server for HPC Compute Node, Self-support (Physical or Virtual Node)	USD	87			
RH02566	Red Hat Enterprise Linux Server for HPC Compute Node for ARM, Self-support (Physical)	USD	87			
RH02914	Red Hat Enterprise Linux Server for HPC Compute Node for ARM with Extended Update Support, Self-support (Physical or Virtual Node)	USD	135			
RH02567	Red Hat Enterprise Linux Server for HPC Compute Node for ARM with Satellite, Self-support (Physical)					
RH00575	Red Hat Enterprise Linux Server for HPC Compute Node for IBM Power, LE, Self-support					
RH00561	Red Hat Enterprise Linux Server for HPC Compute Node with Extended Update Support, Self-support (Physical or Virtual Node)					
RH00592	Red Hat Enterprise Linux Server for HPC Compute Node with Extended Update Support for IBM Power, LE, Self-support	USD	149			
RH00560	Red Hat Enterprise Linux Server for HPC Compute Node with Satellite, Self-support (Physical or Virtual Node)	USD	138			
RH00583	Red Hat Enterprise Linux Server for HPC Compute Node with Satellite and Extended Update Support, Self-support (Physical or Virtual Node)	USD	199			
RH00555	Red Hat Enterprise Linux Server for HPC Head Node, Premium (Physical or Virtual Nodes)	USD	2858			
RH00556	Red Hat Enterprise Linux Server for HPC Head Node, Standard (Physical or Virtual Nodes)	USD	1758			
RH02573	Red Hat Enterprise Linux Server for HPC Head Node for ARM, Standard (Physical Node)	USD	1758			
RH02579	Red Hat Enterprise Linux Server for HPC Head Node for ARM, Premium (Physical)	USD	2858			
RH02580	Red Hat Enterprise Linux Server for HPC Head Node for ARM with Satellite, Standard (Physical Node)	USD	2170			
RH02585	Red Hat Enterprise Linux Server for HPC Head Node for ARM with Satellite, Premium (Physical)	USD	3565			
RH00573	Red Hat Enterprise Linux Server for HPC Head Node for IBM Power, LE, Premium	USD	2858			
RH00574	Red Hat Enterprise Linux Server for HPC Head Node for IBM Power, LE, Standard	USD	1758			
RH00557	Red Hat Enterprise Linux Server for HPC Head Node with Satellite, Premium (Physical or Virtual Nodes)	USD	3243			
RH00558	Red Hat Enterprise Linux Server for HPC Head Node with Satellite, Standard (Physical or Virtual Nodes)	USD	2143			
RH02574	Red Hat Enterprise Linux Server for HPC for ARM, Single System, Standard (Physical)	USD	329			
RH02575	Red Hat Enterprise Linux Server for HPC for ARM, Single System, Premium (Physical)	USD	494			
RH02576	Red Hat Enterprise Linux Server for HPC for ARM, Single System with Satellite Standard (Physical)	USD	477			
RH02586	Red Hat Enterprise Linux Server for HPC for ARM, Single System with Satellite Premium (Physical)	USD	642			
RH00586	Red Hat Enterprise Linux Server for HPC with Satellite, Single System, Premium (Physical or Virtual Nodes)		594			
RH00587	Red Hat Enterprise Linux Server for HPC with Satellite, Single System, Standard (Physical or Virtual Nodes)	USD Rea	Hạt 29			

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Reference Commercial Pricing

RH00003	Red Hat Enterprise Linux Server, Premium (Physical or Virtual Nodes)	USD	1429
RH00004	Red Hat Enterprise Linux Server, Standard (Physical or Virtual Nodes)	USD	879

- Head node offering (standard or premium support)
- Remainder of nodes in cluster using self support compute nodes, inheriting the support level of head node
- Pricing paradigm complicated and poorly understood by Red Hat sales:
 - Unified offering to facilitate self service
 - Partner sales will similarly aided by simplified pricing
 - Per node pricing dependent on cluster size, customer discount
 - ASPs derived from sales data: premium support, standard support

Use case discounts and ASPs

RHEL Server Premium \$ 1,429.00

HPC Premium

	ASP	Commercial Discount	Compute:Head Ratio	Discount level before max NAT
10th percentile	\$17.23	98.79%	646	95.98%
25th	\$25.97	98.18%	185	93.94%
Median	\$44.18	96.91%	38	89.70%
75th	\$82.50	94.23%	15	80.76%
90th	\$127.95	91.05%	8	70.15%

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Source:

1. HPC ASP and financial analysis data

2. Grid node ASP data

Unique premium customers

RHEL Server Standard \$879.00

HPC Standard

	ASP	Commercial Discount	Compute:Head Ratio	Discount level before max NAT
10th percentile	\$3.00	99.66%	165	98.86%
25th	\$6.00	99.32%	102	97.72%
Median	\$17.00	98.07%	58	93.55%
75th	\$45.00	94.88%	37	82.94%
90th	\$108.27	87.68%	27	58.94%

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Competitive Analysis

- SUSE offers the only <u>competing offer</u> on Azure with MSRPs 75-80% off commercial offering
 - \$0.00650 vCPU/hr (2 vCPU)
 - \$0.00625 vCPU/hr (4 vCPU)
 - \$0.00475 vCPU/hr (8 vCPU)

Source: https://azure.microsoft.com/en-us/pricing/details/virtual-machines/sles-hpc-standard/



Proposed Offering Structure Pricing, offering structure, and RTMs

- Unify head and compute node structure into a single marketplace (public and private)
 HPC offering
- > MSRP of 70, 80, or 90% off RHEL Server MSRP is financially justified
- If pricing parity on-prem were the only consideration, a MSRP of 90% off commercial offering (\$0.0015 vCPU/hr) is the mathematical option
 - \circ $\,$ Out of line with competitive offerings
 - Should only be offered as special bid as exposes existing discounts, and can be misused
- 80% discount = \$0.0030 vCPU/hr (optimizes for minimized sales intervention with existing customers)
 - Out of line with competiitve offerings

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70% discount = \$0.0045 vCPU/hr (optimizes for maximization of future revenue, better in line with competitive offerings)



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