

1. RACKSPACE PRIVATE CLOUD – VMWARE

Managed Virtual Machines on Dedicated Servers (Managed Virtualisation) powered by VMware Product is a simple, easy-to-consume, managed VMware environment that want to offload the maintenance and monitoring of the guest OS, VMware software stack and underlying hardware to Rackspace.

1.1 MANAGED VIRTUAL MACHINES ON DEDICATED SERVERS (MANAGED VIRTUALISATION)

Managed Virtualisation (Intensive)	
Single Compute Instance in Production	Monthly Price
Small (1vCPU 2GB RAM 60GB VHD - W2K12/RH/Cent - AV)	£173
Medium (2vCPU 4GB RAM 60GB VHD - W2K12/RH/Cent - AV)	£214
Large (4vCPU 8GB RAM 60GB VHD - W2K12/RH/Cent - AV)	£296
1X Large (4vCPU 12GB RAM 60GB VHD - W2K12/RH/Cent - AV)	£364
2X Large (8vCPU 16GB RAM 60GB VHD - W2K12/RH/Cent - AV)	£460
3X Large (8vCPU 24GB RAM 60GB VHD - W2K12/RH/Cent - AV)	£596
4X Large (8vCPU 32GB RAM 60GB VHD - W2K12/RH/Cent - AV)	£732
Single Compute Instance in Production with DR replication	
Small (1vCPU-2GB RAM-60GB VHD- W2K12/RH/Cent - AV)	£214
Medium (2vCPU 4GB RAM 60GB VHD - W2K12/RH/Cent - AV)	£296
Large (4vCPU 8GB RAM 60GB VHD - W2K12/RH/Cent - AV)	£460
1X Large (4vCPU 12GB RAM 60GB - W2K12/RH/Cent - AV)	£596
2X Large (8vCPU 16GB RAM 60GB - W2K12/RH/Cent - AV)	£788
3X Large (8vCPU 24GB RAM 60GB - W2K12/RH/Cent - AV)	£1,060
4X Large (8vCPU 32GB RAM 60GB VHD - W2K12/RH/Cent - AV)	£1,332

Assumptions

- Above pricing includes hypervisor and firewall cost
- Customer has a commitment to growth:
 - Minimum initial deployment is 6 instances
 - The customer needs to reach 100 instances in the first 6 months and not drop below this threshold going forward, otherwise a fixed monthly fee would be applied
 - The overarching term of the agreement is 12 months
 - If an instance is on for a day it would be charged for the full month
- There would be further scoping, design before the final model is agreed: All the pricing is indicative at this stage
- Other networking, DDoS etc. components can be purchased separately. The costing for those products is available in section 5.

2. RACKSPACE PRIVATE CLOUD – OPENSTACK & REDHAT

2.1 PRIVATE CLOUD (RPC-O) – OPENSTACK

Rackspace Private Cloud powered by OpenStack (RPC-O) is a scalable cloud environment, built on infrastructure, which is purely dedicated to your business, hosted in your own data centre, a partner data

centre, or at a Rackspace facility. RPC-O gives the agility and efficiency of an OpenStack based public cloud for your own use, backed by Fanatical Support. Our Rackspace Private Cloud specialists are always available to help:

- **RPC Support:** Our Support Engineers will remotely access and manage the Rackspace Private Cloud software stack including installation, configuration, patching, upgrade assistance, troubleshooting, monitoring, and alerting & resizing of the environment.

Support Device	Price per node per month
Infrastructure Node	£920.00
Compute Node	£185.00
Cinder Storage Node	£185.00
Ceph Storage Node	£460.00
Swift Storage Node	£370.00
Ironic Node	£100.00
HA Proxy Node	£205.00

2.1.1 RPC-O – CUSTOMER DATA CENTRE AND CUSTOMER INFRASTRUCTURE

Customer will be responsible for managing the data centre including supplying of infrastructure. Rackspace's minimum support requirement consists of 4 Controllers, 5 Compute Nodes, 5 Ceph Nodes* and 2x HA Proxy Nodes.

Monthly Cost For Minimum Infrastructure Support From	£7,315.00
Minimum Contract Length	12 Months

2.1.2 RPC-O – RACKSPACE DATA CENTRE

Monthly Cost For Minimum Infrastructure Support From	£22,372.70 [#]
Minimum Contract Length	12 Months

Further aggregate volume support discounts would be applicable based on the total support spend: <https://www.rackspace.com/information/legal/rpcvolumediscount>

* A deployment requires a storage backend for Glance, this defaults to Ceph, but could be provided by alternate storage technologies such as NFS or SAN if they are available and compatible with OpenStack.

[#] Cost covers below minimum infrastructure specifications, which needs to be deployed for this product. There would be further scoping, and design before the final model is agreed.

- 2 Physical Firewalls (CISCO ASA 5555 X HA Pair) and 2 Load Balancers (HA Proxy)
- 3 Dual Processor Servers for Control Plane (Infrastructure Nodes)
- 1 Dual Processor Server for Logging (running the ELK stack)
- Minimum of 5 Dual Processor Servers for compute
- 5 Dual Processor Server for Ceph Storage (alternate specifications available)
- Rackspace RPC Support is included but set up fees are extra, however these may be waived for longer contract terms

2.1.3 PRIVATE CLOUD (RPC-V) – VMWARE

Monthly Cost For Minimum Infrastructure Support From	£14,372.50
Minimum Contract Length	12 Months

Private Cloud powered by VMware is a technology platform that enables IT organisations to benefit from the capabilities of a VMware-based private cloud, where the infrastructure and operations for the platform are wholly managed, secured and optimised by our army of experts.

IT operations teams get to benefit from VMware's software-defined technology and the agile infrastructure deployment model for physical hardware without the operational burden of managing the infrastructure and orchestration layer.

Legacy and non-cloud-native applications can be operated with cloud-like agility, without requiring IT teams to sacrifice their existing investments in VMware skills, tools, and software.

RPC-VMware is built on VMware Cloud Foundation validated designs, allowing for predictable low-risk deployments, continuous updates for the most up-to-date VMware capabilities, as well as improved lifecycle management of VMware components.

This is based on a minimum spec of:

- 2* Cisco Firewalls
- 2* Load Balancers
- 4* Basic Rackspace Private Cloud Hypervisors
- HA 10Gb Switch Set
- 10Gb service net switch

**This is a basic solution, further scoping will be required.*

2.2 PRIVATE CLOUD (RPC-R) - REDHAT

Rackspace Private Cloud powered by Red Hat (RPC-R) is a managed private cloud deployment of Red Hat Enterprise Linux OpenStack Platform that provides public cloud benefits with the security, control, and performance of an enterprise environment. RPC-R can be hosted in your own data centre, a partner data centre, or at a Rackspace facility. RPC-R gives the agility and efficiency of an OpenStack based public cloud for your own use, backed by Fanatical Support. Our Rackspace Private Cloud specialists are always available to help:

Support Device	Price per node per month
Infrastructure Node	£1,225.00
Compute Node	£205.00
Cinder Storage Node	£205.00
Ceph Storage Node	£460.00
Swift Storage Node	£455.00
Ironic Node	£100.00
HA Proxy Node	£200.00

2.2.1 RPC-R – Customer Data Centre and Customer Infrastructure

Customer will be responsible for managing the data centre including supplying of infrastructure. Rackspace's minimum support requirement consists of 4 Infrastructure Nodes, 3 Compute Nodes and 5 Storage Nodes.

Monthly Cost For Minimum Infrastructure Support From	£8,625.00
Minimum Contract Length	12 Months

2.2.2 RPC-R – Rackspace Data Centre

Monthly Cost For Minimum Infrastructure Support From	£24,682.40**
Minimum Contract Length	12 Months

Further aggregate volume support discounts would be applicable based on the total support spend:
<https://www.rackspace.com/information/legal/rpcvolumediscount>

** Cost covers below minimum infrastructure specifications which needs to be deployed for this product. There would be further scoping, and design before the final model is agreed.

- 2 Physical Firewalls (CISCO ASA 5555 X HA Pair) and 2 Load Balancers (HA Proxy)
- 3 Dual Processor Servers for Control Plane (Infrastructure Nodes)
- 1 Dual Processor Server for Logging (running the ELK stack)
- Minimum of 5 Dual Processor Servers for compute
- 5 Dual Processor Server for Ceph Storage (alternate specifications available)
- Rackspace RPC Support is included but set up fees are extra, however these may be waived for longer contract terms

Customer will provide all RHEL, Red Hat OpenStack and CEPH Subscriptions.

3. RACKSPACE PRIVATE CLOUD – MICROSOFT

3.1 MICROSOFT HYPER-V

Monthly Cost For Minimum Infrastructure Requirements From	£3,500.00*
Minimum Monthly Price per Compute GB	£ 19.53
Minimum Contract Length	12 Months

* Cost covers below minimum infrastructure specifications which needs to be deployed for this product. There would be further scoping, and design before the final model is agreed.

- 1 Physical Firewall
- 2 Hyper-V Compute Node
- 2 Hyper-V Compute Support
- Windows Data Centre License included

Prices exclude any setup fees, backup, storage and security components. VMs are assumed unsupported.

4. RACKSPACE DEDICATED SERVERS

Dedicated servers deliver the unmatched performance of bare metal servers and are a good fit for high-performance workloads. Our servers provide you with the most stable, tested and capable platform for your data processing needs. All servers provide redundant (dual) hot swappable power supplies, fans and hard drives.

					W2K12 Operating System		
					Core Infrastructure Service Level	Managed Service Level	Intensive Service Level
X Small	6 Core	32 GB RAM	FCHBA	2x300GB SAS	£337.07	£420.99	£562.02
Small	8 core	64GB RAM	FC HBA	2x300GB SAS	£511.45	£594.92	£735.95
Medium	16 Core	128GB RAM	FC HBA	2x300GB SAS	£733.81	£817.13	£958.76
Large	24 core	256GB RAM	FC HBA	2x300GB SAS	£1,009.55	£1,093.47	£1,234.50
XL Large	36 core	256GB RAM	FC HBA	2x300GB SAS	£1,174.01	£1,257.93	£1,398.96

					CENTOS Operating System		
					Core Infrastructure Service Level	Managed Service Level	Intensive Service Level
X Small	6 Core	32 GB RAM	FCHBA	2x300GB SAS	£320.99	£404.91	£555.94
Small	8 core	64GB RAM	FC HBA	2x300GB SAS	£494.92	£578.84	£729.87
Medium	16 Core	128GB RAM	FC HBA	2x300GB SAS	£699.65	£783.57	£934.60
Large	24 core	256GB RAM	FC HBA	2x300GB SAS	£968.31	£1,052.23	£1,193.26
XL Large	36 core	256GB RAM	FC HBA	2x300GB SAS	£1,098	£1,181.92	£1,322.95

5. ADDITIONAL COMPONENTS PRICING

Below sections cover pricing for additional physical components which can be purchased with our private cloud solution. The pricing below is monthly cost with option of our three different service levels.

5.1 FIREWALLS

Rackspace partners with industry leading manufactures to ensure the reliability of your solution. The Cisco ASA Firewalls are available in a redundant (high availability) configuration.

	Core Infrastructure Service Level	Managed Service Level	Intensive Service Level
Small	£178.86	£178.86	£178.86
Medium	£518.62	£520.60	£618.56
Large	£888.60	£892.08	£1,023.24
XL Large	£1,284.04	£1,289.09	£1,469.61

Resilient Pair		
Core Infrastructure Service Level	Managed Service Level	Intensive Service Level
£222.26	£222.26	£222.26
£940.64	£944.42	£1,043.54
£1,648.40	£1,655.11	£1,788.37
£2,390.99	£2,400.74	£2,584.32

5.2 LOAD BALANCERS

Rackspace offers the BIG IP F5 Local Traffic Manager (LTM) which is a high performance traffic management solution that intelligently manages high volume traffic to improve application performance and avoid downtime.

	Core Infrastructure Service Level	Managed Service Level	Intensive Service Level
Small	£899.43	£949.43	£1,049.43
Medium	£1,531.52	£1,692.15	£1,850.44
Large	£1,947.69	£2,110.10	£2,269.53
XL Large	£3,939.80	£4,109.95	£4,274.06

Resilient Pair		
Core Infrastructure Service Level	Managed Service Level	Intensive Service Level
£1,798.86	£1,898.86	£2,098.86
£2,753.92	£2,919.75	£3,081.41
£3,586.26	£3,755.64	£3,919.59
£7,261.39	£7,445.69	£7,618.94

5.3 WEB APPLICATION FIREWALLS (WAFS)

A WAF is a Layer-7 firewall capable of protecting customer web applications from malicious activity and preventing vulnerabilities and exploits being used to steal or deface sites. Rackspace uses the Imperva WAF to help customers protect applications from current and future security threats by combining multiple security engines into a cohesive Web defence.

	Core Infrastructure Service Level	Managed Service Level	Intensive Service Level
Small	£1,315.20	£1,363.07	£1,391.84
Medium	£1,669.17	£1,717.04	£1,745.81
Large	£2,310.52	£2,335.52	£2,352.19
XL Large	£3,377.06	£3,424.93	£3,453.70

Resilient Pair		
Core Infrastructure Service Level	Managed Service Level	Intensive Service Level
£1,841.28	£1,908.30	£1,948.58
£2,336.84	£2,403.86	£2,444.13
£3,465.78	£3,503.28	£3,528.29
£5,065.59	£5,137.40	£5,180.55

5.4 INTRUSION DETECTION SYSTEM (IDS) + LOG MANAGEMENT

The Intrusion Detection System used within the Rackspace solution will be provided by Alert Logic. The device will scan traffic between network segments for vulnerabilities and malicious activity. The device is managed by Alert Logic, which receives the threat alerts into their 24x7 manned control centre and process and escalate as appropriate to Rackspace.

		Core Infrastructure Service Level	Managed Service Level	Intensive Service Level
Small	5 nodes	£1,340.04	£1,340.04	£1,340.04
Medium	10 nodes	£1,747.97	£1,747.97	£1,747.97
Large	15 nodes	£2,087.90	£2,087.90	£2,087.90
XL Large	20 nodes	£2,314.54	£2,314.54	£2,314.54

5.5 STORAGE AND BACKUP

Shared Storage is a highly available, reliable multi-tenant solution. It leverages a fully redundant enterprise grade architecture, offering a highly scalable & secure solution. Rackspace provides different tiers of storage dependant on performance requirements. Storage within the arrays is tiered based on performance in to the four categories. Our pricing not only covers the storage hardware, but also includes support, certified storage engineers, licenses, and other TCO costs such as power, data centre space and cost of capital.

Storage Volume	Monthly Cost per GB			
	Tier 1	Tier 2	Tier 3	Tier 4
0-2TB	£0.30	£0.37	£0.59	£1.20
2-3TB	£0.28	£0.33	£0.51	£0.84
3-4TB	£0.26	£0.30	£0.49	£0.65
4-6TB	£0.24	£0.27	£0.38	£0.52
6-10TB	£0.21	£0.23	£0.30	£0.42
10TB+	£0.18	£0.20	£0.27	£0.40

Rackspace will perform backups of the data using CommVault data protection software. Data will be streamed across a dedicated network interface in each server to separate backup traffic from public and server to server communication.

Unmetered Backup	Monthly Cost / GB
2 weeks onsite	£ 0.07
4 weeks onsite	£ 0.12
12 weeks offsite	£ 0.40
7 years offsite (yearly copy)	£ 0.75