

Wingu Price list 01st of November 2018

Revision 4.1

This is the latest Wingu price list dated 01st of November, 2018.

Wingu provides Infrastructure-as-a-Service products from a platform based in South Africa, charged in local Rand currency. Services are provided via web based interface into a full virtual data centre per customer. Wingu is an OpenStack powered platform, currently using the OpenStack Mitaka release. More information about OpenStack Mitaka can be found at <https://docs.openstack.org/mitaka/>

Wingu provides pricing on a consumption basis, with pricing provided on a per hour basis. The rate per hour assumes a month with 31 days, thus the calculation is done for 744 hours as a maximum. Months with fewer days will be charged less proportionally.

Signing up for Wingu 2.0 services

Create a free PayFast account at:

<https://www.payfast.co.za/user/register>

You will need this account email address during the Wingu user registration process.

New user accounts are created by registering a new account at:

Please contact support@wingu.co.za to register a project.

Customers login to the Wingu financial system at:

<https://accounts.wingu.co.za/customer>

Customers access the Wingu cloud operational portal (OpenStack Horizon) at:

<https://cloud.wingu.co.za>

Infrastructure-as-a-Service

The virtual machines created in Wingu operate in three classes of compute:

- General compute
- CPU optimized
- Memory optimized

General compute flavours have a balance of performance and are suitable for general workloads.

CPU optimized flavours have higher proportional processing power and are most suitable for compute intensive workloads.

Memory optimized flavours have a higher proportional RAM capacity and are suited to workloads that require more RAM in relation to processing ability.

Virtual instances in Wingu is charged on a rate per hour, regardless of the machine state.

Any volumes attached to a virtual machine, or private images that a virtual machine was started from, or is connected to a virtual machine, is charged, regardless of the virtual machine state.

Linux systems

Virtual instances running Linux and Unix operating systems support all the popular open source versions. Currently provided is:

- Ubuntu Linux (last two Long Term Support releases)
- CentOS (Currently supported releases)
- FreeBSD (Most current release)

Customers are free to add any operating system version as a private image in their project.

Wingu provides Linux systems support key based authentication.

Flavour name	RAM in GB	vCPU count	Root disk size	Linux rate per hour	Linux rate per month
gen1.nano	0.5	1	20	\$0.0110	\$8.19
gen1.micro	1	1	20	\$0.0238	\$17.69
gen1.small	2	1	50	\$0.0328	\$24.38
gen1.medium	4	2	50	\$0.0616	\$45.87
gen1.large	8	2	100	\$0.0922	\$68.56
gen1.xlarge	16	4	100	\$0.1765	\$131.32
gen1.2xlarge	32	8	100	\$0.3452	\$256.82
gen1.4xlarge	64	16	100	\$0.6826	\$507.84
cpu1.xlarge	8	4	100	\$0.1233	\$91.73
cpu1.2xlarge	16	8	100	\$0.2388	\$177.66
cpu1.4xlarge	32	16	100	\$0.4698	\$349.51
mem1.large	16	2	100	\$0.1454	\$108.14
mem1.xlarge	32	4	100	\$0.2829	\$210.48
mem1.2xlarge	64	8	100	\$0.5580	\$415.16

Microsoft systems

Virtual instances running Microsoft operating systems include the basic operating system license.

Currently provided is:

- Windows Server 2012 R2
- Windows Server 2016 Standard

Wingu provided Windows Server products use the security key pair used at the creation of the virtual machine as the decode key for the randomly generated system password.

Flavour name	RAM in GB	vCPU count	Root disk size	Windows rate per hour	Windows rate per month
gen1.nano	0.5	1	20	\$0.0247	\$18.38
gen1.micro	1	1	20	\$0.0375	\$27.88
gen1.small	2	1	50	\$0.0465	\$34.57
gen1.medium	4	2	50	\$0.0753	\$56.06
gen1.large	8	2	100	\$0.1058	\$78.75
gen1.xlarge	16	4	100	\$0.1902	\$141.50
gen1.2xlarge	32	8	100	\$0.3589	\$267.01
gen1.4xlarge	64	16	100	\$0.6963	\$518.03
cpu1.xlarge	8	4	100	\$0.1370	\$101.92
cpu1.2xlarge	16	8	100	\$0.2525	\$187.85
cpu1.4xlarge	32	16	100	\$0.4835	\$359.70
mem1.large	16	2	100	\$0.1591	\$118.33
mem1.xlarge	32	4	100	\$0.2966	\$220.67
mem1.2xlarge	64	8	100	\$0.5717	\$425.35

Suse Linux Enterprise Systems

Virtual instances running Suse Linux Enterprise operating systems include the basic operating system license.

Currently provided is:

- Suse SLES

Wingu provides Linux systems support key based authentication.

Flavour name	RAM in GB	vCPU count	Root disk size	SLES rate per hour	SLES rate per month
gen1.nano	0.5	1	20	\$0.0718	\$53.43
gen1.micro	1	1	20	\$0.0846	\$62.93
gen1.small	2	1	50	\$0.0936	\$69.62
gen1.medium	4	2	50	\$0.1225	\$91.11
gen1.large	8	2	100	\$0.1530	\$113.80
gen1.xlarge	16	4	100	\$0.2981	\$221.80
gen1.2xlarge	32	8	100	\$0.4911	\$365.40
gen1.4xlarge	64	16	100	\$0.8285	\$616.42
cpu1.xlarge	8	4	100	\$0.2449	\$182.21
cpu1.2xlarge	16	8	100	\$0.3847	\$286.23
cpu1.4xlarge	32	16	100	\$0.6157	\$458.08
mem1.large	16	2	100	\$0.2062	\$153.38
mem1.xlarge	32	4	100	\$0.4045	\$300.96
mem1.2xlarge	64	8	100	\$0.7039	\$523.73

Networking

Traffic in Wingu is charged in both the Inbound and Outbound direction. Only traffic via a Public Floating IP address is charged. Traffic between virtual machines and private networks is not charged.

Item	<u>Rate per hour</u>	<u>Rate per month</u>
Floating IP address (Public IP)	\$0.0022	\$1.61
Virtual network	\$0.0043	\$3.23
Virtual network port	\$0.0022	\$1.61
Virtual network subnet	\$0.0043	\$3.23
Virtual router	\$0.0087	\$6.45
Load balancer Virtual IP address	\$0.0390	\$29.03

Network traffic

Item	Rate per GB
Internet Access via Public IP	\$0.1290
Private network traffic	R 0.00

Storage

Wingu storage is priced on a per GB per month basis. The rate is charged based on the provisioned size of the storage component.

Item	<u>Rate per GB per hour</u>	<u>Rate per GB per month</u>
Volume size	\$0.0001	\$0.08
Volume snapshot size	\$0.0001	\$0.08
Image size	\$0.0001	\$0.08

Security

Wingu provides a basic firewall to protect a complete network and the same security feature per virtual instance via Security groups. These security groups are groups of firewall rules, assigned on a per virtual machine basis. Wingu charges per Security Group, regardless of the number of rules contained within a security group.

Item	<u>Rate per hour</u>	<u>Rate per month</u>
Security Group Firewall	\$0.0009	\$0.65
Firewall	\$0.0217	\$16.13

Backup-as-a-Service

Wingu provides the user an option to backup virtual instances to our object store which is built on separate physical hardware. This backup service allows users to schedule backup times, keep specified numbers of revisions and allow users to restore directly into their existing projects.

Item	<u>Rate per hour</u>	<u>Rate per month</u>
Workload	\$0.0867	\$64.52
Backup Snapshots	\$0.0001	\$0.08

Platform availability

Wingu is designed to be an "always on" system. To that end, we strive to maintain platform availability exceeding 99.9%.

Service Level Agreements

Details of the Standard Wingu Service Level Agreement is contained in a separate document and available on request via support@wingu.co.za or the Wingu website.

Terms and conditions

The full terms and conditions for the Wingu service is available on the Wingu website.

Basic terms and conditions

1. All quoted pricing exclude Value Added Tax of 15.00%.
2. Standard payment terms are 7 days from the date of invoice.
3. The customer will receive a notice of an outstanding amount on the 1st day of the calendar month with an email containing the invoice. The customer will receive an email notice of an unpaid amount, if the account is in arrears, by the 5th day of the calendar month. A last notification for accounts in arrears will be sent by the 15th day of the calendar month.
4. If payment is not made within 30 days of the last invoice date, the Wingu system will remove the customer's ability to login to the system portal until the outstanding amount is settled in full. Over a defined period of time access will be removed, systems forcibly shut-down and finally deleted in an unrecoverable way. If the account is in arrears by 60 days, the Wingu system will execute a hard shut-off of all tenants with unpaid accounts automatically. This will cause all running virtual machines to shut down and become unavailable. Wingu will not be liable for any data loss or data corruption as a result of this action.
5. All tenants with unpaid accounts will have their systems automatically deleted after 120 days of non-payment from the last invoice date. Wingu will not be liable for any data loss or data corruption as a result of this action.
6. Payments are made via our payment platform partner, PayFast. Customers are required to register a free PayFast account at www.payfast.co.za.
7. Payment methods accepted via PayFast included direct Electronic Fund Transfers from the four major South African retail banks (Standard Bank, ABSA, Nedbank, First National Bank). Payment is also accepted via credit cards or Bitcoin.
8. We assume no liability for customer data contained either in a virtual machine, a volume, image or snapshot. As per best practise standards, customers are required to make suitable and frequent backups of their data and store it in an additional platform external to the Wingu Public Cloud platform. Data safety and backups are the customer's responsibility and Wingu will not accept any responsibility for any customer data loss under any circumstances. This includes underlying infrastructure failure, accidental or deliberate deleting of any or all customer infrastructure, including routers, networks, ports, floating IP addresses, volumes, images, snapshots, virtual instances and subnets.
9. Wingu operates an OpenStack platform based on the OpenStack Mitaka long term support release. User documentation for system operation is available at <http://docs.openstack.org/mitaka/>
10. Wingu provides Microsoft Server Licensing based on a Service Provider License Agreement. The license for Windows server is included in the cost of provided Windows virtual machines. Wingu accepts no responsibility for ANY other Microsoft or other software installed on virtual machines, which may or may not breach Microsoft's or other software providers' license agreements.
11. Support requests must be logged via our email platform at support@wingu.co.za. Customers will receive a confirmation email with a unique service call identity. All communication regarding support will be delivered via this system and the Service Level Agreement and customer satisfaction rating will be tracked via this system.
12. Wingu aims for a system compute uptime target of at least 99%. This means that even if other Wingu services fail, the compute environment running virtual instances will be available 99% of the time.
13. The standard support service level agreement included with any Wingu infrastructure is Next Business Day resolution of a problem. It means that any service call logged via support@wingu.co.za during 08h00 to

17h00, weekdays in the GMT+2 time zone, will be attended to and resolved by the next business day. Any calls logged after hours or on weekends will be attended to on the next business day, within the parameters of the standard service level agreement.

14. All network traffic inbound and outbound from an instance will be charged at the rate specified as per the latest price list in force. The latest pricing information can be obtained by sending an email to support@wingu.co.za.
15. Virtual instances are charged at the point of creation and is charged per month regardless of power state (Running, power off, shut down, paused, shelved or suspended).
16. Access to the Wingu platform is at Wingu's discretion. We reserve the right to approve or deny access to the Wingu platform at the discretion of the Wingu business. Customers engaging in malicious activities will have their accounts suspended and their infrastructure disabled and/or deleted. Abuse includes any illegal activities, any attempts to compromise systems either on the Wingu or any other platform, using any means available.
17. Successfully signing up to the Wingu platform (completing the registration, accepting the terms and conditions and having a functional login to the platform) constitutes a purchase order having been created, which the customer accepts as an order placed on Wingu for cloud services.
18. Wingu may from time to time allow customers to create accounts used for proof of concepts. These accounts will have a fixed credit amount allocated, as agreed between the customer and Wingu. If this proof of concept account is not closed and all virtual infrastructure not deleted, the customer will become liable for all billing amounts over and above the credit amount that was loaded initially.
19. Wingu may from time to time make available promotional codes to new customers. These promotional codes will be issues for a fixed value and a fix validity period. The value can be consumed by any Wingu service. Once the credit is depleted the customer will be liable for any outstanding amounts as per the regular monthly invoices.
20. Wingu provides online access to financial information showing a customer's past invoices as well as currently unbilled charges for the current calendar month. It is up to customers to manage their spending on Wingu. Customers will be held liable for full outstanding amount.
21. The full terms under which these services are rendered is provided on the Wingu website (www.wingu.co.za) and in the acceptance term and conditions when signing up for a Wingu account.