

Katakate -- K7





Hetzner node setup



Since you need hardware virtualization exposed, cloud VMs won't do.

Pick a dedicated instance,
click “**configure**”. For
instance on one of those:

<https://www.hetzner.com/dedicated-rootserver/matrix-ex/>

<div> 100% green Electricity</div> <div> Our servers are available in different locations.</div>	<div>EX44</div> <div>€ 39.⁰⁰_{max./mo.}</div> <div>€ 0.0625 /hr</div> <div>Configure</div> <div>excl. VAT</div> <div>setup fee once € 39.00</div> <div>speed*1 ●●●●●●●●</div> <div>storage*1 ●●●●●●●●</div> <div>Product details →</div>	<div>EX101</div> <div>€ 84.⁰⁰_{max./mo.}</div> <div>€ 0.1346 /hr</div> <div>Configure</div> <div>excl. VAT</div> <div>setup fee once € 39.00</div> <div>speed*1 ●●●●●●●●</div> <div>storage*1 ●●●●●●●●</div> <div>Product details →</div>	<div>EX130-R</div> <div>€ 134.⁰⁰_{max./mo.}</div> <div>€ 0.2147 /hr</div> <div>Configure</div> <div>excl. VAT</div> <div>setup fee once € 79.00</div> <div>speed*1 ●●●●●●●●</div> <div>storage*1 ●●●●●●●●</div> <div>Product details →</div>	<div>EX130-S</div> <div>€ 134.⁰⁰_{max./mo.}</div> <div>€ 0.2147 /hr</div> <div>Configure</div> <div>excl. VAT</div> <div>setup fee once € 79.00</div> <div>speed*1 ●●●●●●●●</div> <div>storage*1 ●●●●●●●●</div> <div>Product details →</div>	
	HARDWARE				
	CPU	Intel® Core™ i5-13500	Intel® Core™ i9-13900	Intel® Xeon® Gold 5412U	
	CPU-Details	6-Performance-Cores + 8-Efficient-Cores Raptor Lake-S Hyper-Threading Technology Virtualization (Intel-VT)	8-Performance-Cores + 16-Efficient-Cores Raptor Lake-S Hyper-Threading Technology Virtualization (Intel-VT)	24-Core Sapphire Rapids SP Hyper-Threading Technology Virtualization (Intel-VT)	
RAM	64 GB DDR4 Upgradeable to a max. of 128 GB DDR4 (at extra cost)	64 GB DDR5 ECC Upgradeable to a max. of 192 GB DDR5 ECC (at extra cost)	256 GB DDR5 ECC reg. Upgradeable to a max. of 768 GB DDR5 ECC reg. (at extra cost)	128 GB DDR5 ECC reg. Upgradeable to a max. of 768 GB DDR5 ECC reg. (at extra cost)	



Add an external hard-drive

You now need to add an external device without any sort of formatting, that will be used for the *devmapper snapshotter* thinpool provisioning. What does that mean? It means it will be used as ephemeral storage for the VM sandboxes. For instance, add the cheapest one: 960GB NVMe SSD, bringing you to $\frac{3}{8}$ used drive slots.

DRIVES

[reset Drives](#)

You can add additional drives to your configuration.

Used drive slots: 2 / 8

NVME

NVME

NVME SSD

960 GB NVMe SSD Datacenter Edition	€ 16.00 monthly	—	0	+
1.92 TB NVMe SSD Datacenter Edition	€ 23.00 monthly	—	2	+
3.84 TB NVMe SSD Datacenter Edition	€ 38.00 monthly	—	0	+
7.68 TB NVMe SSD Datacenter Edition	€ 62.00 monthly	—	0	+
15.36 TB NVMe SSD Datacenter Edition	€ 130.00 monthly	—	0	+

HDD

16 TB SATA Enterprise HDD	€ 23.00 monthly	—	0	+
22 TB SATA Enterprise HDD	€ 26.00 monthly	—	0	+



From the rescue system

When booting from the rescue system, type “installimage” to choose an OS to install. Pick your OS. I tested only Ubuntu 24 Noble so far.

```
-----  
-----  
Rescue System (via EFI) up since 2025-09-17 12:11 +02:00
```

Hardware data:

```
CPU1: 13th Gen Intel(R) Core(TM) i5-13500 (Cores 20)  
Memory: 64127 MB (Non-ECC)  
Disk /dev/nvme0n1: 512 GB (=> 476 GiB)  
Disk /dev/nvme1n1: 2048 GB (=> 1907 GiB) doesn't contain a valid partition table  
Disk /dev/nvme2n1: 512 GB (=> 476 GiB)  
Total capacity 2861 GiB with 3 Disks
```

Network data:

```
eth0  LINK: yes  
      MAC: c8:7f:54:07:e6:7c  
      IP:  176.9.17.156  
      IPv6: 2a01:4f8:150:1186::2/64  
      RealTek RTL-8169 Gigabit Ethernet driver
```

```
root@rescue ~ # installimage
```

Hetzner Online GmbH

o/s list

choose o/s

Debian	(Official)
Ubuntu	(Official)
Arch Linux	(Official)
openSUSE	(Official)
CentOS Stream	(Official)
AlmaLinux	(Official)
Rocky Linux	(Official)
Other	(!!NO SUPPORT!!)
Old images	(!!NO SUPPORT!!)
Custom image	(Config for custom images)
exit	

< OK >



Keep the last drive unformatted, without SWRAID

Make sure you comment the third device, and that you decrease the SWRAID level from 5 to 1. Then click “save” and “quit”.

```
/installi~all.conf [BM--] 0 L:[ 12+ 5 17/179] *(540 /5188b) 0035 0x023 [*][X]
# Device Model: SAMSUNG MZVL2512HCJQ-00B00, Serial Number: S675NU0TB25138
DRIVE1 /dev/nvme0n1
# Device Model: Micron_3400_MTFDKBA2T0TFH, Serial Number: 234747AF0754
DRIVE2 /dev/nvme1n1
# Device Model: SAMSUNG MZVL2512HCJQ-00B00, Serial Number: S675NU0TB25126
# DRIVE3 /dev/nvme2n1

## if you dont want raid over your three drives then comment out the following l
## please make sure the DRIVE[nr] variable is strict ascending with the used har

## =====
## SOFTWARE RAID:
## =====

## activate software RAID? < 0 | 1 >

SWRAID 1

## Choose the level for the software RAID < 0 | 1 | 5 | 10 >

SWRAIDLEVEL 1

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn10Quit
```



Reboot

Once OS install is completed, type “reboot” and press enter.

```
8/16 : Validating image before starting extraction  done
9/16 : Extracting image (local)  done
10/16 : Setting up network config  done
11/16 : Executing additional commands
      : Setting hostname  done
      : Generating new SSH keys  done
      : Generating mdadm config  done
      : Generating ramdisk  done
      : Generating ntp config  done
12/16 : Setting up miscellaneous files  done
13/16 : Configuring authentication
      : Fetching SSH keys  done
      : Disabling root password  done
      : Disabling SSH root login with password  done
      : Copying SSH keys  done
14/16 : Installing bootloader grub  done
15/16 : Running some ubuntu specific functions  done
16/16 : Clearing log files  done
```

INSTALLATION COMPLETE

You can now reboot and log in to your new system with the same credentials that you used to log into the rescue system.

```
root@rescue ~ # reboot
```