

# Nginx multiple instances

Asked 5 years, 10 months ago   Modified 1 year, 9 months ago   Viewed 17k times

▲ I have an EC2 instance with AWS and I have installed nginx and created multiple server blocks to server multiple applications.

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However, if nginx goes down, all the applications go down as well.

▼ Is there any way to setup separate nginx instance for each application? So if one nginx instance goes down, it won't affect other instances.



nginx

webserver

multiple-instances

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asked Jun 12, 2019 at 10:21



**Vinod Kumar**

1,489 ● 3 ● 13 ● 24

1 Did you check why nginx goes down? – [Tarun Lalwani](#) Jun 15, 2019 at 11:40

## 5 Answers

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▲ Yes, its technically possible to install 2 nginx instances on the same server but I would do it another way.

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1 - You could just create multiple EC2 instances. The downside of this approach is that maybe it's gets harder to maintain depending on how many instances you want.

▼ 2 - You could use [Docker](#) or any of its alternatives to create containers and solve this problem. You can create as many containers you need and totally separate nginx instances. Although docker is simple to learn and start using it in no time, the downside of this approach is that you need to put a little effort to learn it and your main EC2 instance needs to have enough resources to share between the containers.



I hope it helps!

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answered Jun 14, 2019 at 19:16



**Guilherme Assemany**

686 ● 6 ● 18

you are probably right to look for a different solution in his usecase. But I also have the requirement to run 2 instances of NGINX on one server in different versions. (How) is that possible? – [Sauer](#) Feb 1, 2021 at 14:31

Hello @Sauer, in your case, the number 2 is the way I think it could be better. – [Guilherme Assemany](#) Feb 1, 2021 at 14:34

again: this is true! But i am just "a guest" on this existing machine and cannot do whatever i want. – [Sauer](#) Feb 3, 2021 at 15:42



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If it's possible to use **ELB** instead of nginx. this will be more convenient but if ELB doesn't work for you. nginx already support **High Availability** mode to avoid the problem you mentioned of having a single point of failure it's documented officially here <https://www.nginx.com/products/nginx/high-availability/> it's better than having one nginx machine for every application and grantee more availability



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answered Jun 19, 2019 at 21:44



[M.Elkady](#)

1,133 ● 7 ● 13



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The type of redundancy that you're looking for is usually provided by a load balancer or reverse proxy in practice. There's a lot of ways this can be achieved architecturally, but generally speaking looks like this;



Run multiple nginx instances with the same server definitions, and a balancer like haproxy. This allows the balancer to check which nginx instances are online and send requests to each in turn. Then if a instance goes down, or the orchestrator is bring up a new one, requests only get sent to the online ones.



If requests need to be distributed more heavily, you could have nginx instances for each server, with a reverse proxy directed at each instance or node.

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edited Jun 16, 2019 at 13:23

answered Jun 16, 2019 at 13:10



[cawwot](#)

225 ● 1 ● 11



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There may be some overhead for nginx if you do it that way and your nginx may be difficult to maintain later because there are many nginx instances. Ex. If you need to update or add some modules it will be harder.



How about if you try using EC2 autoscaling group even a minimum 1 and desired 1? So that it will automatically launch a new instance if the current one goes down.



If you need to preserve some settings like the elastic ip of your EC2, you can try to search for EC2 instance recovery. It will restore your setup unlike the autoscaling group.

But it would be better if you will use a loadbalancer like ALB and use 2 instances at a minimum. Using an ALB will also make you more secure. You may also want to read about ALB target groups. It will give you more options on how to solve your current problem.

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answered Jun 17, 2019 at 2:24



tungsten\_carbide

555 ● 5 ● 18



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As long as you can use different ports for your nginx instances, check this post:

<https://serverfault.com/questions/1138876/how-can-you-run-two-instances-of-nginx-on-the-same-machine-without-docker>



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answered Jul 24, 2023 at 15:42



pkSML

275 ● 2 ● 11



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