3. PBS LXC/VM on a second PVE Instance

This strategy is exactly the same as the second strategy but the difference is that you run PBS on a different local machine all together. Now, it is up to you if you install PBS bare metal on this machine or you create another PVE 2 host with PBS running as a VM on there s.t you can use the excess resources for something else. We will discuss both in this chapter

Instruction Video

- 1. Hosting PBS on a Secondary PVE Host, but Why ?
- 2. Installation

1. Hosting PBS on a Secondary PVE Host, but Why ?

Hosting Proxmox Backup Server (PBS) as a VM on a secondary PVE host rather than on your production cluster offers significant practical and operational advantages.

Resource Efficiency and Flexibility

Instead of purchasing dedicated bare-metal PBS servers, running PBS as a VM on a secondary PVE allows you to maximize hardware utilization. You can spin up additional VMs and LXC containers on the same secondary host to use otherwise idle resources, making better use of your infrastructure investment. This approach consolidates multiple needs—backup infrastructure and supplementary compute capacity—onto a single secondary machine rather than requiring separate dedicated hardware.

Importantly, this setup accommodates **TrueNas VMs**, which require specialized backup handling. TrueNas, like Proxmox, prefers backing up to another instance rather than to standard PBS servers. By hosting both a TrueNas VM and PBS on your secondary PVE, you create an ideal backup arrangement where TrueNas can back up to a dedicated PBS instance without requiring multiple separate servers. This is far more efficient than either backing up TrueNas directly to PBS (which is not ideal) or purchasing entirely separate hardware for each component.

Performance and Stability

Performance isolation is the primary benefit. Backup operations won't compete with production workloads for CPU, memory, network bandwidth, or storage I/O. Your production VMs—including any TrueNas instances running on production—maintain consistent performance regardless of backup job complexity or frequency, and you can run aggressive backup schedules, deduplication tasks, and cleanup operations without impacting active workloads.

Disaster Recovery and Business Continuity

Separating PBS from production provides critical disaster recovery advantages. If your production PVE cluster experiences issues, your backup infrastructure remains unaffected and fully capable of restoring services. More importantly, if your production cluster goes down, you can still spin up

critical VMs or LXC containers on the secondary PVE—such as Netbox or Bookstack instances—to help you manage recovery and restoration efforts, even if you're unable to directly access physical infrastructure.

Operational and Architectural Benefits

The secondary host approach allows you to attach multiple virtual drives to your PBS instance, enabling multiple datastores that you can organize logically for different backup purposes rather than consolidating everything into a single datastore. This architecture treats backups as the critical infrastructure component it truly is, deserving of dedicated resources similar to how you'd isolate database servers or security appliances.

2. Installation

The installation of PBS as a VM on a secondary PVE is quite straightforward and basically exactly the same as installing it on the production VM. You can of course again decide to have your OS on two or one SSD. I would recommend two again since if one fails then at least your proxmox PBS that runs on your PVE is not gone. Plus another benefit is that you can always upscale your storage by re silvering the mirror with a drive that has more capacity.

1. First of all copy the link of the Proxmox Backup server from its downloading page
2. Then download the ISO to your PVE2 instance
3. Then create a new VM on PVE 2 and attach the