MR.PLANB FIELD GUIDE · PROXMOX VE

Proxmox TPM State Storage: Quick Reference

What the vTPM is, why Windows 11 needs it, and what the TPM State drive does.

Updated **2026-10-29** · Full guide: www.mrplanb.com/what-is/tpm-storage-proxmox

> In Proxmox VE, TPM means a virtual TPM (vTPM) that emulates the security chip Windows 11 and BitLocker require, with no physical TPM needed on the host. It is not storage in the hard-drive sense: its state is saved as a special TPM State drive on the VM's storage, which keeps keys and credentials across reboots and migrations.

vTPM
virtual TPM emulated by Proxmox

1
TPM State drive per VM, added in VM hardware

UEFI
BIOS type normally needed

Win 11
the main reason people add a vTPM

What TPM means in Proxmox

vTPM
A virtualized Trusted Platform Module that Proxmox presents to the guest.

Why it matters
Windows 11 compliance and BitLocker encryption need a TPM.

No host chip needed
Proxmox emulates the security chip, so the host server does not need a physical TPM.

Not ordinary storage
The name says storage, but it is a small state device, not a data disk.

Set it up when creating the VM

1. Use a UEFI BIOS for the VM.
2. Add a TPM State drive in the VM hardware, on the storage you use for that VM.
3. Install Windows 11 or the guest that needs a TPM.
4. Let the guest generate its keys and credentials. They are kept in the TPM State drive.

Before you build the VM

- [ ] UEFI BIOS selected.
- [ ] TPM State drive added to the VM hardware.
- [ ] TPM state stored on storage that persists across reboots and migrations.
- [ ] Windows 11 or BitLocker is actually required for this guest.

What the TPM State drive stores

Item	What it means
Encryption keys	Generated by the VM, kept across reboots
Security credentials	Kept across migrations
Where it lives	A special device on the VM's storage
Who needs it	Windows 11 and BitLocker

Sources and notes: Mr.PlanB guide on running Windows 11 on Proxmox · Proxmox VE virtual TPM (vTPM) feature