

# Chapter 3: How to Manage Terraform State

## what is?

- terraform.tfstate JSON file
- output **terraform plan** is a «diff» with **terraform.tfstate**
- state file is a private API, for internal use of terraform and can change in any moment
  - to modify, **terraform import** and **terraform state**
- share state in workgroups
  - shared location
    - not good idea to share in a git (manual errors, forget commit last update, no-locking, secrets exposed, etc)
    - local backend VS remote backend (supported by Amazon S3, Azure Storage, Google Cloud Storage, Hashicorp's Terraform Cloud)
  - locked
    - **-lock-timeout=10m** waits for locked state to relaunch command
  - isolation (big structures, environments)
- terraform backends limitations
  - chicken-and-egg situation (create local backend to create the infrastructure needed for remote backend)
  - no variables or references in backend block (copy-and-paste in all projects)
    - be aware to use unique «key» (paths) to store terraform.tfstate of every project
    - use **backend.hcl** for fixed information in backend block and **backend.tf** for variable information (like path), and `terraform init -backend-config=backend.hcl`
    - use **terragrunt**
- Isolating State Files
  - separate by environment
    - what happens when terraform brokes: <https://charity.wtf/2016/03/30/terraform-vpc-and-why-you-want-a-tfstate-file-per-env/>
  - by workspaces
    - `terraform workspace show`
    - `terraform workspace new <NAME>`
    - `terraform workspace list`
    - `terraform workspace select <NAME>`
    - variables
      - `terraform.workspace`
    - drawbacks<sup>1)</sup>:
      - all state files (for each workspace) are in the same backend → same credentials/authentication
      - workspaces are not visible in the code, more difficult to have a global point of view
      - human errors applying changes on the incorrect workspace
  - by Isolation via File Layout

1)

inconvenientes

From:  
<https://miguelangel.torresegea.es/wiki/> - miguel angel torres egea

Permanent link:  
<https://miguelangel.torresegea.es/wiki/info:libros:terraform-upandrunning:cap3>

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