Incus

System containers and VMs

CONCEPTS

Incus runs system containers (a full OS with init, like a light VM) and, with --vm, real QEMU virtual machines. Both use the same commands.

Remote images: image server
↓ `incus launch`
Image cached locally
↓ `incus launch`
Instance container or VM; profiles + devices
↓ `incus publish`

Profiles are reusable bundles of config and devices applied to instances. New instances get the default profile (root disk and NIC) unless you pass --profile.

images: is a remote name, debian/12 an image alias. Add other servers with incus remote add; incus remote list shows what is configured.

INSTANCES

`incus launch <image> <name>`
Create and start an instance

`incus launch <image> <name> --vm`
Launch as a virtual machine

`incus init <image> <name>`
Create without starting

`incus list`
List instances with state and IPs

`incus start <name>`
Start an instance

`incus stop <name>`
Stop an instance

`incus restart <name>`
Restart an instance

`incus delete <name>`
Delete a stopped instance

`incus info <name>`
Show status, network and snapshots

`incus launch <image> <name> -c limits.cpu=2 -c limits.memory=2GiB`
Launch with resource limits

ACCESS AND FILES

`incus shell <name>`
Login shell as root

`incus exec <name> -- <cmd>`
Run a command inside

`incus file push <local> <name>/<path>`
Copy a file into an instance

`incus file pull <name>/<path> <local>`
Copy a file out

IMAGES

`incus image list images:<filter>`
Search a remote image server

`incus publish <name> --alias <alias>`
Turn an instance into an image

CONFIG AND PROFILES

`incus config show <name>`
Show instance config

`incus config set <name> <key>=<value>`
Set an option

`incus config device add <name> <dev> disk source=<host> path=<dir>`
Mount a host directory

`incus config device add <name> <dev> proxy listen=tcp:0.0.0.0:<p> connect=tcp:127.0.0.1:<p>`
Publish a port

SNAPSHOTS AND COPIES

`incus snapshot create <name> <snap>`
Create a snapshot

`incus snapshot list <name>`
List snapshots

`incus snapshot restore <name> <snap>`
Roll back to a snapshot

`incus copy <name> <new>`
Clone an instance