Incus System containers and VMs

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

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.

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

INSTANCES (cont.)

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

incus launch *<image> <name>* **--profile default --profile** *<p>*
Launch with several profiles

ACCESS AND FILES

incus shell *<name>*
Login shell as root

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

ACCESS AND FILES (cont.)

incus console *<name>*
Attach to the text console

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

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

incus file push -r *<dir> <name>/<path>*
Copy a directory recursively

incus file edit *<name>/<path>*
Edit a file in place

IMAGES

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

incus image list
List local images

incus image copy images:*<alias>* **local: --alias** *<a>*
Cache a remote image locally

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 get *<name> <key>*
Read an option

incus config edit *<name>*
Edit config in $EDITOR as YAML

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

incus config device set *<name>* **root size=***<size>*
Resize the root disk

incus profile list
List profiles

incus profile show *<profile>*
Show a profile

CONFIG AND PROFILES (cont.)

incus profile create *<profile>*
Create a profile

incus profile edit *<profile>*
Edit a profile as YAML

incus profile assign *<name> <p1>,<p2>*
Replace an instance's profiles

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 snapshot delete *<name> <snap>*
Delete a snapshot

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

incus export *<name> <file>*
Back up to a tarball