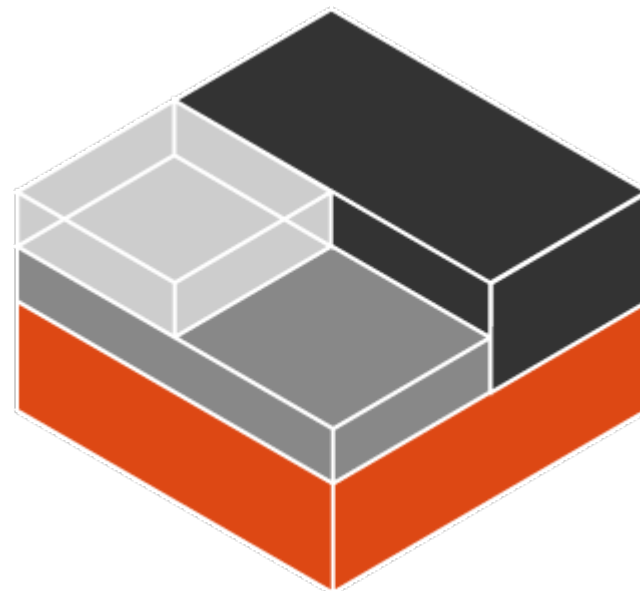


# Contenedores LXD

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# Agenda

- LXC
- LXD



# LXC

- <https://linuxcontainers.org/>
  - LXC
    - Tools, templates, library and language at low level
  - LXD
    - It is the new LXC experience, Ubuntu, REST Api, OpenStack
  - LXFS
    - Userspace filesystem: cpuinfo, meminfo, unprivileged writes

# LXC

- LXC provides **operating system-level virtualization** through a virtual environment that has **its own process and network space**, instead of creating a full-fledged virtual machine.
- **Isolation** functionality (Aislamiento)
- LXC is similar to other **OS-level virtualization** technologies on Linux such as OpenVZ , KVM
- Docker used LXC as the **container execution** driver

# LXD

- It's image based with **pre-made images** available for a wide number of **Linux distributions** and is built around a very powerful, yet pretty simple, REST API
- it's building on **top of LXC** to provide a new, better **user experience**

# LXC vs LXD

- LXC
  - `lxc-ls -f [container_name]`
- LXD
  - `lxc list`

# LXD

- Instalation on Ubuntu 18.04:
  - `# apt install lxd`

# LXD

- Configuration:

- # service lxd start

- # lxd init

Would you like to use LXD **clustering**? (yes/no) [default=no]:

Do you want to configure a new **storage pool**? (yes/no) [default=yes]:

Name of the new **storage pool** [default=default]:

Would you like to connect to a MAAS server? (yes/no) [default=no]:

Would you like to create a new **local network bridge**? (yes/no) [default=yes]:

What should the **new bridge be called**? [default=lxdbr0]:

What **IPv4 address** should be used? (CIDR subnet notation, "auto" or "none") [default=auto]:

What **IPv6 address** should be used? (CIDR subnet notation, "auto" or "none") [default=auto]: **none**

Would you like LXD to be **available over the network**? (yes/no) [default=no]:

Would you like stale **cached images** to be updated automatically? (yes/no) [default=yes]

Would you like a **YAML** "lxd init" preseed to be printed? (yes/no) [default=no]:



# LXD

- lxc list

```
+-----+-----+-----+-----+-----+-----+
| NAME | STATE | IPV4 | IPV6 | TYPE | SNAPSHOTS |
+-----+-----+-----+-----+-----+-----+
```

- lxc launch ubuntu:18.04 **local**
- lxc image list
- lxc exec **local** bash

# LXD

- No Graphic User Interface
- Cloud systems
-

# LXD

- lxc remote list

NAME	URL	PROTOCOL	AUTH TYPE	PUBLIC	STATIC
images	https://images.linuxcontainers.org	simplestreams		YES	NO
local (default)	unix://	lxd	tls	NO	YES
ubuntu	https://cloud-images.ubuntu.com/releases	simplestreams		YES	YES
ubuntu-daily	https://cloud-images.ubuntu.com/daily	simplestreams		YES	YES

# LXD

- lxc remote add ....

```
lxc config set core.https_address [::]:8443
```

```
lxc config set core.trust_password <something-sha1-secure>
```

- <http://www.sha1-online.com/>

- lxc remote add ***production 1.2.3.4***

- Request for <something-sha1-secure>

# LXD

- lxc remote list

NAME	URL	PROTOCOL	PUBLIC	STATIC
production	https://1.2.3.4:8443	lxd	NO	NO

# LXD

- lxc exec production:debian bash
- Manage files
  - lxc file **pull** production:debian/etc/hosts .
  - lxc file **push** hosts production:debian/tmp/
  - lxc config device add mycontainer homedir **disk**  
source=/home/\$USER path=/home/ubuntu

**Gracias!**

Preguntas