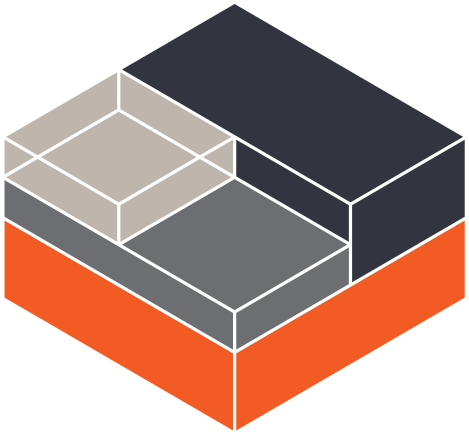
ubuntu

LXD – The Linux container hypervisor from Ubuntu

Scale Your Infrastructure **+10× density** with **LXD** machine container technology.



What's a container?

Be clear on containers. Container technology is process isolation. It allows a given process, or computer program, to execute in a secure memory space as though it is an isolated process on an isolated system, but where the system is indeed a shared platform with other isolated processes running side-by-side.

What's special about LXD?

LXD (pronounced "lex-dee") is not just a container technology, it's a hypervisor technology for containers. This means LXD containers look and act like virtual machines, but have the lightweight performance and scalability of process containers.

The right container for the right job

Different container types have emerged. Process containers, like LXC (pronounced "lex-cee"), run simple processes with extreme efficiency and scalability, but tend to lack enterprise management capabilities like live migration and compatibility with traditional deployment tools. Application container technologies, like Docker, can package applications for rapid deployment and scalability. Machine containers (LXD) bridge the gap between traditional enterprise solutions and modern cloud architectures, by providing a virtual machine-like environment for process containers (LXC), increasing solution manageability and compatibility without introducing virtualisation overhead.

Docker or LXD?

Both! You can use LXD on its own to deploy traditional workload applications, or you can use Docker containers inside LXD containers to get the best of both technologies. Remember, Docker provides application encapsulation, LXD gives you machine encapsulation inside a container.

LXD Highlights

- Operating system functionality within containers, not just single processes or individual applications
- Integrated with OpenStack Nova Compute with ongoing integration of other projects
- Rapid provisioning, instant guest boot
- Maximum density of guests per host – cost savings on any infrastructure
- REST API and command line interface with proper help and documentation
- Integration with remote imaging services-use your traditional deployment methodologies with LXD
- Supported by Canonical, the company that brings you the most popular cloud operating system – Ubuntu

Juju and Containers

Juju is a service modeling tool, it allows you to deploy workloads based on application and service level associations. Currently, Juju can deploy to LXC containers, and Canonical is working to add the capability to seamlessly deploy to LXD containers and Docker containers in the near future.

For more information about LXD and Juju please visit ubuntu.com or contact cloud@ubuntu.com

CANONICAL