

LXC inside of LXD Different than Just LXC

On your host system, either install LXC or install LXD. Though LXD setups an LXC subsystem, If found that the packages are different.

This is a fresh ubuntu system with LXD already installed,

```
# show version,  
lsb_release -a  
No LSB modules are available.  
Distributor ID: Ubuntu  
Description: Ubuntu 16.04.2 LTS  
Release: 16.04  
Codename: xenial  
  
# confirm LXD insalled,  
sudo apt-get install lxd  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
lxd is already the newest version (2.0.10-0ubuntu1~16.04.1).  
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
```

Now simulate LXC install and notice all these **extra packages** and configuration files,

```
sudo apt-get install --dry-run lxc  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following additional packages will be installed:  
  busybox-static cloud-image-utils debootstrap distro-info genisoimage  
libaiol libasn1-8-heimdal libboost-iostreams1.58.0  
  libboost-random1.58.0 libboost-system1.58.0 libboost-thread1.58.0  
libcurl3-gnutls libglib2.0-0 libglib2.0-data libgssapi3-heimdal  
  libhcrypto4-heimdal libheimbase1-heimdal libheimntlm0-heimdal  
libhx509-5-heimdal libiscsi2 libkrb5-26-heimdal libldap-2.4-2  
  libnsspr4 libnss3 libnss3-nssdb libpam-cgfs librados2 librbd1  
libroken18-heimdal librtmp1 libsasl2-2 libsasl2-modules  
  libsasl2-modules-db libwind0-heimdal lxc-templates lxc1 python3-lxc  
qemu-block-extra qemu-utils shared-mime-info sharutils  
  uuid-runtime xdg-user-dirs  
Suggested packages:  
  cloud-utils-euca shunit2 wodim cdrkit-doc libsasl2-modules-otp  
libsasl2-modules-ldap libsasl2-modules-sql  
  libsasl2-modules-gssapi-mit | libsasl2-modules-gssapi-heimdal  
qemu-user-static btrfs-tools lxctl bsd-mailx | mailx  
The following NEW packages will be installed:  
  busybox-static cloud-image-utils debootstrap distro-info genisoimage  
libaiol libasn1-8-heimdal libboost-iostreams1.58.0  
  libboost-random1.58.0 libboost-system1.58.0 libboost-thread1.58.0  
libcurl3-gnutls libglib2.0-0 libglib2.0-data libgssapi3-heimdal  
  libhcrypto4-heimdal libheimbase1-heimdal libheimntlm0-heimdal
```

```
libhx509-5-heimdal libiscsi2 libkrb5-26-heimdal libldap-2.4-2
    libnsspr4 libnss3 libnss3-nssdb libpam-cgfs librados2 librbd1
libroken18-heimdal librtmp1 libsasl2-2 libsasl2-modules
    libsasl2-modules-db libwind0-heimdal lxc lxc-templates lxcl python3-lxc
qemu-block-extra qemu-utils shared-mime-info sharutils
    uuid-runtime xdg-user-dirs
0 upgraded, 44 newly installed, 0 to remove and 0 not upgraded.
Inst uuid-runtime (2.27.1-6ubuntu3.3 Ubuntu:16.04/xenial-updates [amd64])
Inst libiscsi2 (1.12.0-2 Ubuntu:16.04/xenial [amd64])
Inst busybox-static (1:1.22.0-15ubuntul Ubuntu:16.04/xenial [amd64])
Inst libroken18-heimdal (1.7~git20150920+dfsg-4ubuntul.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Inst libasnl-8-heimdal (1.7~git20150920+dfsg-4ubuntul.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Inst libhcrypto4-heimdal (1.7~git20150920+dfsg-4ubuntul.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Inst libheimbase1-heimdal (1.7~git20150920+dfsg-4ubuntul.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Inst libwind0-heimdal (1.7~git20150920+dfsg-4ubuntul.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Inst libhx509-5-heimdal (1.7~git20150920+dfsg-4ubuntul.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Inst libkrb5-26-heimdal (1.7~git20150920+dfsg-4ubuntul.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Inst libheimntlm0-heimdal (1.7~git20150920+dfsg-4ubuntul.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Inst libgssapi3-heimdal (1.7~git20150920+dfsg-4ubuntul.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Inst libsasl2-modules-db (2.1.26.dfsg1-14build1 Ubuntu:16.04/xenial
[amd64])
Inst libsasl2-2 (2.1.26.dfsg1-14build1 Ubuntu:16.04/xenial [amd64])
Inst libldap-2.4-2 (2.4.42+dfsg-2ubuntu3.2 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [amd64])
Inst librtmp1 (2.4+20151223.gitfa8646d-1ubuntu0.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Inst libcurl3-gnutls (7.47.0-1ubuntu2.2 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [amd64])
Inst libglib2.0-0 (2.48.2-0ubuntul Ubuntu:16.04/xenial-updates [amd64])
Inst libglib2.0-data (2.48.2-0ubuntul Ubuntu:16.04/xenial-updates [all])
Inst libsasl2-modules (2.1.26.dfsg1-14build1 Ubuntu:16.04/xenial [amd64])
Inst shared-mime-info (1.5-2ubuntu0.1 Ubuntu:16.04/xenial-updates [amd64])
Inst xdg-user-dirs (0.15-2ubuntu6 Ubuntu:16.04/xenial [amd64])
Inst distro-info (0.14build1 Ubuntu:16.04/xenial [amd64])
Inst genisoimage (9:1.1.11-3ubuntul Ubuntu:16.04/xenial [amd64])
Inst libaiol (0.3.110-2 Ubuntu:16.04/xenial [amd64])
Inst libboost-iostreams1.58.0 (1.58.0+dfsg-5ubuntu3.1
Ubuntu:16.04/xenial-updates [amd64])
Inst libboost-system1.58.0 (1.58.0+dfsg-5ubuntu3.1
Ubuntu:16.04/xenial-updates [amd64])
Inst libboost-random1.58.0 (1.58.0+dfsg-5ubuntu3.1
Ubuntu:16.04/xenial-updates [amd64])
Inst libboost-thread1.58.0 (1.58.0+dfsg-5ubuntu3.1
Ubuntu:16.04/xenial-updates [amd64])
```

```
Inst libnspr4 (2:4.13.1-0ubuntu0.16.04.1 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [amd64])
Inst libnss3-nssdb (2:3.28.4-0ubuntu0.16.04.2 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [all]) []
Inst libnss3 (2:3.28.4-0ubuntu0.16.04.2 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [amd64])
Inst libpam-cgfs (2.0.7-0ubuntu1~16.04.2 Ubuntu:16.04/xenial-updates
[amd64])
Inst librados2 (10.2.7-0ubuntu0.16.04.1 Ubuntu:16.04/xenial-updates
[amd64])
Inst librbd1 (10.2.7-0ubuntu0.16.04.1 Ubuntu:16.04/xenial-updates [amd64])
Inst python3-lxc (2.0.8-0ubuntu1~16.04.2 Ubuntu:16.04/xenial-updates
[amd64])
Inst lxc1 (2.0.8-0ubuntu1~16.04.2 Ubuntu:16.04/xenial-updates [amd64])
Inst lxc (2.0.8-0ubuntu1~16.04.2 Ubuntu:16.04/xenial-updates [all])
Inst lxc-templates (2.0.8-0ubuntu1~16.04.2 Ubuntu:16.04/xenial-updates
[amd64])
Inst qemu-block-extra (1:2.5+dfsg-5ubuntu10.14 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [amd64])
Inst qemu-utils (1:2.5+dfsg-5ubuntu10.14 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [amd64])
Inst sharutils (1:4.15.2-1 Ubuntu:16.04/xenial [amd64])
Inst cloud-image-utils (0.27-0ubuntu24 Ubuntu:16.04/xenial [all])
Inst debootstrap (1.0.78+nmulubuntu1.4 Ubuntu:16.04/xenial-updates [all])
Conf uuid-runtime (2.27.1-6ubuntu3.3 Ubuntu:16.04/xenial-updates [amd64])
Conf libiscsi2 (1.12.0-2 Ubuntu:16.04/xenial [amd64])
Conf busybox-static (1:1.22.0-15ubuntu1 Ubuntu:16.04/xenial [amd64])
Conf libroken18-heimdal (1.7~git20150920+dfsg-4ubuntu1.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Conf libasn1-8-heimdal (1.7~git20150920+dfsg-4ubuntu1.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Conf libhcrypto4-heimdal (1.7~git20150920+dfsg-4ubuntu1.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Conf libheimbase1-heimdal (1.7~git20150920+dfsg-4ubuntu1.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Conf libwind0-heimdal (1.7~git20150920+dfsg-4ubuntu1.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Conf libhx509-5-heimdal (1.7~git20150920+dfsg-4ubuntu1.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Conf libkrb5-26-heimdal (1.7~git20150920+dfsg-4ubuntu1.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Conf libheimntlm0-heimdal (1.7~git20150920+dfsg-4ubuntu1.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Conf libgssapi3-heimdal (1.7~git20150920+dfsg-4ubuntu1.16.04.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Conf libsasl2-modules-db (2.1.26.dfsg1-14build1 Ubuntu:16.04/xenial
[amd64])
Conf libsasl2-2 (2.1.26.dfsg1-14build1 Ubuntu:16.04/xenial [amd64])
Conf libldap-2.4-2 (2.4.42+dfsg-2ubuntu3.2 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [amd64])
Conf librtmp1 (2.4+20151223.gitfa8646d-1ubuntu0.1
Ubuntu:16.04/xenial-updates, Ubuntu:16.04/xenial-security [amd64])
Conf libcurl3-gnutls (7.47.0-1ubuntu2.2 Ubuntu:16.04/xenial-updates,
```

```
Ubuntu:16.04/xenial-security [amd64])
Conf libglib2.0-0 (2.48.2-0ubuntu1 Ubuntu:16.04/xenial-updates [amd64])
Conf libglib2.0-data (2.48.2-0ubuntu1 Ubuntu:16.04/xenial-updates [all])
Conf libsasl2-modules (2.1.26.dfsg1-14build1 Ubuntu:16.04/xenial [amd64])
Conf shared-mime-info (1.5-2ubuntu0.1 Ubuntu:16.04/xenial-updates [amd64])
Conf xdg-user-dirs (0.15-2ubuntu6 Ubuntu:16.04/xenial [amd64])
Conf distro-info (0.14build1 Ubuntu:16.04/xenial [amd64])
Conf genisoimage (9:1.1.11-3ubuntu1 Ubuntu:16.04/xenial [amd64])
Conf libaiol (0.3.110-2 Ubuntu:16.04/xenial [amd64])
Conf libboost-iostreams1.58.0 (1.58.0+dfsg-5ubuntu3.1
Ubuntu:16.04/xenial-updates [amd64])
Conf libboost-system1.58.0 (1.58.0+dfsg-5ubuntu3.1
Ubuntu:16.04/xenial-updates [amd64])
Conf libboost-random1.58.0 (1.58.0+dfsg-5ubuntu3.1
Ubuntu:16.04/xenial-updates [amd64])
Conf libboost-thread1.58.0 (1.58.0+dfsg-5ubuntu3.1
Ubuntu:16.04/xenial-updates [amd64])
Conf libnspr4 (2:4.13.1-0ubuntu0.16.04.1 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [amd64])
Conf libnss3-nssdb (2:3.28.4-0ubuntu0.16.04.2 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [all])
Conf libnss3 (2:3.28.4-0ubuntu0.16.04.2 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [amd64])
Conf libpam-cgfs (2.0.7-0ubuntu1~16.04.2 Ubuntu:16.04/xenial-updates
[amd64])
Conf librados2 (10.2.7-0ubuntu0.16.04.1 Ubuntu:16.04/xenial-updates
[amd64])
Conf librbd1 (10.2.7-0ubuntu0.16.04.1 Ubuntu:16.04/xenial-updates [amd64])
Conf python3-lxc (2.0.8-0ubuntu1~16.04.2 Ubuntu:16.04/xenial-updates
[amd64])
Conf lxc1 (2.0.8-0ubuntu1~16.04.2 Ubuntu:16.04/xenial-updates [amd64])
Conf lxc (2.0.8-0ubuntu1~16.04.2 Ubuntu:16.04/xenial-updates [all])
Conf lxc-templates (2.0.8-0ubuntu1~16.04.2 Ubuntu:16.04/xenial-updates
[amd64])
Conf qemu-block-extra (1:2.5+dfsg-5ubuntu10.14 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [amd64])
Conf qemu-utils (1:2.5+dfsg-5ubuntu10.14 Ubuntu:16.04/xenial-updates,
Ubuntu:16.04/xenial-security [amd64])
```

```
Conf sharutils (1:4.15.2-1 Ubuntu:16.04/xenial [amd64])
Conf cloud-image-utils (0.27-0ubuntu24 Ubuntu:16.04/xenial [all])
Conf debootstrap (1.0.78+nmulubunt1.4 Ubuntu:16.04/xenial-updates [all])
```

Though it might be fine, I think it's a bad idea to try and run LXC and LXD together. Also, because I like my host system to be as clean as possible, I will make sure to [start with a clean install](#) of the host and then chose either LXD or LXC.