Introducing Incus

System containers and virtual machines at any scale

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How did we get there?

- 2008/08: The LXC project is created by Daniel Lezcano
- 2013/09: The Linux Containers project, website and image server get created
- 2014/11: The LXD project is announced by Canonical (as part of Linux Containers)

- 2023/07/04: Canonical announces that LXD is to be moved out of Linux Containers
- 2023/07/05: All existing non-Canonical maintainers of LXD are removed from the project
- 2023/07/07: My last day at Canonical
- 2023/08/01: The Incus project is created by Aleksa Sarai
- 2023/08/07: Incus joins Linux Containers, taking LXD’s place

- 2023/10/07: Incus 0.1 is released

- 2023/12/12: LXD adds a CLA requirement and re-licenses to AGPLv3
So what is it anyway?

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATE</th>
<th>IPV4</th>
<th>IPV6</th>
<th>TYPE</th>
<th>SNAPSHOTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>alpine-edge</td>
<td>RUNNING</td>
<td>10.178.240.17</td>
<td>fd42:8384:a6f8:63a0:216:3eff:fe9a:9b2b</td>
<td>CONTAINER</td>
<td>0</td>
</tr>
<tr>
<td>arch</td>
<td>RUNNING</td>
<td>10.178.240.30</td>
<td>fd42:8384:a6f8:63a0:216:3eff:fece:0cd15</td>
<td>VIRTUAL-MACHINE</td>
<td>0</td>
</tr>
<tr>
<td>debian-12</td>
<td>RUNNING</td>
<td>10.179.240.192</td>
<td>fd42:8384:a6f8:63a0:216:3eff:fe70:ad75</td>
<td>CONTAINER</td>
<td>0</td>
</tr>
<tr>
<td>gentoo</td>
<td>RUNNING</td>
<td>10.178.240.9</td>
<td>fd42:8384:a6f8:63a0:216:3eff:fe29:593</td>
<td>CONTAINER</td>
<td>0</td>
</tr>
<tr>
<td>nixos</td>
<td>RUNNING</td>
<td>10.178.240.232</td>
<td>fd42:8384:a6f8:63a0:216:3eff:fe70:88e5</td>
<td>VIRTUAL-MACHINE</td>
<td>0</td>
</tr>
<tr>
<td>rocky-8</td>
<td>RUNNING</td>
<td>10.178.240.112</td>
<td>fd42:8384:a6f8:63a0:216:3eff:fe98:60e4</td>
<td>CONTAINER</td>
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</tr>
<tr>
<td>ubuntu-2204</td>
<td>RUNNING</td>
<td>10.178.240.147</td>
<td>fd42:8384:a6f8:63a0:216:3eff:fe62:7e00</td>
<td>VIRTUAL-MACHINE</td>
<td>0</td>
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<tr>
<td>ubuntu-2310</td>
<td>RUNNING</td>
<td>10.178.240.167</td>
<td>fd42:8384:a6f8:63a0:216:3eff:fe8e:2184</td>
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</tr>
<tr>
<td>void</td>
<td>RUNNING</td>
<td>10.178.240.83</td>
<td>fd42:8384:a6f8:63a0:216:3eff:fe57:57b6</td>
<td>CONTAINER</td>
<td>0</td>
</tr>
</tbody>
</table>

stgraber@castiana:~$
So what is it anyway?
What can I run on there?

Container or VM

Container

VM
Demo time!

Using Incus on a standalone system
How about scripting it?
What if I like dashboards?
Demo time!

Using Incus in a clustered environment
Where do I get it?

<table>
<thead>
<tr>
<th>Server</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch Linux</td>
<td>Fedora</td>
</tr>
<tr>
<td>Gentoo Linux</td>
<td>Debian</td>
</tr>
<tr>
<td>NixOS</td>
<td>Linux (Penguin)</td>
</tr>
<tr>
<td>Ubuntu</td>
<td>macOS</td>
</tr>
<tr>
<td>Void</td>
<td>Windows</td>
</tr>
</tbody>
</table>
What’s next?

- Availability in more Linux distributions
  - Alpine packaging in progress
  - Fedora native package in progress

- Long Term Support (LTS) release
  - 2 years of bugfixes and minor improvements
  - 5 years of security updates
  - Expected in late March / early April 2024

- Planned major features:
  - bcachefs storage driver
  - Distributed LVM storage driver (lvmlockd)
  - Basic OCI application container support
  - Cross-cluster networking with OVN interconnect
Demo time!

Try it for yourself!

https://linuxcontainers.org/incus/try-it
Questions?

Try Incus online:
https://linuxcontainers.org/incus/try-it

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