Compute Cloud

The LRZ Cloud portal is a service offering from LRZ for its customers. The idea is to provide a responsive service that allows customers to upload and use their own virtual machine images. The LRZ Compute Cloud system can be accessed via the login page

https://cc.lrz.de

Target Audience

The target audience of the Compute Cloud are users that need to get resources for run services and test software quickly. Users can create VMs on their own with their preferred operating system (except Windows) and being root in their VMs: VMs can be configured as needed, users are free in installing the software they need but they are also responsible for everything happening in their VMs.

The Compute Cloud can be run to perform calculations, host testing environments, and can accompany lectures and workshops. The cloud can also be used to run services for research projects. It is operated following the best effort principle.

Our resources are limited.

There are some important points you should be aware of:

- **We do not offer a storage system for large datasets!**
  Please note that the storage backend of the Compute Cloud is used to host the virtual disks belonging to the VMs in the cloud. It is not meant to store large data sets. If you have huge amounts of data you want to process within VMs in the Compute Cloud please use LRZ's Data Science Storage service.

- **We do not create backups!**
  You are responsible for backing up your data. We cannot create volumes that have been (accidentally) deleted or restore corrupted/deleted files within a single volume. If you need backups you can backup the relevant data with rsync or the tool(s) of your choice or use LRZ's Backup service.

- **We do not offer high availability!**
  The Compute Cloud is not suitable to host services that need to be highly available although we do our best. If you need high availability, please do not use the Compute Cloud but consider using our Managed Server offering.

- **We do not offer any guarantees that you can access the resources you want!**
  As already stated above: Our resources are limited. If all resources are fully used by other users there is no way to create new VMs. We try to mitigate this by assigned default quotas to every user that prevents a user do consume too many resources at once. However, since the number of users is increasing we cannot guarantee that you always get what you want. One solution to that is that you buy your own Cloud hardware (called "Attended Cloud Housing"): If you have money to spend and want to have exclusive access to Cloud resources please drop us a line.

Getting access

To access our cloud environment, you need a LRZ project that is enabled for the LRZ Compute Cloud service. More information on this subject can be found here.

Frequently Asked Questions (FAQ)

The FAQ section covers questions that will come up regularly. You should consult this page before contacting the cloud support team.

When you contact us please always provide the following information, this will help us a lot to speed up the process:

- your User Name (LRZ Kennung) you use to login to the cloud
- the UUIDs of the cloud components, i.e. VM, instance, volume, network etc. which cause the problems.

Tutorials

- Create a VM
- Create a personal network
- Command Line Tools: installation and usage
- Upload an ISO and install custom operating system
Hardware Overview

<table>
<thead>
<tr>
<th>Node Type</th>
<th>Number of Nodes</th>
<th>CPU &amp; GPU Cores / per Node</th>
<th>RAM (GB) / per node</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compute Node</td>
<td>82</td>
<td>40x Intel(R) Xeon(R) Gold 6148 CPU @ 2.40GHz</td>
<td>192 GB</td>
<td>Up to 10 CPUs: all cloud users. More than 10 CPUs: restricted, contact us: cloud support team</td>
</tr>
<tr>
<td>GPU Node</td>
<td>32</td>
<td>40x Intel(R) Xeon(R) Gold 6148 CPU @ 2.40GHz 2x Nvidia Tesla V100 16 GB RAM</td>
<td>768 GB</td>
<td>restricted, contact us: cloud support team</td>
</tr>
<tr>
<td>Huge Node</td>
<td>1</td>
<td>192x Intel(R) Xeon(R) Platinum 8160 CPU @ 2.10 GHz</td>
<td>6.000 GB</td>
<td>restricted, contact us: cloud support team</td>
</tr>
</tbody>
</table>

Details about the available Flavors can be found here: Flavors

Policies

- Acceptable Use Policy
- Datenschutzerklärung für LRZ Compute Cloud
- Lizenzpflichtige Software