

# Proxmox

Proxmox is the hyper virtualiser we use for creating Virtual Machines and Containers on our primary two servers

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# Virtual Machines

A virtual machine is exactly as what is described, it's a virtual computer held within a physical computer. It is completely separate from the physical computers operations and uses a hypervisor to manage it's CPU and RAM resources.

It's very secure as in information is not shared outside of the virtual machine. If a machine has to share resources or has it's own independent requirements a virtual machine is always the best choice.

We have the following Virtual Machine Instances

- ClearOS (Router and VPN System)
- FreePBX (VOIP System)
- Zimbra (Email System)
- OpenMediaVault (Data Management System)

# LXC Containers

LXC Containers are a containerisation solution. Like Virtual Machines they are a virtual representation of a computer within another computer system using hypervisor technology.

Unlike Virtual Machines their overall resources are shared between the host hypervisor system. This means their overhead is much less, allowing quicker boots and restorations.

They are deemed to be less secure as they have to remain unprivileged so any edits they do do not affect the parent hypervisor system as kernel supplied management is shared.

We have the following LXC Containers

1. Mysql
2. Redis
3. MaticTrack (NGINX, Imagemagic, Ruby, Ghostscript)
4. RocketChat
5. Elasticsearch

# What is proxmox?

Proxmox is a hyper thread virtualization manager. Basically it allows you to control multiple computer instances from one or more servers in one system.

A computer instances can either be a container or a virtual machine. The differences aren't really important they just represent different computers.

You can access proxmox via either one of the primary server instances. You can find log in details in the vault.

## Server Details

| Server   | Url                   |
|----------|-----------------------|
| Server 1 | Https://192.168.0.208 |
| Server 2 |                       |