

Servers

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Proxmox

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

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	

Local Hardware

Server 1 and 2

Server 1 and 2 are both Proxmox instances in a quorum. A quorum shares resources as if it were one server allowing instances to be transferred instantly between multiple servers.

LCX Containers

ID	Service	What is it?	IP Address
103	Elasticsearch	Search service for MaticTrack	192.168.0.65
104	Rocketchat	Chat System	192.168.0.198
110	Vaultwarden	Password Vault	192.168.0.62
200	Mysql	Matictrack Database	192.168.0.60
250	Redis	MaticTrack Cache and Queue System	192.168.0.52
900	NGINX	MaticTrack PHP Instance and Routing System	192.168.0.51

Virtual Machines

ID	Service	What is it?	IP Address
101	ClearOS	Router, Internet Routing, Internal DNS, VPN	192.168.0.1
105	Zammad	Ticketing System	192.168.0.199
106	Zimbra	Email System	192.168.0.110
108	FreePBX	Phone System	192.168.0.200
201	OpenMediaVault	Storage and Data Backups	192.168.0.10

Other Hardware

Hardware	Physical Location	IP Address
Smart Switch 1	Switch box in small office downstairs	
Smart Switch 2	Server Rack	
Printing Switch 1	Printing room under desk	
Printing Switch 2	Printing room behind Mimaki	
Google Wifi 1	Server Rack	
Google Wifi 2	Behind Mimaki	
Google Wifi 3	Under Kelly's Desk	
Virgin Media Internet Modem	Server Rack	
Toople Internet Modem	Server Rack	
Power Line 1	Server Rack	
Power Line 2	On main office roof	
Camera System	On main office root	
Production Switch	In Finishing Room under main desk	

Remote Instances

Computer Registry

Name	Registered To	Make	Manufacture
LAPTOP001	Jamie	Lenovo	Ideapad Flex 5
LAPTOP002	Patrick	HP	14-bp060na
LAPTOP003	Lesley	HP	Envy 17m-ae111dx
GRAPHICS001	Graphic Designer / Prepress	HP	Envy - ba1014
LAPTOP004	David	HP	14s-fq0000na