

DAVID

Vs GOLIATH



THE STORY OF DAVID AND GOLIATH GOES THUS

- The battle between David and Goliath has taken on a more secular meaning, denoting an underdog situation, a contest where a smaller, weaker opponent faces a much bigger, stronger adversary
- Goliath of Gath was a giant Philistine warrior defeated by a young boy called David, the future king of Israel
- He was over nine feet tall and always came out of the Philistine camp every morning and every evening for forty days mocking and shouting to the Israelites in his big deep voice, and challenging the Israelites to send out their champion to decide the outcome of the war in single combat
- Reaching into his pouch David pulled out a stone, put it into his slingshot and shot it at Goliath
- The stone sank into Goliath's forehead, and he fell facedown on the ground

SUCCESS STORY OF MIKRO TIK

- Founded in 1996
- A lot of players were already operating within the industry

OFFNET

- It is a platform that allows access to information or a service locally hosted on ICT infrastructure hence cheaper and faster.



Who we are



Three young I.T enthusiasts from Zimbabwe with a background in

- ▶ CISCO
- ▶ MIKROTIK
- ▶ LINUX
- ▶ VOIP
- ▶ VIRTUALIZATION
- ▶ NETWORK MONITORING
- ▶ WEB DEVELOPMENT



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- Zimbabwe is located on the northern side of South Africa with a distance of about 1200km apart



VIC FALLS CARNIVAL

- A three day event hosted in Victoria Falls Zimbabwe where thousands of locals and foreigners meet
- Victoria Falls is one of the seven greatest natural wonders of the world
- The Carnival wanted users to complete a questionnaire before getting access to the internet

THE CARNIVAL



THE CARNIVAL



SOLUTION EXPLAINED

Bandwidth Cost

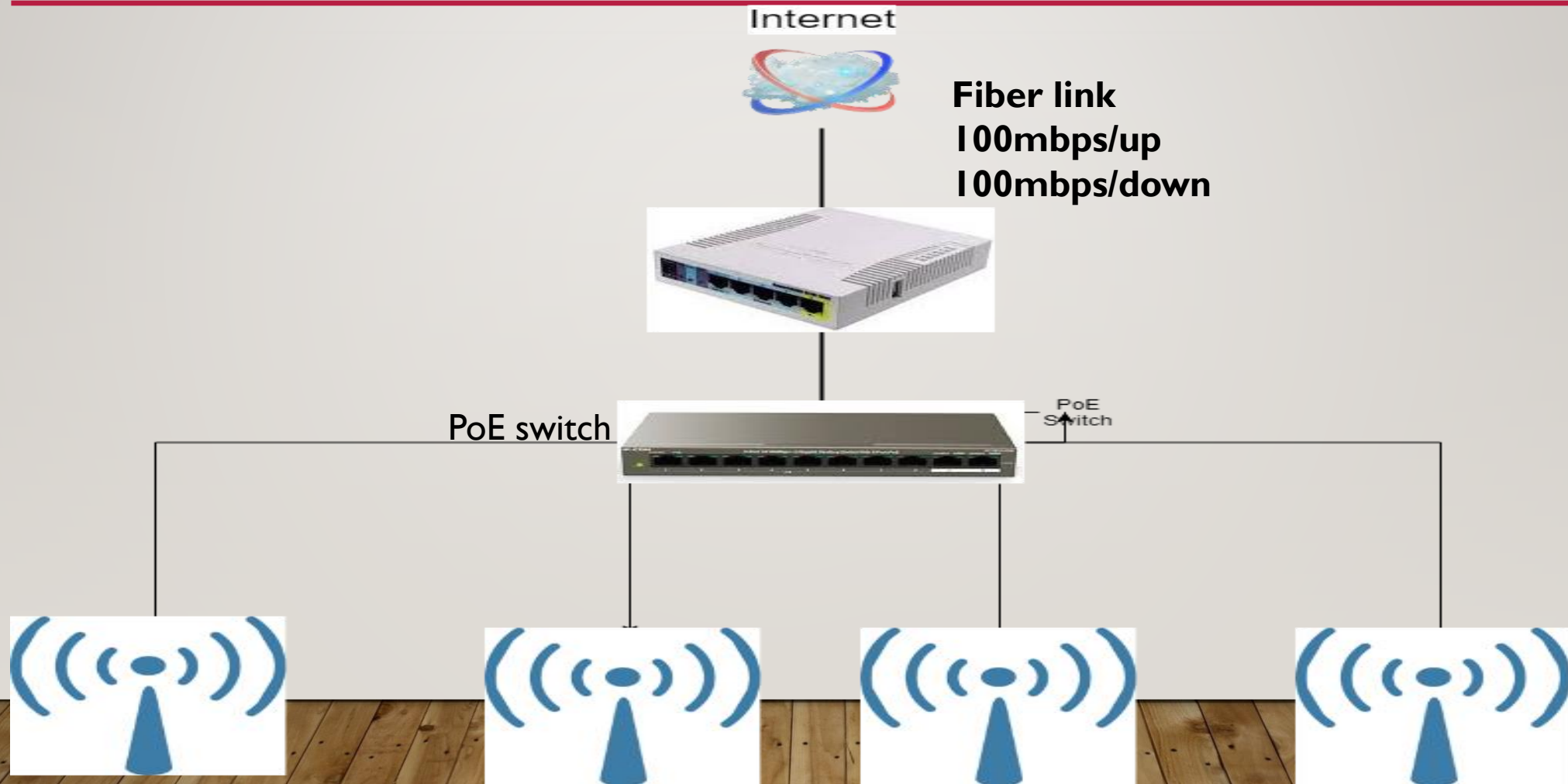
- The cost for 100mbps leased circuit for 3 days costs about 21000 Zimbabwean dollars
- This translates to about R15 000 / USD \$ 1 000



RESOURCES IN HAND



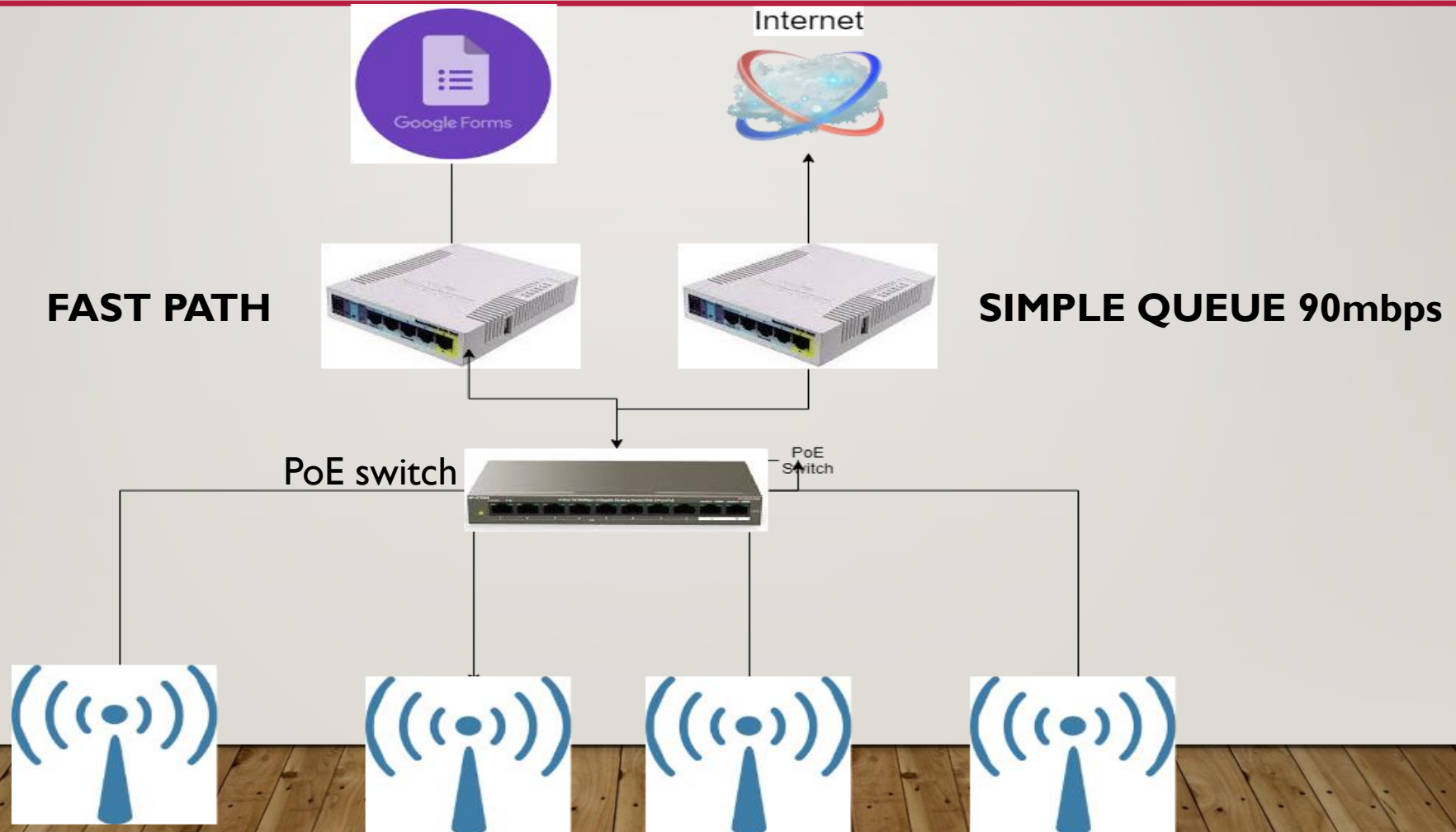
NETWORK TOPOLOGY



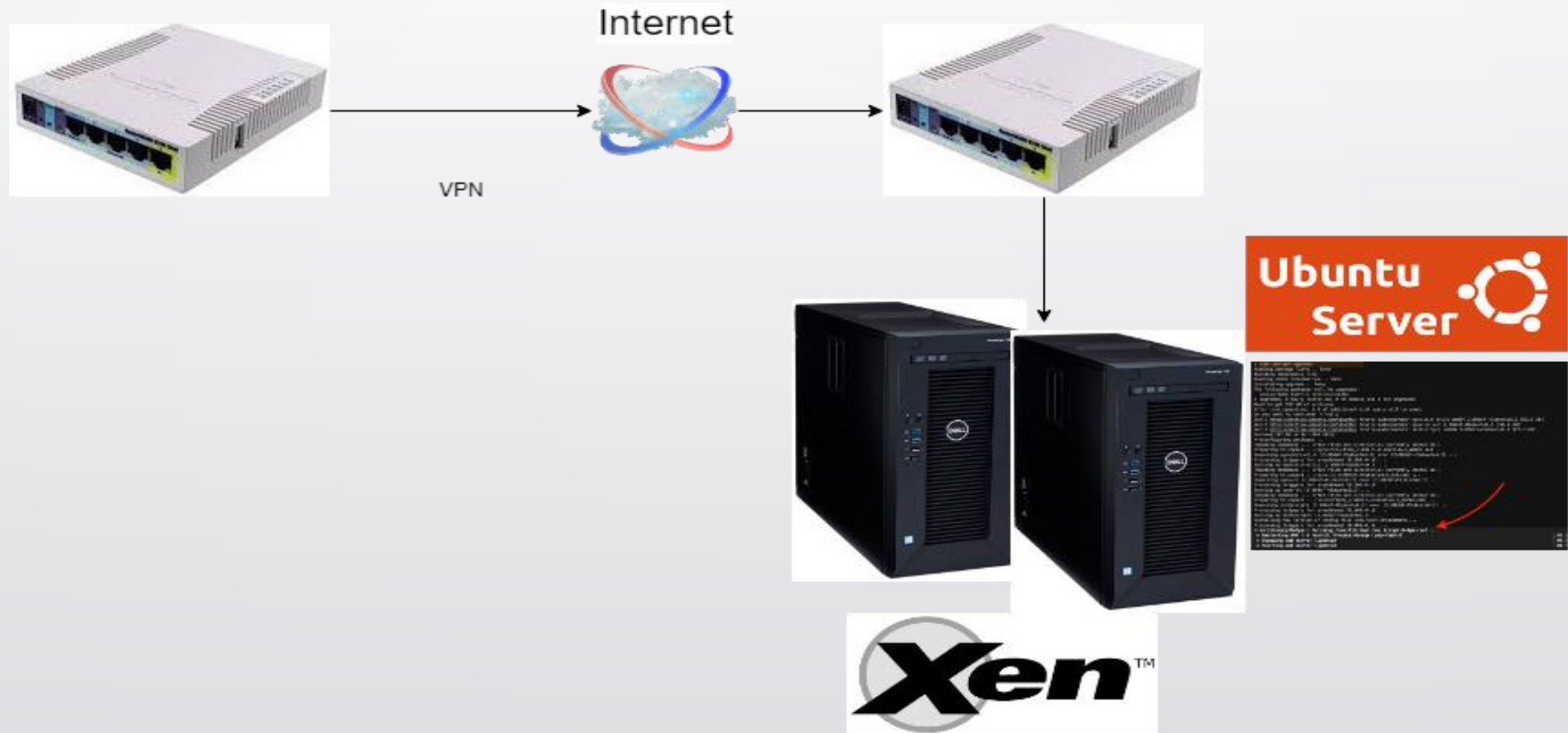
1ST CHALLENGE- CPU UTILIZATION

| Resources | | <input type="button" value="OK"/> |
|-----------------------------|-----------------|------------------------------------|
| Uptime: | 8d 06:43:43 | |
| Free Memory: | 38.1 MiB | <input type="button" value="PCI"/> |
| Total Memory: | 128.0 MiB | <input type="button" value="USB"/> |
| CPU: | MIPS 74Kc V4.12 | <input type="button" value="CPU"/> |
| CPU Count: | 1 | <input type="button" value="IRQ"/> |
| CPU Frequency: | 600 MHz | |
| CPU Load: | 100 % | |
| Free HDD Space: | 36.1 MiB | |
| Total HDD Size: | 128.0 MiB | |
| Sector Writes Since Reboot: | 31 898 628 | |
| Total Sector Writes: | 183 134 178 | |
| Bad Blocks: | 0.0 % | |
| Architecture Name: | mipsbe | |
| Board Name: | RB951Ui-2HnD | |
| Version: | 6.46.2 (stable) | |

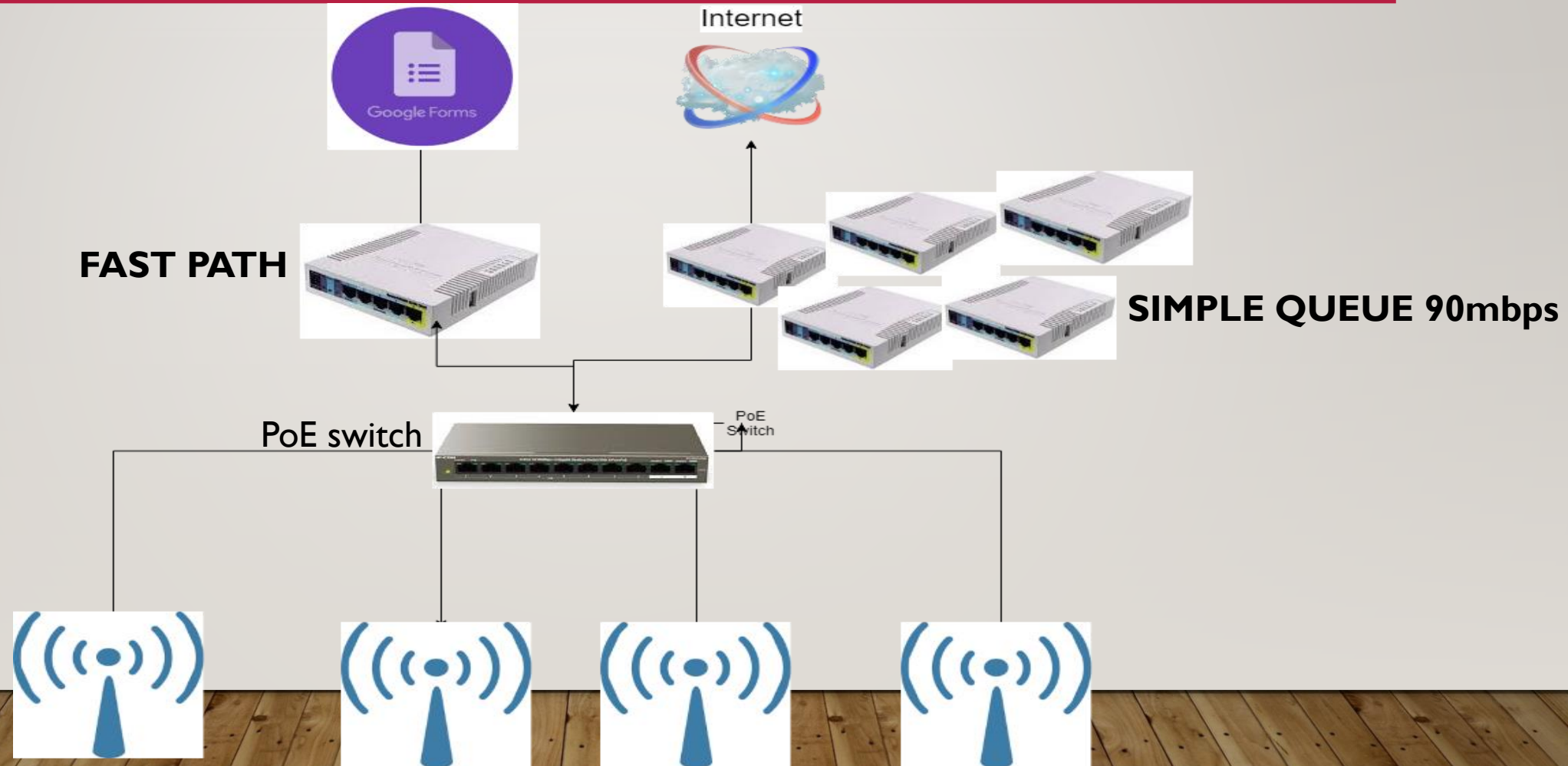
LOAD BALANCING



SCRIPTING



LOAD BALANCING



WALLED GARDEN

New Walled Garden IP Entry

Action: ☒ accept ☐ drop ☐ reject

Server: ▼

Src. Address: ▼

Dst. Address: ▼

Src. Address List: ▼

Dst. Address List: ▼

Protocol: ▼

Dst. Port: ▼

Dst. Host: ▲

enabled

OK

Cancel

Apply

Disable

Comment

Copy

Remove

CHALLENGES AND SOLUTIONS

- DHCP option 3
- Fast path
- Portal page hosted externally
- Redirection challenge (DNS litzone.co.zw)
- Optimization of the website
- Access points setup and channel configuration

THE FUTURE



- Mum hosted in Zimbabwe Vic Falls
- OFFNET deployed in schools with and without internet(open shift)
- OFFNET is a platform for breeding new startups
- This is a tried and tested model (facebook, google)

VICTORIA FALLS



BUNGEE JUMPING



WHITE WATER RAFTING



MIKROTIK FEATURE REQUEST

- Date
- Training
- Equipping people on using the mikrotik hence employment creation