



Community Networks and Offline Learning Servers

ZTH-NET-001 | Digital Transformers | Core | Hardware, repair and networks

8 weeks

duration

48 hours

learning time

2 x 3h

live sessions per week

US\$110.00

fee per learner

In this course you will plan, install, secure and maintain a small network and an offline learning server for a school, clinic, church or community hub.

Delivery

Offline-ready: can run without internet

Suitable for

Tertiary and university, Teachers, NGOs and community hubs, Working professionals

What you will be able to do

- Plan, install, secure and maintain a small network and an offline learning server for a school, clinic, church or community hub.

Syllabus

1. Networking basics: addressing, switches, routers, Wi-Fi planning.
2. Cabling and access points, power over Ethernet.
3. A local server: Linux basics, Moodle or Kolibri-type server on a mini-PC or single-board computer.
4. Content management: loading courses, sync and backup.
5. Security: passwords, updates, firewall, user accounts, child safety filtering.
6. Connectivity options: mobile data, point-to-point links, satellite and fixed wireless, and the cost of each.
7. Solar-powered network design and battery sizing for always-on equipment.
8. Support and monitoring.
9. Documentation and handover to a site champion.

Hands-on practical work

- Build a six-device network from scratch
- install and back up an offline server
- load a course pack
- run it for two weeks on a solar supply
- document a site.

Resources and equipment

Mini-PC or single-board computer with SSD, managed switch, access points, cable and crimp tools, cable tester, solar and battery set (Zambesi S or M tier), laptops.

Off-grid and solar option

Mode C ready: runs offline on a solar-supported device and local server.





Assessment

Practical build and fault-finding test; install a working offline learning server at a real partner school or hub with a handover document.

Career direction

Network and systems support, community network technician, school ICT coordinator, offline-learning installer, entry to ZTH-SEC-001 and ZTH-COD-005.

Schools, clinics and NGOs with unreliable connectivity need local servers, and few people can install and maintain them.

Next steps

48 contact hours over 8 to 10 weeks; entry ZTH-FND-002 or ZTH-ROB-002 or equivalent.

Enrol

Skills first, certificate second: you finish with something you can do and a QR-verifiable certificate to prove it. Enrol online at <https://zambesi.ac.zw/course.php?slug=community-networks-and-offline-learning-servers> or contact info@zambesi.ac.zw / +263 7X XXX XXXX.

