Zenzeleni Community Networks – a social innovation

An intervention towards addressing the rural digital divide in South Africa

Zenzeleni Non Profit Company
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The Zenzeleni model – addressing the digital divide

Current national scenario – Telco companies
- Prohibitive cost pre-paid users,
- Low/no service provision,
- Dis-functioning parachute connections,
- Digital apps & services focused on urban, serviced, high skilled, high economic power users,
- Low digital devices availability and skill for usage,
- Language, age, gender - user applicability barriers

Community networks alternative
- Affordable connectivity
- Ownership is intrinsic to model, bottom-up, responsive solutions and decisions.
- Own provision of high quality connectivity,
- Demystifying technology through direct management of it - usage ownership too.
- Holistic approach – deliberate creation of digital ecosystem + meaningful connectivity.
We are
Zenzeleni Community Networks
South Africa's First Cooperative-owned Internet Service Provider (ISP) Telecommunications Network
Dr Carlos Rey Moreno visits Mankosi and meets Jay Siya - alliance and forces of local knowledge and technical expertise that shaped Zenzeleni Community Networks

- Zenzeleni Networks Mankosi officially registered as a Cooperative
- ICASA licence exemption granted
- Commencement of breakout calls

2012

- Training and network deployment
- Mesh Potatoe intranet allows for first Zenzeleni business phone charging

2012 2013

- 12 Local Students registers for Tertiary Education
- Zenzeleni Website goes live

2014

- Local schools request internet
- Zenzeleni becomes grant recipient of the Internet Society (ISOC)
- Own backbone built
- 1st ISOC Summit Kenya: Zenzeleni Networks internationally recognized

2015

- Innovation Bridge: Zenzeleni Project Wins Social Innovation Award
- 2nd Runner-up in Mozilla’s Equal Rating Innovation Challenge

2016

- Zenzeleni Networks Non-Profit Company (NPC) registered
- Tower installation
- Connection to Fiber
- Plug & Play Solar Router ready

2017

- Department of Telecommunications and Postal Services (DTPS): notes intention to collaborate/support Zenzeleni in annual budget speech in Parliament

2018

- Zenzeleni Networks Zithulele Cooperative formally registered

2019
Context
100,000 people
93% unemployed, 90% not completed school
Non/poor basic infrastructure and services
Most people live on 1USD daily threshold, up to 25% of monthly income spent on Telecoms

Backbone and CPE delivery
2.5 / 5 Ghz (unlicensed frequency)
Fiber capacity to burst 1 Gig
Wireless can carry max capacity 300 Mpbs
Uncontended (1:1)
(bandwidth dynamically allocated across network)

Standardised equipment:
Mikrotik/ Ubiquity

Services speeds (as required)
Minimum 2/4 Mbps – 10/10Mbps

Rural Eastern Cape, South Africa
Zenzeleni cooperatives services
- Hotspot vouchers (pre-paid)
- Dedicated access costs (contract)

WiFi Internet Backhaul
- WiFi Mesh
- WiFi Hotspot
- Solar Panel
- Back up battery power
COVID-19 response – based on challenges

- Information on the virus received in rural areas unreliable;
  - High amounts of fake news.
  - Interfacing with power structures and/ or belief systems.
- Safety guidelines not applicable to rural context;
  - Focus of guidelines on urban middle to upper economic context.
  - No running water, shared transport, limited supplies.
  - Non relatable to contexts/ scenarios.
- Language barrier, all information in English, most people speak isiXhosa.
- Heightened economic strain (to already on poverty line).
COVID-19 response – Digital Community Notice Board

- Applied official guidelines - How to Safely Use Zenzeleni Community Networks.
- How to filter or test news sources
- Zero-rated sites on health and education.
- Know your Rights during COVID-19.
- Tips on How to Cope with COVID-19 Anxiety

https://zenzeleni.net/noticeboard/
COVID-19 response – Local content development

Amabali Wethu, Intanethi Yethu Challenge/ Our stories, Our Internet Challenge

- Challenge to submit visual, audio or written content in isiXhosa, about resilience during COVID-19 in the communities of Mankosi and Zithulele.
- Promoting local ideas, skills, crafts and services.
- Getting the youth involved in the network (“the old people’s initiative”) & the greater community in an internet space relevant to them.
- Appropriation/participation in the internet space for rural, isiXhosa culture.
- Cash and network voucher prizes, aimed at targeting the dire economic strain of the time.
- Pilot for a digital market and communications place.

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Thank you!

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