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case study

PROJECT ISIZWE
Free WiFi for South Africa

Public Access:
Project Isizwe

A SMART CITIES CASE STUDY FROM SOUTH AFRICA

Project Isizwe is an innovative partnership between service providers, vendors, communities, and the people of South Africa. It targets the poorer parts of the country and the poorer parts of large cities with its free Wi-Fi service. The municipalities pay a set fee for a fixed period of time for the service, and that includes all bandwidth and all maintenance. The municipalities also provide mounting assets, power, and backhaul for the deployments. This public/private partnership is essential to the rollout of a truly cost-effective service. Project Isizwe's bulk rates for data service are orders of magnitude lower than the cost of 3G cellular service. Project Isizwe's non-profit structure allows for the pooling of bandwidth, utilization of local installers, and cooperation of local and provincial governments without the traditional mark-ups.

Figure 1: Team Isizwe

There are a wide variety of partners that are part of delivering this service, including: Ruckus Wireless, Neotel (fixed line operator), the Western Cape Government, the City of Tshwane, and many others.

Project Isizwe specifically focused on deploying near schools and in areas that are very poor. These people would not normally be able to afford 3G service.

OVERVIEW

The goal of Project Isizwe is to bring free Internet access to the underserved parts of South Africa using Wi-Fi technology. Access to the Internet plays a huge role in bridging the digital divide.

WHAT THEY NEEDED

A network that was easy to deploy, high speed, and extremely cost effective. They chose Wi-Fi as it is meets those requirements and is available on all smartphones, tablets, and laptops.

WHAT WAS DEPLOYED

Project Isizwe chose Ruckus as they were looking for a carrier-class offering. They deployed over 2000 Ruckus ZoneFlex 7782, T300, and T301 outdoor access points. They also deployed the SCG-200 WLAN Controller along with the SmartCell Insight Reporting and Analytics tool.

WHAT THEY ACHIEVED

The Project Isizwe service provides up to 250 Mbytes of data per day to each user in the coverage area. There is no charge to the people of South Africa. Instead the municipalities pay a very low bulk rate for the service.

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With Project Isizwe, they now have access to the Internet as well as access to 'on-net' content, which includes the following:

- Siyavula, technology-powered learning and teaching content
- Fundza, Mobile 'Library on a cellphone'
- Gumtree, Jobs portal, tips for applying, interviewing and CV writing
- Curated videos, episodes of televised lessons, digital textbooks, podcasts, presentations, worksheets, and past exam papers, and;
- Wi-Fi TV, video-on-demand service covering range of topics including education, entrepreneurship, fashion and sports produced by young community journalists

Project Isizwe first began to deploy in the Tshwane area of South Africa in the spring of 2013. As of December 2014 there a total of 420 Free Internet Zones in Tshwane that are within reach of over 1 million citizens. Of that number, approximately 20,000 people, on average, access the network in a typical day.

This model, which consists of a public/private partnership, is reproducible in other communities. Today, Project Isizwe operates only in certain parts of South Africa (mainly the Tshwane area around Pretoria), but they are looking forward to taking the service into as many of the underserved areas of the country as possible, as well as into other countries in sub-Saharan Africa. The formula consists of getting local governments (or private donors) to sponsor the deployments by making mounting assets available and providing power and backhaul. These governments will pay a bulk rate for data transferred. Other partners are involved in the actual installation. Because Project Isizwe is a non-profit, it can bring these projects in at a very low cost point—all of which is essential when dealing with public funds.

Figure 2: Children accessing Wi-Fi for Education

- The City of Tshwane is the first Metropolitan Municipality in South Africa to rollout free Wi-Fi.
- The rollout is part of the City's plan to embrace digital technologies, with a core focus on harnessing the power of the Internet for the purposes of education, economic development and social inclusion.
- Phase 1, incorporating five sites, went live in November 2013: TUT Soshanguve Campus, University of Pretoria - Hatfield Campus, Tshwane North College, Mamelodi Community Centre, and Church Square in the Pretoria CBD, providing capacity to support 25,000 users. The Union Buildings and Pretoria City Hall were added as additional sites in the first half of 2014.
- Phase 2, incorporating an additional 213 Free Internet Zones, went live in July 2014, connecting all schools in Soshanguve, Mamelodi and Atteridgeville, and providing for enough additional capacity to support 1 million users.
- Phase 1 was completed at a cost of R1 million (approx. $90,000 USD) to fully fund the FIZ for three years, while Phase 2 will cost a total of R53 million (approx. $4.5 million USD) to fund for the same period.
- Project Isizwe is currently deploying Phase 3, comprising 400 sites and capacity for 2 million users at a total cost of R100 million (approx. $9 million USD), and is scheduled to be live by May 2015.
- Since the official launch on November 26, 2013, more than 355,000 people have used the free Wi-Fi, logging more than 8 million user sessions.

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An independent report by Dalberg, strategic advisors for the Project, on the early impact of the Phase 1 deployment shows that there have been significant benefits for education and economic development. Additionally, Dalberg estimates that 122 jobs have been created in the first six months since the launch of Phase 1, which equates to R1,300 (approx. $120 USD) per job created.

The Western Cape Government appointed Project Isizwe to deploy eight Free Internet Zones (FIZs) to two towns in different local municipalities. The project was deployed in August 2014 and has capacity to connect more than 40,000 users in the towns of Atlantis and Robertson. Each town has four FIZs rolled out around schools, which serve both the children and the wider community. This will complcment the Western Cape broadband Initiative, which aims to provide broadband to all citizens over the coming years.

Figure 3: An overview of South Africa.

CONCLUSION

Through deployment of widespread free Wi-Fi in the poorest of communities, Project Isizwe is connecting the people of South Africa to knowledge and the broader global community. In today's connected world, access to the Internet should be considered an essential service, like water or electricity. Project Isizwe is empowering the citizens of these communities to seek out education, broaden their perspective and create new jobs. By bridging the digital divide, Project Isizwe, with the help of companies such as Ruckus Wireless, is uplifting the people of South Africa to more actively engage in the world at large, and that's a smart idea that benefits everyone.

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