

City of Cape Town's fibre-optic network now exceeds 800km

The City of Cape Town's fibre-optic cables now have a combined length of 848km. This includes fibre-optic cabling used to connect the City's buildings, as well as bus stations, cameras, and other infrastructure that is vital for service delivery.



Many of the City's buildings where residents queue for services feature public WiFi zones. In addition to the libraries, fibre now connects 61 of the City's clinics and 378 other buildings, including 61 privately-owned office buildings.

Over 200,000 unique users connect to the internet every month using one of these WiFi zones. Each person can use up to 100MB of data each day for free.

Since the City's public WiFi project started, 1,051,239 people have made use of the WiFi zones to connect to the internet. Much of this public use has been at the City's 103 libraries, which have provided fixed SmartCape computers since 2002. Now library members can also connect using their own phones or other personal mobile devices at the libraries. The SmartCape WiFi service has also been extended to about 100 other facilities.

Upping the ante

"We are committed to upping the ante in terms of basic service delivery. The digital age presents enormous opportunities for the development of individuals and communities to improve their quality of life. The City is therefore of the view that digital access is a basic service and no longer a privilege.

"We are committed to achieving universal access to the internet as part of our service delivery standard. This will ensure that residents are given the opportunity to reap the benefits of the digital age," said the City's mayoral committee member for corporate services, councillor Raelene Arendse.

Looking ahead to 2021, the City's broadband project will by then deliver a fully functional, municipal-owned fibre-optic network that will serve the entire metro area. This network will meet the City's own needs for telecommunications services as well as provide infrastructure for commercial operators and other government entities, especially in areas which are not conventionally attractive to the private sector.

Large investments

The City has made large investments in Khayelitsha, Mitchells Plain, Atlantis, Kuils River and other areas, and will use this network infrastructure to roll out more WiFi zones.

"I can confidently say that we are getting on with building the most digitally connected city in Africa as we have acknowledged that digital inclusion is a vital component of basic service delivery. As we continue to extend the fibre-optic route, we expect the number of monthly users to grow to over half a million unique users per month, which will have a real social and economic impact.

"The City's fibre to privately-owned office buildings is leased by commercial service providers who use it to bring a high-speed broadband service to their business tenants. We predict that the number of commercial connections will increase significantly in the coming years as the City embarks on a project later this year to connect all buildings in the Cape Town central business district," said Arendse.

Currently, the City's fibre-optic metro area network depends on 27 exchanges or switching facilities. Eventually Cape Town will have 68 such facilities of varying sizes that will be connected by over 1300km of cabling.

Apart from the City itself, one of the largest users of these exchanges is a cellphone network operator that uses the City's network to provide high-speed LTE services (a 4G mobile communications standard) in several areas where it would have otherwise been difficult for the operator to do so. This brings in additional revenue for the City.

New switching exchange

The City's current fibre-optic construction project is laying cables to Atlantis via Milnerton and to Somerset West, where a new switching exchange is being built. All of the libraries, clinics and other municipal buildings in these areas will then connect to this cabling which will push up the efficiency of the City's communications and service delivery management capacity even further.

Other new switching facilities due for completion this year are those at Lookout Hill in Khayelitsha and the fire station in Durbanville.

"Every clinic, library and public building will offer a high-speed, fibre-based broadband WiFi service, no matter where it is located," concluded Arendse.