



THE TECHNOLOGY ENVIRONMENT

MTC has seen the demand for data increase while voice services have stabilised. The Technology Team is continuing to provide for this ever-increasing demand of data that remains central to the MTC business strategy.

In technical terms, MTC has synchronised its network components to take advantage of its Data Growth. To deliver on customers' demand for data, continues to present a challenge to MTC, in the sense that we try to proactively anticipate customer need and appetite for new technologies and services by teaming up with our vendors. An example of this was our trial test of 4.5G (MTC was the first in Africa) and the launch of 4G-Advance in Windhoek, April 2016.

During the year under review, the MTC Perfect Network Project, entailed the aggressive rollout and expansion of 3G data services to rural areas. This resulted in the increase of 3G coverage to 65% of Namibia's population.

Continuous improvements to MTC's network elements is an indication that such demand is endless. Simultaneous with every network upgrade the demand for data capacity increases automatically.

MTC increased its rural 3G coverage by introducing U900 to remote areas - the project will continue into 2017. This coincided with the launch of a cross-subsidised 3G mobile phones to MTC customers in rural areas, to enable them to make use of the improved 3G network.

- Additional capacity in urban areas was added by upgrading our 3G sites from the traditional 3-sector to 6-sector sites, which resulted in an additional 50% capacity covering these areas.
- MTC continued with its IP Network modernisation and swapped 120 MW links with IP capable links for the deployment of 3G to rural areas.
- The data demand was somewhat relieved with the commercial launch of Long Term Evolution Advanced (LTE-Advance) within Windhoek, a process that required MTC to re-farm its DCN spectrum.
- The growth in data required MTC to increase its Transmission Fiber Backbone Network from a 40G to a 140G system and to complete the coastal ring expansion.

- MTC continued to invest in site autonomy by adding and replacing batteries serving a power back up to sites - a process that will continue for the next 3 years.
- The Olympia Head Office Standby generator replacement project, at a cost of N\$5.5 million, was completed towards the end of the 2016 financial year.
- Towards the goal of a fully-fledged IP Network, which is planned to be completed by the end of 2017, IP Core Routers, now in service and taking live traffic, were installed in Prosperita, Olympia and Oshakati Server rooms.
- Project Perfect Network phase 1 and 2 concluded during the financial year under review with the addition of 124 expansions completed. Phase 3 will continue throughout 2017 - the total expansion will encompass +337% increase in LTE(4G) resources and expanding +259% resources of the 3G layer network, while also expanding MTC's backhauling to carry all the above radio resources, as well expanding the EPC computational core resources, and finalizing the IP network to the level of BSC.

