

Operational Overview

One big challenge for the Namibian communications industry remains convergence. Worldwide, convergence is stimulating growth in ICT and ICT is stimulating economic growth. Implementing convergence in Namibia can lead to narrowing the digital divide and causing positive economic growth for the country.

Telecom Namibia is committed to address ICT convergence by developing and introducing ICT products and services into the market. Our company already offers high quality, reliable ICT technical solutions and business systems to enhance customer satisfaction, boost profitability and create shareholder value.

New products and services

The telecommunications sector has seen major developments in terms of customer requirements with the emphasis on converged telecommunications solutions. There is increasing pressure for operators like Telecom Namibia to offer IP and IT related products and services and deliver fixed- mobile convergence services.

Telecom Namibia is responding proactively by developing and pushing into the market new products and services. Firstly, was the launch of a mobile service to address the mobile voice, data and SMS requirements of primarily fixed line customers. The technology that was selected and enables these services is called a CDMA 2000 1x-EVDO access network which is based on CDMA technology. The two distinctive advantages of this technology are fixed line quality voice services and Internet speeds that are higher than the existing maximum ISDN speed of 128 kbps to a maximum of 3100kbps, also referred to as a fully mobile third generation service or 3G.

The brand Switch was officially launched in November 2006 into the market. Since then, Telecom Namibia has continued to focus on the roll out of its prepaid platform of Switch and the launch of our post paid platform took place in July 2007. The mobile prepaid service addresses the needs of customers that want to use the service and simply recharge the airtime. The postpaid product caters for the voice and data communications needs of private and business individuals, complete with a variety of customised calling plans and packages.

Fast Internet connection required by both the residential and business market segments in urban areas is addressed by the Asymmetrical Digital Subscriber Line (ADSL). The product offers superior fast Internet connections for the home and office environments by using the existing copper line infrastructure on the premises, with the possibility of offering wireless Internet connection around the premises with the Wi-Fi technology. Fast Internet connection services are available from the elementary package of 256kbps to a very fast 2048 kbps for receiving information from the Internet, with a corresponding 25% for sending information to the Internet. Telecom Namibia has rolled out the service in Windhoek, Okahandja, Walvis Bay, Swakopmund, Oshakati, Ongewdiva, Ondangua and Oshikango as part of the initial phase.

Another fast wireless Internet service is commonly known as WiMAX. This was deployed to service the Internet and voice requirements of customers in areas with no ADSL services and also to replace legacy systems. Voice and data services are provided over very long distances and this can help with the provision of fast Internet services especially to the farming communities.

MetroNet is a Metro/ Wide Area Network (MAN/WAN) service which can provide up to gigabit for corporate, in particular. This solution is being deployed in Windhoek in the form of very high speed connection rings within the city's business area. The service will be extended to the regions to significantly reduce the total cost of ownership of

a link to our customers. These Ethernet connections will deliver high speed access to address the following dedicated and secure corporate requirements, namely: Point-to-Point, Point-to-Multipoint and Multipoint-to-Multipoint connections.

Telecom Namibia will be deploying points of presence (PoPs) in major towns with minor PoPs in the smaller towns. Connection to the customer premises is achieved through the different state-of-the-art access technologies, including direct fibre and copper terminations.

IP/MPLS service will equip all corporate customers with the possibility of having a variety of virtual private networks (VPNs) – national and international - with different quality of service (QoS). Customers will benefit from the distinct advantages of the network since most transmission protocols are converted to Internet protocol (IP) packets and switch at very fast speeds to their end destinations. Telecom Namibia will also be providing a variety of professional services which range from network assessment and optimisation to the provision of hosted services on its network on behalf of customers.

The request for content for both the fixed and mobile networks has commenced and will be completed in the coming year. Telecom Namibia envisages to delivering relevant content to both fixed line and mobile customers with the establishment of a fully fledged content aggregation portal and strategic partners to deliver both local and foreign content.

Fixed Telephony

The fixed telephony or landline service still represents a significant area of business for Telecom Namibia even if growth in customer numbers is sluggish. However, Telecom Namibia voice business is under pressure from mobile operators. This trend is similar to that seen worldwide. Telecom Namibia launched its Switch prepaid and postpaid services which offer an attractive alternative for mobile telephony and data services at affordable prices.

Telecom Namibia voice business continued to record a slow and stable growth during the financial year as has been the case over the past few years. The introduction of ADSL and WiMAX access networks is expected to improve the growth in Direct Exchange Lines (DELS) for the coming years.

Local call revenue declined by 9% during 2006/7 compared to the previous financial year, contributing 23% to total call revenue. A decline of 10% in national call revenue was recorded in the 2006/7 financial year compared to the preceding year. Fixed to cell call revenue declined by 13% in the 2006/7 financial year compared to last year, contributing about 37% to total call revenue. The general slow growth rate in domestic call revenue is mainly as a result of a general decline in domestic call volumes of minutes and ongoing tariff re-balancing.

International outgoing traffic increased by 4% from 64.9 million minutes in 2005/6 to 67.6 million minutes in 2006/7. Outgoing traffic to South Africa accounted for 78% of total international outgoing traffic for 2006/7 with a growth of 2%. Despite the positive growth in international outgoing traffic, international call revenue continues to decline due to continuous downward review of international tariffs over the years.

Total traffic volumes for 2006/7 decreased by 1% compared to last financial year. Revenue from ISDN BRA increased by 11% in 2007 compared to the previous year. Direct Exchange Lines (DELS) increased by 1.5% from 136,163 in 2005/6 to 138,171 in 2006/7. Introduction of new value added services during the coming years is expected to improve growth of the voice business.

Pricing and Tariffs

During the year under review, Telecom Namibia continued to re-position its pricing and tariffs system to keep up with challenges faced in a market where competition is on the increase. The tariffs re-balancing process supports Telecom Namibia's objectives as set out in the Strategic Blueprint 2010. The company introduced major tariff changes during the 2006/07 financial year most of which were aimed at making telecommunication services affordable to consumers and business customers and contributing to the economic growth of the country.

Fixed to cell peak tariffs were reduced by 10 percent during Q1 of the year under review, following a revision of interconnect charges for calls between Telecom Namibia and MTC networks. Another major achievement was a move from a unit based charging system to per second billing that was implemented on 1 October 2006. Per second billing was introduced

for both our postpaid and prepaid services except for public phones. Calls are billed set-up charges for the initial duration after which charging is done in increments of one second. Metering periods for payphone local calls were adjusted from 65 seconds (peak) and 130 seconds (off-peak) to 60 seconds (peak) and 120 seconds (off-peak) respectively on 1 October 2006.

Telecom Namibia introduced a number of rate plans on the Switch services aimed at addressing different customer calling patterns. With our Switch prepaid and postpaid call plans, consumers can select from a variety of rate plans that suits their calling preferences. With the prepaid service, two call plans, namely Switch Time and Switch Easy are available while on the post-paid, main call plan groupings are Switchself for individual subscribers and Switchbiz for business customers. Call plans are mainly distinguished by preferential rates and bundled offerings applicable within the different packages. From 1 October 2007, Telecom Namibia will introduce full per second billing for all prepaid and postpaid Switch call plans. This means that the first minute billing on Switch call plans will be phased out and calls will be billed in increments of one second from the first second of the conversation. This will be applicable to Switch calls within Telecom Namibia networks only, i.e. Switch to Switch and Switch to fixed-line calls.

From 1 January 2007, international IP bandwidth tariffs were reduced by up to 15 percent. A further 10% reduction in international IP bandwidth tariffs was implemented on 1 September 2007. International leased line tariffs were also reduced by 10 percent from 1 July 2007. Discount structures were also put in place for long-term contracts with 2-year, 3-year and 5-year durations. This discount structure is only applicable for 2048 kbps and higher circuits on both national and international leased lines.

On 1 October 2006, international call charges were adjusted downwards by an average of 15%. This included tariffs for calls to South Africa, Angola, and other neighbouring countries, Germany, the Netherlands, Sweden, Switzerland, USA and Rest of the world.

In addition, Telecom Namibia plans to implement an average reduction of another 14% in international call charges and -10 percent reduction in fixed to Inmarsat call charges from 1 October 2007. Basic telephone line rental charges will be increased by 10% while long distance (>200 km) leased line tariffs will be reduced by 13% effective from 1 October 2007.

International Services

International Links

Telecom Namibia provides customers worldwide with access to Namibia via high quality dedicated links for voice, data and Internet services. The quality of incoming calls cannot always be guaranteed as some originating parties do not provide high quality links to deliver calls to the main routes used by Telecom Namibia. Some operators use cheap VoIP circuits that are a best effort service. Telecom Namibia always offers Calling Line Identification Presentation to its customers when available. This is not present when a low cost route is used to make calls to Namibia.

The customer direct dial service is also complemented by friendly operator assisted services. Two centres, in Windhoek and Walvis Bay, cater for voice services to 242 destinations and to maritime and land based radio stations all over Namibia and its territorial waters.

International Traffic

International outgoing call volumes increased by four per cent to 67.6 million minutes in 2007. Traffic to South Africa has increased by 4 percent while traffic to neighbouring countries increased by 5% the previous year.

During June to September 2007 a special rate (50% lower during off-peak periods) was introduced to Angola to develop greater trade and awareness. Lower accounting rates were again negotiated with Telkom SA that also resulted in lower rates being passed on to the customers. To improve quality of service and increase traffic volumes, additional capacity was added to two satellite operators – one in the USA and another in South Africa.

International IP Link

Internet usage continues to grow strongly. We have dedicated international bandwidth to ensure adequate high quality connectivity to the World Wide Web at competitive rates. During the past year the regional and international capacity was doubled via links through South Africa and Europe.

The second licensed mobile operator started up services over Telecom leased links. The usage on all the routes is constantly monitored in order to do timely upgrades to ensure quality service to all our customers. Adequate capacity is maintained to ensure a service with no bandwidth oversell.

The IP bandwidth lease tariffs will again be decreased by 13% on 1 October 2007.

ICT and Business Solutions

Telecom Namibia offers high quality, reliable ICT technical solutions and business systems to maximise customer satisfaction and profitability as well as shareholder value. Through its ICT & Corporate Business Solutions, the company is taking the lead to manage the increased integration and convergence of the IT, IP and telecommunication industries within Namibia.

The company also provides and manages a wide range of products services to customers by ensuring that state-of-the-art products and systems were available and delivered to the local Namibian market. The product and service offerings focussed on Internet Protocol (IP), narrow and broadband data, videoconferencing, structured cabling, e-commerce, ICT consultancy, Co-location services, Disaster Recovery Centre facilities, virtual private networks (VPN), LAN, WAN, Intranet & Extranet services and other value added ICT products and services.

Products and services are bundled to satisfy the needs of the customers per segment. Customised solutions are offered by addressing each customer's individual needs and wants.

iWay – Internet services

iWay, Namibia's leading Internet Service Provider (ISP), has shown positive growth despite tremendous competition within the ISP space. iWay services include Internet access, web hosting and development, domain administration and e-mail services.

The ISP model is constantly changing with e-mail addresses and web space becoming free items on the ISP's bill. Revenue is being generated from other value-added products and services and the signing of service level agreements (SLA) with customers. However, customers continue to demand more for less money.

Although market share battle within the Namibian ISP market will continue, the emphasis should also be on increasing ICT penetration countrywide. Major ISP and ICT players should not only embrace change, but also support initiatives such as the Xnet Development Alliance Trust to increase Namibia's Internet penetration rate..

Infinitum and Telematics (IP and DATA)

Telecom Namibia's IP backbone is the largest IP backbone in the country and was recently upgraded to be a carrier-grade IP/MPLS network that is capable of delivering next generation network (NGN) ICT products and services. During the past year Telecom Namibia continued to make huge capital investments to expand the international Internet connectivity through global Internet carrier partnerships with SAIX and Intelsat.

Telecom Namibia recently became the first Service Provider in Emerging Africa (excluding South Africa) to achieve Cisco Powered Programme Membership Status. High levels of quality, reliability and customer satisfaction have enabled Telecom Namibia to qualify for Cisco Powered Network (CPN) designation. The CPN endorsement follows closely on Telecom Namibia receiving "The Best IP Network of the Year" Award at the Cisco Networkers Conference held at Sun City, South Africa earlier this year.

Customer Premises Equipment (CPE)

Telecom Namibia provides a wide range of products, installation and maintenance services for the private branch exchange (PBX) market. Our CPE and PBX offerings include a wide range of PBX, PBX management and least cost routing (LCR) products and services. Telecom remains highly competitive in the CPE and PBX market due to the fact that we continuously invest in top quality technology and solutions through partnerships with leading brands such as Siemens.

ICT Consulting and Design

The company's ICT consultants and project managers are focused on technical network optimisation, network design, customised solutions and project management to address the ICT needs of our current and potential customers.

Service Provisioning and Assurance

Quality of services (QoS), the means of describing and gauging network performance, is very important in our operations. Over the years, we have been measuring network performance in terms of four parameters: network availability, error performance, call completion and connection setup time.

The dynamics of today's telecommunications industry have created new QoS issues and a stronger need to manage QoS. That includes voice and data convergence, Internet effect, multi-domain nature of networks, and service level agreements (SLAs).

With data traffic overtaking voice traffic, the need for integrated and efficient multi-service networks has given rise to the reality of converged voice, data and Internet application networks. Therefore, Telecom Namibia is implementing projects and programmes to address this convergence from the multi-service perspective of voice, video, and data applications and their associated service guarantees, ranging from "best effort" to virtual circuit quality.

Service Delivery and Assurance

In the area of service delivery and assurance, Telecom Namibia recorded improvements in the level of QoS and the average efficiency performance statistics for the year are as follows:

- Total Fault Rate remains unchanged at 348 faults per 1000 lines.
- Total Fault Repair Time improved by 3% from 2.77 days to 2.68.
- Total Installation Response Time showed a 15% improvement from 9.92 days to 8.42 days.
- The percentage uptime of Public Payphones remained at 92 percent as in the previous year.

Copper Theft

Copper wire theft remains a big concern which undermines service reliability as well as revenue assurance. Rampant thefts of copper wire and widespread acts of vandalism of the network have had serious repercussions on service assurance. Special security measures were introduced, especially in secluded and isolated areas. The primary cable network especially in Windhoek is protected with a preventative management system that monitors any break on the insulation layer of the cable before the copper pairs are damaged. This measure, in most instances, has helped to avert possible damage or theft of large cables. The rolling out of the preventative management system to other towns countrywide remains a management challenge.

Preventative Maintenance

Preventative maintenance is a core activity. Copper networks, especially in the urban areas, are currently being rejuvenated to meet requirements to deliver quality ADSL services. The rejuvenation projects in most urban areas were successfully completed. However, there is still much to be done over the next two years.

Obsolete technologies such as SOR-18 are being replaced with either CDMA or WiMAX. To date, more than 50 CDMA sites were deployed and a further 25 sites will be rolled out during the next financial year. The rollout of copper network

is restricted to business areas and no replacement of stolen copper network is done unless it involves businesses with high speed data requirements.

Customer Satisfaction

Telecom Namibia conducted a survey on customer satisfaction for 2007. This survey gathered valuable information from across our customer segments to help us improve our services to the market. This survey revealed an overall satisfaction rate of 70.5 per cent, which is 7.5 points down from the previous year.

Despite the slight drop in customer satisfaction levels, Telecom Namibia's business and support divisions are committed to respond efficiently to the market, adjusting all service offers and solutions to the needs revealed by each customer and ensuring the continued delivery of subscribed services.

During the year, we extended our offer of products and services to make available to customers a larger diversity of solutions and tariffs that might simultaneously reach a greater number of customers and increase the satisfaction level in the use of products and services. The presented solutions are related mainly to broadband products/services and convergent fixed/mobile services, as can be observed on the website www.telecom.na.

Customer Contact Centre

Points of customer interaction are crucial in determining Telecom Namibia's future and sustainable success in the market-place. Customers not only want but demand both speedy service provision and efficient and satisfying service assistance. In today's world, the "face-to-face" interaction is as important as the service via the phone and via the web, typically delivered by customer contact centres.

In 1996, Telecom Namibia established its own Customer Care Centre (CCC) exclusively for Telecom Namibia's customers, offering telephonic assistance on technical and account enquiries, in particular.

In 2006, the company decided to progress from the limited scope of a "Customer Care Centre" into a world-class standard "Customer Contact Centre". The scope of the new CCC includes maximally efficient customer service delivery to our own customers. In addition, it will enable Telecom Namibia to run outbound telemarketing campaigns and to ultimately offer hosted solutions to other domestic market players. With this strategic outlook, Telecom Namibia will take a lead in opening the call centre industry market in Namibia that holds a promising potential for job creation.

The new Customer Contact Centre – which will be launched in January 2008 - operates on an entirely new set of internal processes and adheres to international industry standards. State-of-the-art Call Centre technology was acquired and a new facility was occupied. To manage the performance and ensure achievement of set targets, an international Call Centre operator focusing on the Telco/IT industry was engaged as a partner. The new CCC will operate on one central number for all service assistance countrywide.

Directory Services

Traditional directory services are affected by the changes in the industry just as products and services. The on-line directories are gaining strong momentum as compared to the traditional hardcopy directory. During the period under review, Telecom Namibia particularly continued to make inroads towards the search ability of the online directory, resulting in significant improvements when searching for information.

The main objective of the Telecom Namibia Directory, whether online or traditional hardcopy, is to offer up-to-date, complete and accurate customer information that is easily accessible. Telecom Namibia carried out an initiative to make public services information more accessible. The former green Government Section was split into a Red Section – especially for practical information such as birth certificates, passports, licenses etc. - and a Green Section for general numbers. The recent re-alignment of ministries, agencies and offices is thus well reflected in the new directory. Other initiatives focused on the enhancement of the Medical Services Section with additional categories and the newly created emergency numbers in the first pages of the directory. A decision was taken to include entries of interested Switch customers in the next phone book.

International Ventures

Angola

Investments

Capital investment of U\$9.7 million for the initial start-up network of Mundo Startel (StarTel) was made in Luanda in Angola during the year. Telecom Namibia owns 44% of StarTel and 56% is owned by Angolan partners. Shareholders' loans to the amount of U\$13.8 million were granted by the shareholders for ordering the NGN equipment for phase one which covers the roll out of the network in Luanda. Financial institutions for financing the rollout of the network in other parts of Angola were selected and one local and one regional bank were successful.

Infrastructure

StarTel has rolled out a full IP next generation network in Luanda and will continue the roll out throughout Angola over a period of five years.

The access to customers is initially based on WiMAX technologies. StarTel will establish its own international and national links with redundancy but will also interconnect with existing terrestrial networks by incumbent operators.

The network components were ordered from and delivered for installation by ZTE, a supplier that was selected via public tender. The final network roll out will cover all 18 provinces of Angola. The rest of the rollout is planned in phases and will follow on demand from customers. The network is anticipated to be ready for services by the end of Q1 in 2008.

StarTel has recently moved into constructed accommodation for the NGN network and office space for the employees. This building is now completed after it was seriously delayed by shortages of materials from neighbouring countries. The building was ready for handover by mid September 2007. Installation of the NGN commenced earlier when the technical part was completed in the first half of 2007.

Constraints

Angola specific issues seriously delayed the project. These issues are:

- Approval to start the power connection to the building
- Importation of material and network equipment at the Namibian/Angolan border and at the Luanda port.
- Frequency spectrum requirements where StarTel has to share with another operator.
- The acquisition of sites throughout Luanda and the availability of power and the supply thereof to the sites.
- The lack of material for site construction and qualified labour.

South Africa

The Second Network Operator in South Africa was partially launched in Johannesburg on 31 August 2006 under the name Neotel. During 2007 Neotel launched its wholesale international services. Wholesale customers of Neotel are able to enjoy the advantages of Neotel's service quality and price benefits on the main Gauteng, Cape Town, and Durban routes. Neotel expects to have its first enterprise and SMME customers connected by the middle of Q4 of 2007.

In February 2008, due to the delays of the InfraCo network supplied by Government, Retail Services will begin with a limited number of wireless customers in the major metros of Johannesburg, Pretoria and Cape Town. Vendor selection for each technology is done through a robust process to ensure that Neotel can provide the latest services at competitive prices. As the strategic equity partner TATA will ensure early market entry and enforce world standard pricing from the local suppliers.

Telecom Namibia is adding value through its local knowledge of serving African customers with appropriate product offerings. Due to the delay and uncertainty with InfraCo the cable capacity on SAT-3 could still not be accessed as yet. This will again be actively pursued when the initial landing monopoly ends in November 2007. To ensure adequate international

capacity, Neotel and Telecom Namibia are also pursuing capacity on the SEACOM cable to be built along the East Coast to France and India and due for completion by 2009.

Network provisioning

Telecom Namibia has a Network Provisioning and Assurance Division whose key role is to develop and manage the network infrastructure, implement projects based development and ensure the technological suitability and operational sustainability of the network infrastructure for both internal and external users/customers.

This entails the formulation and implementation of technological strategies and their effective integration within existing network infrastructure and the convergence of technologies within Telecom Namibia towards a common technological standard and overall coherence in technologies used. This should result in a higher level of network integrity and reliability within the context of high efficiencies.

Furthermore, the development and management of appropriate supporting capacity in terms of performance monitoring and refinement, operational maintenance and fault repair services, projects planning and implementation capacities in the various technological areas as well as the capacities to provide security, power and utilities at operational sites.

Capital expenditure

Total capital expenditure for 2006/7 of N\$346 million increased by N\$186 million compared to N\$160 million the previous year.

The growth in capital expenditure reflected increased investment in customer service capabilities, mobile capacity and coverage, and deployment of next generation technological capability which are in line with Telecom Namibia's strategic priorities which entail the following:

- Meet statutory and contractual obligations and to sustain existing service performance.
- Invest in technologies required to deliver next generation services and products, including the development of customer management systems and establishing new technology management capability.
- Extend network coverage, augment capacity in line with strategic business growth (e.g. growth in broadband and mobile) and deploy new technology capabilities needed to deliver services cost-effectively,
- Develop service-specific and customer service systems needed to deliver, grow and sustain retail services. This includes customer premises equipment investment, developing contact centre and customer service systems and capability and other retail channel investment.

Strategic Projects

During the year, a number of projects were taken up for implementation and most of the projects are progressing on schedule. These were identified as "strategic projects" as they are deemed crucial to meeting the 2010 targets in the company's Strategic Blueprint. The projects included the following:

IP/MPLS: The first equipment was installed by March 2007 and powered-up at all 13 points of presence (PoPs) country-wide, with new high-capacity fibre cable networks installed to and from each super PoP site in Windhoek to guarantee a fully meshed interconnecting network of 10Gig capacity with full ring protection capabilities. The national PoPs are interconnected by Telecom Namibia's national fibre cable SDH backbone on the current STM-16 (i.e. 2,5Gig) level, but that network is also in process of being upgraded to STM-64 (i.e. 10Gig) capacity and being ring protected.

The migration of all networks to the MPLS backbone was finally started in September and is in progress.

MetroNet: Rolling out of a MetroNet infrastructure was started together with the upgrading of the existing Digicon network. As both networks utilise the Tellabs equipment the upgrade was essential to ensure optimisation of such equipment. While contract negotiations were in process, already critical equipment were delivered, installed and commissioned to allow the interconnecting of the parallel running ADSL project. The Windhoek MetroNet now provides the required routers at the four super PoP sites and is fibre cable ring protected. At that time the new ADSL network was re-arranged to be aggregated by the MetroNet routers which drastically improved the ADSL services in Windhoek.

At Wavis Bay and Swakopmund as well as Oshakati and Tsumeb the same new standard of aggregations were commissioned just on time for ADSL.

To meet the demand for secured and protected IP networks/services, a new high-capacity fibre cable infrastructure was implemented in Windhoek. About 96 km of fibre cable was installed with related termination equipment to create essential fibre cable rings to the super PoP sites as well as the DRC (Disaster Recovery Centre) at Pioneers Park. This MetroNet network will continue to be rolled out as per demand.

ADSL: Under this project, 80 sites are to be equipped with DSLAMs, the connecting equipment for customer lines, of which 29 sites are in Windhoek. By March 2007 the first 200 services were connected in Windhoek and by September 2007 the ADSL services were also available in Okahandja, Walvis Bay, Swakopmund, Oshakati and surrounding major towns, Tsumeb, Grootfontein and Otavi. The remaining northern, western and southern towns were to follow before end 2007.

To date more than 1200 services have already been connected with soaring demand, especially for enhanced internet connectivity.

WiMAX: This WiMAX technology is Telecom Namibia's first true IP-compliant and NGN-ready access network complying with global trend and best practices. WiMAX systems will be rolled out countrywide to replace old technologies, reducing operational costs and providing high-speed internet services to rural areas.

This technology is used at the bigger towns as an overlay network to provide wireless high-speed data services equivalent to ADSL in areas with insufficient or no copper cable infrastructure. This wireless access system is mainly to be rolled out in rural areas to provide high-speed data services and voice services over long distances. It is also used to replace obsolete wire-based technologies like Magnolia and SOR-18 as well as redundant wireless systems such as DECT, Ultraphone (the only current long distance radio system) and MGW which are not high-speed and Internet compliant anymore.

To date the entire Windhoek is covered as well as 10 rural sites with long distance coverage (at least 60km) are in service while another 11 sites are in the process of acceptance testing or final construction works.

Together with ADSL, for the first time Telecom Namibia provides "always-on fixed internet packages" at a monthly flat rate and customers therefore do not need to first dial up their relevant internet service provider (ISP) by the well-known 0700 numbers. To the end user this reduces costs drastically and encourages usage by the total community/population.

CDMA (SWITCH): Following the deployment of the CDMA 2000 1x/EVDO wireless access system, Telecom Namibia then successfully launched the new mobile product Switch in November 2006. This standard system provides for voice service as well as 1x data service with standard data speeds up to 158kb/s. An additional hardware and software, Rev-A, allows for 3G-plus data speeds up to 3.1Mb/s.

Due to complaints from mobile operators, the Government restricted Telecom Namibia's Switch product on 28 February 2007 for an interim period of four months. But, up to date the product is severely handicapped with negative impact on business. Irrespective of such regulatory decisions, Telecom Namibia rolled out the CDMA infrastructure and to date 53 sites are operational countrywide.

Although the original system was delivered with 12 base stations on Rev-0 version, all these stations have now been upgraded to the latest Rev-A version to provide the popular always-on 3G-plus data package for 3.1Mb/s mobile services.

This platform offers post- and pre-paid voice and data services at very attractive rates close to fixed line services.

EWSD Switches upgrade to V.17 software version: Another project running parallel was the upgrade of all EWSD switches to the latest V.17 software and hardware standards and thus preparing the total national platform for IP and NGN connectivity and making it 2010 compliant. To date all local primary exchanges as well as the international gateways have been upgraded and also interfaced to the 24-hour TMN Centre via the NetManager.

As a first step, the IDU gateway will get a soft switch with 3x Media Gateways. The equivalents at WGG for redundancy will follow suit. At the same time, an interconnect billing facility was added for automated and detailed call records and billing to interconnecting operators. This is a tedious manual process and only total counters are available.

Fibre Ring Networks & SDH Transmission STM-64 upgrade: Telecom Namibia's national fibre cable backbone network operated on SDH-STM-4 level in a star configuration countrywide until 2005. Then the capacities were saturated and the star network provided no protection at all in cases of network down time.

Therefore, in the 2005/6 financial year, the backbone routes south of Windhoek and to South Africa were closed into ring networks as well as north of Otjiwarongo up to Oshakati. At the same time the transmission capacity was upgraded to STM-16 levels (equal to only 2.5Gig capacity).

The implementation of NGN infrastructure by 2010 as per the Strategic Blueprint demands totally protected ring networks for a proper IP/MPLS backbone network and this network is implemented for a 10Gig capacity. Additional capacities are in critical demand for bandwidth hungry Internet/data services as well as for both mobile operators' network roll-out. Therefore the remaining gaps in the national fibre network are being closed as a matter of urgency. These are:

- **Omaheke:** The Epukiro–Grootfontein area is to get an aerial fibre backbone infrastructure to close the Windhoek–Otjiwarongo unprotected route. The transmission infrastructure is provided with STM-64 (equal to 10Gig capacity for MPLS) and this is extended all the way to Walvis Bay via Buitepos and Windhoek. These fibre routes construction works are about 90% completed while the four required sites are now in the implementation stage. At the existing sites the STM-64 transmission equipment is already installed. Simultaneously this new backbone route now allows for new stations at Otjinene, Okondjatu, Okamatapati and Okatjoru to implement the CDMA and WiMAX wireless access systems in these areas for automated and modern customer connections and services, especially internet services to the rural communities. For efficient long distance coverage, high (150m) masts are required and these will only be completed by early 2008.
- **Erongo:** At first the Swakopmund–Walvis Bay fibre cable backbone route had to be re-routed and a new aerial route was constructed along the railway line behind the dunes and cut over on 22nd September 2007. Now the very first step of the required Erongo backbone ring is completed up to Henties Bay. For the remaining gap from Henties Bay to Kamanjab, the planning and design works are completed and tendering and ordering stages have been reached. With this Erongo backbone ring the villages Uis, Okombahe and Omatjete will be connected to the infrastructure and CDMA and WiMAX wireless infrastructures will be implemented, including the Sorris-Sorris area. This backbone ring must be completed by mid 2008. Prior to that period, the existing Kunene transmission capacity will be upgraded to STM-64 level. Together with the Omaheke ring network, a total northern high capacity figure-eight backbone ring will be obtained with maximum capacities and reliability as per 2010 Strategic Blueprint requirements.
- **Kalahari:** The planning and engineering of this crucial fibre backbone link will be completed by the end of 2007 after site surveys are completed. The backbone will connect at Aranos and will be rolled out southwards via Mata Mata border post, Koës, Aroab and finally connect again at Ariamsvlei. Along that route new sites will be established for WiMAX wireless access systems for rural automation and replacing the total redundant wire based technologies. This project is dependant on availability of funds – only expected to be approved late next year.

OSS/BSS: These Operation and Business Support Systems are IT and management systems necessary to operate the networks and to support the business processes. The integration of the OSS/BSS ensures an end-to-end view of all

networks and supports network/services management and billing/revenue collections.

OSS/SS systems are strategic assets to Telecom Namibia, which requires that all network elements are up and running and that billing is done correctly after proper verification.

The HP Storage Area Network (SAN) platform was successfully upgraded and the storage capacity was expanded from 800GB to 22TB (22 000GB). The TMN platform was upgraded to the Netcool standard and all new networks (ADSL, WiMAX, MPLS) are directly interfaced to TMN for alarm and remote supervision. The total national network is being monitored centrally at the TMN Centre 24 hours around the clock. A new post paid billing for CDMA was taken into commercial use by launching of the Switchself and Switchbiz products.

The interconnect billing (to other operators) together with a report writing tool is in the acceptance testing stage for completion before end 2007, while the EWSD switch audit with automated comparison with the ICMS billing system should be concluded before end 2007.

The Visional package on the TMN platform was upgraded and expanded to accommodate all newly added networks as well as for allowing automated networks inventory (necessary for auto activation). The Trouble Ticket platform was approved and implementation is in process.

Walvis Bay tower and Backbone to new Langer Heinrich Mine: This is another critical project carried out during the year. With the opening of the Langer Heinrich Mine (LHM), initial services were provided via VSAT. At WVS, Walvis Bay Radio Station and LHM new towers were provided while a fibre cable backbone was implemented to the radio station. A radio system continued then via Hamilton to LHM. This radio system was in service at the end of 2006. The new tower at WVS was immediately utilized for CDMA / SWITCH as well as WiMAX at that town. The old tower had reached its end-of-life and had become a serious safety risk on site and was dismantled. The new tower at the radio station is also utilised for the new maritime GMDSS (Global Maritime Distress and Safety System) system implemented during the year under review.

Human Resources

The company's diversity and complexity in people resources and technology- and also expense presents a stimulating challenge in Human Resources Management unique to an ICT company characterised by increasingly sophisticated systems and technology.

With this comes a responsibility to ensure our people have a safe and supportive working environment where their passion for creating a vibrant company is fuelled by our commitment to realise our Strategic BHAG 2010 which aims to turn Telecom Namibia into the most preferred, high performing ICT service provider of world-class standards.

Strategic initiatives during the 2006/7 financial year included alignment of the total business performance management system, employee / performance recognition schemes, Multi-skilling / Career Paths Scheme, Succession Planning and Talent Management. The initiatives seek to provide for a systematic management of people development, performance and recognition.

Staff Complement

Staff complement is generally decreasing, with total headcount standing at 1,263 compared to 1,306 the previous year. Although the number of full-time staff remained fairly stable, the overall staff complement picked up with the employment on fixed contract of Technicians-in-Training, Engineers-in-Training and casual workers.

During the period under review a total of 139 employees left Telecom Namibia. The majority of resignations were in the skilled and professional technical staff category, accounted for by rival operators who are not investing in training but rather opting to poach our experienced and high performing employees. The overall voluntary turnover rate is nevertheless within acceptable norms.

During the period under review, we successfully introduced and implemented the Retirement Counselling Sessions, to arm the prospective retirees with information and knowledge on the best approaches to invest the pension fund proceeds. Sixty four percent of the prospective retirees successfully attended. The session yielded a high level of interest the company intends to hold Retirement Counselling Session on an Annual Basis.

Skills Acquisition and Retention

A total of 58 employees were recruited and filled only a quarter of the total vacancies available during the year. At least 232 vacancies remain unfilled, 86% of which are in the skilled and professional categories. Whilst the company has redundant staff in a few job categories, the majority of these employees do not have the required skills profile to fill available vacancies. Given the scarcity of ICT and engineering skills locally and in the region as a whole, the Company strategy is training and development in mission critical core skills as this presents the only sustainable approach to resourcing the business with the requisite technical skills.

Parallel to this, a Graduate Recruitment Programme was implemented to draw high calibre students from reputable institutions of higher learning and to provide attachments, on-the-job development and fast tracking opportunities. A campus-based recruitment strategy was also initiated and visits and presentations were made at both the Polytechnic and University of Namibia. Arrangements have been made to visit Technikons and Universities in South Africa in the new financial year targeting Namibian nationals to build a relation and awareness of opportunities in our ICT company.

Telecom Namibia participated in career exhibitions at secondary schools and institutions of higher learning where we explained to students the career opportunities within the ICT industry in an attempt to influence students to study for employment in this industry.

A headhunting intervention was also implemented providing Telecom Namibia staff with an opportunity to refer high performers encountered in the past either in previous employment situations or in customer/supplier interactions. In