



Turning *Wireless
& VSAT* Visions into Reality



*Wireless & Satellite Solutions Provider
and Managed Network Services*

Our vision

*To be a World Class Company
while applying engineering skills to
harness technology in innovative
ways to the business benefit of our
customers and to secure the long-term
prosperity of our people*

The Company

Q-KON is a South African based engineering group that provides turn-key solutions and managed network services to the emerging African telecommunications market.

Using its engineering expertise, Q-KON has repeatedly delivered innovative wireless and satellite solutions that meet the demanding business and user needs of the emerging African markets.

For almost 20 years, Q-KON has followed successful strategies to establish advanced technologies in challenging environments to unlock real business benefits for all. Effectively integrating its commanding capability in wireless and satellite technologies with an intuitive understanding, appreciation and respect of the African market, Q-KON management has conquered many business impossibilities.

Since its inception Q-KON has distinguished itself in providing solutions and services supported by long term relationships. Today Q-KON can proudly look back on almost 20 years of engineering achievements throughout Africa underwritten by sound business practices and ethical long-term relationships.



Q-KON Head Office, Pretoria, South Africa

Group Overview

Q-KON is a wholly owned private organization with the **Q-KON Employee Trust** as majority shareholder of the individual operating companies.

Q-KON was established in 1988 and is the anchor operating entity with its core focused on the Pan-Africa market. From its head office in South Africa Q-KON provides solutions and service to multi-nationals, governments, commercial organizations and ISPs throughout Africa.

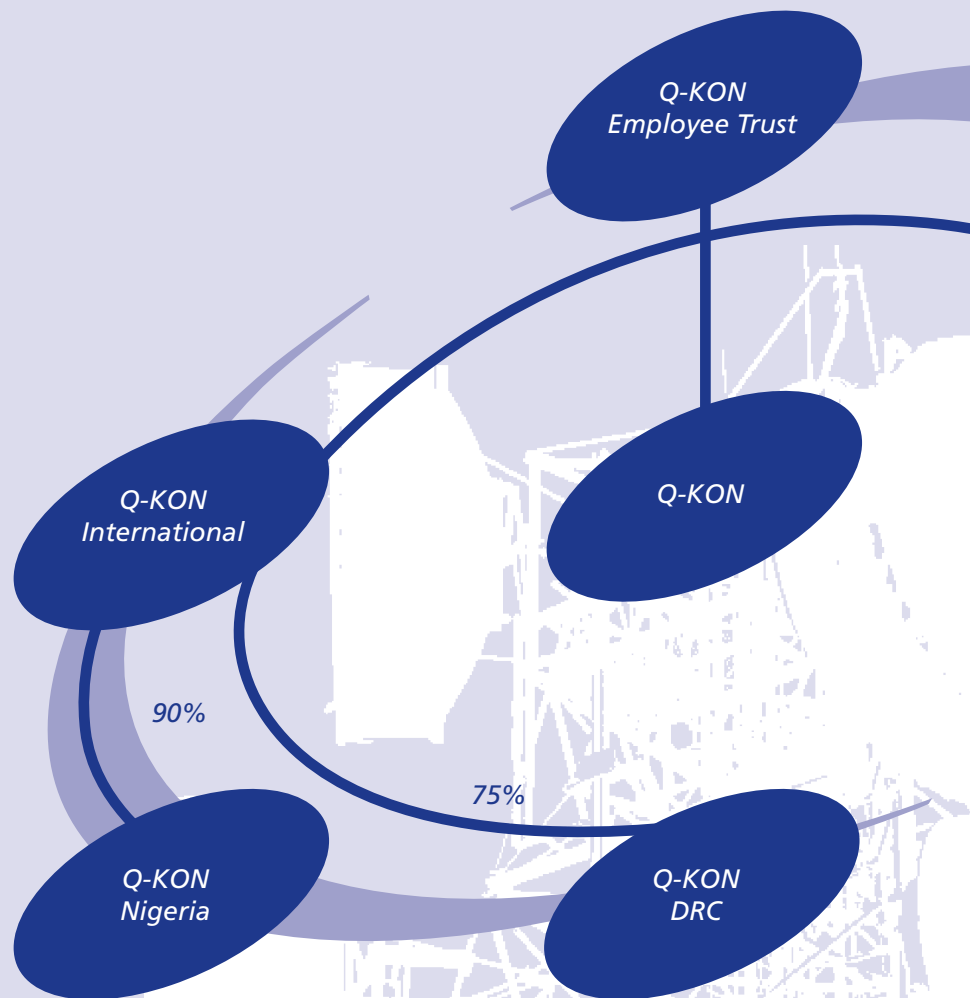
With services currently in more than 40 countries and projects completed in over 30 countries throughout Africa, Q-KON is experienced and well established in the African market. This respectable position was achieved through Q-KON's strategy of establishing mutually beneficial relationships with local and regional service providers within all territories.

Q-KON South Africa was established in March 2005 to focus on the emerging deregulated South African market. Q-KON SA is operating as a totally independent subsidiary and fully acknowledges the social economic environment of South Africa. The management of Q-KON SA believes that cultural and economic empowerment of all South Africans must be pursued in all possible practical and economically viable ways and will fulfill this in line with business objectives.

In order to further strengthen its capabilities throughout Africa, Q-KON's long-term strategy calls for the establishment of regional subsidiaries, where justified.

Q-KON Nigeria is the first regional subsidiary that was formed to service and grow Q-KON's substantial business base in Nigeria. The second newly formed subsidiary is **Q-KON DRC** which was specifically formed in response to the high demand of Q-KON's services to the emerging mining industry in the Katanga province.

*Technology by itself is meaningless.
The goal is to harness technology to open new markets,
to improve quality of life, to uplift society and
create real value for all*





Dawie de Wet (Pr. Eng. MSc Eng) is the Chief Executive Officer of Q-KON and Chairman of the Group. He has more than 20 years of experience in the design, development and implementation of wireless, microwave and satellite communication systems in Africa. In 1988 he joined the Q-KON board and was appointed Managing Director in 1993.

In 2002 Dawie completed his Masters Degree in Engineering and was awarded the Sasol Award for the best post-graduate student. His thesis titled: A Technology to Business Model for the Development of Emerging Markets using Emerging Technologies, appropriately summarises both his 20 years of business experience as well as his academic qualifications and post graduate research experience.



Dirk Staal (MSc For.; M.Phil Intl Management) is the Chief Operations Officer of Q-KON (Pty) Ltd based in South Africa and operating in Africa. He joined Q-KON in 1997 as Business Unit Manager. He held the position of Corporate Manager for three years and in his present capacity as COO his duties include human resources and legal affairs.

In 2006 Dirk completed his Masters Degree in International Management with the specific focus on the prospects of counter-trade in Sub-Saharan Africa. His dissertation was based on using Eastern Europe as an example for the application of counter-trade in Sub-Saharan Africa. This model was applied to Sub-Saharan Africa, where the majority of countries were and still are subjected to civil war, shortage of foreign currency and foreign markets that are difficult to enter. With the abundance of natural resources throughout Africa there is ample opportunity to counter-trade.



Tjaart De Wet is Managing Director of Q-KON South Africa. Tjaart joined Q-KON in 1991 as a Project Engineer and progressed to Major Project Manager in 1994. He was appointed Business Unit Manager of the Q-KON Solutions business unit in 1998.

In March 2005 Q-KON SA was established and Tjaart accepted the position as Managing Director to focus exclusively on the South African market and spearhead Q-KON's growth in the South African market. Tjaart holds a B.Eng degree in Electronic Engineering from the University of Pretoria. Prior to joining Q-KON, Tjaart worked with Altech.



Neill Weldon is Chief Financial Officer of Q-KON Group of Companies. He completed his articles with Aiken and Carter in 1985 and joined ABSA Bank (then Allied Bank) where he gained 15 years of Corporate Banking and Finance experience before joining the Q-KON (Pty) Ltd management team in 1999. In his position as CFO his responsibilities cover all financial control, management and financial planning for the Q-KON group.

BEE Partner

60%

Q-KON
South Africa

Turn-key Solutions

Established in 1988 as an advanced telecommunication system engineering capability, for the then South African Defence Force, Q-KON's engineering capability is founded on the structured and disciplined philosophies of the System Engineering philosophies.

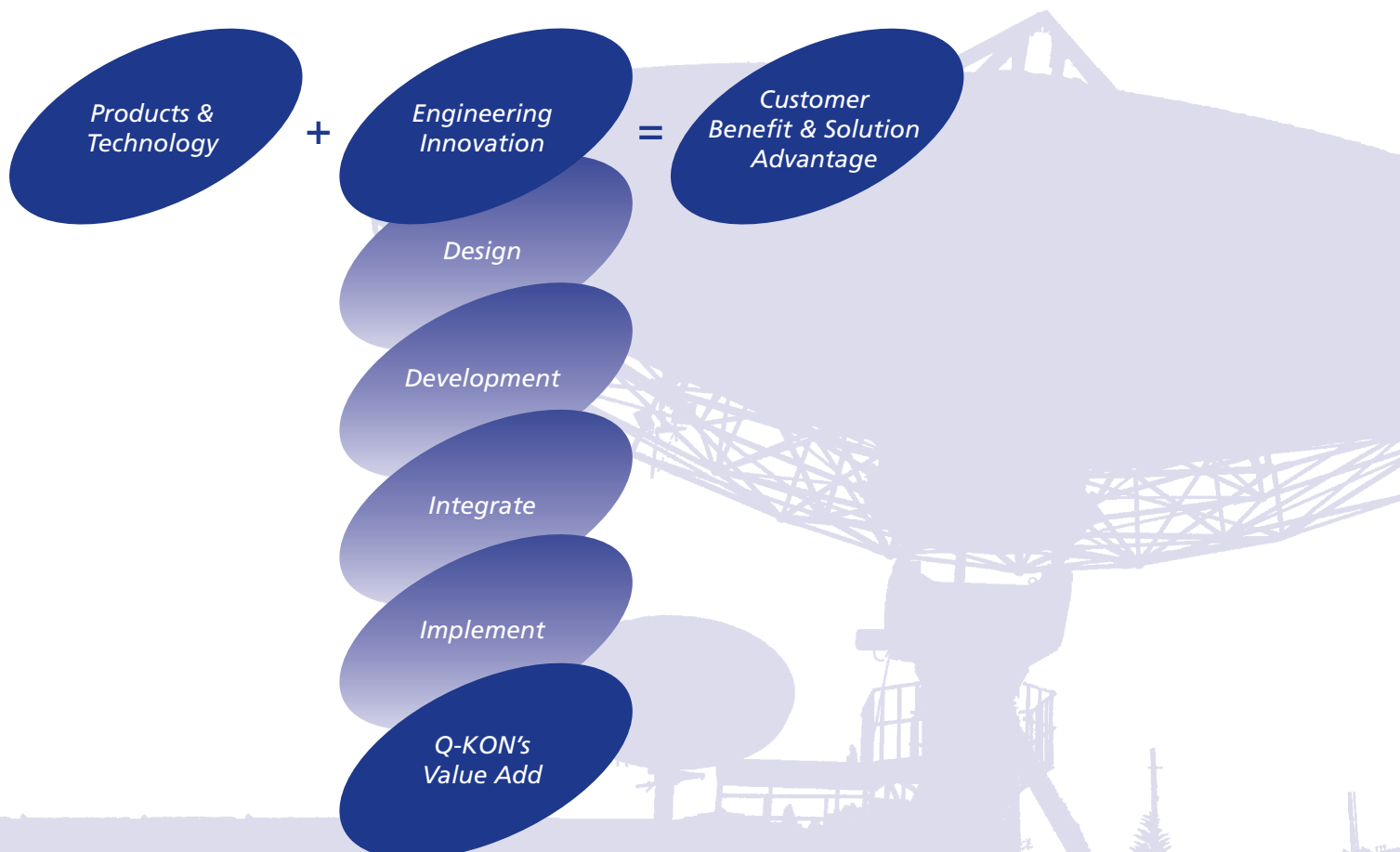
Being a Systems Engineering organization, Q-KON is focused on the design, development and implementation of satellite and wireless telecommunication solutions in Africa. Q-KON effectively buys products and sells solutions, which include design, planning, development, integration, testing, implementation and commissioning.

Q-KON's solution capability has been contracted by national and international organizations and to date Q-KON has implemented many advanced solutions such as mobile video surveillance applications, metropolitan wide area networks and many networks in more than 45 African countries.

Key Facts of Q-KON's solution and projects achievements:

- Installed more than one million km of wireless networks installed throughout South Africa and Africa.
- Implemented more than 100 000 km of microwave links in Swaziland, Burundi, Uganda, Zambia and Nigeria.
- Designed, developed and implemented underground wireless networks for the South African mining industry.
- Implemented wireless and satellite projects in most African countries.
- Implemented mission critical satellite communication networks to the UN and related operations in Sudan.
- Designed and implemented wireless and satellite access networks for clients in the banking and government sectors.

Harnessing advanced technology, services and expertise in challenging environments to the benefit of Africa and it's people



Managed Network Services



Q-KON's portfolio includes Ku-band services on IS-1R, IS-10 & NSS-7 and C-band services on IS-10-02 & NSS-10

*Today, there is only one Internet user per 1 500 Africans, compared to a world average of one in 38....
.... tomorrow it will be different*

World-class Services in Africa

Q-KON is a Managed Network Operator of satellite and wireless access networks that provides telecommunication services to multi-national operations, enterprises, governments, ISPs and regional Telco operators throughout Africa. Q-KON's expertise is focused on the operation and management of technology platforms to ensure dependable and reliable end-to-end services in all environments.

Today Q-KON's Managed Network Operations delivers Internet access, corporate data and telephony services to more than 1 000 VSAT terminals and 10 000 users throughout Africa. Q-KON's managed network operations include expertise for both wireless and satellite networks that are seamlessly integrated with Q-KON's network management technologies at various international teleport facilities.

Q-KON has established relationships with leading satellite product manufacturers, teleport service providers and satellite network operators. These technologies and infrastructures are seamlessly integrated with Q-KON's specialist engineering to implement advanced services platforms

Local Engineering Support

Underwritten by local in-country field engineering services the Q-KON managed services portfolio is rapidly becoming the telecommunication service of choice that offers dependable communication to enable business and commerce in all environments.

Q-KON's portfolio includes services on C and Ku band and incorporate the following VSAT technologies and satellite networks;

- **VSAT Technologies** Linkstar; iDirect; IPSat; SCPC; SkyWAN and Datum.
- **Satellites**; IS1R; IS10; IS10-02; IS-906; IS-904; NSS-7
- **Teleports**; Atlanta; Fuchstadt; Washington; Amsterdam; London



Services Profiles



PAE Sudan

Lockheed Logistics (PAE) provides mission critical logistic support to the Africa Union forces (& UNMIS) in Sudan. Based in Khartoum, with logistical operations throughout Sudan, PAE required dependable communication services between it's head office in Sudan, international offices and all their remote offices.

PAE selected to change to Q-KON as primary service provider and contracted Q-KON to change 30 iDirect sites in 30 days. The project was completed in collaboration with the PAE project team who faced many difficulties including extreme logistical constraints, safety and movement restrictions and user operation demands. Changing to Q-KON as Managed Services Provider provides PAE with:

- Improved customer service
- Improved quality-of-service
- Improved link reliability
- Turn-key offer including VoIP & WiFi

ITM Mining Angola

The diamond mining industry constitutes the second largest source of foreign income to Angola. ITM Mining Limited is deeply involved in this industry and regards its activity as a means to contribute to the development of Angola. ITM is a specialized company in mining and processing, in the development of production geology as well as the engineering of projects and all complementary mining activities.

ITM, via a local Service Provider, contracted Q-KON to implement a corporate satellite communication solution to provide communication for its operational and socio-environmental requirements.

Using the leading SkyWAN satellite equipment Q-KON designed and implemented a network that provides:

- Direct, single-hop, access between all ITM corporate offices for corporate data and voice telephony services.
- Direct, single-hop, access to the international 1st tier Internet network.
- Voice services to and from local Angola-Telecom numbers in Luanda.
- Voice services to all international destinations for business use and also a calling card service for private international calls of ITM's employees.



Serving people, decreasing suffering, supporting operations, enabling enterprise and empowering development – these are the true objectives



UNHCR

The UNHCR's operation is spread over a vast number of countries in Africa, spanning the continent from West to East, Central and South with an ongoing task to improve the conditions of life for refugees. Their need for dependable and reliable telecommunication services is vital to ensure successful operations in the region.

The UNHCR contracted Q-KON to provide satellite access services for Internet, corporate data and international telephony services. The initial contract was for 11 sites in Burundi, Uganda, Mozambique and Sudan which was then extended to a total of 23 sites throughout the region. Using MCPC technology the Q-KON VSAT network offers seamless growth options while ensuring minimum service levels to all sites and maximum benefit of the contracted capacity.



Africa Explosive Limited

AEL is a principal developer, producer and supplier of commercial explosives, initiating systems and blasting services for all mining, quarrying and construction markets in Africa. Based and headquartered in Johannesburg, South Africa, AEL also has production facilities and offices in Ghana, Mali, Tanzania, Ethiopia, Zambia, Zimbabwe and Botswana.

AEL selected Q-KON to implement and operate a pan-Africa VSAT communication systems to provide them with internet access and telephony services for its operations in Africa. Based on the iDirect C-band platform, the Q-KON services ensured quality-of-service for telephony services while optimizing communications for the enterprise's financial application system. QKON services were implemented in Ghana, Mali, Tanzania and Zimbabwe.



Services Profiles



General Electric

GE has been in Africa as an African company for more than 100 years. In 1898 GE established its first foreign office in what is now South Africa. GE continues to be very active in numerous African countries with offices in Kenya, Egypt, Morocco, Tunisia, Algeria, Nigeria, Ghana, Angola, and South Africa. GE currently employs more than 600 people in Africa.

GE required extremely reliable communication services between the project and plant offices located in Ghana and Nigeria and the enterprise management system based at the international head quarters. GE selected Q-KON to provide the satellite communication channels and, since 2001, Q-KON has provided GE with reliable and dependable services for its remote African locations. The satellite communication links form part of the world-wide GE corporate data network and has to meet the reliability requirements of the corporate network.

*It is easy to speak
about the relative lack
of telecommunication
services in Africa...
However it is more useful
to compare what is
happening now with what
has happened in the past*



DCP Democratic Republic of Congo

Nikanor is a mining group which, with partner Gecamines, owns mining assets in the heart of the Katangan copperbelt in the Democratic Republic of Congo. KOV is the key mine of its mining operations company, DRC Copper and Cobalt Project (DCP). It contains one of the world's largest high quality copper and cobalt ore deposits. Nikanor is rehabilitating this proven and well documented brownfield site and is building a major state-of-the-art refining plant to produce LME A-grade copper cathode and cobalt products.

DCP has selected Q-KON as telecommunication partner for all data and voice communication services for this \$1.5 bn project. The expected communication project will be completed during 2007 and 2008 with the initial critical services already commissioned in December 2006. Once completed the Q-KON networks will include:

- international access services via redundant satellite links,
- wide area 155Mbps microwave network with ring redundancy,
- broadband WiMAX network for services to all user locations and
- on-site LAN and telephony networks.





Verizon Business

One of three operating units of Verizon Communications Inc. (NYSE: VZ), Verizon Business delivers advanced IP, data, voice and wireless solutions to large business and government. Verizon Business's corporate capability includes over 30 000 employees, 321 offices in 75 countries across six continents, Global IP footprint serving 2 700 plus cities in 150 countries, more than 200 state-of-the-art data centers in 22 countries, 130 000 plus Customer Relationships including 94 percent of Fortune 500 and the strength in financial services, retail, hightech, healthcare, federal/state/ local government and education.

Verizon Business selected Q-KON as management and engineering outsource partner responsible for the establishment and management of all Verizon's satellite services in Africa. Q-KON's role also includes consultancy services as required for business development activities and to ensure on-going growth of Verizon's VSAT

business portfolio. The Q-KON NOC provides second line support and specialist VSAT engineering services to all Verizon's clients within Africa and coordinates service activation, changes and upgrades.



Providing enterprise critical satellite communications throughout Africa supported by the Verizon and Q-KON network operation centers and service engineers



Operational Excellence

The Q-KON NOC is the central point for the control, management and support of all managed platforms. The NOC is located in the Q-KON Head Office in South Africa from where it has direct communication links to the international teleports for network monitoring and control as well as visibility to the operational status of the remote customer sites.

The NOC was established in June 2003 and in that same year we received an Operational Excellence Award from PanAmSat for the level of service provided to customers. In March 2007 Q-KON's operational capabilities once again received international recognition and we received the Intelsat Operational Excellence award.



Mr Monday Okpebholo, key customer of Q-KON, and Mr Dawie de Wet, CEO of Q-KON, at the Intelsat award ceremony

Project Profiles



MWeb Nigeria

MWeb Nigeria is one of the fastest growing ISPs in the challenging Lagos, Nigeria, market. MWeb entered the fixed broadband access market late and urgently required a unique and highly competitive broadband wireless access solution to enable MWeb to compete successfully against already established broadband wireless operators.

The preferred solution was to be based on low-cost CPE equipment with maximum range and ease of installation. The solution would support a range of service profiles to meet the range of requirements, from the premier enterprise customers to the mass home market.

MWeb selected Q-KON as preferred infrastructure provider and entered into a strategic partnership with Q-KON to design, supply, implement and operate the IPConnect UHF non-line-of-sight broadband fixed wireless access solution. In terms of this agreement Q-KON has total responsibility for network operation and MWeb owns and manages the subscriber base.

Q-KON, in partnership with Atlasco Technologies, the local license holder, has successfully deployed a multiple head-end network that provides communication coverage over most of Lagos and is equipped to service more than 5 000 subscribers.



Multimedia Access with ease and minimum costs



Ethiopia Telecommunication Corporation

ETC's vision is to see the entire country connected with state-of-the-art ICT infrastructure that provides highly qualitative, reliable and secure communication services at affordable prices. Despite the current increased volume of infrastructure building, the majority of Ethiopians are still deprived of basic telecommunication services. The telephone density is one of the lowest in the world. The level of ICT penetration is far worse at 0.08% of the population.

In pursuing the delivery of basic telecommunication services and solutions based on modern technologies and with countrywide coverage, ETC contracted BCX and Q-KON in 2002 to design and implement an advanced fixed wireless access network for Addis Ababa. A second contract was awarded in 2006 to upgrade the network capacity by adding additional up streams and downstream channels. The upgrade project required extensive and advanced frequency planning and coordination to ensure successful implementation of the additional channels without increasing the allocated frequency spectrum.



The wave of investment in Africa looks set to continue, but to ride this wave, investors need to recognize that the revolution remains essentially African, which requires an African solution



Tshwane University of Technology

Tshwane University of Technology is the largest residential higher education institution in South Africa, with approximately 60 000 students. As a higher education institution, Tshwane University of Technology has a legal responsibility to conduct teaching and learning, to undertake research and development as well as community service projects. The campuses in Pretoria West, Pretoria Central, Arcadia, Soshanguve, and GaRankuwa are spread over a large area, making communication between students and lecturers a difficult and expensive exercise.

Tshwane University of Technology selected Q-KON SA / CEB Wananchi to design and implement a high speed microwave metropolitan network. The network combines all voice, data and video communication between the campuses into one integrated backbone. The network is based on SDH microwave technology, and is operating on a combination of 15 GHz, 26 GHz and 38 GHz links. The network provides 155 Mbps and in some cases 311 Mbps intercampus connectivity. The network is based on 13 links, totalling 120 km, and includes redundancy, quality of service and 99.99% reliability.



Transmedia Zimbabwe

Transmedia Ltd is the national broadcaster of radio and Internet access services in Zimbabwe. Transmedia owns and operates all terrestrial broadcast infrastructure and has commissioned Q-KON to implement the world class, industry first, IPConnect UHF wireless digital access network.

The first phase was implemented in 2003 and in 2006 the network needed to be upgraded. The network upgrade involved expansion of the current Harare network to a four channel downstream system as well as adding a network in the city of Bulawayo. The IPConnect Wireless Access Network provides broadband non-line-of-sight connectivity services to corporate and residential users for Internet, corporate data and VoIP telephony services.

The capacity and architecture of the IPConnect systems enables Transmedia to be a carrier-of-carriers and provide wholesale services to other ISP and operators in Harare and Bulawayo. Currently the network provides services to most of the major ISPs including MWeb and Zimbabwe-on-line.



Project Profiles



Cyberspace Nigeria

Cyberspace Network Limited is an established Nigerian IT infrastructure company that designs, builds, manages, and optimizes customized networks and network-related solutions which are strategically tailored to meet an organization's goals and requirements.

Q-KON was commissioned to supply and install the 7.6 m hub antenna and to ensure integration of the RF systems with the iDirect hub electronics. The 7.6 m antenna had to be constructed on the building roof which posed various challenges to the field engineering team.

The complete project incorporates:

- 7.6 m Andrews Antenna System
- Beacon Receiver
- Antenna Control System
- 40 W Redundant RF system



The 7.6 m antenna construction was a roof-top installation on a three storey building. The project team had to overcome various civil engineering, rigging and construction challenges



MinFin Angola

In December 2002 President dos Santos named a new economic team to oversee homegrown reform efforts. The new team has succeeded in decreasing overall government spending, rationalizing the Kwanza exchange rate, closing regulatory loopholes allowing off-budget expenditures, and capturing all revenues in the state budget. New procedures have been implemented to track the flow of funds between the Treasury, Banco Nacional de Angola (the central bank), and the state-owned Banco de Poupanca e Credito, which operates the budget.

These positive reforms were made possible by a satellite communication network that was designed and implemented by Q-KON and which provided the Ministry of Finance with:

- on-line data communication facilities to the regional capital offices,
- reliable telephony services between all sites and the capital office,
- Internet communication services for all offices and
- secure and reliable communication channels to support government's objectives.

There is compelling evidence that Africa is in fact undergoing a renaissance in telecommunications





Telenor

Telenor Satellite Services, a division of Telenor Satellite Services AS, contracted Q-KON to implement VSAT earth stations throughout Africa. One of the projects recently completed was to install 19 sites in 13 African countries for Heineken Breweries and Heidelberg Cement. The project scope includes re-configuring of existing sites, implementation of new sites and integration with IP services.

Q-KON's experienced field engineering teams provides a wide range from services to international operators and enterprises. Head quartered in South Africa and with a satellite engineering office in Nigeria, the Q-KON team is well positioned to provide engineering services throughout the African continent.

The Q-KON team can provide a wide range of engineering services, from site survey to turn-key implementation for 2.4 m system up to 11 m systems. To date the Q-KON team has provided dependable engineering services in 21 countries and met strict MTTR requirements to maintain mission critical systems.



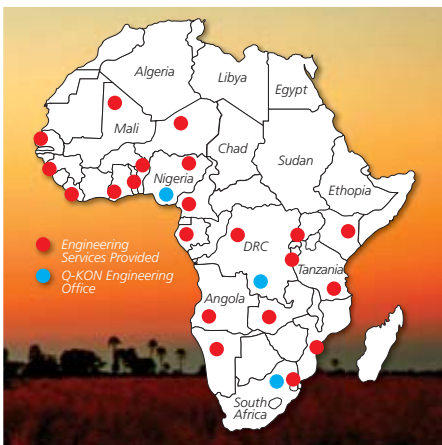
Harris

Harris offers reliable, cost-effective telecommunication services on land and sea.

Q-KON has provided engineering survey, implementation and support services to HARRIS Corporation for implementation of the Africa Development Bank network in various countries throughout Africa. The VSAT network provides dedicated services to all branches of the Africa Development Bank and includes sites in Senegal, Tunisia, Mozambique, Tanzania, Nigeria, Mali, Ivory Coast, Rwanda, DRC, Madagascar and Ethiopia. The network consists of mostly 4.5 m, 40 W systems that provide video conferencing, telephony, data and internet access services.

In partnership with the HARRIS Maritime Communication Services project team, Q-KON does the initial site survey, engineering planning, implementation and commissioning as well as the on-going network maintenance and support.

One of the Harris 17 regional sites where installations were done for the Africa Development Bank network.



*African partners
and African excellence
will be found at the core
of sustainable solutions*



Products & Engineering



Quintum Top Distributor for Africa

Q-KON's business includes the supply of value added products such as the Quintum VoIP gateway equipment. Q-KON SA's engineering support has contributed to securing the position of top distributor in Africa and European Regions for the Quintum Tenor VoIP product range in South Africa.

Quintum's financial year ended on 31 July, the date for the release of the annual sales figures. During his recent visit to South Africa, Mr John McMillan, Quintum Sales Manager for Africa and Europe, commented "We are very happy with Q-KON SA's results, and we look forward to a repeat performance next year".



Mr John McMillan, Quintum Sales manager for Africa and Europe congratulates Mr Les Brinkworth, Quintum Account Manager at Q-KON SA

Media 24 VoIP Network Solution

The Media24 group includes household names such as: Drum, Huisgenoot, You, and Readers Digest magazines, International Colleges Group, Damelin Education Group, and The Graduate Institute of Management & Technology. There are also Media24 newspapers that include many community newspapers as well as familiar dailies Beeld, Daily Sun and Volksblad, as well as the Sunday newspapers City Press and Rapport.

With Media24 having so many offices countrywide to cover all their activities, IT and Voice infrastructure costs are significant and with the deregulation of VoIP, Media24

started looking into technology that could benefit them. Through Bytes Technologies, Media24 contracted Q-KON to investigate the interoperability of their 3Com VCX Server with the Quintum TENOR VoIP switches. The initial project involved the linking of the major Media24 offices in Cape Town, Port Elizabeth, Durban, Bloemfontein and Johannesburg. In order to ensure the required support skills are available, Q-KON SA hosted a technical training course in Cape Town, that was attended by technical staff from Media24, Bytes Technology as well as 3Com.





iCall IP Telephony Service

Q-KON's satellite and wireless managed services portfolio is integrated with the iCall IP telephony solution. The iCall IP telephony platforms provide least cost calling facilities for international telephony services via the satellite access network to the international telephony switching center. The iCall platform allows users to maximise the business benefit of satellite and wireless IP communication infrastructure and provides an end-to-end seamless solution.



Engineering and Consultancy Services

Q-KON has a wealth of systems and telecommunication engineering expertise that is available through consultancy assignments and engineering services contracts. Most notable is Q-KON's experience in the preparation and definition of a business plan for emerging network operators, project managers and consultants for diverse telecommunication projects.

Typical assignments completed include:

- Project management contract for GSM site built projects
- Business case drafting for a CDMA network in Benin
- Telecommunication feasibility study for mining operations

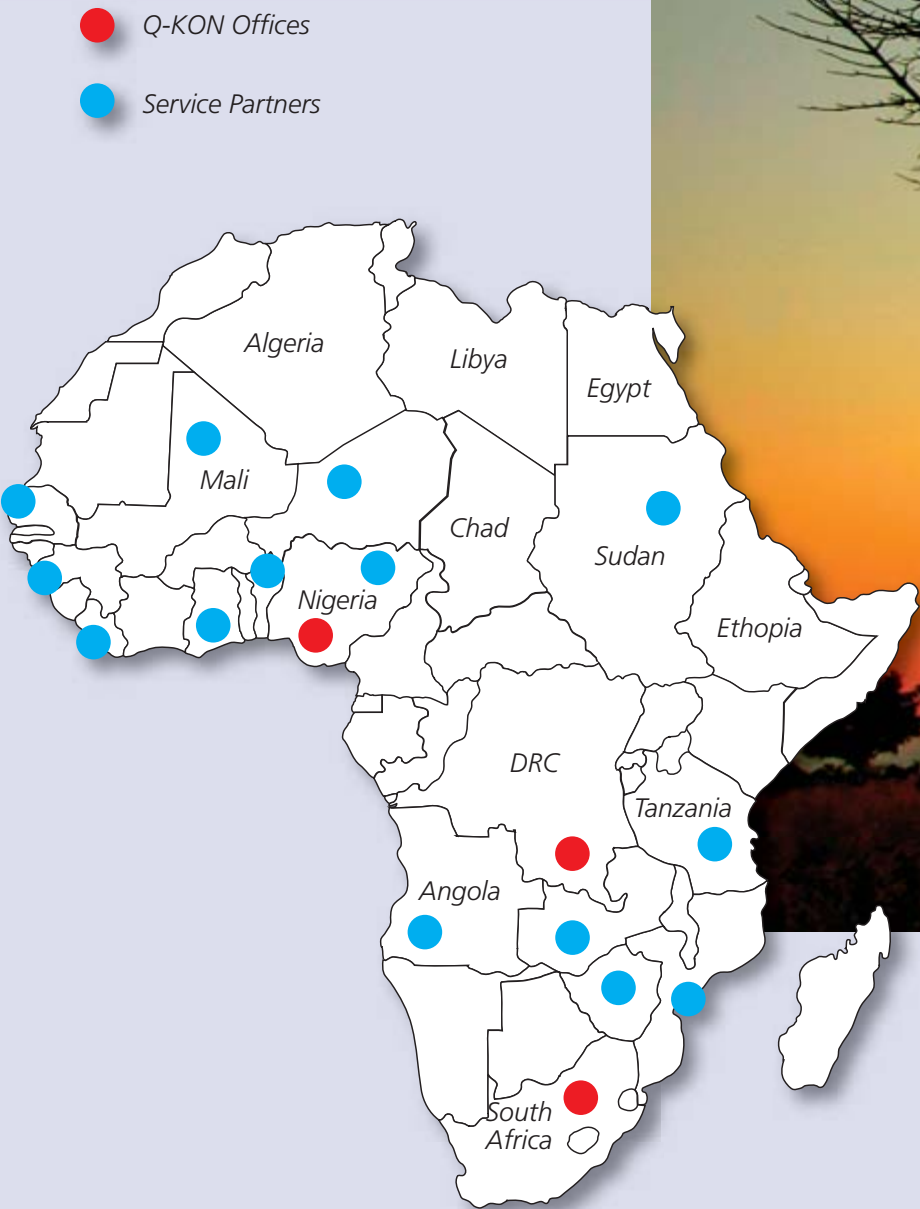


The ability to understand both markets and technology and knowing how to act upon this, will determine who wins and who loses

Q-KON in Africa

Africa Services Partners

Q-KON's solutions and services in Africa are provided in close co-operation with local in-country Service Partners who ensure compliance to the local regulatory requirements as well as provide critical support services. With its network of Service Partners, Q-KON can ensure both the highest level of quality service using it's international infrastructure and provides peace of mind through in-country support services.



A large satellite dish is positioned in a savanna landscape at sunset. In the foreground, a large, dark baobab tree stands on the left. The sky is a mix of orange, yellow, and blue. The dish is a large, white, parabolic structure. The overall scene is a blend of nature and technology.

Q-KON's Future Focus

Q-KON will continue to provide innovative solutions and services to the emerging African market. Harnessing our engineering and business capability to the benefit of our customers and the long-term interest of our people, we are focused on becoming a world-class provider of wireless and satellite solutions.

Our dream for Africa is to provide IP connectivity in every town, in every village and for every corporate user. To develop, implement and service the connectivity networks that will ultimately connect all computers in Africa to the rest of the world.

In the beginning it's about technology, functions and features but in the final analysis it's about people integrity and commitment



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Turning  Visions into Reality