Communication solutions through technology

Global Communications

PRODUCT PORTFOLIO:
GOVERNMENT SECURITY AND ICT INFRASTRUCTURE SOLUTIONS

Global Communications
Park Street South,
Rooihuiskraal,
Centurion,
South Africa
Telephone: +27 (0) 12 621 0400
Contact:
Mr. Andy Anderson
Head of International Sales Export
Mobile: +27 (0) 71 923 3297
E-mail: aanderson@globalcomms.co.za
INDEX:

1. About Global Communications
   - Who we are

2. IP Networks and Infrastructure
   - 4RF IP Networks
   - OGIER Electronics Microwave Technology
   - SAGITTAR Carrier Grade Infrastructure

3. Digital Voice and Data Two-way Radio Communication
   - KENWOOD Digital Radio Communication Systems
   - ROHILL Tetra Digital Radio Infrastructure
   - DAMM Tetra Digital Radio Infrastructure
   - SEPURA Tetra Terminals

4. Surveillance Imaging Solutions
   - JVC Surveillance and CCTV

5. Integrated Perimeter Intrusion Detection Systems
   - FLIR Integrated Radar Technologies
   - SOUTHWEST MICROWAVE Perimeter Detection Technologies

6. State of the Art Command and Control Solutions
   - ZETRON Advanced Control Room Applications

7. Tactical and Commercial HF and VHF Communications Systems
   - BARRETT Communications designs, manufactures and markets HF and VHF radio equipment for specialised, autonomous, long distance radio communications.

8. BGAN and VSAT Solutions
   - AST/Thrane & Thrane/Inmarsat (Satellite Hardware & Service Provider)
The Company:
Through the past decade, Global Communications has focused on supplying RF two way radio communications and telecommunication solutions to the African continent and since its inception in 1977, the company has grown from a small two-way radio company into a distributor of land mobile radios, CCTV surveillance equipment as well as an integrator of network infrastructure with a large staff complement including highly qualified technical and design engineers.
Today, Global is present in more than 40 African countries through dealers, integrators and distributors. This presence is a result of the company being the African leader for the supply of Kenwood Land Mobile Radios (LMR) equipment and an active telecommunications equipment supplier in Africa.
Global’s expansion into Africa is aimed to serve the needs of the rapidly growing mobile communications market, and the vision for the future, is to make Global Communications a major player in the telecommunications industry and commit ourselves to finding the best and most cost effective solutions for our customers’ communications needs.
The Company is structured in various divisions where we are able to market various products:
IP NETWORKS AND INFRASTRUCTURE

Smart radio for smart networks

Utility and critical infrastructure networks in more than 120 countries use radio communications equipment from 4RF Communications. Combining excellent RF performance with a standards-based approach, superior reliability and ease of use, 4RF develops best in class wireless products. 4RF provides point-to-point and point-to-multipoint radios, all distance-engineered for unbeatable real world performance. Customers include utilities, public safety, homeland security and military organisations, oil, gas and mining, transport, and telecommunications operators. All research, development and manufacturing activities are carried out in 4RF headquarters in New Zealand, where the company was established more than ten years ago.

Cost-effectively extend the reach of your communications with point-to-point and point-to-multipoint radio solutions

Future-proof design with flexible support for range of serial and IP / Ethernet interfaces, combined with unbeatable reliability

Superior technology, service and support from the global market leader, with presence in more than 120 countries

With their future-proof architecture, all products support a flexible range of both analogue and digital interfaces and are easily managed with our web-based software. We only use licensed frequency bands to ensure interference-free operation, and operating only below 3 GHz means that the weight and cost of supporting infrastructure such as antennas is minimal. Robust and reliable, our products withstand temperature extremes, both hot and cold. Finally, our superior technology combines with a sound business case to deliver the best possible price-performance for your applications.
The Aprisa XE is a point-to-point wireless link that can reach up to 250 km in a single hop, delivering carrier-class capacity of up to 65 Mbit/s. It is available in a wide range of frequency bands from 300 MHz to 2.5 GHz, with channel sizes from 25 kHz to 14 MHz, for maximum deployment flexibility. Its modular construction supports a range of easily configurable analogue and digital interface cards: E1/T1, 2 and 4-wire analogue, multiple data options and 10/100 Base-T Ethernet.

Ogier Electronics designs and manufactures professional microwave transmission solutions for a wide range of broadcast, security and data communication applications.

We are delighted to announce three additional products now available.

1) A cost effective alternative to fibre, a robust and reliable wireless I/P solution for town centre, railway and rural CCTV applications. Point to point and point to multipoint systems are available in the licence exempt 24GHz band.

2) A fixed or Mobile COFDM Transmitter and Demodulator Unit for Non Line of Sight transmission.

3) A mobile wireless CCTV Transmission system for Incident Response and Emergency Service Vehicles.

We also integrate security systems using our communications infrastructure to provide complete turnkey solutions for our customers.

Our products are used in Security Systems, Broadband Wireless, License exempt Wireless Ethernet and Railway Applications. With a long established pedigree in communication engineering and systems design, we offer a wide range of solutions for fixed and mobile applications to our global customer base.
Sagittar, located in Asia and Africa, specialises in wireless and optical fibre/ducting telecommunications solutions. Sagittar provides Telecommunications Operators with carrier-grade optical fibre/ducting solutions, wireless point-to-point PDH and SDH transmission links, antennas and GSM/CDMA repeaters.

Sagittar has a suite of microwave networking solutions for network operators, government, public safety organizations, the defence industry and private companies. Sagittar solutions address the requirements of global markets. Our products have been widely deployed in more than 10 countries, including China, Indonesia, Philippines, Vietnam, Russia, UAE, Saudi Arabia, South Africa, Nigeria, Liberia, DRC, Botswana, Namibia etc. Sagittar has a team of telecommunication experts, headquartered in Hong Kong China, with offices in China and in South Africa. Sagittar PDH digital microwave radios are designed for short and medium distances, providing point-to-point high performance and carrier-grade communications reliability. The PDH system comprises 2 Indoor Units (IDU), 2 Outdoor Units (ODU) and 2 antennas, with 4/8/16E1’s and Ethernet throughput. SGT-LPN Series Microwave Radio solutions operate in the 7GHz, 8GHz, 13GHz, 15GHz, 18GHz and 23GHz frequency bands. Sagittar PDH radios are mainly used for Base-Station Backhaul, hotspot signal access etc. Sagittar Spread Spectrum digital microwave products use advanced DSSS/CCK modulation technology, and operate in the 2400~2483.5MHz and 5725~5850MHz frequency ranges, enabling transparent data transmission with 4/8E1 and Ethernet throughput. RF repeaters are used to cover signal blind areas that mobile cell communication systems cannot cover, such as the edges of Base Stations, tunnels, subways, shopping malls and industrial buildings. Repeaters receive signals from Base Stations, amplify them and transmit them to Mobile Stations. At the same time, repeaters receive signals from Mobile Stations, amplify them and transmit them to Base Stations.

ANT-SGB (Standard Performance) and ANT-SGG (High Performance) series microwave communication antennas are high efficiency, low VSWR and high cross-polarization-discrimination XPD parabolic antennas; these are supplied as standard or high performance versions. Incorporating feed-forward flex waveguide, this series of products is designed to be versatile and reliable in all climate conditions. They are your ideal choice for long or short-haul microwave links. The ANT-SGB and ANT-SGG series of antennas include 0.3m, 0.6m, 1.2m, 1.6m, 1.8m, 2.0m, 2.4m and 3.0m models. Sagittar supplies an ANT-SGT series of solid parabolic antennas (0.3m, 0.6m, 0.9m and 1.2m) that are used with its 5.8GHz ISM (License-exempt) Band LPN-Series Digital Microwave Radios.
D I G I T A L
V O IC E A N D D ATA
R A D I O C O M M U N I C A T I O N S Y S T E M S

About Kenwood NEXEDGE® Digital Two-Way Radio

When Kenwood introduced its NEXEDGE® range of advanced digital two-way radios in 2008 it was the first system to offer both Mixed Mode (the ability to communicate with both analogue and digital handsets automatically, without manual switching) and trunked radio communication capability.

Built on the solid foundations of over 30 years success in the design and manufacture of analogue two-way radios, Kenwood NEXEDGE® equipment employs state of the art digital voice processing technology to ensure clear voice quality and reliability, even in the noisiest of environments and digital encryption to allow for complete protection against casual eavesdropping.

Simple, cost effective migration to Digital Two-Way Radio

All NEXEDGE® equipment can communicate with existing analogue radios, either terminal to terminal, as a system, or even as a multi-site trunked network. This provides a cost effective and controlled solution to customers migrating from an analogue system to the proven advantages of digital.

Award Winning Performance

Winner of the Innovation in Business Radio Award at the 2010 Federation of Communications Services AGM, NEXEDGE® has been designed to deliver the safety, security, efficiency, performance and future-proofing that the market demands from leading edge digital two-way radio communications.

The NXDN® Digital Advantage

In analogue systems as the signal strength decreases in low-coverage areas, noise and dropouts increase, severely degrading intelligibility. However, with the NXDN® digital system, which features enhanced Forward Error Correction (FEC), the digitized audio stream is less susceptible to noise, resulting in superior clarity at varying signal strengths. System operators converting from analogue to NEXEDGE® typically comment that users now receive calls in areas that were out of range before. NXDN® reduces lost or misinterpreted calls and the need for repeat calls, thus enhancing workforce productivity.
Trunked Mode NEXEDGE\textsuperscript{\textregistered} trunked mode provides increased capacity, enhanced call capabilities, improved security and faster communications with less required user operation than conventional systems. The system automatically assigns channels for faster, efficient use of spectrum, allowing users to concentrate on the job at hand. The 3,000 (each) Unit ID and Group ID per-site capacity provides ample unit and fleet organization capabilities. Group and Individual calls enjoy complete privacy as other users in the system cannot monitor the calls. The Priority Monitor feature will monitor for up to 4 high priority talk groups and switch users to those calls in progress so important calls are not missed. During peak usage hours, system Call Queuing stacks call requests and processes calls when a channel becomes available. System operators can assign important individuals higher queue priority and even pre-empt lower priority users for more important dispatch and emergency calls.

Network Option

The network option leverages the power of IP to link up to 48 digital trunked sites together for wide area roaming and calling capabilities. Scalable networks can be created over existing IT assets, private microwave, spread-spectrum links or carrier services using standard 10/100 Base-T Ethernet switches and routers. IPSec VPN tunnelling provides encrypted, secure communications links within any IP network. Subscriber units use advanced control channel hunting algorithms, RF signal strength and digital signal quality (low bit-error-rate) to automatically determine the best sites to register on while moving throughout a network. The 60,000 Group ID and Unit ID network capacity is sufficient for large organizations and multi-user system sharing.

Building on a heritage of knowledge and experience accumulated over the past 3 decades, Rohill has emerged as a leading supplier of TETRA infrastructure solutions serving a wide range of security conscious customers from around the world.

TetraNode is the result of years of dedicated research and development focused on providing the best possible and most comprehensive solution for mission-critical communications users working in the most demanding environments. TetraNode incorporates many of the latest industry trends to offer a truly revolutionary, next-generation, future-proof network design based on TETRA with a surprisingly large number of unique features.

Mission-critical communications sectors, such as military and public safety organizations, are increasingly requesting systems put together with COTS (Commercial Off The Shelf) components and open interfaces. Simply ordering an infrastructure based on open standards - i.e. TETRA - is no longer sufficient.

TetraNode is designed to make the most of open, widely available, multiple source hardware and software. This leads to considerable cost savings compared to other suppliers’ systems containing a higher proportion of proprietary elements.
For more than 25 years, DAMM has been a leader in professional radio communications. Through superior engineering and a constant focus on reducing complexity, we have taken the lead within TETRA technology.

**DAMM is a worldwide provider to the PMR market**

We are the preferred supplier of TETRA infrastructure to industrial, commercial and public safety customers including military organisations, golf courses, sport stadiums, cruise liners, manufacturing sites, airports and airfields, resorts, utility, transportation, fleet management, seaports, civil protection, government systems, police, fire brigades and many more.

TetraFlex® is flexible to use in any combination of both indoor and outdoor units in a single multi-site configuration

Focused exclusively on serving the Private Mobile Radio market, DAMM is dedicated to making TETRA communication easy to deploy for industrial, commercial and public safety customers. By focusing on customer needs and usability, we manufacture the most scalable, flexible and user-friendly TETRA infrastructure on the market.

Throughout our development process we have our customers’ communication project phases in mind, thereby providing a very low total cost of ownership solution.

DAMM is a dynamic and innovative company at the forefront of technological innovation. We are constantly looking for new improvements and refinements, and we play an active role in defining how TETRA advances.
Sepura is a global leader in TETRA digital radio products. We deliver mission-critical communications to customers in the public safety, military, transport, utilities and commercial sectors. We offer one of the broadest ranges of standard and specialist radio products, support tools and accessories, combined with unrivalled local customer care and support. We employ over 300 people, many of whom have up to 30 years' experience of the PMR market.

Our global team of account managers and support engineers is complemented by a network of over 100 channel partners from all over the world.

Sepura’s radios are solving the ever increasing communication challenges our customers face and are helping front-line users make real-time decisions that make a real difference.

Our customer base is global, from the UK and Europe to South and Central America, Africa, the Middle East and Asia. Operating at the front-line in some of the most demanding environments in the world, our customers know that our mission-critical communication equipment meets their every need in terms of safety, reliability, product intelligence, functionality and total security.
SURVEILLANCE IMAGING SOLUTIONS

JVC is an innovative, one stop shop for high quality security and communication products.

JVC’s broad range of CCTV and surveillance products, both analogue and IP based, are aimed at the upper end of the market and are renowned for their reliability and long MTBF figures (from 6 to 11 years, depending on the product).

The range includes best-of-breed analogue and IP, including HD - high speed dome PTZ cameras, NVRs, super lo-lux box and dome cameras and rugged monitors designed to operate 24/7.

From retail and commercial use, through to government, education, healthcare and transport, JVC offers a comprehensive range of products, with design features including open architecture and plug and play technology, which greatly simplify installation and configuration for system integrators.
State of the Art

Command and Control Solutions

Zetron is a subsidiary of JVC Kenwood Corporation. For over 30 years, Zetron has been designing, developing, manufacturing and implementing mission-critical communications solutions for public safety, transportation, utilities, manufacturing, healthcare and business applications throughout the world.

Zetron has installed thousands of systems and deployed over 20,000 console operator positions worldwide. The scope and success of these projects demonstrate the performance, effectiveness, robustness, and reliability of Zetron's products.

Zetron's wide range of communication solutions include:

- Custom systems
- Integrated communication-and-control systems (ICCS)
- Radio dispatch consoles
- Emergency call-taking systems
- Paging infrastructure
- Trunked radio
- Wireless SCADA and remote-monitoring products

Through its alliances with world-class system integrators, a global network of resellers in over 60 countries, and Zetron's own international facilities, Zetron is able to maintain a strong local presence in the areas it serves.
Established in 1976 Barrett Communications are a leading world designer and manufacturer of remote radio communication solutions.

Specialising in humanitarian, corporate, government and military communications Barrett Communications provides sophisticated yet simple solutions to your communications requirements.

Our products and systems are expertly created to provide you with the best in commercial HF, military HF and VHF communications technology backed by ISO9001:2008 quality assurance certification.

High Frequency Radio Communications[edit]

Barrett Communications designs and manufactures a range of HF communications equipment for commercial and tactical use. The range includes transceivers (base, portable and mobile), modems, power supplies, amplifiers, antennas and accessories. Barrett’s range of HF communications equipment ranges from basic voice communication to data, email, fax and GPS tracking.


2080 VHF brigade radio
Very High Frequency Communications

Barrett Communications designs and manufactures a range of VHF, communications equipment specifically for tactical use. This range known as the Barrett PRC-2080 Tactical VHF radio system, includes VHF 30 to 88 MHz squad, brigade, base and mobile transceivers and rebroadcast units. This equipment provides digital voice, encryption, frequency hopping, data, positional awareness and rebroadcast capability.

Global Communications (PTY) Ltd is the appointed African Master Distributor for Applied Satellite Technologies (AST South Africa). Global Communications has a distribution network across Africa in more than 40 African Countries.

Applied Satellite Technology (AST) - is an accredited Thrane & Thrane Certified Partner as well as a Distribution Partner for Inmarsat. Thrane & Thrane is the world’s leading manufacturer of equipment and systems for global mobile communication based on sophisticated satellite communication and radio technology. Inmarsat is internationally recognised as the industry leader with a reputation for delivering consistently reliable services to a global market. AST-SA as a Tier 1 Service Provider (SP) for Iridium and Thuraya therefore offers the full range of Satellite Communication Products and Services.

Global Communications (PTY) Ltd are suppliers through AST South Africa of satellite communication, satellite tracking equipment and airtime for major satcomms providers including:

**Handheld Satellite Phones:**
- Iridium
- Inmarsat
- Thuraya

**Inmarsat BGAN Land mobile:**
- Thrane & Thrane BGAN Explorer Range:
Explorer 110
Explorer 300
Explorer 500
Explorer 700
Explorer 727 - On-the-Move Communication
Hughes BGAN 9201

V-SAT Solutions:

Ku-Band
C-Band

Global Communications and AST are operating in the following industry segments:

Government and Corporate sector (Disaster Management, Safety & Security, rural communication);
Mining & Exploration;
Oil & Gas;
Engineering / Consulting Services;
Roads & Railway;
Security & Risk Management;
Broadcasting;
ICT Companies;
Tourism;
Shipping;
Telecoms

The following Value propositions are being marketed through our distribution network:

1. Primary Communication;
2. Back-up communication;
3. BCP – Business Continuity Plan; (Large Corporations are implementing satellite communication to provide back-up as part of their Business Continuity Plan)
4. Contingency Plan;
5. Emergency communications;
6. Revenue Stream – offering satellite communication airtime voice & data rentals/scratch cards (Tourism);
7. Competitive edge (ensuring communication connectivity etc for business and personal use to the customers especially in the world economic situation where information is the key to success