



What does GIG Network Solutions offer ?

This is a dynamic, equal opportunity South African company, that prides itself in having highly motivated and well trained personnel. Seasoned technical staff that originate from a variety of disciplines within the communications industry, enables GIG to offer a diversity of skills :-

Design, Installation and Commissioning of Fibre Optic Cable Networks and Interfacing Equipment for Commercial Computer Networks, City Surveillance & Closed Circuit Television, Process Control, Access Control and Industrial Computing applications

Using equipment that conforms to international standards, our services include :-



Fibre optic fusion splicing * On-site Termination of Singlemode and Multimode fibres * OTDR Testing * Power meter & Light source Testing * Fault location and repair * Upgrading and revamping of existing infrastructure to cater for advancements in technology * Maintenance Contracts for fibre optic cables and infrastructure



Every member of the GIG team appreciates and understands the demands placed on cabling and information systems, as well as the catastrophic results of unplanned outages of "mission critical" industrial applications. **Reliability and optimum performance** are of paramount importance, therefore we standardised on materials and equipment that are obtainable from reputable suppliers with local technical support and after-sales service.

Continuous investment in training programmes for engineering and service personnel, ensures that everyday challenges will be handled efficiently and effectively. With training courses that range from hi-tech transmission systems to basic motor vehicle driver's license, safety and first aid courses, the Company aims at not only improving the well trained person's ability, but also to **empower the previously disadvantaged individual.**

GIG Network Solutions Credentials

The Company offers a traceable track record with **Blue Chip Companies** and **Prominent Institutions** that operate in a large variety of industries. GIG also offers close relationships with leading optical fibre technologists in South Africa, that gives us quick and easy access to **new products and technology** that will be tailored and implemented to improve the **performance and reliability** of your network.



The "A" Team after a typical day at the Office



GIG Network Solutions (Pty) Ltd

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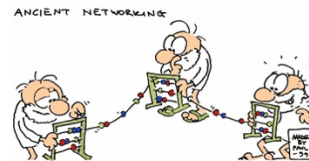
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GIG Network Solutions (Pty) Ltd Fibre Optic Specialists

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Who is GIG Network Solutions ?

GIG Network Solutions (Pty) Ltd, is your expert partner when it comes to the supply, installation and implementation of failsafe fibre optic communications systems.

GIG Network Solutions is a service orientated organisation, with specific focus on providing reliable and cost effective fibre optic communication solutions for a wide range of applications, ranging from Commercial computer networks in benign office environments, to Industrial and Control networks, suited for harsh and robust environments in Petrochemical, Manufacturing and Mining environments.

Situated in Amanzimtoti, Kwa-Zulu-Natal, the Company operates predominantly on the Eastern Seaboard of Southern Africa, but does not limit it's operations to any specific geographical area.

A large portion of our business is sourced as specialised sub contracts to multi-national Instrumentation and Industrial networking companies, resulting in points of presence that stretch as far north as Bulyanhulu, Tanzania, and southwards to Cape Town.

The Manufacturing division has recently secured export orders to deliver Patch cords and Pigtails to the European Union.

The Future is NOW, fibre optics is part of our daily existence



Steam Locomotives and Open Wire Telephone systems :-
Ancient Technologies



Why GIG Network Solutions ?



They put the "Bits" together that make Light work !



Newsprint machine

Application Notes :- Fibre Optic Cable and Interfacing Equipment



With ever increasing popularity, fibre optic cable is being established as **THE ULTIMATE VERSA-TILE transmission medium**. Ready for use in state-of-the-art or legacy Communication Networks, fibre optic cables and interfacing equipment are becoming more **affordable and cost effective** by the day! Perceptions that fibre optics is an expensive and fragile, and therefore not suitable for certain environments, are diminishing fast as **more Industrial applications** and solutions prescribe fibre as the medium of choice.



With interfaces for virtually every imaginable protocol available as off-the-shelf commodities, in Multimode or Singlemode fibre, it is now possible to network almost any device over seemingly limitless distances via fibre optic cable in virtually all possible environments. Cable makers are only limited by their own imagination to design and create fibre optic cables that cater for every eventuality and requirement.



Standard cable designs include :-

Long Span Aerial cables that may be installed on High Tension Power lines,

Armoured cables that are suitable to be **ploughed directly into the ground**.



The cost of equipment **utilising a single fibre core** to transport historically two fibre traffic (i.e. **Ethernet, RS 232 or RS 485**) is becoming readily available and at affordable prices, enabling infrastructure managers to utilise existing cable infrastructure more efficiently.

In the **Security, Access Control and Closed Circuit Television** industries fibre optics is playing an ever increasing role as transmission medium. Equipment, available off-the-shelf, offers nearly endless choices, from relatively simple stand-alone fixed camera links to more intricate **Bi-directional Data, Bi-directional Audio and Video over a single Multimode or Singlemode fibre core**. Multiplexing of up to 32 PTZ cameras with Audio and a number of Alarm inputs over a single Singlemode fibre core is becoming "everyday stuff".



Intrusion detection products like Optimesh, utilise undetectable fibre optic strands, woven into a mesh or pressure mat that can be buried, applied inside drywalls or installed on security fences.

Lightning immunity offered by fibre optic cables, make it especially popular for use in City Surveillance systems where cameras are typically placed at heights exceeding 12 metres, and where distances between Control centre and camera may exceed 5 kilometres.



With the introduction of high speed communication networks in **PLC and Process Control** applications, and more often than not, in **corrosive and hazardous environments**. Fibre optic cables provide reliable connectivity in electrically noisy surroundings because



Communication traffic transported via fibre optic cables is not susceptible to **electrical, magnetic, or high frequency radio interference** from external sources.

Fibre optic cables that contain no metallic materials are particularly suited for installation in high fire or explosion risk areas. In this case mechanical protection, normally derived from steel armouring, is provided by **specialised non-conductive** materials.



GIG offers a complete range of fibre optic cables

Steel wire or tape armoured cables :-

Suitable for Installation in Industrial Environments where additional mechanical protection is required

Metal free underground cables, filled with water blocking gel :-

Suitable for Installation in underground cable ducts i.e. Telkom

Cables with non metallic mechanical protection :-

Suitable for Installation in hazardous environments where additional mechanical protection is required

Non metallic Self supporting aerial cables (ADSS) :-

Available in a large variety of designs that cater for span lengths up to 500 metres between masts

Indoor cables with LSZH outer jacket

Flexible cables for repeated and rapid deployment :-

Military style cable with extra durable polyurethane outer jacket

Optical ground wire (OPGW) :-

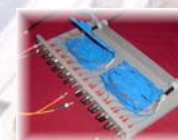
Designed for installation on High Tension power lines



GIG offers a complete range of Termination and Jointing Accessories

Equipment cabinets * Patch panels * Midcouplers * Pigtails * Patch cables * Connectors

Dome joint enclosures * Re-enterable underground enclosures * Pressurised enclosures



GIG offers a comprehensive range of Interface Equipment

Managed or Un-managed, Rack mounted or Stand Alone, Multimode or Singlemode,

AC or DC Supply Voltages, Industrial or Standard Temperature Ratings ? **YES !**

Ethernet Switches, Media Converters, Hubs, Transceivers? **YES !**

Multimode or Singlemode fibre to CCTV & Access Control ? **YES !**

Multimode or Singlemode fibre to RS 232 ? **YES !**

Multimode or Singlemode fibre to RS 422 ? **YES !**

Multimode or Singlemode fibre to RS 485 ? **YES !**

Multimode or Singlemode fibre to G.703 ? **YES !**

Multimode or Singlemode fibre to 10 BASE 2 ? **YES !**



Can YOU afford to NETWORK without GIG offering the fibre optic SOLUTIONS ?