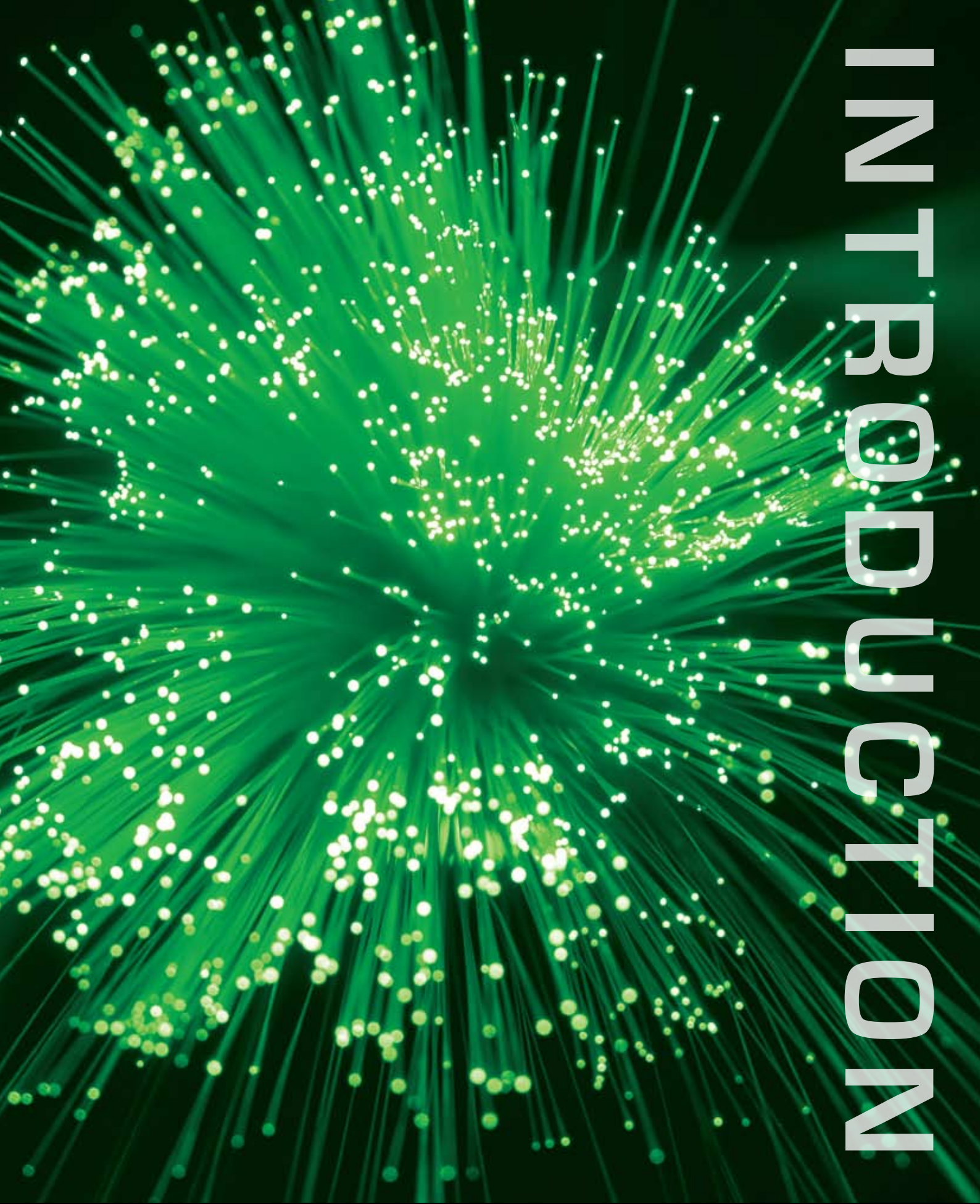


INTRODUCTION



D F A
OPEN ACCESS NETWORK





Dark Fibre Africa (DFA) was established by Community Investment Ventures (CIV) and Venfin to build a carrier neutral, dark fibre infrastructure for the transmission of metro and long haul telecommunications traffic.

WHAT IS DARK FIBRE?

“Dark fibre” can be described as an optical fibre infrastructure which has been installed but is not being used. “Dark fibre” refers to unlit optical fibre. Fibre optic cable is the medium through which transmission equipment transmits data via light forms. As there is no light being transmitted in dark fibre it can be described as being “unlit”.

Dark fibre affords telecommunications operators the choice of selecting the technology of their choice, whether that be SDH, ATM, Ethernet or fibre channel, without having to incur the massive up front capital expenditure of constructing the entire network infrastructure or having to rent an expensive managed service from an operator that may also be a competitor.

The main benefits of dark fibre lie in its cost, capacity and speed of execution advantages.

DARK FIBRE AFRICA (DFA)

Dark fibre is new to the South African market, which until 2006, had only one licensed provider of fixed line telecommunications services. With the advent of a deregulated telecommunications environment, new licensed operators began to commission their own network infrastructures. Since the routes on which these networks will be constructed are typically in centres with the highest commercial and population concentration there is a high level of overlap. In the

construction of fibre optic transmission networks, civil engineering infrastructure and ducting account for 70 to 80% of total costs, but deliver no strategic advantage to the operator. Sharing this cost with other operators is therefore a natural course of action. Over and above the economics involved, issues such as minimising disruption to other utilities, business and metro services, motivates a coordinated effort to the construction of these digital highways.

While it can be expected that carriers will from time to time share or swap out their own infrastructure with competitors, it is important to note that Dark Fibre Africa (DFA) is carrier neutral and does not compete with the users of its service. Its state-of-the-art, secure ducting infrastructure, enables large users of communications capacity to enjoy logical separation and ownership of communications capability, whilst sharing the same physical right of way access routes with their customers.

DFA is responsible for financing and constructing ducting infrastructure and making discrete fibre cables available to individual operators of telecommunications services. These operators are then responsible for “lighting” the fibre and onward selling the capacity to their customers.

BUSINESS BENEFITS OF DARK FIBRE

Time to Market

Sophisticated network planning and collaboration with customer’s means that the DFA network is being constructed on the highest demand routes. This, together with the economies of scale realised

by sharing common costs, means that DFA often anticipates its customers' requirements and is able to provide access to a new route at short notice, often months or years in advance of what that customer could achieve on their own. The result for customers is increased revenues and improved competitive positioning.

Improved Business Agility

Using DFA's shared ducting infrastructure enables customers to react rapidly to changes in their operating environment resulting from mergers or acquisitions, rapid introduction of new products and service offerings or changes in the regulatory environment. Customers are able to upscale or downscale their requirements far more rapidly or inexpensively than would be the case if they owned the entire transmission infrastructure.

Efficient Deployment of Capital

DFA's business model has been designed to ensure that customers enjoy maximum flexibility in the accounting treatment of their investment in network infrastructure. The tariff model ensures that this expenditure can be treated as capital, operational or a combination of the two. With DFA, customers can closely match their cost and revenue cycles and start billing their customers in the same month that they incur costs. They are also able to share fixed operational costs with all other DFA customers.

Total Cost of Ownership

The comprehensive package of a secure, managed ducting infrastructure with 24/7 fault monitoring, service level agreements, interfaces to roads and metro authorities and accurate documentation, enables providers of telecommunications to reduce operational costs and apply funds to activities that provide a competitive advantage.

Unified Interface to Regulatory Authorities

Obtaining the necessary approvals to undertake construction of infrastructure is a time consuming process. Delays are frequently encountered when multiple operators, along with other providers of utility services simultaneously plan to build infrastructure on the same routes. DFA's dedicated teams ensure that this time consuming process of securing right of way

approvals can be short circuited and also provides an elegant solution to overstretched metro and roads authority planning agencies that have to deal with multiple applications on the same routes. Eighty percent of the cost of a fibre network is fixed in nature – the bulk of the cost pertains to civil works and not to the fibre optic cable itself. Civil construction is a once-off procedure. In Europe, the local authority generally only allows the telecoms provider a limited once-off time window to dig up the streets. The local authorities adopted this stance in response to the city residents becoming frustrated with disruptions to traffic flows.

Broad Network Coverage

DFA operates South Africa's only metro and long haul telecommunications ducting infrastructure. Sharing the most expensive element of broadband infrastructure build, civil engineering costs, amongst multiple operators and the use of mechanised trenching technologies, enables DFA to provide its customers with a national infrastructure that they could not build on their own.

TECHNICAL AND OPERATIONAL BENEFITS OF DARK FIBRE AFRICA

Flexible and scalable

DFA's ducting infrastructure is capable of transporting far in excess of the anticipated traffic requirements of the South African telecommunications market over the next 20 years. Additional fibre can be installed and commissioned at short notice. DFA is also happy to accommodate the different business models and financing preferences that its customers may require.

Since DFA has taken the requirements of all major telecommunications operators and large customers into account when designing its ducting routes, its superior coverage ensures that its customers enjoy unparalleled scalability and coverage which would not be feasible in their own network. In addition they are able to upgrade network capacity at short notice without even notifying DFA.

Future Proof

DFA's infrastructure has been built using the most up to date and sophisticated technologies available

on the market. New technology developments and innovations in transmission technology can be accommodated by customers upgrading their own equipment, without any changes to the DFA infrastructure.

Quality Standards

The DFA network has been built by skilled, experienced personnel according to the most exacting international standards, using components of the highest quality. DFA believes that fibre should be buried and as such there is no overhead suspension of fibre.

Secure

Access to DFA's ducting circuits is only possible via remotely controlled access points. The fibre optic circuits are dedicated to individual customers and spliced seamlessly between their sites, providing full control and physical separation from other client's services.

Sophisticated Management

Dark Fibre Africa offers its clients a comprehensive 24/7 service level agreement. All routes are configured with redundant routes, ensuring high levels of uptime. DFA's ducting infrastructure is managed from a sophisticated Network Operations Centre (NOC) in Rivonia.

ENVIRONMENTAL BENEFITS OF DARK FIBRE AFRICA

South Africa's telecommunications infrastructure requires massive investment to deliver on the promise offered by broadband. The build out of this infrastructure is time consuming and an extremely disruptive process to both commerce and industry and the man in the street. DFA is sensitive to its own potential environmental impact and adopted the concept of open access in order to provide the public with the best of both worlds – a state-of-the-art technology infrastructure, delivered in the shortest



possible time, with minimal impact to the surrounding environment.

Deregulation has meant that services that were previously the domain of a single monopoly operator, will now be rolled out by multiple telecommunications operators. This disruption is further aggravated by the fact that South Africa currently has a massive backlog of fibre optic capacity that needs to be caught up.

The DFA infrastructure is able to positively impact the environment while helping customers realise the transformative power of broadband networks.

DFA lead the industry by deploying a large-scale open access ducting system, and operate South Africa's most reliable all-fibre network infrastructure. These state-of-the-art platforms enable customers to offer the most advanced communications services available today - services that drive productivity while mitigating adverse environmental impacts.

Environmental conservation is everybody's business. It also happens to make good business sense. Each individual and organisation contributes to the production of carbon emissions, whether heating and cooling homes or offices, driving a car or flying to business meetings. At DFA, we're harnessing the power of our networks and the expertise of our people to enable a win-win situation - making customers more effective and productive while enabling them to do their part for the environment.