

Case Study

Sterlite's ribbon fiber optic cables



Enabled faster and more efficient roll-out of fiber optic networks, at a reduced installation cost.



Introduction

Emergence of content rich business applications have resulted in an exponential increase in demand for bandwidth.

High-speed access to information and web based communication / transactions have become a competitive differentiator. Internet based services (whether it is work or learning from homes, schools, colleges) or connectivity for SOHOs / SME is crucial for enhanced productivity.

Broadband networks, both wireline and wireless, are best not seen as “technologies” but as “non dial up, always-on, integrated communication highways delivering voice, data and video along with interactivity at speeds necessary for delivery of different services at required quality levels and in a manner that current delivery mechanisms do not enable.

India is rapidly enhancing its fiber optic network to support content-rich ICT applications

Broadband connectivity and services, if designed appropriately and innovatively and implemented effectively, can be a key driver for several socio-economic gains including

- Economic growth and employment generation
- Education, health, governance and citizen empowerment required to achieve these economic goals for all citizens including the rural population that cannot be covered effectively using traditional brick and mortar solutions.

With reference to the Planning Commission's Vision 2020 document, this report visualizes ubiquitous broadband as playing a strategic role

- Achieve a minimum of 10 million subscribers by 2010 and 35 million subscribers by 2020 in urban India across homes, enterprises and public kiosks.
- Achieve broadband coverage for at least 50% of the rural population by 2010 and 100% by 2020 through rural broadband kiosks.

- Make appropriate and locally relevant e-education, e-health, e-governance, entertainment and e-commerce services and employment opportunities available through broadband connectivity to all cities, towns and villages in India.

BSNL needed a cabling solution that was economical and enhance efficiency in network roll-out

As India's leading telecommunications incumbent, BSNL has taken the lead in developing the necessary wireline infrastructure to support broadband services.

As an optical fiber can theoretically support infinite bandwidth in excess of current day and future requirements, BSNL has progressively been deploying fiber optic cables first in the long-haul networks and metropolitan networks.

However, taking into account the target of 35 million subscribers by 2020, a key aspect to meeting this target is the efficient deployment of fiber optic cables in the metro-access network.

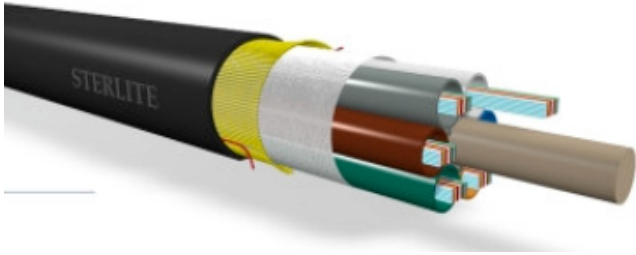
Thus BSNL had an urgent need for a cabling solution that would enable rapid network roll-out, so as to meet the targets envisioned by the Ministry of Telecommunications, India.

Sterlite recommended that BSNL use 'Ribbon Fiber Optic Cables' in their access network

RIBBON-LITE™ Fiber Optic Cables are high fiber count, all dielectric loose tube cables that are UV stabilized and fully water blocked. The loose tube design provides stable performance over a wide temperature range and is compatible with any telecommunications-grade optical fiber ribbons.

RIBBON-LITE™ fiber optic cables are suitable for time efficient outdoor duct and aerial installation.

STERLITE® RIBBON-LITE™ FIBER OPTIC CABLE

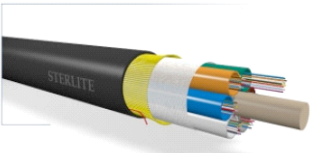


Sterlite is the pioneer of ribbon fiber optic cables in India and has supplied over 60% of the India's requirements of these specialized cables since Year 2003, with a design capability up to 288F cables.

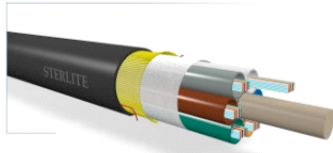
BSNL was able to roll-out its fiber access network faster, at a reduced installation cost

- Compact design of ribbon fiber optic cables allows maximum utilization of duct space.

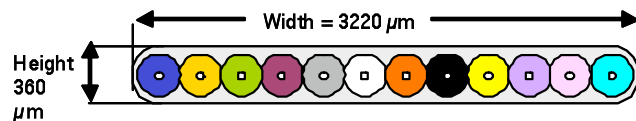
STERLITE® DUCT-LITE™ FIBER OPTIC CABLE



STERLITE® RIBBON-LITE™ FIBER OPTIC CABLE



- 6-24 ribboned fiber subunits can be easily separated by hand or a tool. Mass fusion splicing (12 fibers at a single splice versus 12 individual splices in conventional cables) & fast restoration not only reduce the time per fiber required for installation but also lowers the installation cost per fiber.



Thus ribbon fiber optic cables provide an efficient means to achieve high fiber density, as well as reduce the time per fiber required for installation, thus facilitating quick roll-out of the network.

Trademarks

The trademarks 'Sterlite', 'DUCT-LITE' and 'RIBBON-LITE' are the property of Sterlite Technologies Limited (formerly Sterlite Optical Technologies Ltd).

References

Telecommunications Regulatory Authority of India (TRAI)
Confederation of Indian Industry (CII)

About Bharat Sanchar Nigam Limited (BSNL)

Bharat Sanchar Nigam Ltd. formed in October, 2000, is the world's seventh largest telecommunications company providing a comprehensive range of telecom services in India including: wireline, CDMA mobile, GSM mobile, Internet, broadband, carrier service, MPLS-VPN, VSAT, VoIP services, IN Services etc. Within a period of five years it has become one of the largest public sector units in India. BSNL has installed a quality telecoms network in the country and is now focusing on improving it, expanding the network, introducing new telecoms services with ICT applications in villages and winning customer confidence. For further information about the company, please visit www.bsnl.co.in

About Sterlite Technologies Limited

Sterlite Technologies Limited ("Sterlite") [BSE: 532374, NSE: STRTECH], is a leading global provider of transmission solutions for the telecom and power industries. It is amongst the largest global manufacturers of optical fibers and is the largest manufacturer of power conductors, globally. For more details, please visit www.sterlitetechnologies.com

