Monitoring

norscan
Instruments Ltd.

Quality assurance of fibre networks begins with confidence in the physical cable. Packet analysis and measurement of the optical fibre alone risks preventable outages that could be predicted by monitoring the integrity of the sheath protecting the actual fibres. For example, while damage from construction, electrical storms, rodents and splice failures will inevitably lead to some form of outage, they cannot be detected from "inside the glass."

Norscan's monitoring system energizes either the amour of the fibre optic cable or a complementary trace wire, and employs it as both a sensor and communication medium for a network of additional distributed sensors.

This distributed sensor network monitors the physical integrity of the cable, delivering alarms to a web-based management and reporting application. Examples of these alarms are:
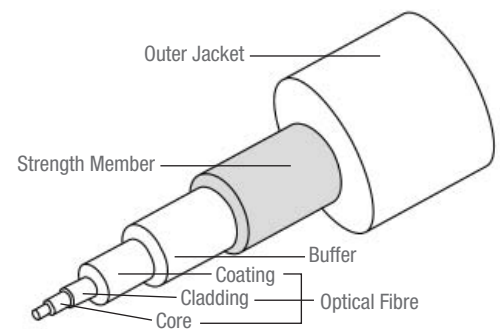
Cable Alarms – If the outer jacket is damaged and the amour is exposed, the rise in current can be preset to trigger an alarm. The precise increase in current is monitored by the management application, and the user can establish distinct alert thresholds that match the severity of potential damage.

Sensor Alarms – Triggered by any of the Norscan sensors attached to the cable, the sensor alarms deliver a simple ON/OFF alert to the management console. The most widely used of these sensors is the Splice Sensor Unit which monitors moisture in a splice closure.

Line Alarms – Changes in the stability of the network's interconnections trigger a line alarm. Utilizing a proven method for monitoring the mechanical integrity and security of inter-splice bonds, Norscan uses the initial resistive value of the cable and interconnections as a baseline for constant quality analysis.

Communication Alarms – Regular polling of the Cable Management System equipment by the management software monitors the health of the Norscan system. Any problems in communication trigger an alert in the management software.

Enterprise Integration – SNMP support to toolsets including HP Openview and IBM Tivoli.

Outer Jacket
Strength Member
Buffer
Coating
Cladding
Core
Optical Fibre

Cable Alarms

Line Alarms

Sensor Alarms (Wet Splice)

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ISO 9001: 2008 Certified

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