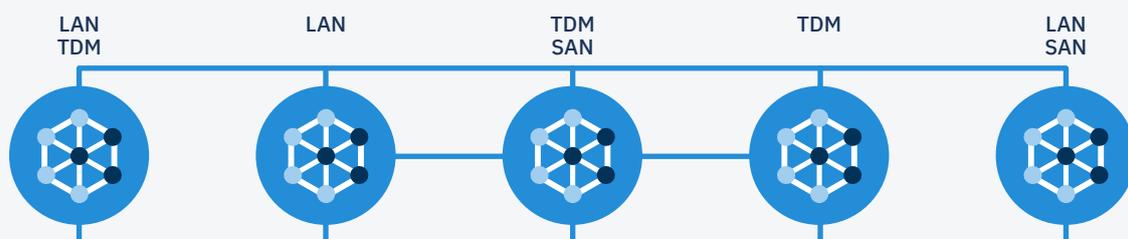


Optical Solutions for Enterprise or Service Provider

Optical network become more important in later years as bandwidth has rapidly increased and fibers cannot be added with the same pace. Optical solutions based on Wavelength Division Multiplexing (WDM) have been in use for enterprises and service providers (SP) to conduct different technologies with different speeds and variety of distances.

WDM Networks

Optical transitions are baseline to connect distant devices or network to each other. In case where multiple technologies like Ethernet, Fiber channel or **SDH** needs to be **interconnected over the same fiber**, **WDM provides** adequate **solution**.



WDM implementations are based on following concepts:

- Coarse WDM - provides limited number of services and distance.
- Dense WDM - has greater scalability and distance coverage.

WDM implementations are very suitable for enterprises that need to interconnect their Data Centers with Ethernet and Fiber channels transport transparency.

SP's uses WDM to aggregate as many as possible services from for their business and residential customers over a single connection. Latest generation of WDM networks support software support for optical switching on every site for every single optical channel. Large WDM networks do not require sending engineer on site to re-patch effected services as WSON technology allows switching optical channel to another path without manual intervention on site. This is called **Omni-direction optical network support**. Advanced optical network can even support option for Colorless WDM clients. Combing Colorless and Omnidirection gives WSON the real power of automatic adjustment to faults on optical transport network.

NIL Value Proposition

NIL has comprehensive knowledge in planning, designing, implementing, installing operating and educating on all types of WDM networks all over the world. In last decade optical networks became much more complex as just connecting two terminal nodes. Team of NIL engineers is constantly updating their knowledge with latest technologies offered from leading vendors like Cisco Systems. Engineers are capable to engage into enterprise or SP networks with their specific designs and provide suitable support and service for the customer.

The knowledge gained from trainings and practical experience is usually conducted to optical transport administrators and operators through professional training services that is constantly updated and verified from Cisco Advanced Services.

CWDM:

- Distance < 80km
- Channels: < 16

DWDM:

- Distance > 1000km
- Channels > 96

WSON:

- Wavelength Switched Optical Network
- Each node has capability to switch incoming channel to a specific outgoing direction
- WSON nodes can support up to 16 neighbors
- Unused directions can be used Omnidirection or Colorless client inputs

About NIL

NIL part of Conscia is a globally recognized provider of advanced data center, network, cloud, and cybersecurity solutions, as well as services for business and industry environments, state institutions, public organizations, and telco companies.

By enabling a more efficient, secure, and reliable way of doing business, NIL helps organizations become more successful in the digitalized world.

NIL is part of the Conscia Group.