

# **Vietnam Optical Network Market Assessment, By Component [Optical Fiber, Transceivers, Amplifiers, Multiplexers, Optical Switches, Others], By Technology Type [Dense wavelength-division multiplexing, SONET/SDH, Others], By Application [Optical Data Center Interconnects, Packet Optical Transport Systems, Security & Surveillance, Environmental Monitoring, Others], By Industry Vertical [Healthcare, Automotive & Transportation, BFSI, IT & Telecommunications, Energy & Utilities, Oil & Gas, Others], By Region, Opportunities and Forecast, 2016-2030F**

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## **Abstracts**

Vietnam optical network market has witnessed significant growth and is projected to continue expanding substantially. The market is anticipated to increase from its current value of USD 1.1 billion in 2022 to reach USD 2.2 billion by 2030, exhibiting a CAGR of 9.4%.

The demand for optical networks in Vietnam is surging due to escalating internet usage, digital transformation, next-generation connectivity solutions, and data-intensive applications. The country's rapid economic growth, expanding tech sector, rise in investments, and increasing smartphone adoption are key factors propelling the growth of the Vietnam optical fiber market. Improved connectivity, higher data speeds, and enhanced reliability offered by optical networks drive Vietnam's need to establish a

robust and efficient telecommunications infrastructure. The investments in optical networks in Vietnam are increasing rapidly due to factors like the rise of digitalization and internet penetration, emphasis on work-from-home, and premise network solutions.

FPT Telecom, a leading telecommunications and internet provider in Vietnam, has invested USD 87 million to develop a new undersea fiber optic cable, Asia Link Cable (ALC), connecting Vietnam to international destinations. The cable is expected to be completed in Q3, 2025. This undersea fiber optic cable is expected to create ample opportunities for the market in the years to come.

### DWDM Network & its Possible Opportunities

The introduction of the Dense Wavelength Division Multiplexing (DWDM) network has significantly boosted optical network connectivity in Vietnam. DWDM technology enables the transmission of multiple data signals over a single optical fiber by utilizing different wavelengths of light. This innovation has drastically increased the data capacity and efficiency of the optical network infrastructure, meeting the escalating demands for high-speed and reliable communication services in the country.

For example, in Feb 2023, Nokia and Viettel collaborated to establish a pioneering DWDM network. Utilizing Nokia's advanced PSE-V optical engines, the C-band system enables the transmission of a 600Gb/s channel. this data center interconnect solution and equips Viettel to meet rising demands for high-capacity, low-latency networking for 5G, Cloud, and online content. Deployed within Nokia's 1830 Photonic Service Switch platform, the project allows Viettel to expand its network capacity to 25.2 Tbps in the C-band, with the potential for further enhancement using L-band components.

### Influence of Digital Transformation throughout the Vietnamese Territory

Digital transformation in Vietnam is driving the optical network market. The surge in smart technologies, e-commerce, remote work, and digital services is increasing the demand for reliable, high-speed connectivity. Investments in advanced networking and fiber-optic infrastructure are reshaping the market, aligning it with the evolving digital landscape catering to escalating data needs.

For example, the Vietnamese Prime Minister introduced Decision No. 749/QĐ-TTg , highlighting the National Digital Transformation Program to achieve by 2025. The initiative involves embracing novel technologies, modernizing governance, optimizing

business procedures, enhancing citizen lifestyles, and fostering a secure digital realm. To shape a digital society, bridging the digital divide is vital. The roadmap envisions about 80-90% of households and all communes connected by fiber optic networks, alongside widespread 4G and 5G coverage and electronic payment adoption for half the country's population.

### Government Norms Implicated in Vietnam Optical Network Market

Government regulations are crucial for shaping Vietnam's optical network landscape, ensuring fair competition, security, and quality. The Vietnamese government emphasizes Information and Communication Technology (ICT) to enhance optical networks. These efforts promote efficient data transmission, connectivity, and digital transformation, enabling the country to keep pace with the evolving communication demands while fostering a secure and advanced telecommunications infrastructure.

According to the International Trade Administration, Vietnam's government has recognized the pivotal role of ICT in propelling industry and socio-economic development. and has endorsed the National Digital Transformation Program until 2025, with a vision extending to 2030, fostering the ICT sector's expansion. Meanwhile, vital private industries like aviation, banking, energy, healthcare, broadcasting, telecommunications, and urban infrastructure management are adopting progressive ICT solutions to elevate operational efficiency and sustainable growth within the country.

### Impact of COVID-19

The Vietnam optical network market underwent a substantial metamorphosis due to the impact of COVID-19, leading to discernible changes from its pre-pandemic state to the current scenario. Before the pandemic, the market steadily expanded, driven by increasing digitalization, growing internet adoption, and data-intensive applications. However, the outbreak prompted an unprecedented surge in demand for robust and high-speed connectivity as remote work, online education, and digital services became the new norm. While the pre-COVID focus centered on infrastructure expansion to accommodate data demands, the post-COVID landscape has rapidly shifted towards optimizing network capacity, reinforcing cybersecurity, and ensuring seamless remote operations. This transition highlighted the pivotal role of optical networks in maintaining economic continuity and has driven the market to provide adaptable and secure solutions tailored to the difficulties of remote work, digital commerce, and virtual interactions.

## Key Players Landscape and Outlook

In Vietnam optical network market, there's a notable surge in growth as companies forge alliances to spearhead innovative solutions and enhance network connectivity while elevating their optical networking solutions. These organizations are directing substantial expenditure towards bolstering manufacturing prowess and pioneering advanced optical network technologies. Furthermore, they are proactively participating in notable mergers, acquisitions, and collaborative endeavors, skillfully navigating the constantly evolving landscape of the optical network sector to attain their desired outcomes.

In September 2022, Infinera revealed that Viettel Network Corporation has opted for Infinera's Optical Timing Channel 2.0 (OTC2.0) solution. The strategic choice aims to prim Viettel's synchronization network for the upcoming 5G pilot deployment. Infinera's cutting-edge technology empowers Viettel to construct a network that effortlessly delivers 5G services, ensuring exceptional resilience and superior performance throughout its distribution network in Vietnam.

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\*Companies mentioned above DO NOT hold any order as per market share and can be changed as per information available during research work

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