

Australia 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

Australia optical network market has witnessed significant growth and is projected to continue to expand substantially. The market is anticipated to increase from USD 630 million in 2022 to USD 1132 million by 2030, exhibiting a CAGR of 7.6% in the forecast period 2023-2030.

Optical networks in Australia offer substantial advantages, including high-speed data transmission, low latency, and improved network reliability. They support the expanding demand for data-intensive applications like 5G, IoT, and cloud services. Rapid urbanization, investment rise, increasing data consumption, and the need to bridge digital divides across remote regions drive the market's growth. The government's investment in critical infrastructure and the push for digital innovation further contribute

to the flourishing optical network market, facilitating faster and more resilient connectivity nationwide.

Increased investment in optical networks is significantly fueling the growth of Australia's optical network infrastructure. This financial commitment supports the expansion of high-speed data transmission, reduced latency, and enhanced network reliability, which are crucial for meeting growing demand and fostering digital advancement.

For instance, in October 2022, The Australian government announced its rise in investment on the National Broadband Network (NBN) by allocating 2.4 billion Australian dollars (USD 1.5 billion) over the next four years. This funding would facilitate the upgradation of an additional 1.5 million homes and businesses using fiber to the node (FTTN) to fiber to the premises (FTTP). This expansion, included 660,000 rural premises, aiming to provide approximately 10 million homes and businesses across Australia with access to high-speed download speeds of roughly 1 Gbit/s by late 2025.

Rise in Usage of Wavelength Services in Australia

Wavelength services significantly influence the optical network market in Australia by offering high-speed, scalability, and efficient data transmission solutions. As demand for bandwidth-intensive applications and cloud services grow, wavelength services provide the necessary capacity and flexibility, driving the expansion of optical networks while supporting the country's digital transformation and connectivity needs.

For example, in May 2023, Telstra unveiled an advanced optical network connecting IP routers and switches for internet traffic and broadband usage. This upgraded high-bandwidth optical infrastructure, utilizing Ciena technology, allows wholesale customers to access 400Gbps wavelength services. Moreover, in collaboration with Ericsson, Telstra employed Ciena's 6500 Packet-Optical Platform, incorporating the powerful WaveLogic 5 Extreme (WL5e) with 800Gbps coherent technology.

Usage of Robust Optical Fiber Cables

The Australia optical network market is experiencing the advent of robust optical fiber cables, contributing to its growth and development. These high-strength cables offer faster and more reliable data transmission, meeting the increasing demands of high-speed internet, cloud services, and emerging technologies. The deployment of such cables improves network performance, capacity, and connectivity, making them a crucial component in supporting the country's digital transformation and keeping pace

with the evolving communication needs of businesses and consumers.

For example, in October 2022, STL, one of the most prominent digital network integrators, revealed its partnership with Vocus Group Limited for Project Horizon in Western Australia. In this collaboration, STL would supply robust optical fiber cables for supporting Vocus' inter-capital network extension initiative. This deal further solidified STL's association with Vocus, having previously furnished optical networking solutions, Opticonn, for brownfield network construction projects.

Increase in adoption of DWDM

The growing adoption of Dense Wavelength Division Multiplexing (DWDM) technology is a significant driver of optical network expansion in Australia. DWDM allows multiple data signals to be transmitted simultaneously over a single optical fiber, hereby vastly increasing network capacity and efficiency. This technology is crucial for meeting the rising demand for high-speed data services, enabling faster communication, supporting data-intensive applications, and fostering the country's digital transformation.

On Jan 2023, Padtec, a prominent optical transport systems manufacturer, unveiled a DWDM solution tailored to address regional service provider's key network evolution needs such as high performance, availability, flexibility, and cost-effectiveness. This new product, a standalone dual transponder with SDN management, delivers an impressive data transmission capacity of up to 400 Gb/s per optical channel or 800 Gb/s in total for shorter and medium distances. It offers simplified installation, and low energy consumption, all within a compact 1RU high chassis, making it a versatile and efficient choice for network expansion.

Government Regulations

Government regulations in Australia optical network market are crucial to ensure fair competition, protect consumers, and maintain national infrastructure standards. These regulations oversee spectrum allocation, licensing, and quality of service, preventing monopolies, and ensuring equal market access. They address cybersecurity concerns, data privacy, and network reliability, safeguarding against potential threats and vulnerabilities. Additionally, regulations promote innovation and investment, fostering a robust and reliable optical network infrastructure for the country's digital growth and global competitiveness.

For instance, The National Broadband Network provides Australians high-speed internet

access. Whether an Australian is anticipating NBN availability in his/her area or ready to switch the network, they can take steps to ensure an optimal network utilization experience for their homes or businesses.

Impact of COVID-19

The COVID-19 pandemic had a significant impact on the Australia optical network market. Prior to the pandemic, the market was experiencing steady growth, driven by the rising demand for high-speed data transmission and bandwidth-intensive applications. However, the post-COVID period saw a dramatic shift as remote work, online education, and digital services surged, resulting in an unprecedented increase in internet traffic and data consumption. This heightened the need for reliable and robust optical networks to support the accelerated digital transformation across industries. The pandemic emphasized the importance of network resilience and adaptability, prompting investments in advanced fiber infrastructure and cutting-edge technologies. As a result, the optical network market became a crucial pillar of Australia's digital infrastructure, catering to the evolving needs of businesses, education, and daily life in the new normal.

Key Players Landscape and Outlook

Australia optical network market is experiencing impressive growth, driven by strategic collaborations by leading local companies. These firms are investing significantly to strengthen their manufacturing capacities and innovate their optical networks. Engaging in impactful mergers, acquisitions, and joint ventures, they navigate the dynamic landscape of the optical network industry, aiming to achieve their goals and stay ahead in the rapidly evolving market.

In August 2023, TPG Telecom announced its discussions with Vocus regarding a potential sale of its non-mobile fiber asset in a deal estimated at around USD 6.3 billion in Australia. In response to media reports, TPG confirmed that Vocus made a preliminary, non-binding offer for specific assets in its enterprise, government, and wholesale divisions, along with the related fixed infrastructure assets. The deal remains highly conditional, and further negotiations will determine its feasibility and final terms.

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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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