

# **Vietnam Data Center Networking Market, By Component Type (Ethernet Switches, Router, Storage Area Network (SAN), Application Delivery Controller (ADC), Others), By Services (Installation & Integration, Training & Consulting, Support & Maintenance), By End User (IT & Telecommunication, BFSI, Government, Media & Entertainment, Others) By Region, Competition, Forecast & Opportunities, 2019-2029F**

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## **Abstracts**

Vietnam Data Center Networking Market was valued at USD 501 Million in 2023 and is expected to reach USD 789 Million by 2029 with a CAGR of 7.71% during the forecast period.

The Data Center Networking market refers to the industry segment focused on providing and managing the networking infrastructure within data centers. Data centers are centralized facilities that house critical IT equipment, including servers, storage systems, and network devices, which support data processing, storage, and communication.

The market encompasses various products and services designed to ensure efficient, secure, and scalable connectivity within these facilities. This includes network hardware such as switches, routers, and cables, as well as software solutions for network management, virtualization, and automation. Key market drivers include the growing demand for cloud computing, big data analytics, and internet of things (IoT) applications, which require robust and high-performance networking solutions.

to handle vast amounts of data and maintain seamless operations.

Companies in this market are focused on developing advanced technologies like software-defined networking (SDN), network function virtualization (NFV), and high-speed interconnects to enhance data center efficiency and flexibility. As businesses increasingly rely on data centers for critical operations, the market is expected to expand, driven by innovations that address the evolving needs of data management and connectivity.

## Key Market Drivers

### Growing Demand for Cloud Computing Services

The burgeoning demand for cloud computing services is a primary driver of the Vietnam Data Center Networking market. Cloud computing has revolutionized how businesses operate by offering scalable, cost-effective, and flexible IT resources. This transformation is fueled by the increasing need for enterprises to manage vast amounts of data efficiently and to support various applications that demand high-performance computing and storage capabilities.

As Vietnamese businesses and international companies expand their digital operations, they require robust and reliable cloud services to store, process, and analyze data. Data centers are at the core of this cloud infrastructure, providing the necessary hardware and networking solutions to ensure seamless and efficient cloud operations.

In Vietnam, the cloud computing market has seen significant growth due to the rapid digital transformation across industries such as finance, retail, manufacturing, and telecommunications. Companies are migrating to cloud environments to leverage benefits like reduced IT costs, increased agility, and enhanced data security. This migration drives demand for advanced data center networking solutions to support cloud services, including high-speed data transfer, low-latency connections, and reliable network management. Furthermore, the Vietnamese government's supportive policies and initiatives aimed at fostering digital innovation and technology adoption contribute to the growth of the cloud computing sector. As cloud service providers establish and expand their data center facilities in Vietnam, the need for sophisticated networking solutions continues to rise, thereby propelling the data center networking market forward.

## Expansion of Internet of Things (IoT) Applications

The expansion of Internet of Things (IoT) applications is significantly influencing the growth of the Vietnam Data Center Networking market. IoT refers to the network of interconnected devices that collect and exchange data over the internet. This technology is increasingly integrated into various sectors, including smart cities, agriculture, healthcare, and transportation, driving the need for more sophisticated data center infrastructure to manage and process the generated data.

In Vietnam, the adoption of IoT technologies is gaining momentum as businesses and government initiatives focus on enhancing operational efficiency, improving public services, and fostering innovation. For instance, smart city projects in major urban areas like Ho Chi Minh City and Hanoi are leveraging IoT to improve infrastructure, traffic management, and energy efficiency. These applications generate vast amounts of data that need to be processed and stored in data centers, necessitating advanced networking solutions to ensure seamless data flow and real-time analytics.

The proliferation of IoT devices and applications creates a substantial demand for high-capacity and high-speed data center networking solutions. These solutions must handle large volumes of data, support high-frequency data transfers, and provide reliable connectivity to ensure the effective functioning of IoT systems. As the IoT ecosystem continues to evolve, data centers must adapt to meet the increasing requirements for bandwidth, scalability, and network performance.

## Rise in Data Traffic and Big Data Analytics

The rise in data traffic and the growing importance of big data analytics are key drivers of the Vietnam Data Center Networking market. The exponential growth of data generated by individuals, businesses, and devices has led to an increased demand for data storage, processing, and analysis capabilities. Data centers play a crucial role in managing this data, providing the infrastructure necessary to handle large volumes of information and perform complex analytics.

In Vietnam, the digitalization of various industries and the proliferation of digital content have contributed to a surge in data traffic. Businesses are leveraging big data analytics to gain insights into customer behavior, optimize operations, and drive strategic decision-making. This shift towards data-driven approaches necessitates the deployment of advanced data center networking solutions that can support high-speed data processing, efficient data transfer, and secure data storage.

Data center operators are investing in technologies such as high-speed networking equipment, data management software, and network optimization tools to address the challenges posed by increasing data traffic and analytics demands. The need for low-latency connections and high-performance networking infrastructure is crucial for delivering real-time analytics and maintaining the overall efficiency of data operations.

## Government Initiatives and Support for Digital Transformation

Government initiatives and support for digital transformation play a pivotal role in driving the Vietnam Data Center Networking market. The Vietnamese government has recognized the importance of digital technology in driving economic growth and enhancing competitiveness. As part of its broader strategy to foster innovation and technological advancement, the government is implementing policies and programs to support the development of digital infrastructure, including data centers and networking solutions.

One of the key initiatives is the National Strategy for the Fourth Industrial Revolution, which aims to promote the adoption of advanced technologies such as cloud computing, artificial intelligence, and big data analytics. This strategy emphasizes the need for a robust digital infrastructure to support these technologies, leading to increased investment in data center facilities and networking capabilities. Additionally, the Vietnamese government is offering incentives and support to attract both domestic and international investments in the data center sector. These incentives include tax benefits, streamlined regulatory processes, and financial support for technology development. Such measures are designed to create a favorable environment for data center operators and technology providers, encouraging them to expand their operations and invest in cutting-edge networking solutions.

As the government continues to promote digital transformation and innovation, the demand for advanced data center networking solutions is expected to grow. The development of data center infrastructure will be crucial in supporting the country's digital ambitions and ensuring the efficient delivery of digital services across various sectors.

## Key Market Challenges

### Infrastructure and Connectivity Constraints

One of the primary challenges facing the Vietnam Data Center Networking market is the inadequacy of infrastructure and connectivity. While the country has made significant strides in digital development, there are still considerable gaps in the infrastructure needed to support modern data center operations and high-performance networking.

Vietnam's infrastructure, particularly in rural and semi-urban areas, often lacks the robustness required for advanced data center operations. Reliable and high-speed internet connectivity is critical for data centers to function effectively, as it enables seamless data transfer, communication, and integration with other IT systems. However, uneven development in telecommunications infrastructure across the country can result in connectivity issues, affecting the performance and reliability of data centers.

The challenge is compounded by the need for high-capacity and low-latency connections to handle the increasing data traffic and support emerging technologies like cloud computing and IoT. In many regions, the existing network infrastructure may not meet these demands, leading to potential bottlenecks and reduced efficiency. Data centers require substantial bandwidth and robust connectivity solutions to manage large volumes of data and provide reliable services to customers.

The development and maintenance of data center infrastructure, including physical facilities and networking equipment, often involve significant investment. For data center operators, this means navigating challenges related to cost, logistics, and access to advanced technologies. In regions where infrastructure development is lagging, these challenges can be particularly acute, impacting the overall growth and performance of the data center networking market.

Addressing these infrastructure and connectivity constraints requires coordinated efforts between government authorities, telecommunications providers, and data center operators. Investments in upgrading and expanding network infrastructure, along with initiatives to improve connectivity in underserved areas, are essential to support the growth of the data center industry and ensure that it can meet the evolving demands of the digital economy.

## Regulatory and Compliance Issues

Another significant challenge in the Vietnam Data Center Networking market is navigating the complex landscape of regulatory and compliance issues. As data privacy, security, and management become increasingly critical, data center operators must

adhere to a range of regulations and standards that govern the handling and protection of data.

Vietnam has been making strides in establishing data protection laws and regulations, such as the Cybersecurity Law and the Law on Cyber Information Security. These regulations aim to enhance data security, privacy, and overall digital governance. However, the regulatory environment can be complex and evolving, with frequent updates and changes that data center operators must keep up with.

One challenge is ensuring compliance with both local and international regulations. For data centers serving multinational clients, compliance with international standards such as the General Data Protection Regulation (GDPR) or the Health Insurance Portability and Accountability Act (HIPAA) adds another layer of complexity. Balancing local regulatory requirements with international standards requires careful management and expertise, which can be resource-intensive for data center operators. Additionally, the enforcement and interpretation of regulations can vary, leading to uncertainties and potential risks. Data center operators need to stay informed about regulatory changes and work closely with legal and compliance experts to ensure they meet all requirements. This may involve significant administrative efforts, investments in compliance tools, and ongoing training for staff.

Regulatory and compliance challenges can impact operational efficiency and cost. Meeting stringent data protection standards often requires investments in advanced security technologies and processes, which can add to operational expenses. Data centers must also be prepared for audits and inspections, which can disrupt operations and require additional resources to address compliance issues.

## Key Market Trends

### Growing Adoption of Cloud Services

The growing adoption of cloud services is a significant trend in the Vietnam Data Center Networking market. As businesses and organizations increasingly migrate to cloud-based solutions for their IT needs, data centers play a pivotal role in supporting these services. Cloud computing offers numerous benefits, including scalability, cost-efficiency, and flexibility, which are driving its widespread adoption across various sectors in Vietnam.

Vietnamese companies, ranging from startups to established enterprises, are



leveraging cloud platforms to enhance their operational efficiency, reduce IT costs, and improve their ability to innovate. The rise in cloud adoption is closely linked to the need for data centers to provide robust, reliable, and high-performance networking solutions to support cloud infrastructure.

This trend is evident in the expansion of cloud service providers and the establishment of new data centers in the region. Major international cloud providers, as well as local players, are investing in data center infrastructure to meet the growing demand for cloud services. These investments are aimed at enhancing data center capabilities, such as increasing data processing power, improving storage solutions, and ensuring high-speed connectivity. Additionally, the shift towards hybrid and multi-cloud environments is influencing the data center networking market. Organizations are adopting hybrid cloud models that combine private and public cloud services to optimize their IT resources. This trend requires data centers to support seamless integration and connectivity between different cloud environments, necessitating advanced networking solutions.

The growth of cloud services is also driving demand for related technologies, such as software-defined networking (SDN) and network function virtualization (NFV), which enhance the agility and efficiency of cloud operations. As cloud adoption continues to rise, data centers must adapt to these evolving needs by investing in cutting-edge networking technologies and infrastructure.

### Increased Focus on Data Security and Compliance

Another prominent trend in the Vietnam Data Center Networking market is the increased focus on data security and compliance. As data breaches and cyber threats become more prevalent, organizations are placing greater emphasis on protecting sensitive information and ensuring compliance with data protection regulations.

In response to the growing threat landscape, data centers are investing heavily in advanced security technologies and practices to safeguard data. This includes implementing robust firewalls, intrusion detection systems, encryption methods, and multi-factor authentication to protect against unauthorized access and cyberattacks. Additionally, data centers are adopting security best practices and standards, such as those outlined in the ISO/IEC 27001 framework, to enhance their security posture.

Compliance with local and international data protection regulations is another critical aspect driving this trend. Vietnam's data protection laws, including the Cybersecurity

Law and the Law on Cyber Information Security, mandate strict requirements for data handling and storage. Data centers must ensure that their operations align with these regulations to avoid legal repercussions and maintain customer trust.

The increasing complexity of regulatory requirements is prompting data centers to invest in compliance management solutions and hire specialized compliance experts. These measures help data centers navigate the regulatory landscape, conduct regular audits, and implement necessary changes to stay compliant with evolving standards. Furthermore, the rise in data privacy concerns among consumers and businesses is influencing the market. Organizations are seeking data center partners that prioritize security and compliance to ensure that their data is handled with the utmost care. This trend is driving data centers to adopt comprehensive security strategies and demonstrate their commitment to protecting client data.

## Segmental Insights

### Component Type Insights

The Ethernet Switches held the largest market share in 2023. Ethernet switches are integral to establishing the core network infrastructure within data centers. They enable the interconnection of various devices, such as servers, storage systems, and network equipment, facilitating seamless data flow. As data centers grow and evolve, the need for scalable networking solutions becomes critical. Ethernet switches support high-speed data transfer and can be easily scaled by adding more switches or upgrading to higher-capacity models, making them indispensable for expanding network demands.

Modern Ethernet switches offer advanced features such as high throughput, low latency, and robust reliability, which are essential for handling increasing volumes of data traffic. These switches support various data rates, from gigabit to terabit speeds, ensuring that data centers can efficiently manage both current and future bandwidth requirements. Their performance capabilities are crucial for supporting applications such as cloud computing, big data analytics, and IoT, which demand high-speed and reliable network connectivity.

Ethernet switches provide a cost-effective solution for network infrastructure compared to other components like routers or Application Delivery Controllers (ADCs). Their widespread use and competitive market have led to reduced prices and increased availability, making them a practical choice for many data centers. Additionally, their



modular nature allows data centers to deploy switches based on specific needs and budget constraints.

The continuous innovation in Ethernet switch technology, such as advancements in switching fabrics, improved management features, and integration with software-defined networking (SDN), further enhances their appeal. These advancements help data centers optimize network performance, simplify management, and integrate with modern IT infrastructure, reinforcing the dominance of Ethernet switches in the market.

## Regional Insights

Southern Vietnam held the largest market share in 2023. Southern Vietnam is the country's economic powerhouse, housing the largest metropolitan area and numerous industries, including finance, technology, and manufacturing. Ho Chi Minh City, the region's capital, is a major business and commercial center, driving substantial demand for data center services. The concentration of corporate headquarters and IT operations in this area creates a robust need for advanced data center networking solutions to support business activities and digital transformation initiatives.

The southern region has seen significant investments in infrastructure, including modern office buildings, business parks, and technological facilities. These developments support the growth of data centers by providing the necessary physical space and connectivity. Enhanced infrastructure, including high-speed internet and reliable power supply, is crucial for the efficient operation of data centers.

The Vietnamese government has prioritized investment in Ho Chi Minh City as part of its broader economic development strategy. Incentives and favorable policies for technology and infrastructure projects have attracted both domestic and international data center operators. This supportive environment has led to increased establishment and expansion of data centers in the southern region.

Southern Vietnam's geographic location provides advantageous connectivity to international markets, making it a strategic location for data centers. Its proximity to major Asian markets facilitates better international data traffic management and supports global business operations.

The region benefits from a skilled workforce and a burgeoning tech ecosystem, which fosters innovation and supports the growth of data center technologies. The presence of educational institutions and technology firms in Southern Vietnam contributes to the

development and implementation of advanced networking solutions.

### Key Market Players

Cisco Systems, Inc.

Hewlett Packard Enterprise Company

Huawei Technologies Co., Ltd.

Broadcom Inc.

Intel Corporation

IBM Corporation

Nokia Corporation

Arista Networks, Inc.

Juniper Networks, Inc.

### Report Scope:

In this report, the Vietnam Data Center Networking Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Vietnam Data Center Networking Market, By Component Type:

Ethernet Switches

Router

Storage Area Network (SAN)

Application Delivery Controller (ADC)

Others

Vietnam Data Center Networking Market, By Services:

Installation & Integration

Training & Consulting

Support & Maintenance

Vietnam Data Center Networking Market, By End User:

IT & Telecommunication

BFSI

Government

Media & Entertainment

Others

Vietnam Data Center Networking Market, By Region:

Southern Vietnam

Northern Vietnam

Central Vietnam

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Vietnam Data Center Networking Market.

Available Customizations:

Vietnam Data Center Networking Market report with the given market data, TechSci

*Vietnam Data Center Networking Market, By Component Type (Ethernet Switches, Router, Storage Area Network (SAN...*

Research offers customizations according to a company's specific needs. The following customization options are available for the report:

#### Company Information

Detailed analysis and profiling of additional market players (up to five).

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