

# Are You Ready for Software Defined Networking?

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SDN can be considered to be a series of network objects (switches, firewalls, routers) deployed in a highly automated way, that's what SDN means. Automation is possible via commercial or open source tools use that is customized as per the administrator's needs. The number of businesses deploying software-defined networking is increasing day-by-day. It's been expected that the global SDN or Software Defined Networking market will grow stronger in 2020.

According to IDC, the SDN market will rise at CAGR of 53.9 percent from 2014 to around \$12.5 billion in 2020. Also, the research firm said that SDN is gaining adoption in increasing number of enterprise datacenters across a broad range of vertical market. The SDN market includes physical network infrastructure, professional services, virtualization/control software and SDN applications – network and security services. Initially, SDN was popular in hyperscale datacenters and at large-scale cloud service providers but today, several enterprise datacenters are accepting SDN.

The physical network, covering datacenter switches are predicted to be the high contributing section of SDN market in 2020. The control layer/virtualization as well as SDN applications will contribute to around \$5.9 billion. Virtualization/control layer software market will hike approximately with 64 percent CAGR, reaching up to \$2.4 billion in 2020. SDN applications – Layer 4-7 network and security services plus analytics are estimated to reach a 66 percent CAGR and will account for over \$3.5 billion revenue in 2020.

Rohit Mehra, Vice President, Network Infrastructure at IDC, said that “The 3<sup>rd</sup> Platform and Cloud Computing have driven the need for SDN that will display market growth of over \$12.5 billion in 2020.” Networking hardware will build a protruding place in network infrastructure as per IDC report, while SDN reveals migration from hardware to software for long-term in the networking industry.

## **QuinStreet Enterprise SDN Survey Results –**

**Defined Plan** – According to 39% of the IT decision-makers' survey, they are using software-defined networking or thinking to deploy SDN prior to 2017.

**Virtual Adoption** – 52 percent of businesses said that they are already using virtual LANs (VLANs) or are planning on this platform prior to the end of 2016 while 26 percent also stated the same for network function virtualization (NFV).

**Resourceful Effort** – Over half of the survey respondents mentioned that their company is using combination of virtual switches, cloud and bare metal platforms to deploy SDN.

**Migration Motivation Part-1** – 69 percent of the survey respondents said that they are migrating SDN to the cloud for easily updating network appliances with software and 58 percent said they are migrating for partitioning IP/Ethernet addresses into multiple sub networks.

**Migration Motivation Part-2** – While 56 percent gave the reason of migration to cloud for providing multi-tenancy/cloud support of networking services while 56 percent are moving to cloud for eliminating the routing intelligence and traffic/path management in devices.

**Prime Player** – 49 percent of the respondents that are planning for SDN or deploying SDN think that open source, specifically, OpenStack is significantly important.

**Big Fish** – 43 percent of large companies are forecast to purchase SDN solutions from large broad-line networking

suppliers while mid-size and small businesses depend highly on the channel and niche solution suppliers.

**Industry Breakdown** – 19 percent of the survey respondents deploying SDN are from technology industry, 12 percent are from telecommunications/Internet field while 11 percent come from banking/financial services.

**Let's look at the business benefits offered by Software-Defined Networking –**

**Lower Operating Costs and Hardware Savings** – SDN will save around 53 percent of the cost savings. SDN will reduce the overall operating costs leading to administrative cost savings as several routine network administration issues can be centralized and automated. Using instructions from the SDN controller, existing hardware can be repurposed and low cost hardware can be deployed to a greater effect as new devices significantly become “white box” switches with complete intelligence focused at the SDN controller.

**Improved Network Performance** – SDN entails user experience and improved response time for applications. So, enterprises will find around 47 percent of improve network performance.

**Productivity Enhancement with Holistic Enterprise Management** – Setting up new applications and virtual machines on demand for new processing requests such as those for big data is continuously done enterprise networks. SDN enables IT managers to test the network configuration without affecting the network. Physical and virtual switches as well as network devices are manageable from a SDN central controller. Therefore, the productivity of enterprises is forecast to increase by 46 percent increase.

**Enhanced Security** – Centralized security is what appeals to IT managers when it comes to networking which is offered by SDN. A central point of control is offered by the SDN Controller for distributing security and policy information reliably throughout the enterprises. So, 45 percent of enhanced security is expected via SDN.

**Simplified Network Operations via Centralized Network Provisioning** – A centralized view of the entire network is attained with software-defined networks which make centralization of enterprise management and provisioning easier. Complicated network operations will now be simplified up to 43 percent.

SDN is surely going to bang the networking door in 2020. Though some organizations have started deployment of SDN, some are still thinking on it. Don't think too much after going through these stats.