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Navigating the Network the Evolution of SDN Data Planes

T. Aditya[1], A. David Donald[1], G. Thippanna[2], M. Mohsina Kousar[3], K. Rekha[3]
Ashoka Women's Engineering College, Dupadu, Andhra Pradesh, India[1,2,3]

Abstract: *Software-defined networking (SDN) is becoming more popular because it makes the data layer of a network easier to change and adapt. That's the driving force behind its development and maturation. The purpose of this research was to look into the history of SDN data planes and highlight the key innovations and advances that have led to their current state. We will discuss the evolution of data planes from hardware to software, the development of programmable data planes, and the positive effects of software-defined networking data planes on network performance, control, and management. We will also look into the challenges of deploying SDN data planes and provide advice for companies on how to make the most of this transition. Finally, this article's goal is to provide a comprehensive analysis of the data planes in software-defined networks (SDN) and their effects on the networking sector.*

Keywords: SDN, Data plane

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