# Dynamic and Centralised Control Aspects of Software Defined Networking (SDN)

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**Abstract**: *Software Defined Networking (SDN) is a transformative approach to network management and architecture that decouples the control plane from the data plane, enabling dynamic, programmatically efficient network configuration to improve network performance and monitoring. This paper explores the theoretical foundations, methodologies, and practical implications of SDN, highlighting its benefits such as centralized control, flexibility, and enhanced security. By examining current literature and empirical data, the paper underscores the significance of SDN in addressing contemporary networking challenges and its potential in driving future innovations in network technology*

**Keywords:** Software Defined Networking, network management, control plane, data plane, network performance, centralized control