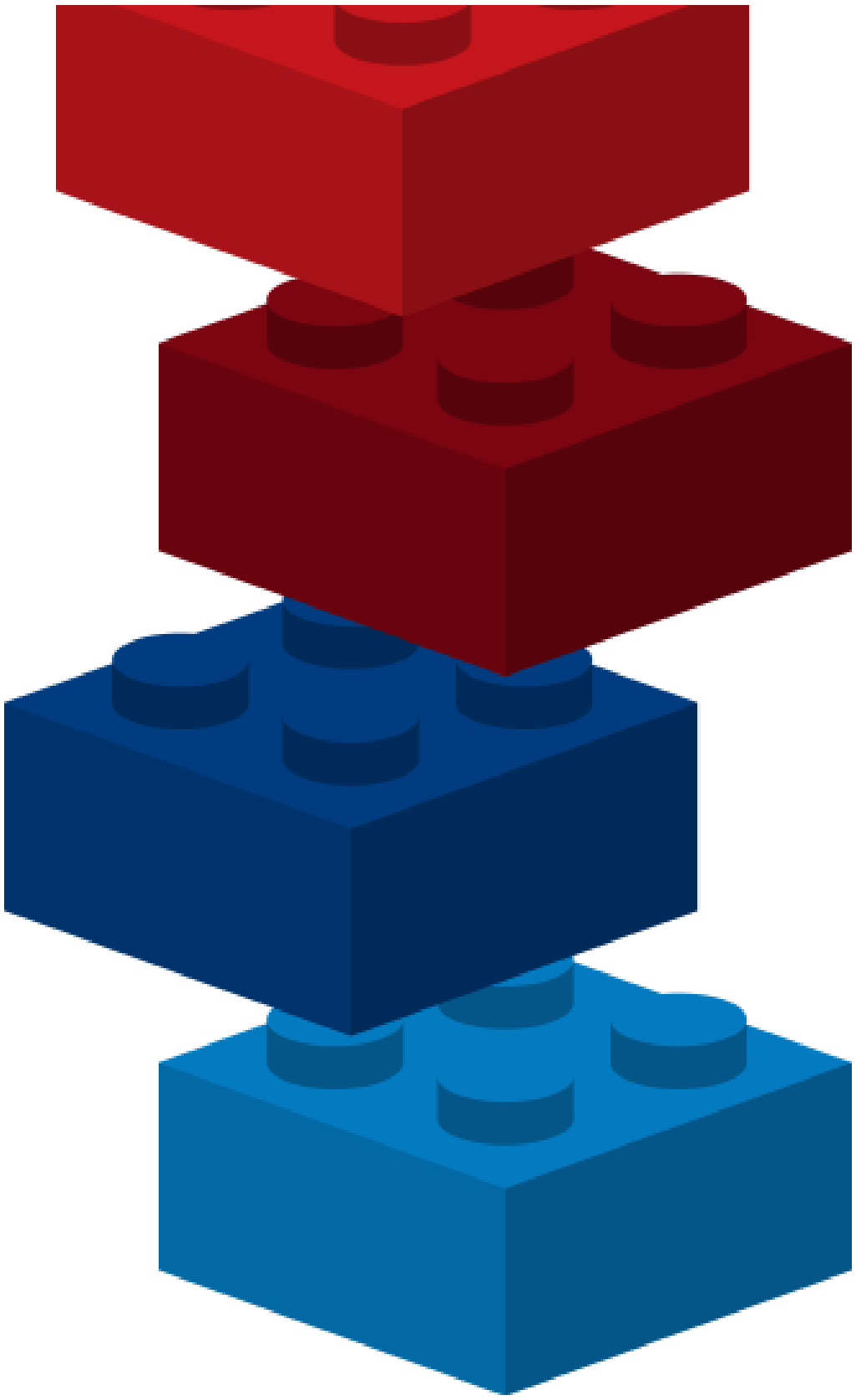
SDN OVERVIEW

# \) Definition

**What is SDN?** The physical separation of the network control plane from the forwarding plane, and where a control plane controls several devices.



Software-Defined Networking (SDN) is an emerging architecture that is dynamic, manageable, cost-effective, and adaptable, making it ideal for the high-bandwidth, dynamic nature of today's applications. This architecture decouples the network control and forwarding functions

enabling the network control to become directly programmable and the underlying infrastructure to be abstracted for applications and network services. The OpenFlow® protocol is a foundational element for building SDN solutions.

# The SDN Architecture is:

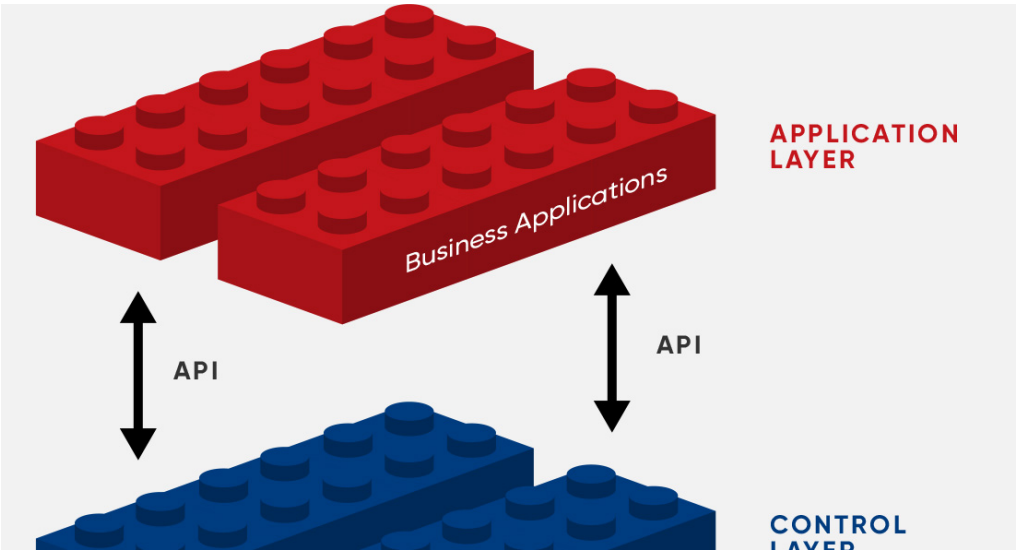
**DIRECTLY PROGRAMMABLE**
Network control is directly programmable because it is decoupled from forwarding functions.

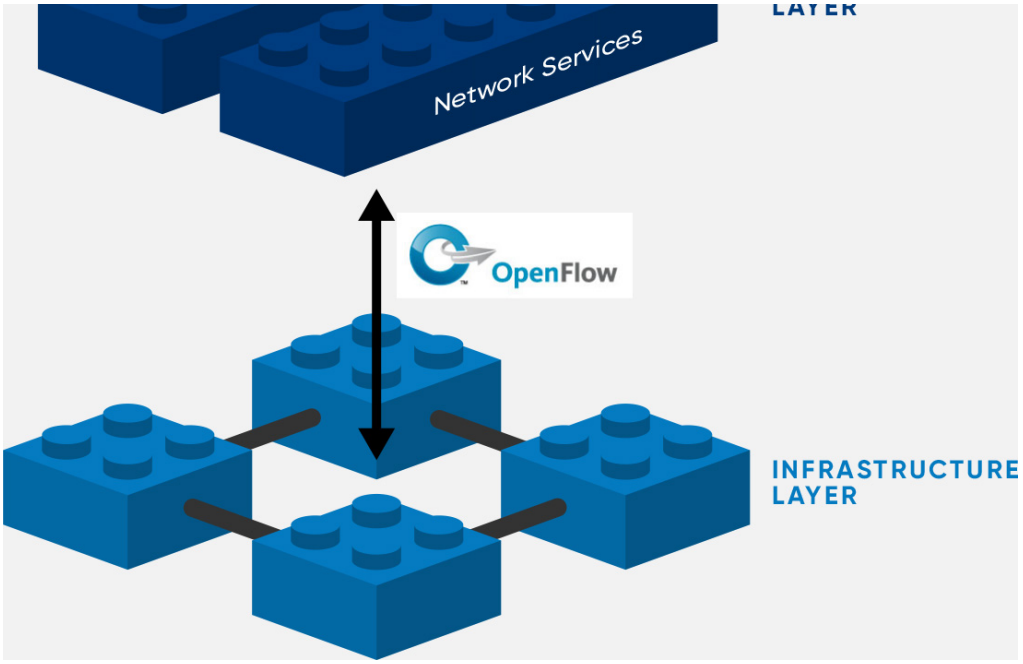
**AGILE**
Abstracting control from forwarding lets administrators dynamically adjust network-wide traffic flow to meet changing needs.

**CENTRALLY MANAGED**
Network intelligence is (logically) centralized in software-based SDN controllers that maintain a global view of the network, which appears to applications and policy engines as a single, logical switch.

**PROGRAMMATICALLY CONFIGURED**
SDN lets network managers configure, manage, secure, and optimize network resources very quickly via dynamic, automated SDN programs, which they can write themselves because the programs do not depend on proprietary software.

**OPEN STANDARDS-BASED AND VENDOR-NEUTRAL**
When implemented through open standards, SDN simplifies network design and operation because instructions are provided by SDN controllers instead of multiple, vendor-specific devices and protocols.






## Open Networking Foundation: Dedicated to SDN

The Open Networking Foundation (ONF) is an operator led consortium spearheading disruptive network transformation. Now the recognized leader for open source solutions for operators, the ONF first launched in 2011 as the standard bearer for Software Defined Networking (SDN). Led by its operator partners, ONF's mission is to help drive transformation of network operator infrastructure and business models by leveraging network disaggregation, white box economics and creating open source platforms and solutions empowered by an open collaboration framework.

## The Architecture of Software-Defined Networks

LEARN MORE (https://3vf60mmveq1g8vzn48q2o71a-wpengine.netdna-

ssl.com/wp-content/uploads/2013/05/7-26 SDN Arch Glossy.pdf)

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(https://twitter.com/ONF_SDN)

(http://www.linkedin.com/company/open-networking-foundation)

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