

# OpenSwitch (OPX) Network Operating System 3.0.0

*Your Way To Build Composable Networks...*

## What is OpenSwitch?

- Linux Foundation open source project
- Diverse growing community led by Dell EMC
- 1/10/25/40/100G platform support
- Open source NOS for hardware switches
- Commercial-grade turnkey solution
- Open and premium application ecosystem
- Rapid onboarding of new platforms, protocols, and applications on top of unmodified Linux kernel

## Why OpenSwitch?

### Operational efficiency benefits

- Software and hardware disaggregation
- Free NOS base brings capex savings
- Open/premium applications save opex

### Network agility and features velocity

- Custom modifiable open source code
- Extensible to support new platforms
- Provides framework to integrate new applications

### Use OPX NOS with confidence

- Commercially deployed today
- Leading open networking hardware
- Field-proven control protocol
- Multiple production deployments

## OpenSwitch features

### Linux feature integration

- Linux Debian Stretch
- LLDP, STP, PVST, ICMP, DNS client, NTPv4, DHCP client
- Linux utilities and tools delivering full-featured networking capabilities

### Management

- RADIUS, TACACS+, SSHv2, syslog, PAM
- SNMPv2/v3

### Layer 2

- LACP, LAG, VLAN, CoS, IGMP snooping

### Layer 3

- IPv4 and IPv6 support
- ECMP, VRFs, ARP, IGMPv2

### Eco-system

- BGP, OSPF, L3 routing, telemetry, intent-based networking, BGP unnumbered

### Security and Instrumentation

- ACL: 5-tuples, L2/L3, UDF
- Monitor: (R)SPAN, sFlow

### QoS

- DiffServ, PFC, CoPP, 802.1p, DSCP
- Ingress policing, egress shaping, scheduling

### DevOps

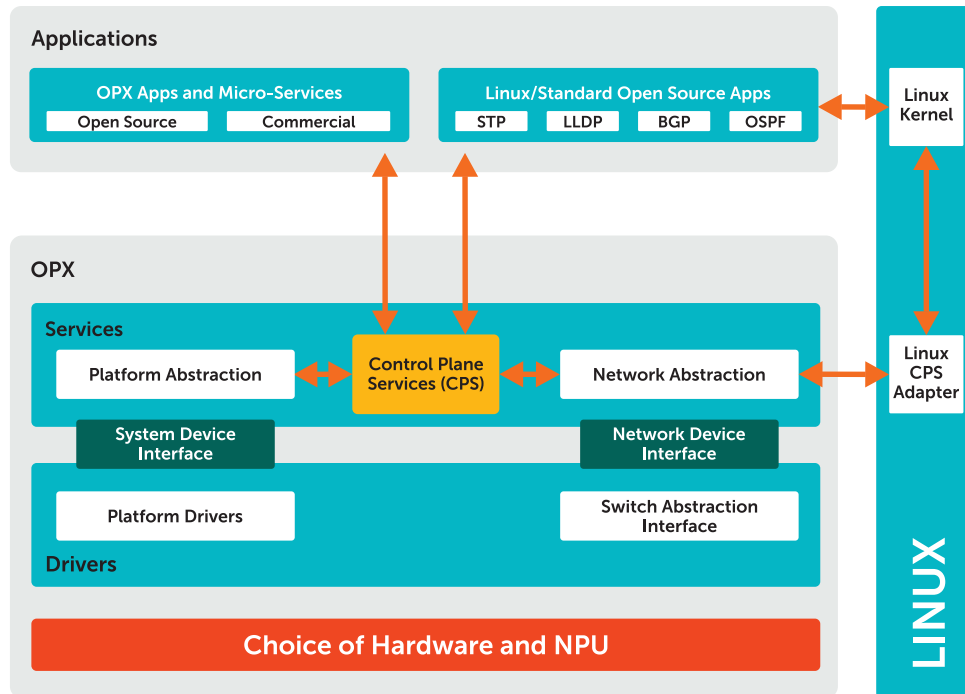
- Control plane services APIs
- Automation/provisioning: Ansible, Chef, Puppet, Salt+Napalm
- Programmability via Python, C/C++, YANG interfaces

## Members



**Website:** [www.openswitch.net](http://www.openswitch.net) **Contribute:** [github.com/open-switch](https://github.com/open-switch)  
**Mailing List:** [ops-dev@lists.openswitch.net](mailto:ops-dev@lists.openswitch.net) **Follow Us:** [@openswitchOPX](https://twitter.com/openswitchOPX)  
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## Hardware Support

- Dell EMC S3048-ON
- Dell EMC S4048-ON / S4048T-ON
- Dell EMC S4112F-ON / S4112T-ON
- Dell EMC S4128F-ON / S4128T-ON
- Dell EMC S4148F-ON / S4148FE-ON / S4148T-ON
- Dell EMC S4248FB-ON / S4248FBL-ON
- Dell EMC S5148F-ON
- Dell EMC S6010-ON
- Dell EMC Z9100-ON
- Dell EMC Z9264F-ON
- Edgecore AS7512-32X

## Open Source Disaggregated Network OS

- Rich open source and premium network applications
- Modular, scalable, extensible, performance-optimized architecture
- New applications are easily ported, using control plane services (CPS) abstraction
- ASIC/NPU extensions are easily integrable, using switch abstraction interface (SAI)
- Deploy native Linux applications, supplemented by OPX networking stack
- Linux Foundation neutrality - growing and vivid community