

HIGH-SCALE, CLOUD-NATIVE, NETWORK-CENTRIC, OPEN SOLUTION

DRIVENETS: BUILDING NETWORKS LIKE CLOUDS

DriveNets Network Cloud is a software-based, high-scale, open networking solution based on cloud-native architecture and standard networking white boxes that provides a shared compute and networking infrastructure to run any service, on any port, at any scale. With built-in routing and automation services, DriveNets Network Cloud simplifies the network architecture from core to edge and reduces costs while optimizing scaling and accelerating new revenue opportunities with third-party service hosting.

DriveNets Network Cloud allows service and cloud operators to build their network like clouds and to leverage the cost, flexibility and innovation benefits of this new architecture. It takes inspirations from cloud-native, virtualized architecture of hyperscale clouds and adapts it to high-scale networks.

Separating hardware from software, the data plane is disaggregated from the control plane, running cloud-native software on standard networking white boxes from multiple ODM vendors. Relying on a simplified, distributed architecture and a fully virtualized hardware infrastructure, it can easily scale from 4 Tbps to 768 Tbps, supporting routing services – from core to edge – and any hosted third-party network-centric service – with maximum efficiency and at the lowest cost.

DriveNets Network Cloud brings an efficient operational model that's as simple to operate as traditional networks, advancing cloud benefits in the network.

The Network Cloud platform comprises:

DRIVENETS NETWORK OPERATING SYSTEM (DNOS)

A distributed cloud-base infrastructure and NOS that create a unified shared compute and networking platform, supporting integral routing and third-party services instances from core to edge.

DriveNets Network Operating System (DNOS) is a cloud-native, distributed networking software, built on containerized microservices, which creates a unified, shared infrastructure over a distributed architecture. DNOS supports multiple service offerings at scale, including routing - from core to access- and hosting for third-party network-centric services.

- **Hardware Agnostic:** Creates a shared resource pool by abstracting any hardware resources for multiple OCP-standard ODM
- **High Availability, Carrier Grade:** Inherently provides support for high availability and resiliency through containers, microservices, and smart cluster management
- **Rich Set of Network Solutions:** Includes core, aggregation/peering, edge, 5G, access routing and hosted third-party network-centric services

DriveNets Network Cloud main benefits are:

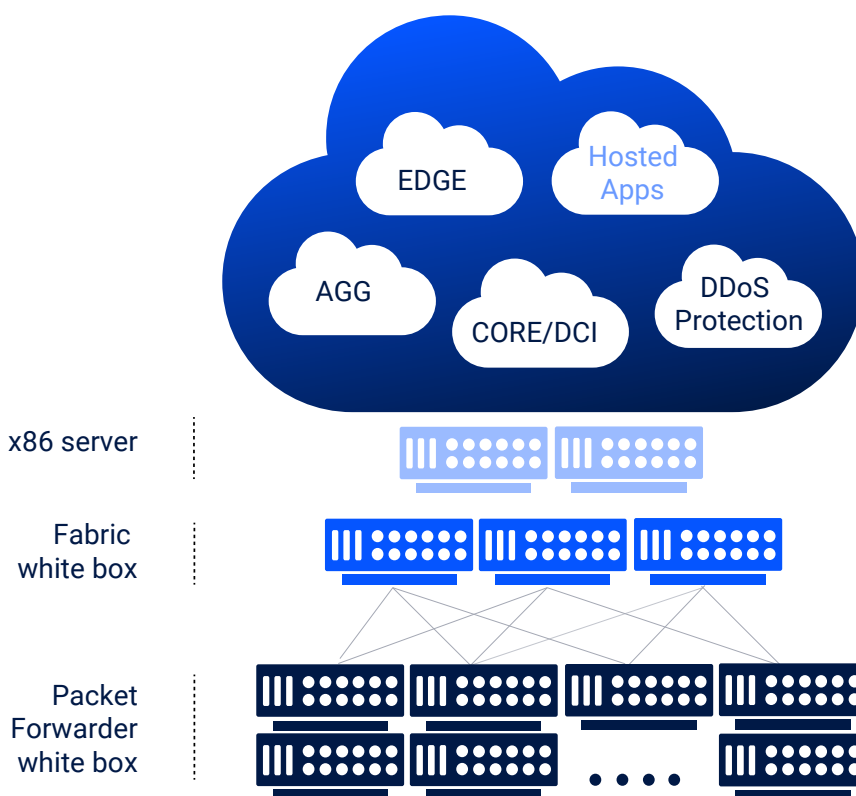
- **Lowest Cost:** *Unified, cost optimized hardware building blocks, optimal resource utilization and multiservice over shared PoD*
- **Optimal Scaling:** *Any size distributed router with separate capacity and service scaling paths.*
- **Ease of Innovation:** *Software-paced innovation for faster time to market*

DRIVENETS NETWORK ORCHESTRATOR (DNOR)

An automation system for deploying, scaling and managing the DriveNets Network Cloud solution.

DriveNets Network Orchestrator (DNOR) automates the deployment, scaling and management of the DriveNets Network Cloud solution. With advanced automation, enhanced visibility and smart insights, it brings the most advanced orchestration experience to networks, from service-instances to the entire network.

- **Automated Operations:** Automates the resource lifecycle management across nodes, PODs and the entire network
- **Multi-service Orchestration:** Orchestrates hosted networking or third-party network-centric service instances anywhere, anytime at any scale
- **Health Monitoring & Assurance:** Ensures network availability and performance via granular visibility and real-time insights



NETWORKING WHITE BOXES

Standard white boxes, from leading ODMs, based on merchant silicon (OCP DDC compliant) – one for packet forwarding (NCP) and one for fabric (NCF)

DriveNets Network Cloud runs on standard networking white boxes from a variety of ODMs. Based on merchant silicon (OCP DDC compliant), this is based on just two building blocks - one for packet forwarding (NCP) and one for fabric (NCF). This simplifies inventory management and reduces OPEX by utilizing the same platform throughout the network infrastructure - from core to access. White box vendors can be selected independently from the networking software, breaking vendor and price lock while growing the network by gradually adding more white boxes.

- **Break vendor lock:** Breaks vendor lock with wide flexibility in vendor choice and procurement models
- **High scale & carrier-grade:** Powers Network Cloud's carrier-grade scale from 4 Tbps to 768 Tbps
- **Simplified infrastructure & operations:** Simplifies network infrastructure, inventory and management and automates deployment

DriveNets won several industry awards and recognitions throughout 2019-2020



Company of the
Year (private)



Next-Gen Deployment
Wireline



Research: Whitebox routing –
a transformative disruption

