



CORPORATE PROFILE — OVERVIEW

Asterfusion Intelligence Open Networks

Turnkey Solutions of Open Networking in Cloud, Enterprise and AI

cloudswit.ch

2026 Edition

ASTERFUSION

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01 Company Overview

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ASTERFUSION



Company Overview



Founded in 2017 by former Huawei, H3C, and Cisco chief architects, Asterfusion is led by CEO Ricardo Chen (PKU) and CTO Dr. Paul Chang (Columbia Ph.D.).

Supported by a 200+ expert team, Asterfusion specializes in SONiC software and high-performance switching hardware. Headquartered in China with regional R&D centers, it serves 50+ countries through distributors across 10+ regions, delivering 50%+ annual growth with Series C funding completed.

**Led by Top Architects****Distributors Across 10+ Countries****200+ Expert Team****50%+ Annual Revenue Growth**

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Business Profile & Technical Core

Applications & Solutions

GenAI / ML Fabrics with Built-in RoCE

Cloud & Data Center Fabrics

Campus Access & Wi-Fi Roaming

Router / Gateway & DPU Platform for Edge

Packet Brokers for Network Visibility

DCI & Border Gateways

Open Network Operating System

Enable different versions for diverse networking scenarios across chip vendors via containerized control plane and hardware-agnostic SAI.

Community Ecosystem



Enterprise SONiC Distribution-AsterNOS



AIDC Edition



Campus Edition



Edge Edition



NPB Edition

DPDK
DATA PLANE DEVELOPMENT KIT

Supported Silicon & Hardware Portfolios

High-Performance Design for 1.6T/800G Switches & Open Platforms



Teralynx

Presteria



Tomahawk

Trident



AI Fabric & Data Center



Enterprise Fabric



Campus Access & Aggregation



Edge Platform



SmartNIC & COME

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Leading Turnkey SONiC Solution

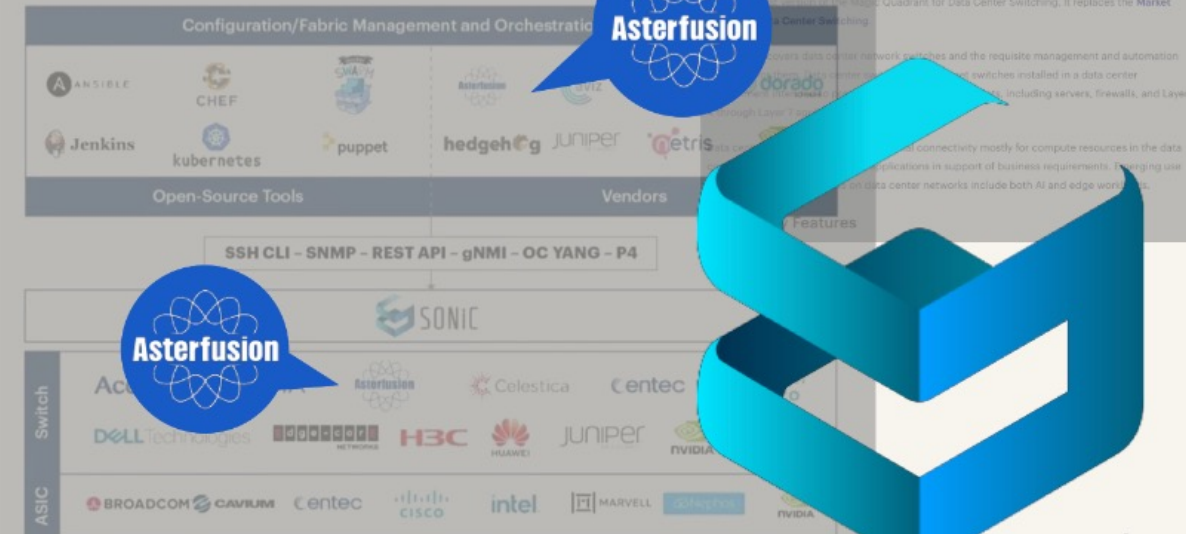
- Single repository, commercial ready SONiC for Marvell Teralynx (AI), Marvell Prestera(Enterprise) , Broadcom StrataXGS (Cloud) , and P4 (Gateway)
- The only SONiC that runs on dual-core A52 with full features including routing protocol, security and etc.
- Proven by 35k+ copies of field installations, single cluster more than 10K+ 100G ports.
- Active community member of SONiC, FRR, OpenWiFi and OpenLanSwitch

<https://www.gartner.com/doc/reprints?id=1-2KN9D5PG&ct=250401&st=sb>

Asterfusion Data Technologies has relevant technology and is investing in this market including SONiC-based offerings...

The World's Only Full-Stack SONiC-Based Solution Provider Nominated in the **Gartner** MQ for Data Center Switching

Vendor and Open-Source Ecosystem for SONiC



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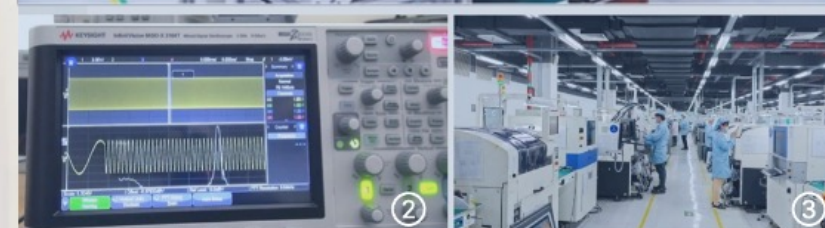


Prod & Test Environments

Driven by a robust manufacturing test and supply chain management system, Asterfusion delivers end-to-end excellence in advanced manufacturing, rigorous quality control, and scalable delivery.

FACTOR

- ① ③ Hardware Production Line
- ② ④ Switch System R&D and Testing Platform (Partial)
- ⑤ Large-scale Testbed



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Product Solutions

Empowering AIDC, Campus, Open Routing, and Open Packet Broker
with Advanced Network Architectures

03

Case Studies

FACTOR GROUP

Asterfusion

Product Portfolio



Next-Generation Network Visualization

Asteria
Campus Controller

Enterprise & Campus Product Line

- CX-M Series Switches
- Asteria Network Controller
- Wireless Access Point

AI Fabric & Data Center Product Line

- CX-N Series Switches
- EasyRoCE Toolkit

25G-800G

1G-400G

Wi-Fi6/6E/7

AsterNOS
OPEN NETWORKING

Open Ecosystem Product Line

- ET Series Edge Platform
- Helium DPU SmartNIC
- COM Express Module

25/100/400G SmartNIC

COMe

1/25/100G + ARM DPU Modules

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Enterprise SONiC Distribution-AsterNOS

01 Integrated System Delivery



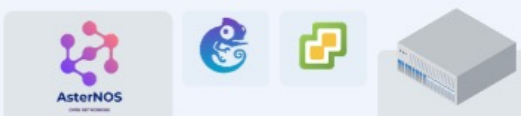
Powered by Asterfusion's proprietary all-scenario switch hardware

02 Software-Defined Delivery

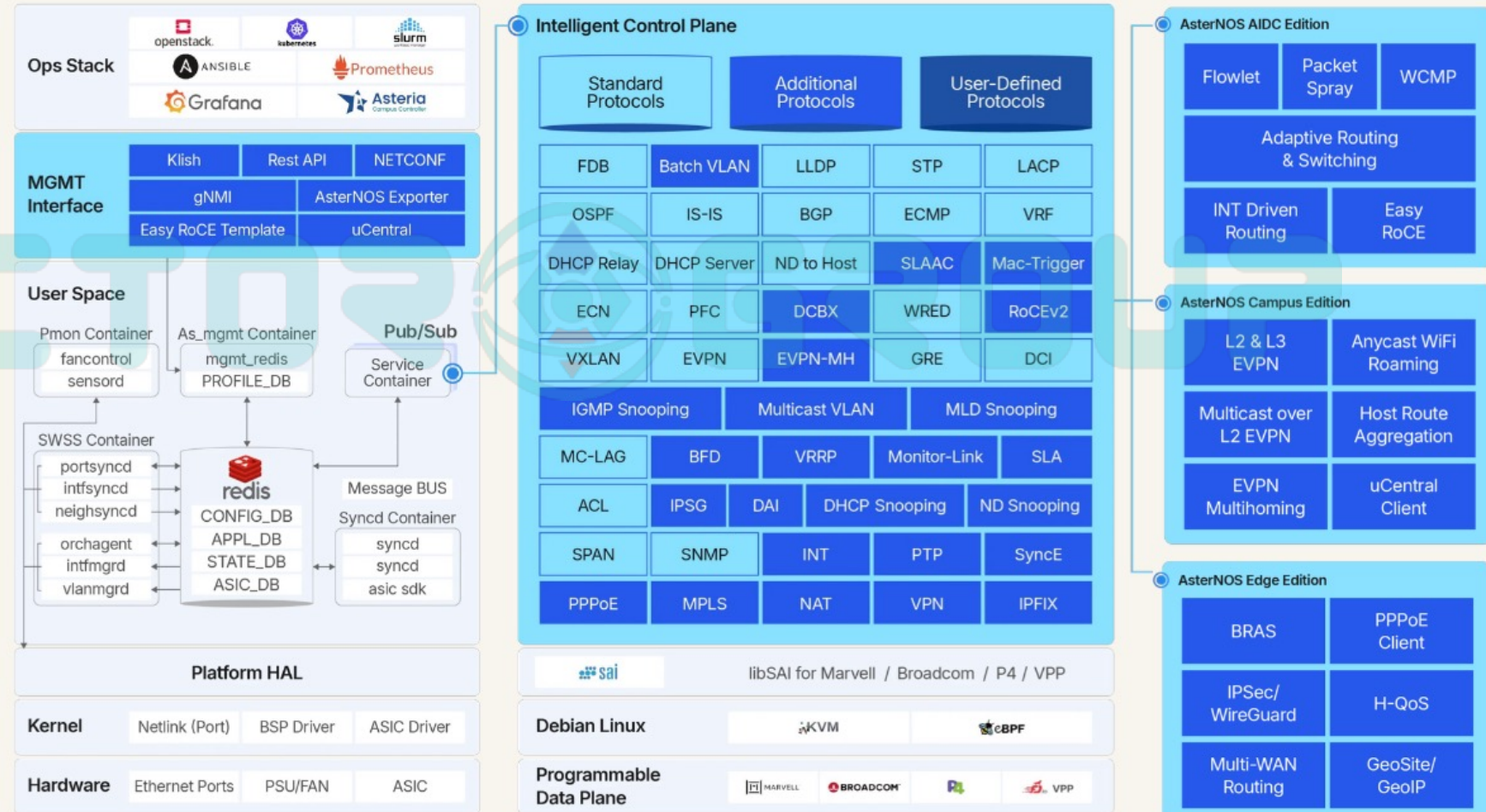


Compatible with mainstream industry white-box switch hardware

03 Virtual Machine version



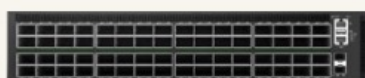
AsterNOS image loaded onto the server virtual machine



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AI Fabric & Data Center Switch



CX864E-N

- 64× 800G OSFP, 2×10G SFP+
- 102.4 Tbps



CX764QD-N

- 64× 400G QSFP-DD, 2×10G SFP+
- 51.2 Tbps



CX764QH-N

- 64× 400G QSFP112, 1×25G SFP28
- 51.2 Tbps



CX732Q-N

- 32× 400G QSFP-DD, 2×10G SFP+
- 25.6 Tbps



CX664D-N

- 64× 200G QSFP56, 2×10G SFP+
- 25.6 Tbps



CX564P-N

- 64× 400G QSFP28, 2×10G SFP+
- 12.8 Tbps



CX532P-N

- 32× 100G QSFP28, 2×10G SFP+
- 6.4 Tbps



CX308P-48Y-N

- 48× 25G SFP28, 8×100G QSFP28
- 4.0 Tbps

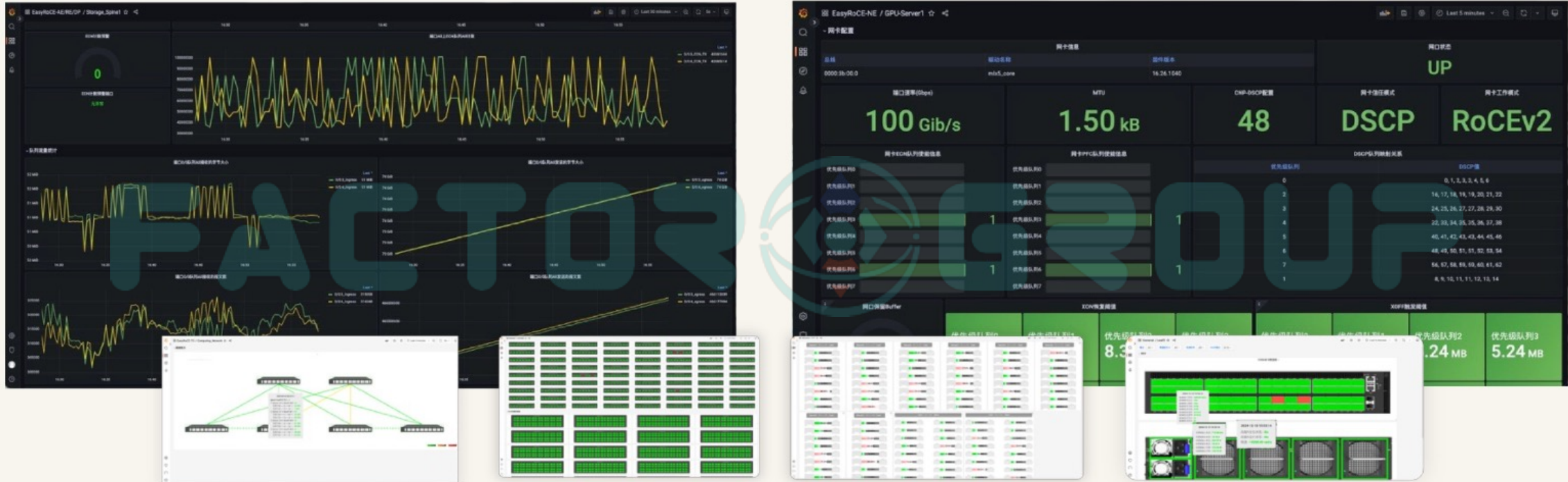
CX-N SERIES SWITCHES

- Powered by AsterNOS – AIDC
- Low-latency version: Port-to-Port latency as low as **450ns-560ns**, industry-leading
- All ports come standard with RoCEv2 capability and support In-band Network Telemetry (INT)
- Intelligent dynamic load balancing technologies: Packet Spray, Flowlet, etc.
- Comprehensive flow control mechanisms: PFC / ECN / FastECN / DCBX / ETS, etc.
- Ideal for compute, storage, and general service networks in AI, HPC, and general-purpose data

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RoCE Network Operation & Maintenance Tool

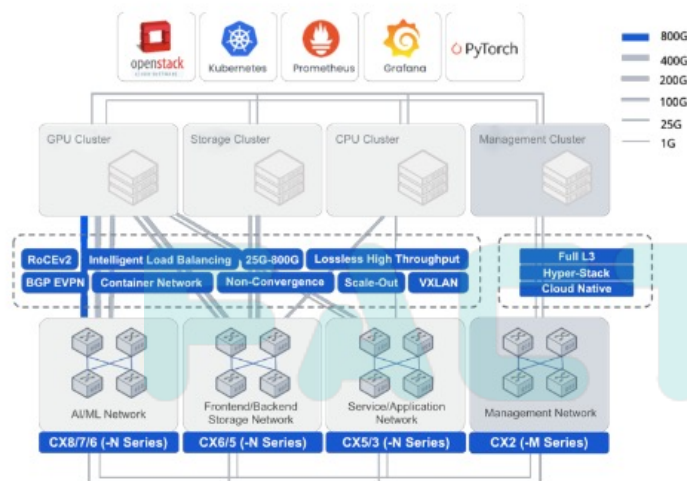


- AI Infrastructure Blueprint Planning (AID)
- GPU Internal Routing Planning (IRM)
- Multi-Tenant Network Deployment (MVD)
- Unified O&M Panel (UG)
- Link Map (LM)
- Graphical Device Panel (DP)
- One-Click RoCE Deployment (ORD)
- End-to-End Path Planning (EPS)
- High-Precision Monitoring (RTR)
- AsterNOS Exporter (AE)
- Optical Transceiver Map (TM)
- RDMA Session Tracking & Path Restoration (RST)
- RoCE Parameter Automatic Generation (RPA)
- Active Path Planning (PPD)
- Congestion Monitoring & Early Warning (CMA)
- RoCE Exporter (RE)
- NIC Export (NE)
- Traffic Path Preview (TPE)
- Topology Presentation (TG)

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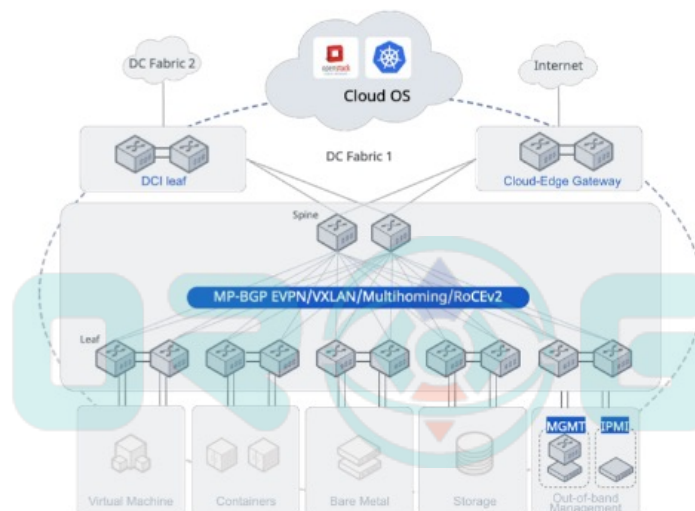


Application Scenarios



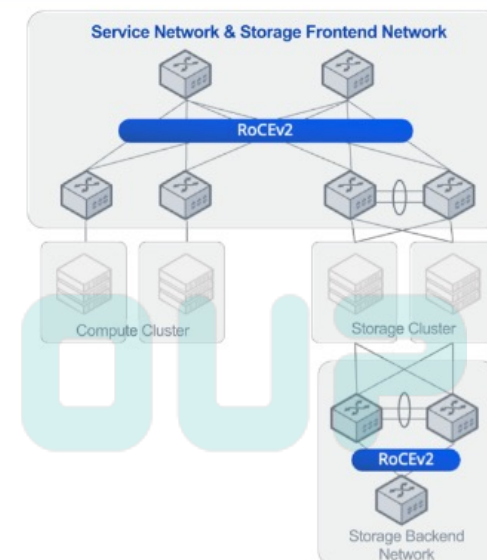
AI Fabric & Data Center Networks

- Neutral, open, high-performance RoCE networks
- One-stop construction of four networks: parameters, storage, services, & management
- Excellent large model and NCCL performance, partially surpassing IB



General Cloud Networking

- Proven open cloud networking technologies and large-scale delivery experience
- Architecture fully benchmarking tier-1 cloud providers such as Google, Azure, AWS, & Meta



Distributed Storage Networks

- End-to-end storage read/write test performance rivals IB, with partial advantages
- EasyRoCE helps storage O&M teams get started quickly

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AI Computing Performance Testing

NCCL Test Performance

Setup: 2-Node 16-GPU NVIDIA H100 Cluster | 400G CX-7 NICs



190 GB/s

End-to-end All-Reduce throughput

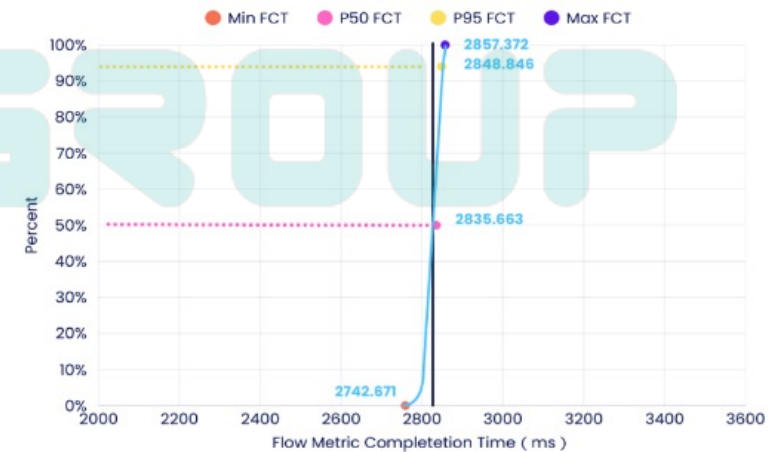
~320 GB/s

End-to-end All-to-All throughput

Both show performance comparable to back-to-back connections.

Collective Communication Emulation: 2-Node 8-GPU

Setup: IXIA AresONE-S 400G Tester | 400G CX-7 NICs

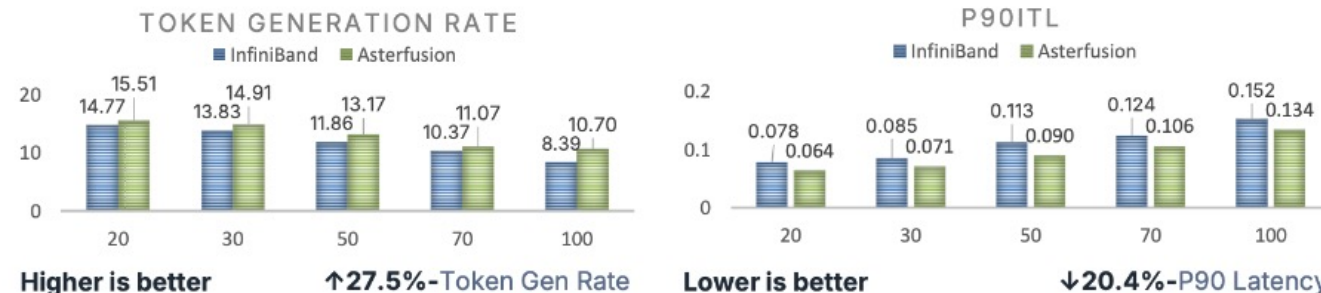


Taking the All-Reduce operation with the Bidir Ring algorithm as an example, the long-tail latency stability in cross-switch testing is consistent with the benchmark, delivering exceptional performance.

AI Inference Performance: RoCE vs. InfiniBand

DeepSeek-R1 671B as example

Setup: CX864E-N Switch | 16x H20 GPUs | 400G CX-7 NICs



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Campus Switch & Wireless AP



CX102S-M

- 2×10G(SFP+), 8×1G/2.5G or 16×1G(RJ45)
- PoE++ Optional



CX306P-48Y-M

- 6×100G/40G, 48×25G/10G
- GNSS/PTP Optional



Both models can be optionally equipped with 1-2 high-performance DPU mezzanine cards. Runs AsterNOS-VPP, OpenWrt, Campus Network Controller (ACC), or various network tool applications.



CX206P-M

- 6×100G/40G, 24 or 48×10G(SFP+)

Spine



CX202P-M

- 2×100G/40G, 24×25/10G

Spine



CX308P-M

- 8×100G/40G, 48×25/10G

Spine



CX532P-M

- 32×100G/40G, 2×10G(SFP+)

Spine



CX204Y-M

- 4×25G/10G, 24 or 48×1G(RJ45)
- PoE++ Optional

Leaf



CX206Y-M

- 6×25G/10G, 24 or 48×1G(RJ45)
- PoE++ Optional

Leaf

CX-M Series Campus Switches

- Powered by AsterNOS-Campus
- Multi-rate uplink/downlink ports, PoE++ power supply, Hardware PTP
- Built-in NPB capabilities: multi-purpose in one box, replacing dedicated TAP/bypass splitters
- Innovative heterogeneous converged design: switch integrated with a high-performance router



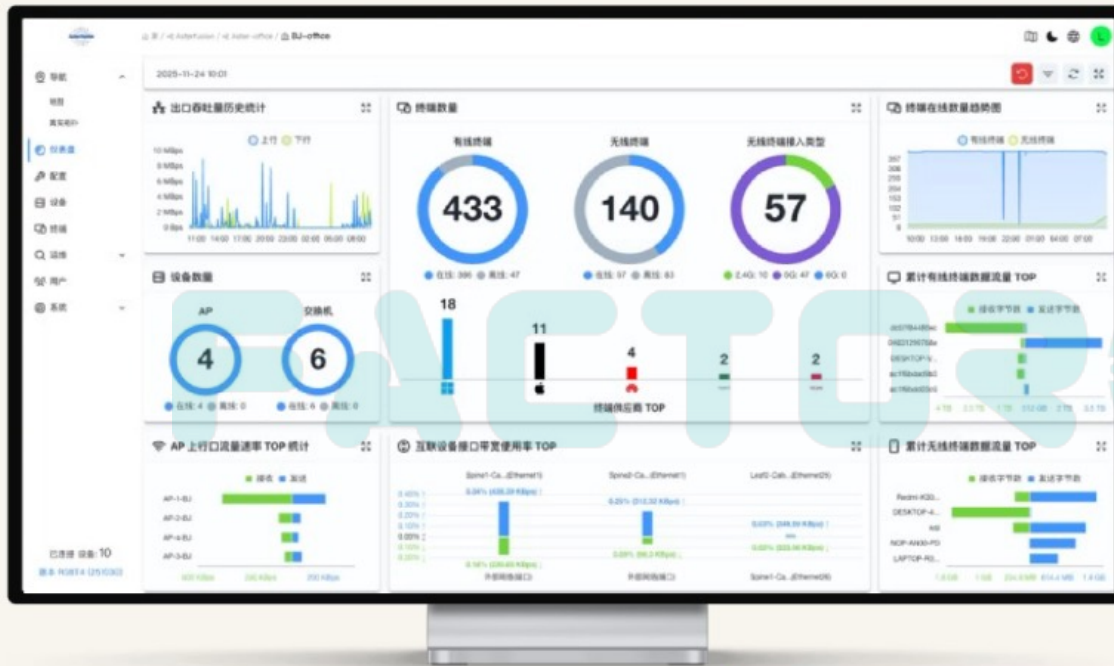
CAP Series Wireless Access Point

- Wi-Fi 6/6E/7, MU-MIMO, Intelligent RF Management, 802.11k/v/r Fast Roaming
- Multiple Authentication Methods, Wireless Client Traffic Traceback Analysis



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Asteria Network Controller



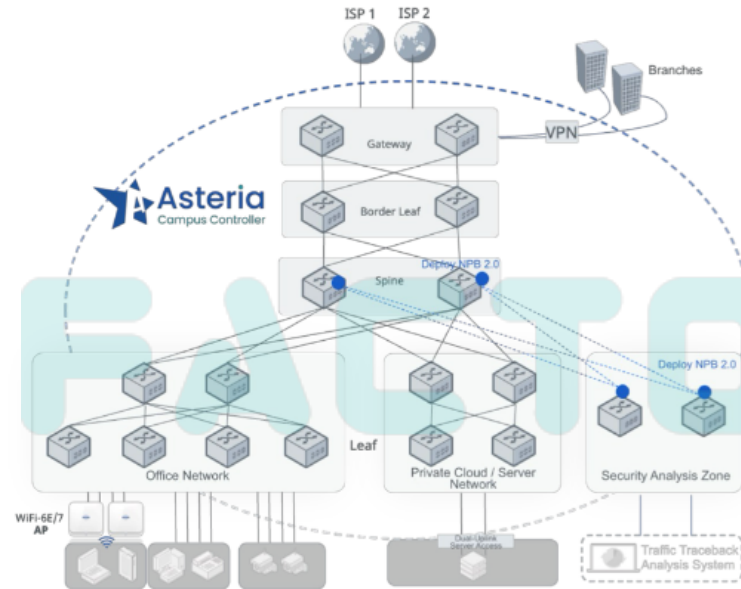
Asteria Campus Controller (ACC)

- Lightweight campus network controller, supporting on-premises deployment or cloud-based operations and maintenance
- Graphical dashboard + templated configuration with one-click deployment, enabling service provisioning in 30 minutes
- Unified management of wired and wireless networks, with full lifecycle connection status of endpoints manageable and queryable
- Developed based on the open-source and open TIP OpenWiFi framework, compatible with third-party APs

ASTERFUSION

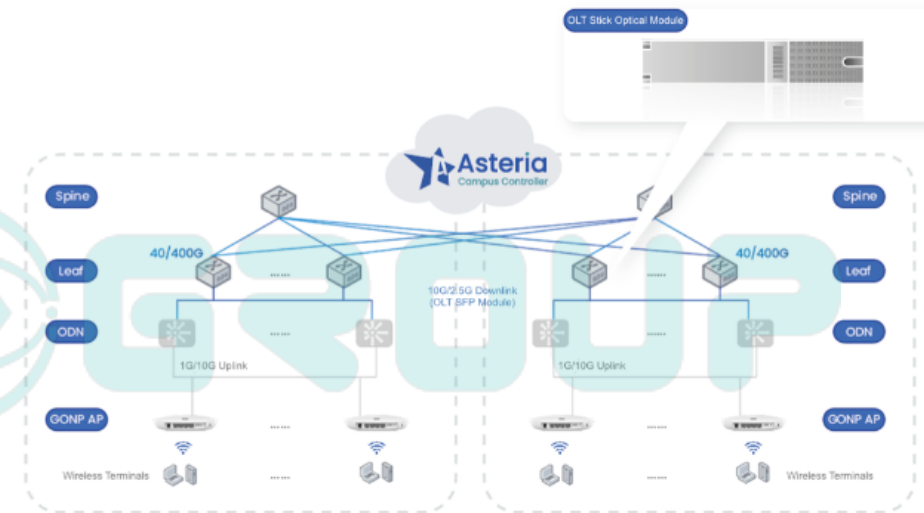


Application Scenarios



Next-Gen Intelligent Campus Network

- All-Layer-3 routing architecture to completely eliminate broadcast storms
- Minute-level service provisioning and unified wired/wireless management



GPON Campus Solution

- OLT SFP modules replacing dedicated OLT equipment
- Significant reduction in infrastructure investment, power, and cooling costs

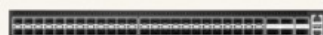
ASTERFUSION

PTP Switch



CX306P-48Y-M

- 6×100G/40G, 48×25G/10G
- GNSS Optional



CX206P-24-M

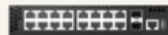
- 6×25G/10G, 24×2.5G/1G
- GNSS Optional



CX204Y-M

- 4×25G/10G, 24 or 48×1G(RJ45)
- PoE++ Optional

Leaf



CX102S-M

- 2×10G(SFP+), 8×1G/2.5G or 16×1G(RJ45)
- PoE++ Optional

Leaf

The GNSS module synchronizes with satellites to obtain highly precise timing. When combined with the PTP module, it can operate as a Grandmaster device, making it ideal for 5G O-RAN, broadcast, and DCI interconnection scenarios. The solution achieves time accuracy up to Class C.

PTP Switches

• Nanosecond-Level PTP Precision:

Delivers Class C accuracy (≤ 10 ns), compliant with IEEE 1588v2, telecom profile (ITU-T G.8275.x), & media profiles (SMPTE ST 2059-2, AES67).

• Powered by AsterNOS Foundation:

Built on native enterprise SONiC OS with RESTful APIs, Netconf, & Redis DB interfaces for seamless SDN integration.

• Versatile Clock Roles & Module Support:

Supports Grandmaster, T-GM, BC, T-BC, and TC clock types, with select models offering GNSS satellite sync and PoE++ capability.

• Advanced Multicast & Carrier Fabric:

Native IGMP/PIM-SM and VXLAN Multicast Underlay for AV-over-IP, 5G O-RAN fronthaul, and DCI sync.



CX732Q-M

- 32×400G, 2×10G(SFP+)

Spine



CX532P-M

- 32×100G/40G, 2×10G(SFP+)

Spine



CX308P-M

- 8×100G/40G, 48×25/10G

Spine



CX206P-M

- 6×100G/40G, 24 or 48×10G(SFP+)

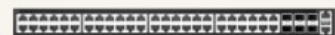
Spine



CX202P-M

- 2×100G/40G, 24×25/10G

Spine



CX206Y-M

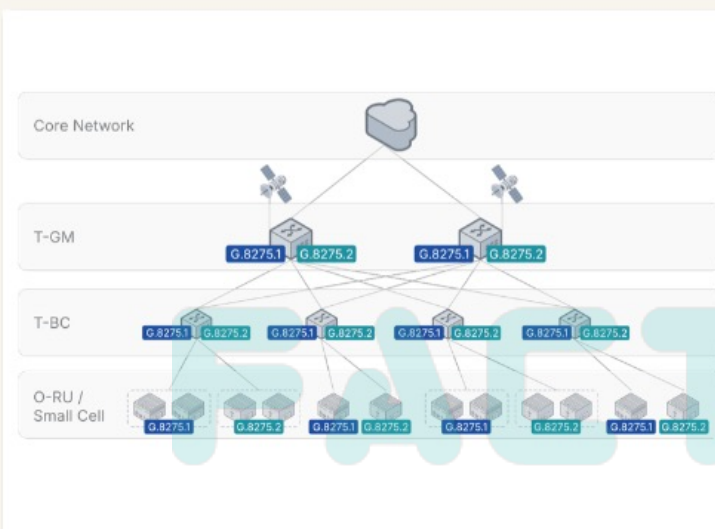
- 6×25G/10G, 24 or 48×1G(RJ45)
- PoE++ Optional

Leaf

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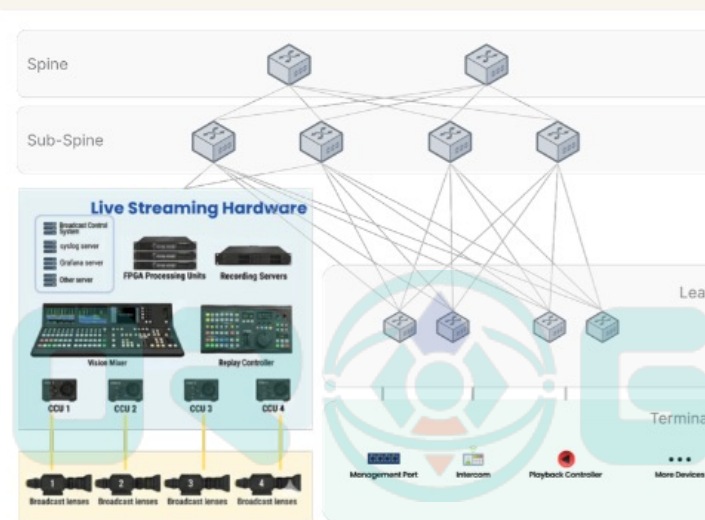


Application Scenarios



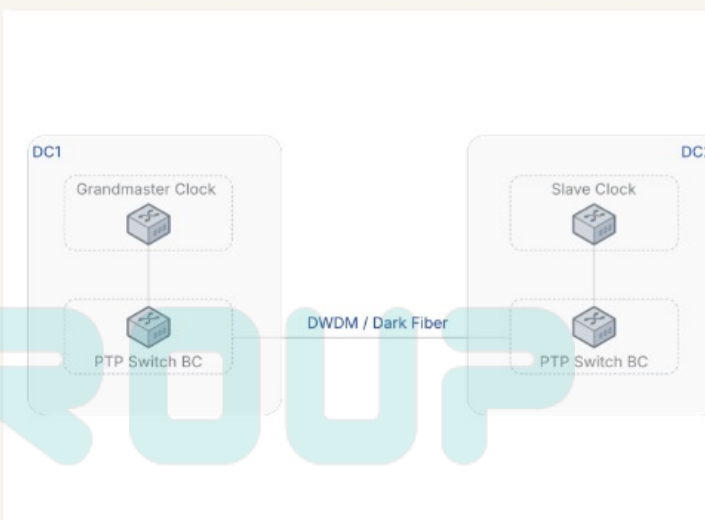
5G O-RAN Sync

- **ITU-T G.8275.x Sync:**
Telecom-grade 10 ns precision for O-RAN fronthaul.
- **SONiC Foundation:**
Open enterprise platform with RESTful APIs for SDN automation.
- **PoE++ Grandmaster:**
Simplifies smart cell and O-RAN deployment.



Live Broadcasting

- **10 ns PTP Precision:**
Class C accuracy with ST 2059-2 & AES67 for AV sync.
- **Multicast Fabric:**
IGMP/PIM-SM and VXLAN Multicast Underlay for AV-over-IP.
- **Flexible Deployment:**
1G-800G switches supporting GM/BC/TC roles.



Data Center Interconnection

- **PTP Class C Accuracy:**
Meets strict clock demands for cross-DC databases, AI clusters, and HFT.
- **SyncE + GNSS + PTP (1588v2):**
Seamless DWDM integration for DCI sync and AI evolution.

ASTERFUSION

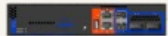


High-Performance Open Routing



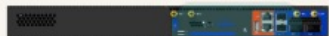
ET2508-4S4M8

- 4x10G(SFP+), 4x2.5G(RJ45), 8x1G(RJ45)



ET2700-2P2S

- 2x10G(SFP+), 2x100G(QSFP28)



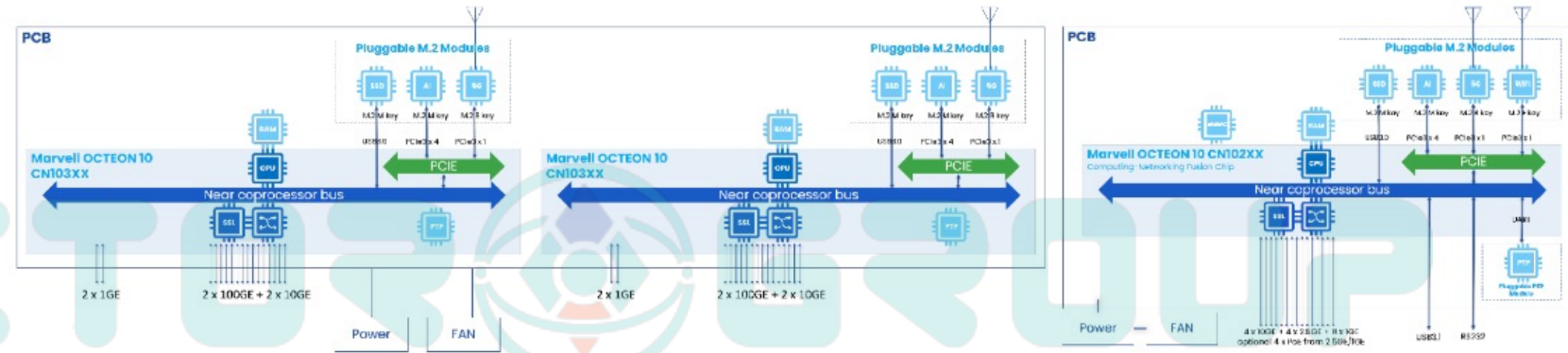
ET3608-2P2S

- 2x10G(SFP+), 2x100G(QSFP28)



ET3616-4P4S

- 2x 2x10G(SFP+), 2x 2x100G(QSFP28)



Modular design, supporting on-demand selection of the following components:

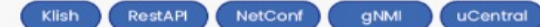


ET Series Router & Gateway

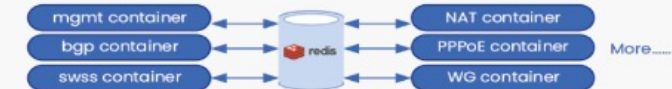
Industry's First SONiC Solution for Router & Gateway

- BGP/MP-BGP, OSPFv2/v3, VRF, PBR
- DHCP v4/v6 Server and Relay, PPPoE Client
- IPsec, WireGuard, GRE, VXLAN, L2TPv3
- NetFlow/IPFIX
- Source and Destination NAT

Open Interfaces for MGMT Plane



Control Plane
(AsterNOS)



libsaivpp

libsa

Linux Kernel

Programmable Data Plane

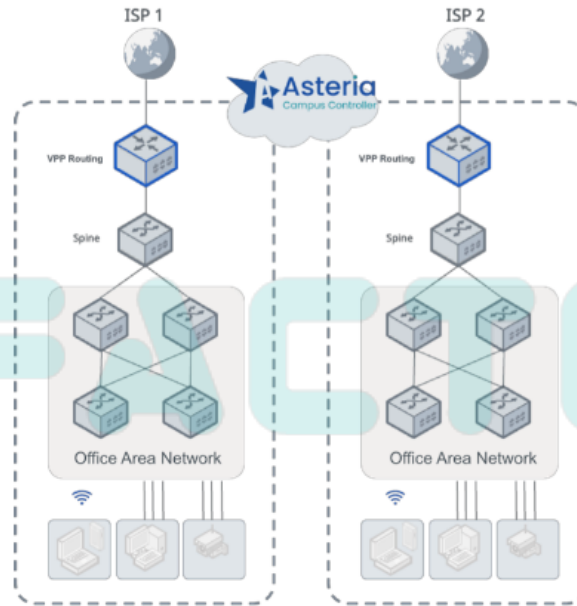


ARM/x86 64 bit with DPDK-Supported NIC | Hypervisor with VirtIO

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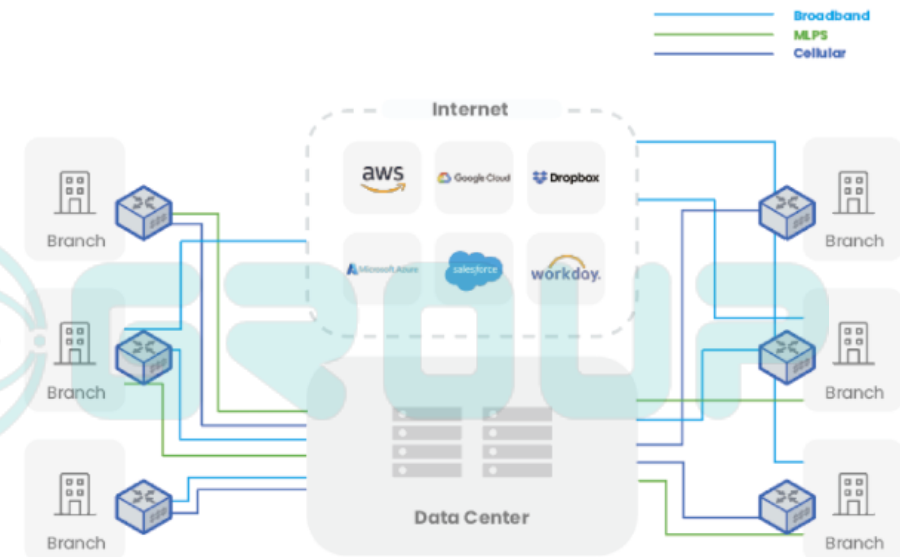


Application Scenarios



Multi-Branch Enterprise Unified Edge Gateway

- Unified management of branch gateway devices across multiple locations by the ACC controller
- VRRP dual-device redundancy backup support



SD-WAN (Software-Defined Wide Area Network)

- Support for multiple physical interfaces to access diverse WAN links
- Application- and source-IP-based traffic scheduling
- Hardware-accelerated IPsec VPN

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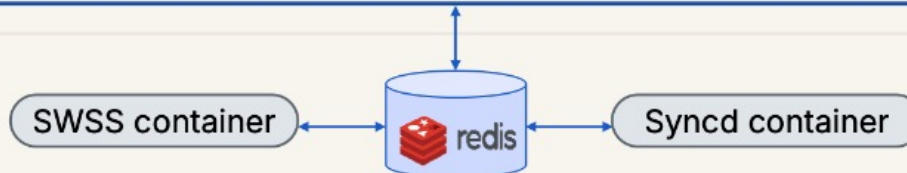
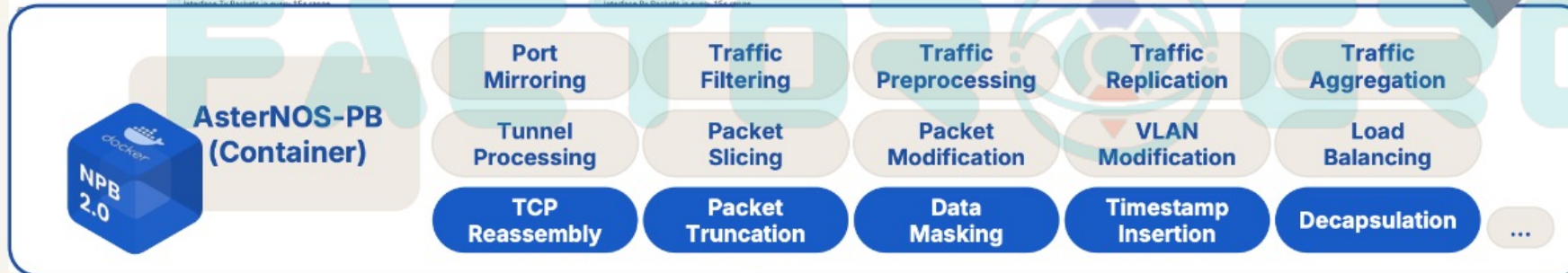


Open Packet Broker

Interface Info

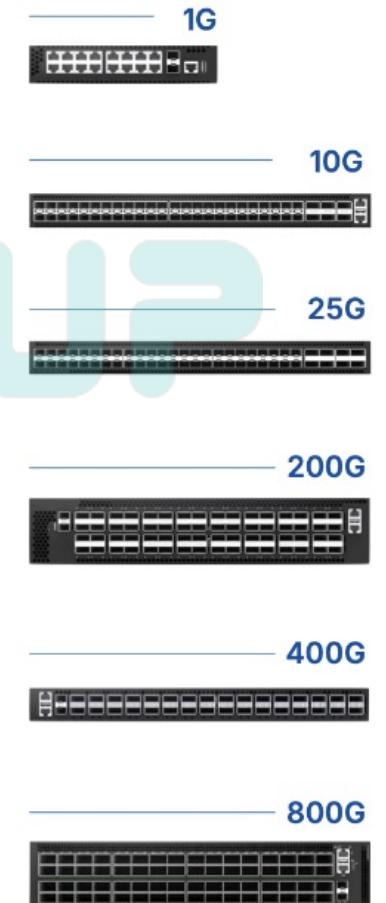
Device	Alias	Admin Status	Operational Status	Fec	Index	Mtu	Speed
0/121	C31	up	up	none	30	9216	100000
0/125	C32	up	up	none	31	9216	100000
0/129	X1	up	down	none	32	9216	10000
0/13	C4	up	up	none	3	9216	40000
0/130	X2	up	down	none	33	9216	10000
0/17	C5	up	up	none	16	9216	40000

Supports Ansible
integration for batch
configuration via
SONiC-CLI



Linux Kernel

Now supports a wide range of Asterfusion switches with specifications from 1G to 800G.
Supports multiple granular load balancing modes: Static, Elastic, and Active-Backup.



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Case Studies

A selection of real-world success stories from
Asterfusion's global users

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Use Case



EUROPE

European Civil Aircraft Manufacturer

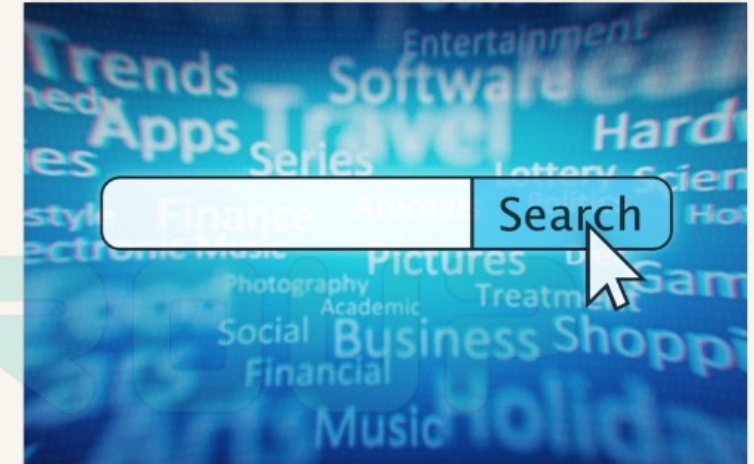
Civil Aircraft Manufacturer | DPU Open Hardware Platform



EUROPE & NORTH AMERICA

Well-known European & American Open Source Software Provider

Open Source Software Provider | Enterprise Private Cloud Infrastructure



EUROPE & ASIA

Top5 Cloud Service Provider

Internet & Search Engine | OCP Standard SONiC Switch

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Use Case



OCEANIA

Multinational Broadcasting & Live Events Group in Australia

Broadcasting & Live Events | Stadium Live Streaming Network System



NORTH AMERICA

Well-Known Internet Cloud Communications Platform in North America

Cloud Communications Platform | Global Multi-Site Private Network Infrastructure



EUROPE

Leading European Multinational Financial Institution

Financial Institution | Next-Gen Network Visibility (NPB 2.0)

Build Your Future-Proof Network

Visit us at <https://cloudswit.ch>



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