



Marvell DENT / Switchdev

Netdev 0x15

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Software Architecture

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Complete data infrastructure portfolio



Processors

Baseband and Data
Processor Units (DPUs)

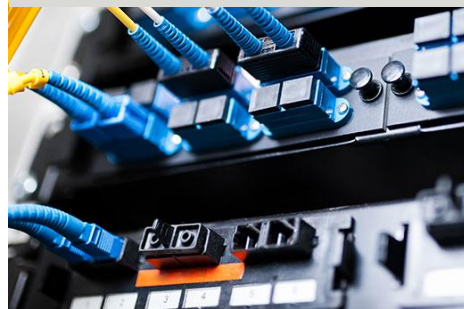


Storage

HDD, SSD and
Fibre Channel controllers

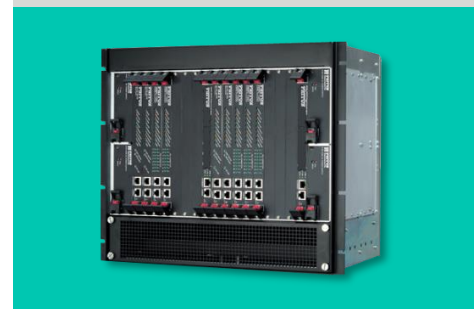
Networking

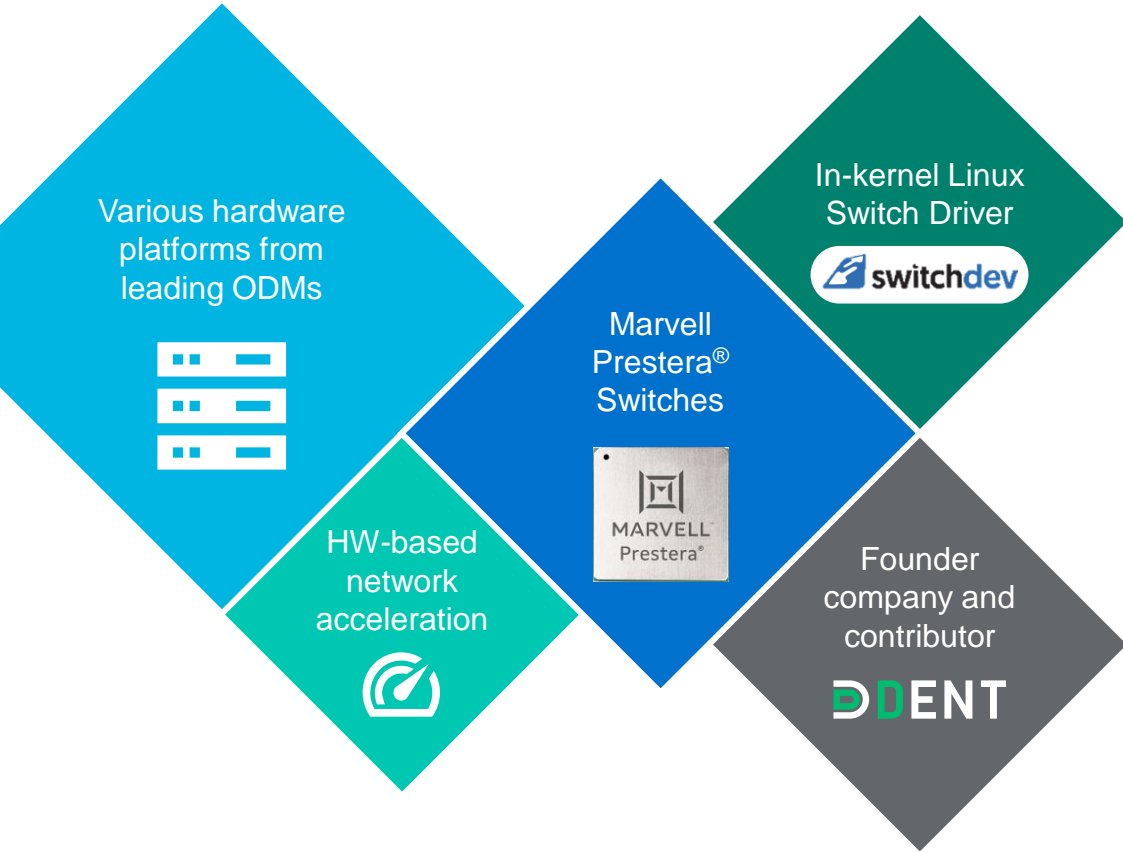
PAM4 DSPs,
linear TIAs and drivers
Ethernet Switches, copper PHYs
and coherent DSPs



Security

Security processors
and cloud Hardware
Security Modules (HSM)





Marvell Broad Switching Portfolio

Enterprise, SMB/Industrial, Carrier, Data Centers

DDENT Hardware platforms

- Marvell Prestera Switch devices enable wide range of hardware platforms through ODMs
- Currently available
 - 48x 10/100/1000BASE-T + 4x SFP+ (1/10GbE)
 - 48x 10/100/1000BASE-T (PoE) + 4x SFP+ (1/10GbE)
 - 48x SFP+ (1/10GbE)



Major networking features



- ↑ Port Configuration & Statistics
- ↑ Link Aggregation (LAG)
- ↑ L2 Bridging (VLAN aware)
- ↑ Spanning-Tree (STP)
- ↑ Access-Lists (TC Flower)
- L3 Routing (IPv4)
- Equal Cost Multi Path (ECMP)
- Virtual Router & Forwarding (VRF)
- Virtual Router Redundancy (VRRP)
- Control-plane Policing (CoPP)



- ↑ Traffic Policing (ingress)
- Port isolation ('PVLAN Edge')
- Network Address Translation (NAT)
- Chain templates support
- Multi-chain support ('goto')
- Enhanced Performance and Scale



- L3 Routing (IPv6)
- QoS (802.1p / DSCP)
- Traffic Policing (Egress)
- Control Packets to CPU
- Port-based Access Control (802.1X)
- Port Security (MAC Limit) *
- IGMP Snooping

Presteria DENT / Switchdev sources



Presteria Switchdev Github

<https://github.com/Marvell-switching/Switchdev-presteria/>



DENTOS Github

<https://github.com/dentproject/dentOS/releases>



Linux Kernel Net-next

<kernel/git/netdev/net-next.git>



Q&A



Essential technology, done right™