

Netberg SONiC

For Aurora series switches.



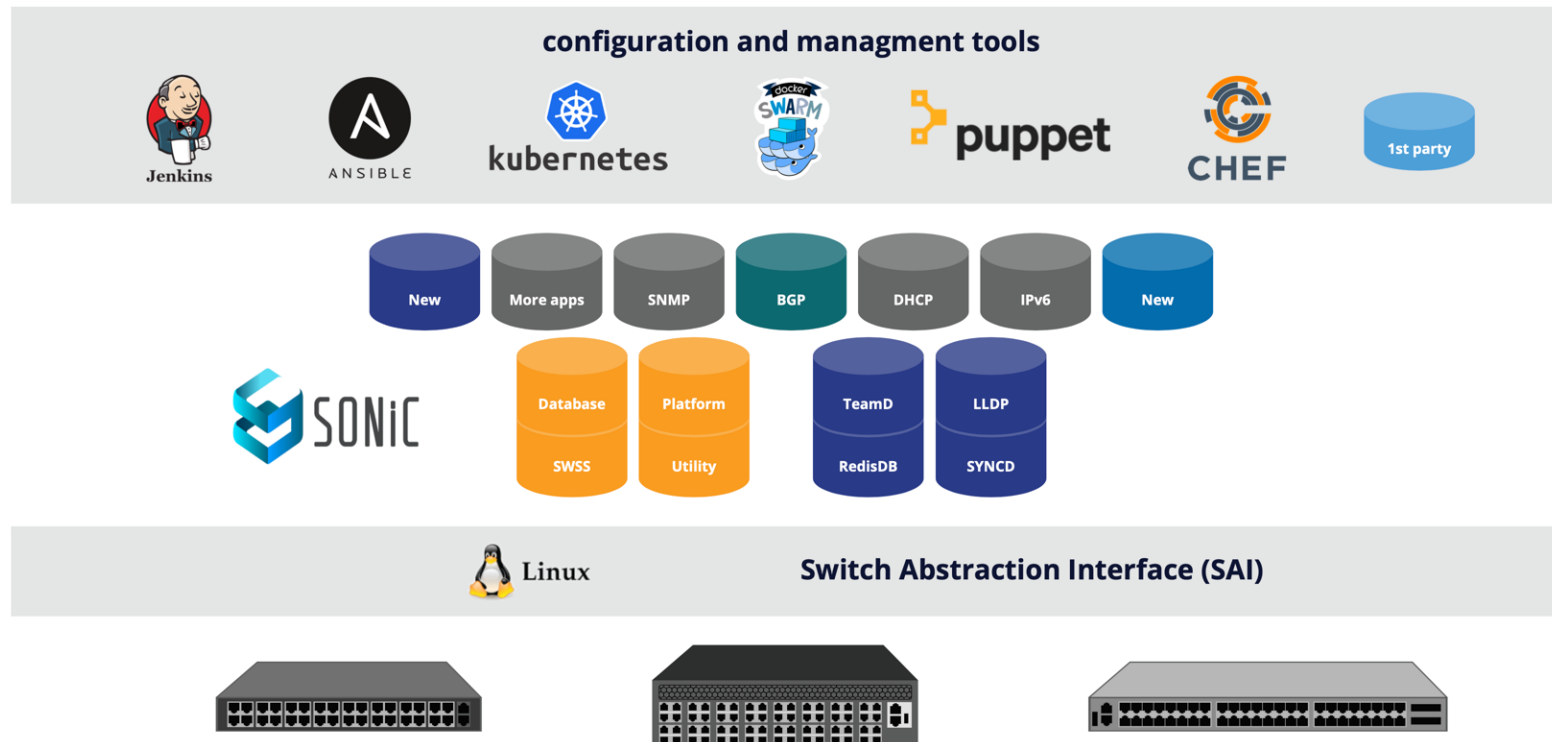
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SONiC is a Linux-based open-source networking operating system with its roots in the open community and Microsoft as an original contributor. Today it has over fifty member companies and thousands of individuals contributing.

It is fully open-sourced at OCP.

- **Deployment at Range of Cloud&Telco engagements**
- **Strong feature list and roadmap**

SONiC Software for Open Networking in the Cloud



Marvell Teralynx – Aurora 615/715

Layer 2:

- * LLDP
- Link aggregation:
 - * LAG 802.3ad with LACP
 - * LACP Fallback
 - * IEEE 802.1Q
 - * Port-based
 - * Vlan Trunk

Layer 3:

- * FRR as default routing stack
- * BGP
 - ** BGP Graceful restart helper
 - ** BGP MP
 - ** FRR BGP NBI
 - ** BGP/Neighbor-down fib-accelerate
- * ECMP
 - ** Consistent ECMP (fine grain ECMP)
- * Proxy ARP
- * Mgmt VRF
- * VRF
- * L3 RIF counter support

QoS:

- * QoS - ECN
- * QoS - RDMA
- * WRED
- * COS

Management:

- * Standard Linux shell tools
- * Linux application integration

* Industry standard CLI

- * CLI filtering
- * Telnet/SSH
- * SNMP
- * Warm Reboot
- * Incremental Config (IP, LAG, Port shut/unshut)
- * CoPP Config/Management
- * Streaming telemetry
 - * sFlow
 - * Syslog
 - * Sysdump
- * NTP
- * DHCP Relay Agent
- * Fast Reload
- * Critical Resource Monitoring
- * MAC Aging
- * gRPC
- * Sensor transceiver monitoring
- * Routing Stack Graceful Restart
- * Port breakout
- * Port Mirroring
- * Everflow V2 - IPV4/IPV6 Portion 2.0
- * Sub-port support
- * Configurable drop counters
- * HW resource monitor
- * NAT
- * LLDP extended MIB
- * SONiC to SONiC upgrade
- * One Image
- * MAC Aging
- * MTU Setting

Security:

- * ACL permit/deny
- * IPv6 ACL
- * Dynamic ACL Upgrade
- * TACACS+
- * Egress mirroring and ACL action support
- * Egress shaping (port, queue)

Data Center:

- * Priority Flow Control
- ** PFC WD
- ** Asymmetric PFC
- ** PFC Watermark
- * Tunnel Decap
- * L3 VXLAN
- * BGP-EVPN support(type 5)
- * EVPN/VXLAN
- * Dynamic headroom calculation (RoCEv2)
- * Dynamic policy based hashing for NVGRE/VxLAN packets

Intel Tofino – Aurora 610/710/750

Layer 2:

- * LLDP
- Link aggregation:
 - * LAG 802.3ad with LACP
 - * LACP Fallback
 - * MC-LAG (L2) VLAN:
 - * IEEE 802.1Q
 - * Port-based
 - * Vlan Trunk

Layer 3:

- * FRR as default routing stack
- * BGP
 - ** BGP Graceful restart helper
 - ** BGP MP
 - ** FRR BGP NBI
 - ** BGP/Neighbor-down fib-accelerate
 - ** IPv6 Link Local and BGP Unnumbered
- * ECMP
 - ** Consistent ECMP (fine grain ECMP)
- * Proxy ARP
- * Mgmt VRF
- * VRF
- * L3 RIF counter support
- * SONiC for MPLS Dataplane

QoS:

- * QoS - ECN
- * QoS - RDMA
- * WRED
- * COS

Management:

- * Standard Linux shell tools
- * Linux application integration
- * Industry standard CLI
- * CLI filtering
- * Telnet/SSH
- * SNMP
- * Warm Reboot
- * Incremental Config (IP, LAG, Port shut/unshut)
- * CoPP Config/Management
- * Streaming telemetry
- * sFlow
- * Syslog
- * Sysdump
- * NTP
- * DHCP Relay Agent
- * Fast Reload
- * Critical Resource Monitoring
- * MAC Aging
- * gRPC
- * Sensor transceiver monitoring
- * Routing Stack Graceful Restart
- * Port breakout
- * Port Mirroring
- * Everflow V2 - IPV4/IPV6 Portion 2.0
- * Sub-port support
- * Configurable drop counters
- * HW resource monitor
- * NAT
- * LLDP extended MIB
- * SONiC to SONiC upgrade
- * One Image

- * MAC Aging
- * MTU Setting

Security:

- * ACL permit/deny
- * IPv6 ACL
- * Dynamic ACL Upgrade
- * TACACS+
- * RADIUS AAA
- * Egress mirroring and ACL action support
- * Egress shaping (port, queue)

Data Center:

- * Priority Flow Control
- ** PFC WD
- ** Asymmetric PFC
- ** PFC Watermark
- * Tunnel Decap
- * L3 VXLAN
- * BGP-EVPN support(type 5)
- * EVPN/VXLAN
- * Dynamic headroom calculation (RoCEv2)
- * Dynamic policy based hashing for NVGRE/VxLAN packets
- * PINS (P4 Integrated Network Stack)



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Thank you.

