

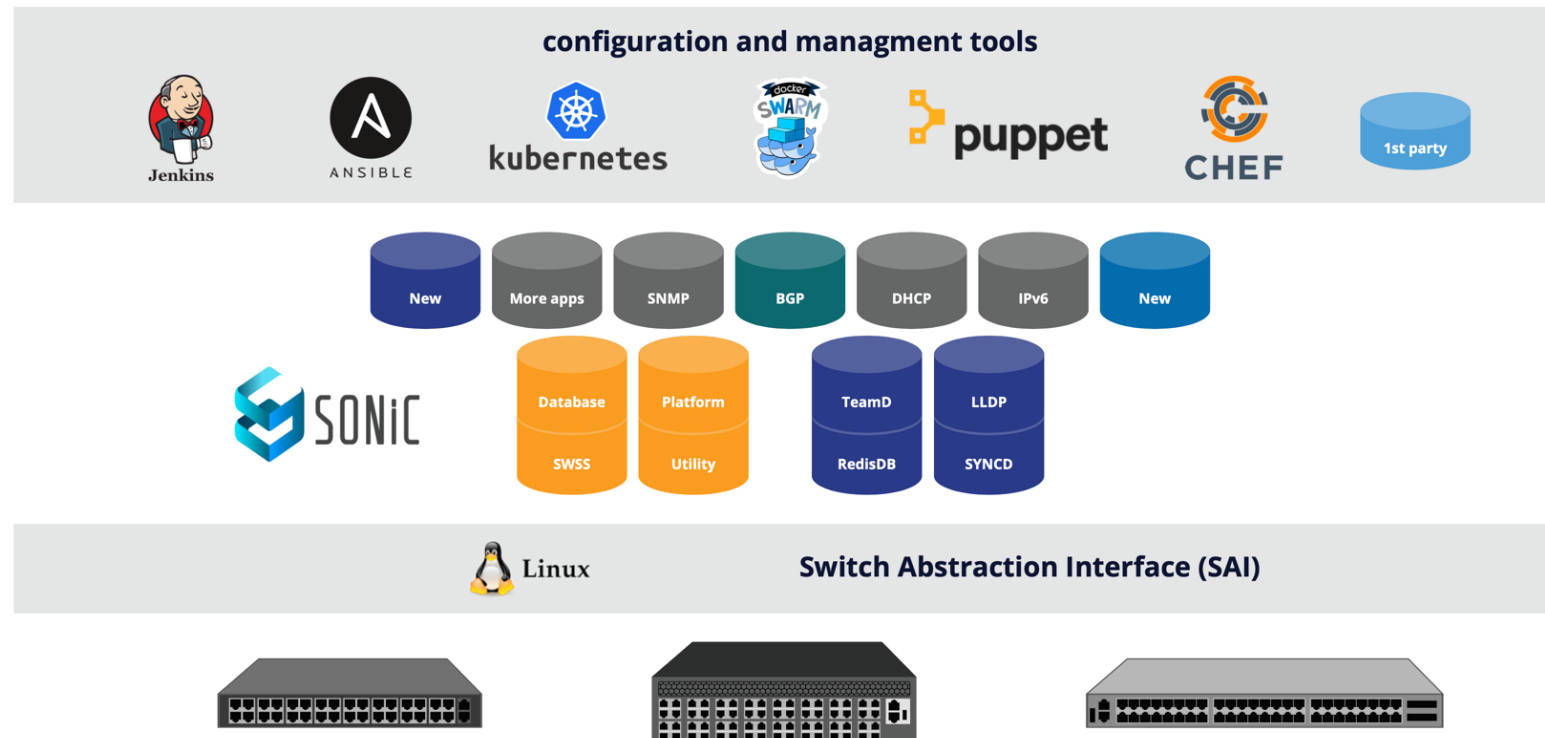
# Netberg SONiC



NETBERG

SONiC is a Linux-based open-source networking operating system with its roots in the open community and Microsoft as an original contributor. It offers teams the flexibility to create the network solutions they need while leveraging the collective strength of a large ecosystem and community.

## SONiC Software for Open Networking in the Cloud



Netberg leverages community SONiC and hardens it into a production-ready NOS, available for platforms ranging from 1G to 400G.

| Code transparency                                                                                     | Regular NOS updates                                                                                  | Bug fixing                                                                                      | Multiple platforms                                                          | Feature velocity                                                                                    |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• SONiC is open source, so is Netberg's contribution.</li></ul> | <ul style="list-style-type: none"><li>• System updates and security patches from upstream.</li></ul> | <ul style="list-style-type: none"><li>• Removing annoyances from the user experience.</li></ul> | <ul style="list-style-type: none"><li>• Broadcom, Intel, Marvell.</li></ul> | <ul style="list-style-type: none"><li>• Keeping up with the SAI support from the vendors.</li></ul> |



Broadcom TD3/4:  
SONiC 202411.n0  
BGP-EVPN  
RoCEv2  
PINS (p4 stack)



Intel Tofino/Tofino2:  
SONiC 202211  
BGP-EVPN  
RoCEv2  
PINS (p4 stack)



Marvell Tera5:  
SONiC 202012  
RoCEv2

# Netberg SONiC 202411.n0

## Layer 2:

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

## Layer 3:

- \* BGP
  - \*\* BGP Graceful restart helper
  - \*\* BGP Graceful restart
  - \*\* BGP Unnumbered
  - \*\* BGP EVPN
- \* ECMP
  - \*\* Consistent ECMP (fine grain ECMP)
  - \*\* Coarse-grained ECMP
- \* WCMP
- \* VRF
  - \*\* VRF route leaking
- \* IPv6
- \* EVPN/VXLAN
- \* OSPF v2
- \* BFD
- \* Static routing

- \* Subport
- \* MC-LAG (L3)
- \* Proxy ARP

## QoS:

- \* Buffer profiles
- \* ECN
- \* WRED
- \* COS
- \*\* DSCP
- \*\* ACL
- \*\* IPv6 ACL
- \* Marking DSCP
- \* Diffserv
- \* PFC/ AsymPFC
- \* PFC Watchdog (WD)
- \* PFC Watermark
- \* Scheduling
- \* Shaping (Port, Queue)

## Security:

- \* CoPP (Control Plane Policing)
- \* ACL Permit/Deny
- \* IPv6 ACL
- \* MAC ACL
- \* Control Plane ACL
- \* AAA

## System/Management:

- \* Standard Linux shell tools

- \* Linux application integration
- \* SNMP
- \* Syslog
- \* NTP
- \* DHCP/DHCPv6 Relay
- \* Sysdump
- \* SONiC image management
- \* Fast Reload
- \* Warm reboot
- \* Platform/thermal monitor
- \* Transceiver monitor
- \* DOM Optics Data
- \* gRPC
- \* Feature Control
- \* Open SSH/SCP/SFTP
- \* Critical Resource Monitoring (CRM)
- \* Management VRF
- \* Mirroring (Everflow/ERSPAN/SPAN)
- \* Port speed, FEC, MTU
- \* Dynamic Port Breakout (DPB)
- \* Auto Negotiation/ Link Training
- \* Telemetry
- \* sFlow
- \* Drop Counters
- \* SSD diagnostics
- \* NAT
- \* ZTP
- \* Container Warm Restart
- \* Log Levels

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# Netberg SONiC 202012

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**Thank you.**