Open. Together.

OCP GLOBAL SUMMIT
Dave Maltz
Distinguished Engineer, Azure Networking
Microsoft Corporation
SONiC/SAI
And Its Rapid Growing Ecosystem

David A. Maltz
Distinguished Engineer
Microsoft Azure Networking
Running cloud scale is challenging.

Control  Extensibility  Agility  Collaboration
SONiC  Software for Open Networking in the Cloud

configuration and management tools

Jenkins
Ansible
kubernetes
SWARM
Puppet
Chef

New
More apps
SNMP
BGP
DHCP
IPv6
New

New
Database
Platform
TeamD
LLDP
RedisDB
SYNCD
SWSS
Utility

Linux

Switch Abstraction Interface (SAI)

Open. Together.
OCP ecosystem enriched by SONiC

- Switch ASICs: SAI compatible
- Network Hardware: OCP approved
- Base OS installer: ONIE, ONL
- Solution Provider
- SW components
- 3rd party module
- Build Your Own application

Open. Together.
3 releases/year
120~250 commits/month
841 community members
202 active code contributors
68 supported platform

Community members
Supporting platforms

Active Community posts
Commits/Month
Asymmetric PFC
Warm Reboot
BGP Graceful Restart
ACL
VLAN
COPP
TACACS
LAG
FIB Acceleration
Asymmetric PFC
FRR
PFC Watermark
PMON
BGP EVPN
Warm Reboot
gRPC
L3 VRF & VxLAN
BGP MP
Fast Reboot
ConfigDB
MAC Aging
Tunnel Decap
IPv4/IPv6
DHCP Replay
WRED
Mirroring
NTP
Flow Control
QoS
Vlan Trunk
LLDP
Syslog
SNMP
BGP

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ODCC (Open Data Center Committee) - China

Phoenix Project (凤凰项目)
- SONiC Phoenix release for white box switch
- Interoperability test certification
- Build open source management tooling on top of SONiC Phonix release
- Founding members: Alibaba group, Tencent, Baidu, China Mobile, China Unicom, and JD.com
- Building block for Tencent open DCN Networking
- Will deploy SONiC to POD and Fabric
- Adding INT, NETsense, MOD, Tencent NOC for DC operation
- 2019 OCP Tech Day talk
- Building block for a flexible datacenter infrastructure
- SONiC complements Open19 ecosystem
- Deployed in 40% data centers
- Vision: 100% switches running on SONiC
- Enhancements Contributed
  - FRR integration
  - IPv6 ACL
  - FIB-acceleration
  - Warm reboot collaboration
  - Leading security process
Building block for fast evolution, high reliability, operation cost reduction

- Deployed to 44 regions
- Firmware upgrade up to thousands of switches per day
- High fidelity emulation tool—ONE for configuration validation
- Feature release reduced from months to weeks

Looking forward

- Inside data center all on SONiC
- Extending to management network, WAN, and other roles
An Open invitation
Inviting contributions in all areas

Download it, test it and use it!

- SONiC/SAI
- Hardware platform
- New features, tests, applications and tools

Website:  https://azure.github.io/SONiC/
Mailing list: sonicproject@googlegroups.com
Source code: https://github.com/Azure/SONiC/blob/gh-pages/sourcecode.md
Wiki: https://github.com/Azure/SONiC/wiki
      https://www.opencompute.org/wiki/Networking/SONiC