SONIC partners

Monitoring, Management, Deployment Tools, Cutting Edge SDN

Application, management, tools
- Arista
- Canonical
- Docker
- Mellanox Technologies
- MetaSwitch
- Microsoft

Switch Platform
- Arista
- Dell
- Edge-Core Networks
- Infrasys
- Facebook
- Mellanox

Merchant Silicon
- Barefoot Networks
- Cavium
- Nephos
- Marvell
- Broadcom
- Centec Networks
- Mellanox Technologies
Motivation for SONIC SoftSwitch

- HW agnostic
  - When introducing a new feature how we make sure that it is HW agnostic
- Debugability
  - Using Logs
  - Packet Trace
  - ...
- Reduce R&D cost
  - build complex topology's
  - No need HW platform
- Testability
  - Provide automated conformance test
Solution overview - SAI SoftSwitch

https://github.com/Mellanox/SAI-P4-BM

- Functional Soft Switch with SAI interface.
- Tables, Action, control flows are aligned to SAI viso docs.
  https://github.com/opencomputeproject/SAI/tree/master/doc/behavioral%20model
- Based on p4-16
SAI SoftSwitch integration with SONIC

https://github.com/Azure/SONiC/wiki/SONiC-P4-Software-Switch

- SONiC-P4 is a software switch that runs on the P4-emulated SAI behavioral model
- It uses the sai_bm.p4 to program the P4-emulated switch ASIC to emulate the data plane behavior.
- On top of that, it runs the SONiC network stack.
- The current SONiC-P4 is released as a docker image.
SONIC SoftSwitch status

- Help!
  We are looking for contributors...