

# SONiC partners

Application,  
management,  
tools

## Monitoring, Management, Deployment Tools, Cutting Edge SDN

ARISTA



docker



metaswitch

CANONICAL



Switch Platform

## SONiC

ARISTA



Edge-core  
NETWORKS

ingrasys



Merchant  
Silicon

## Switch Abstraction Interface (SAI)

BAREFOOT  
NETWORKS



Nephos

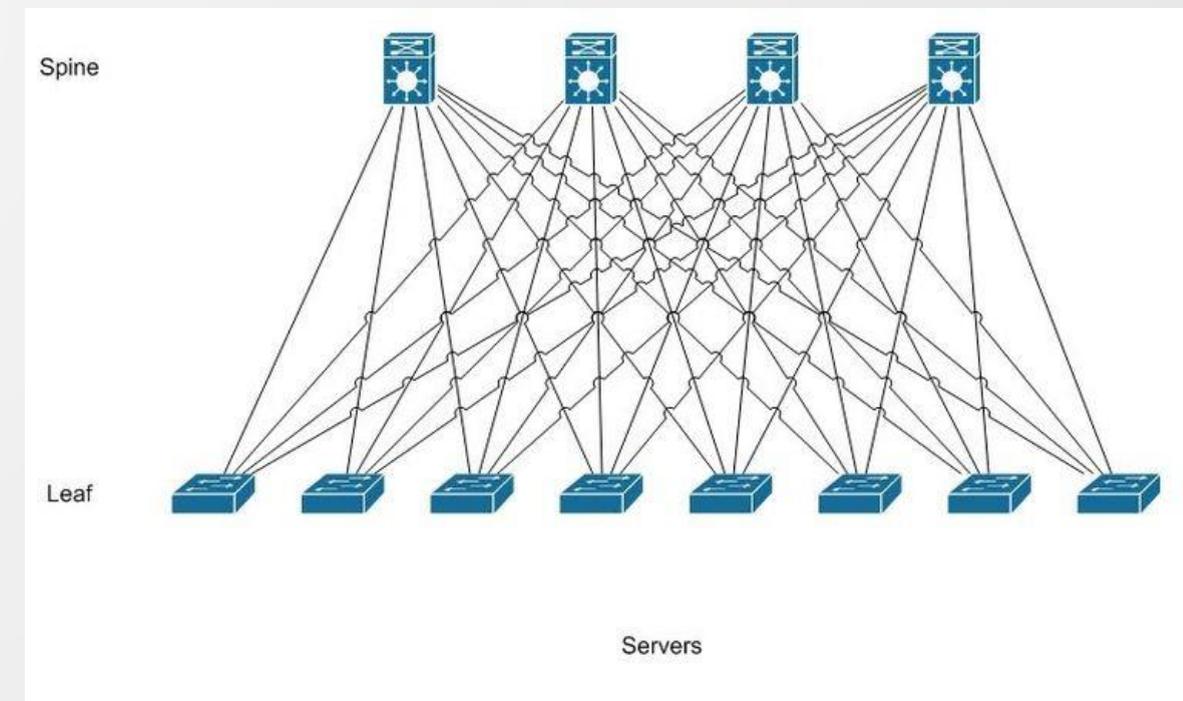


BROADCOM



# Motivation for SONiC SoftSwitch

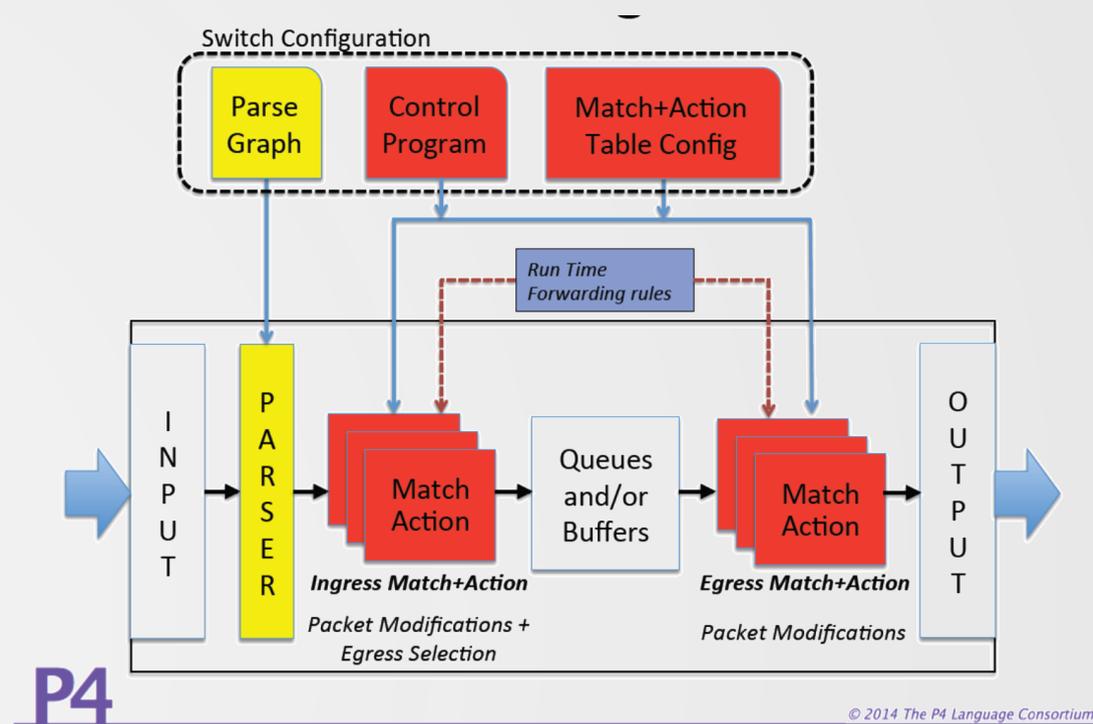
- HW agnostic
  - When introducing a new feature how we make sure that it is HW agnostic
- Debugability
  - Using Logs
  - Packet Trace
  - ...
- Reduce R&D cost
  - build complex topology's
  - No need HW platform
- Testability
  - Provide automated conformance test



# 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

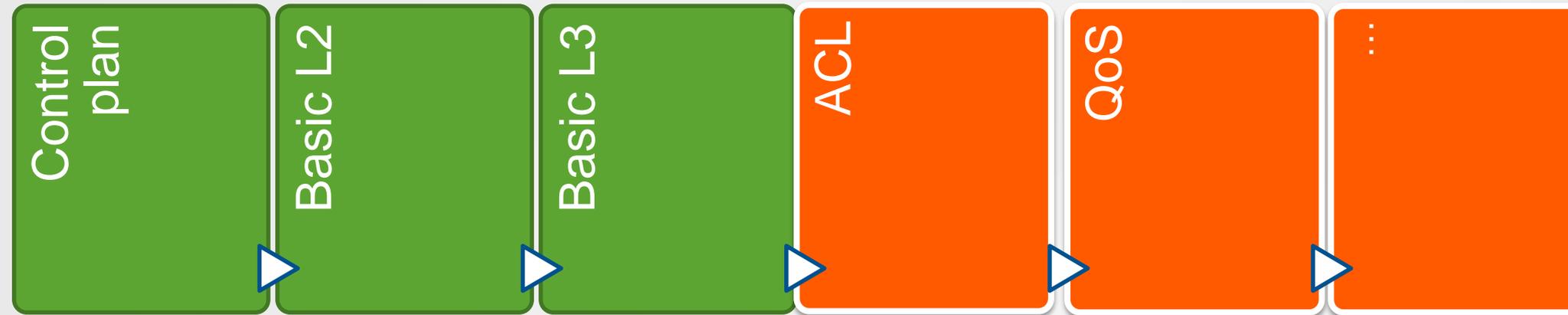


# SAI SoftSwitch integration with SONiC

<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...

