Barefoot Networks
Wedge 100B Series

OCP Networking Project Call
February 13, 2017
Barefoot Tofino™

- 6.5 Tb/s P4-programmable Ethernet Switch
- Port Configurations
  - 65x100GE/40GE
  - 130x50GE
  - 260x10/25GE
- Open Forwarding Plane Program
  - switch.p4
- CPU Interface
  - PCIe Gen3 x4
Tofino and P4™

**Performance:**
At 6.5Tb/s Tofino is the fastest switch chip in the world.

**Cost:**
Price and Power - same as fixed-function chips.

**Programmability:**
Easy to program using P4 programming language.
Wedge 100B Series

• Two platforms – 1RU 32x100GE & 2RU 65x100GE

• Derived from Wedge 100

• Includes several cost and quality enhancements

• User-programmable forwarding plane using P4
Wedge 100BF-32X
Wedge 100BF-32X
Wedge 100

Wedge 100BF-32X

1x5 fans-tray
PSU #2
Fan_ctrl and RackMon card
Fan_ctrl card cable
M.2 128Gbyte SSD
Mavericks-32 main board
2x16 QSFP28 ports
LED selection button and status LED
Debug connector

RackMon 2x2 RJ45 I/F
PSU #1
COM-Express CPU module
Air baffle
M.2 128Gbyte SSD
Fan_ctrl and RackMon card
Fan_ctrl card cable
1: BMC console
2: OOB Ethernet

Type-A USB
BMC console OOB Ethernet
Debug connector
LED selection button and status LED
2x16 QSFP28 ports
M.2 128Gbyte SSD
Mavericks-32 main board
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Wedge 100BF-65X
Wedge 100BF-65X

- Tofino ASIC
- RackMon 2x2 RJ45 I/F
- COM-Express CPU module
- Mavericks-64 top board
- Air baffle
- Mavericks-64 bottom board
- Mezzanine Connector
- 4x16 QSFP28 ports
- 65th QSFP28 port
- Type-A USB BMC console OOB Ethernet
- Fan_ctrl card cable
- PSUs #1 and #2
- Fan_ctrl and RackMon card
- 2x5 fans
- M.2 128Gbyte SSD
- LED selection button and status LED
- Debug connector
CPU & BMC

• CPU
  • Modular COM Express Type 6
  • PCIe Gen2/3 x4
  • Intel Xeon D-1517
    • 4 Core@2.2GHz
    • 8GB DDR4 SDRAM
    • 128GB M.2 SSD

• BMC
  • Aspeed AST1250A1-GP
  • 400MHz
Thank you!