Apstra Corporate Update

- Fortune 500 Customers
- 100+ employees and growing
- Global sales and support coverage (24/7)

- The world’s most advanced automated interoperability testing methodology

- Running over 15M vendor interoperability tests per day on 600+ network topologies with Arista, Cisco, Juniper, Cumulus, SONiC, Dell, Edgecore, Mellanox, Quanta, Celestica

- The industry’s leading Intent-Based Networking company
Digital Transformation requires **Infrastructure Transformation**

**Gartner**

“Through 2021, organizations that fail to adjust network funding and operational practices will be three times more likely to fail in their digital business transformation”

The cost of failure is **prohibitive**

- **88%** 1954 Fortune 500 Companies that don’t exist in 2014
- **52%** 2000 Fortune 500 Companies that don’t exist in 2014
- **75y→15y** Life expectancy of a F500 firm in 1954 versus today
Digital Transformation requires **Infrastructure Transformation**

- **Business Agility**
  - Powerful Automation

- **Application Reliability**
  - Distributed Centers of Data

- **Control Costs**
  - Hybrid & Multi-Cloud
  - Multi-Vendor & Agnostic

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Infrastructure Transformation starts with **Infrastructure Services**

- **Business Applications**
- **Infrastructure Service Layer**
  - Multi Workload
  - Multi Cloud
  - Multi Domain
- **Software**
  - Edge
  - Private Cloud
  - Private Cloud
  - Campus

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Yet, most organizations are **Hardware Centric**

**Business Applications**

**Infrastructure Service Layer Software**

- Multi Workload
- Multi Cloud
- Multi Domain

**Software**

- Edge
- Private Cloud

**MOST ORGANIZATIONS**

START HERE!
Transformation from Hardware First to Software First
Requires sophisticated software that abstracts out complexity and provides full automation
Software Centric Infrastructure Requires **Intent-Based Networking**

INTENT

**LEVEL 0**
- Basic Automation

**LEVEL 1**
- Single Source of Truth

**LEVEL 2**
- Real-time Change Validation

**LEVEL 3**
- Self-Operation
AOS 3.2 Feature Announcements

1. Intent Time Voyager

1. Scale Out (DCI, 5 Stage Enhancements, Flexible Fabric)

1. SONiC NOS Enhancements

1. Service-Oriented Dashboards (Intent-Based)
Intent Time Voyager

AOS creates a snapshot of the entire network configuration for every committed change.

Administrator can store up to 5 snapshots of known-good configurations.

The entire network can be restored to any particular snapshot with 3 clicks.

This includes potentially changing hundreds of devices as well as monitoring of all network services.
Scale Out - Data Center Interconnect (DCI)

Why:
- Customers want to mirror services between geographically diverse data centers, exchanging virtual (overlay) network workload reachability
- Customers want to migrate services and apps from existing or legacy to NG-DC
- COOP / Disaster Recovery

- Unified EVPN control plane for VXLAN reachability
- Support for Active/Active datacenters
- Effective handling for Broadcast/Unknown/Multicast (BUM) traffic
Scale Out - 5 Stage Clos Enhancements

**Why:** Simple capacity addition workflow

**How:** Administrators can add new pods or racks to existing pods

5 Stage Clos now supports EVPN between Pods for unified Layer-2 overlay

SONiC NOS devices now supported as Superspine
Why: Customers want more flexibility for architecture

- Support for direct modifications to a deployed network
- Change port speeds from intended to desired (i.e. 40G change to 10G)
- Change port roles on existing ports
- Move external router connections
- Move MLAG peer links

All changes result in modification to Intent in the Graph Datastore, so telemetry, monitoring, and IBA probes all continue to work properly.
SONiC NOS Enhancements
A free Apstra supported OCP NOS for all network roles

AOS supports SONiC devices as Leaf/Spine/Superspine

Apstra supports SONiC devices within an AOS managed fabric
- First class citizen, along with other established vendors
- Apstra 24/7 Support

Massive functionality enhancements due in SONiC.202006
AOS automatically creates dashboards and widgets to monitor new services, with no additional user effort

Examples:
1. Connecting to a vSphere environment in AOS automatically creates system checks and visualizations for VMW virtual network configuration assurance
2. Enabling EVPN automatically enables complex route telemetry to ensure overlay routing is accurate on all devices
3. Enabling L2 redundancy (MLAG) for servers activates the MLAG and ECMP load distribution checks
Thank You