



# AOS 3.2

Press/Analyst Briefing

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# 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



apstra

# Digital Transformation requires **Infrastructure Transformation**

**Gartner**<sup>®</sup>

*“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**

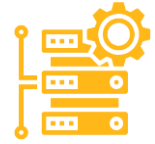


**Distributed Centers  
of Data**

**Control Costs**

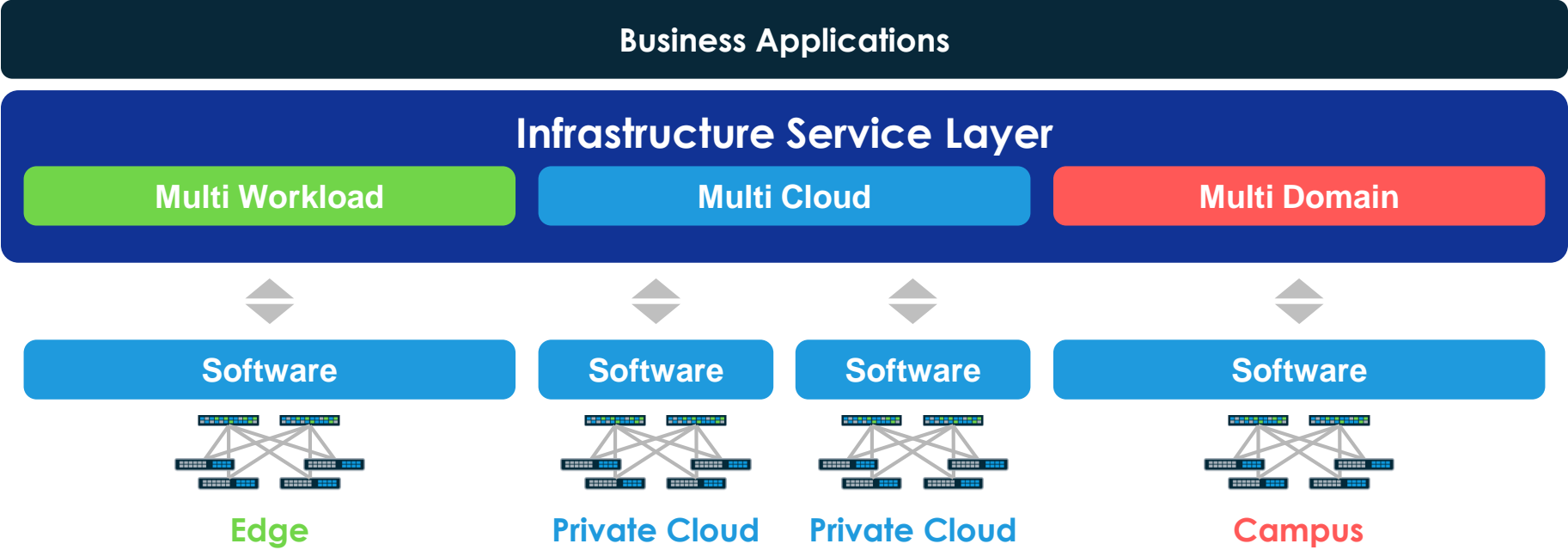


**Hybrid &  
Multi-Cloud**

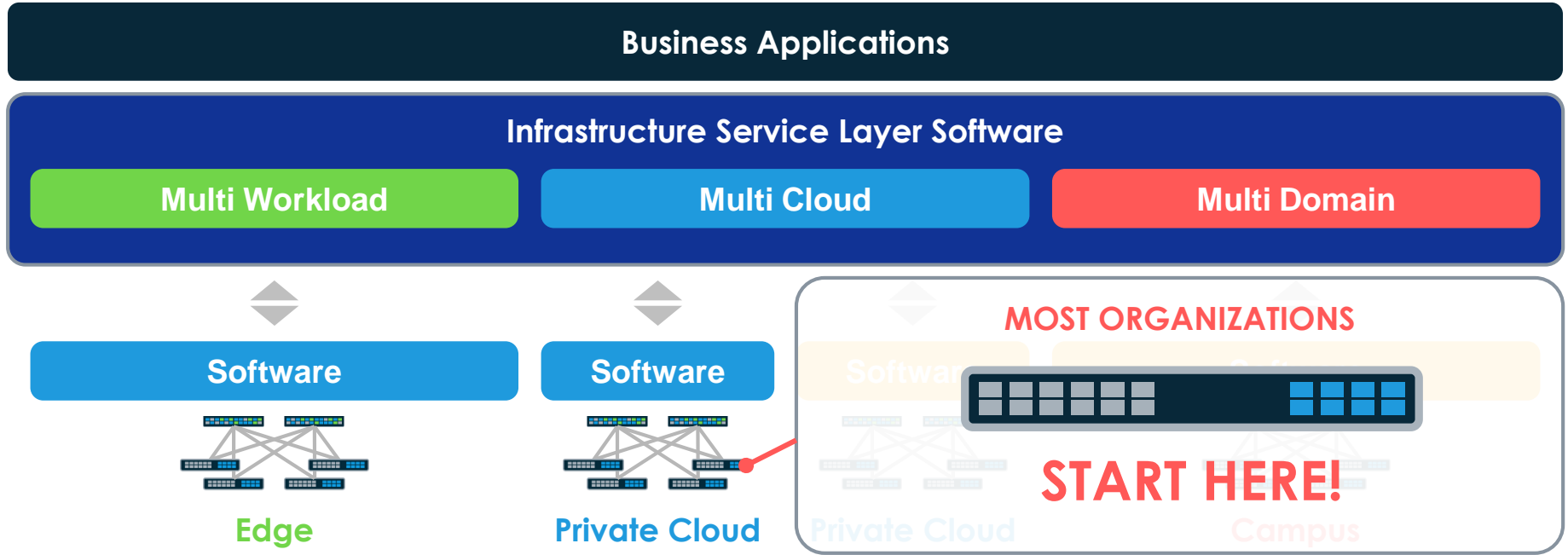


**Multi-Vendor  
& Agnostic**

# Infrastructure Transformation starts with **Infrastructure Services**

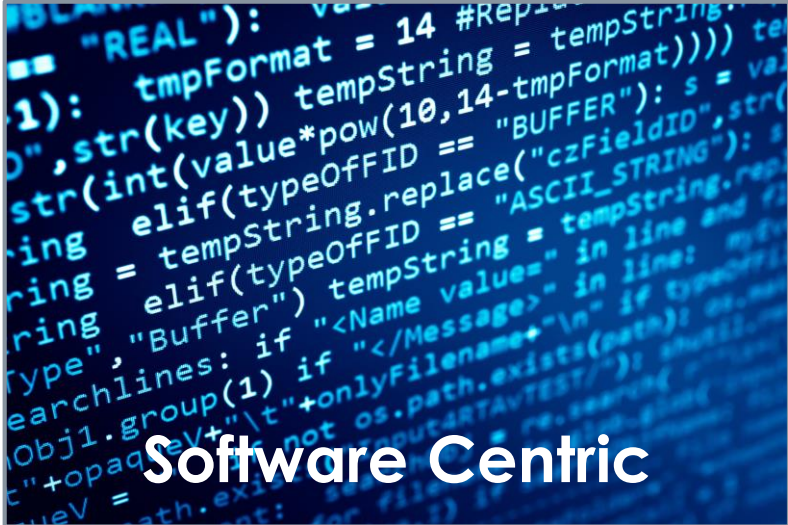
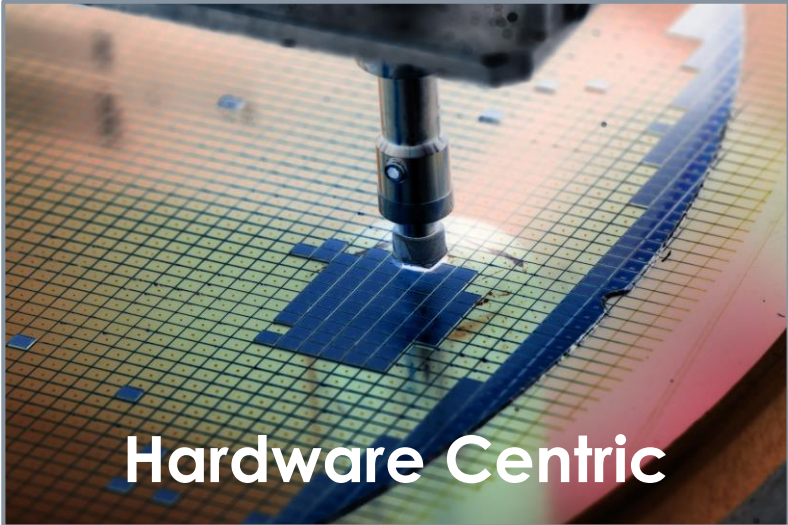


# Yet, most organizations are **Hardware Centric**

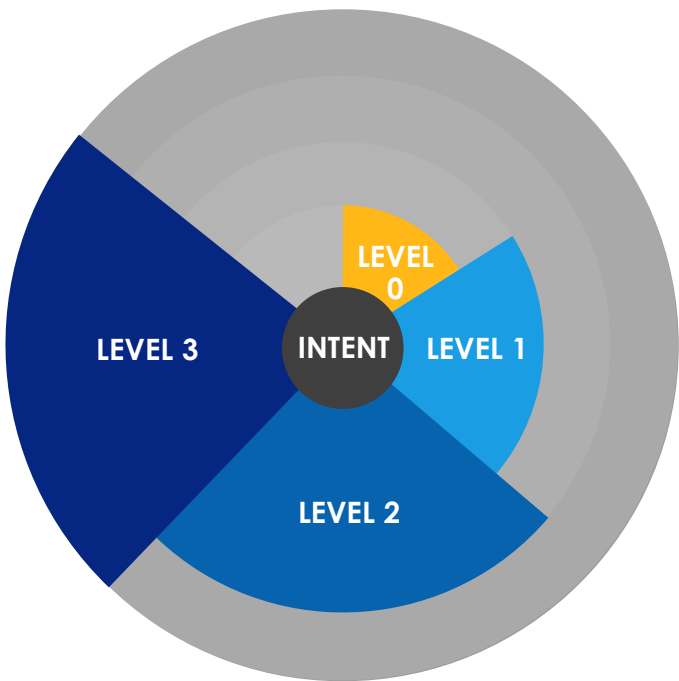


# Transformation from Hardware First to Software First

Requires sophisticated software that abstracts out complexity and provides full automation



# Software Centric Infrastructure Requires *Intent-Based Networking*



## Level 3

Self-Operation

## Level 2

Real-time Change Validation

## Level 1

Single Source of Truth

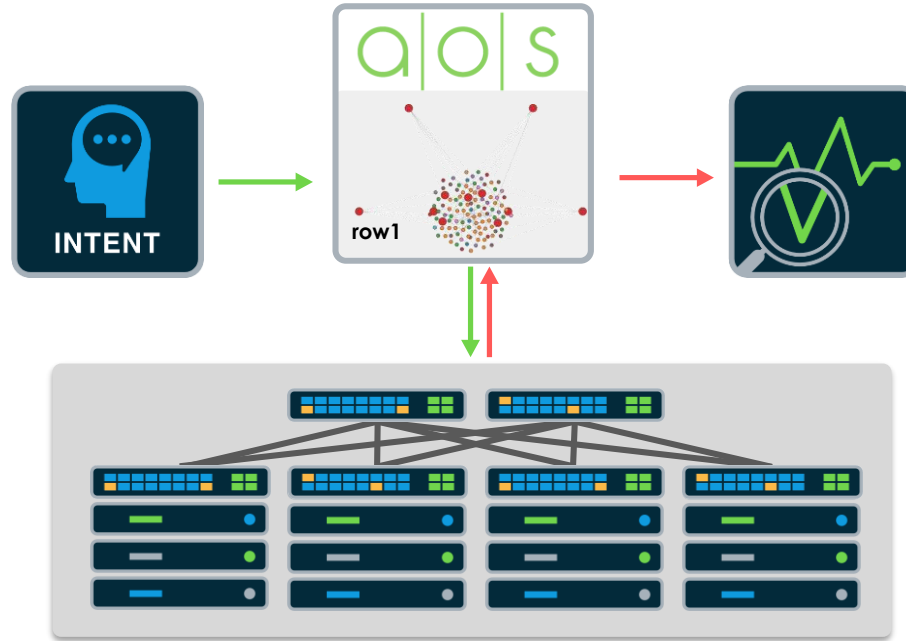
## Level 0

Basic Automation



# Apstra AOS®

Intent-Based • Closed-Loop • Multi-Vendor



ARISTA

CISCO

CUMULUS

DELL EMC

Hewlett Packard  
Enterprise

JUNIPER  
NETWORKS

Mellanox  
TECHNOLOGIES

SONIC

Open  
Switch

# 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)

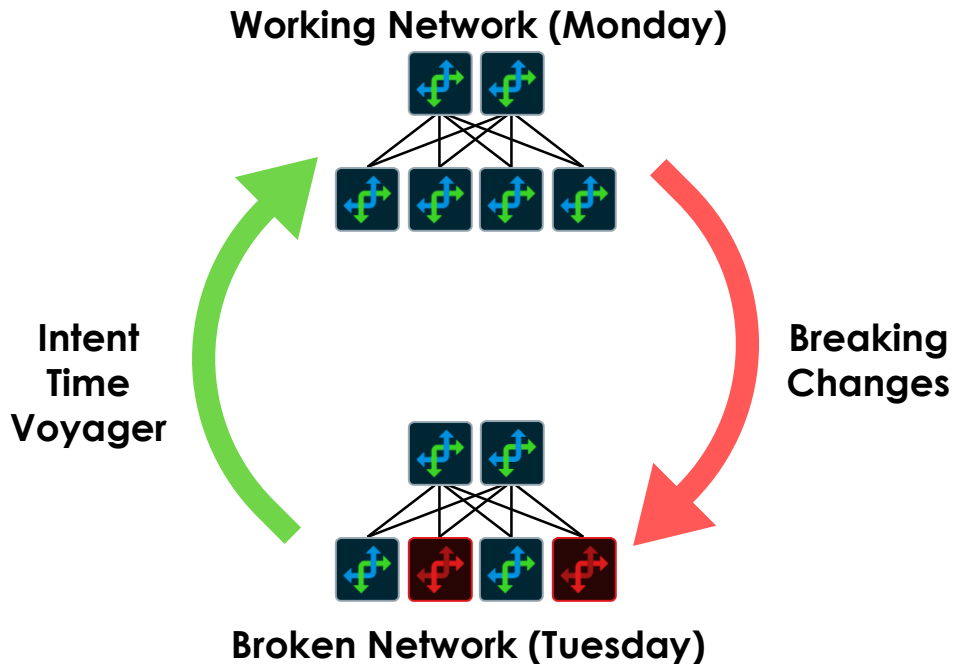
# Intent Time Voyager

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**.

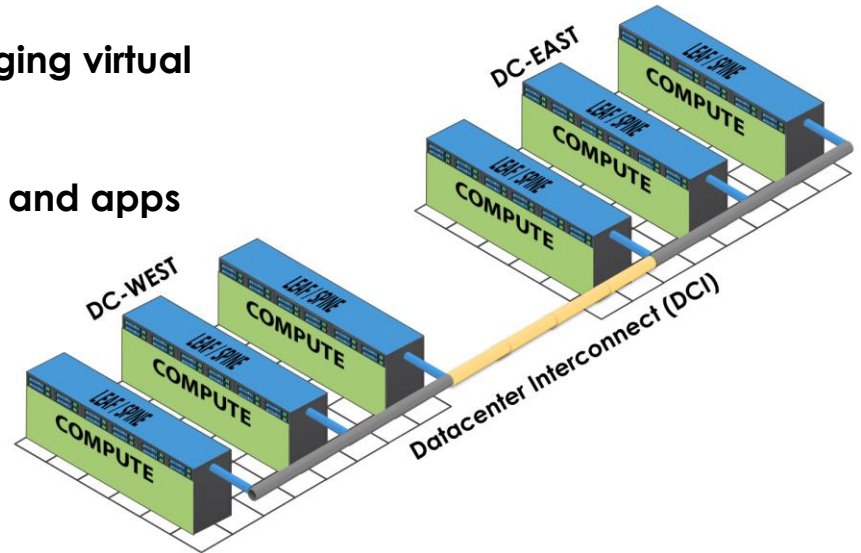
This includes potentially changing hundreds of devices as well as monitoring of all network services.



# Scale Out - Data Center Interconnect (DCI)

## Why:

- Customers want to mirror services between geographically diverse data centers, exchanging virtual (overlay) network workload reachability
- Customer want to migrate migrations 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



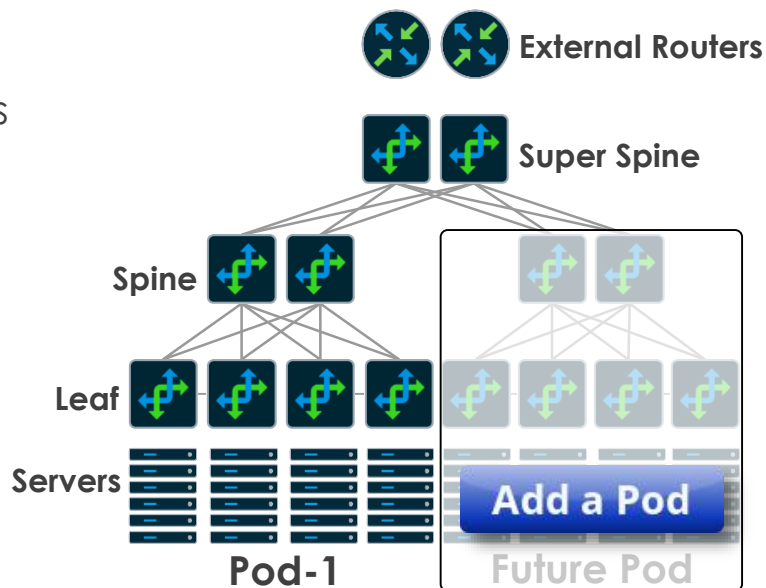
# Scale Out - 5 Stage Clos Enhancements

**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 Superspines



# Scale Out & Operations Ease - Flexible Fabric

## 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

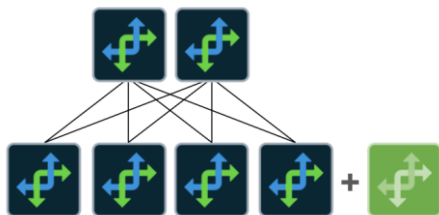
**Massive** functionality enhancements due in SONiC.202006

# Intent-Based Dashboards - Overview

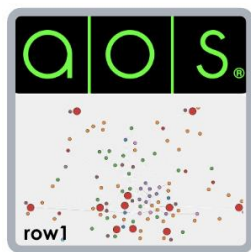
**AOS automatically creates dashboards and widgets to monitor new services, with no additional user effort**

## 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



MLAG Rack Added



Change to Intent



New Probes, Widgets,  
Dashboards Activated





**Thank You**



# Appendix