



The bridge to possible

Cisco Nexus Dashboard Data Broker

Gain Scalable, Deep Visibility into Network Traffic

Sunil Gudurvalmiki

Director, Product Management, Data Center Networking

Cisco Webex App

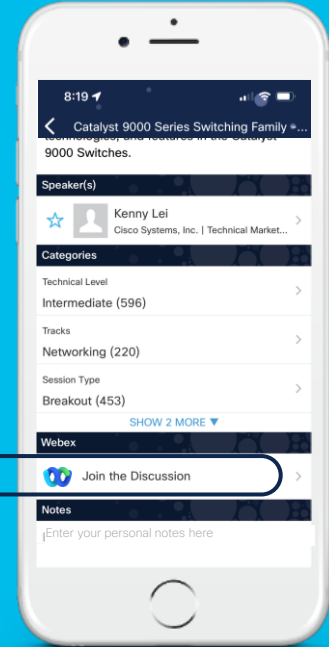
Questions?

Use Cisco Webex App to chat with the speaker after the session

How

- 1 Find this session in the Cisco Live Mobile App
- 2 Click “Join the Discussion”
- 3 Install the Webex App or go directly to the Webex space
- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated until February 24, 2023.



Data Broker Team / Contacts



Sreenivas Rao
Product Manager
sharirao@cisco.com



Mallikarjuna Rao
Mudigonda
Technical Marketing
Engineer
mudrao@cisco.com



Agenda

- Advantages of Packet Brokering
- Limitations of Conventional Solutions
- Nexus Dashboard Data Broker Overview
- User Interface Demonstration
- Closing Comments

Advantages of Packet Brokering



Increase network security



Verify compliance



Improve network troubleshooting



Visibility into capacity planning

Limitations of Conventional Solutions



Scale out becomes increasingly complex



Brokering rules are static




Different hardware to manage



Higher bandwidth options are expensive

Introducing Nexus Dashboard Data Broker (NDDDB)





*How can we create a brokering
solution that will handle speeds
from the DC?*

Use the same switches that are in the DC!

Nexus Dashboard Data Broker Components

9300 Series
FX/FX2/FX3/GX

9500 Series

3000 Series

3500 Series



Cisco Nexus Switches



NDDDB Controller

Controller Deployment Options

VM

- Install on any Linux distribution
- Flexible deployment

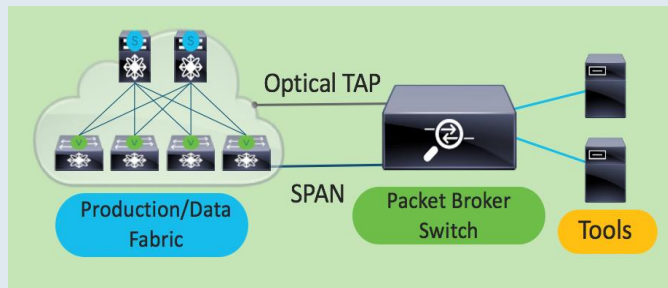
Nexus Dashboard

- App on DC App Center
- Install on Nexus Dashboard

Monitoring Categories



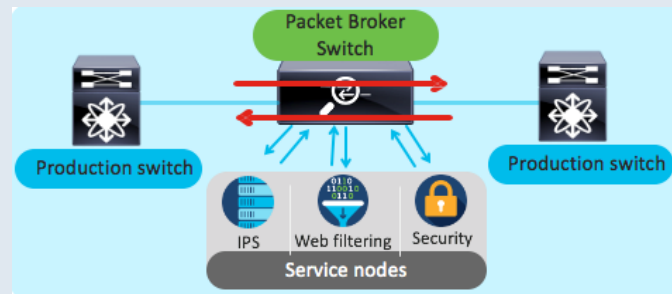
Out-Of-Band Monitoring



- Non-intrusive, production traffic not interrupted
- Use TAP or SPAN to receive a copy of the packet
- Filter and forward traffic to tools for analysis



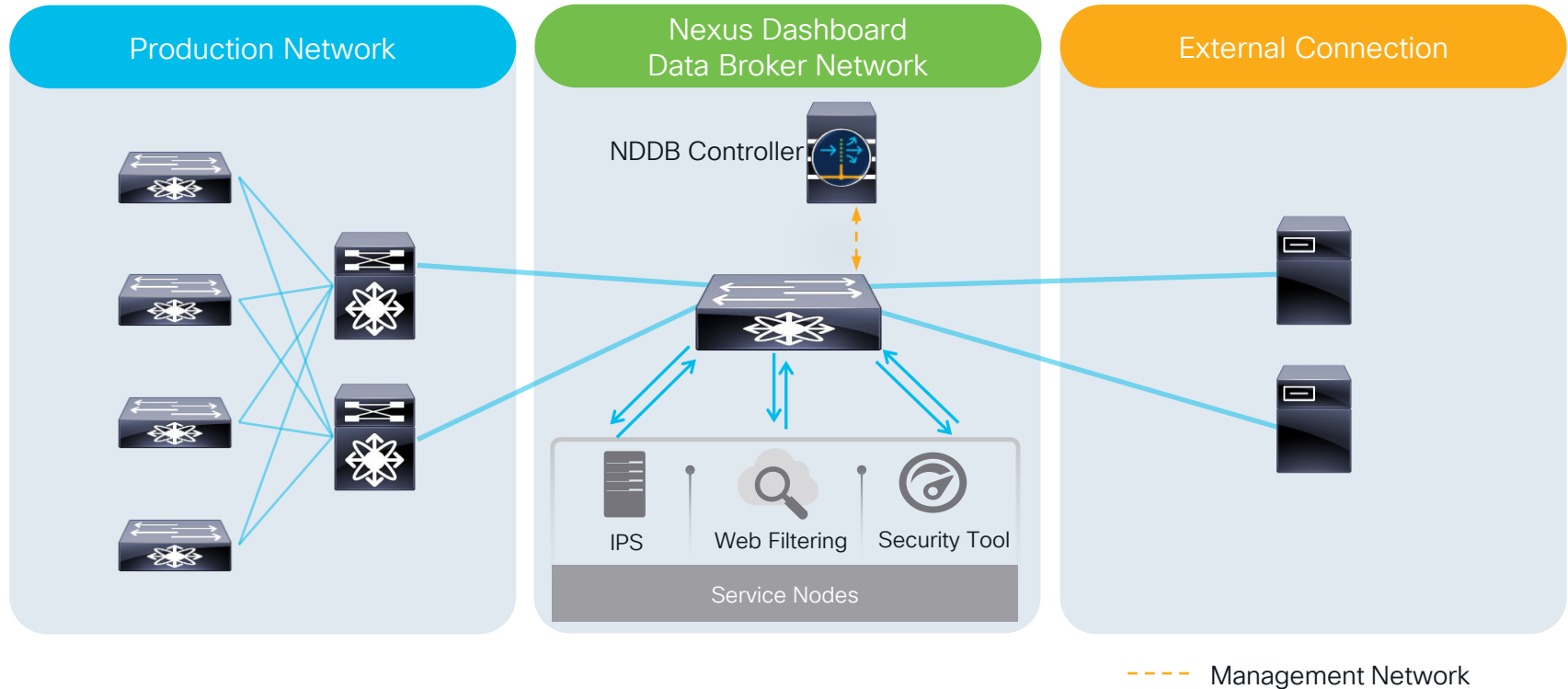
In-Band / Inline Monitoring



- Intrusive, in the path of production traffic
- Each tool processes the packet sequentially
- Production traffic is impacted, tools may decide to drop the packets

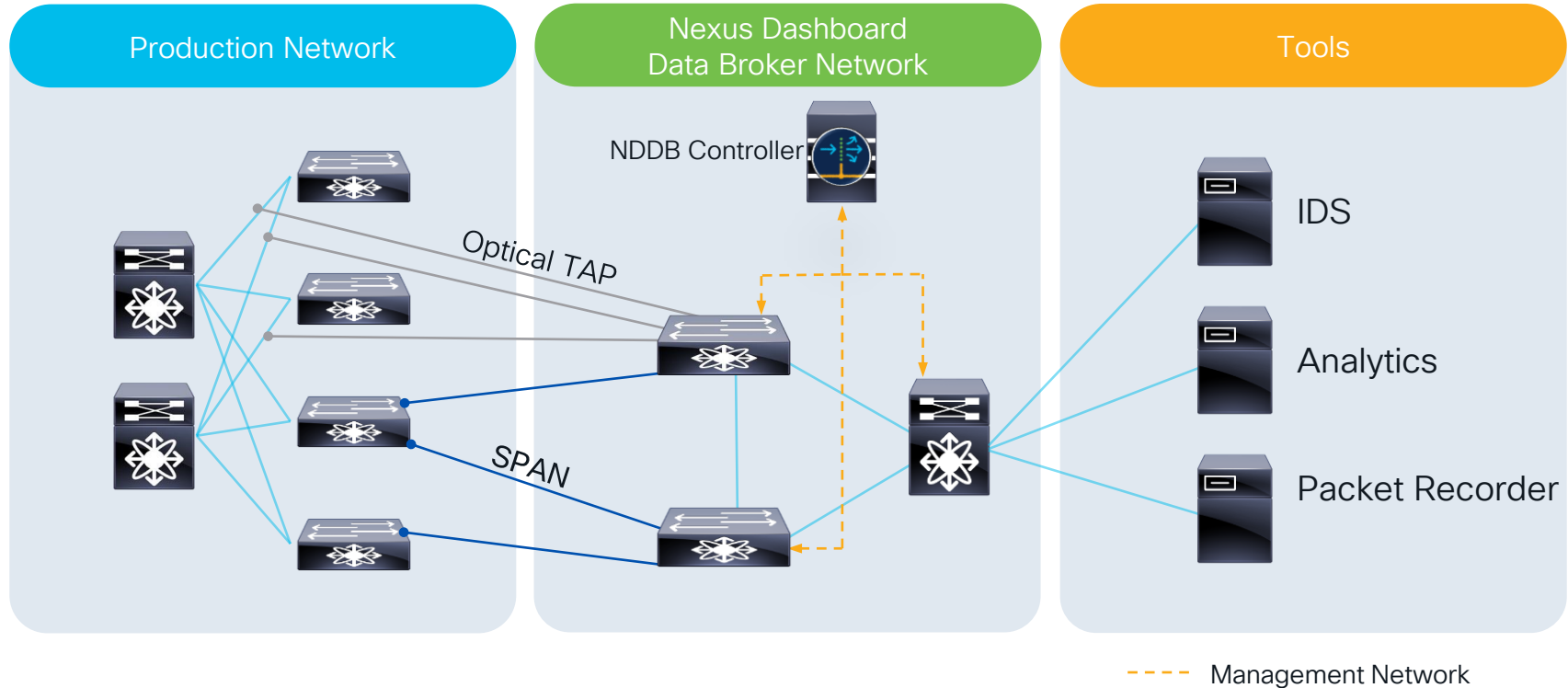
NDDDB Implementation

Inline Deployment



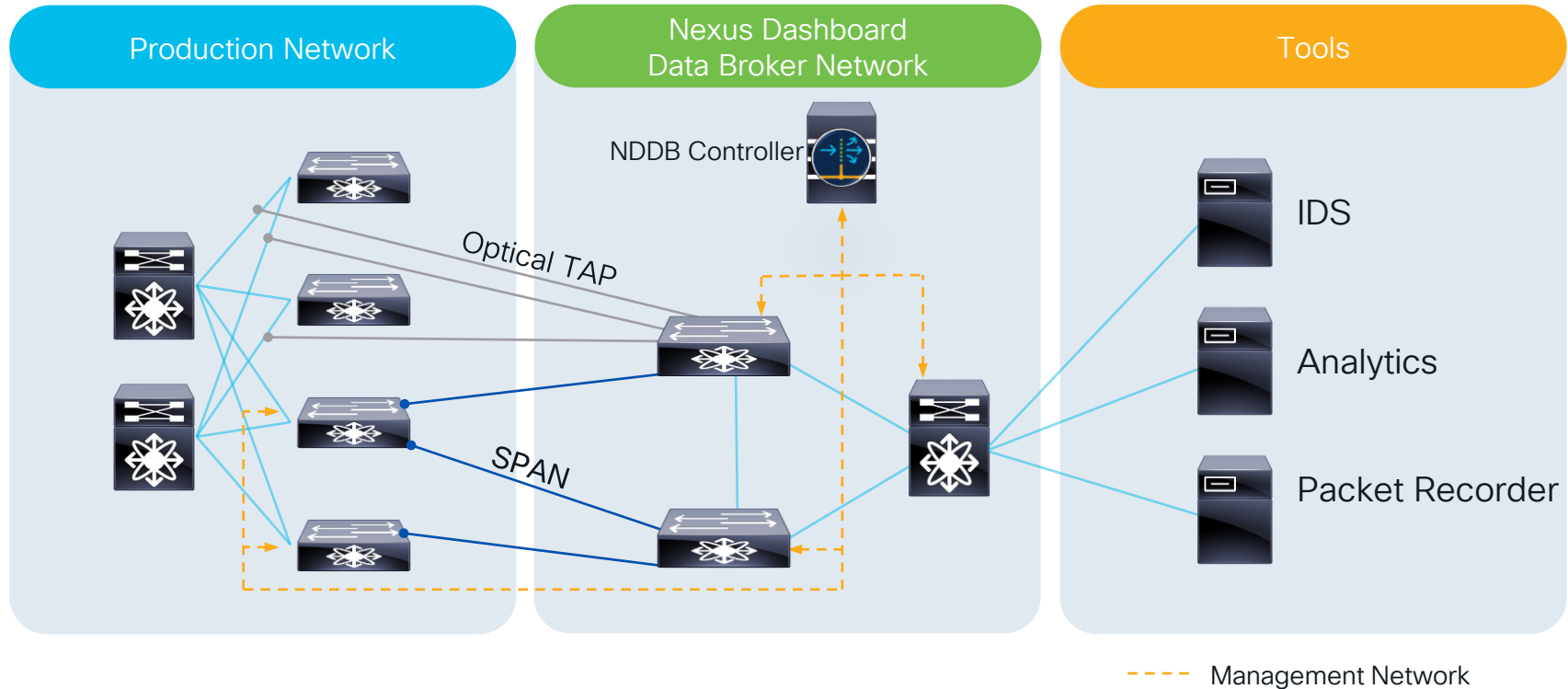
NDDB Implementation

Vendor Agnostic



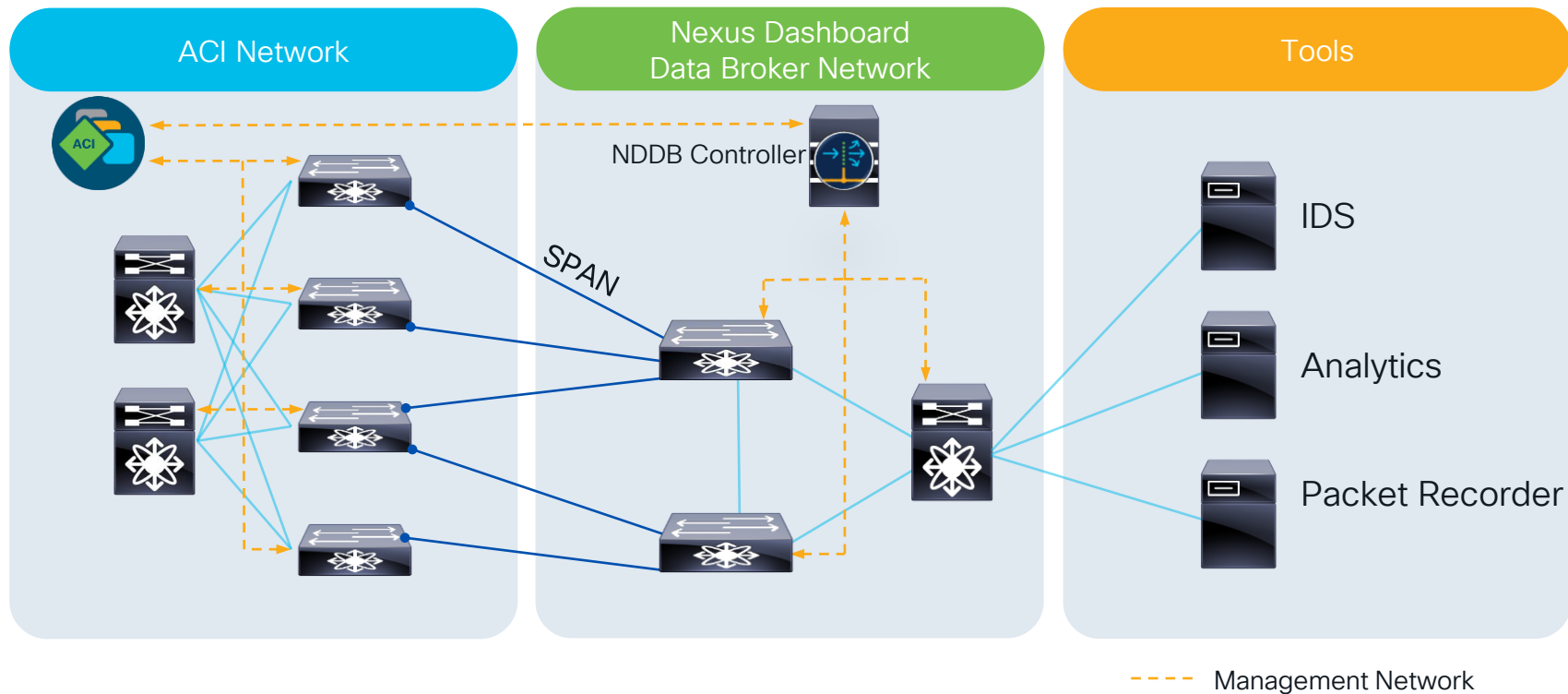
NDDDB Implementation

Cisco Network



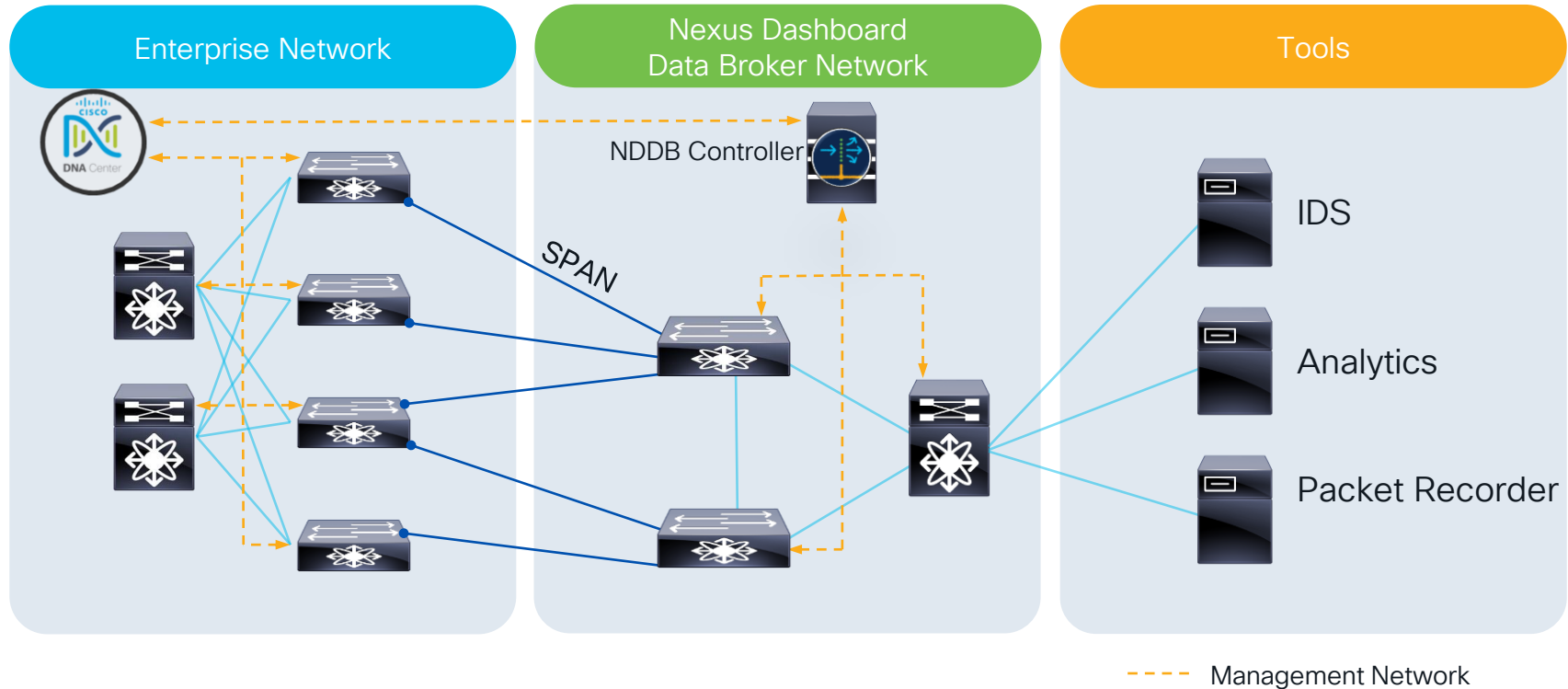
ACI SPAN Automation

Onboard APIC Controllers



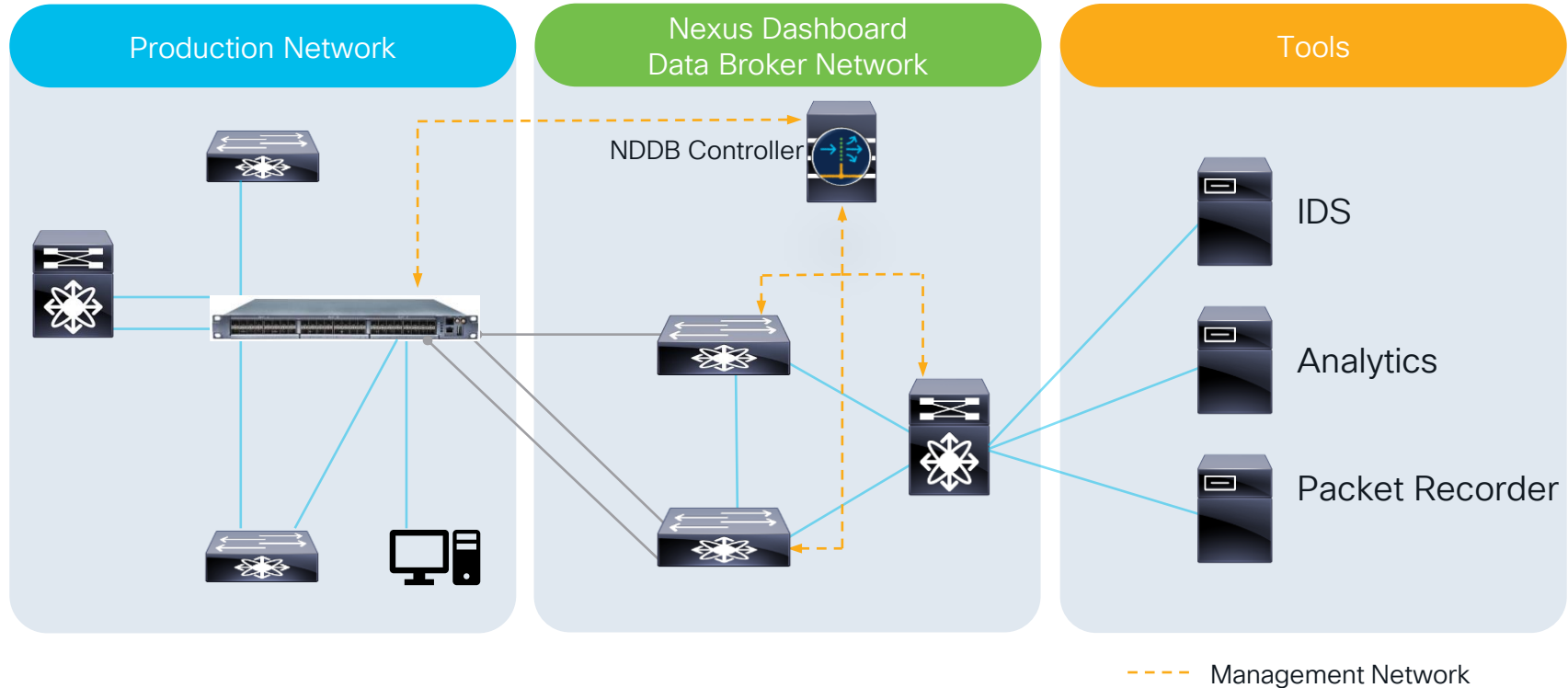
Enterprise Network SPAN Automation

Onboard DNAC Controllers



Nexus 3550-F as TAP Switch

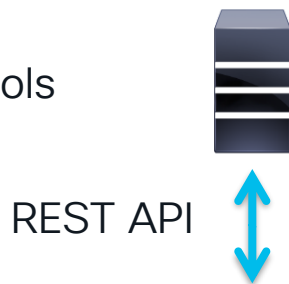
Onboard N3550-F as L1 Active TAP



Controller API

Automate NDDDB

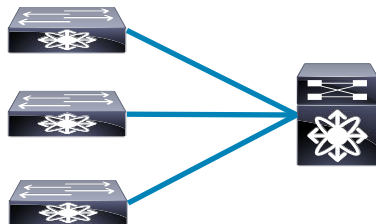
Customer Automation Tools



NDDDB Controller Layer



NDDDB Switching Layer



- Automate NDDDB Operations
 - Change rules dynamically
 - React to changes in the network
-
- Controller writes rules to switching layer
 - Controller sees switching layer as 1 large switch
-
- Performs packet brokering at line rate

Features to Highlight

General

- Flexible architecture
- Vendor/tool agnostic
- NetFlow/sFlow generation
- ACI/DNAC integration
- All functions performed in hardware
- Speeds from 1G to 400G

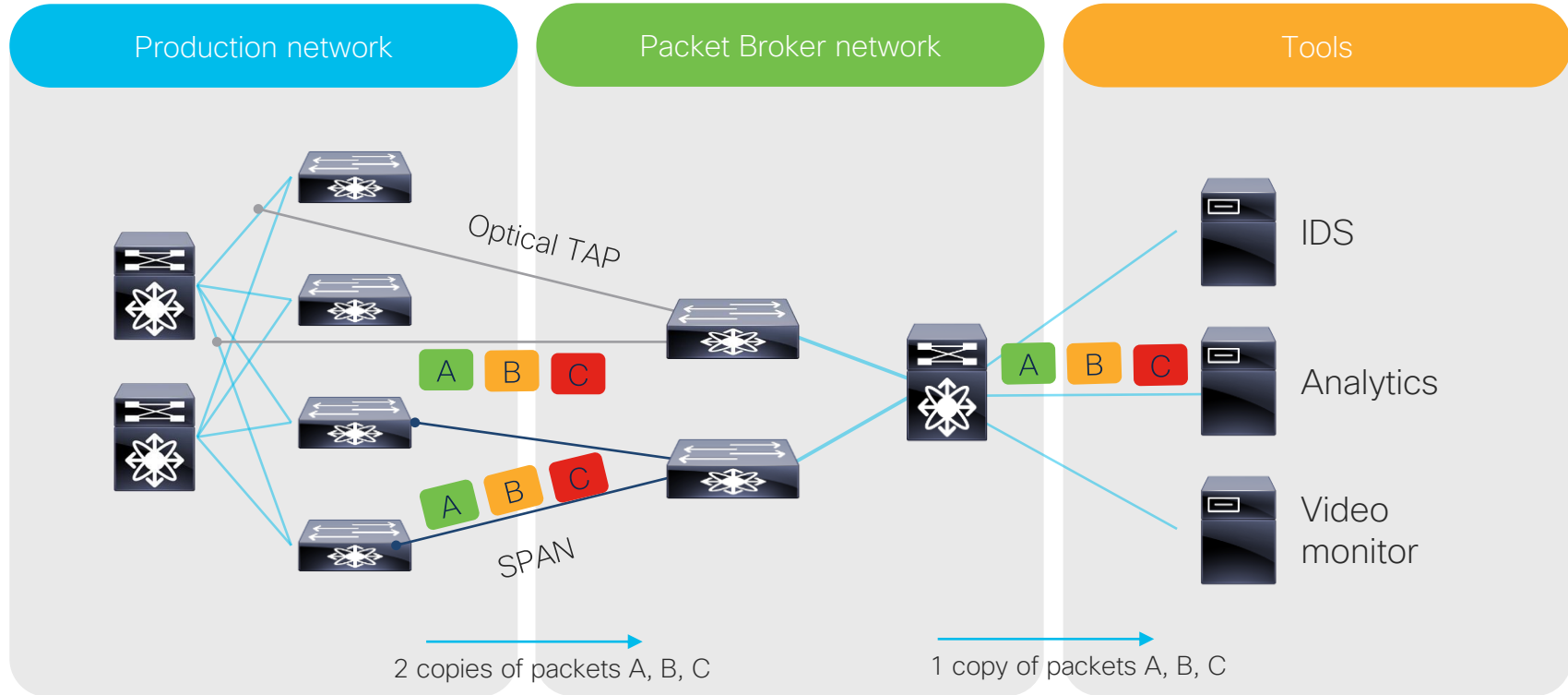
Filtering

- L2-L4 values
- Standard EtherTypes
- Custom EtherTypes
- Custom filters with byte matching
- Filter ACI EPGs

Packet Modification

- Add Q-in-Q tag
- MPLS stripping
- VLAN stripping
- VXLAN stripping
- GRE stripping
- PTP time stamping
- Packet truncation

When about De-duplication feature?



NDDDB Demonstration



Closing Comments



Scalable solution with high bandwidth



No new hardware or software to learn



SPAN session automation



Hands-on learning with the NDDDB controller

Complete your Session Survey

- Please complete your session survey after each session. Your feedback is important.
- Complete a minimum of 4 session surveys and the Overall Conference survey (open from Thursday) to receive your Cisco Live t-shirt.
- All surveys can be taken in the Cisco Events Mobile App or by logging in to the Session Catalog and clicking the "Attendee Dashboard" at <https://www.ciscolive.com/emea/learn/sessions/session-catalog.html>



Cisco Learning and Certifications

From technology training and team development to Cisco certifications and learning plans, let us help you empower your business and career. www.cisco.com/go/certs

Pay for Learning with Cisco Learning Credits

(CLCs) are prepaid training vouchers redeemed directly with Cisco.



Learn

Cisco U.
IT learning hub that guides teams and learners toward their goals

Cisco Digital Learning
Subscription-based product, technology, and certification training

Cisco Modeling Labs
Network simulation platform for design, testing, and troubleshooting

Cisco Learning Network
Resource community portal for certifications and learning



Train

Cisco Training Bootcamps
Intensive team & individual automation and technology training programs

Cisco Learning Partner Program
Authorized training partners supporting Cisco technology and career certifications

Cisco Instructor-led and Virtual Instructor-led training
Accelerated curriculum of product, technology, and certification courses



Certify

Cisco Certifications and Specialist Certifications
Award-winning certification program empowers students and IT Professionals to advance their technical careers

Cisco Guided Study Groups
180-day certification prep program with learning and support

Cisco Continuing Education Program
Recertification training options for Cisco certified individuals

Here at the event? Visit us at The Learning and Certifications lounge at the World of Solutions

Continue Your Education



Visit the Cisco Showcase for related demos.



Book your one-on-one Meet the Engineer meeting.



Attend any of the related sessions at the DevNet, Capture the Flag, and Walk-in Labs zones.



Visit the On-Demand Library for more sessions at ciscolive.com/on-demand.



The bridge to possible

Thank you

CISCO *Live!*

