



# Dynamic Infrastructure Scaling using SDx Capabilities

5. Cloud Use Cases Day, FHNW  
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Rolf Schärer

✉ [roschaer@cisco.com](mailto:roschaer@cisco.com)

Marcel Zehnder

✉ [mzehnder@netcloud.ch](mailto:mzehnder@netcloud.ch)

# Agenda

- Introduction
- Use Case
- Architecture
- Demo

# Introduction

# Introduction – our Use Case

- Based on a real life scenario – Customer can not be named (yet)
- Joint venture between Customer, Netcloud, AVI Networks and Cisco working closely together to solve one of the customers pain points

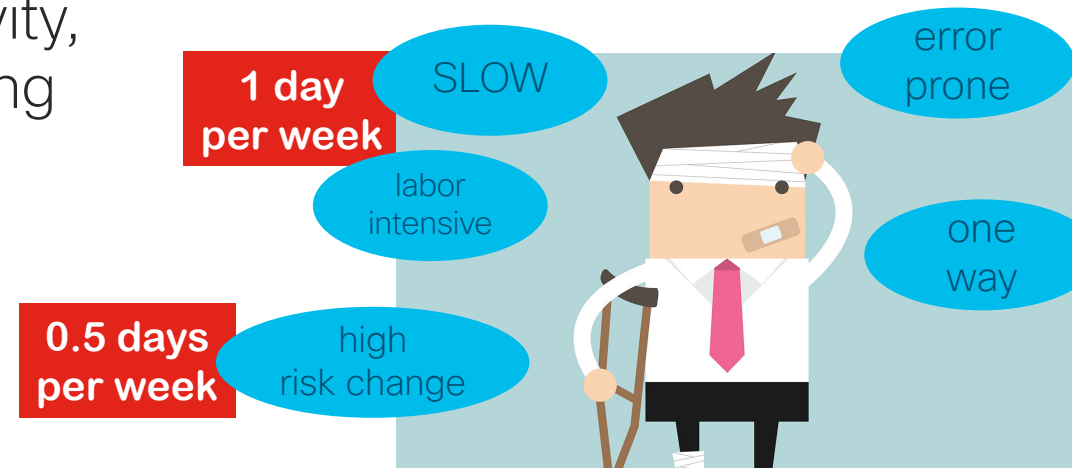


Solving real life problems integrating open API's from different vendors  
-> WIN, WIN, WIN (Customer, Partner, Vendors)

Use Case

# Problem Description

- Customer's Business relies on a distributed, scalable Web Application hosted on premise
- Twice a week, there's a peak – that can be predicted based on business input -> scaling of the infrastructure may be necessary
- Application can scale semi-automated
- Infrastructure Services (Connectivity, Load Balancing, Firewalling) Scaling happens fully manual today.



# Goal

1. Decrease risk to scale the environment
2. Loose integration -> less dependencies
3. Scaling up/out and down/in has to be possible

Initial Idea: simplified and automated process where less interaction between teams is needed

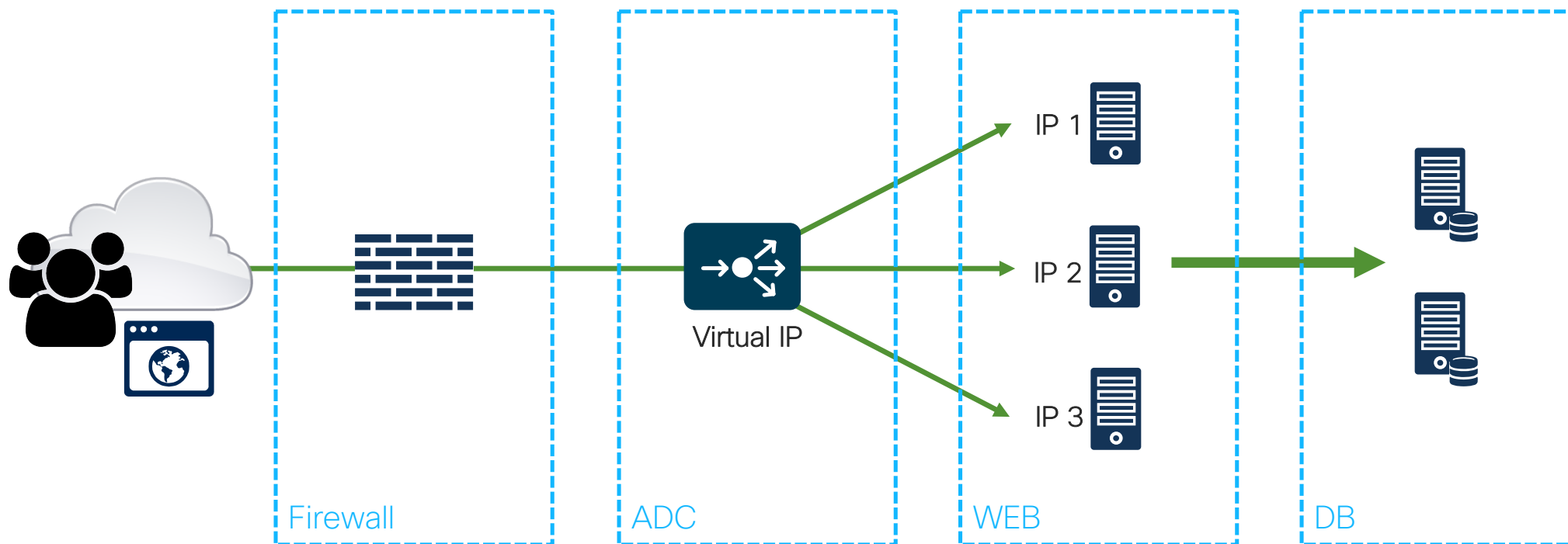
# Approach

1. *Decrease risk to scale the environment*
  - > Simplify the deployment, operations and troubleshooting
  - > Use a more application aware network, ADC and Firewall
  - > Network Virtualization isolates Application Environments
2. *Loose integration -> less dependencies*
  - > Use products with open API's  
(Compute, Storage, Network, NFV, ADC/WAF)
  - > Use the SDK's provided by the different vendors
3. *Scaling up/out and down/in has to be possible*
  - > Automated Provisioning AND Decommissioning Process

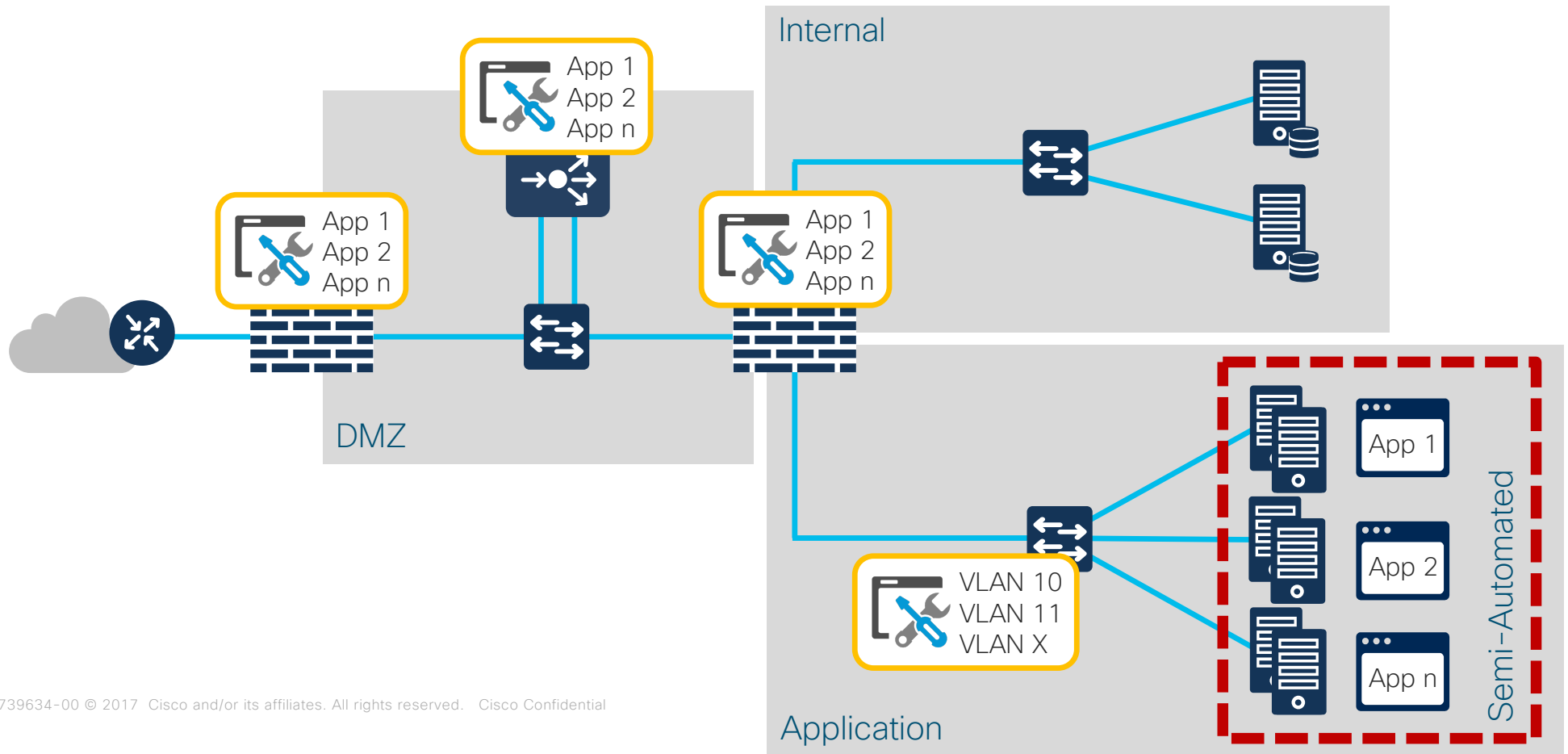


Architecture

# “THE APPLICATION”

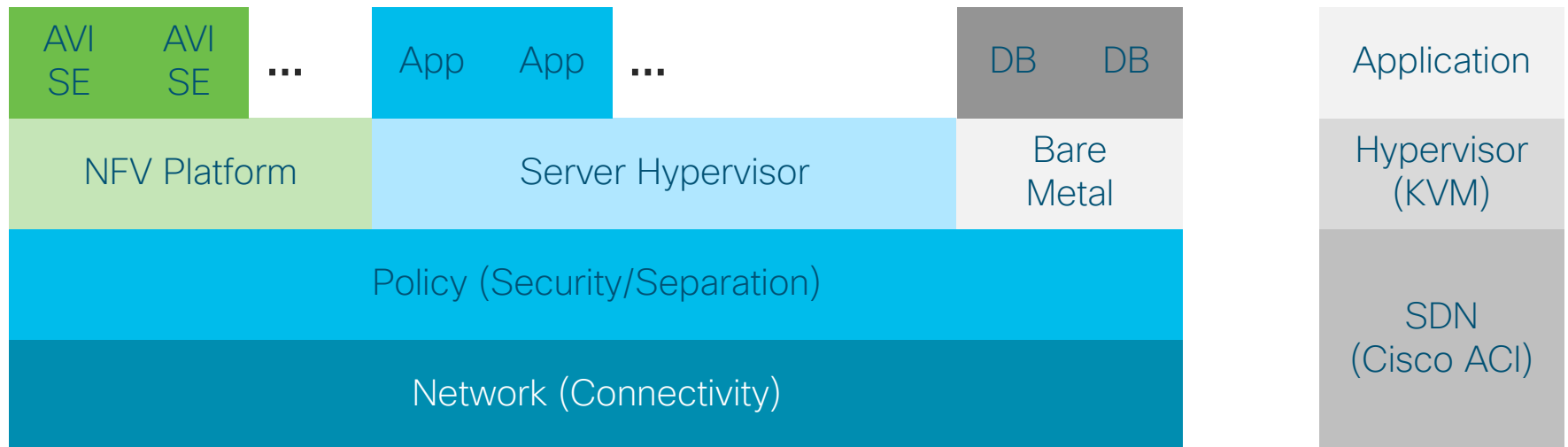
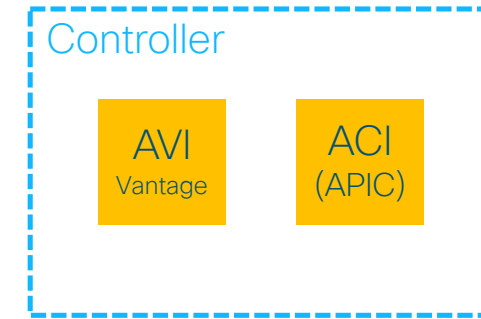


# Current Architecture

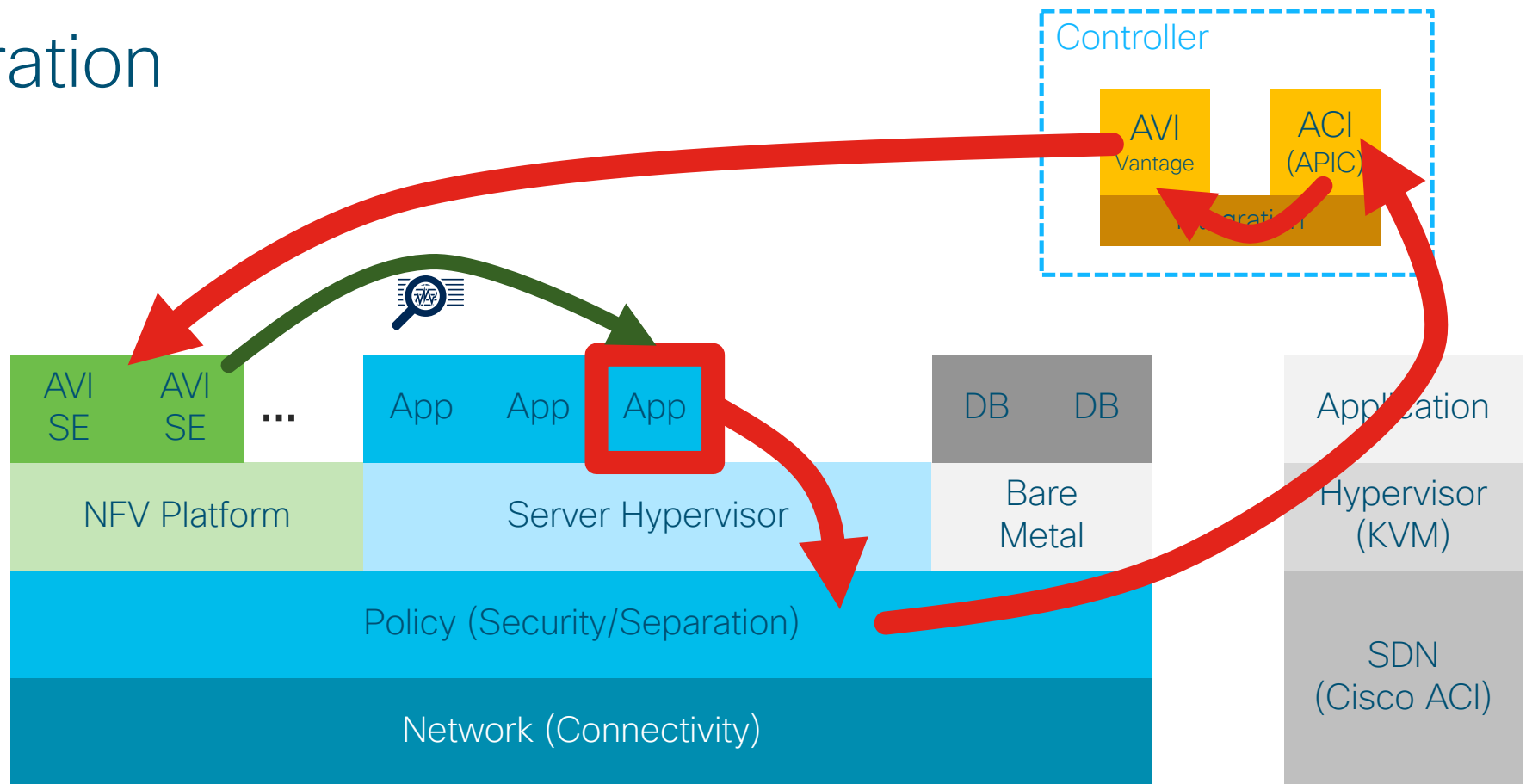


New Architecture:  
Combining SDx Features using API's

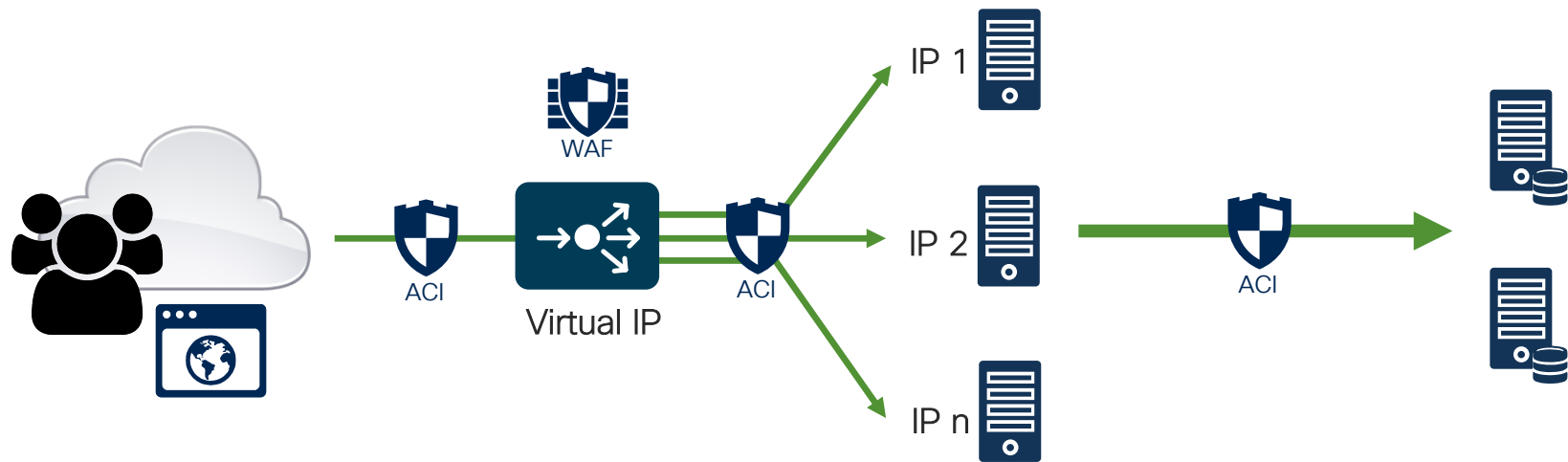
# The New SDx based Architecture



# Integration



# Application – End-to-End Service

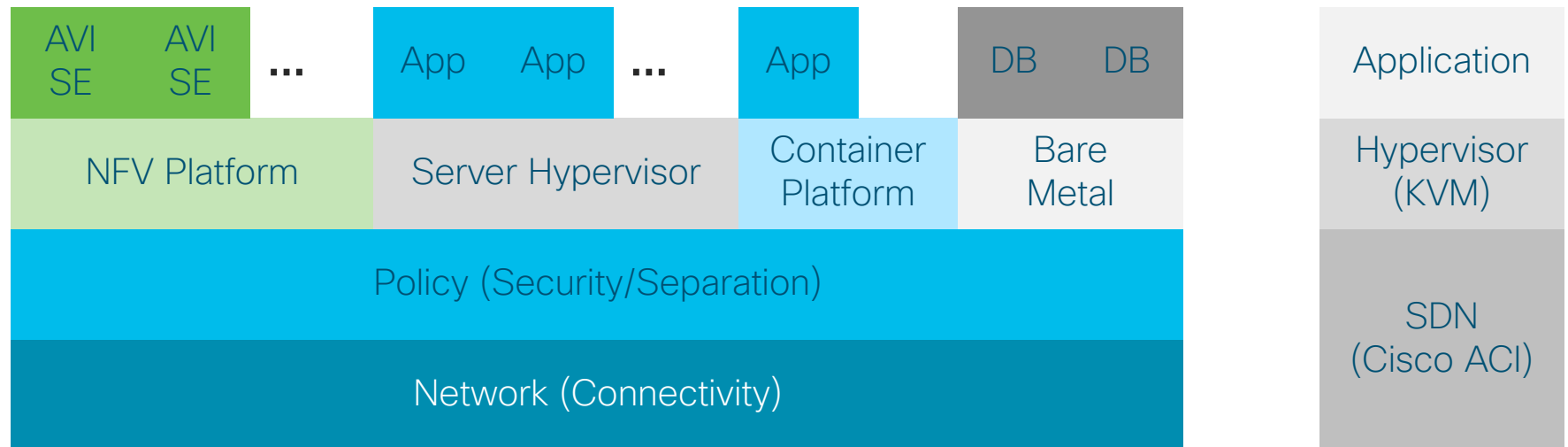
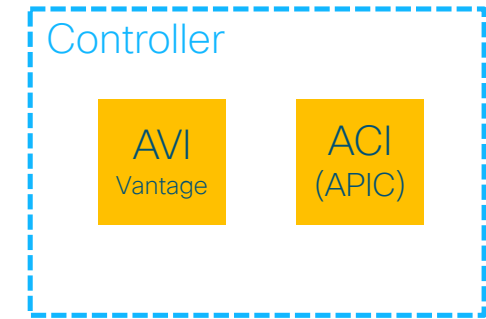


Demo



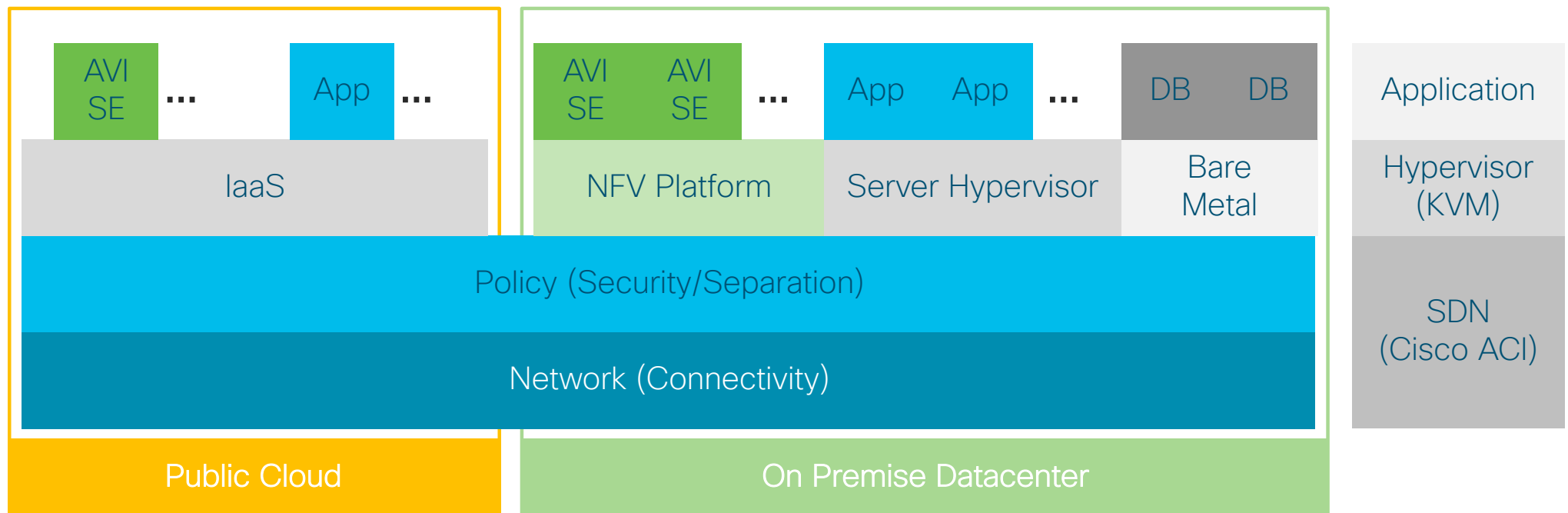
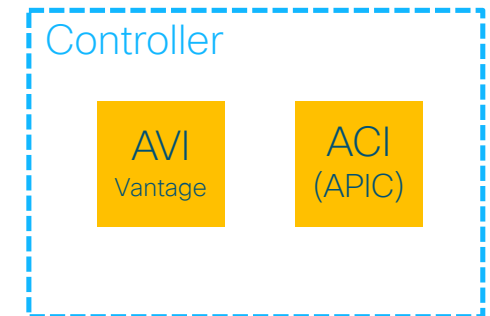
## Possible Use Case Enhancements: Change the application delivery platform

- Option to migrate the application to a container platform



# Possible Use Case Enhancements: Cloud Bursting Enhancement

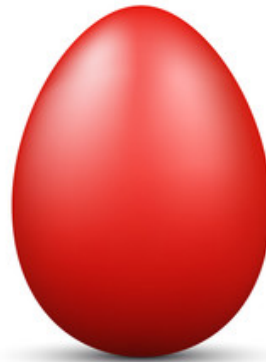
- Cloud Bursting based on the same Architecture using the same API's and creating the same experience



Summary

## Key Take Away

- Open API's and SDK's are Key
- Loose Integration creates less dependencies
- System Approach in every element
- And: Step-by-Step Approach



**Tütschen Sie sich frei!**

- Cloud Consulting
- Private Cloud
- Hybrid Cloud
- Cloud Services

Mit Netcloud in die Cloud.

A hand is shown holding a glowing, interconnected network of nodes and lines, resembling a sphere. The background is dark blue with a subtle pattern of light blue lines and dots, suggesting a digital or cloud environment.

**NETCLOUD**  
ICT PROFESSIONALS

