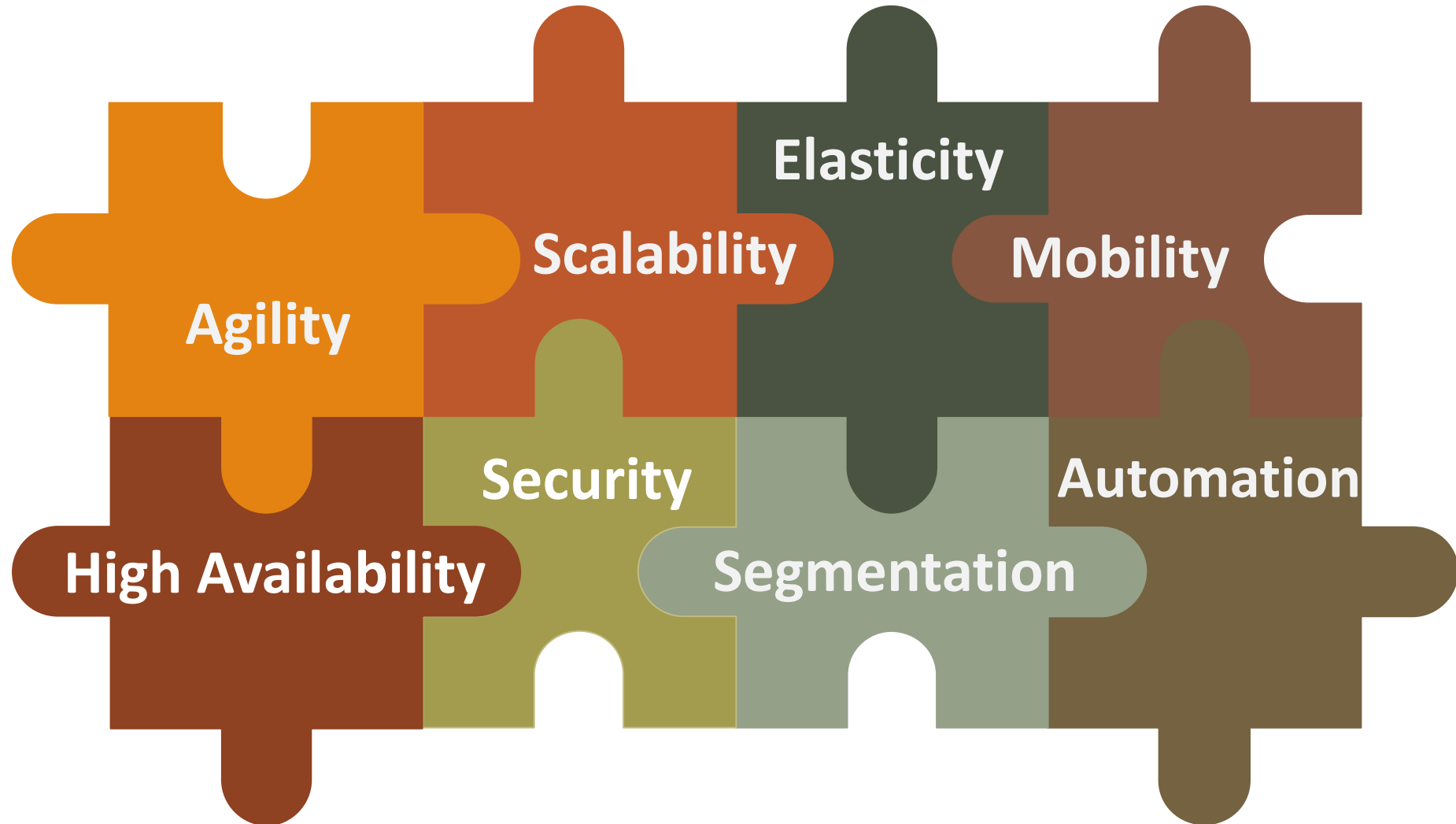


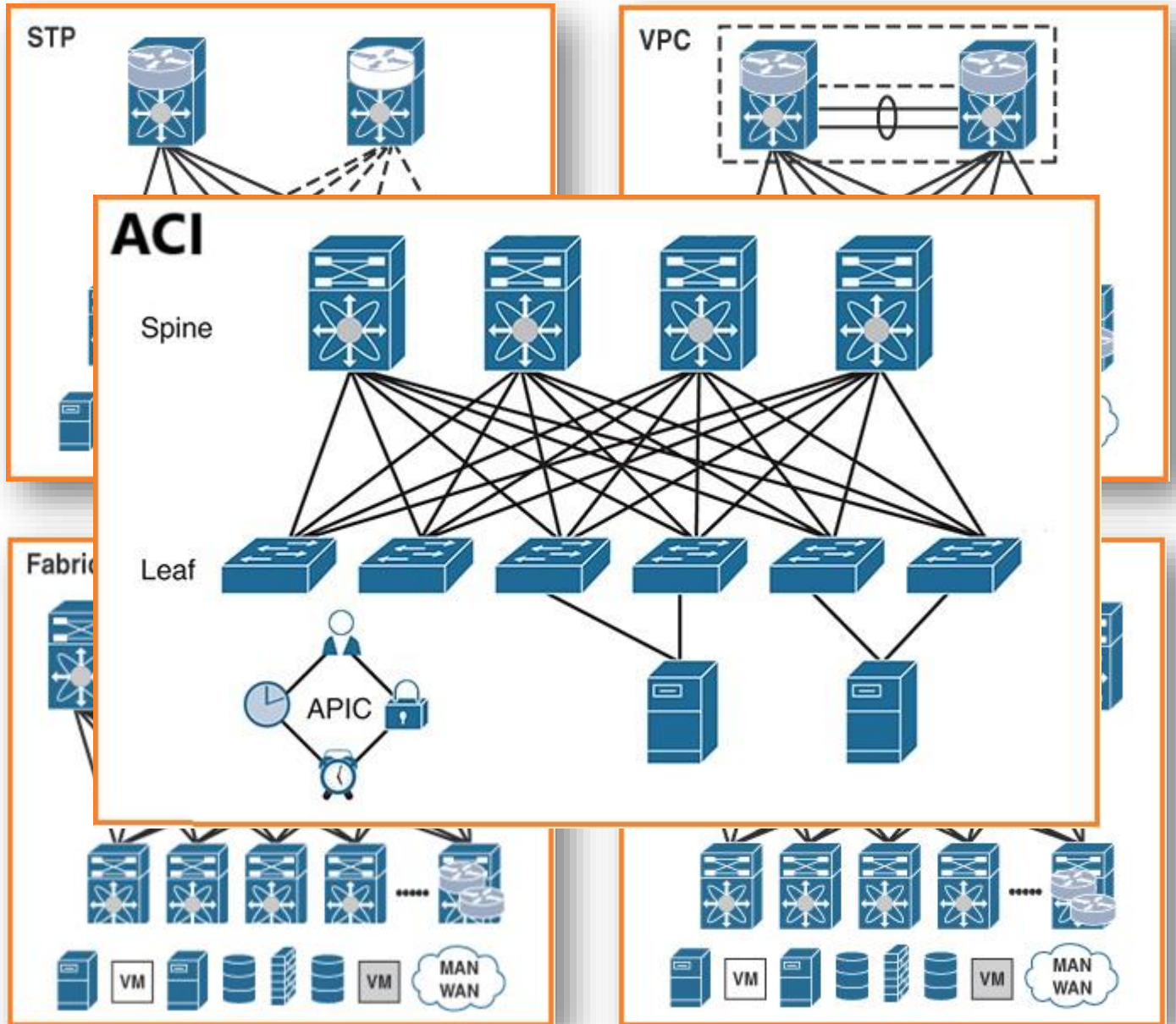
CCIE DATA CENTER
ACI CORE

What & Why Cisco ACI?

Today's Data Center Challenges and Requirements



The Data Center Fabric Evolution Journey



What and Why Cisco ACI?

- Cisco Application Centric Infrastructure (ACI):
 - ACI is a data center **SDN** solution based on a **declarative** policy model architecture.
 - ACI delivers software with hardware performance that provides a robust transport network.
 - ACI allows application requirements to define the network (hence the name).

» Two approaches for SDN controllers:

Imperative approach

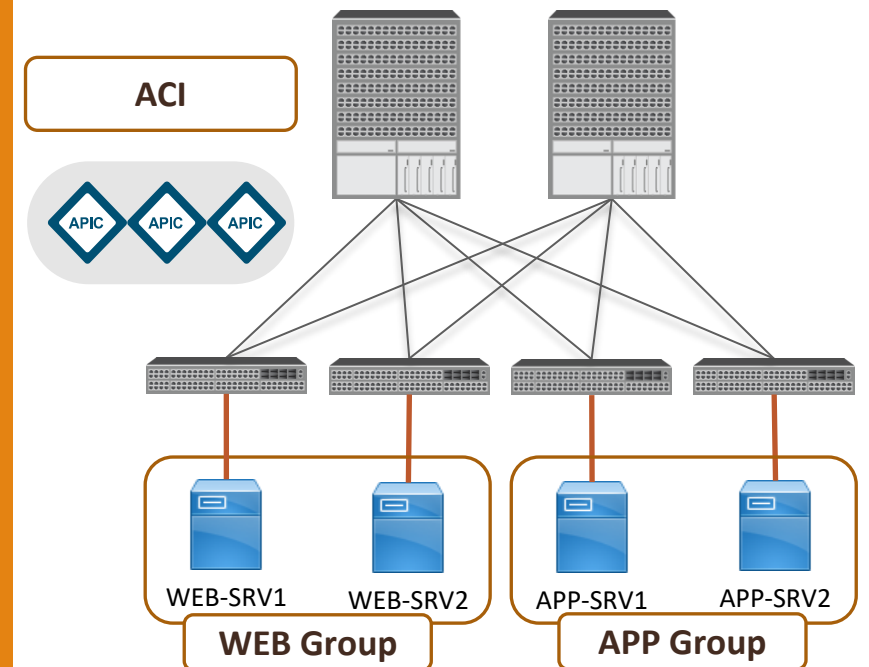
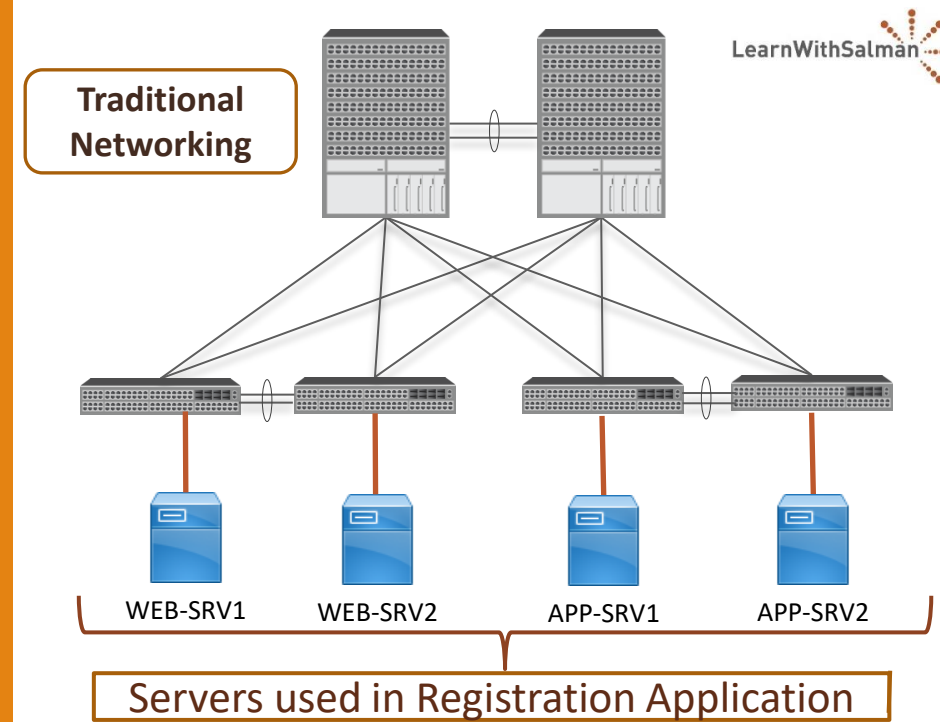
- The control plane resides in the controller.
- The controller has complete control over programming the forwarding path of devices.

Declarative approach

- The control plane resides within networking devices.
- The controller “declares” the requirements of applications.
- Network devices decide how to translate that requirements into functional actions.

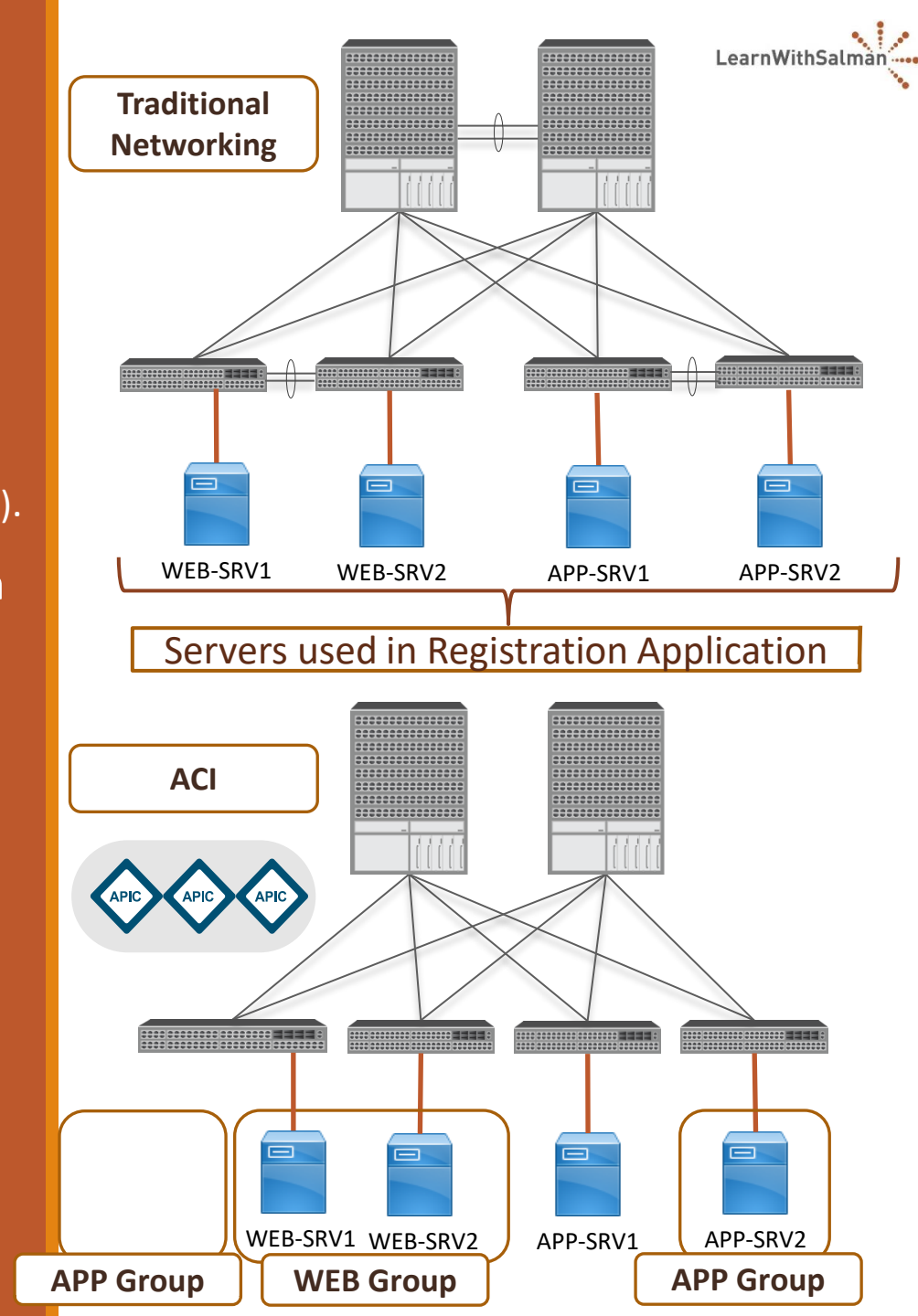
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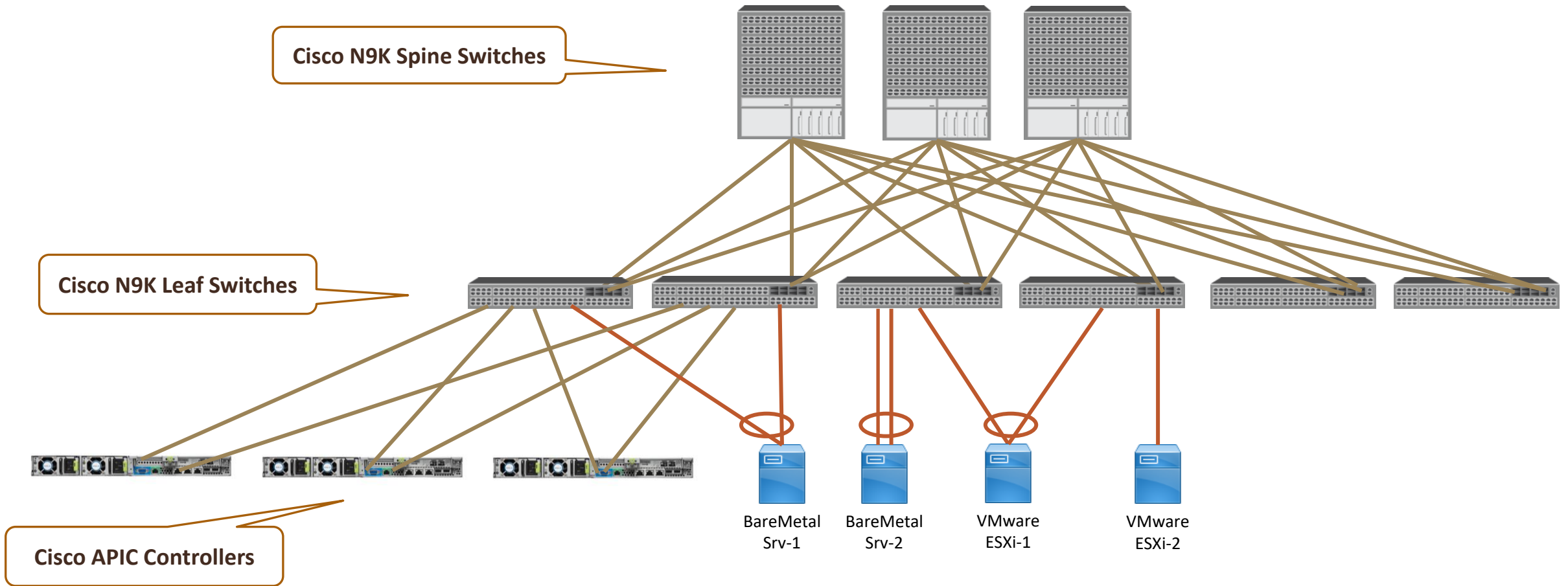


What and Why Cisco ACI?

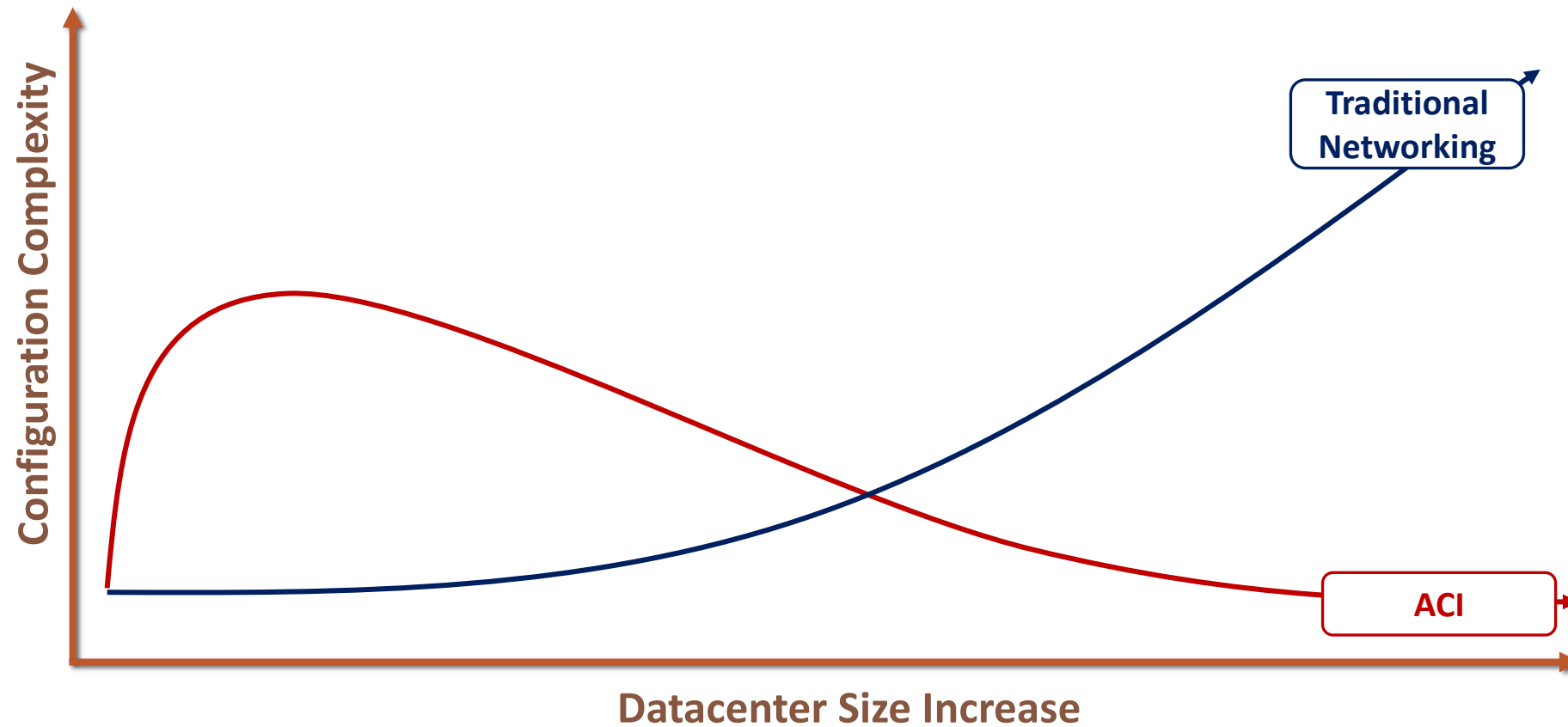
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 - ACI is a data center **SDN** solution based on a **declarative** policy model architecture.
 - ACI delivers software with hardware performance that provides a robust transport network.
 - ACI allows application requirements to define the network (hence the name).
- The goal of ACI is to enable business growth and rapid application development by providing the following features:
 - Application-driven policy modeling.
 - Centralized policy management.
 - Visibility into infrastructure and application health.
 - Automated infrastructure that allows configuration in mass.
 - Integrated physical and virtual workloads.
 - Use optimized forwarding and security enforcement. (ECMP & no STP)
 - ACI supports stateless networking (Switches do not have the configuration)
- ACI drawbacks:
 - Big learning curve. It is a different approach to networking.



Cisco ACI Fabric Topology High Level Overview



ACI vs. Traditional Networking Policy Reuse Comparison



Thanks for watching!

