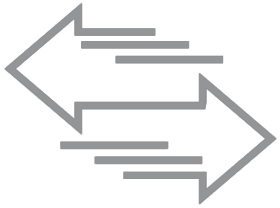
Automating Load Balancing in Dynamic Multi-Cloud Kubernetes Deployment

Introducing A10 Ingress Controller

Reliable Security Always™

Modern Application Operations Need…

Software-Defined Cloud for fast, efficient, flexible service production



Faster learning & development with iteration and **dev automation**

Increase Efficiency in Multiple Services via Visibility analytics

A10 Solution for Kubernetes

- Ingress Controller, ingress resources and service discovery
- A10 Harmony Controller
  - Providing centralized app visibility, analytics and policy management
- A10 Lightning ADC
  - Deployed on every Kubernetes node
  - Providing application proxy services including advanced load balancing, content switching, SSL termination and app security

Solution Highlights

- **Enterprise**. Think large number of containers/pods
- **Customization**. From simple content based routing to advanced traffic policies
- **Security**. Enterprise-grade SSL/TLS termination and visibility
- **Automation**. Program / provision L7 load balancers on demand
- **Micro-segmentation**. Load balance based on any info in HTTP Request
- **Software-defined**. Control-Management-Data distributed plane from Kubernetes platform to Harmony Controller

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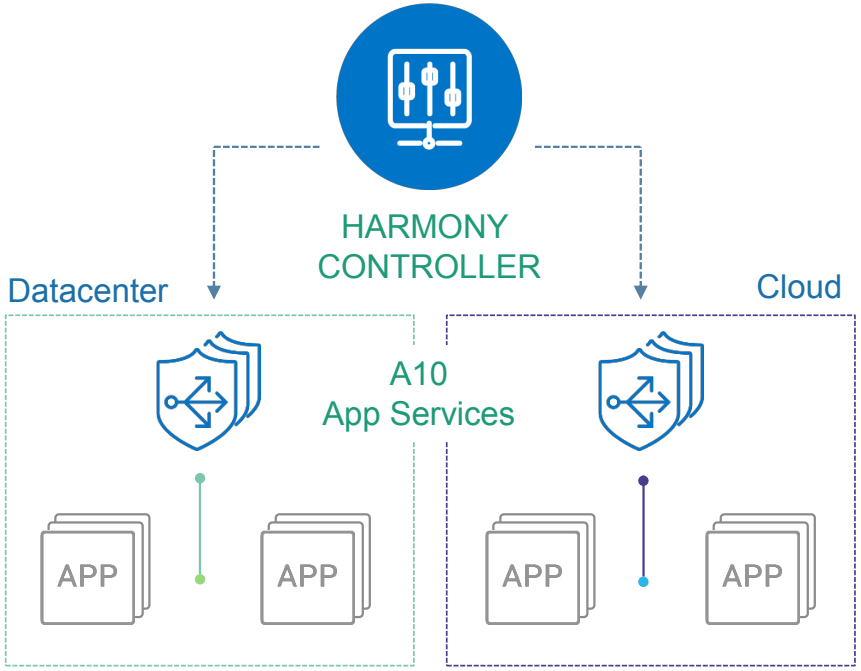
A10 App Delivery Solution Architecture



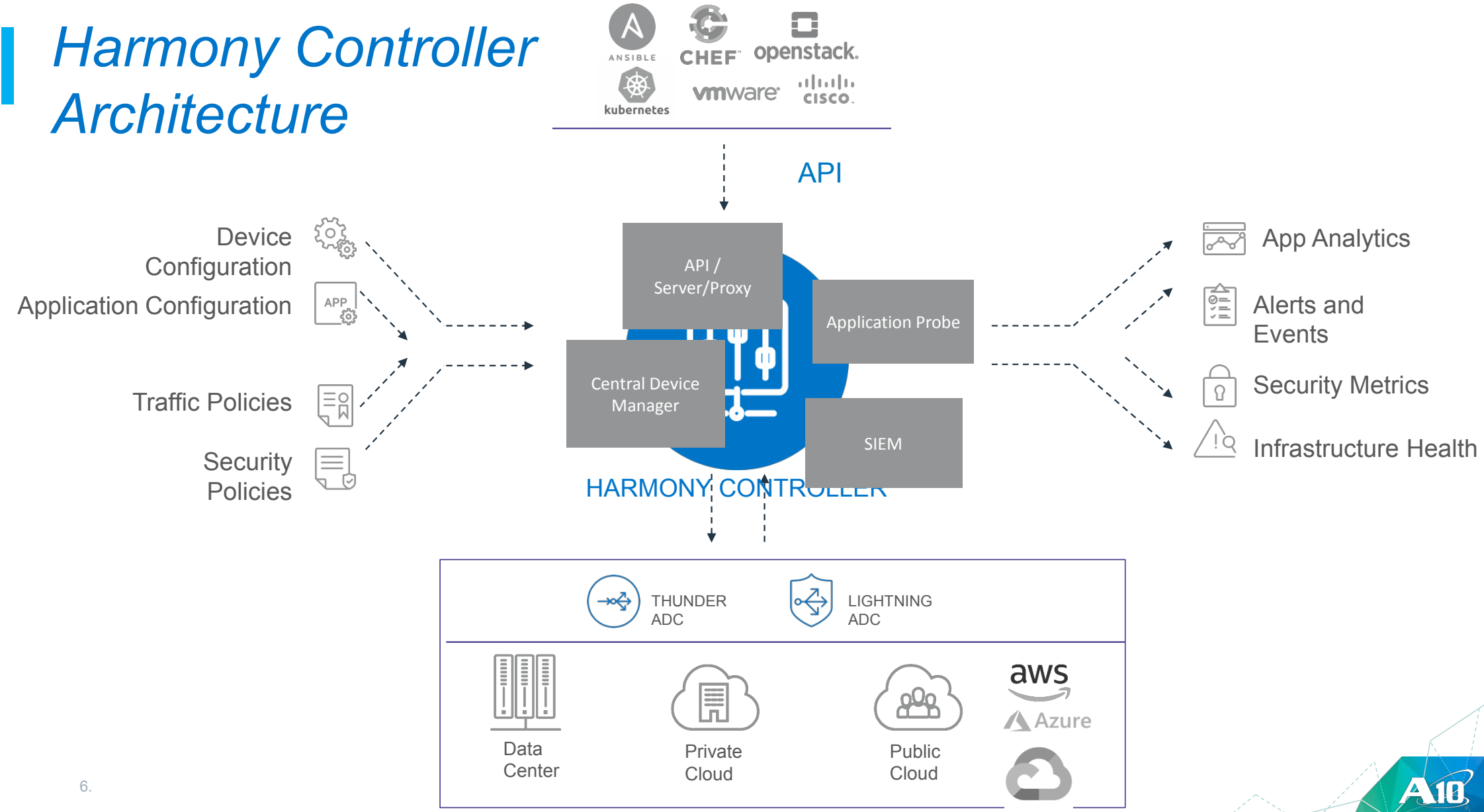
Centralized Management

Automation and Self-Service

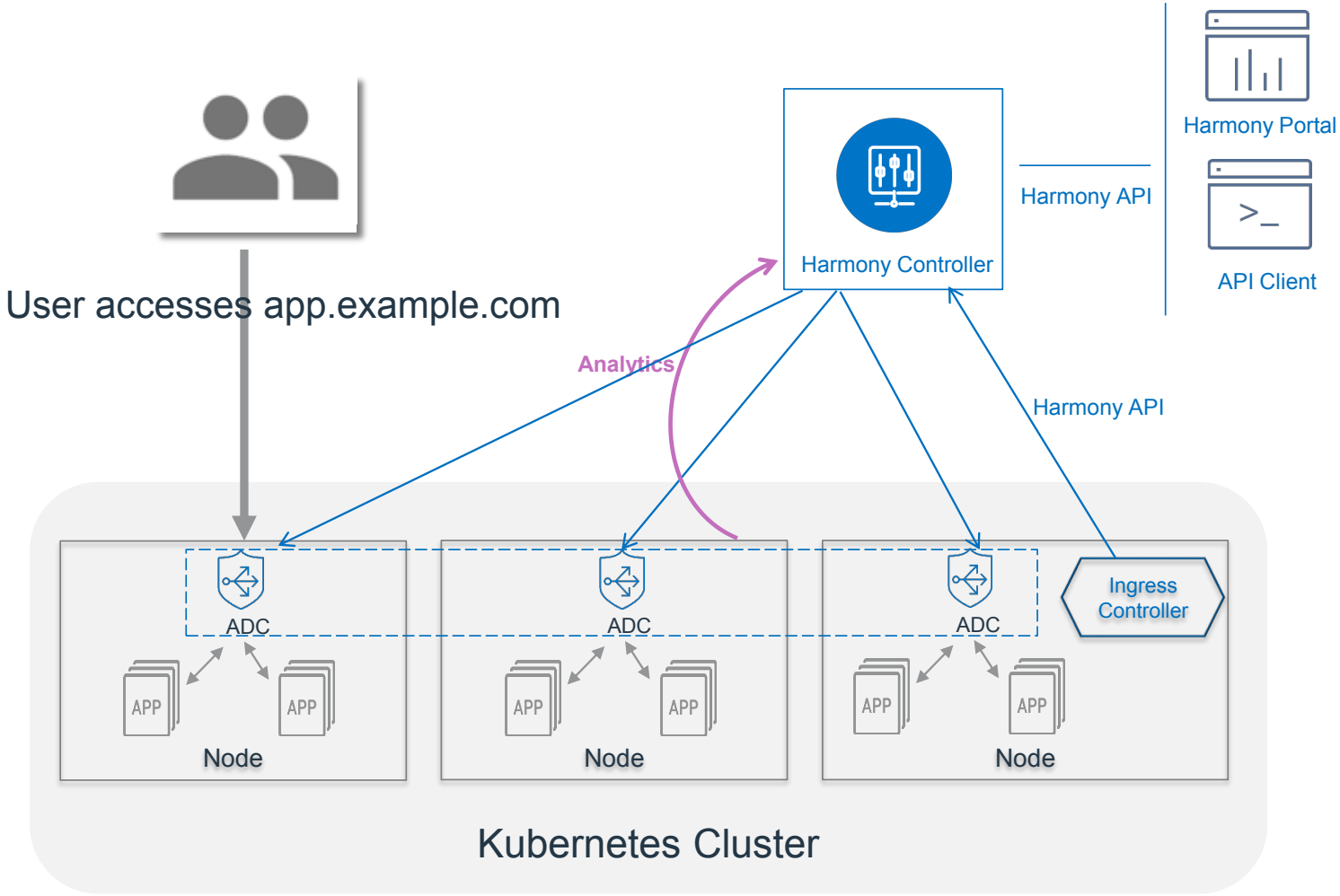
Visibility and Analytics

Scale-out, DevOps Integrations

Harmony Controller Architecture

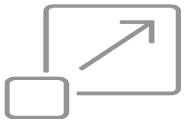


A10 Ingress Controller for Kubernetes



- Ingress Controller detects changes in application service scale and calls Harmony APIs
- Controller pushes updated config to ADCs
- Analytics flows from ADC to Controller
- New Lightning ADCs automatically deployed with new node; They connect to controller and get relevant configuration

A10 Ingress Controller for Kubernetes Brings…



Auto-scale &Auto-config Load Balancers with App servers

- Automatic scaling of ADC with Kubernetes cluster
- Automatic configuration

Auto-sync with Application Infrastructure

- Detection of application container scaling
- Dynamic configuration updates

Per-app Visibility & Control

- Analytics and insights at application and URL
- Faster troubleshooting
- Operational intelligence

THANK YOU