

# How to Approach Cloud Based Microservices Infrastructure

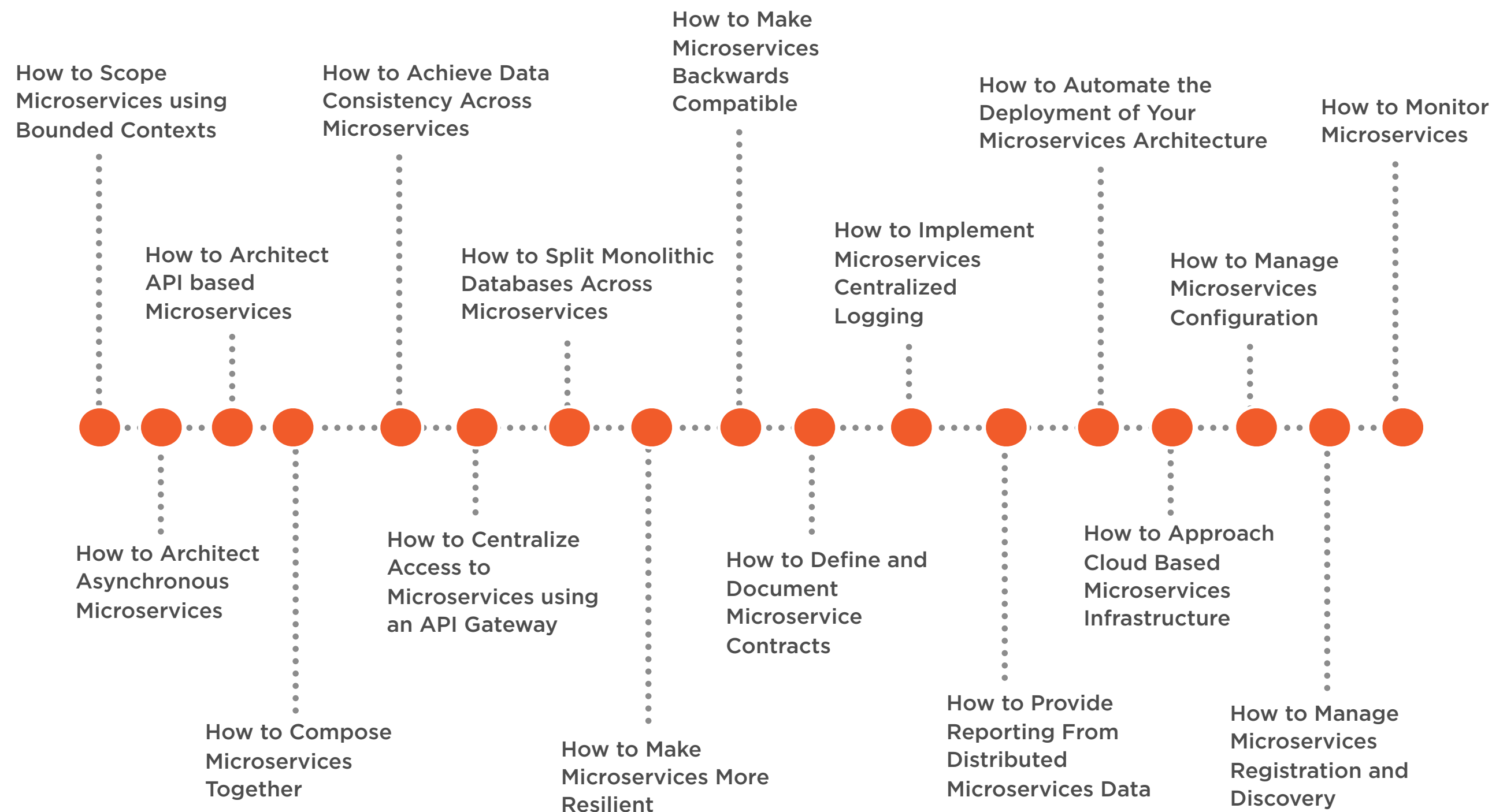
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# Microservices Architectural Design Patterns Playbook



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## Microservices Architecture

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# Overview

**IAAS**

**PAAS**

**SAAS**

**Hybrid Approach**

**Cloud Automation**

# Introduction

## On premise versus cloud

### Microservices are cloud ready

- Cloud built for and by microservices
- High cohesion, autonomous, business domain, resilience, observable and automation

### What are we designing?

- IAAS, PAAS and SAAS approach

### What are we automating?

- Continuous integration
- Continuous delivery

### Making it all work together

- DevOps

## On Premise

Applications

Data

Runtime

Middleware

O/S

Virtualization

Servers

Storage

Networking



# IAAS

## Infrastructure as a service

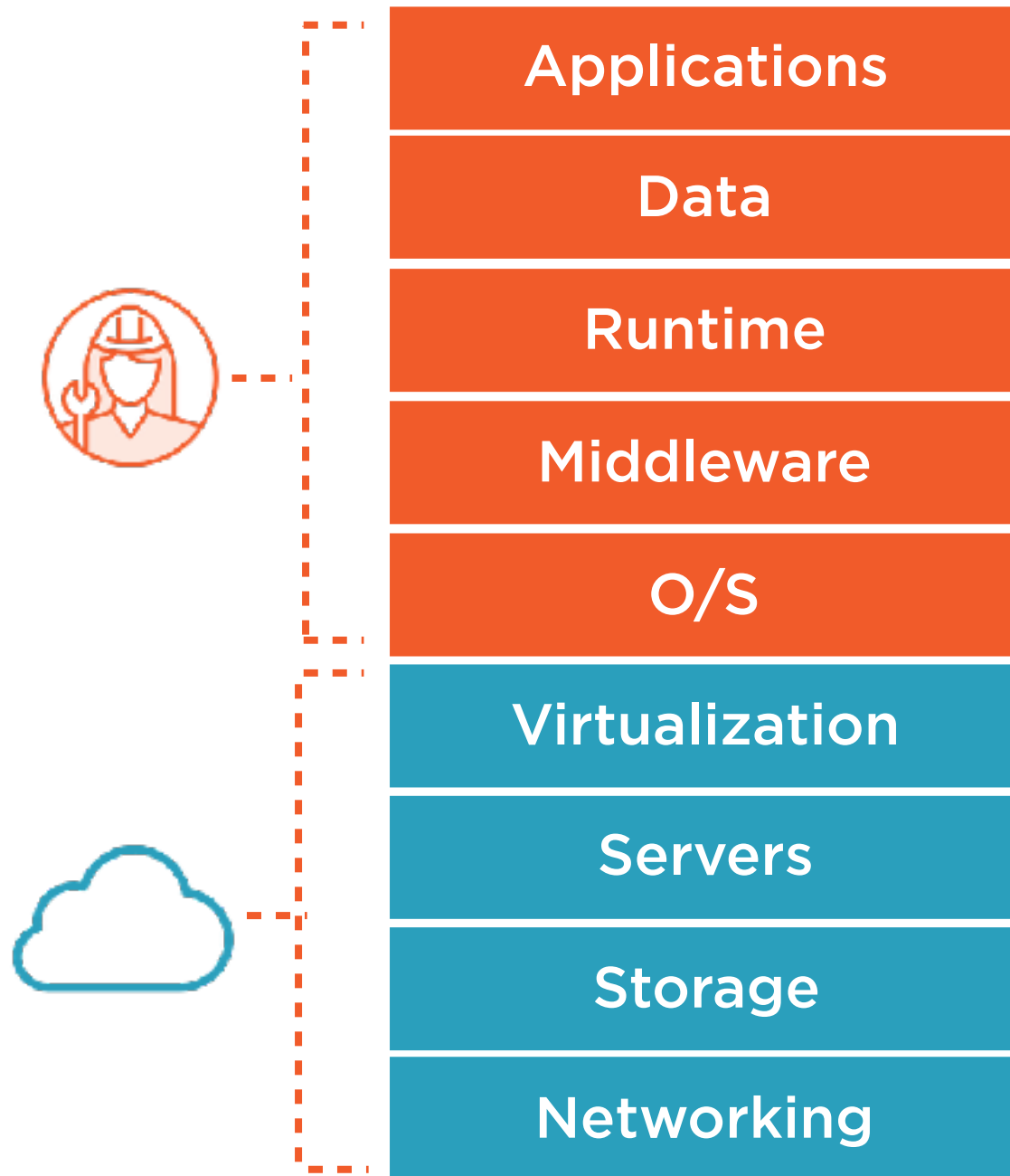
- Outsource infrastructure
- Cloud provider is the owner

## Cloud provider responsible for

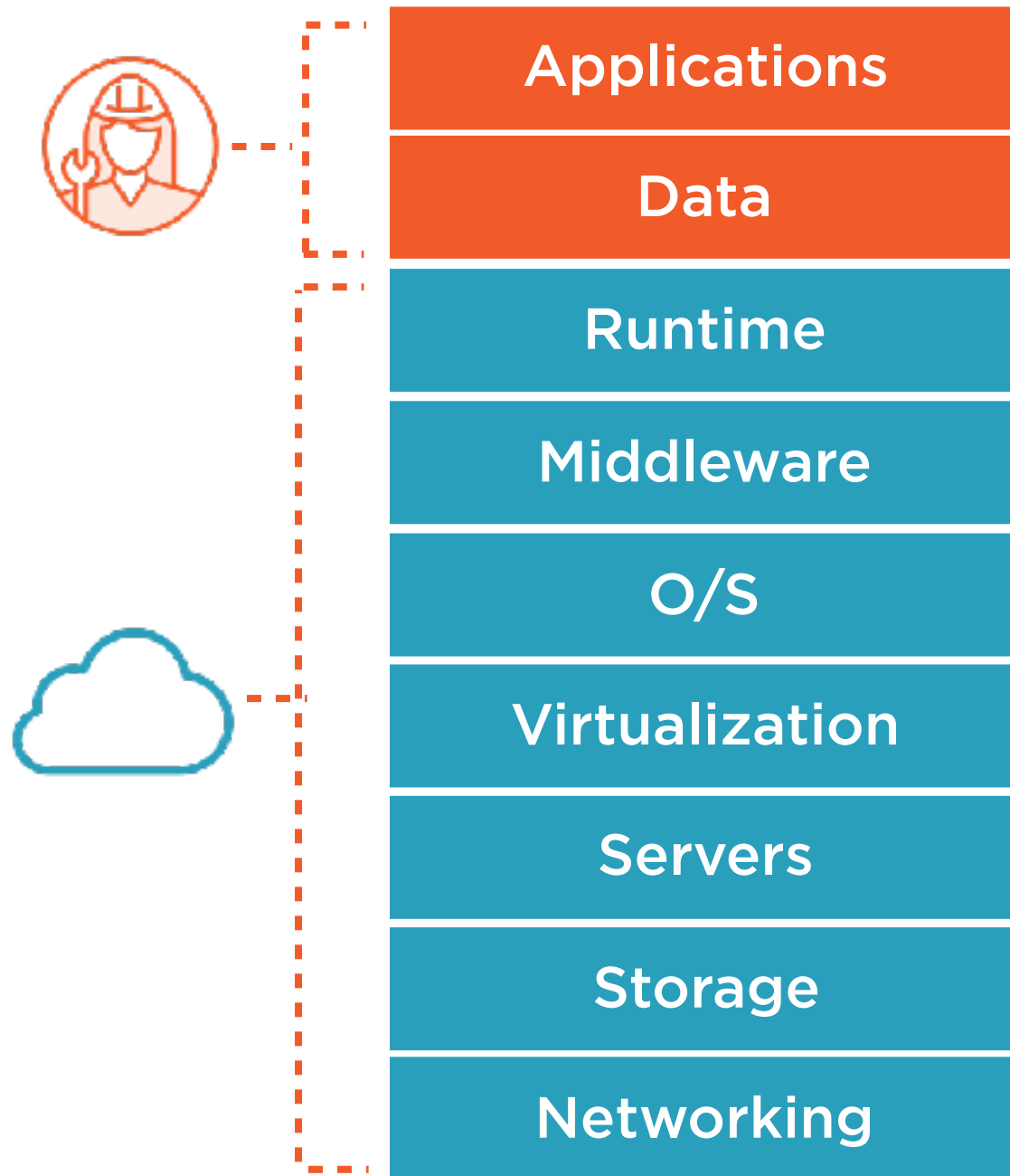
- Maintenance and management
- Operations of the resources

## Advantages

- You still control OS and above
- Save time and money
- Fire up extra environments
- Meet hardware capacity spikes
- Migrate existing



# PAAS



## Platform as a service

- Ideal for developers
- On demand delivery environment

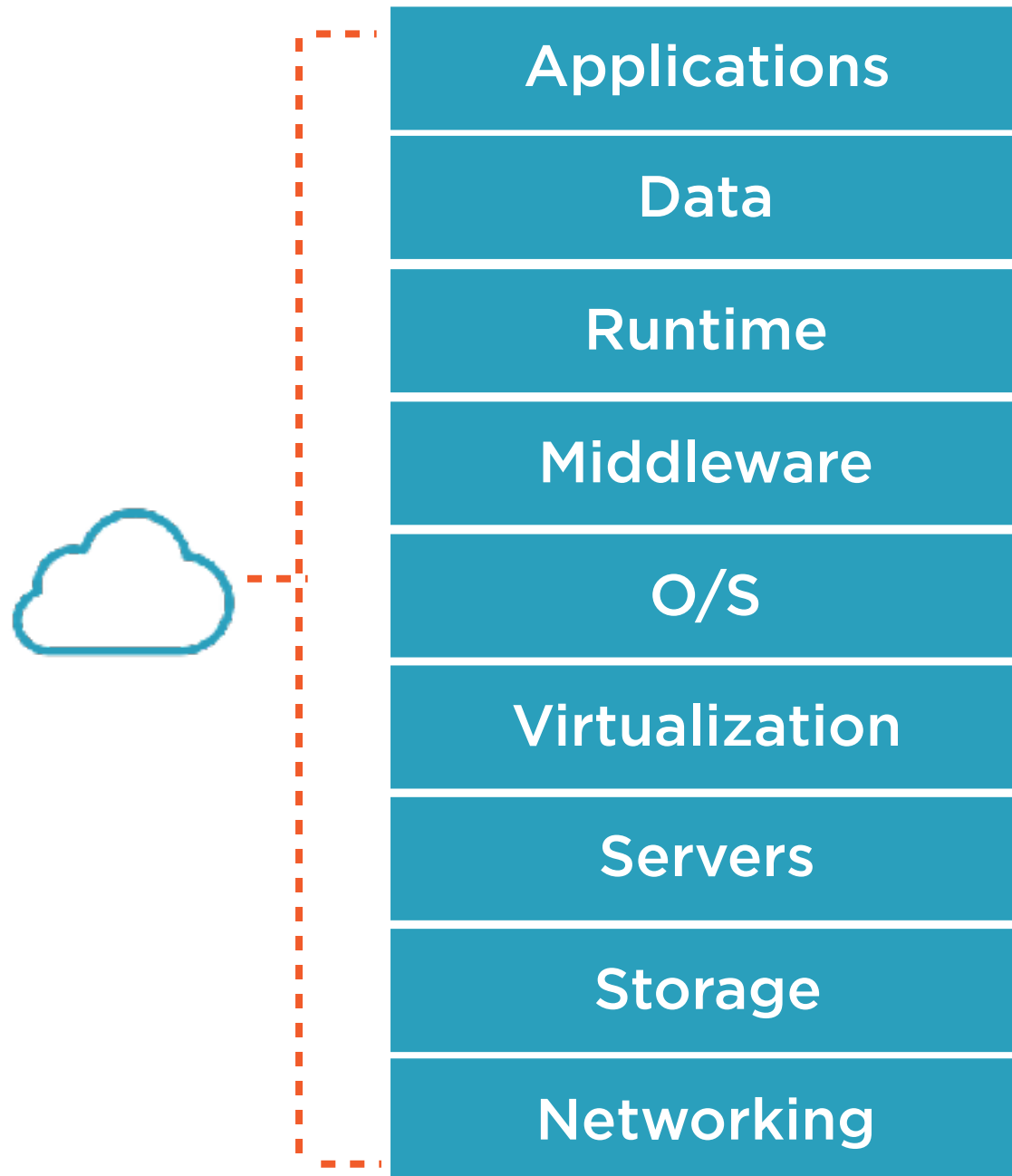
## Cloud provider responsible for

- Maintenance and management
- Operations of the resources

## Advantages

- Tools and environment
- Managed using web browser
- RAD at low cost
- Can mix with IAAS
- Focus on shipping code

# SAAS



## Software as a service

- Cloud providers provide applications
- Development not your responsibility
- On-demand software

## Your PAAS software works with SAAS apps

- Your focus is your microservices software
- Integrate with off the shelf SAAS apps

## Your architecture relies on app vendors

## Understand SAAS providers SLA

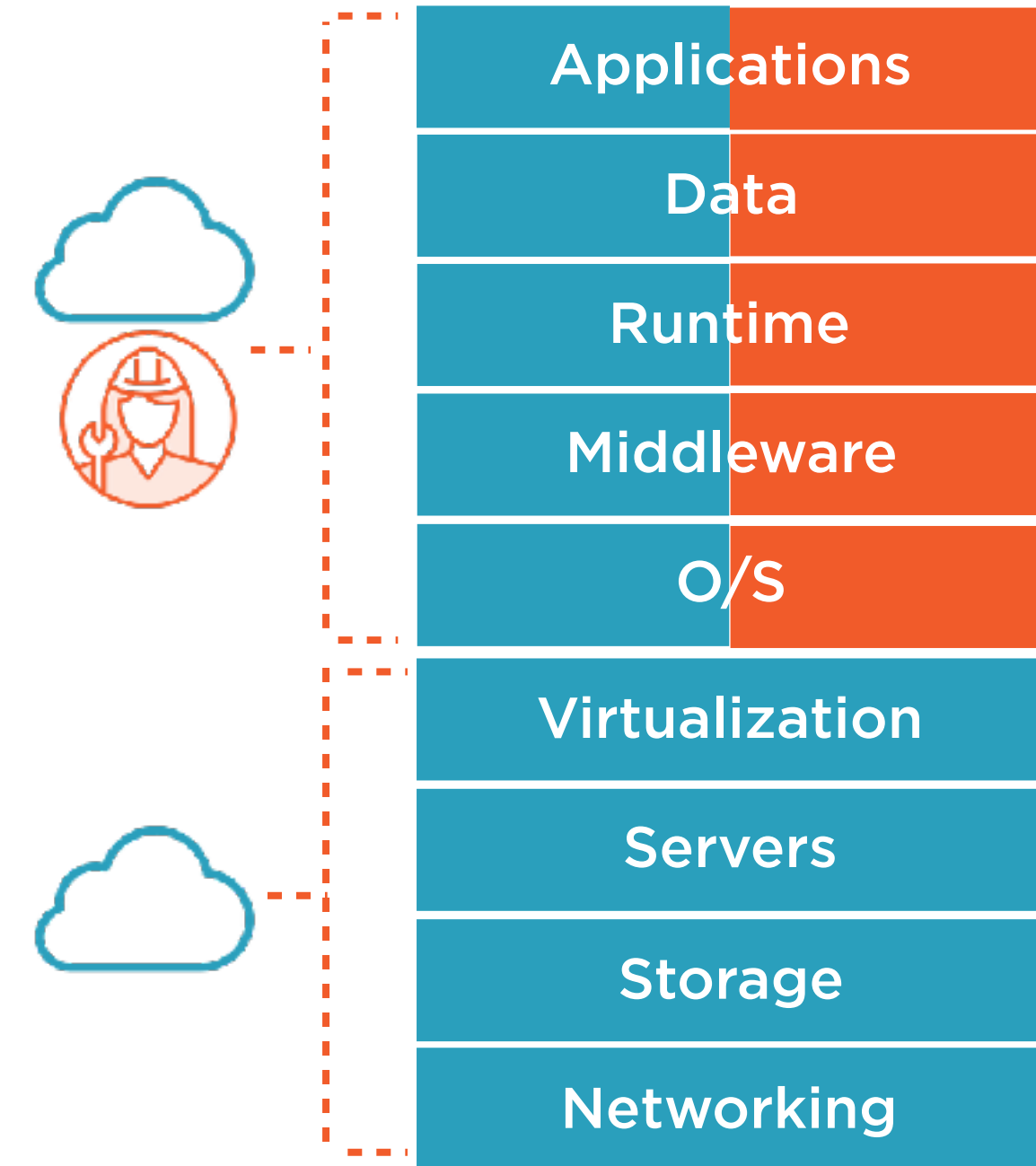
## Integration done using APIs

## SAAS examples

- Email, HR management, CRM etc.



# Hybrid Approach



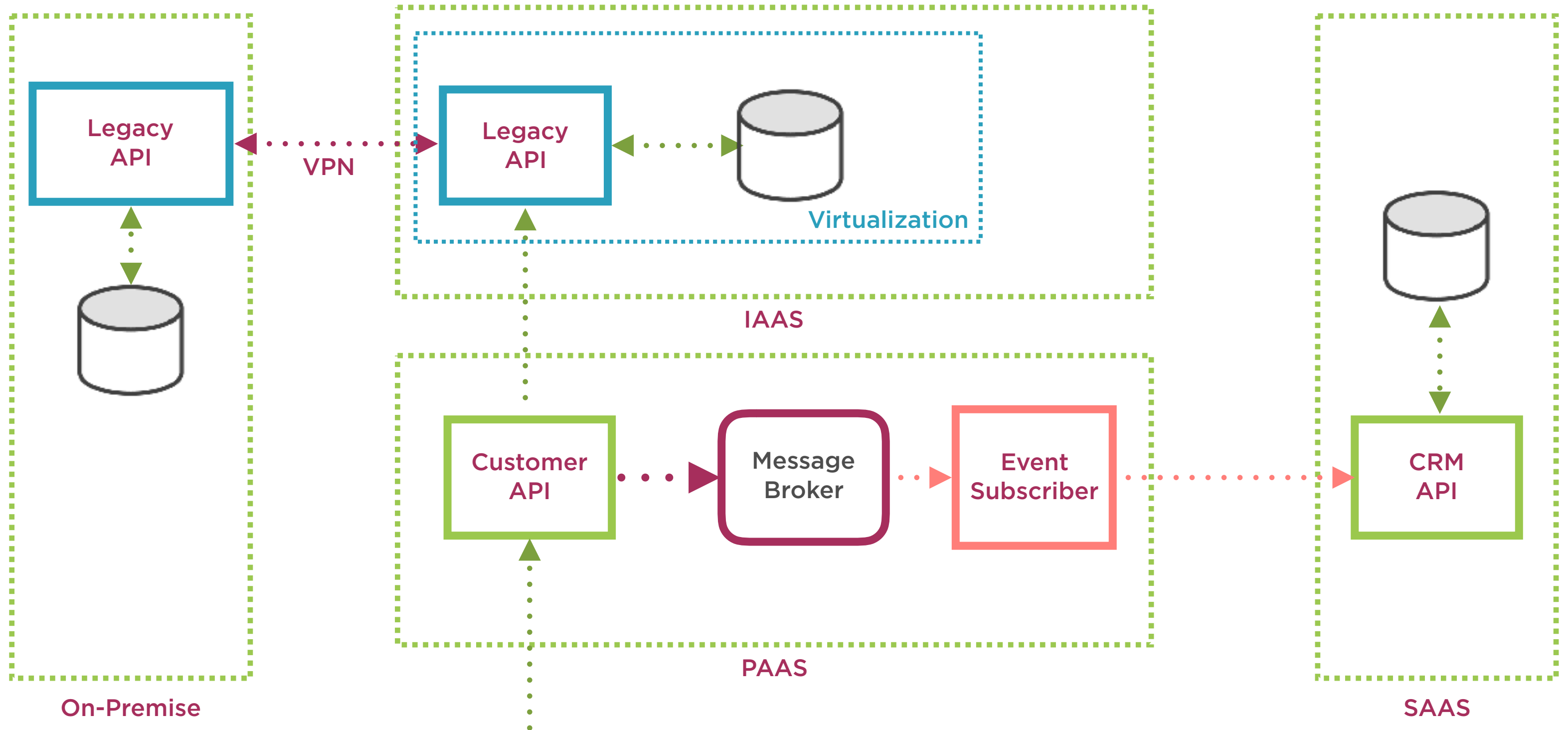
## Hybrid Approach

- OP, IAAS, PAAS and SAAS
- Support all scenarios

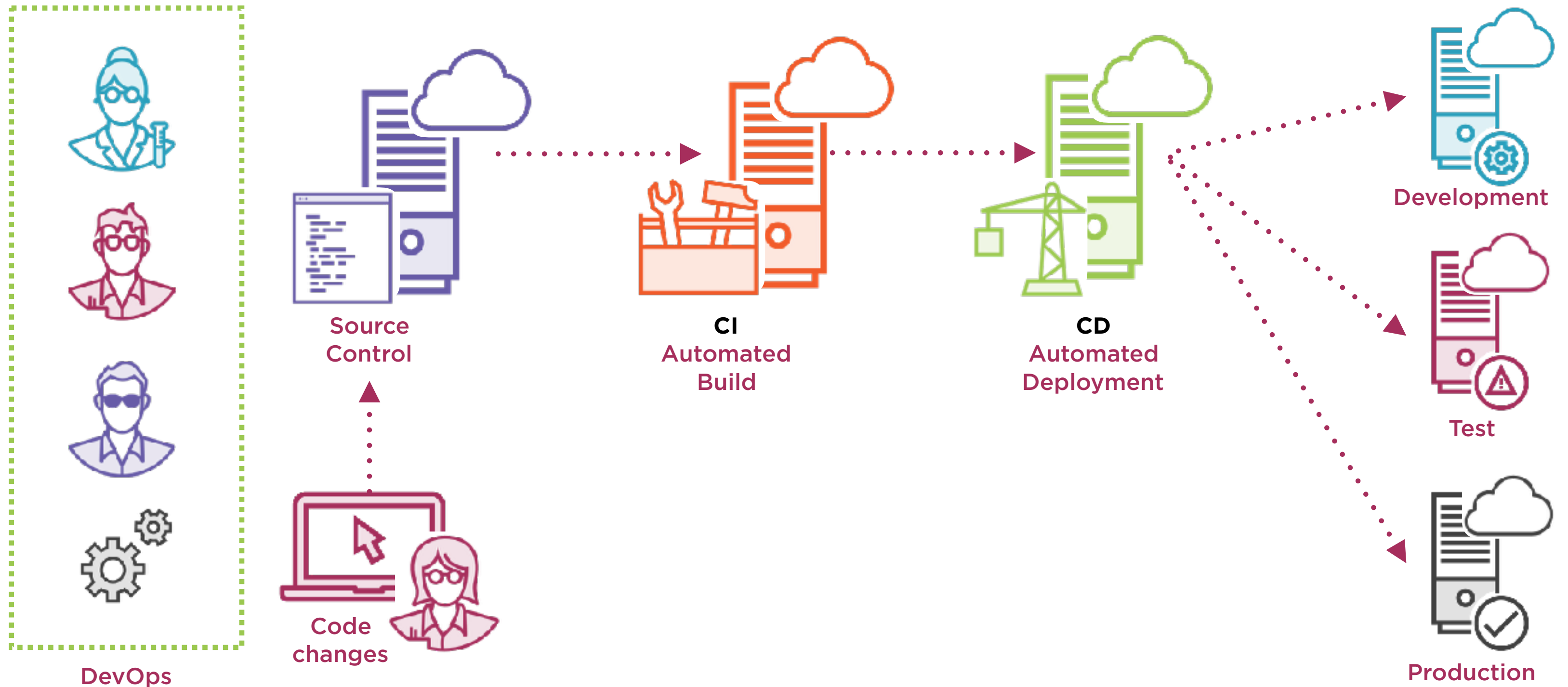
## Advantages

- Full control and features

# Hybrid Cloud Based Architecture



# Cloud Automation High-Level



# Summary

**IAAS**

**PAAS**

**SAAS**

**Hybrid Approach**

**Cloud Automation**

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