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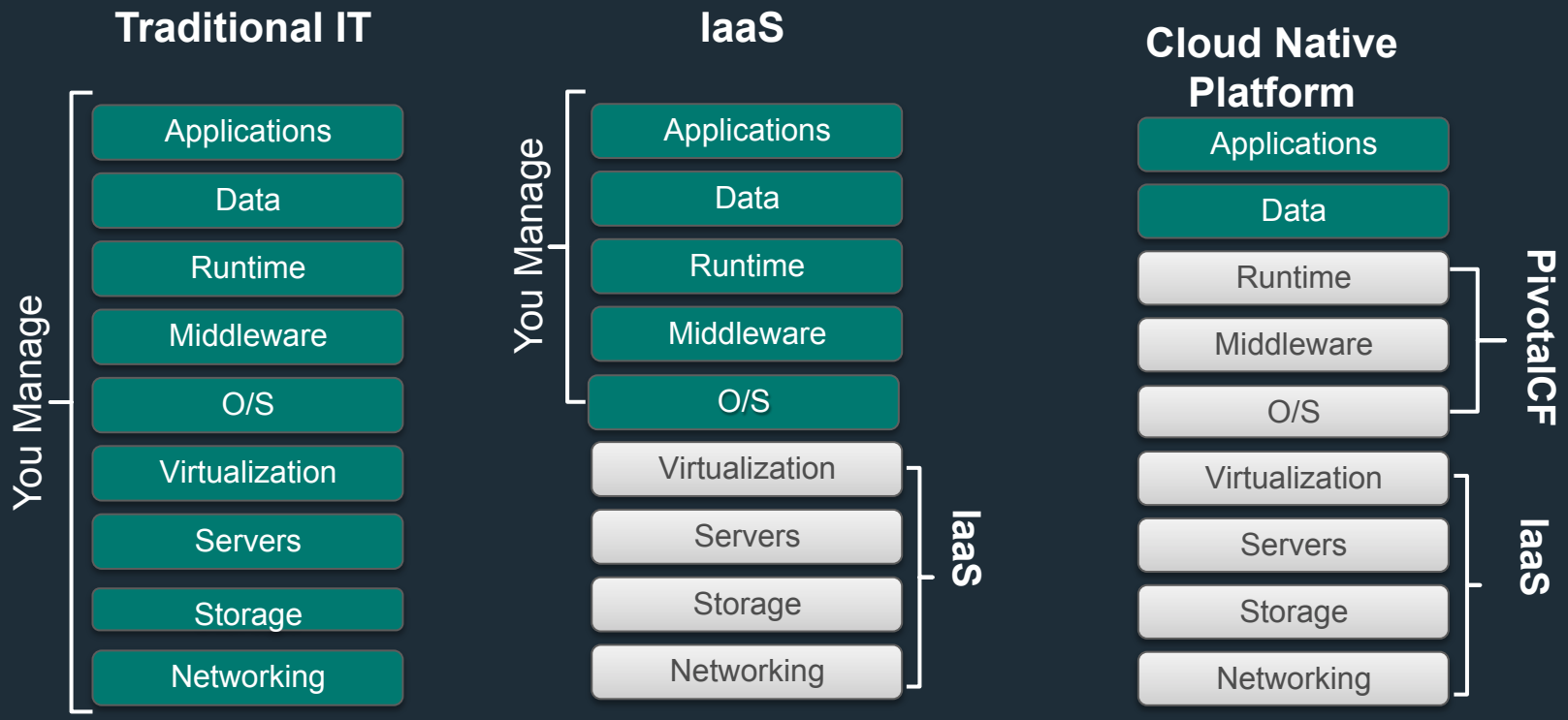
Pivotal Cloud Foundry

Reshmi Krishna

The Cloud Platform Evolution



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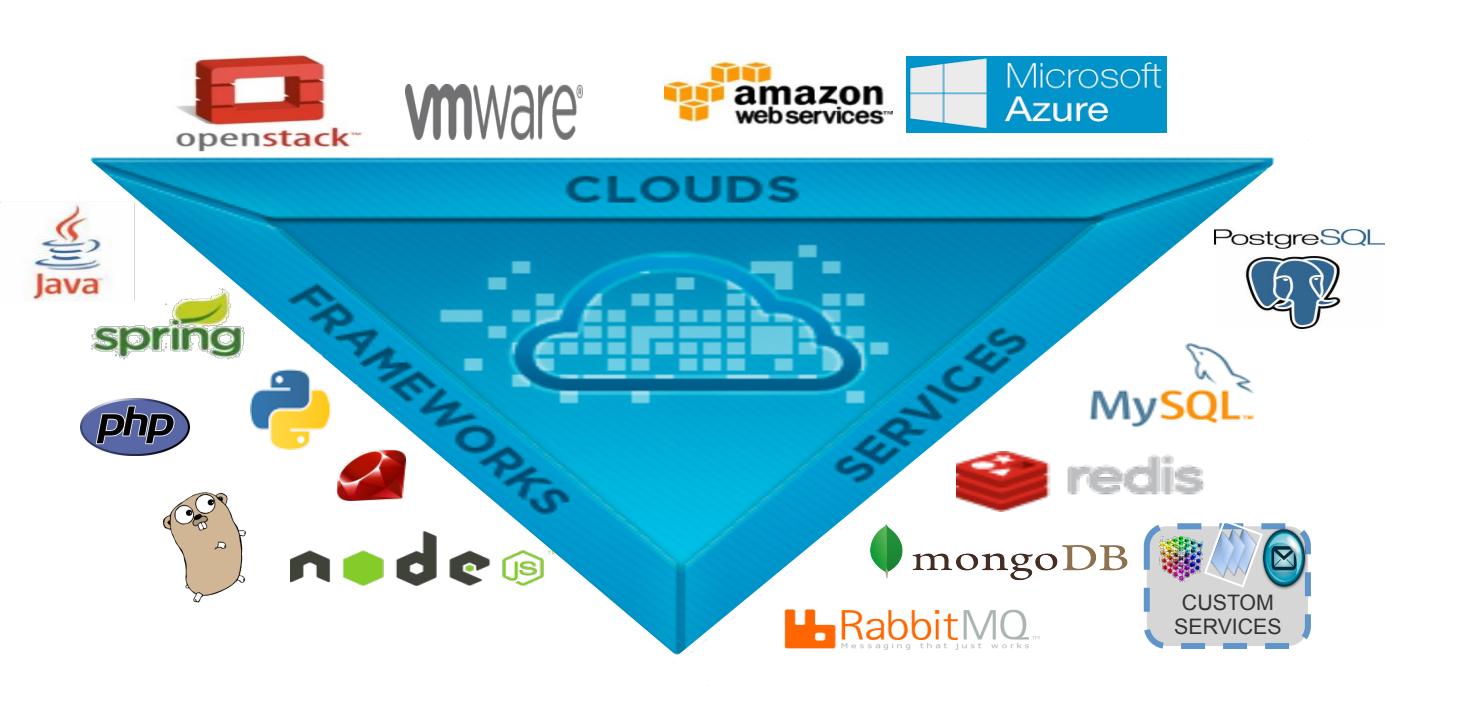
The Open platform as a Service



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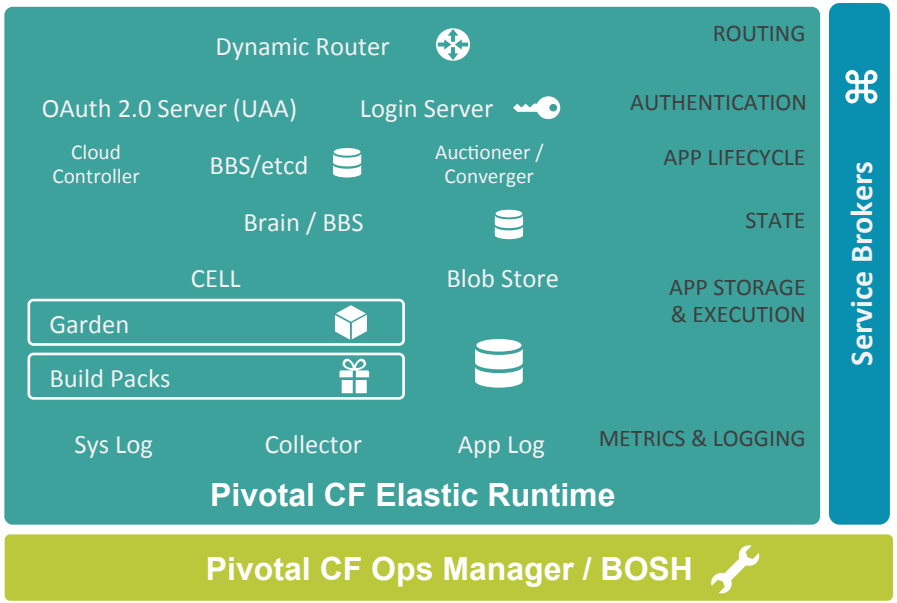
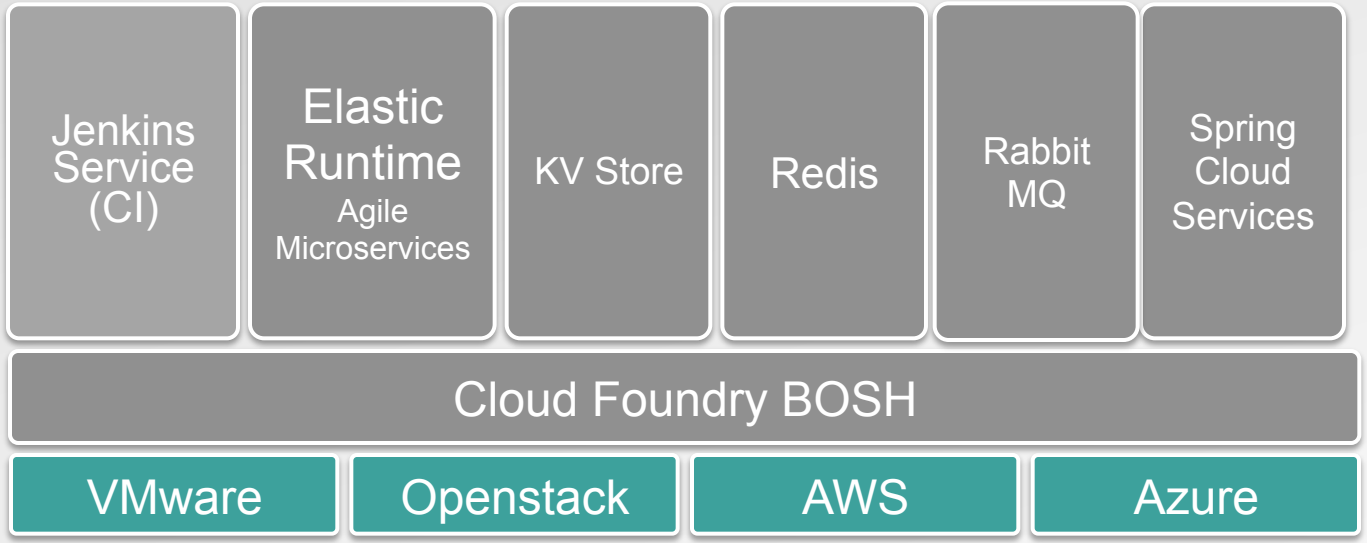
Elastic Runtime High Level Architecture



- Turnkey, fully automated Platform-as-a-Service
- Scalable runtime environment, extensible to most modern frameworks and languages running on Linux
- Instant expansion or upgrade with no downtime
- Deploy, scale and manage applications with bindable services using simplified semantics and APIs

Multi Cloud Platform : Cloud Foundry



Elastic managed runtime service integrated into leading data services; all scaled and managed by CF BOSH

Multi-Cloud Declarative Service Deployment, Operations

Demo

- Apps Manager / Ops Manager
- Deploy an app
- Self Healing
- Scaling
- Marketplace
- Logging/Metrics
- Blue-Green deploy

Overview: Deploying *App* to Cloud Foundry *Runtime*

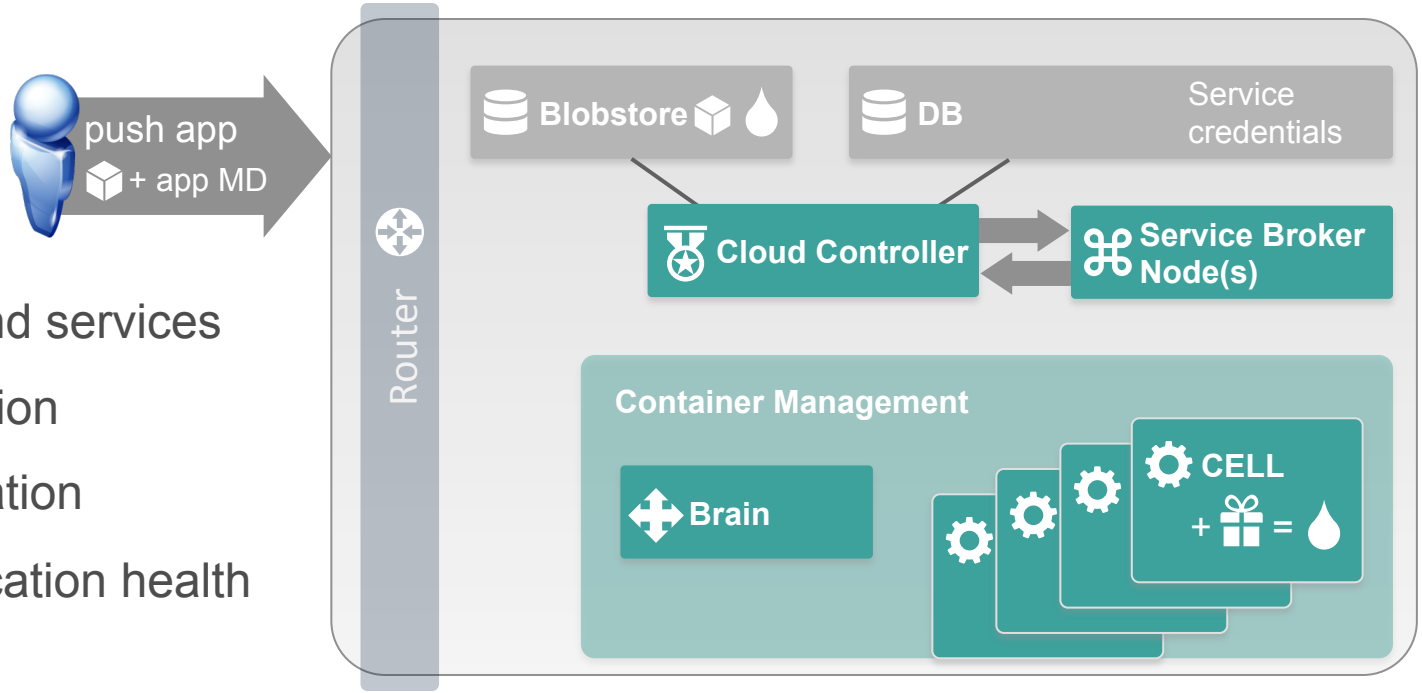
① Upload app bits and metadata

② Create and bind services

③ Stage application

④ Deploy application

⑤ Manage application health



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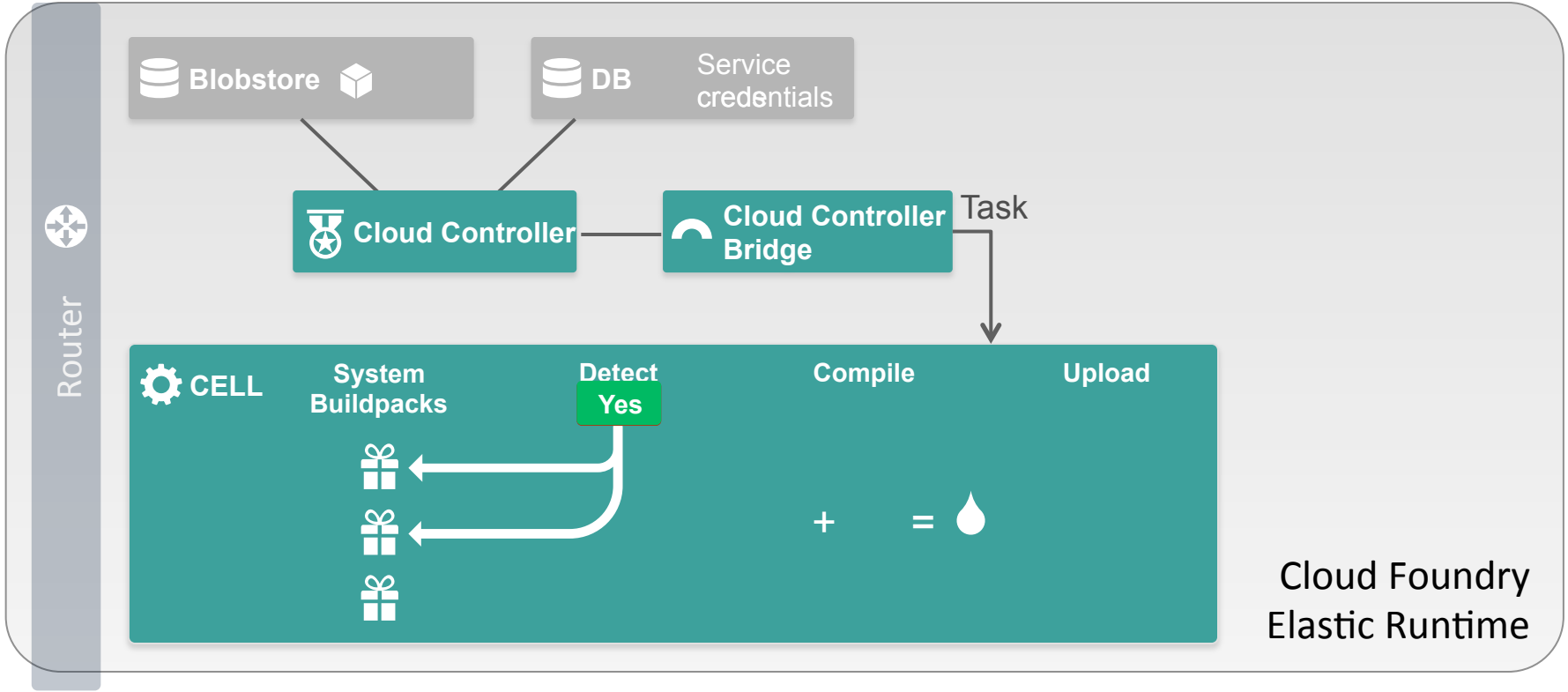
Stage an *Application*



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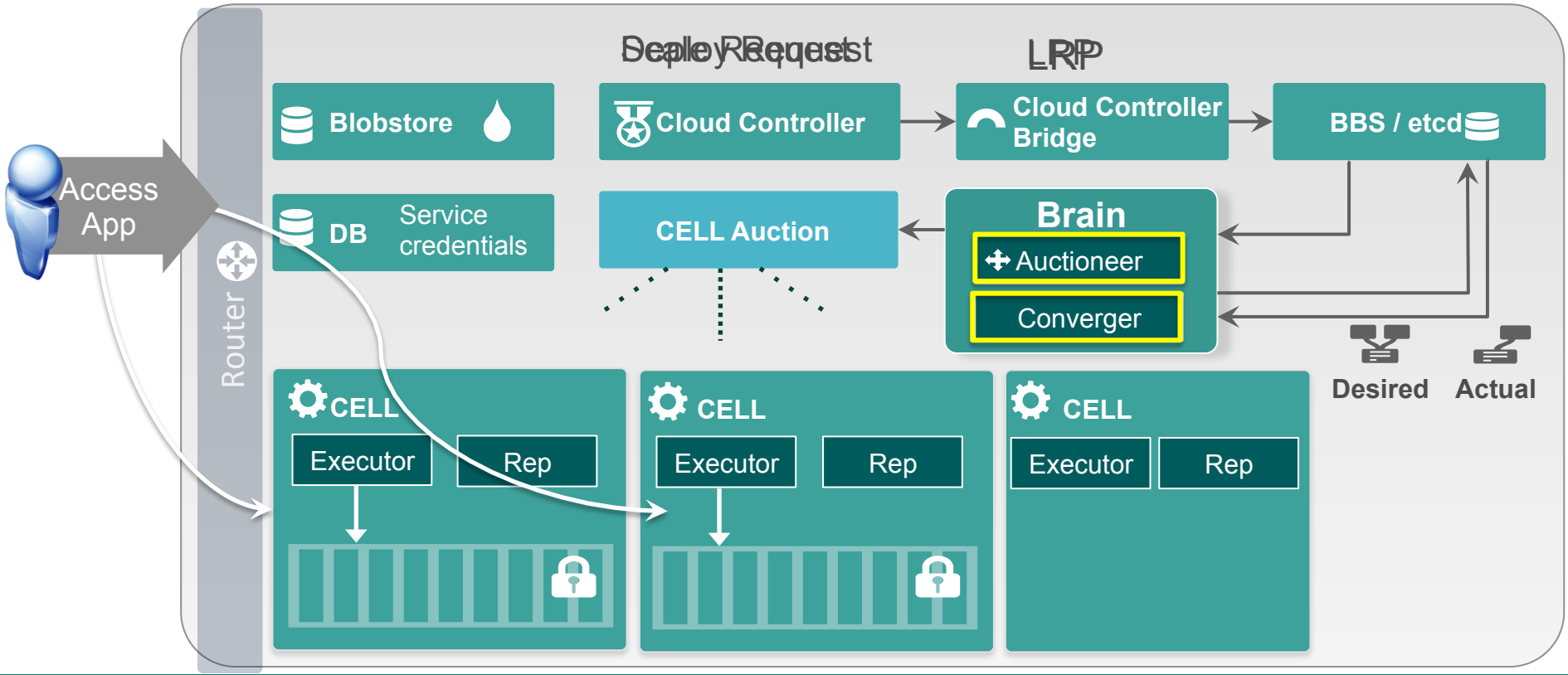
Deploying and Scaling an *Application*



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Four levels of HA

Built in!

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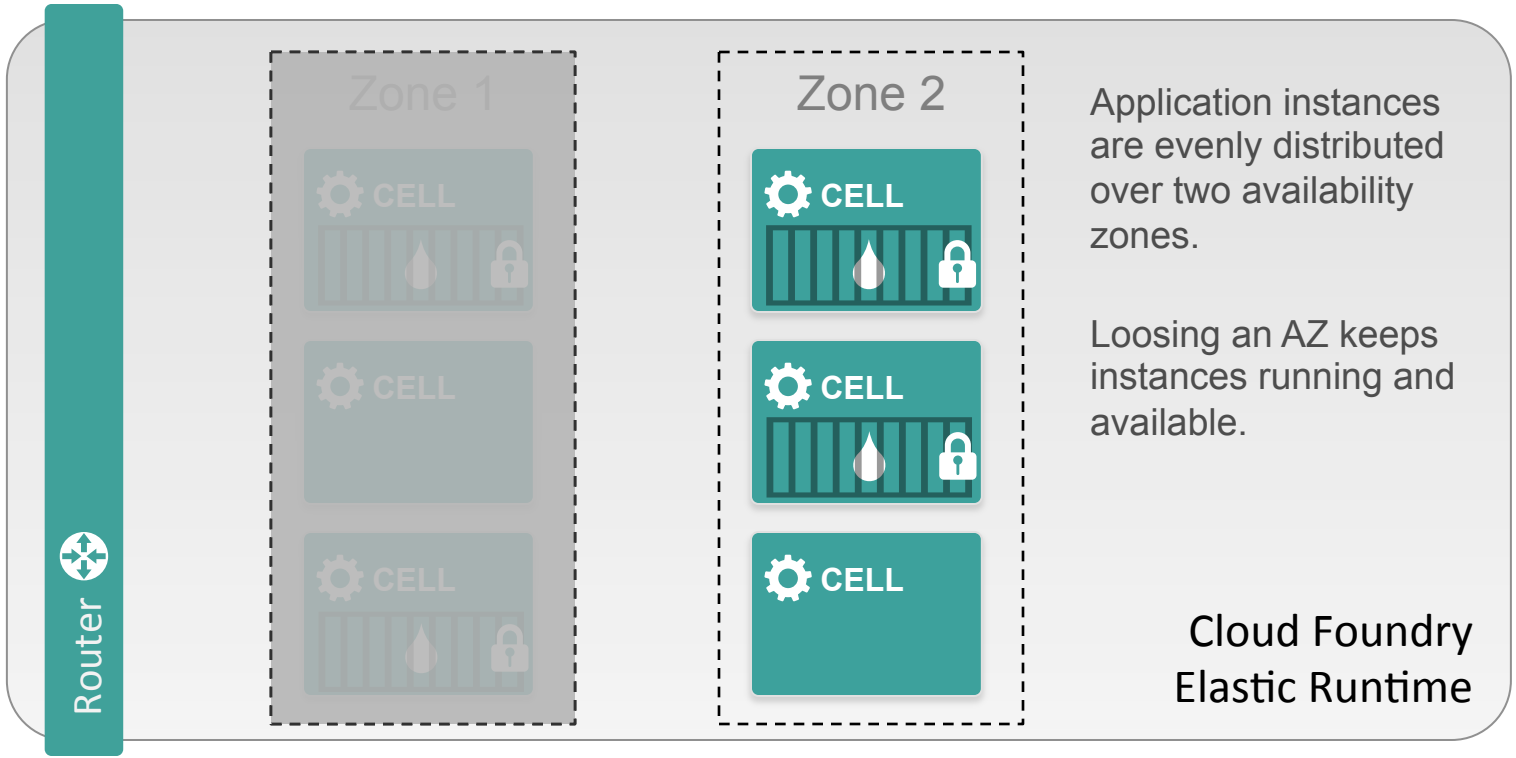
Application Instances and Availability Zones



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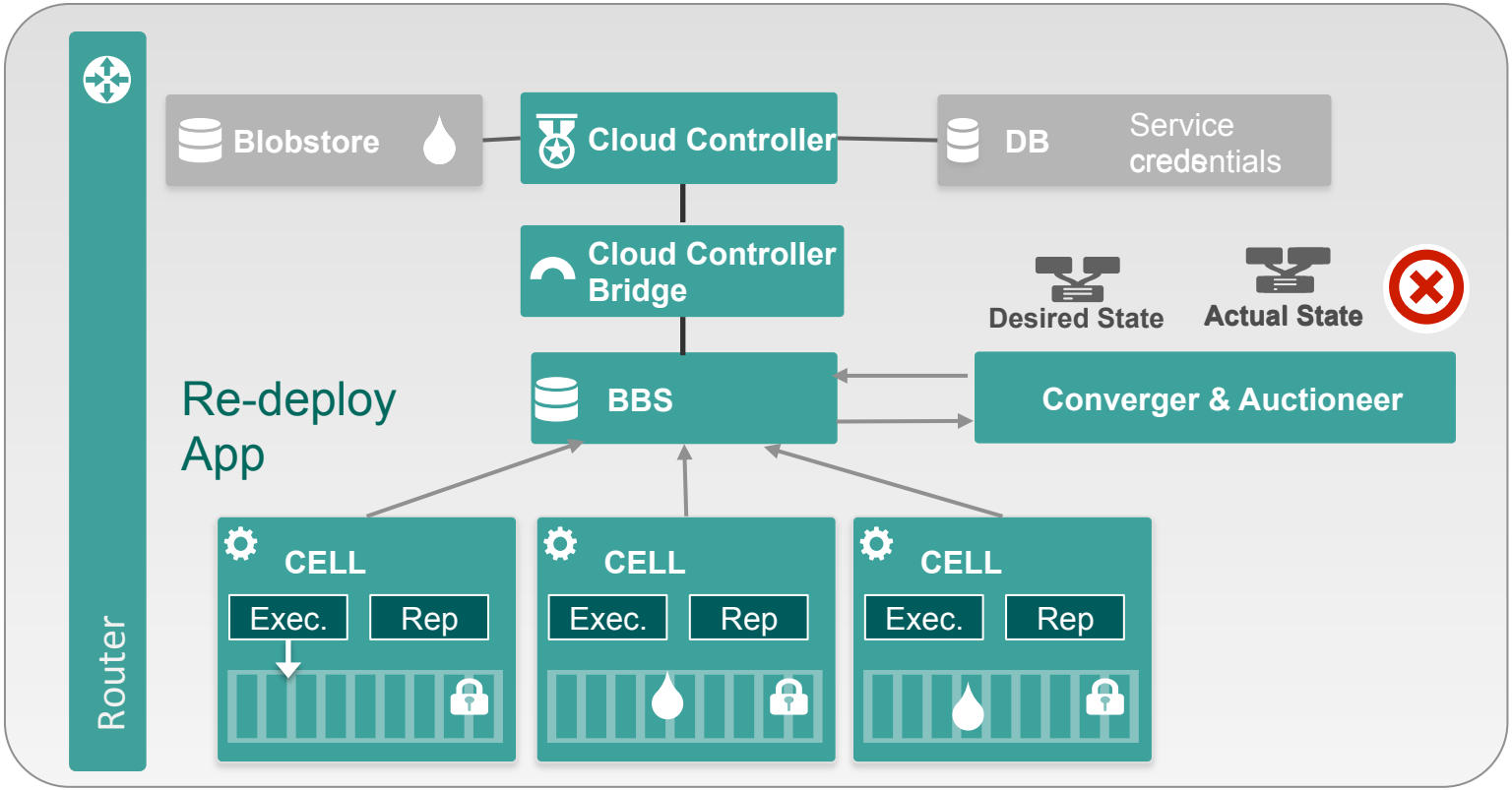
Failed *Application* Instances Replaced



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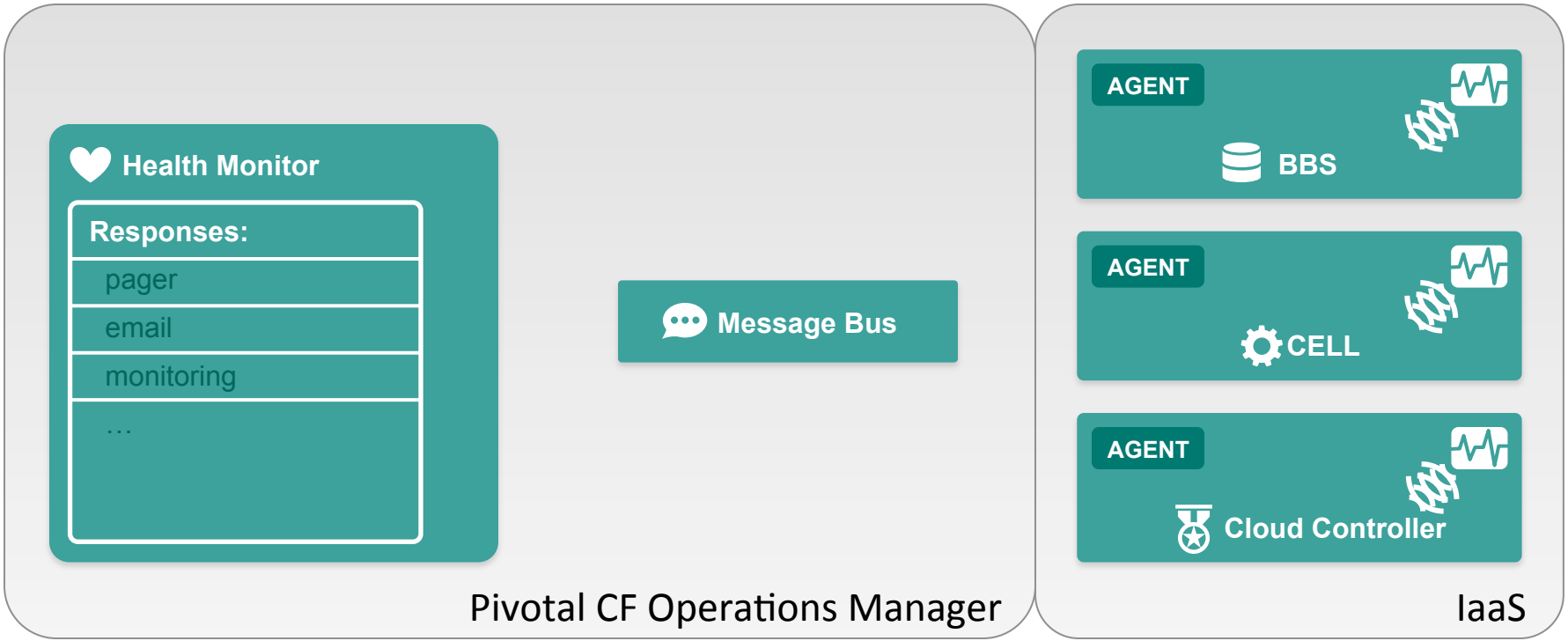
ERS Processes are Monitored



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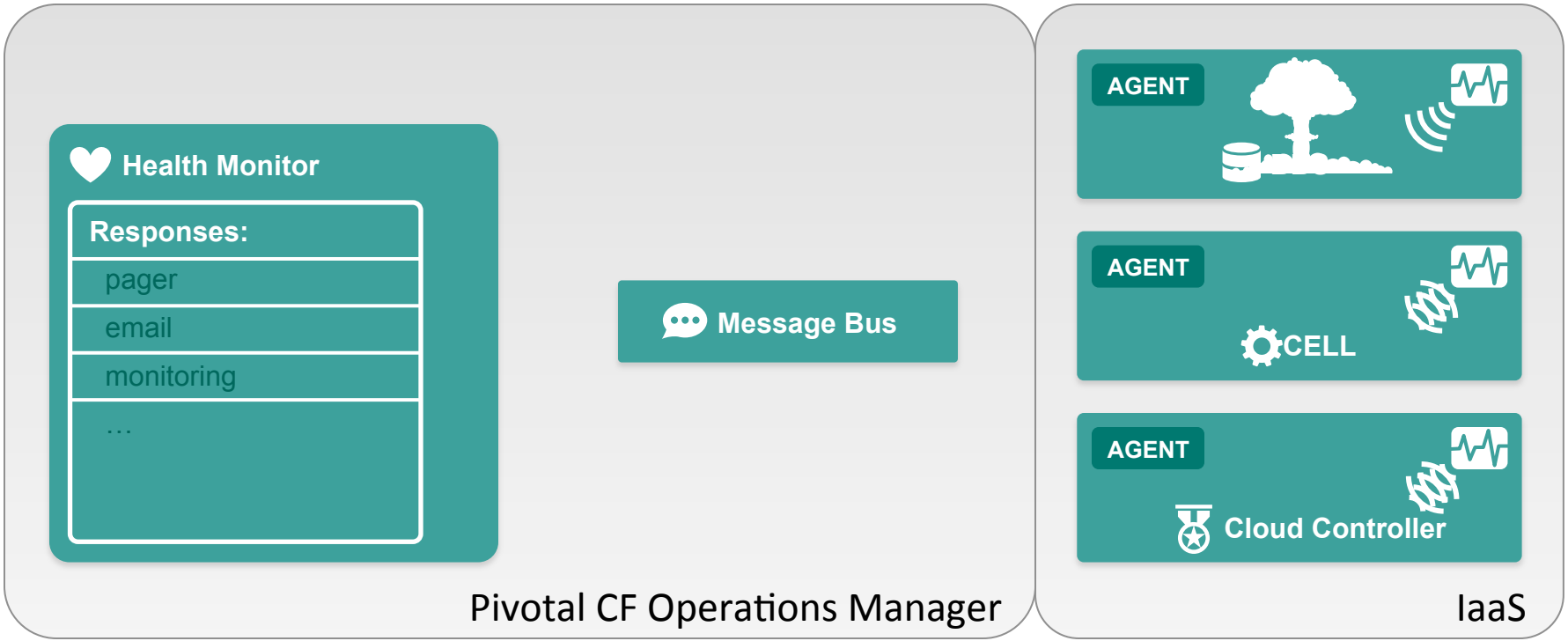

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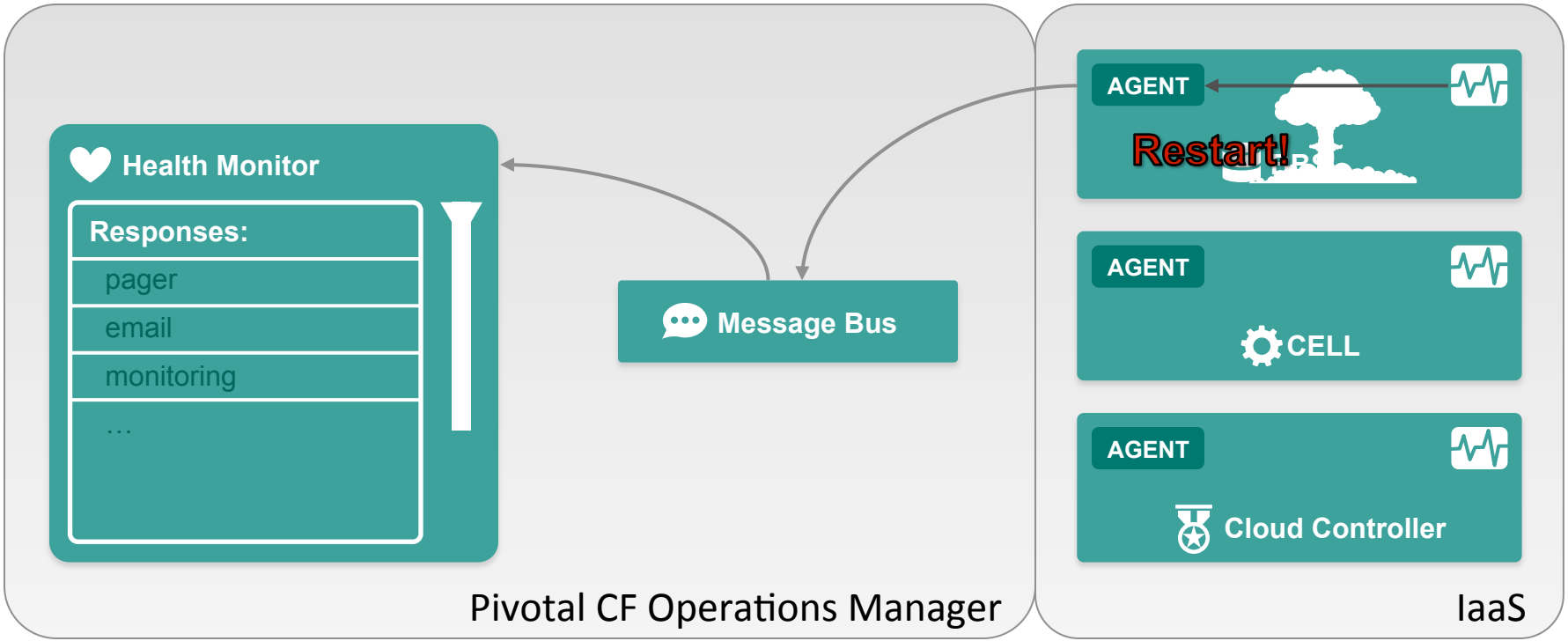

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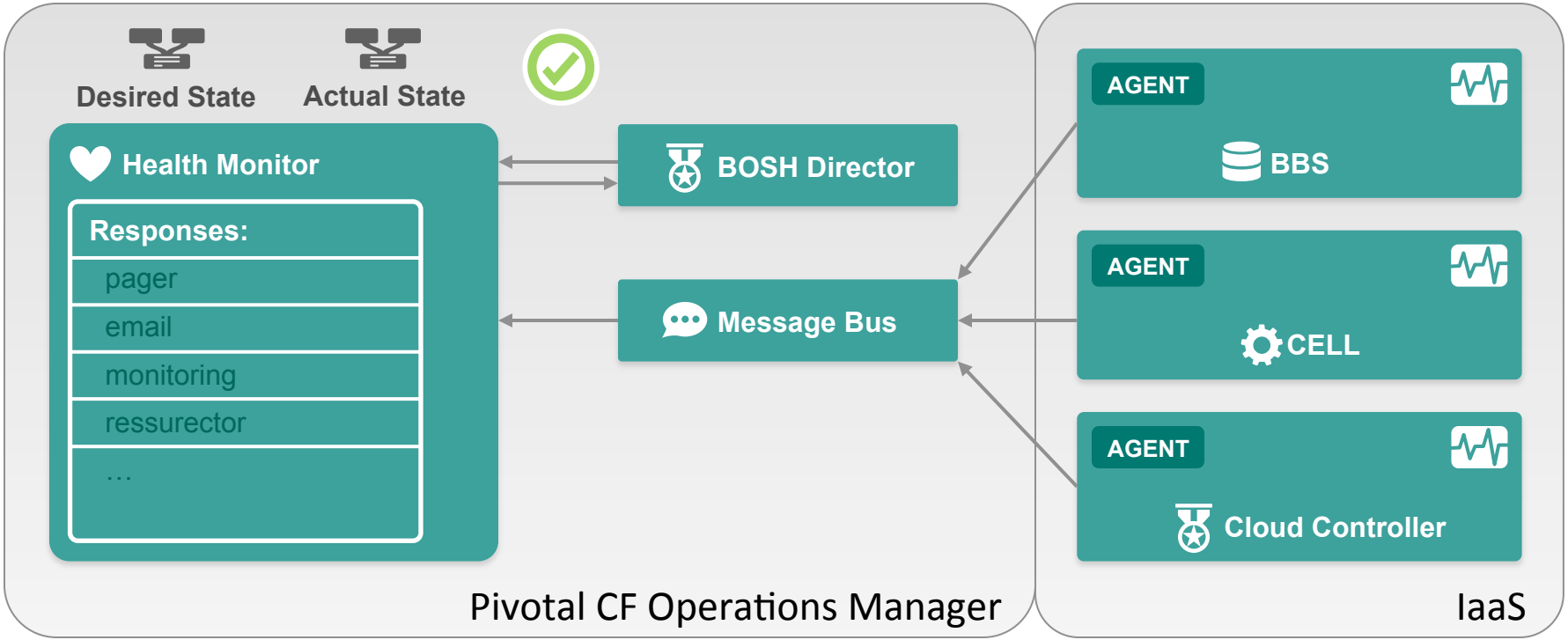
VMs are Monitored



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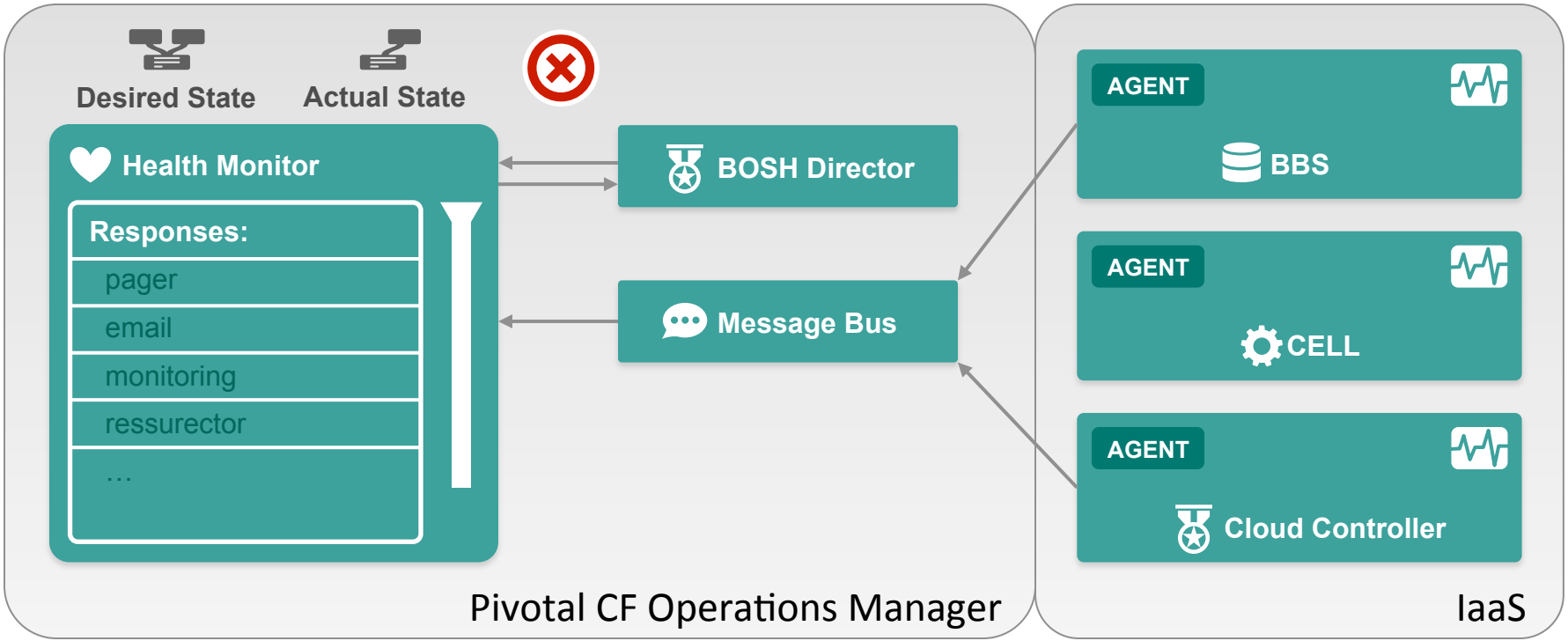

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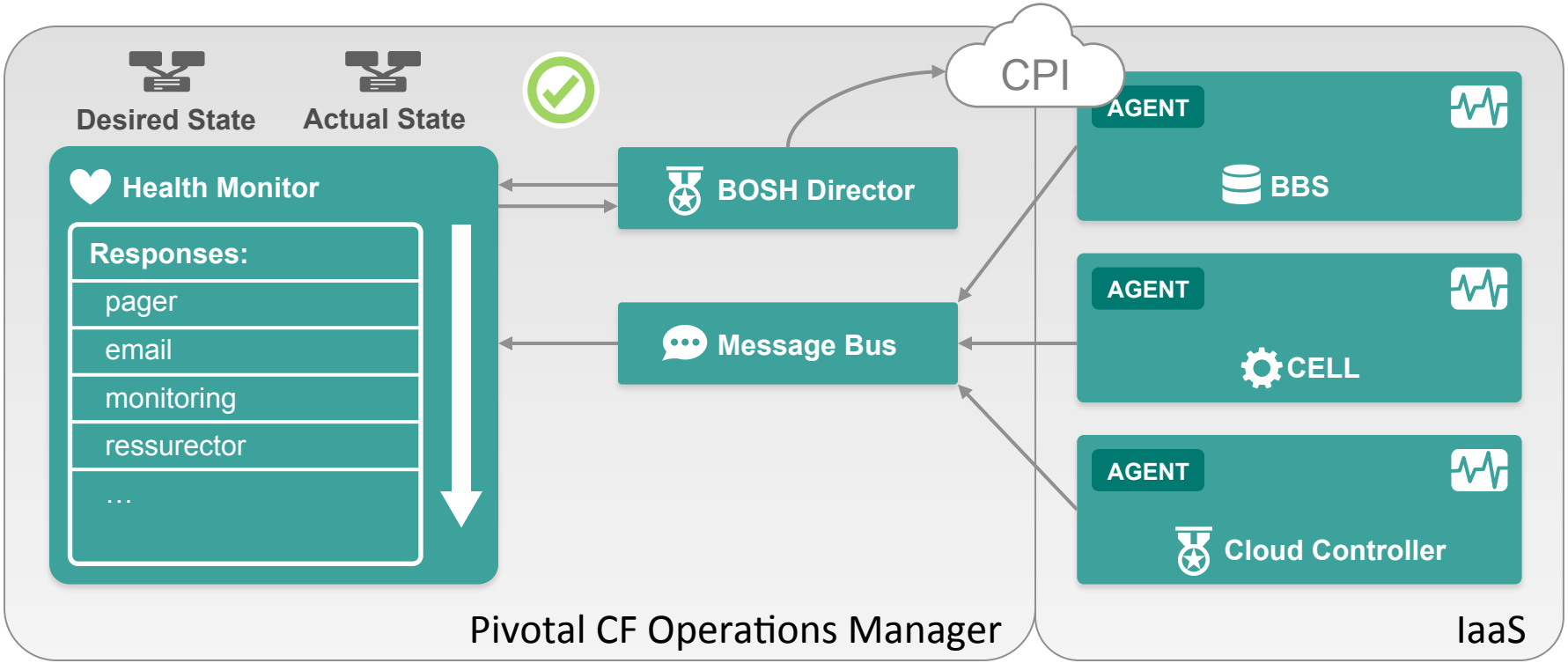

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Pivotal Cloud Foundry = Enterprise-grade Platform

- Cloud-scale, distributed, self-healing, eventually consistent architecture
  - Similar patterns in Elastic Runtime (for your apps) and BOSH (for your services)
- Declarative – you declare your desired state and Pivotal Cloud Foundry keeps the system consistent with that desired state (4 levels of HA!!)
- Zero-downtime, rolling upgrades
- Pivotal Cloud Foundry manages containers (ERS) and VMs (BOSH)

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