Red Hat OpenShift on IBM Power

David Yang
Senior Solution Architect
Red Hat Taiwan

Red Hat

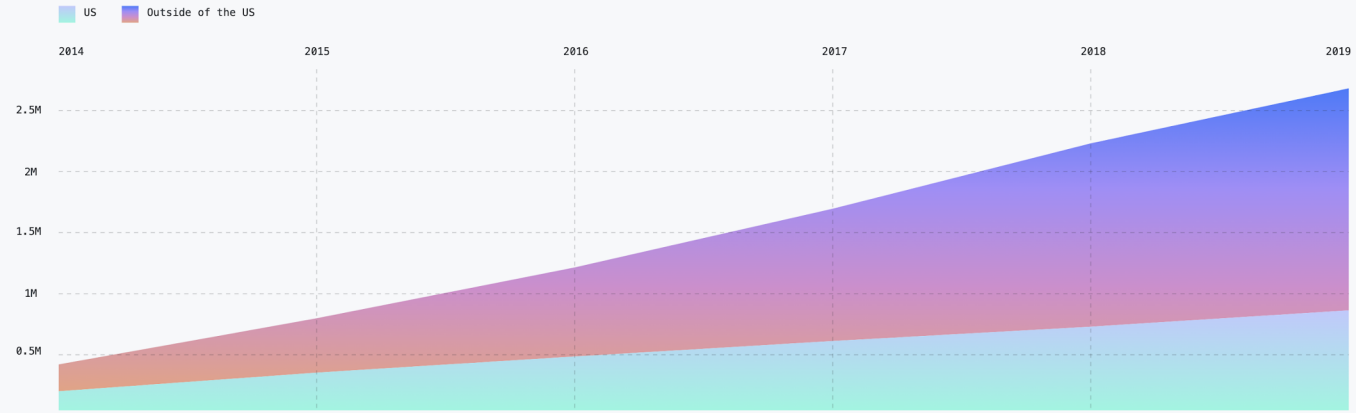
開源的進展及變化

The world of open source

Open source is built by a global team of maintainers, developers, researchers, designers, writers, and more. On average, each open source project on GitHub welcomed contributors from 41 different countries and regions this year.*

By total contributors outside the United States

Every year since 2014, we've seen more open source contributions from outside the United States.*



https://tradingeconomics.com/united-states/dallas-fed-manufacturing-index

https://octoverse.github.com/

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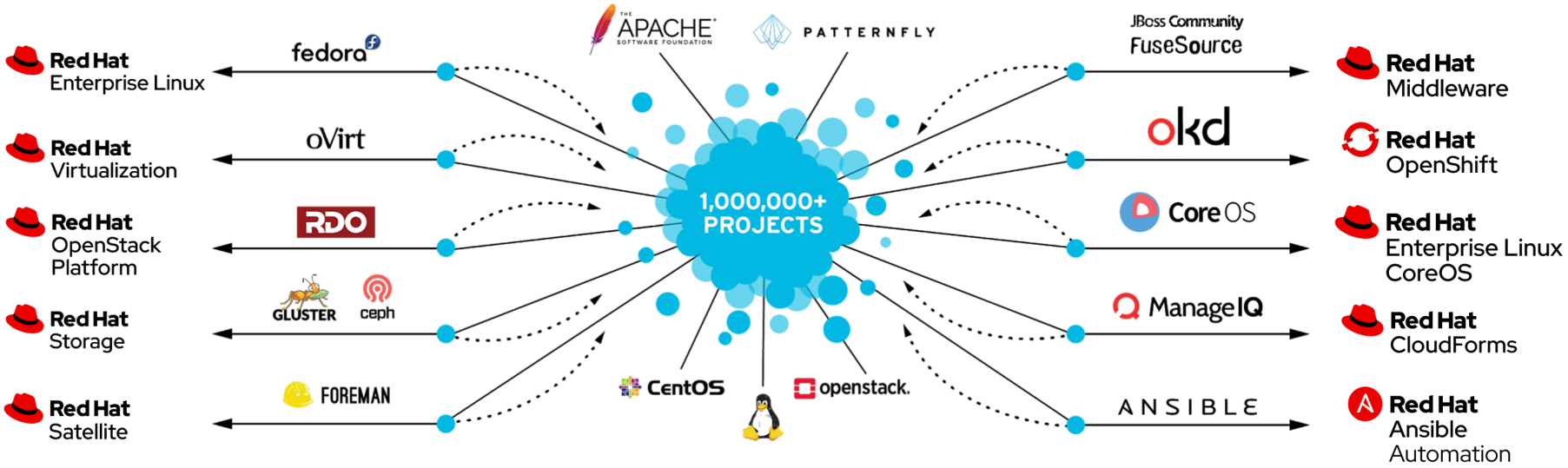
Red Hat 承諾 **持續貢獻開源社群** 回饋世界



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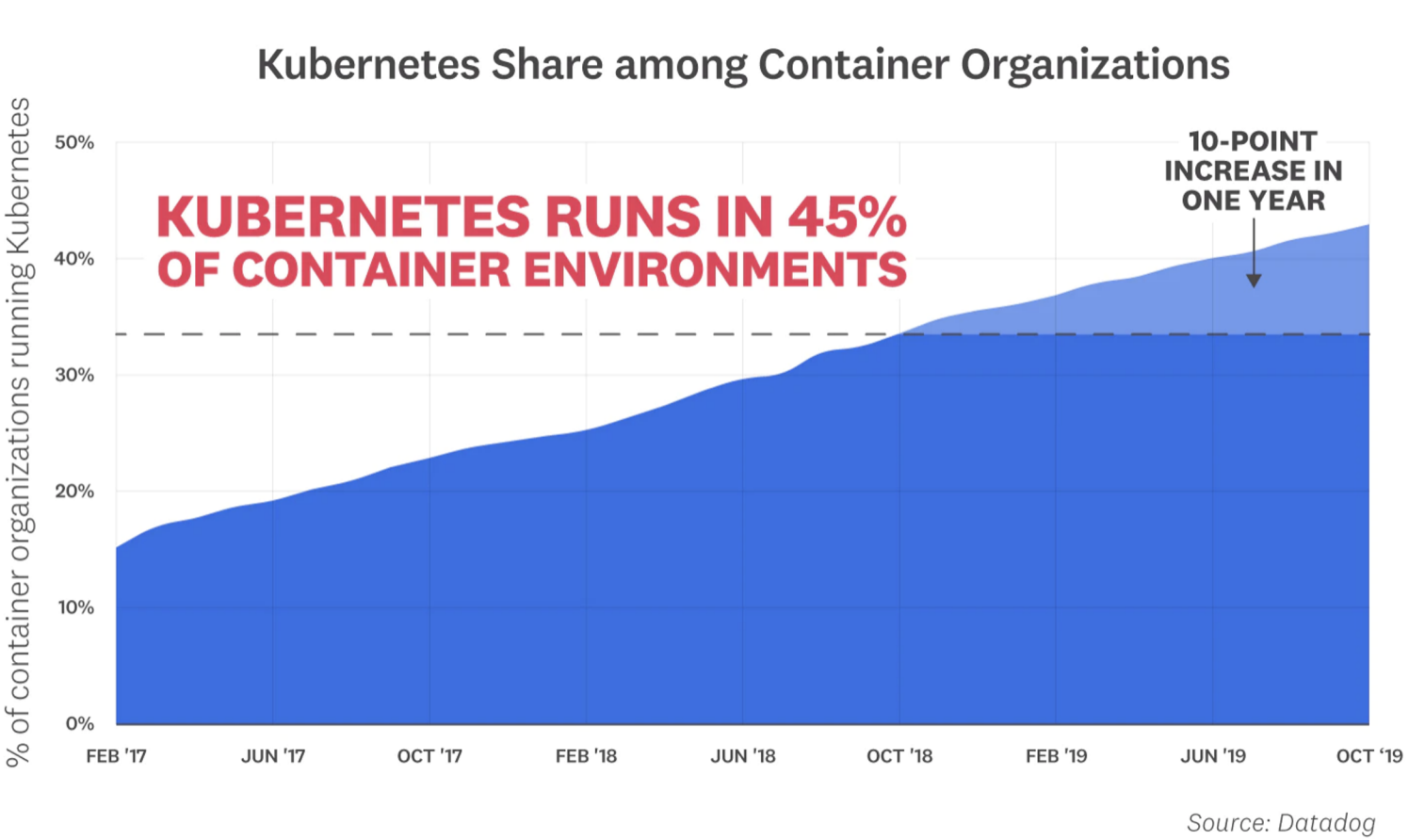


source: https://www.datadoghq.com/container-report/

Level of K8S Contribution

Commits by Company

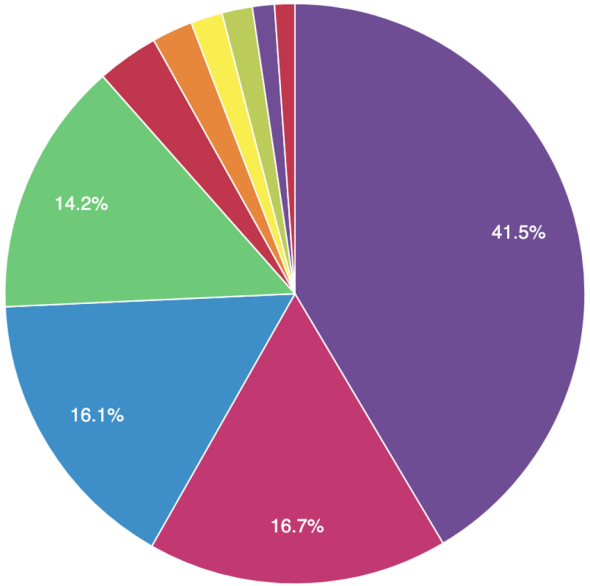
Show 10 entries

Search

#	Company	Commits
1	Google	21604
	*independent	8719
2	Red Hat	8372
3	Huawei	1791
4	ZTE Corporation	1182
5	Microsoft	921
6	VMware	887
7	IBM	637
8	FathomDB	587
9	Intel	528

Showing 1 to 10 of 130 entries

Previous Next



https://www.stackalytics.com/cncf?module=kubernetes

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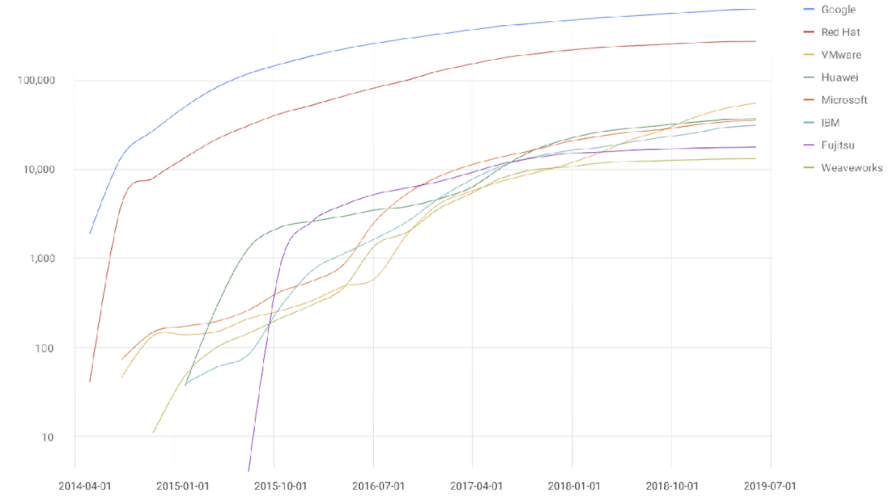
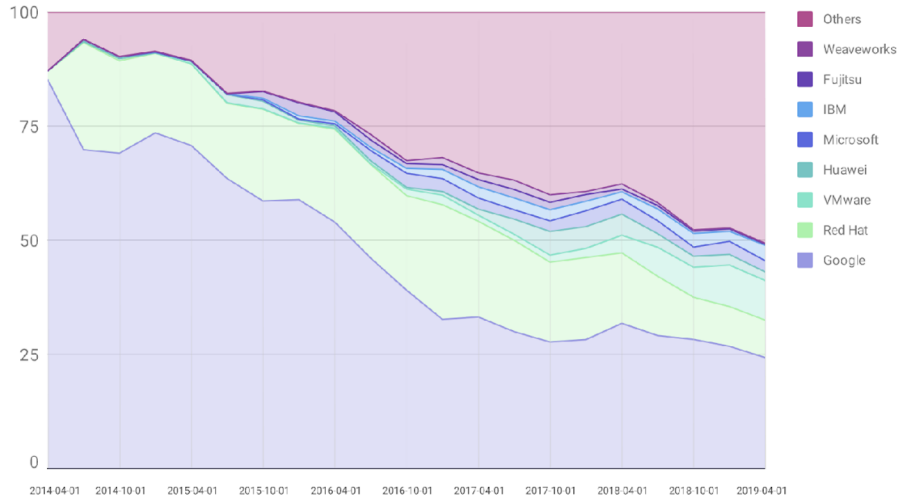
Level of K8S Contribution

Contributions by Company



Cumulative volume of contributions by company since Kubernetes project launch



Percentage breakdown of contributions by company since Kubernetes project launch

https://www.cncf.io/cncf-kubernetes-project-journey/

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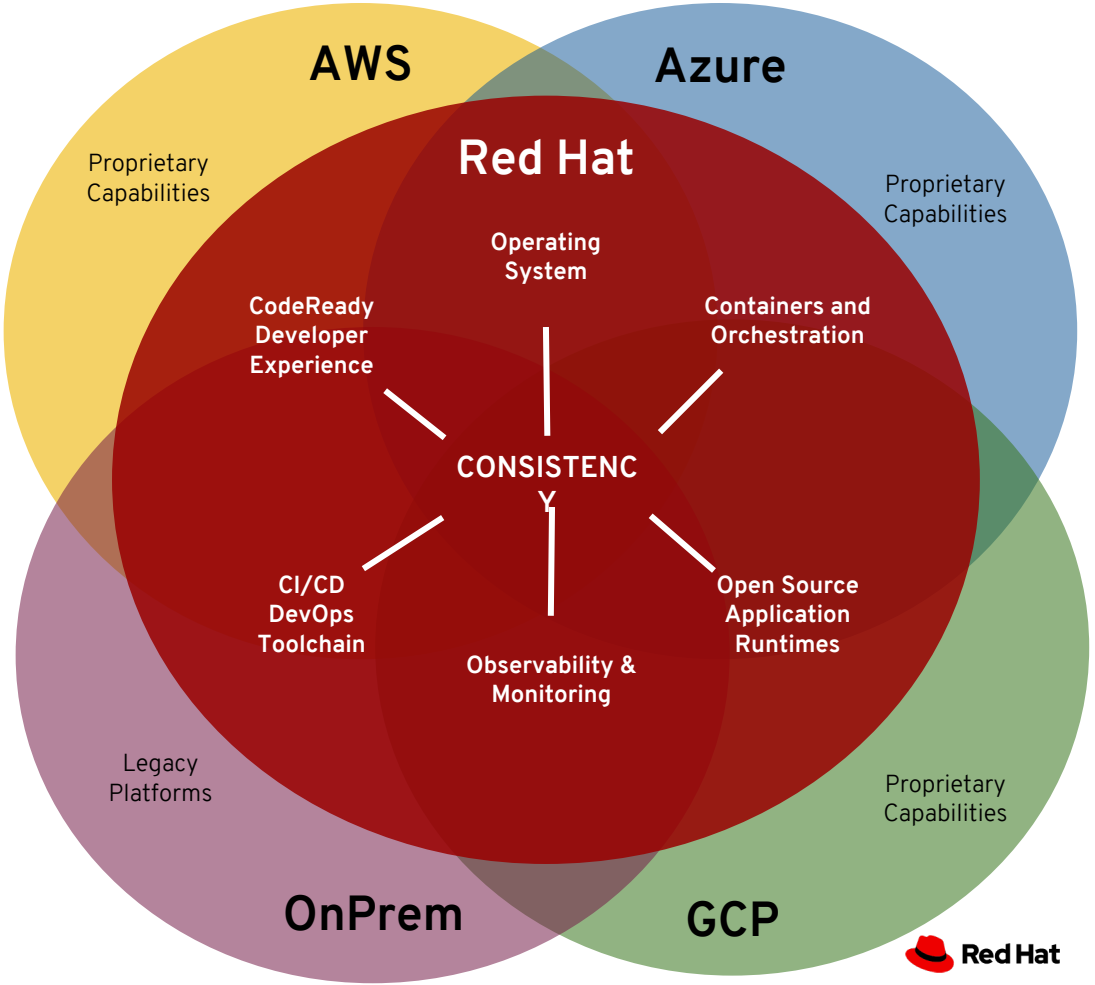
混合雲 & 多雲環境

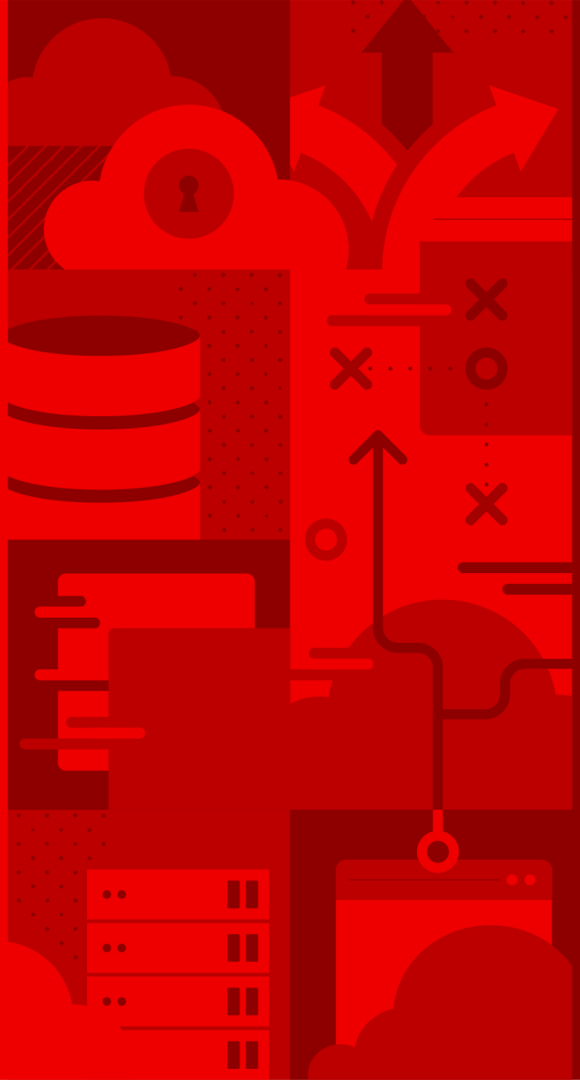
Challenges going directly to public cloud:

- Variation of software versions, container orchestration, operating system, tooling and developer experience between providers
- All different than on-prem infrastructure
- Common Denominator is Open Source App Runtimes, but they will vary too

Public Cloud Opportunities:

- Time to market for new infrastructure
- Value add proprietary services - such as AI, Voice recognition, etc





OpenShift Container Platform

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正確使用 Kubernetes 是相當具備挑戰

安裝	部署	固化	維運
• Templating • Validation • OS setup	• Identity & security access • App monitoring & alerts • Storage & persistence • Egress, ingress, & integration • Host container images • Build/Deploy methodology	• Platform monitoring & alerts • Metering & chargeback • Platform security hardening • Image hardening • Security certifications • Network policy • Disaster recovery • Resource segmentation	• OS upgrade & patch • Platform upgrade & patch • Image upgrade & patch • App upgrade & patch • Security patches • Continuous security scanning • Multi-environment rollout • Enterprise container registry • Cluster & app elasticity • Monitor, alert, remediate • Log aggregation

75%

的企業認為實作 Kubernetes 維運的複雜性及操作管理是採用的最大障礙

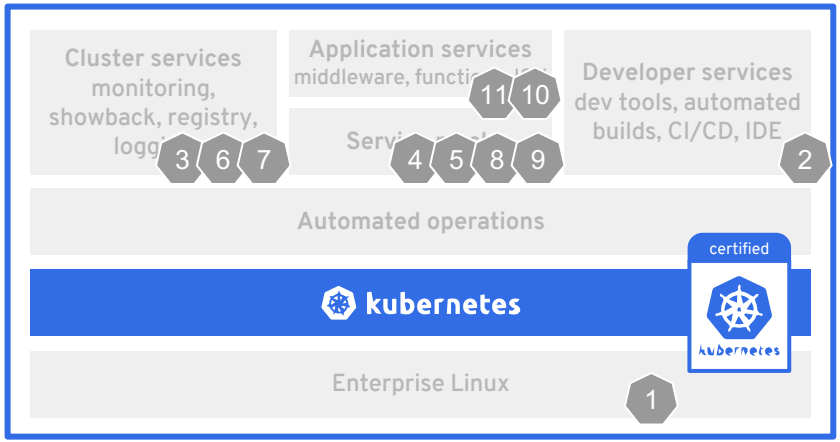
Source: The New Stack. *The State of the Kubernetes Ecosystem*, August 2017.

Q: 誰去維護整合這些非 Kubernetes 功能?

kubernetes

Lacks many essential components

1. Operating system
2. Container runtime (CRI-O, Containerd, Docker, etc).
3. Image registry
4. Software-defined networking
5. Load-balancer and routing
6. Log management
7. Container metrics and monitoring
8. DNS
9. Load balancing
10. Ingress
11. RBAC



The customer (or third-party) must configure, integrate, operate and support additional components to be fully operational.

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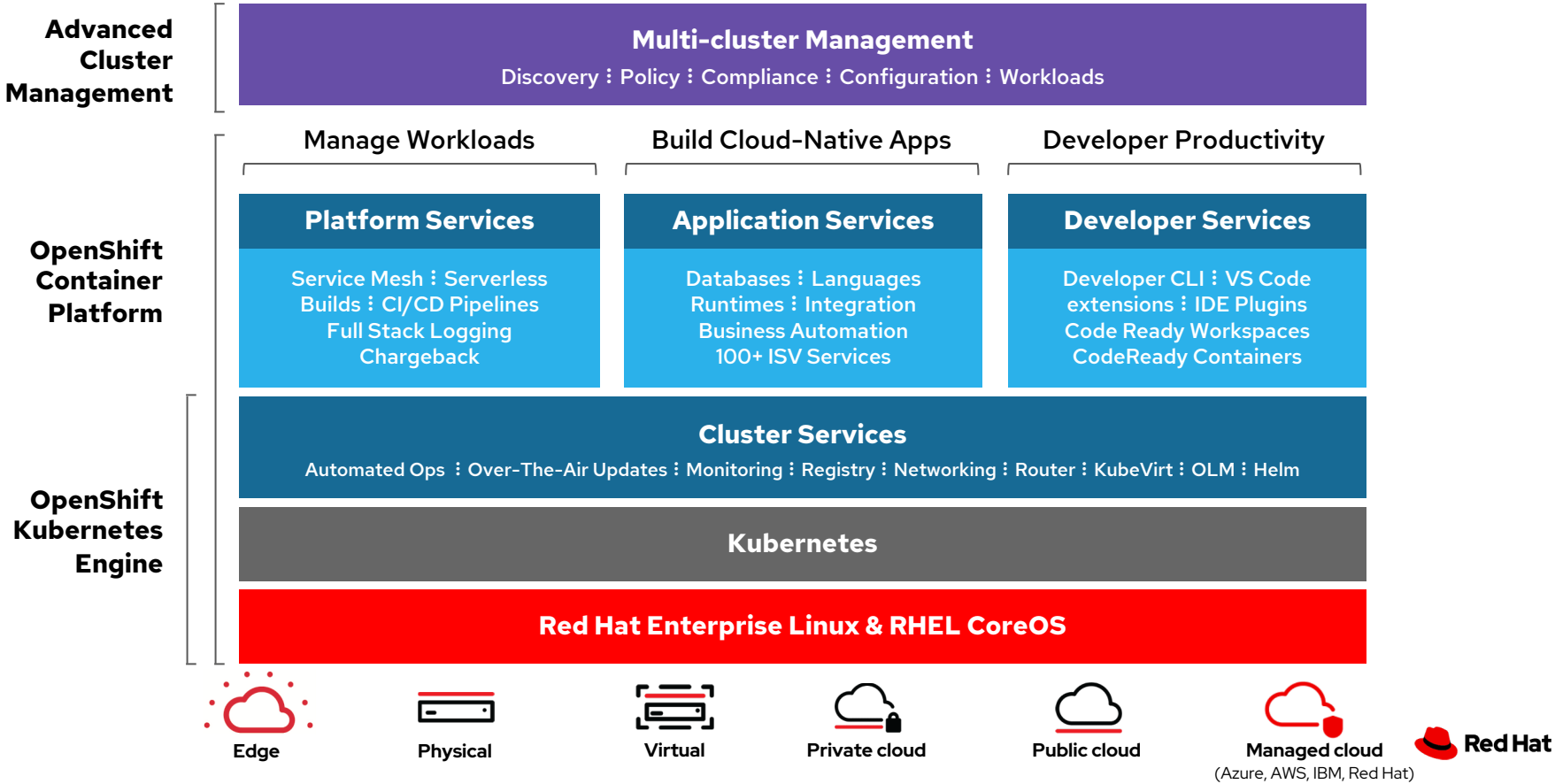
如何從茫茫大海中選擇供企業運行使用?

整合、完整及安全 OpenShift Container Platform



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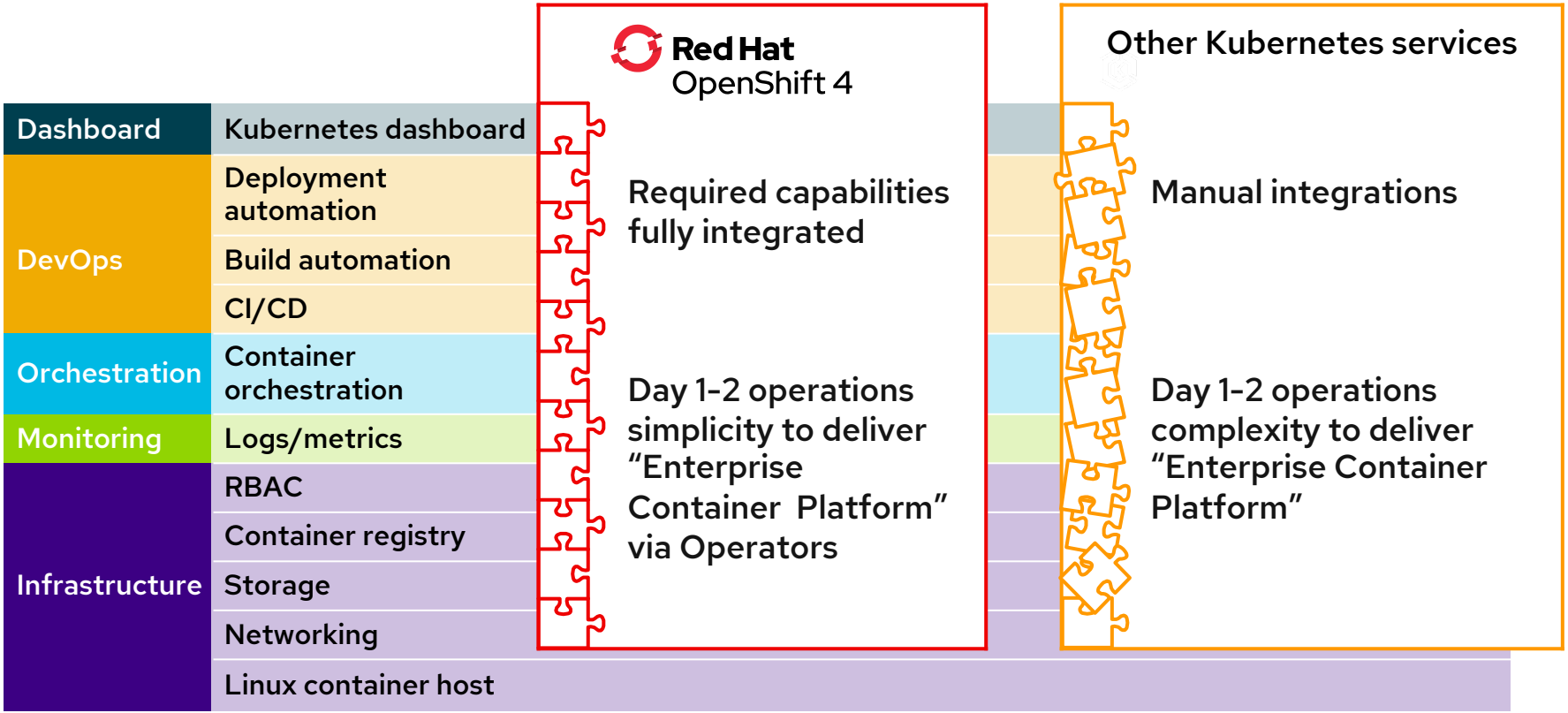
完全整合的平台帶來全面的安全性



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OpenShift 提供最廣泛的混合雲服務

Red Hat OpenShift

aws	Microsoft Azure	Google Cloud Platform	IBM Cloud	On-premises
Red Hat OpenShift Dedicated *Managed By Red Hat* or Customer Managed	Azure Red Hat OpenShift *Jointly Managed & Supported* or Customer Managed	Red Hat OpenShift Dedicated *Managed By Red Hat* or Customer Managed	Red Hat OpenShift on IBM Cloud *Jointly Engineered* or Customer Managed (UPI)	IBM Power Systems RED HAT VIRTUALIZATION Bare Metal Customer Managed

Red Hat OpenShift 4.x

Trusted enterprise Kubernetes

- Rebase to Kubernetes 1.17
- HAProxy 2.0 support
- etcd Operator

A cloud-like experience, everywhere

- Deployment on IBM Power and Red Hat Virtualization (RHV)
- DNS forwarding
- Cost Management

Empowering developers to innovate

- Helm in the OpenShift console
- Monitoring and metrics in the developer console
- OpenShift Serverless
- OpenShift Pipelines

IBM Cloud Paks with Red Hat OpenShift

Containerized software solution bundles for key cloud workloads

Red Hat Developer Tools	Red Hat App Services	Red Hat OpenShift
odo (CLI) ⁝ CodeReady Workspaces ⁝ Helm ⁝ Developer CLI ⁝ IDE Plugins ⁝ CodeReady Containers	EAP ⁝ Node.js ⁝ Quarkus ⁝ Spring Boot ⁝ Thorntail ⁝ Vert.x ⁝ Data Grid ⁝ SSO ⁝ AMQ	Service Mesh ⁝ Serverless Builds ⁝ CI/CD Pipelines Logging ⁝ Metrics ⁝ OLM ⁝ Operators ⁝ Metering

Cloud Pak for Applications
Modernize existing apps and build new cloud native apps

Cloud Pak for Integration
Easily run your integration software anywhere your applications and data live

Cloud Pak for Automation
Digital Business Automation Platform

Cloud Pak for Data
Unified Data and AI Services

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Thank you

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