



La vida de una aplicación

Miguel Ángel Díaz

madiaz@redhat.com

Cloud Services Sales Specialist

Alberto Torres

atorres@redhat.com

OpenShift Sales Specialist

Pablo Ráez

pabloraez@redhat.com

Automation Sales Specialist

Clara González

clara.gonzalez.martin@intel.com

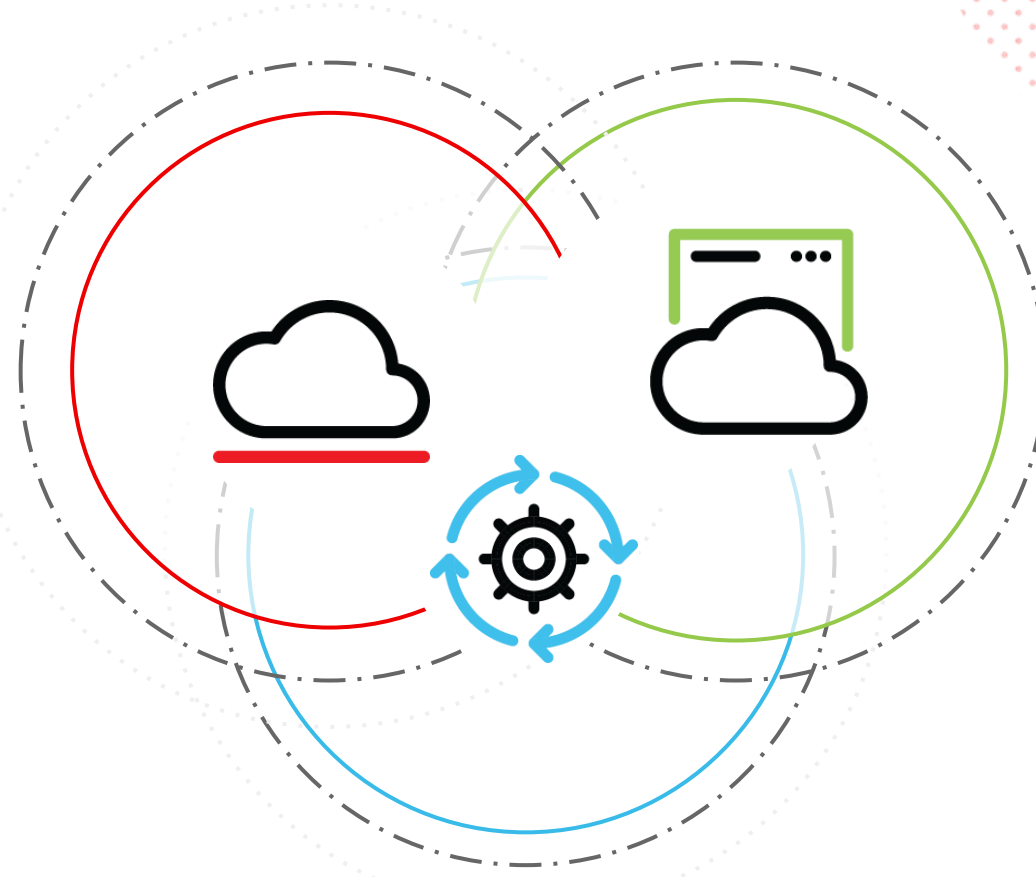
Presales Engineer



Los tres pilares de la *Open Hybrid Cloud*

Infraestructura Nube Híbrida

Optimiza costes de infraestructura mediante la **construcción** o el uso de entornos **híbridos**



Desarrollo Nativo Nube

Desarrolla, implementa y **administra** cualquier **aplicación**, en cualquier entorno y proporciona a los **desarrolladores** lo que necesitan para innovar

Gestión y Automatización

Mayor eficiencia y seguridad al **automatizar** la infraestructura y la gestión de la aplicación







BEBÉ

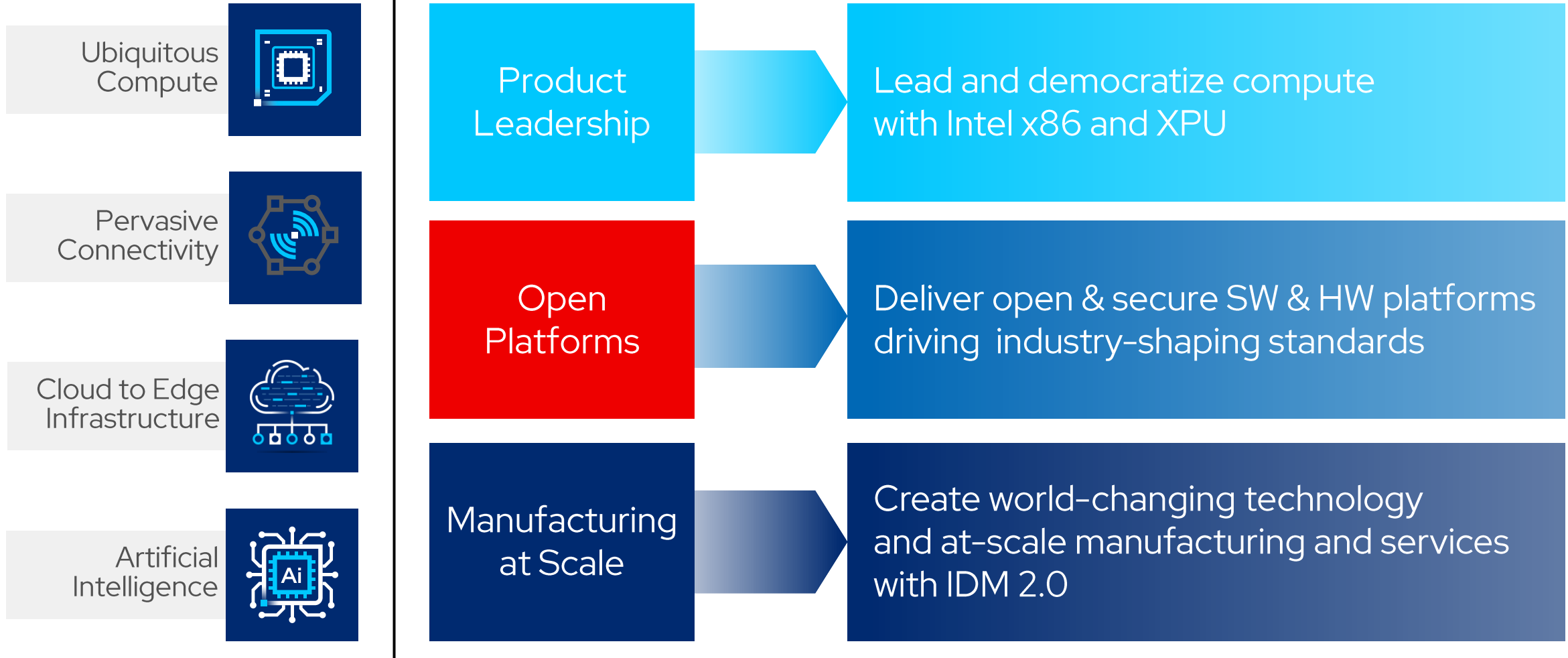
Decisiones, decisiones y
más decisiones

Primera decisión **tecnológica**: INTERCOMUNICADOR

Evolución constante e imparable



Our Strategy



Manufacturing at scale

Intel Foundry Services

Up to €80 billion investment over the next decade. From R&D to design, advanced chip packaging to manufacturing, and foundry services.

€33 billion investment in phase one:



Germany

Leading edge-
Fab



Ireland

Fab-extension



France

New R&D &
design hub



Italy

Expanding capabilities in R&D, manufacturing, state-of-the-art packaging technologies & foundry services



Poland



Spain



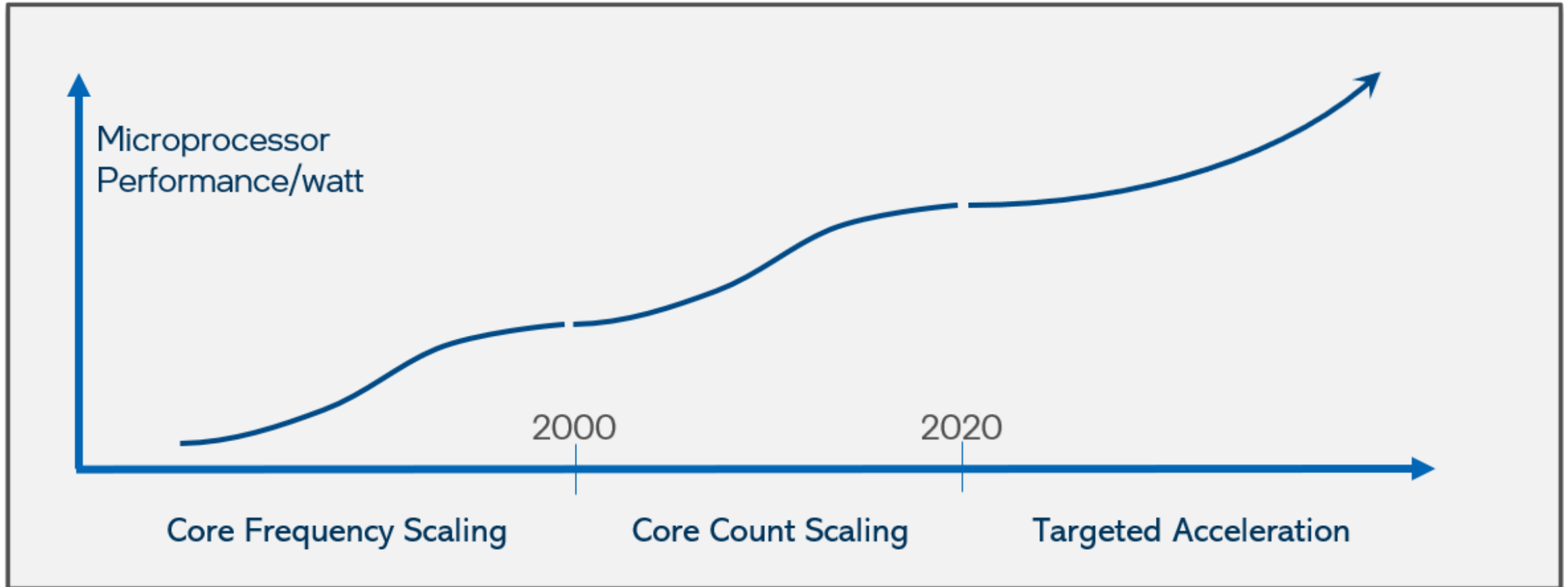
Belgium



Netherlands

Product leadership

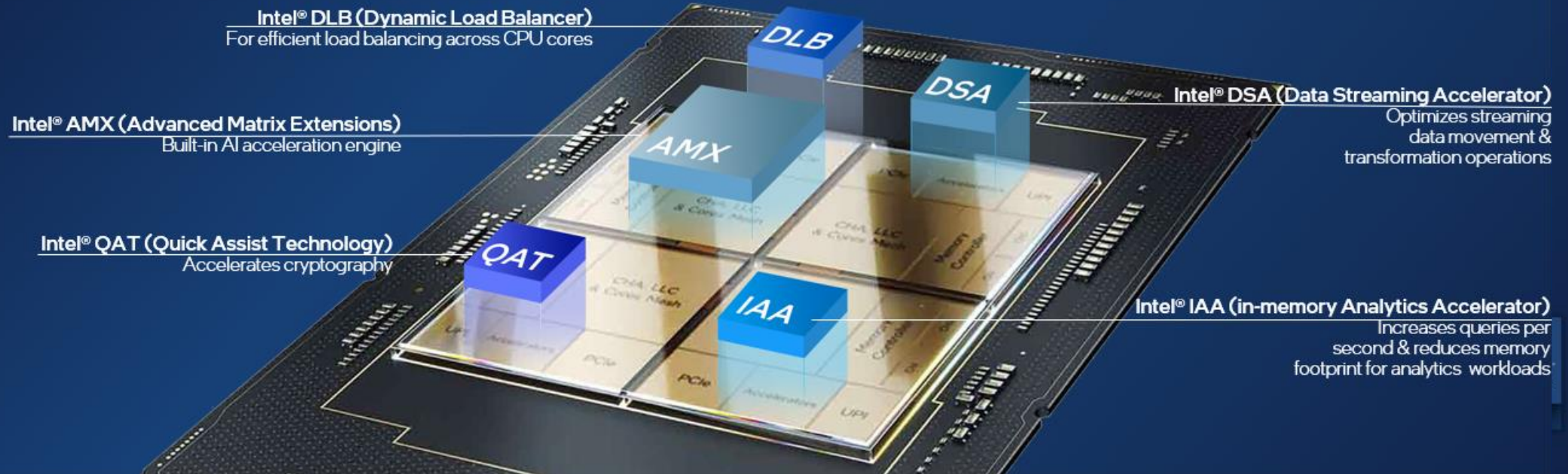
Beyond the general purpose



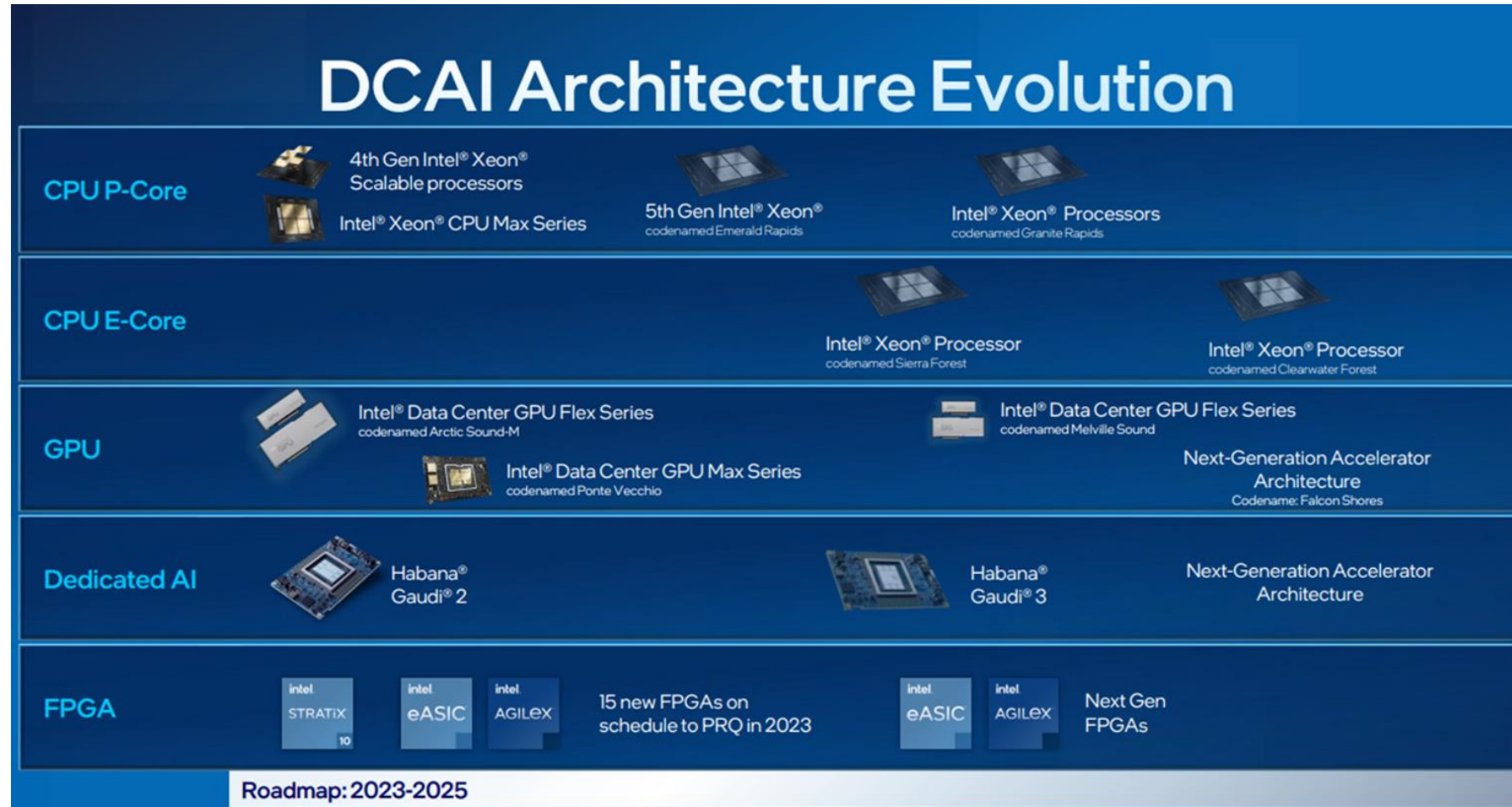
Compute demands are bigger than ever before

In the data center, in the network and at the edge

Accelerators 4th Gen Intel[®] Xeon[®] Scalable Processors



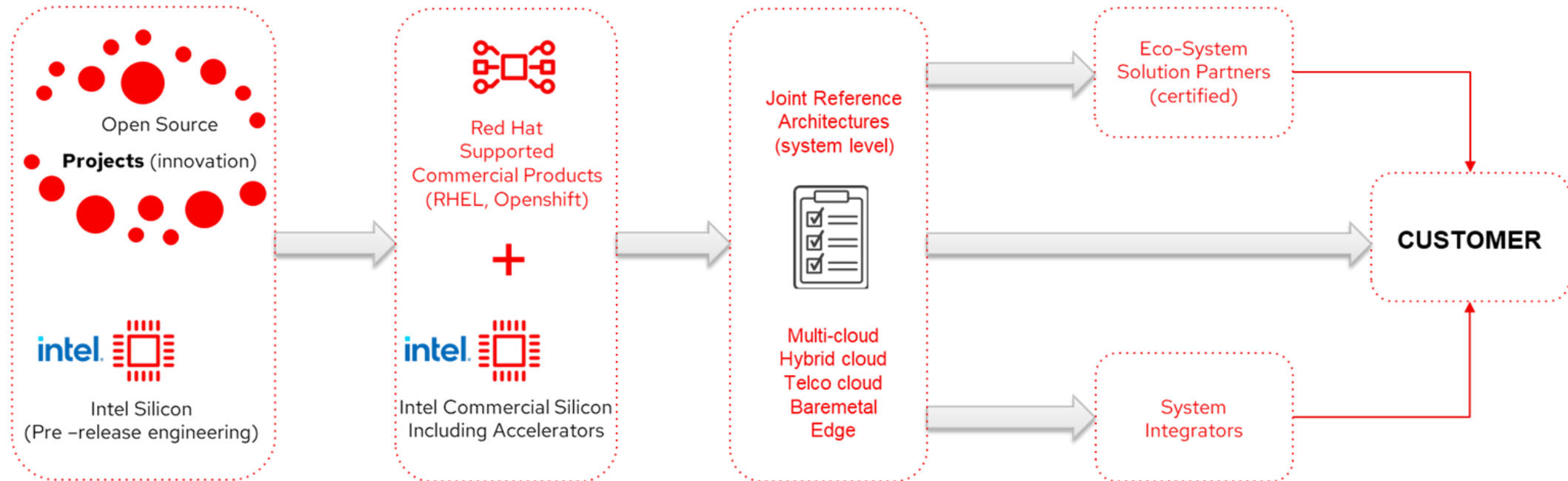
Product leadership in the data center



Open platforms

Long history of innovation and stability

Red Hat & Intel the default platform for Digital Transformation



Leveraging our joint partner ecosystem and *developer* communities

Decisiones

- Nombres
- Cunas
- Escuela infantil
- Habitación





Red Hat Runtimes

OpenTour



QUARKUS



Red Hat
JBoss Enterprise
Application Platform



Apache Tomcat



Red Hat
JBoss
Web Server





RHEL

- SO preferido para el cloud público
- SO más seguro
- SO adaptado para los contenedores
- SO para cada ocasión

FÍSICO

VIRTUAL

PRIVADA

HÍBRIDA

PÚBLICA

Automatizando la construcción, facilitando la instalación y el mantenimiento...

IPI

UPI

RHEL CoreOS

HAProxy

ENRUTADO Y BALANCEO DE CARGA

Arquitectura de enrutado "Pluggable":

- HAProxy Router
- FS Router

Multiple-routers con particionado de tráfico

Protocolos de Router soportados:

- HTTP/HTTPS
- WebSockets
- TLS con SNI

División de Tráfico entre servicios para: Tests A/B, Despliegues Blue/Green y Canary

Ingress/Egress

OPENSIFT ama CI/CD

- Tekton as a Service en OCP
- Despliegue del CI/CD existente
- ArgoCD para despliegues (GitOps)

SDN-Networking

- Redes definidas por software (SDN) para red de clúster unificada que habilita la comunicación pod-pod.
- OpenShift sigue el estándar de kubernetes CNI (Container Networking Interface)
- DNS interno incorporado.
- Flat/Multitenant.
- Openshift soporta otros SDN: Nuage, Juniper, ...
- Flannel

Prometheus

Alertmanager

Grafana

Monitorizar

- Recolección y almacenamiento de métricas a través de Prometheus.
- Alertas/notificaciones via Alertmanager
- Visualización de métricas a través de Grafana, la tecnología líder de visualización.

LOGs

CENTRALIZADA CON EFK

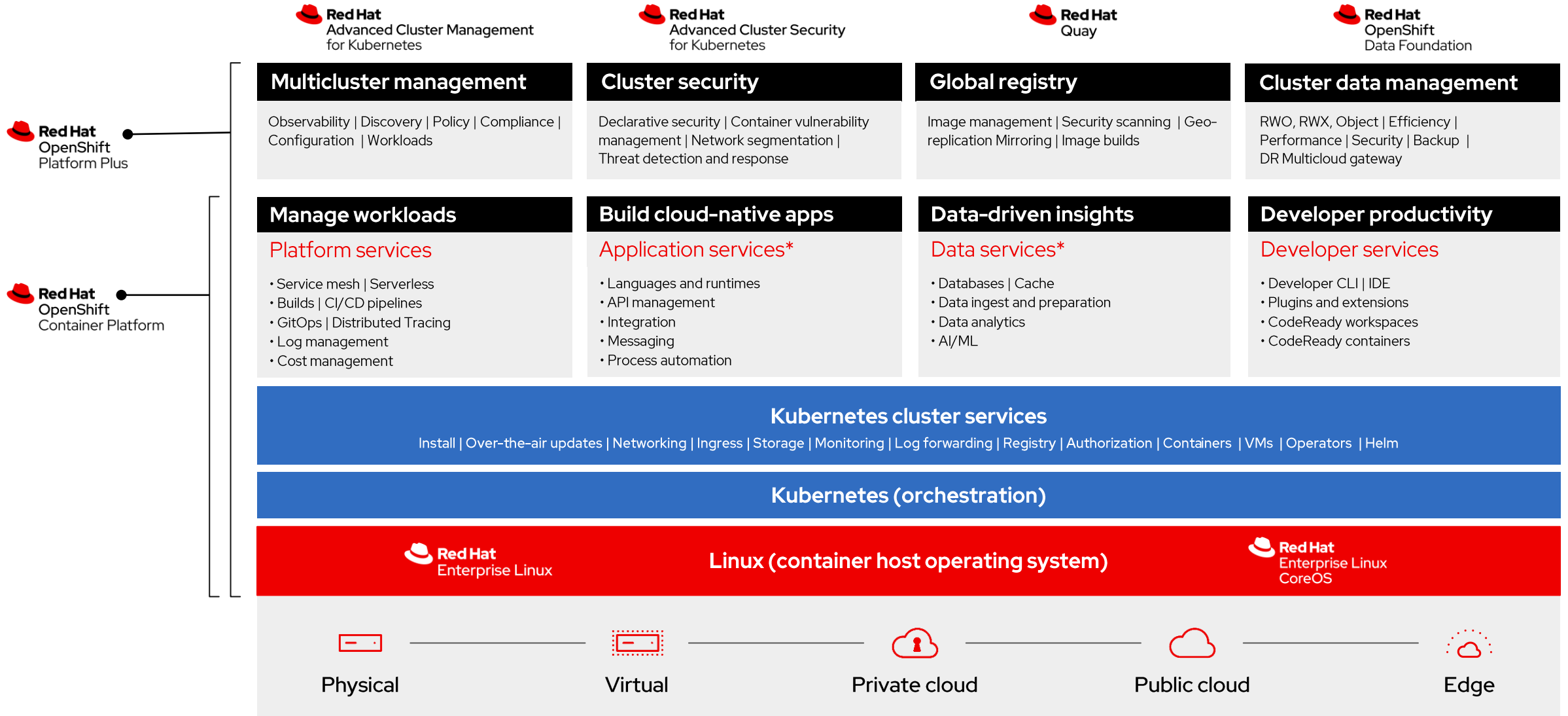
- Recolección de logs
- Motor de búsqueda y analítica
- Interface Web
- Dashboards
- Los administradores pueden ver todos los logs.
- Los Usuarios solo pueden ver los logs de sus proyectos.
- Posibilidad de envío de logs a herramientas externas (Splunk, ...)

Single Sign On: RH-SSO

Permite proteger las aplicaciones web y APIs:

- SSO basado en estándares como SAML 2.0, OpenID Connect y OAuth 2.0.
- Federación de IDPs como LDAP y AD

Red Hat open hybrid cloud platform



* Red Hat OpenShift® includes supported runtimes for popular languages/frameworks/databases. Additional capabilities listed are from the Red Hat Application Services and Red Hat Data Services portfolios.

** Disaster recovery, volume and multicloud encryption, key management service, and support for multiple clusters and off-cluster workloads requires OpenShift Data Foundation Advanced

INFANCIA

Crecimiento,
preparándoles para
el futuro



OpenTour

¡Qué rápido
crecen!

- Ambiente estudio
- Extraescolares
- Locura
- Variedad

La habitación de la aplicación



Contenedor

Aplicación

Dependencias Software

Requerimientos Hardware

CPU
RAM

Red
Disco

Red Hat Application Foundations



MICROCKS



Red Hat Application Foundations



MICROCKS



APACHE
Camel



Red Hat Application Foundations



MICROCKS



APACHE
Camel



Red Hat Application Foundations



MICROCKS

MICROCKS



Red Hat Application Foundations



MICROCKS



APACHE
Camel

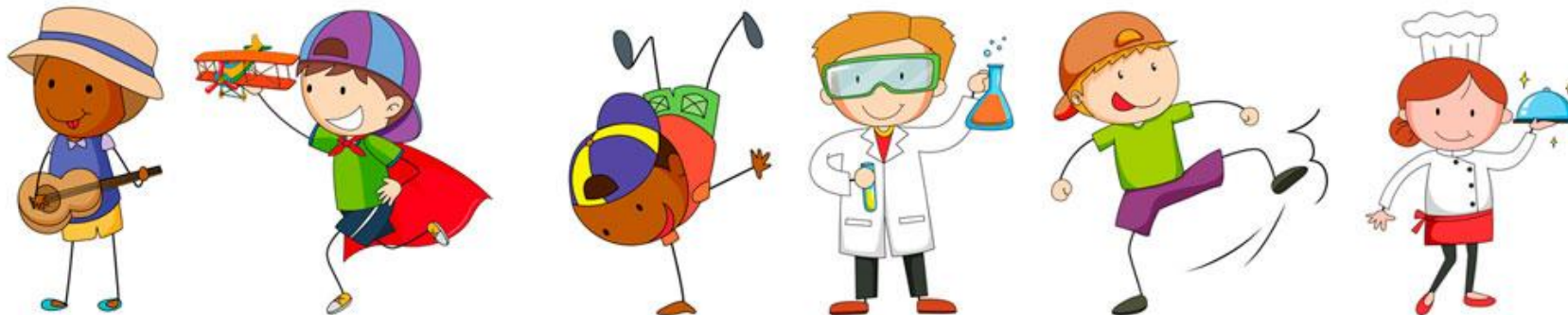


Llega la locura!!!

TOCA GESTIONARSE



ACTIVIDADES EXTRAESCOLARES





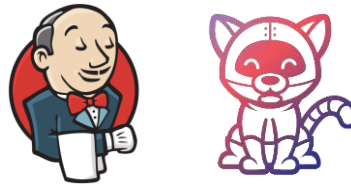
OpenShift DevSecOps

Imágenes de contenedores a partir del código fuente con las herramientas de Kubernetes



**OpenShift
Builds**

CI/CD tradicional y nativo Kubernetes



**OpenShift
Pipelines**

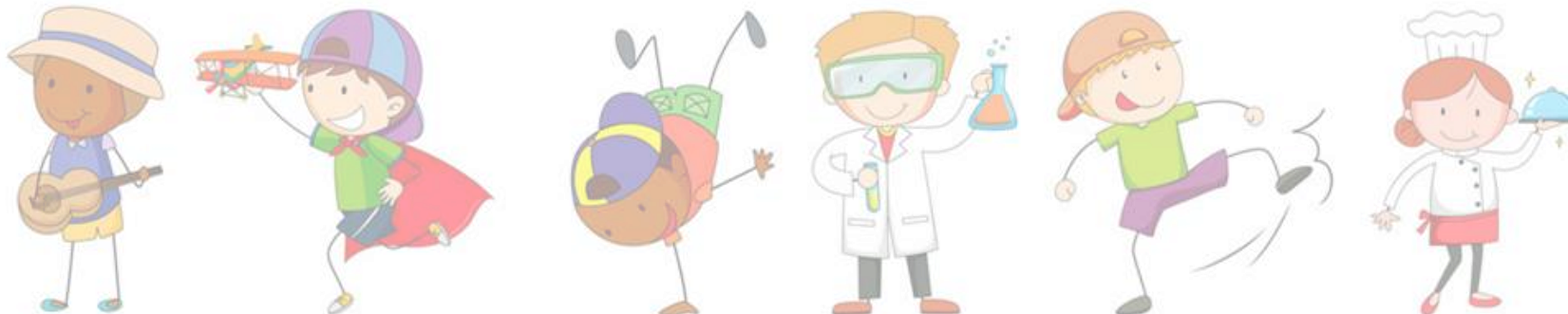
GitOps declarativo para entrega continua de múltiples clústeres



**OpenShift
GitOps**

OpenShift

ACTIVIDADES EXTRAESCOLARES



ADOLESCENCIA

El pánico de la "puesta en producción"



Salen a producción

● **Control**

● **Seguridad**





Red Hat Advanced Cluster Management for Kubernetes

Controls clusters and applications from a single console, with built-in security policies, deploying legacy and cloud native applications, enabling day-2 tasks... across multiple clusters at scale.



Red Hat Advanced Cluster Security for Kubernetes

Provide a K8-native architecture protecting your vital applications across build, deploy and runtime, integrating it with your DevOps tooling and workflows to deliver better security and compliance.



Red Hat Quay

Trusted open source container registry platform that runs everywhere: on-prem, cloud, K8s...
Global governance and security controls, with image vulnerability scanning, access control, geo-replication...



Red Hat OpenShift Data Foundation

Delivers resilient and persistent software-defined storage based on Ceph running on-premise or public cloud, providing file, block and object storage, enabling a wide range of data modalities and workloads.



Red Hat
Advanced Cluster Management
for Kubernetes

Controls clusters and applications from a single console, with built-in security policies, deploying legacy and cloud native applications, enabling day-2 tasks... across multiple clusters at scale.



Red Hat
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Provide a K8-native architecture protecting your vital applications across build, deploy and runtime, integrating it with your DevOps tooling and workflows to deliver better security and compliance.



Red Hat
OpenShift
Platform Plus



Red Hat
Quay

Trusted open source container registry platform that runs everywhere: on-prem, cloud, K8s...
Global governance and security controls, with image vulnerability scanning, access control, geo-replication...



Red Hat
OpenShift
Data Foundation

Delivers resilient and persistent software-defined storage based on Ceph running on-premise or public cloud, providing file, block and object storage, enabling a wide range of data modalities and workloads.

Red Hat Advanced Cluster Management for Kubernetes



Multicluster lifecycle management



Policy driven governance, risk, and compliance



Advanced application lifecycle management



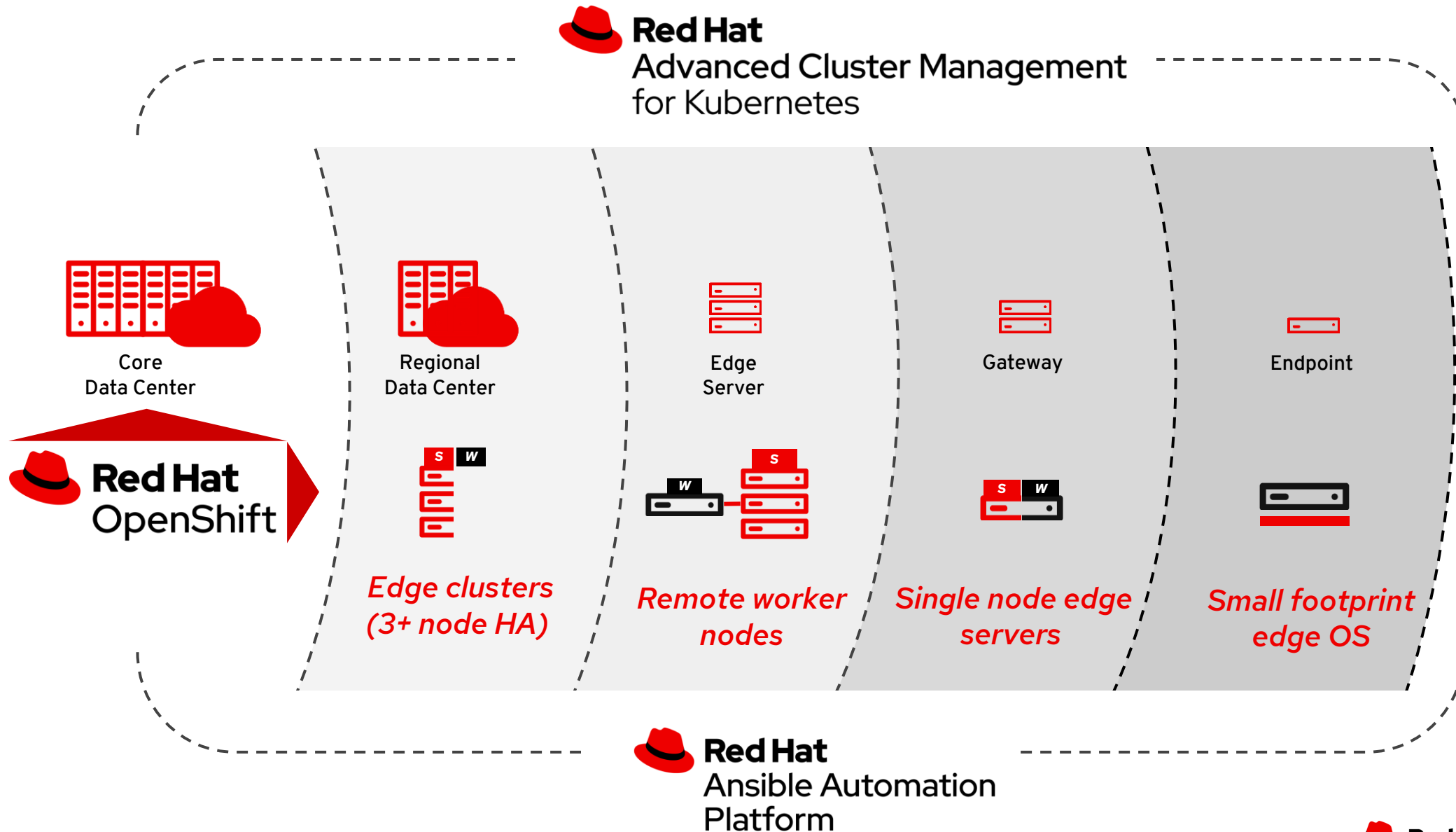
Multicluster observability for health and optimization

The screenshots show the Red Hat Advanced Cluster Management for Kubernetes interface. The 'Overview' view displays a summary of clusters across different providers: Google (2 Clusters), Amazon (6 Clusters), Microsoft (1 Cluster), and IBM (1 Cluster). It also shows 4 Applications, 10 Clusters, 1 Kubernetes type, and 5 Regions. The 'Governance and risk' view shows compliance metrics for NIST-CSF (10/10 Cluster violations, 8/11 Policy violations, 2/2 Cluster violations) and PCI (No violations found). The 'Clusters Overview' view provides a detailed look at cluster health, optimization, and capacity utilization. The optimization table shows metrics for CPU and Memory across various clusters, and the capacity utilization table shows Total Cores, Allocatable Cores, Requested, and Utilized for several clusters.

cluster	Overestimation	Requested	Utilized
acmcdon2	43.93%	62.62%	18.69%
stage3	102.86%	153.62%	50.75%
stage	116.59%	145.76%	29.17%
oregon2	61.00%	82.91%	21.92%
ocp-edge-bm-h27-1	5.05%	50.07%	45.03%
local-cluster	25.17%	46.42%	21.25%
dhaiduce-02	40.63%	76.15%	35.52%

Cluster	Overestimation	Requested	Utilized
stage	37.42%	62.54%	25.12%
oregon2	19.21%	36.87%	17.66%
ocp-edge-bm-h27-1	30.92%	48.07%	17.15%
local-cluster	-1.60%	29.08%	30.67%
dhaiduce-04	33.27%	49.93%	16.66%
stage3	43.93%	65.68%	21.75%
singapore	20.49%	39.34%	18.85%

cluster	Total Cores	Allocatable Cores	Requested	Utilized
acmcdon1	48	45	62.62%	37.13%
acmcdon2	48	45	62.62%	18.69%
dhaiduce-01	24	21	76.15%	10.93%



EMANCIPACIÓN

Ya solo vienen a comer



Viaje a la NUBE



Objetivos, Beneficios, y Retos de los Contenedores

OBJETIVOS

Better Service Levels

56%

Digital Business / Transformation

51%

Better Time to Market

48%

BENEFICIOS

Developer Productivity

56%

Support Modern App Architectures

52%

DevOps Enabler

47%

RETOS

Lack of Skills

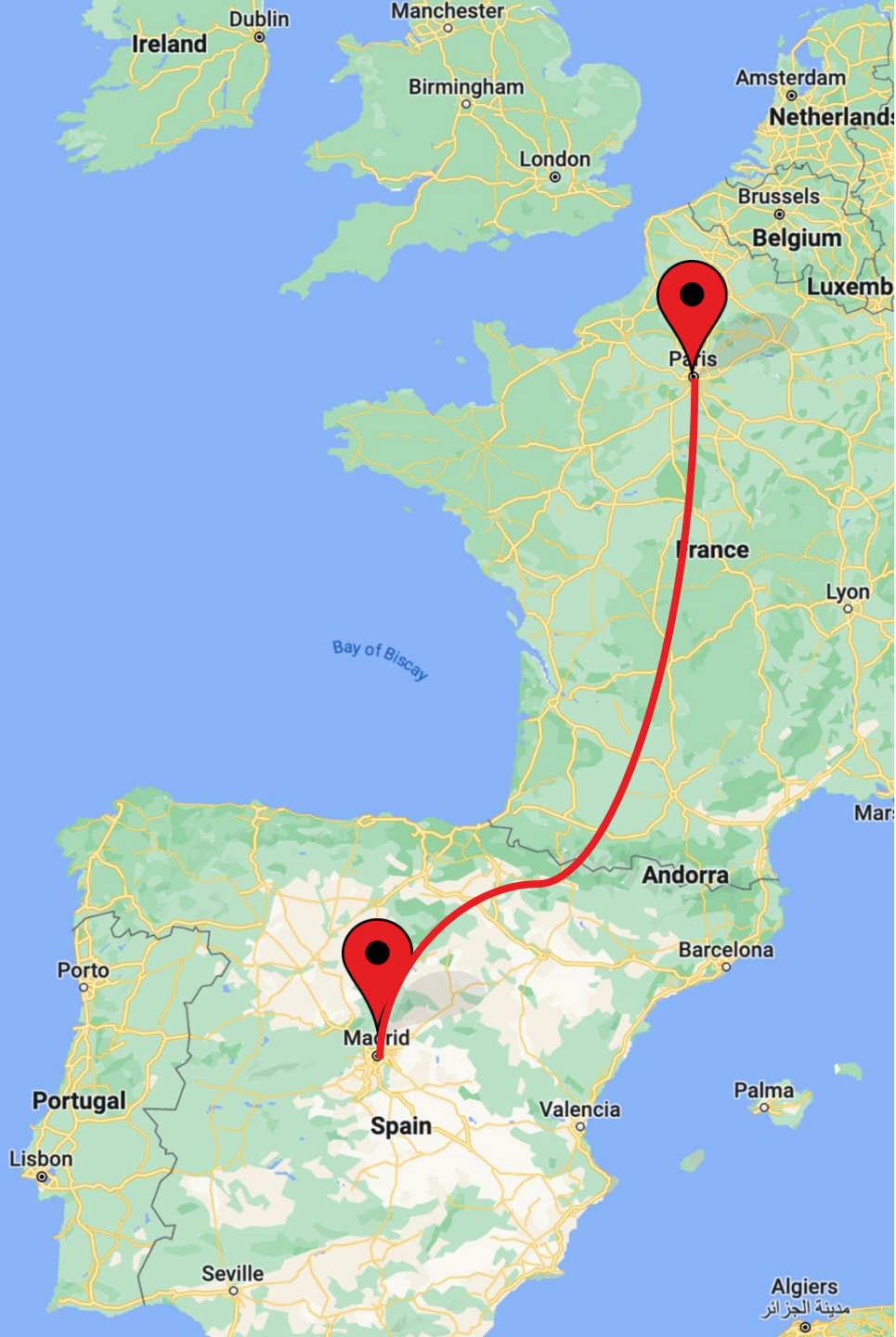
62%

Operational Complexity

43%

Security Concerns

35%



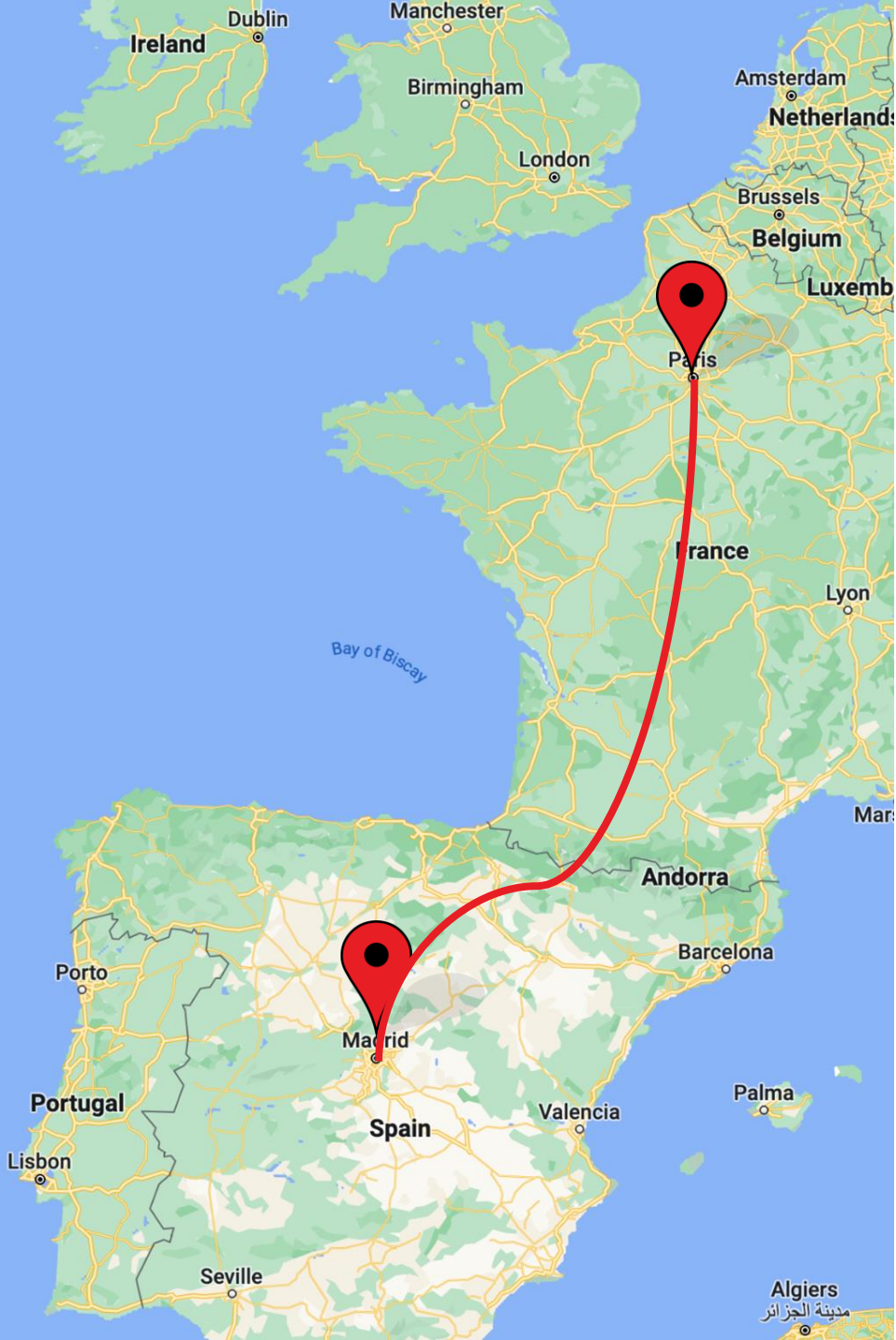
No agile
High time to value
No scalable
Unsecure
CapEx



Faster
No scalable (delivery lead time)
Skills required
CapEx
Pay even if not use
Limited freedom of choice infra
(airport)



Faster
Scalable
Skill required: be able to sleep
;-)
Integral Security
Pay when you Use
Freedom of choice
Frequent Flier



Legacy
No agile
High time to value
No scalable
Unsecure
CapEx



Self Managed
Faster
No scalable (delivery lead time)
Skills required
CapEx
Pay even if not use
Limited freedom of choice infra (airport)



Managed
Faster
Scalable
Skill required: be able to sleep ;-)
Integral Security
Pay when you Use
Freedom of choice
Frequent Flier

Red Hat OpenShift Managed Services Fleet



Red Hat OpenShift
Service on AWS



Azure Red Hat
OpenShift



Red Hat OpenShift
on IBM Cloud



Red Hat OpenShift
Dedicated



Telefónica Red Hat
OpenShift Service



Red Hat OpenShift
Service on AWS



Azure Red Hat
OpenShift



Red Hat OpenShift
on IBM Cloud



Google Cloud

Red Hat OpenShift
Dedicated



Telefónica Red Hat
OpenShift Service

Simplicity will be king.⁽¹⁾

SIMPLE

Self-Service Deployment

- Provision fully-managed clusters in minutes
- Use OpenShift Cluster Manager for creating & viewing clusters
- Flexible consumption-based pricing
- Scale clusters on demand

SIMPLE ^2

Support & Security

- Fully monitored, managed and updated from infrastructure to daily operations
- Managed upgrades & patching
- Financially backed **99.95% SLA**
- 24x7 support from industry leading SRE team
- Enterprise-grade security & compliance

SIMPLE ^3

Service/Tools Integration

- Cluster services such as monitoring, logging, networking, etc. available
- **Native service integration** with Azure (ARO) & AWS (ROSA)
- Developer productivity tools; Service Mesh, CodeReady Workspaces, serverless etc.

SIMPLE ^4

Cloud Choice & Flexibility


- Managed Kubernetes offerings on major public clouds
- Native joint offerings on Azure, AWS & IBM Cloud
- **Consistent OpenShift experience across clouds**
- Lower “ramp-up” by using familiar cloud technology





Simple^5

Cloud Hyperscalers are Procurement Aggregators



Use their DEBIT CARDS!!




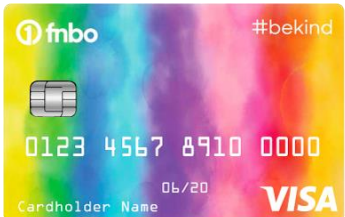

Enterprise Discount Program (EDP)



Microsoft Azure Committed Contract (MACC)

Hybrid Committed Spent (HCS)

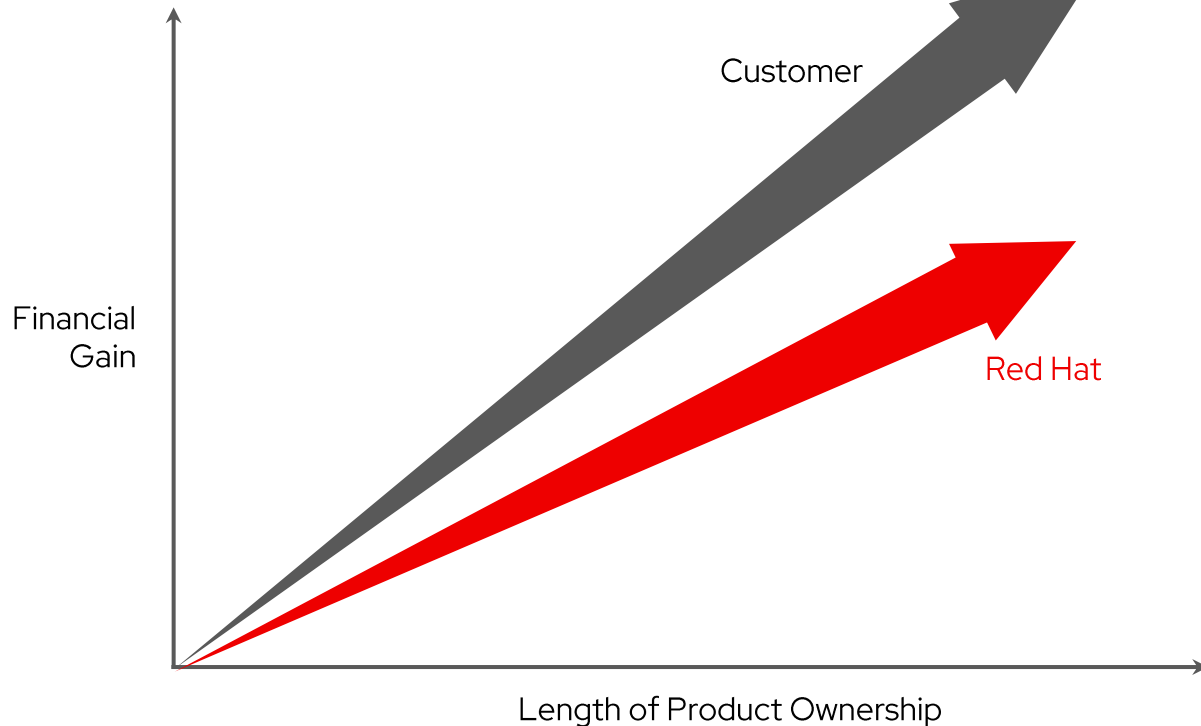
Committed Use Discount (CUD)

Telefónica Red Hat OpenShift Service



Together in the Journey



Red Hat Cloud Services Black Belts

- **Guide and enable customers and RH stakeholders.**
- **Remove technical, organizational and business blockers.**
- **Improve the product with feedback to SRE, BU and PnT**

Red Hat Cloud Services Customer Success Executive/Architect

- **Success Planning & Consumption Tracking:** Capturing customers' short and long-term objectives for ROSA or ARO, coordinating a strategy to achieve those objectives by positioning the right technical resources, and tracking the customers' cloud consumption over time.
- **Onboarding:** Through proactive or digital outreach, helping customers navigate early milestones in their usage of Red Hat's Managed Cloud Services.
- **Adoption Assessments:** Assessing customers' current adoption of our Cloud Services and establishing a mitigation plan.

AUTOMATIZACIÓN



Ahorrar Tiempo:

● **Todo**

● **Siempre**

Red Hat Ansible Automation Platform

Automate everything you need



INFRASTRUCTURE



CLOUD



APPLICATIONS



NETWORK



SECURITY



EDGE

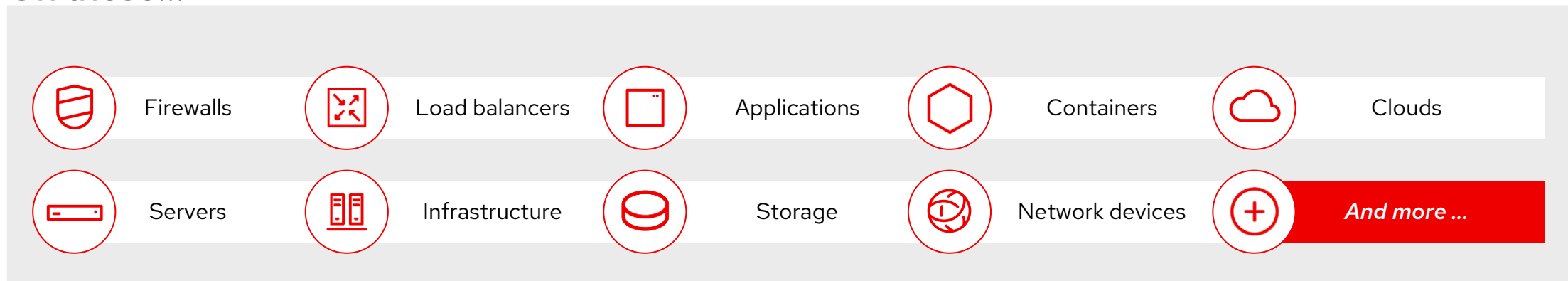
Red Hat Ansible Automation Platform

Automate everything you need

Do this...



On these...



One subscription. **One** platform.

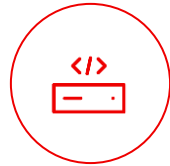
Supported and certified **content you can trust**

140+

Certified Content Collections

60+

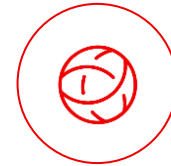
Certified technology partners



Infrastructure



Cloud



Network



Security



Edge



Ansible Automation Platform hosting options



Red Hat Enterprise Linux 8.3+ x86_64 (physical, virtual)



Red Hat OpenShift via dedicated Ansible Automation Platform operator (physical, virtual)



On Microsoft **Azure marketplace**



On Amazon **AWS marketplace**



On Google **GCP marketplace**

Self Managed (on-premises or cloud)

Customer deployed
Managed by Red Hat*

Customer deployed, Self-managed

GRACIAS

