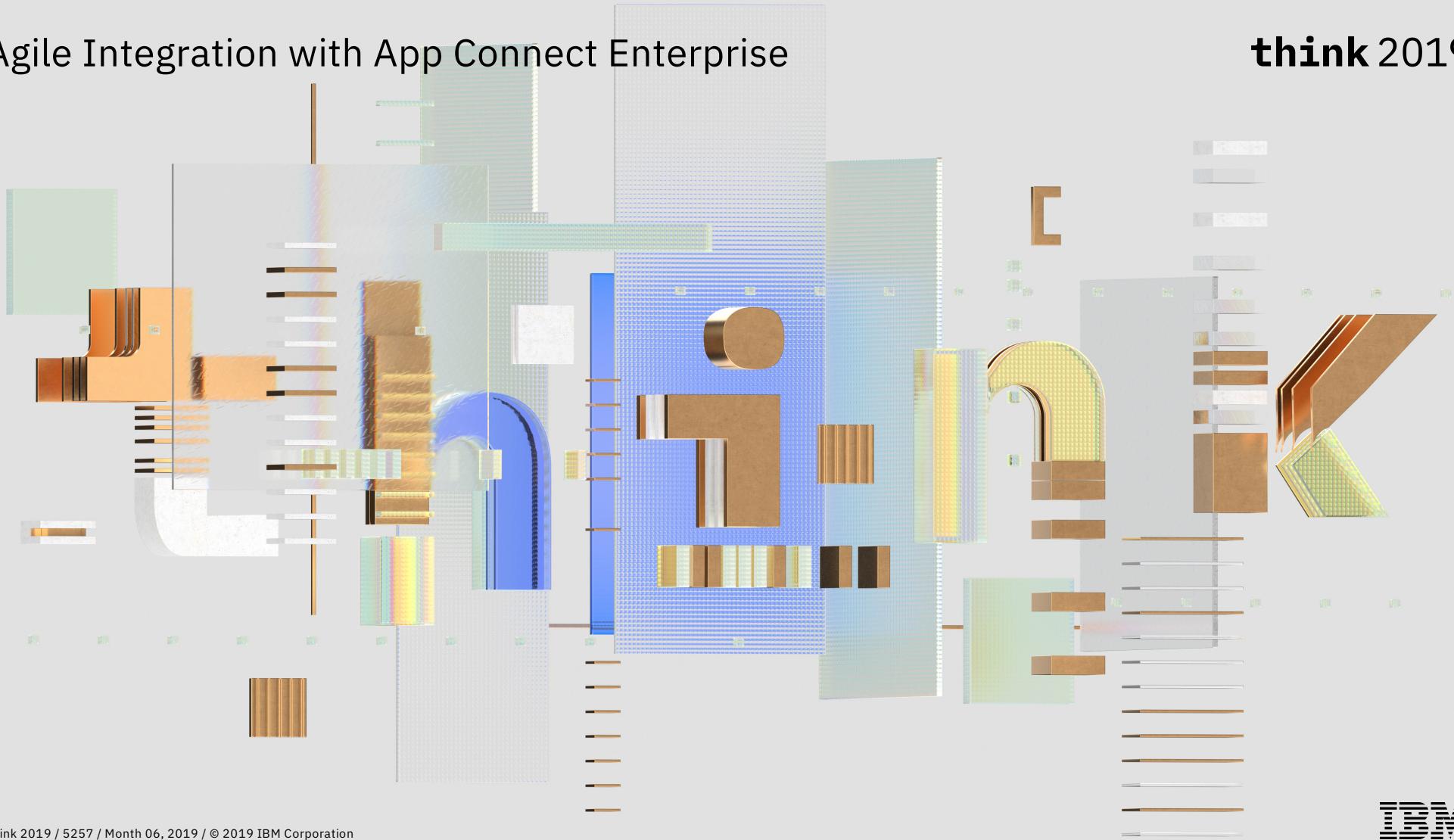


Agile Integration with App Connect Enterprise

think 2019



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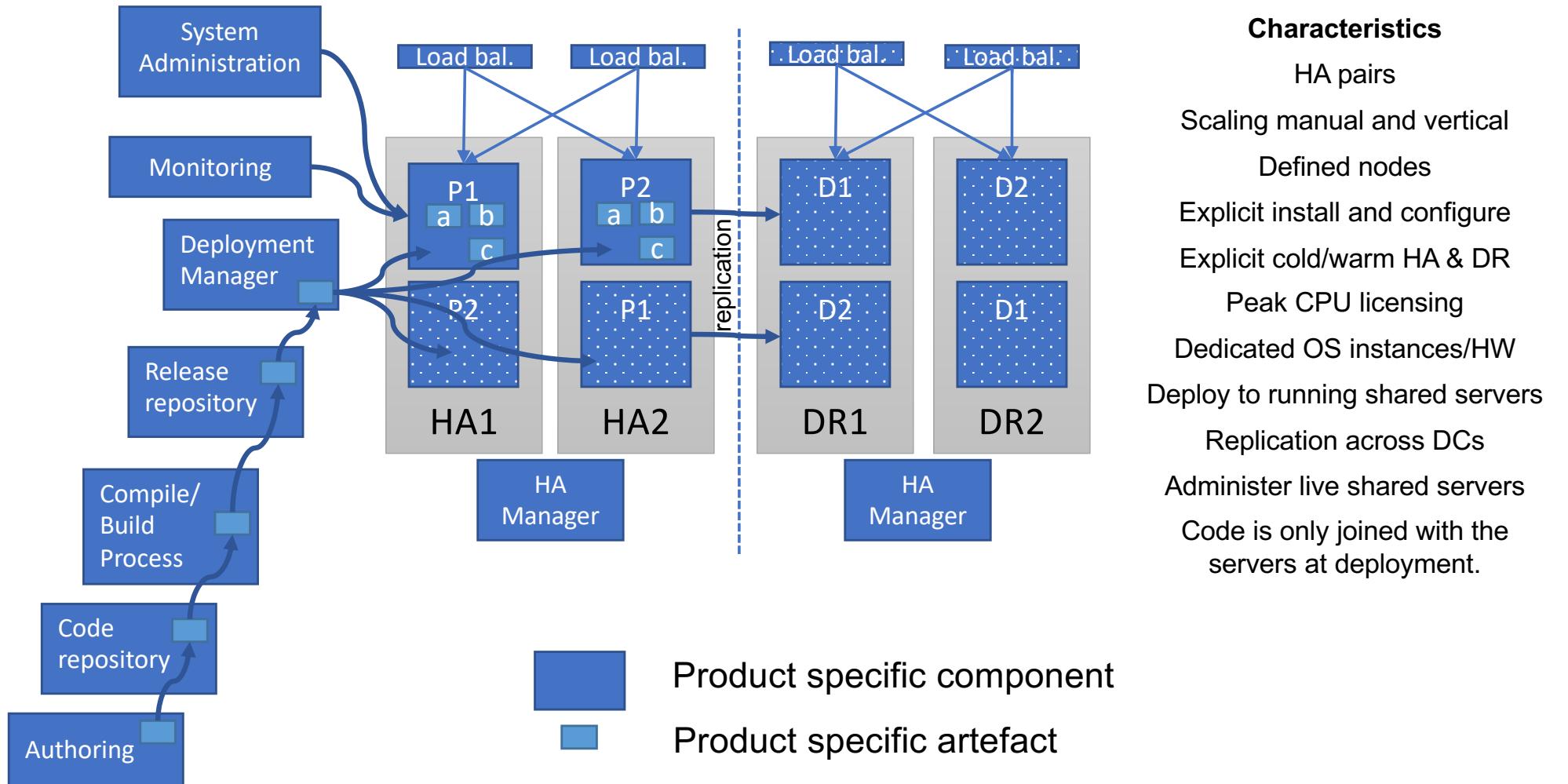
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The integration space is changing as customers focus on **Digital Transformation** using integration platforms to Modernize Integration

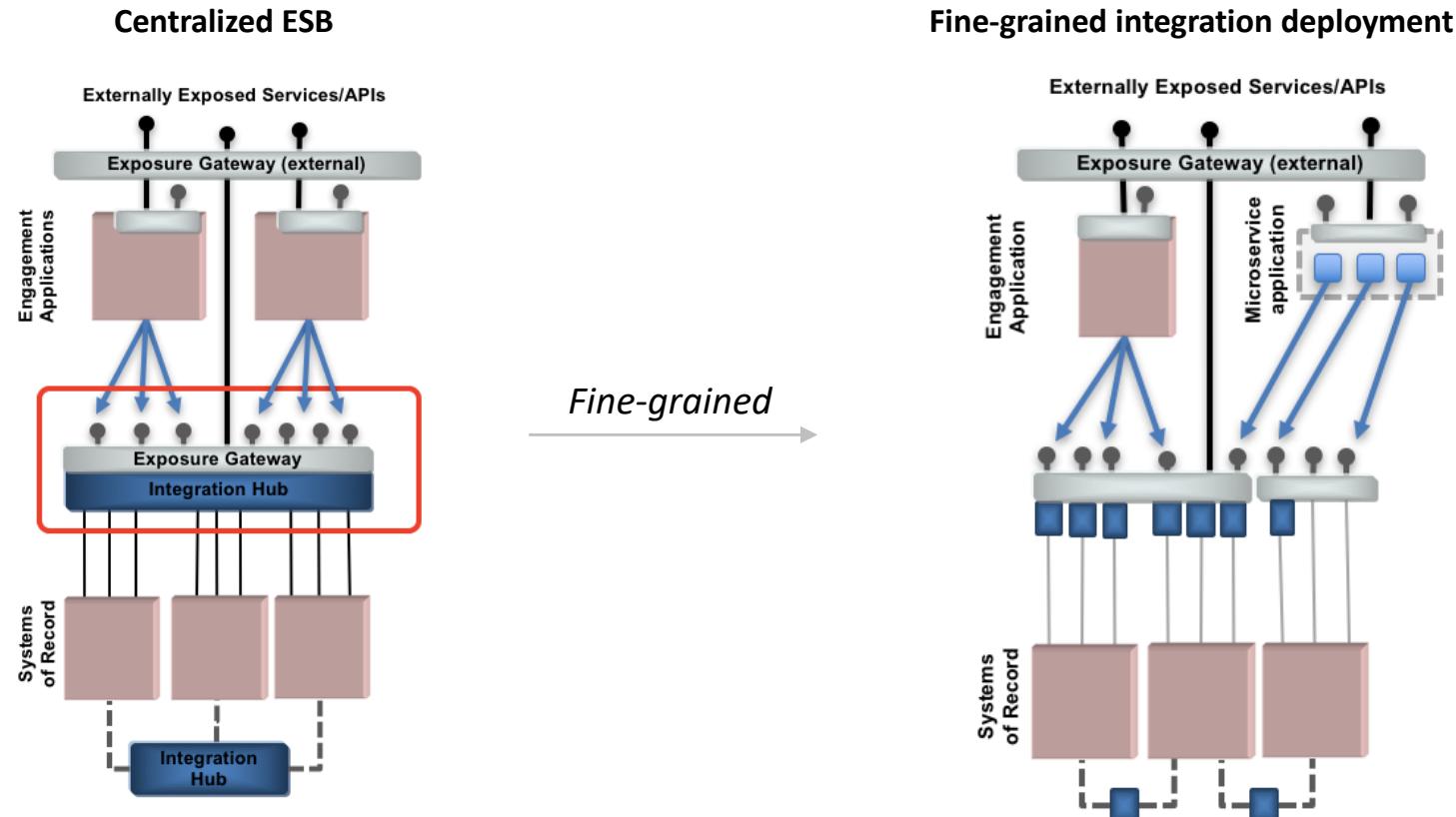
“Integration has become an obstacle to success because traditional, centralized and systematic integration approaches cannot cope with the volume and pace of business innovation.”

Source: Gartner-Modernizing Integration Strategies and Infrastructure Primer for 2018

Traditional deployment topologies

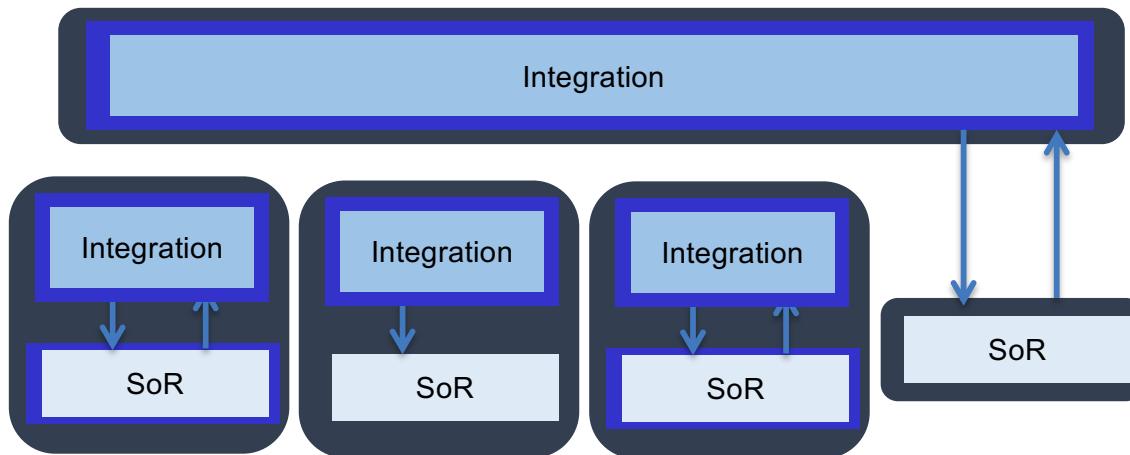
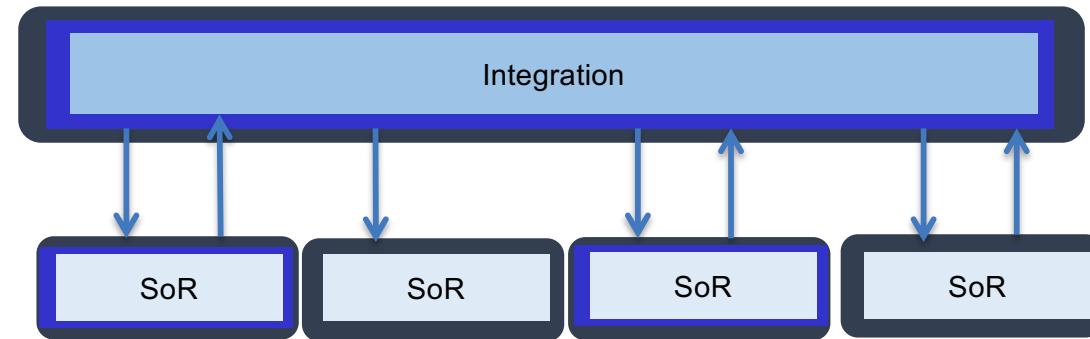


Moving to agile integration

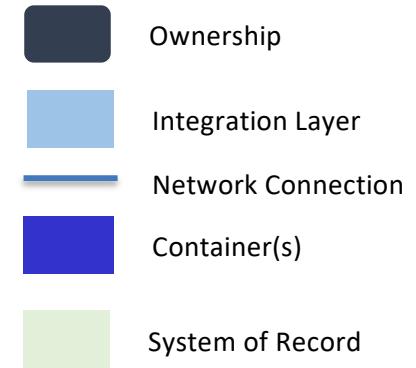


Agile Integration Architecture
<http://ibm.biz/AgileIntegArchLinks>

Decentralized Foundational Architecture



Decentralized



Benefit

- ✓ Team Agility

Key Changes

- Decoupled from a Central Integration

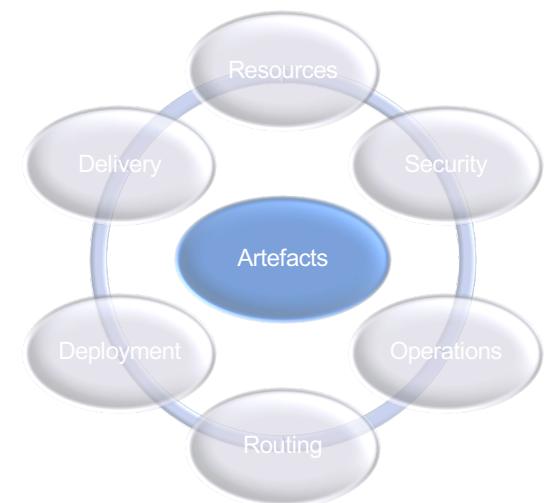
Traditional infrastructure (Pets)



Fine grained

Breaking up into multiple fully decoupled components
(Architecture & Design)

Cloud native infrastructure (Cattle)



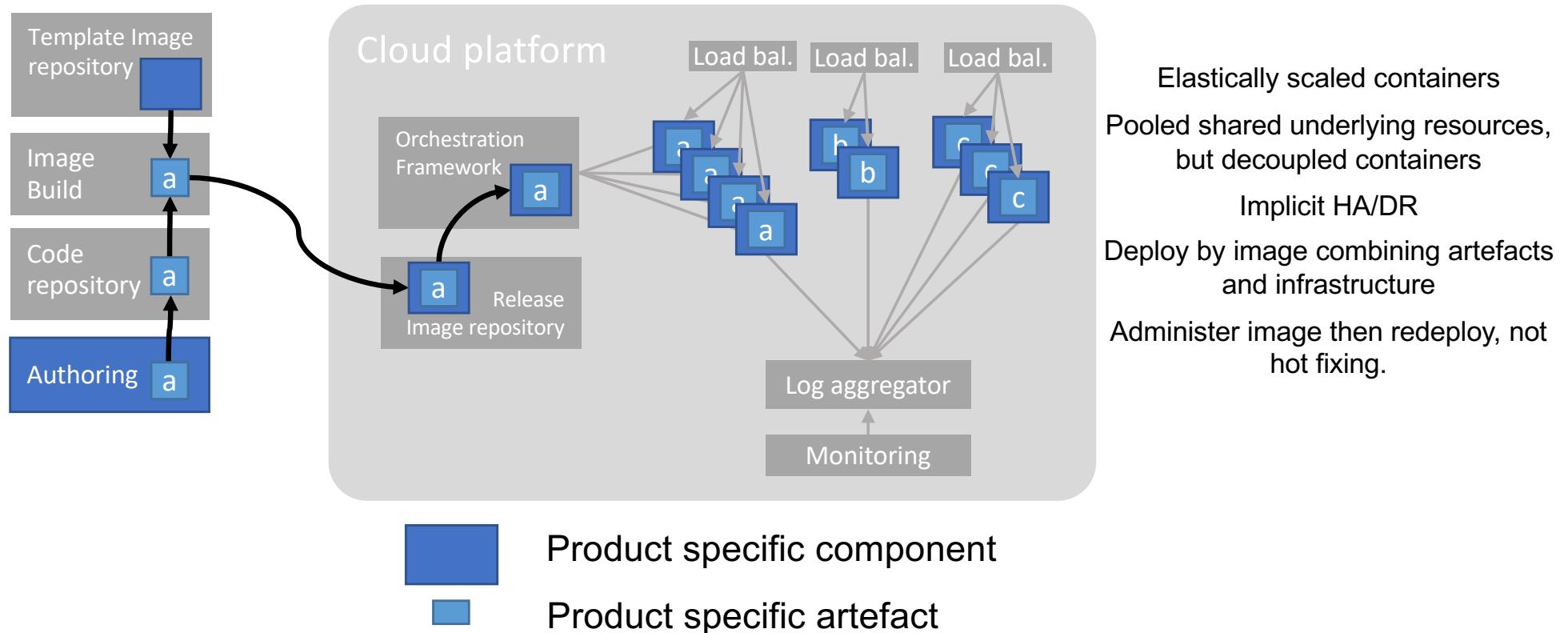
Decentralized

Removing centralized control,
and providing autonomy to teams
(People & Process)

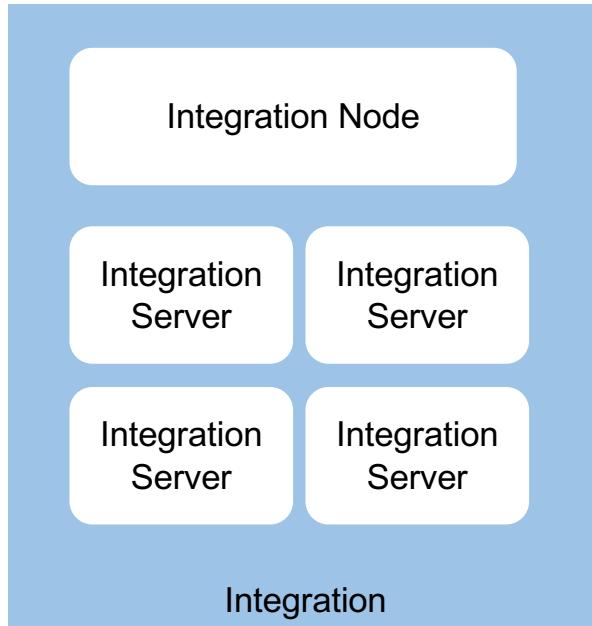
Cloud native

Standardized administration,
orchestration, monitoring.
(Infrastructure & Technology)

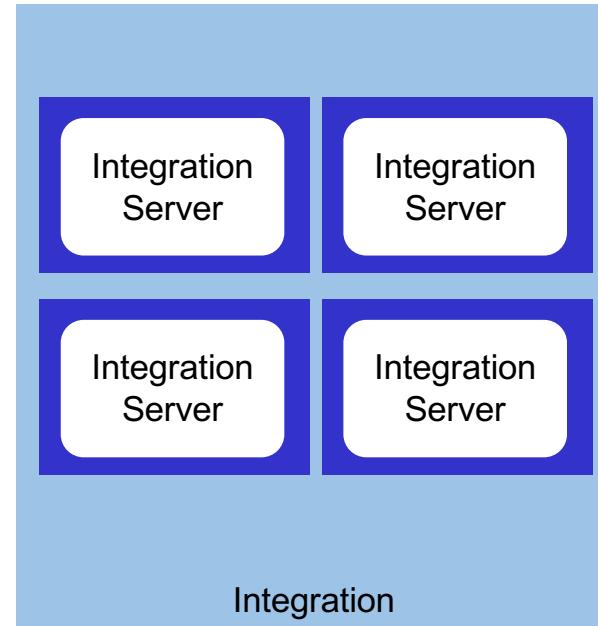
Simplicity and scaling benefits of cloud native platforms



Foundational Integration runtime initial container separation

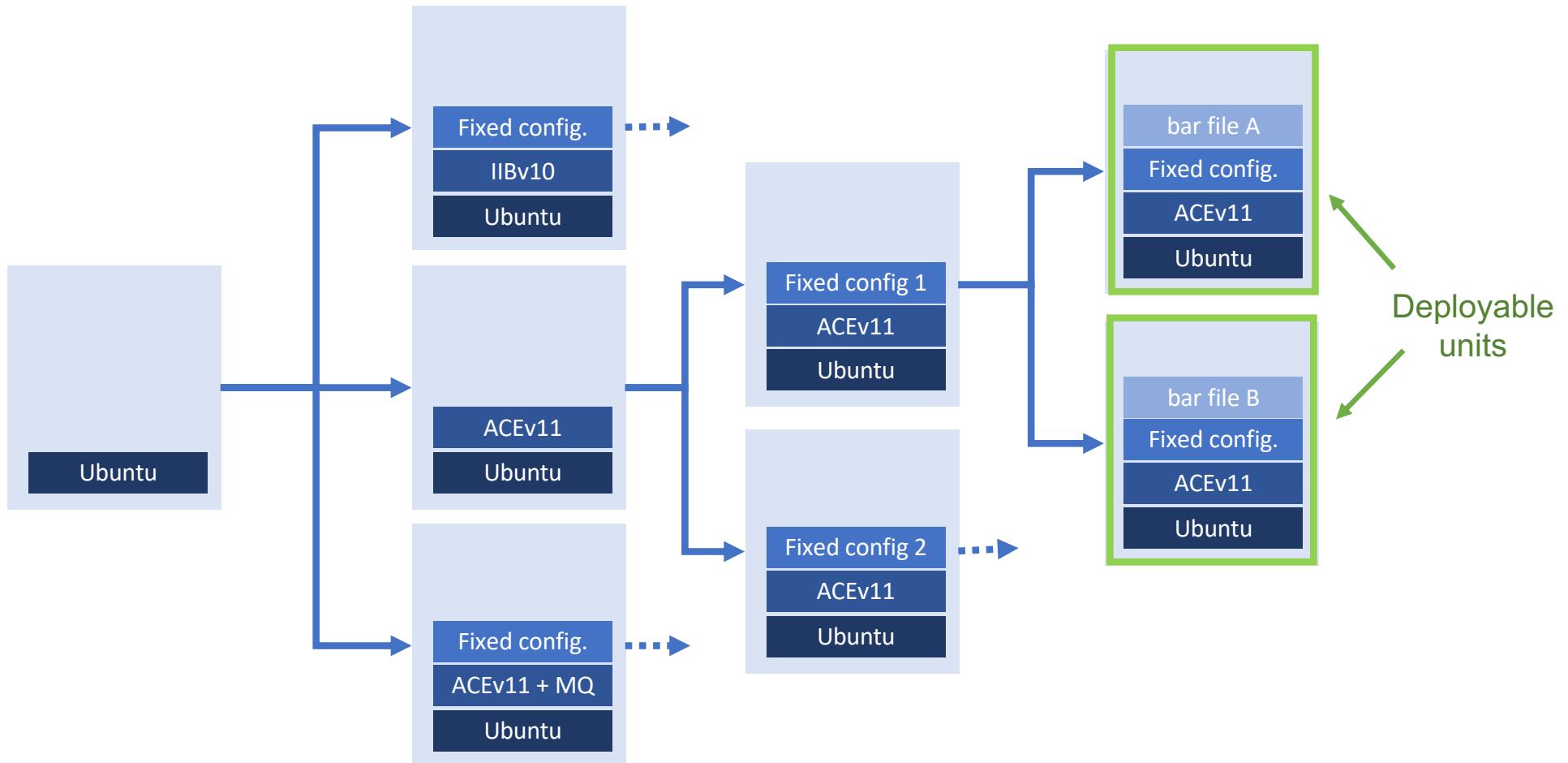


The Integration Node provided central administration across all deployed integration servers within the node, on a particular machine. The node also provided an option as a HTTP entry point across all available Integration Servers.



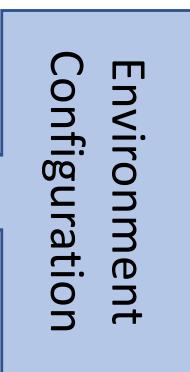
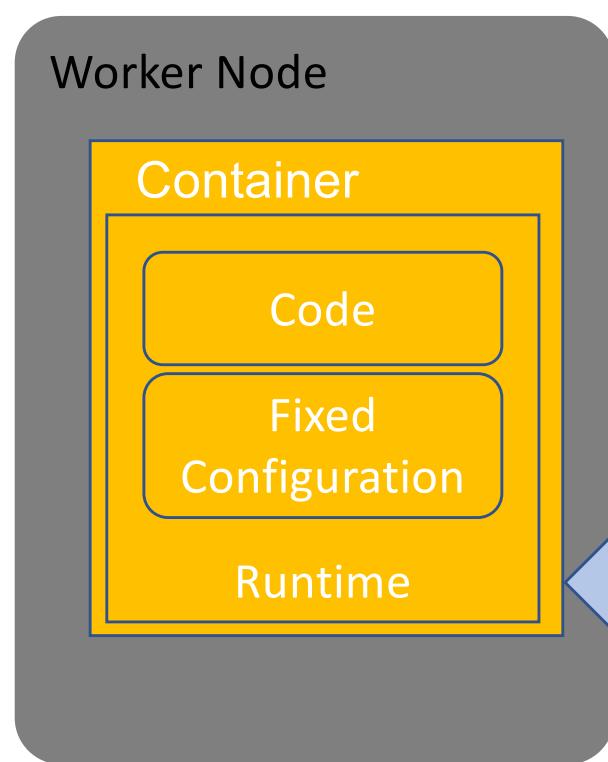
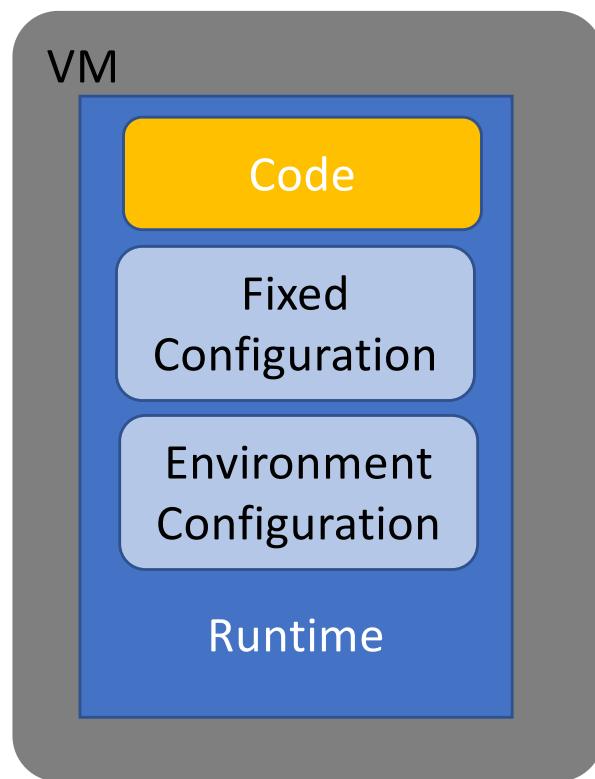
Containers should have a single concern, and due to the light weight nature we are recommending a single Integration Server per container. Your DevOp process will manage the deployment with the container orchestration software (kubernetes) responsible for the common HTTP entry point.

Building up the layers in the Docker image



"Cattle not pets: Achieving lightweight integration with IIB" <http://ibm.biz/CattlePetsIIB>

What Moves Per Release



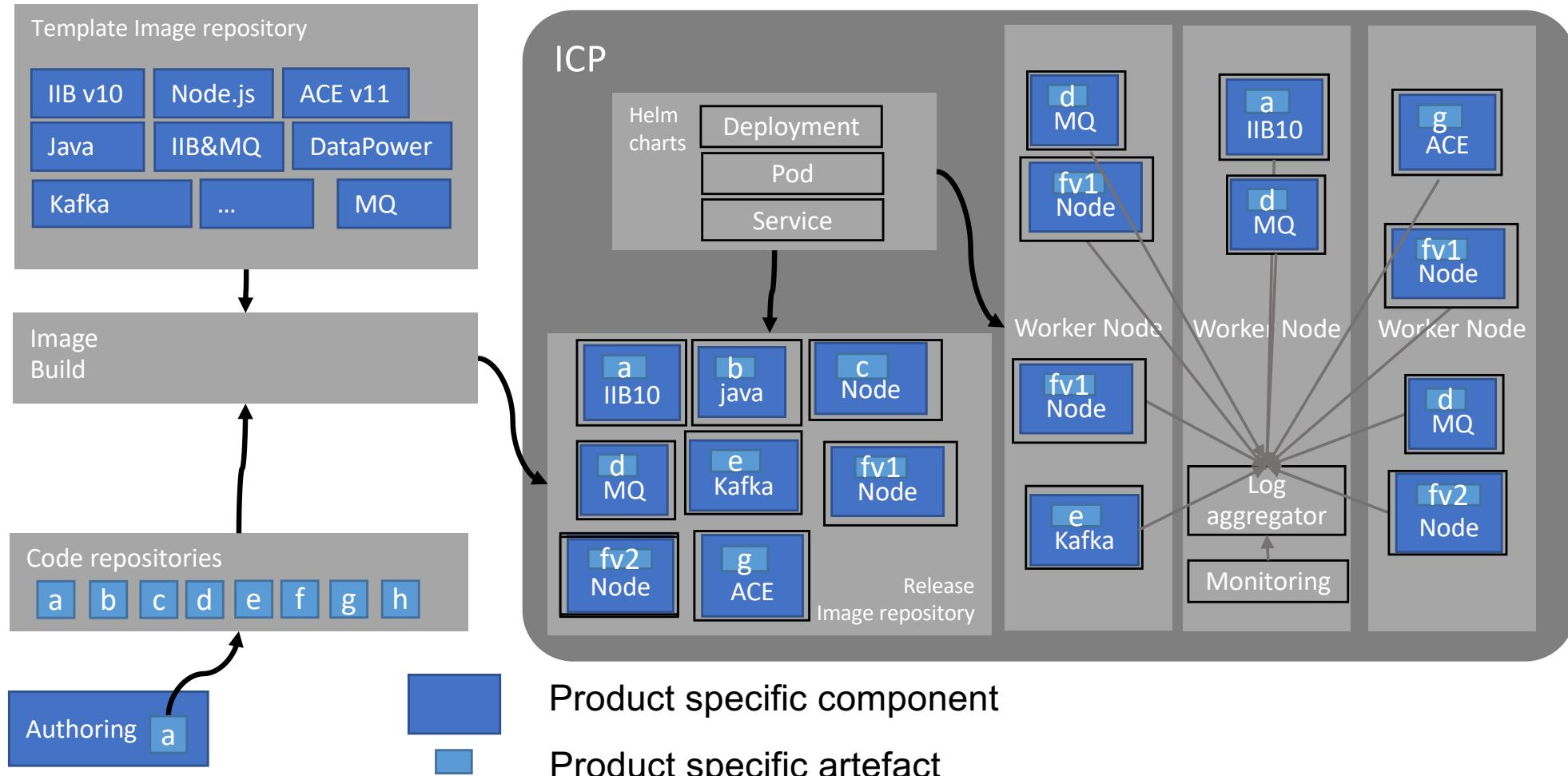
Key

	Created new for each new code version
	Remains same for each new code version
	Host – including Kernel

Pet

Cattle

Tangible example



IBM Cloud Integration Platform

Cloud Integration Platform deploys and manages instances of **Integration Services** running on Kubernetes

Instances of Integration services are deployed individually as needed to satisfy each use-case.

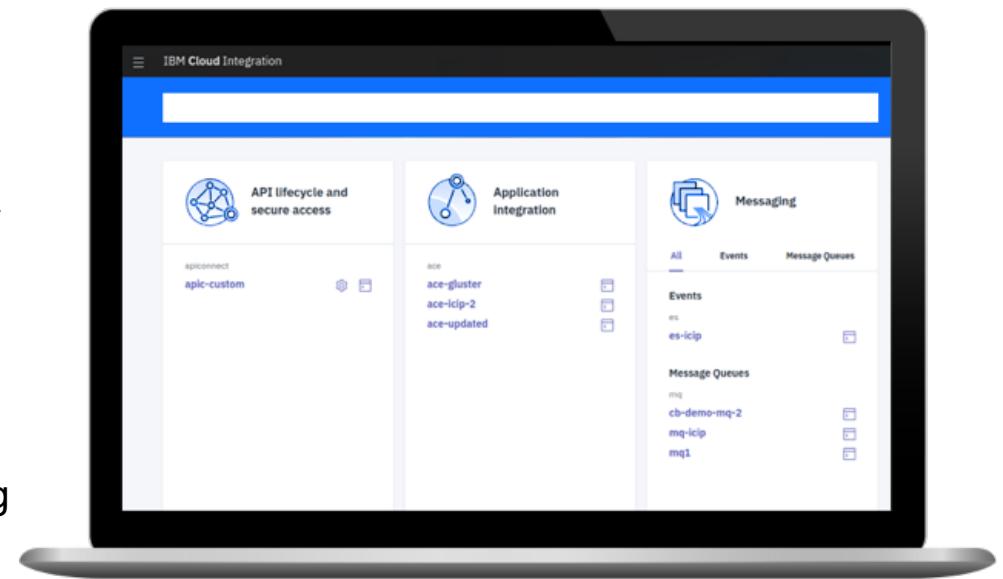
Services can be deployed in **Highly Available** topologies across multiple Kubernetes worker nodes or non HA on a single worker.

Deployment and management is via the UI or CLI allowing integration with **CI/CD pipelines**.

The Platform leverages the IBM Cloud Private (**ICP**) **services** which run on dedicated master/proxy and Management nodes in HA or non HA configurations.

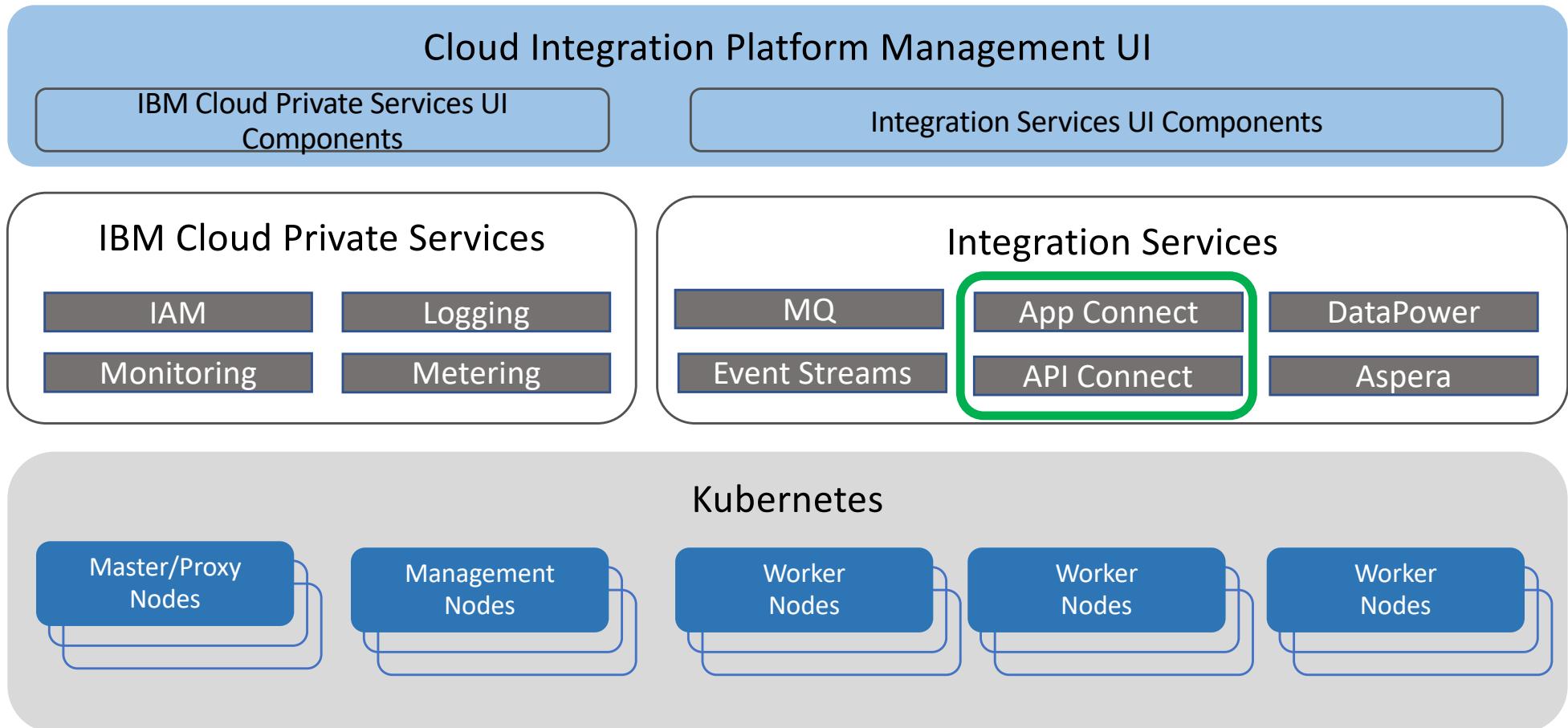
The Management UI unifies the management UIs of the Integration Services and the ICP services.

- Single Sign-on via ICP IAM service.
- Common Logging and Monitoring
- Common Metering



Clients can **save 1/3** of their integration cost, **gaining 3x** the speed

Cloud Integration Platform Architecture



Lab Environment

eduevent-full: ITHINK19 | 5257B | S0001

Region: US-Central

VMs: 3

Powered off Powered off Powered off

ICP311-Master ICP311-Mgmt UbuntuSrv16_64

Endpoints: 1 (icpmaster - 10.0.0.1) Endpoints: 1 (icpmgmt - 10.0.0.2) Endpoints: 1 (userver - 10.0.0.3)

SVMS RAM CPUS STORAGE

28	28 GB	12	125 GB
A1			

20	20 GB	8	75 GB
A1			

4	4 GB	4	60 GB
A3			

Sort by name ▾ ▲

VMs: 3

Powered off Powered off Powered off

ICP311-Master ICP311-Mgmt UbuntuSrv16_64

Endpoints: 1 (icpmaster - 10.0.0.1) Endpoints: 1 (icpmgmt - 10.0.0.2) Endpoints: 1 (userver - 10.0.0.3)

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Sort by name ▾ ▲

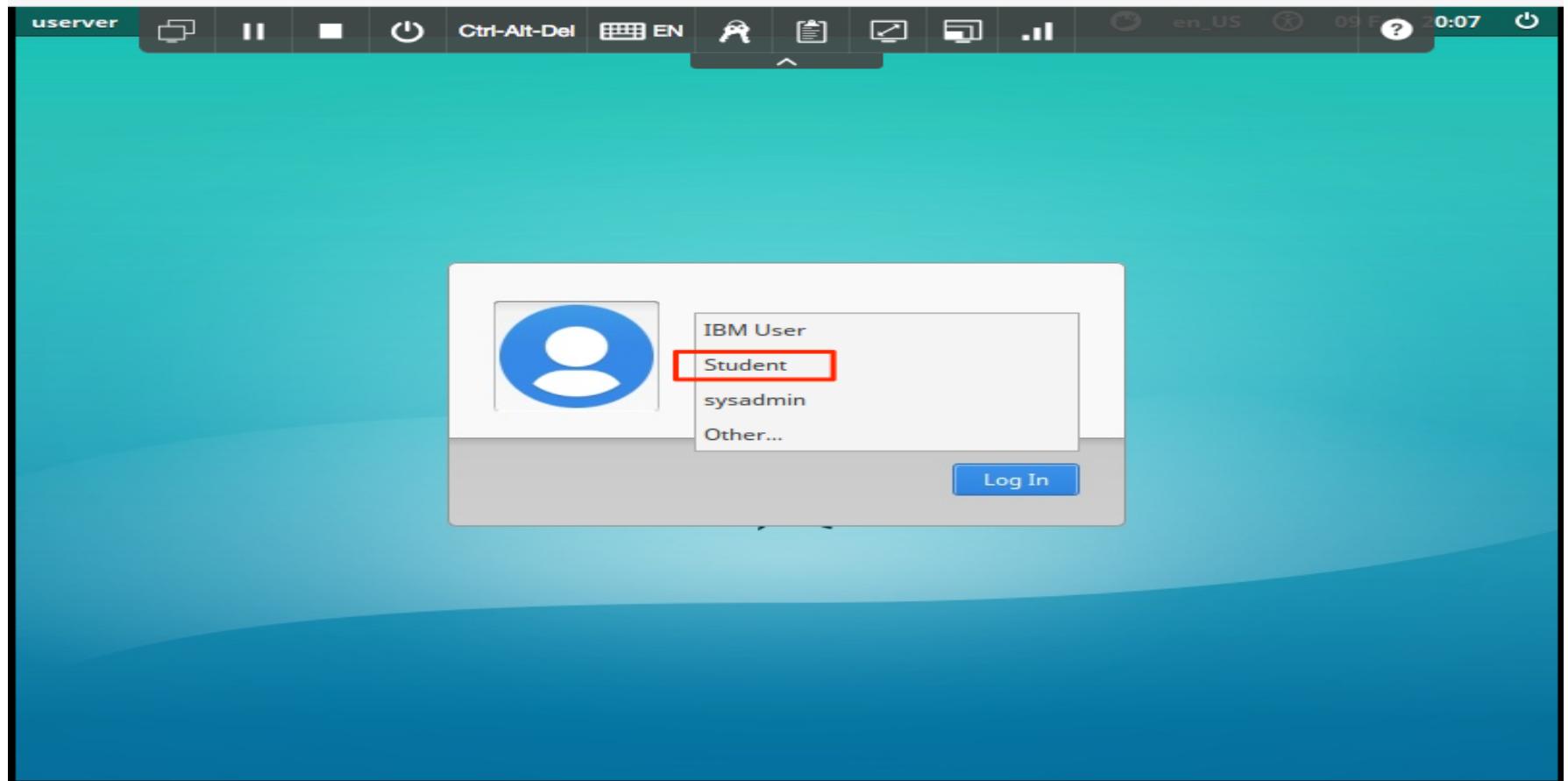
eduevent-full: ITHINK19 | 5257B | S0001

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VMs: 3

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Lab Environment



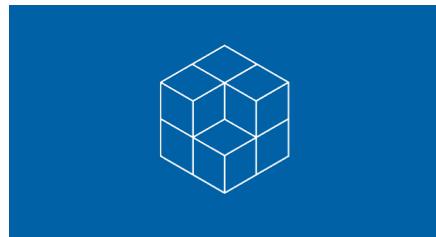
IBM Cloud Private



Kubernetes-based container platform

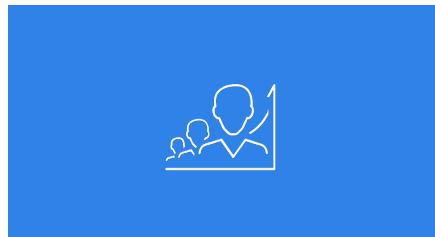
Cloud Foundry for prescribed application development and deployment

Integrated DevOps toolchain



Catalog of integration services

API economy to integrate data and services across all



Prescriptive guidance on where to run your critical workloads

Next generation versions of industry leading IBM Middleware and Analytics (WAS, MQ, DB2)



Core operational services, including monitoring, log management, and security

Integration with existing systems and operations management solutions

References

List of useful links on lightweight integration:

<http://ibm.biz/LightweightIntegrationLinks>

Hybrid Integration Reference Architecture

Article <http://ibm.biz/HybridIntRefArch>

Webinar <http://ibm.biz/HybridIntRefArchYouTube>

PoV paper on microservices and integration

Article <http://ibm.biz/MicroservicesVsSoa>

Webinar <http://ibm.biz/MicroservicesVsSoaFullWebinar>

Containerizing ACE

How to Video https://www.youtube.com/watch?v=Z6M3UB3Ik_0

Github Repo <https://github.com/ot4i/ace-docker>

DockerHub Image <https://hub.docker.com/r/ibmcom/ace>

Agile Integration Architecture

eBook <http://www.ibm.com/cloud/agile-integration-architecture>

presentation <https://www.youtube.com/embed/1M2vqsy6Eho?rel=0>

Thank you

