Application platform without a headache

IBM Fusion HCI feat. OpenShift
an all-in-one on-premise solution

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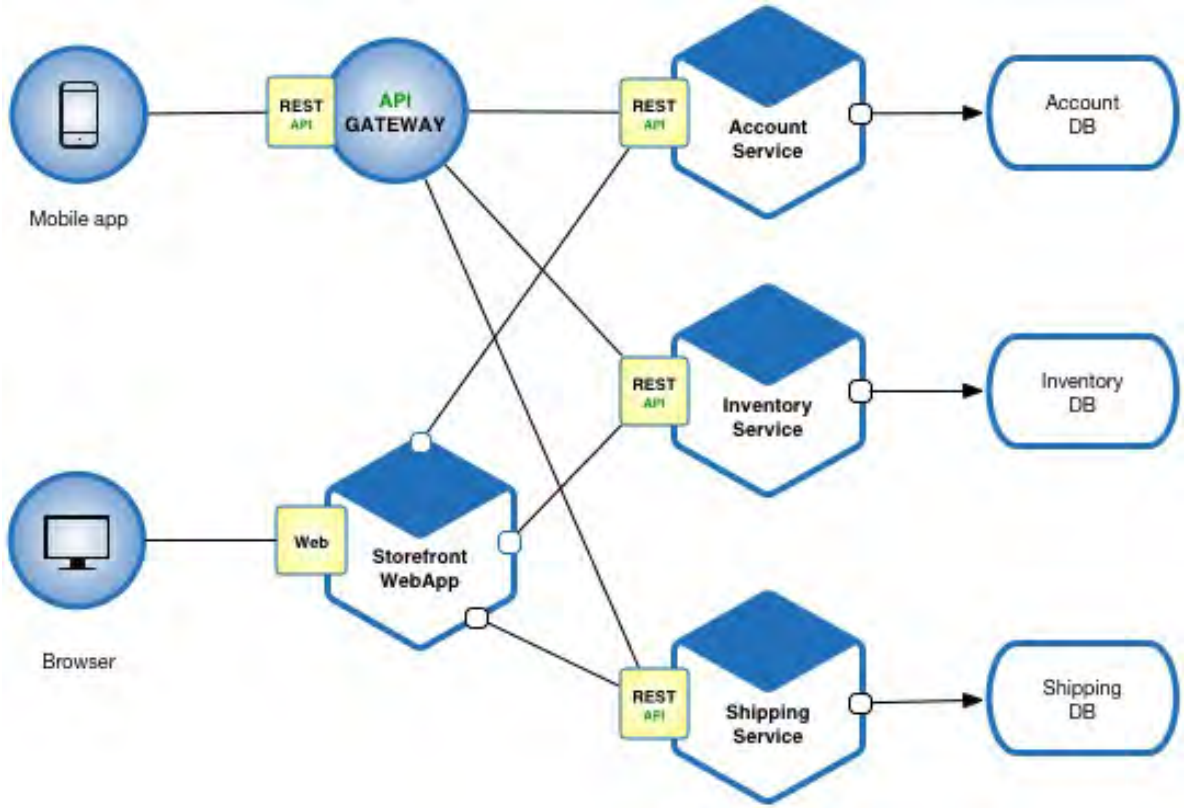
Successful **DIGITAL TRANSFORMATION** requires a modern **APPLICATION ARCHITECTURE**



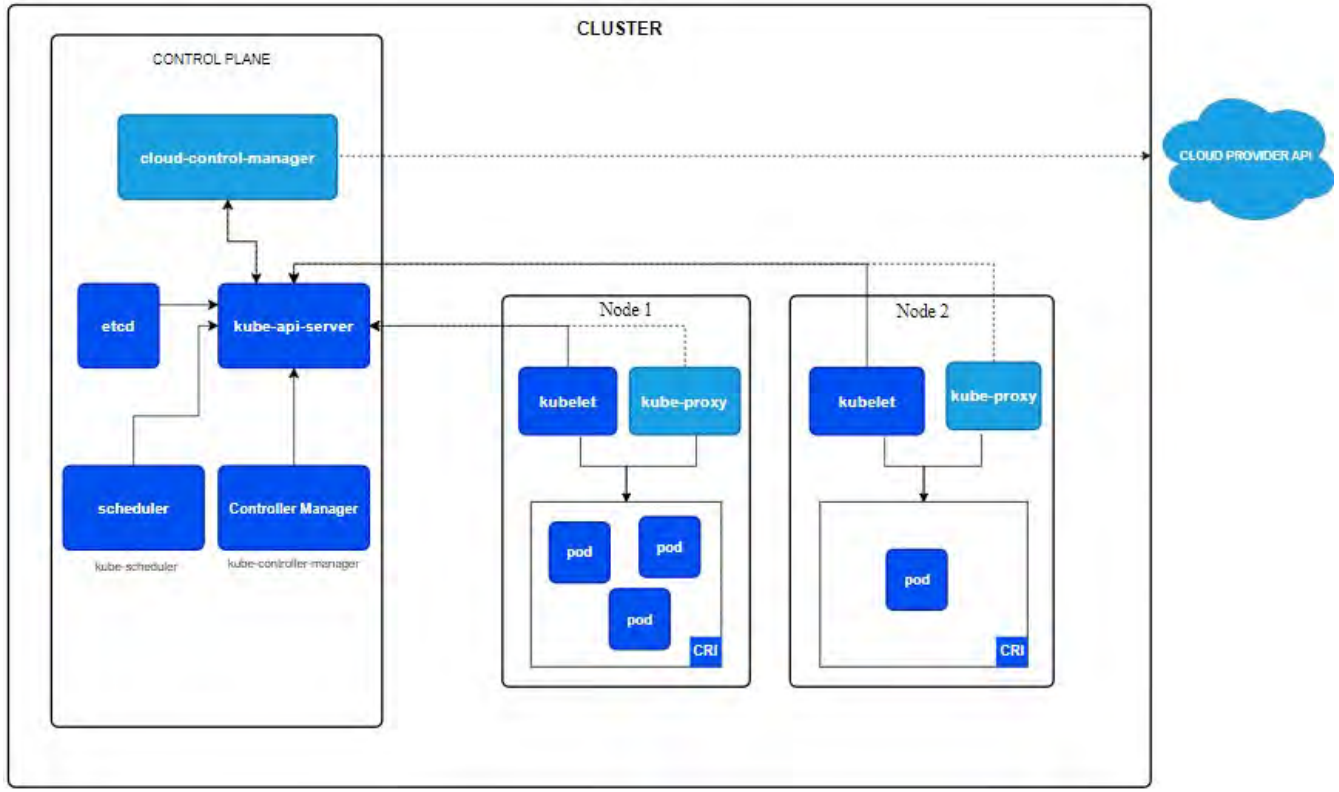
Microservice architecture (MSA)

Business functionality is built from lightweight, loosely-coupled elementary services.

Event-driven architecture (EDA)

Microservices emit events that other microservices can react to.

A modern **APPLICATION ARCHITECTURE** requires a fitting **APPLICATION INFRASTRUCTURE**



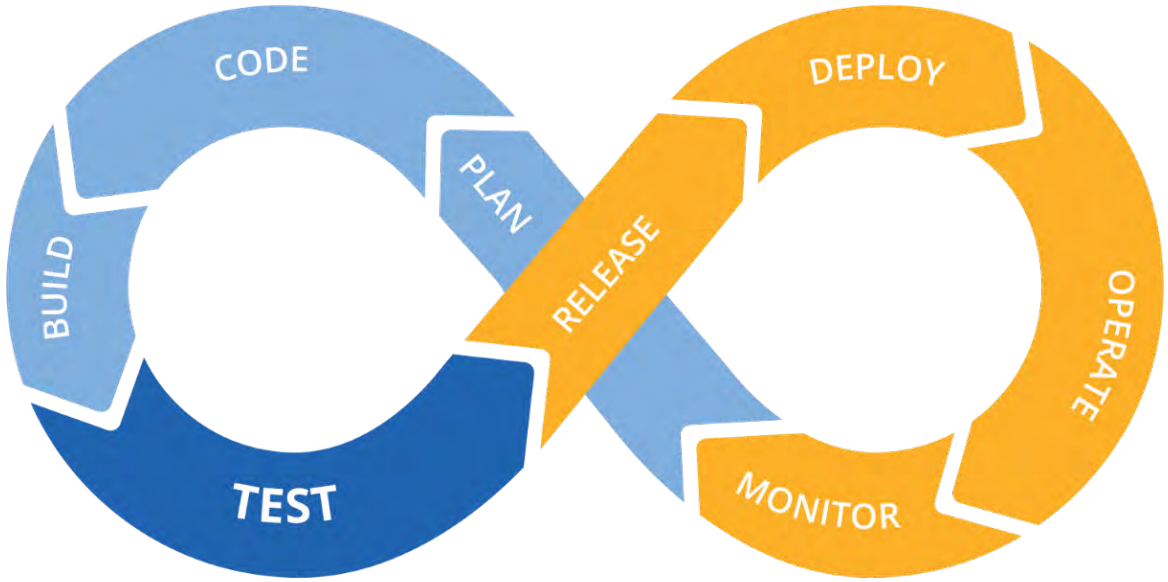
Containerization (“docker”)

Microservices are running in containers, not in separate virtual machines.

Container platform (“k8s”)

Managing large number of containers, fault tolerance, scaling, security, …

Leveraging this **ARCHITECTURE & INFRASTRUCTURE** requires using proper **DEV(SEC)OPS PRACTICE**



An operational model, “philosophy”

Changing roles, tasks and challenges of development, IT operations & IT security.

CI / CD

Continuous integration, delivery, deployment, …

But how can we implement this without (major) headache?

On public cloud…

IaaS

compute, storage, and network resources

Self-deployed, self-managed OpenShift (or vanilla Kubernetes)

PaaS, “CaaS”

managed container platform service

OpenShift (or Kubernetes)

the “control plane” belongs to the service provider

FaaS, serverless

individual functions, running on the cloud

less control than CaaS

cloud-provider specific

BUT: Most enterprises cannot (or shall not) move *fully* to cloud

- “pay-as-you-go” modell can be quite expensive and hard to predict/budget, if usage becomes huge
- changing service provider is not as easy as it seems
- compliance requirements (finance, government)

On-premise...

“DIY” k8s

Deploy the open-source Kubernetes on own hardware

prepare for deprecations in every 4 months...

OpenShift

built on k8s (and other sw)

complete enterprise application platform

vendor-supported

?

Challenges

- complexity
- requires special competences (free software is not really free)

An all-inclusive solution from IBM…

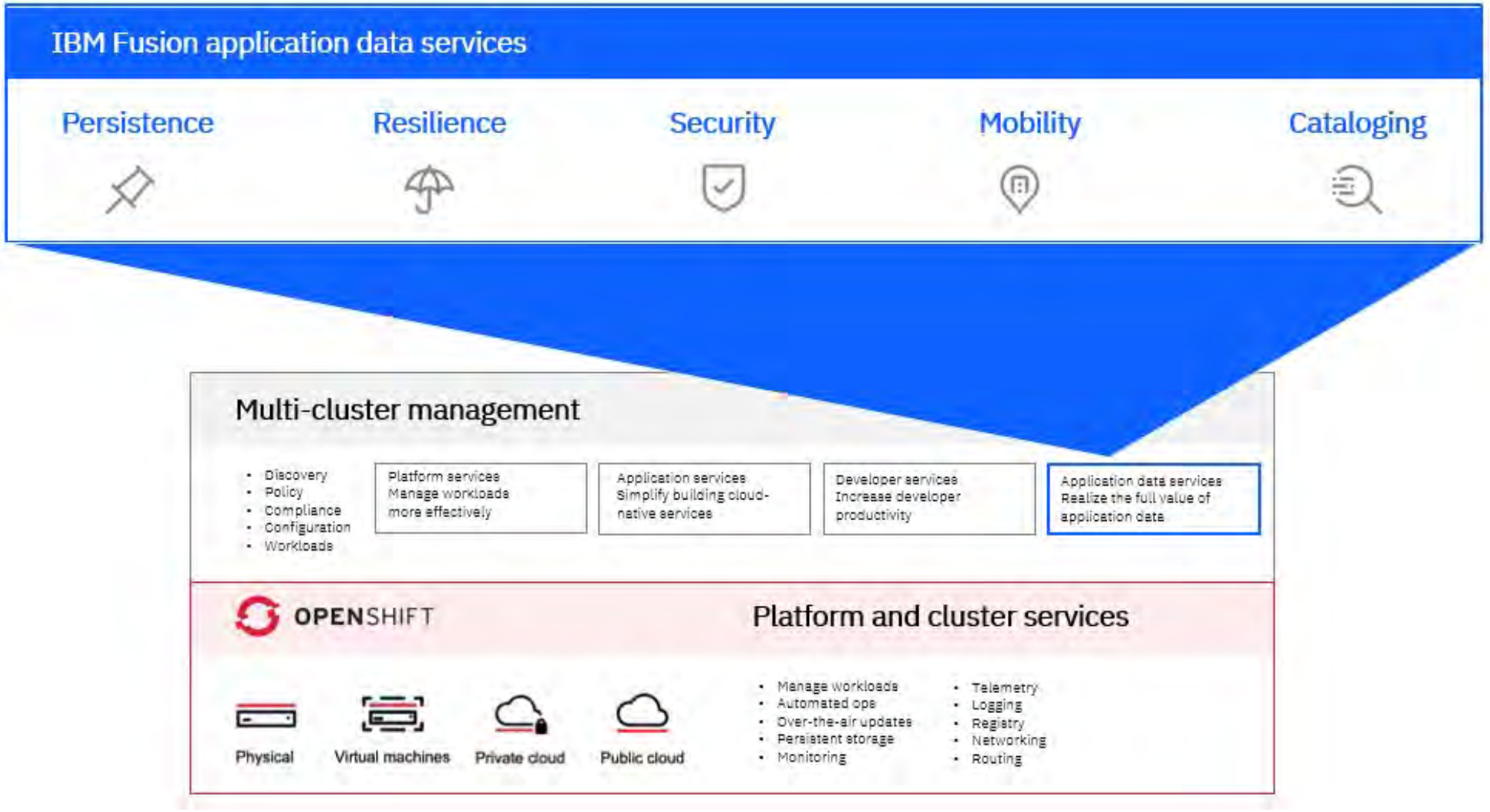
On-premise enterprise application platform

hardware and software in a single offering

- latest generation server, storage & networking
- “software-defined-*everything*”
- optional AI accelerator (with Nvidia GPU)
- designed for containers from the ground- up
- Red Hat OpenShift included
- IBM Fusion storage software included
- fully integrated and supported

IBM Fusion HCI

IBM Fusion sw extends the OpenShift capabilities



Typical use cases

- Platform modernization
- Application modernization
- Databases, logging, & monitoring
- AI/ML & data analytics pipelines

Better TCO than DIY

100% Eliminate cost of hypervisor
OpenShift Virtualization is included with OpenShift

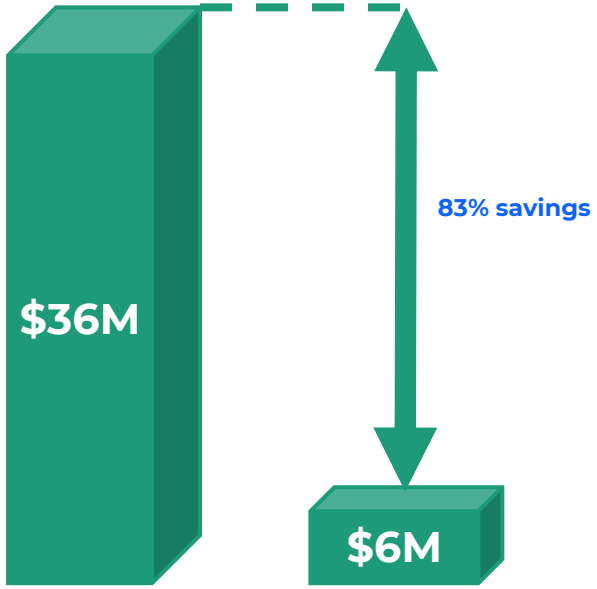
Eliminate cost of Red Hat Enterprise Linux
RHEL is included with OpenShift licenses

20% more efficient use of infrastructure (1)
vs applications running on hypervisors

Faster, less error-prone platform deployment

Save on recurring IT operations cost

Improve applications resilience, thus deliver more business value



Real customer example
5-year TCO study

(1) Kubernetes (Openshift) on Bare Metal vs VMs

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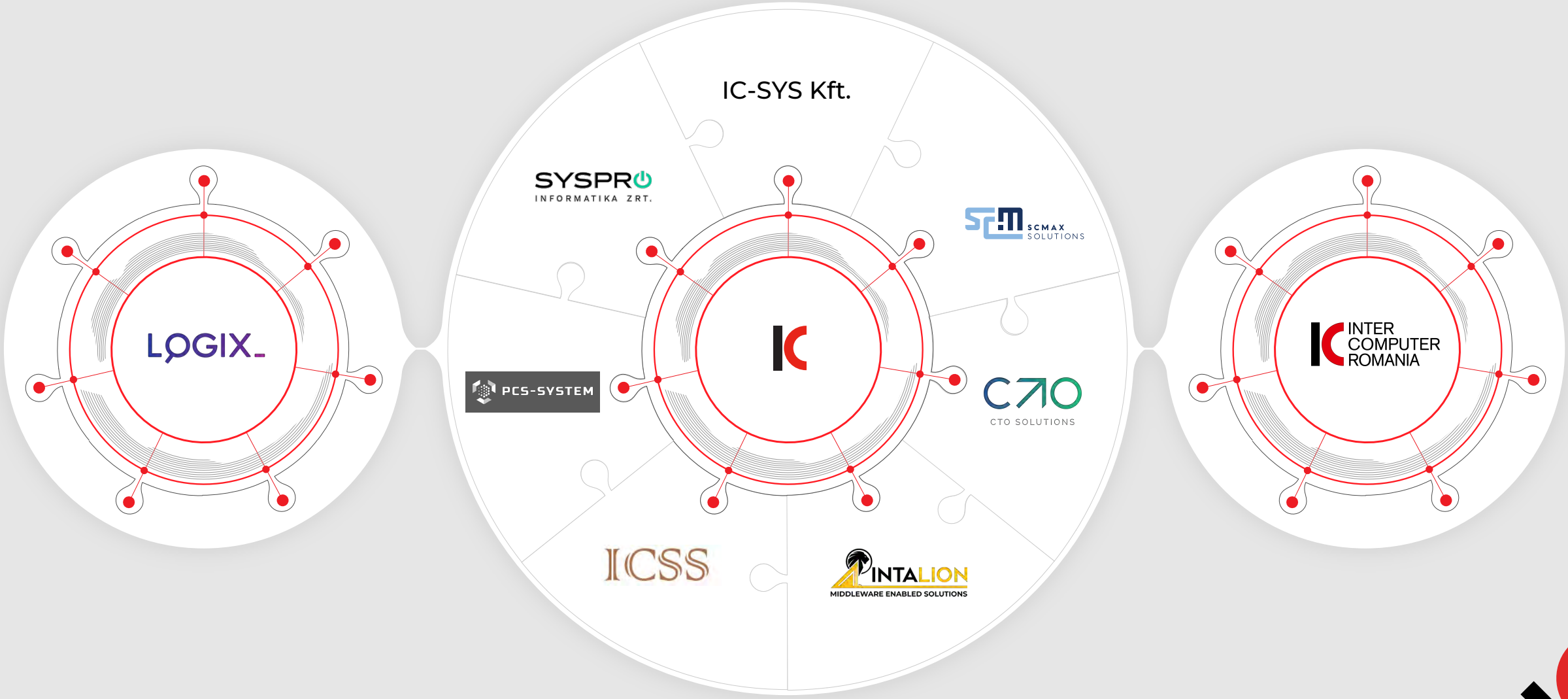

local presence and expertise in Hungary, Romania, Slovenia, Croatia, ...