Introduction to IBM Blockchain Platform and LinuxONE

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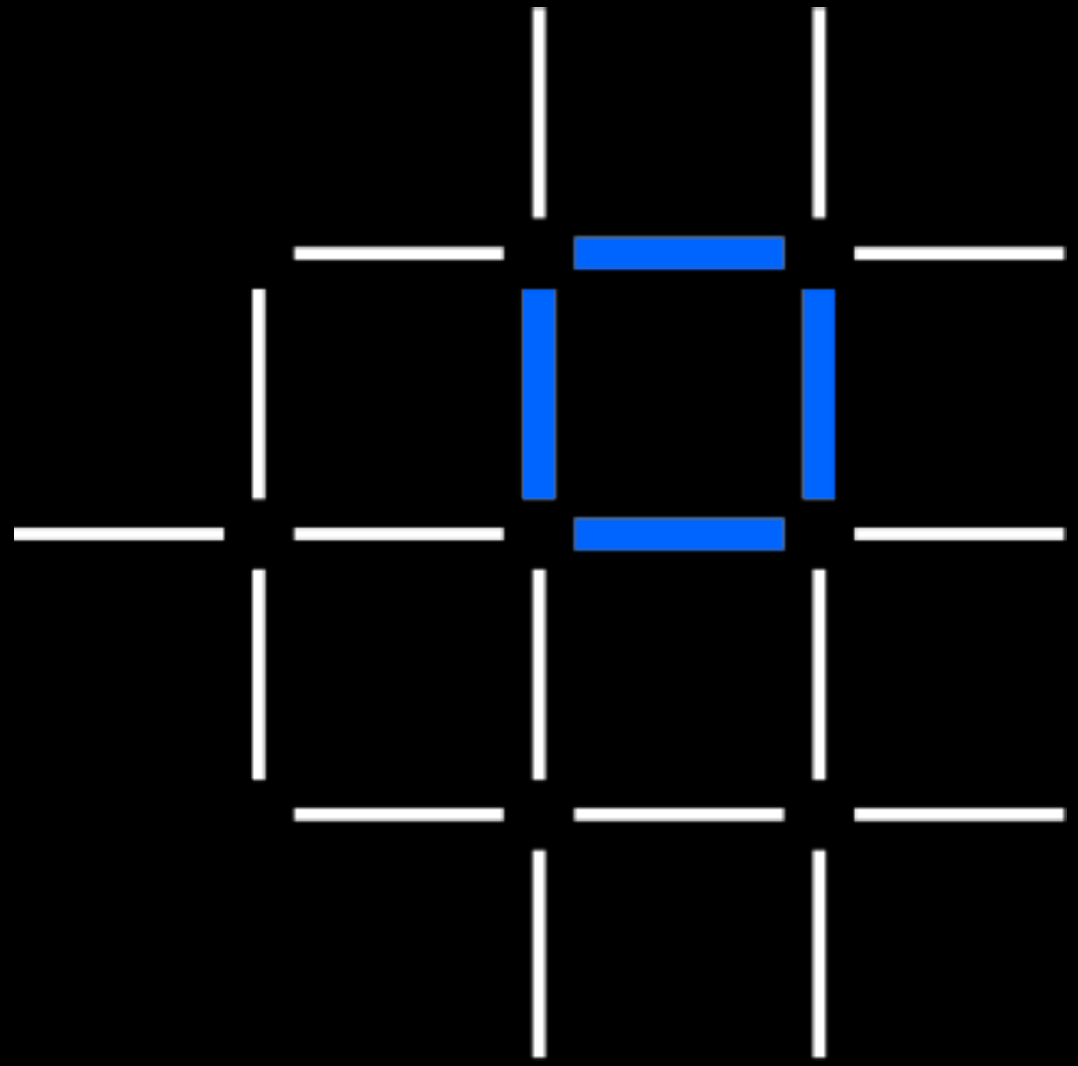

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IBM **Blockchain**

IBM

Blockchain on IBM Z

The Opportunity

IBM Z

Mission critical applications.

Industry-leading data privacy, security and resiliency.

Red Hat OpenShift

The enterprise compute platform for hybrid cloud.

Open, containerized, scalable.

IBM Blockchain Platform

Puts the enterprise at the heart of a business network.

Transactions, Trust, Transparency.

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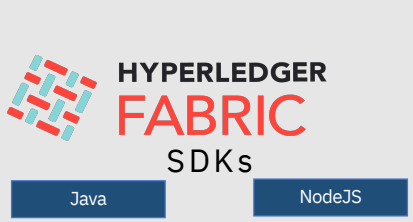
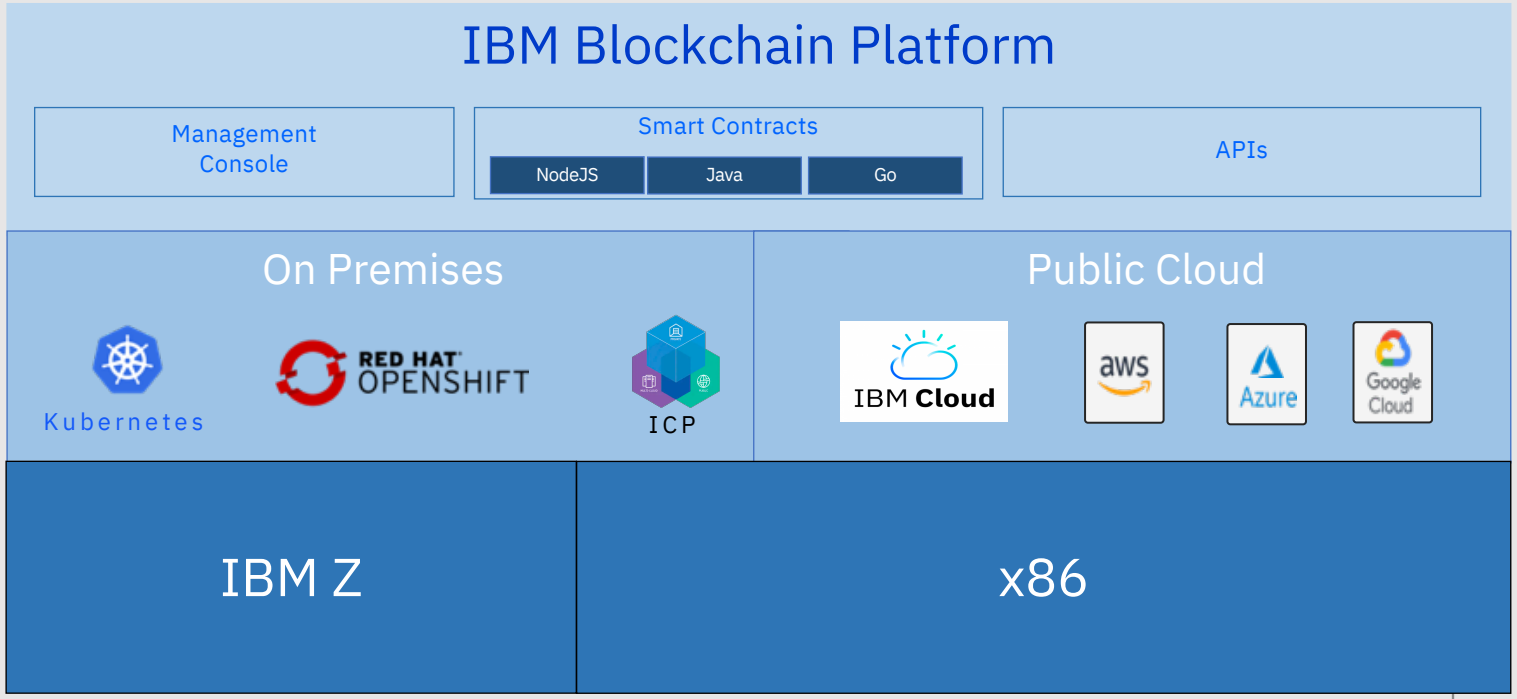
IBM Blockchain Platform

- Common development experience
- One product, same capabilities across all platforms
- Kubernetes agnostic platform & Multi-cloud deployment
- Multiple architectures





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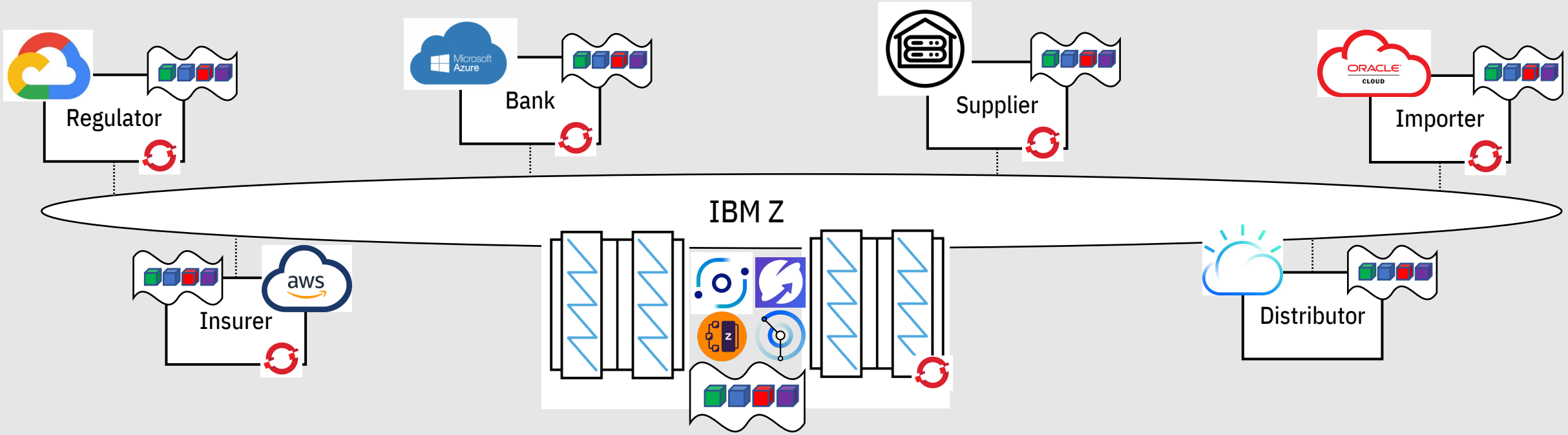
Multi-Cloud Network



Build smart contract APIs with your partners using a shared, distributed ledger of transactions

Modernize your IBM Z applications in support of a digital transformation with your business partners

Implement a multi-cloud strategy that extends and integrates your IBM Z subsystems and applications with different clouds

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Why IBM Blockchain Platform on IBM Z

Security
incl. pervasive encryption

- Securing the Enterprise (keys, crypto enhancements)
- Cryptographic hardware acceleration
- Complete data encryption
- FIPS 140-2 Level 4 HSM

Co-location efficiency
for workload integration

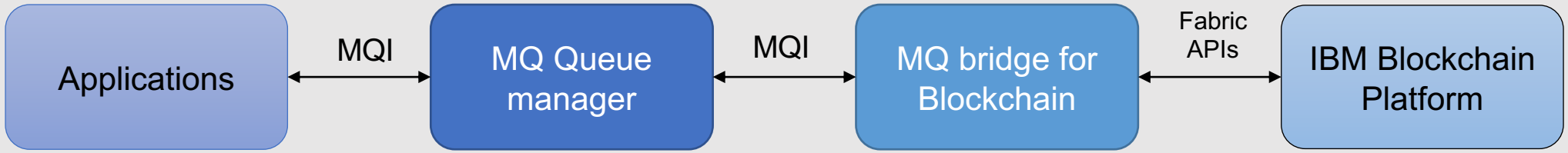
- Performant communication
  - Minimal latency
  - Less network traffic
  - Processing next-to data
- Operational efficiency
  - Same admin arrangements
  - Resource sharing
  - Live virtual server migration
- MQ Integration with transaction systems, like IBM CICS or IBM Db2

Qualities of service
Reliability, Availability, Serviceability

- Self-checking and self-recovery capabilities
- Concurrent replace, repair, and upgrade
- Near-continuous availability and disaster recovery
- Multi-cloud Flexibility

The MQ Bridge for Blockchain

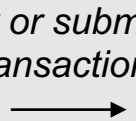
Provides a direct link from MQ to the IBM Blockchain Platform

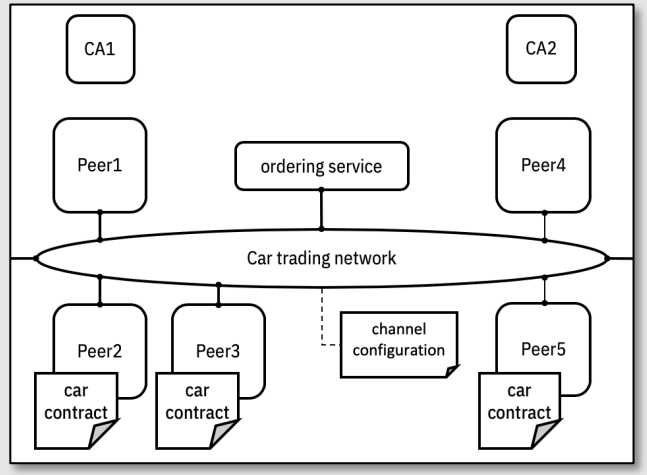



```
{"function":functionName,
"channel":channelName,
"chaincodeName":codeName,
"args":[argument list]}
```

BRIDGE.REQUEST

Query or submit new transactions





Multi-organization blockchain network

```
{"statusCode":200,
"statusType":"SUCCESS",
"message":"OK",
"data":""}
```

BRIDGE.REPLY

- Part of MQ v9.1.4; requires MQ Advanced queue managers of at least v9.0.3
- Flexible connection options allow you to fine-tune the data that is shared
- Configure multiple bridge instances for high availability or additional identities

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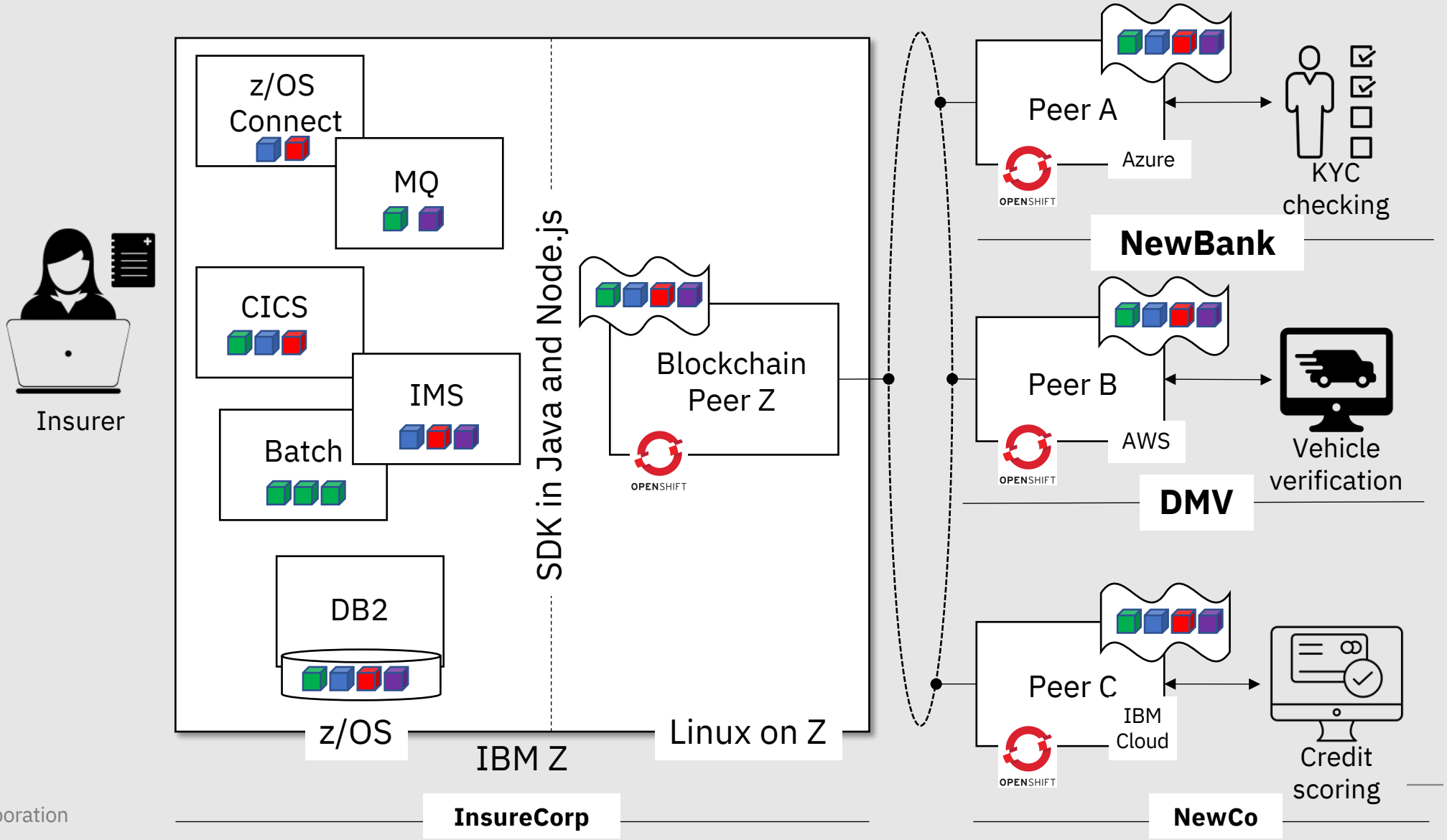
z/OS Subsystems Connectivity



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The Value of an Opportunity

IBM Z

Linux on Z

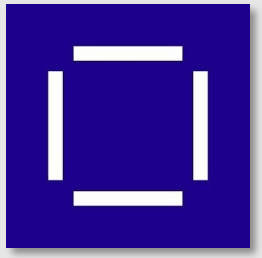
- Performance
- Security
- Integration

Red Hat OpenShift

Cloud Paks

- Cloud Pak for Applications
- Cloud Pak for Integ

IBM Blockchain Platform



IBM Blockchain Platform

- Services
- Platform Linux on Z PID

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Thank You!

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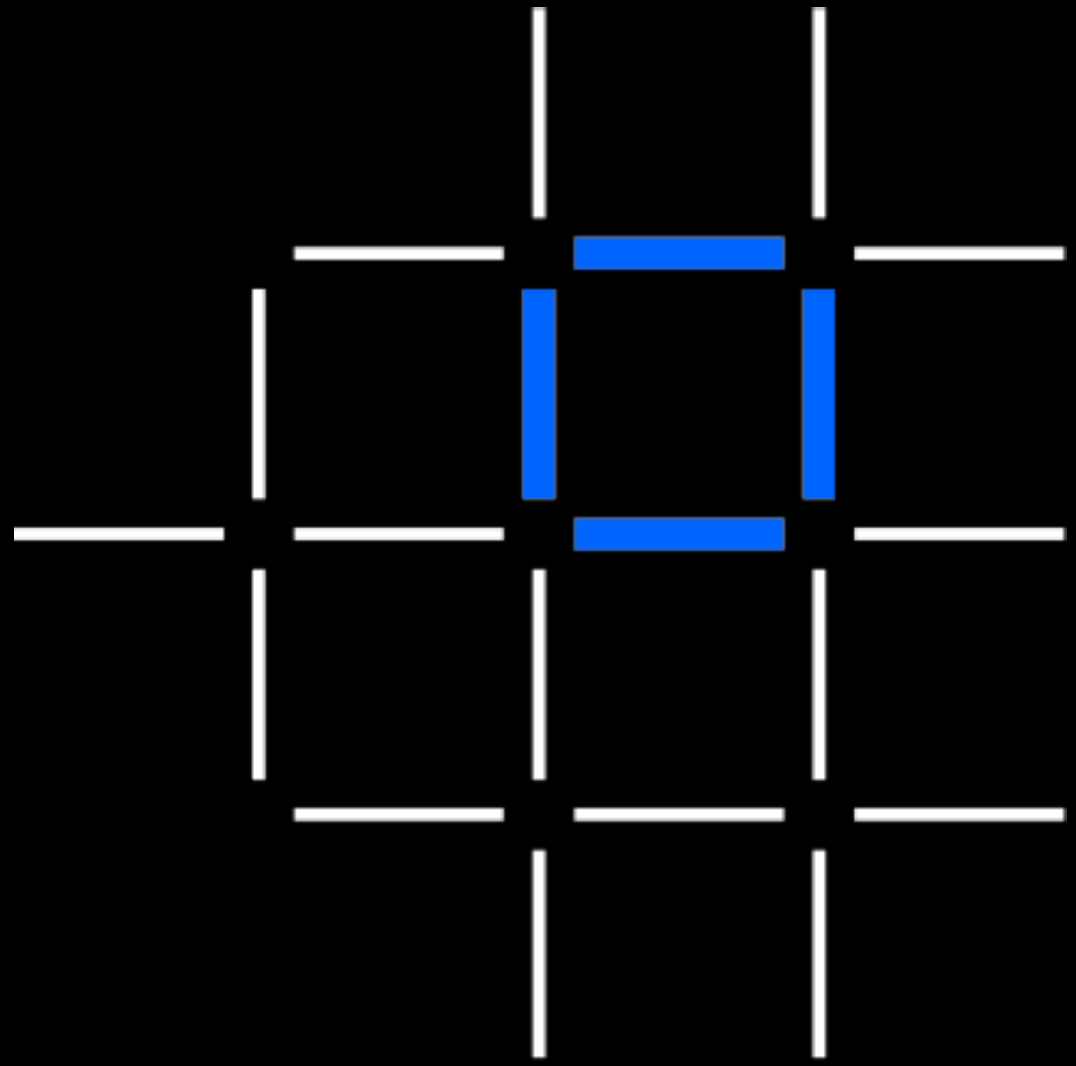

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