IBM cloud – a solution to evolving Digital DNA

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Spot the Difference

Agenda

- Basic Cloud Understanding
- Cloud Solution Approach
- Cloud and Startups
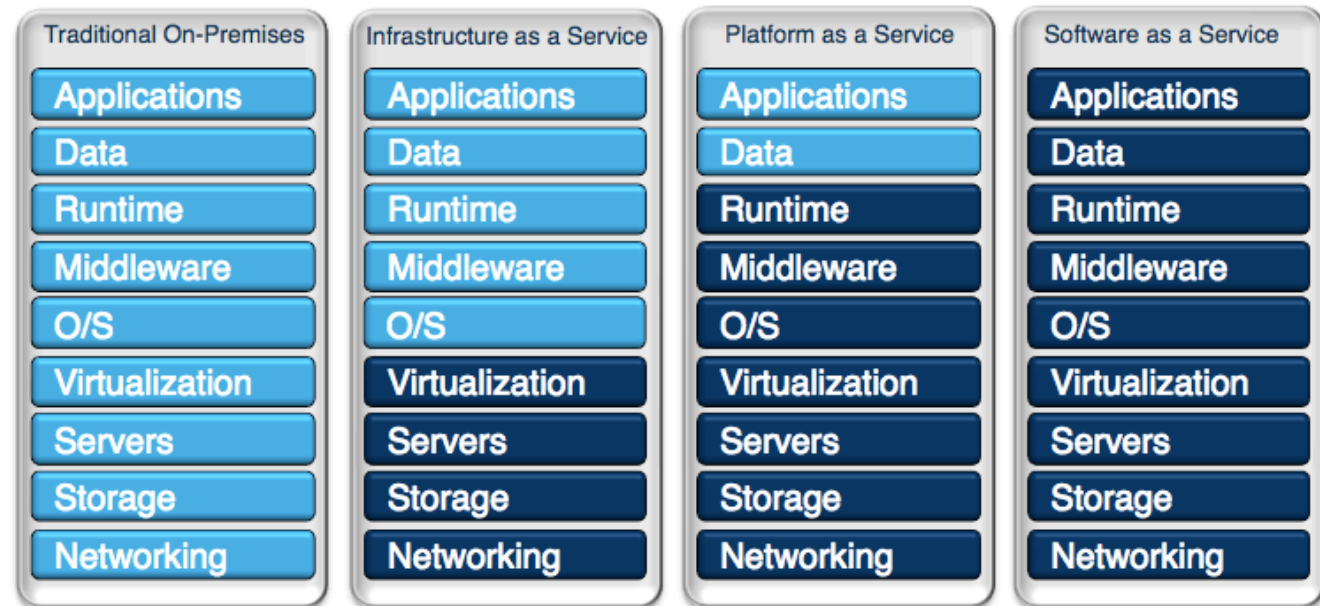- Cloud and disruptive technologies

Cloud service

OpenStack

Cloudfoundry

Moving from on-premises to the range of Bluemix compute and services

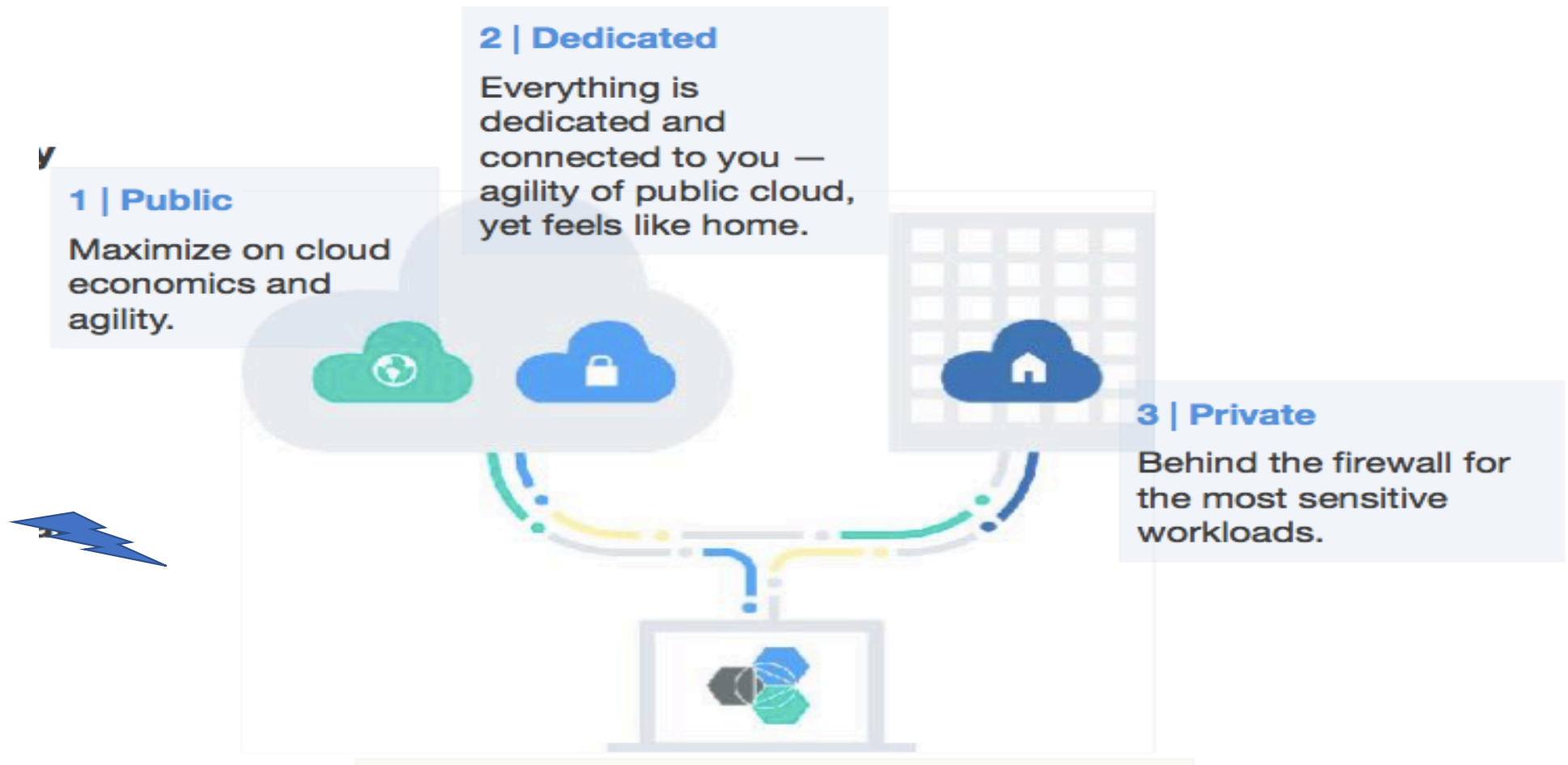**Bluemix PaaS environments simplify various tasks compared to on-premises or IaaS**

- Health management
- Load balancing
- Scaling
- Deployment
- OS patching
- OS security hardening

Traditional On-Premises	Infrastructure as a Service	Platform as a Service	Software as a Service
Applications	Applications	Applications	Applications
Data	Data	Data	Data
Runtime	Runtime	Runtime	Runtime
Middleware	Middleware	Middleware	Middleware
O/S	O/S	O/S	O/S
Virtualization	Virtualization	Virtualization	Virtualization
Servers	Servers	Servers	Servers
Storage	Storage	Storage	Storage
Networking	Networking	Networking	Networking

☐ Developer Manages ☐ Vendor Manages in cloud

Standardization; OPEX savings; faster time to value

Cloud offering

2 | Dedicated

Everything is dedicated and connected to you — agility of public cloud, yet feels like home.

1 | Public

Maximize on cloud economics and agility.

3 | Private

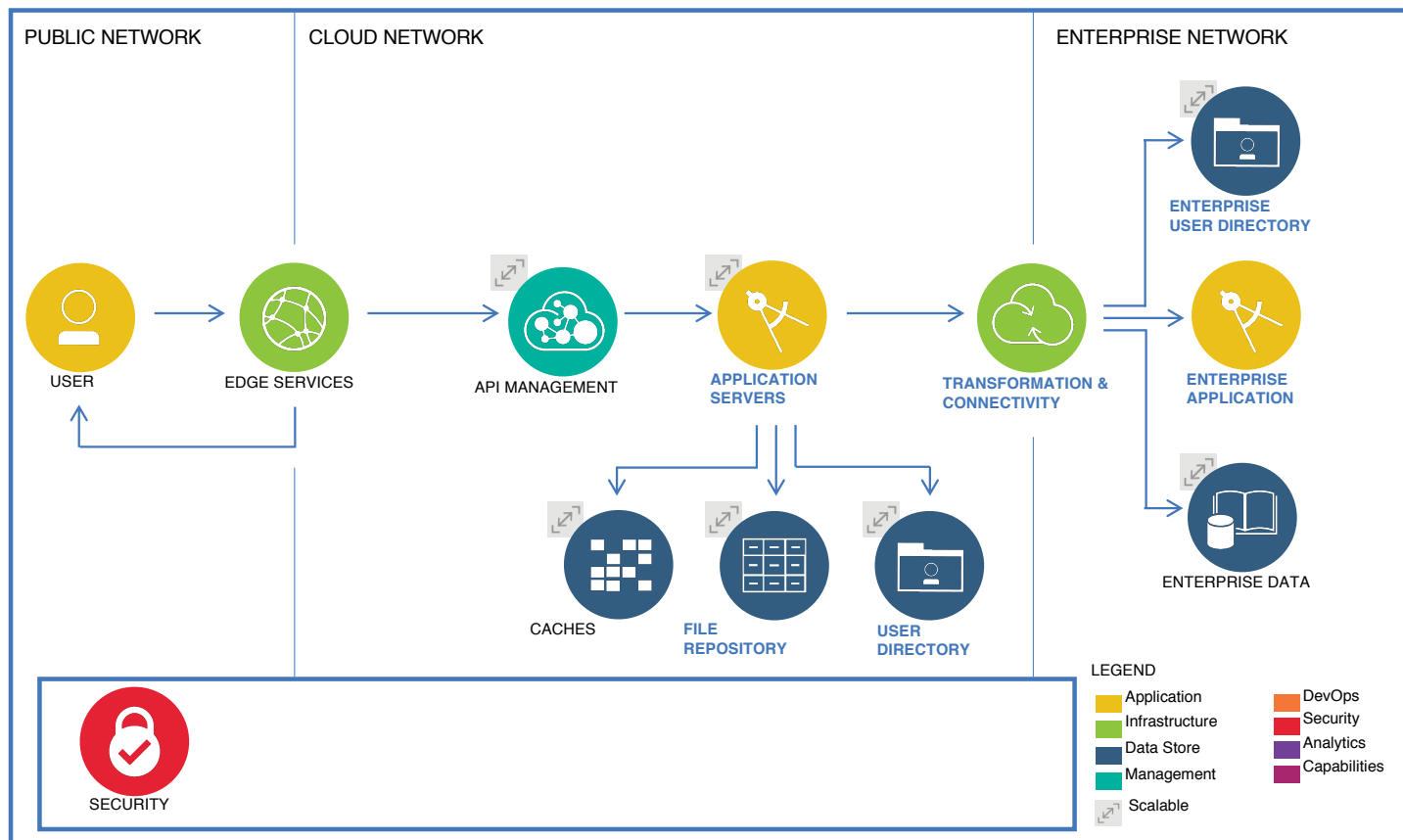Behind the firewall for the most sensitive workloads.

True or False

- ***Runtime and Database as service offering is referred as Infrastructure as service ?***
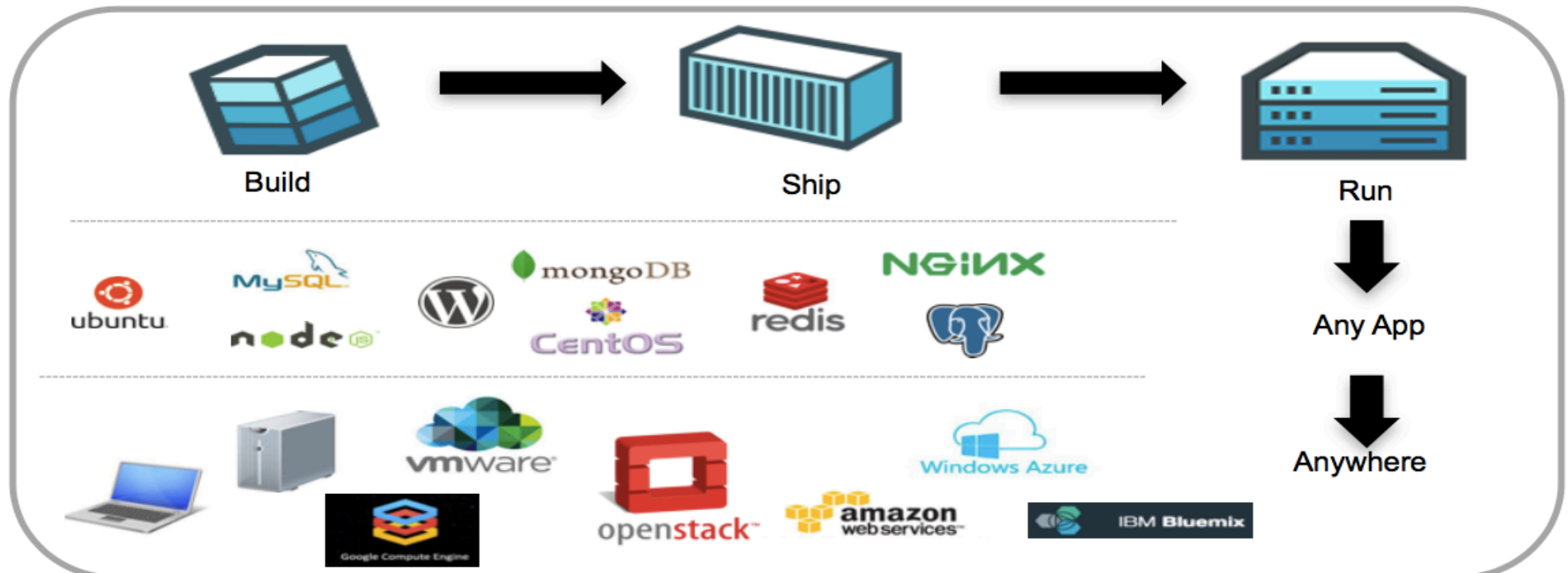
True or False

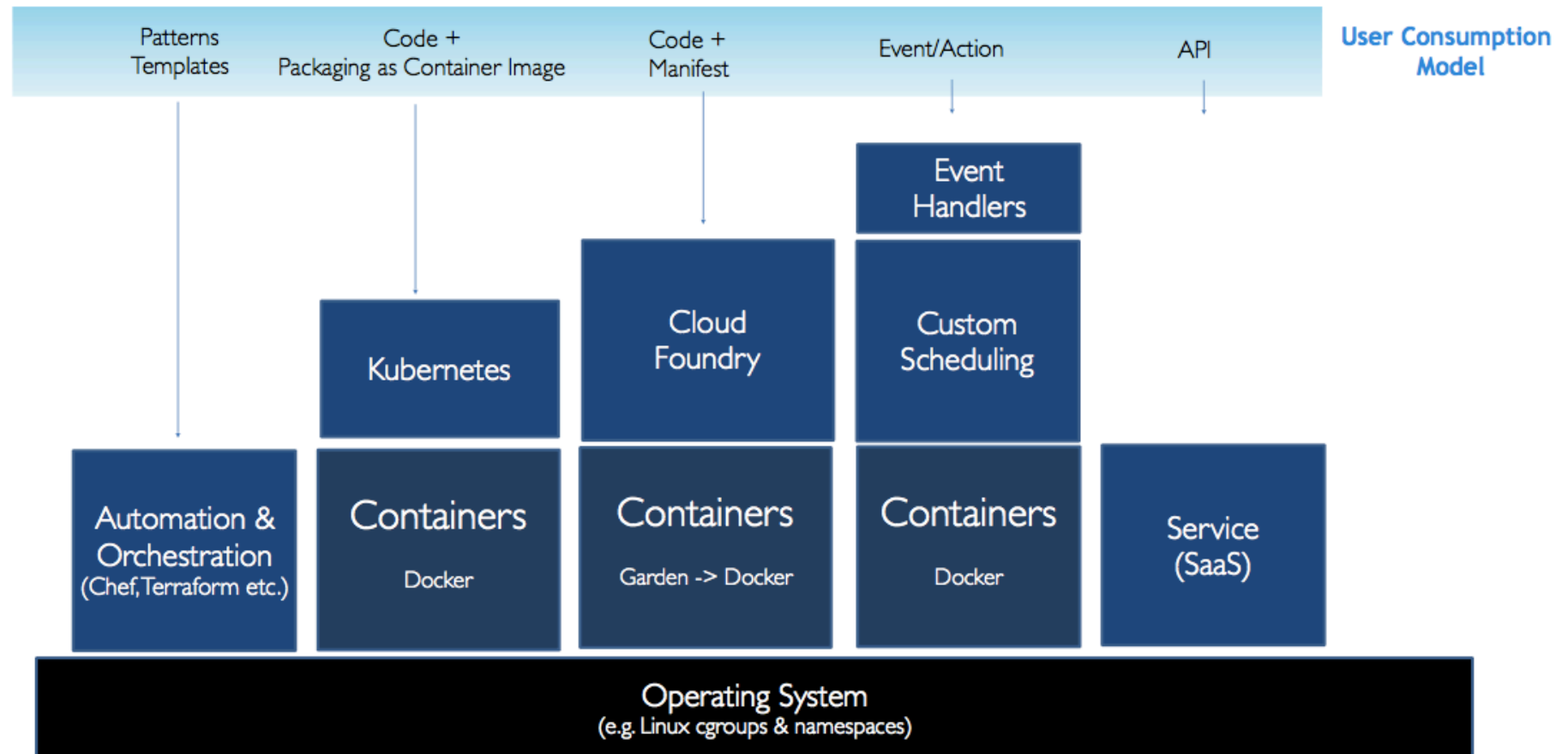- Hybrid cloud refers to the application running on public cloud and private cloud

PUBLIC NETWORK   CLOUD NETWORK   ENTERPRISE NETWORK

USER

EDGE SERVICES

API MANAGEMENT

APPLICATION SERVERS

TRANSFORMATION & CONNECTIVITY

ENTERPRISE USER DIRECTORY

ENTERPRISE APPLICATION

ENTERPRISE DATA

CACHES

FILE REPOSITORY

USER DIRECTORY

SECURITY

LEGEND

Application
Infrastructure
Data Store
Management

DevOps
Security
Analytics
Capabilities

Scalable

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Containers and Cloud

IBM cloud private

True or False

- Which one of the following is/are the IBM cloud offering:

(A) IBM Public cloud and IBM Dedicated cloud

(B) IBM cloud private (ICP) – container based

(C) Both A and B

 (D) A only

Demo

Cloud Solution approach – 12 app factor methodology

- https://12factor.net/

- **Config**
  - **Store config in the environment**
- **Build, release, run**
  - **Strictly separate build and run stages**

- **Concurrency**
  - **Scale out via the process model**

- **Logs**
  - **Treat logs as event streams**

Cloud and Weak consistent database

- Are you surprised to see the $1500 account balance post 500$ deposit is still reflecting as $1000 during the next transaction ?

- Is it possible ?

- What is weak consistency ? How it works ?

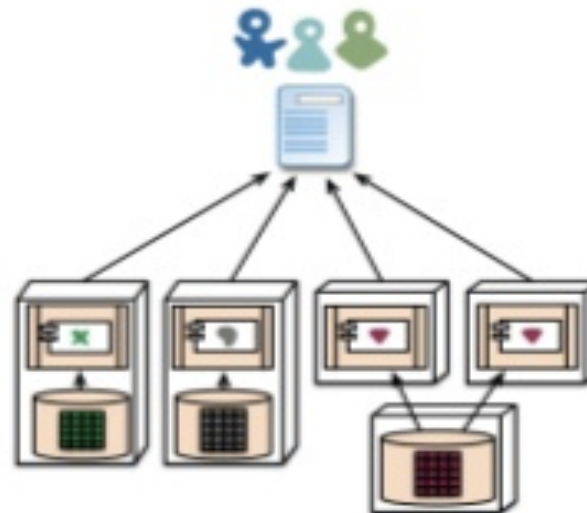- Cloudant – NoSQL database – Designed for your (Big) data

Micro services

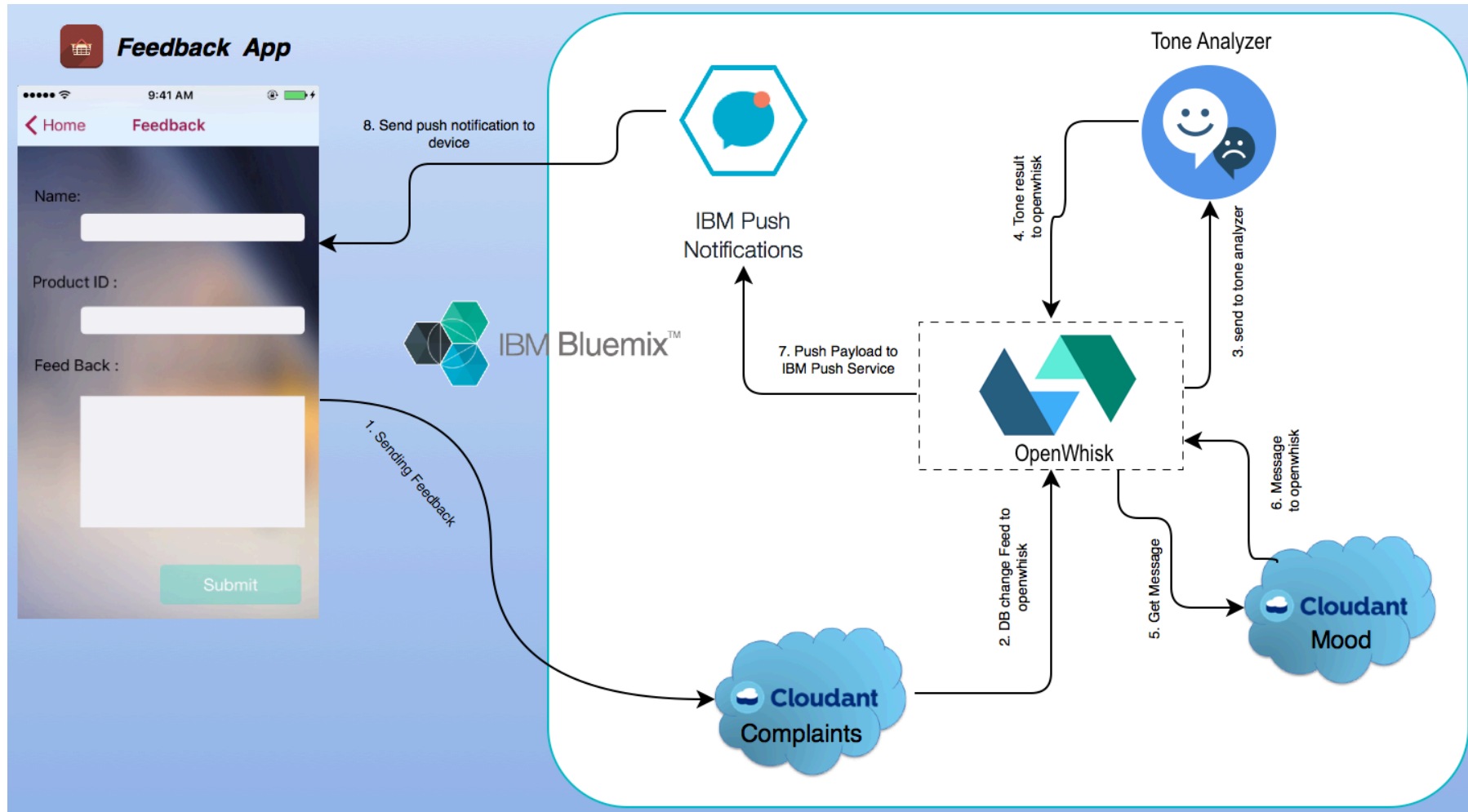

Microservices v.s. Monolithic: Database

A monolithic architecture uses the same database for all services.
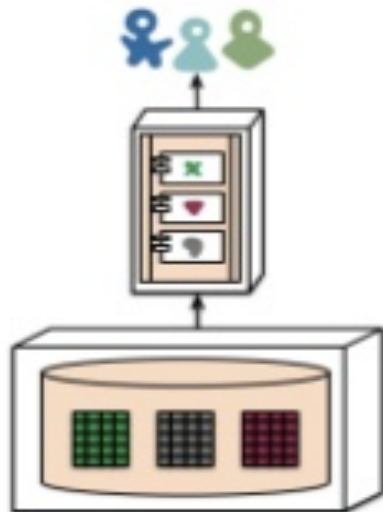
A microservice achitecture uses the best database ..

Serverless

Cloud flexibility

- Jboss NOT available as service – How to handle it

- ## Buildpack

Cloud Foundry JBoss Buildpack

build passing | devDependencies out-of-date | maintainability A | coverage unknown

- Script
  - Location of the binaries
  - Download instruction
  - How to install
  - Configuration steps
  - Startup steps

cf push <APP-NAME> -p <ARTIFACT> -b https://github.com/cloudfoundry-community/jboss-buildpack.git

Cloud benefit to startups

- High Availability and Scalability taken care
- Access to key technologies
- NO to installation and configuration
- Quick devops

- Startup solution Implementation
  - (Jboss)Buildpack
  - Support for Laravel Framework
  - Integration of Blockchain
  - Fancy IoT integrations
  - Mobile backend integrations

Blockchain as service

Contract

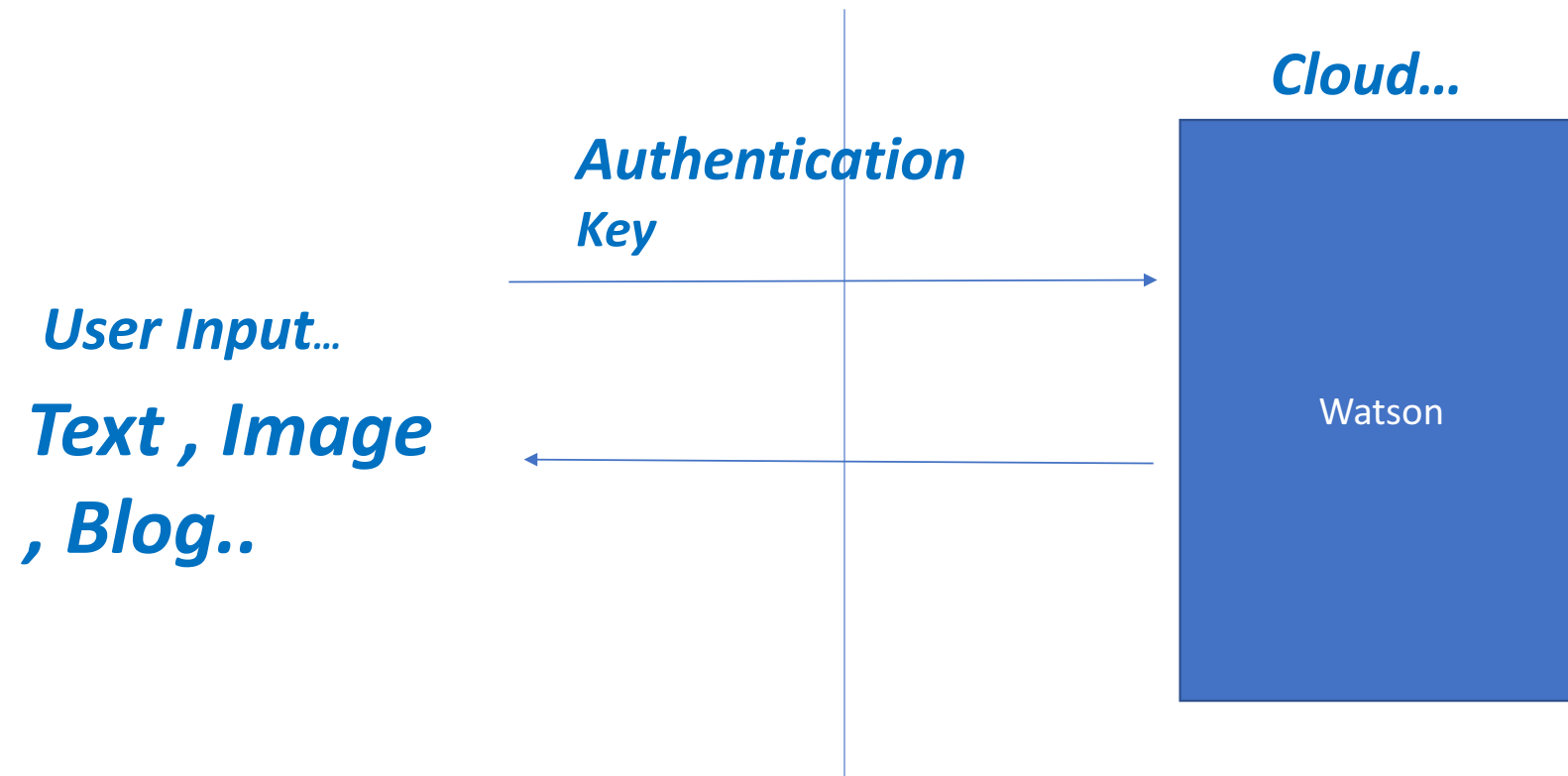Tea leaves shipment to be maintained between o to -5 C
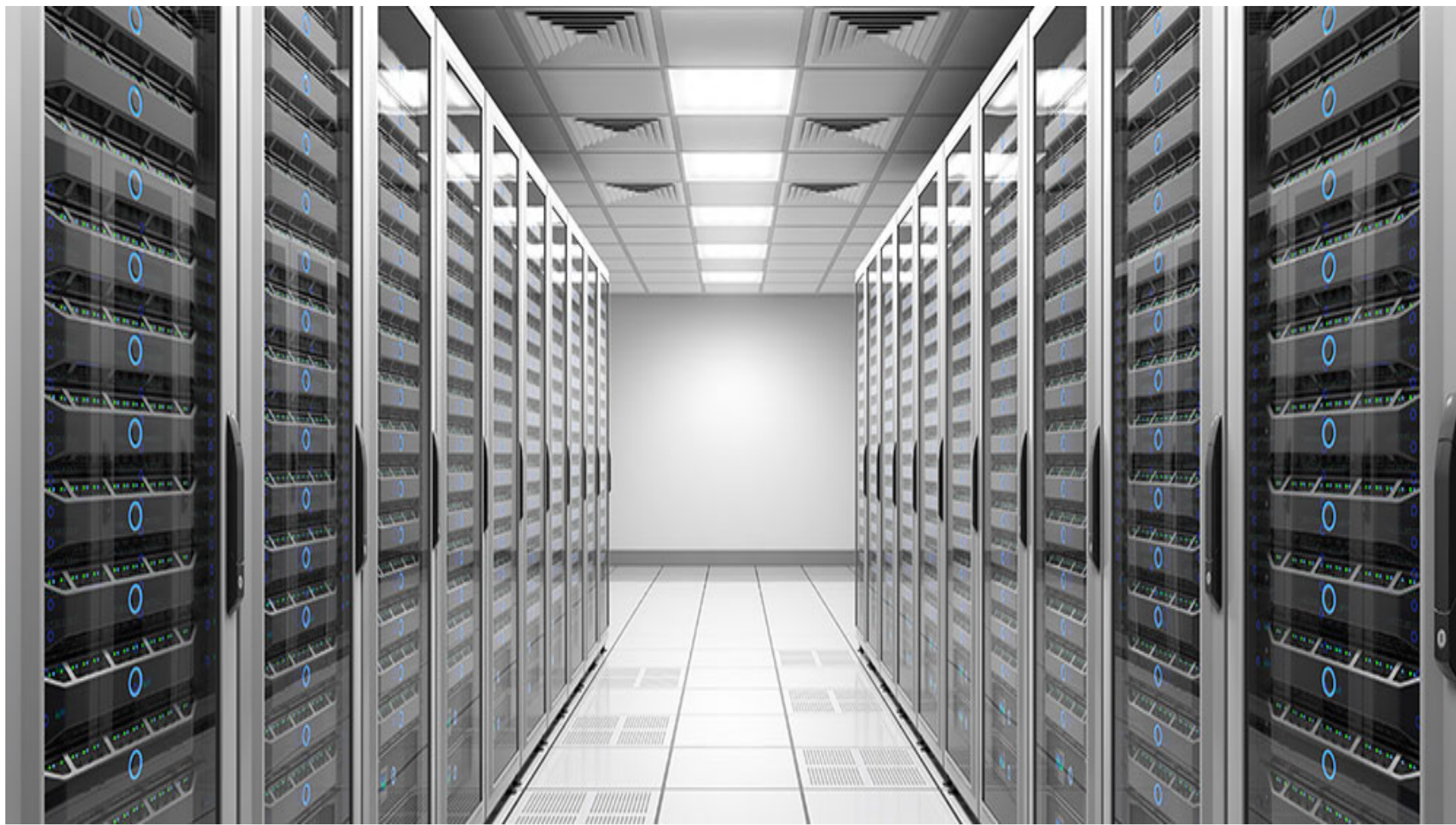
Ledger

Exporter. - -3 C

Port Auth - 0 C

Importer - -5 C

Cloud Security

https://www.ibm.com/cloud/compliance

Spot the Difference

Thank you..