

What is Cloud Native, and why should I care?

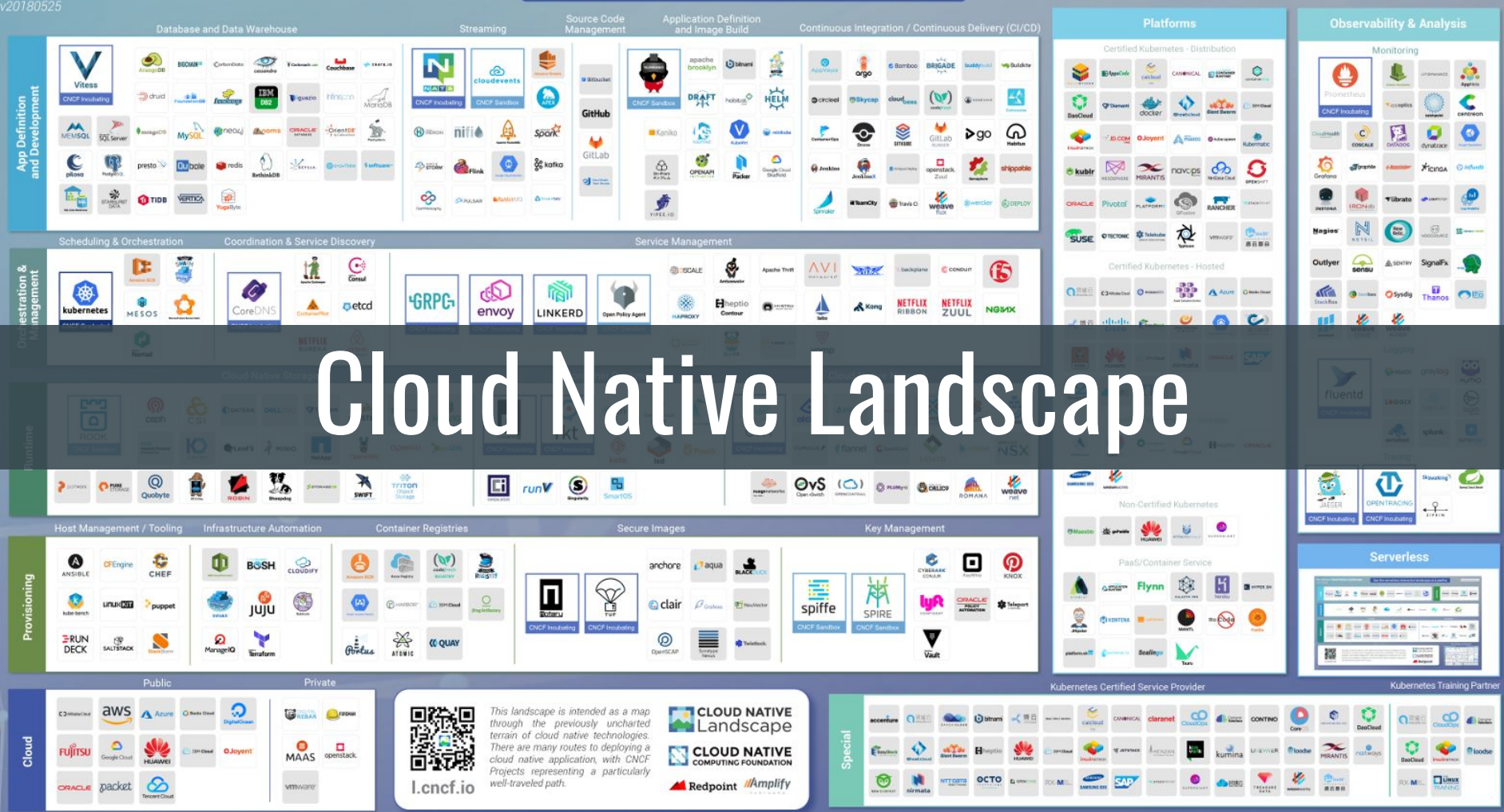
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Improvement







Cloud Native Landscape


This landscape is intended as a map through the previously uncharted terrain of cloud native technologies. There are many routes to deploying a cloud native application, with CNCF Projects representing a particularly well-traveled path.

Cloud Native Landscape
CLOUD NATIVE COMPUTING FOUNDATION

l.cncf.io

Non-Certified Kubernetes

- Alibaba Cloud
- Google Cloud
- IBM Cloud
- Microsoft Azure
- Oracle Cloud
- Red Hat OpenShift
- SAP Business Technology Platform
- VMware Tanzu

PaaS/Container Service

- Azure App Service
- Heroku
- IBM Cloud Functions
- Microsoft Azure Functions
- Oracle Cloud Functions
- Red Hat OpenShift
- SAP Business Technology Platform
- VMware Tanzu

Serverless



Kubernetes Certified Service Provider

- Alibaba Cloud
- Google Cloud
- IBM Cloud
- Microsoft Azure
- Oracle Cloud
- Red Hat OpenShift
- SAP Business Technology Platform
- VMware Tanzu

Kubernetes Training Partner

- Alibaba Cloud
- Google Cloud
- IBM Cloud
- Microsoft Azure
- Oracle Cloud
- Red Hat OpenShift
- SAP Business Technology Platform
- VMware Tanzu

Prop 11
 In a PID, any nonzero elt is prime
 iff it is irreducible

$$4 = 2 \cdot 2 = (-2)(-2)$$

How is it defined?

- Defn R a ring
- ① If $\forall r \in R, r = p_1 \cdots p_k, p_i \in R$ are irreducible,
 - ② this product is unique, up to associates; $r = q_1 \cdots q_l$
 $l = k$, after reordering, p_i, q_i are associates.

main

unit,

$$r = ab, a, b \in R$$

unit.

irreducible.

is prime if (r) is a prime

prime if $r \mid ab$, then $r \mid a$

A large question mark is drawn with white chalk on a dark, textured surface. The question mark is centered vertically and horizontally. A dark blue horizontal band is overlaid across the middle of the image, containing the text "WHY Cloud Native?".

WHY Cloud Native?



Case Studies

A close-up photograph of a metal bolt and nut on a rock surface. The bolt is silver-colored and has a hexagonal head. The nut is also silver-colored and has a hexagonal shape. The bolt is inserted into a hole in the rock. The rock is light-colored and has a rough, textured surface. A dark grey horizontal bar is overlaid across the middle of the image, containing the word "Reliability" in white text.

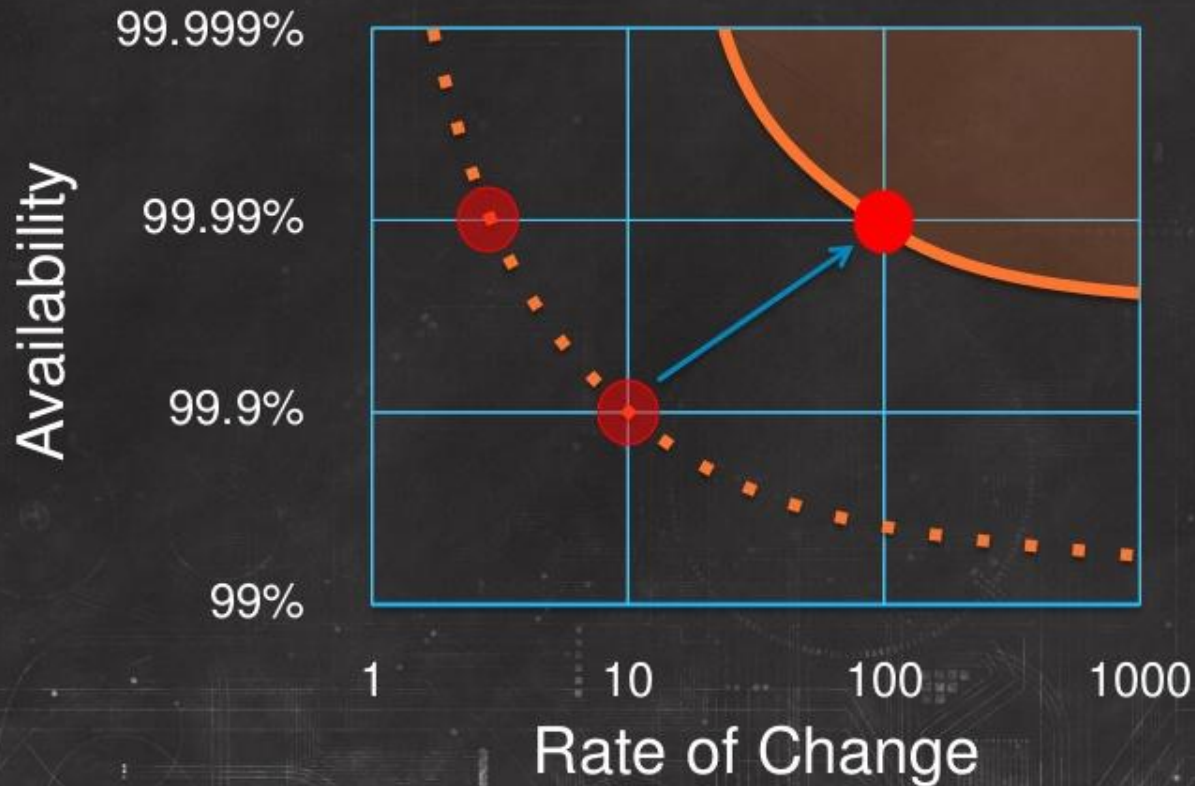
Reliability



Velocity



Shifting the Curve...





Efficiency



HOW?



Containers



Dynamic Management



Microservices

The image shows a perspective view of a stone archway leading to a courtyard. The archway is constructed from dark, rectangular stone blocks. The courtyard floor is paved with irregular, flat stones. The walls are also made of stone blocks. The lighting is warm and directional, coming from the right, casting long shadows and highlighting the textures of the stone. A dark blue horizontal band is overlaid across the middle of the image, containing the text "Technological Paradigm" in white.

Technological Paradigm

O'REILLY®



Cloud Native Infrastructure

PATTERNS FOR SCALABLE INFRASTRUCTURE AND APPLICATIONS
IN A DYNAMIC ENVIRONMENT

Justin Garrison & Kris Nova



Useful Abstractions





Infrastructure Managed by Software



Applications Managed by Software

Thanks!

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