

Running Node.js on customer machines

API design for building a cloud-native application

Atishay Jain

Senior Computer Scientist, Adobe

@atishay811



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Part of many iconic software products from Photoshop and Illustrator to Adobe Capture. Creator of award winning augmented reality mobile apps from the IxDA Interaction Design award to the FWA App of the day. 10 years of industry experience working on all platforms from desktop, frontend, backend and mobile.

<https://atishay.me>

<https://linkedin.com/in/atishay>



Agenda

- Two definitions of Cloud Native
- Making the “Cloud” Native
- History of computing
- Where does JavaScript fit in
- Running Node.js as a background process
- Its all about use cases

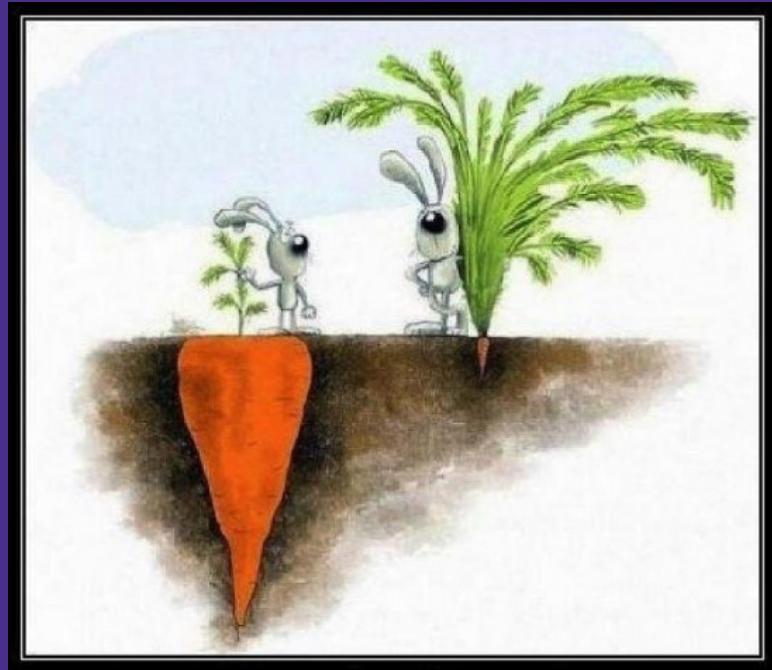
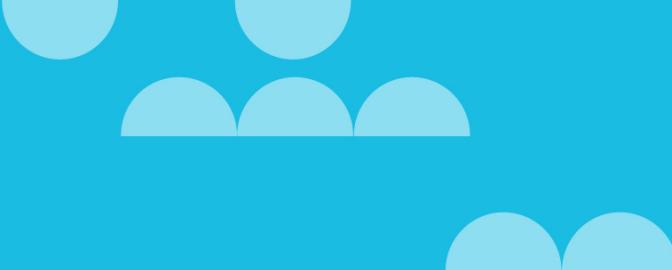


Image from Littlefun.org

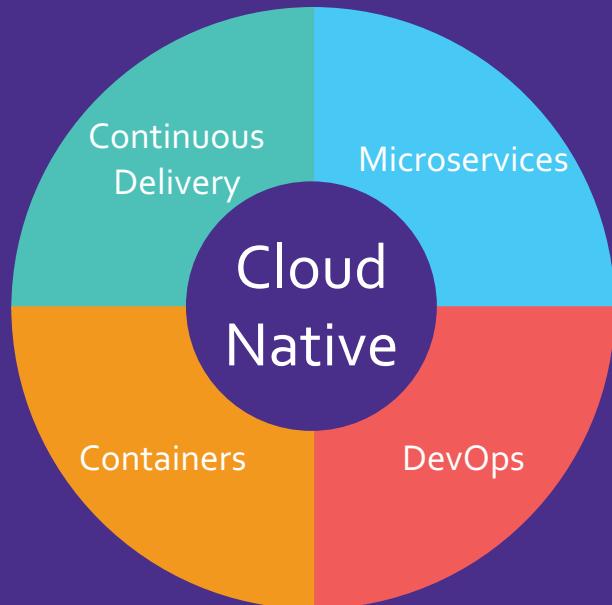


Two definitions of Cloud Native



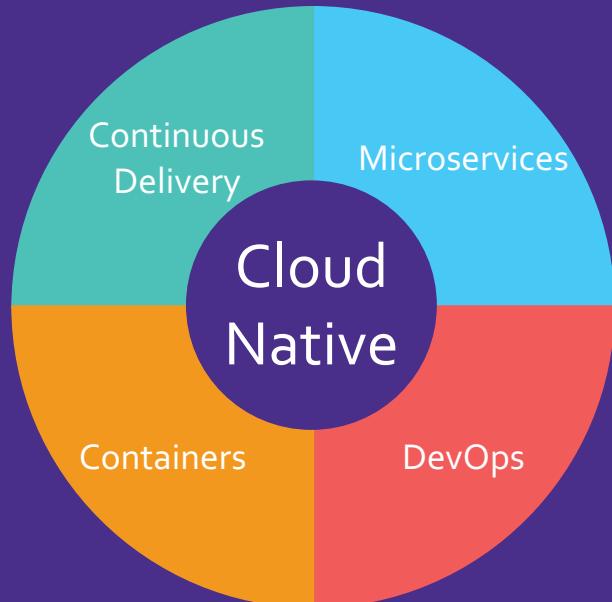
Two definitions of Cloud Native

Cloud Native for developers



Two definitions of Cloud Native

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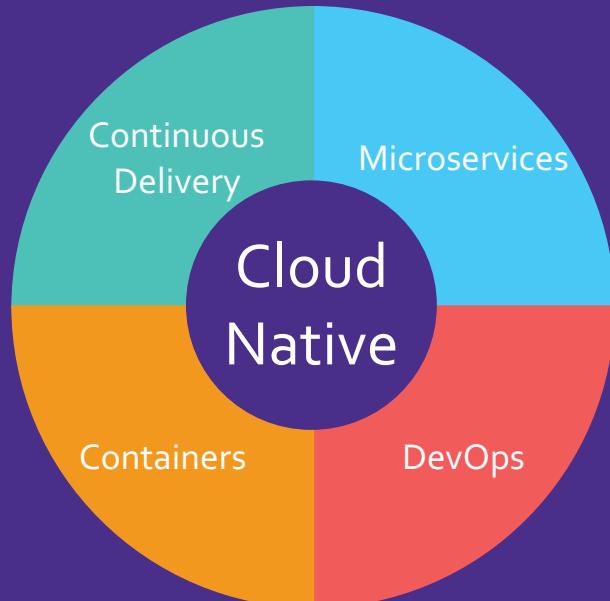


Cloud Native for users



Two definitions of Cloud Native

Cloud Native for developers

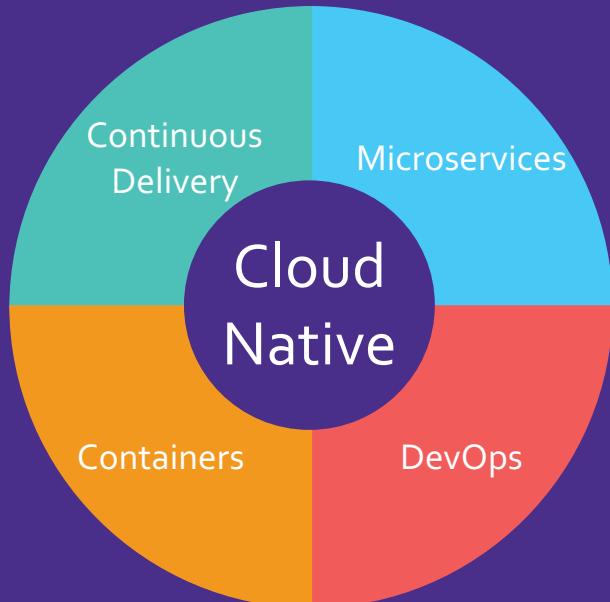


Cloud Native for users



Two definitions of Cloud Native

Cloud Native for developers



Cloud Native for users





What is cloud & native for the users?

User's Cloud

- Collaboration
- Synchronization
- Automatic updates

User's Native

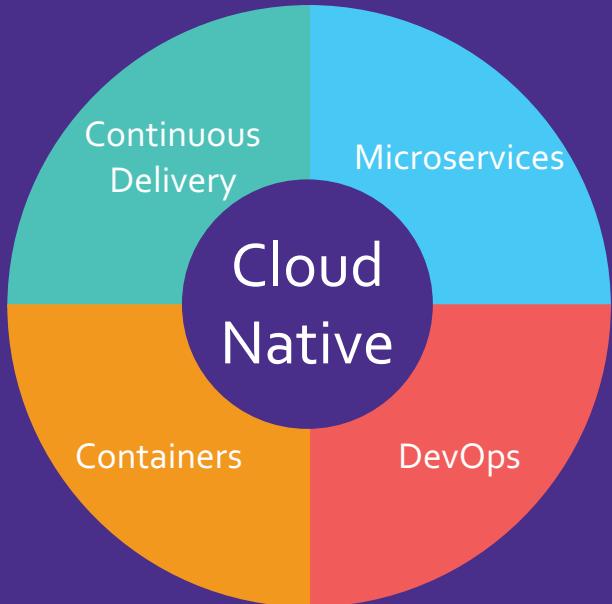
- Realtime performance.
- Handle Flaky network.
- Offline support.



Making the “Cloud” Native

Making the “Cloud” Native

Cloud Native for developers



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Making the “Cloud” Native

Fighting with the laws of Physics.



Image from [giphy](#)

Making the “Cloud” Native

- Multi-regions
- CDN
- Edge computing
- ??

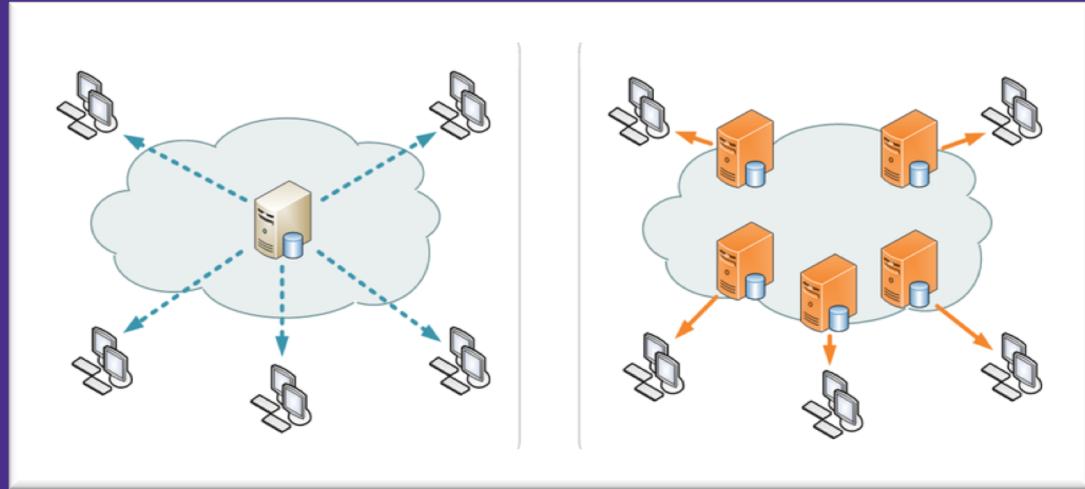


Image from [wikipedia](#)

Making the “Cloud” Native

Does it feel native?

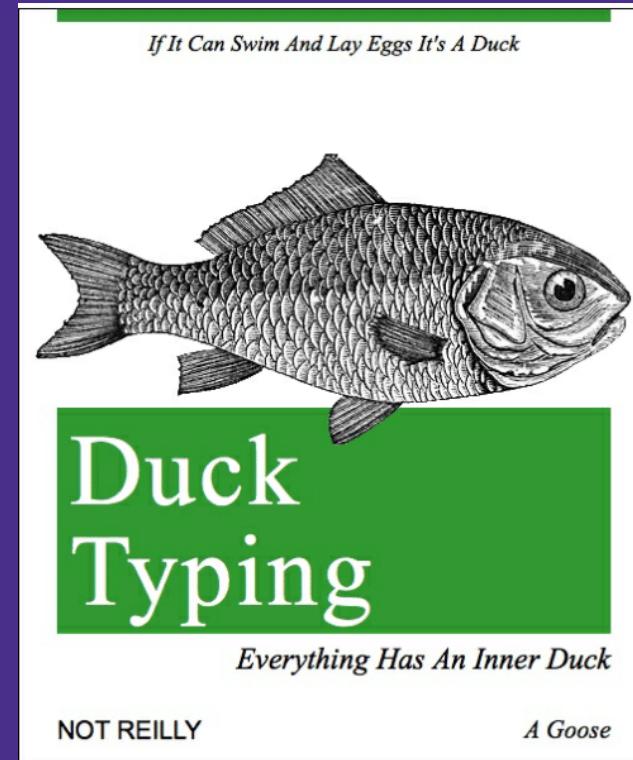
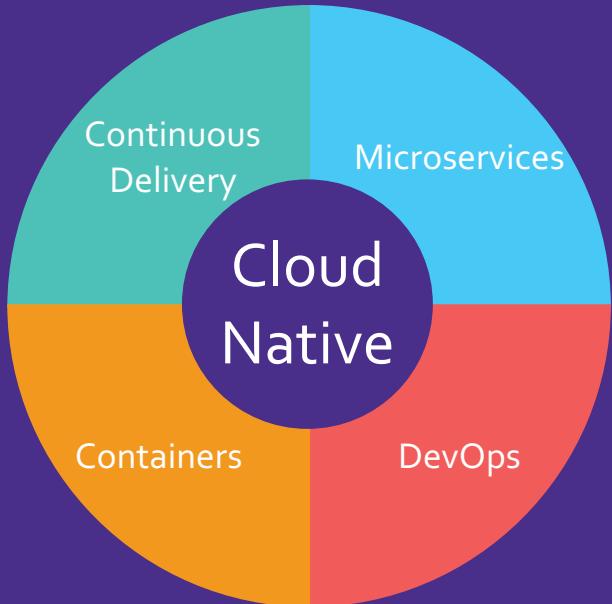


Image from [me.me](#)

Making the “Cloud” Native

Cloud Native for developers



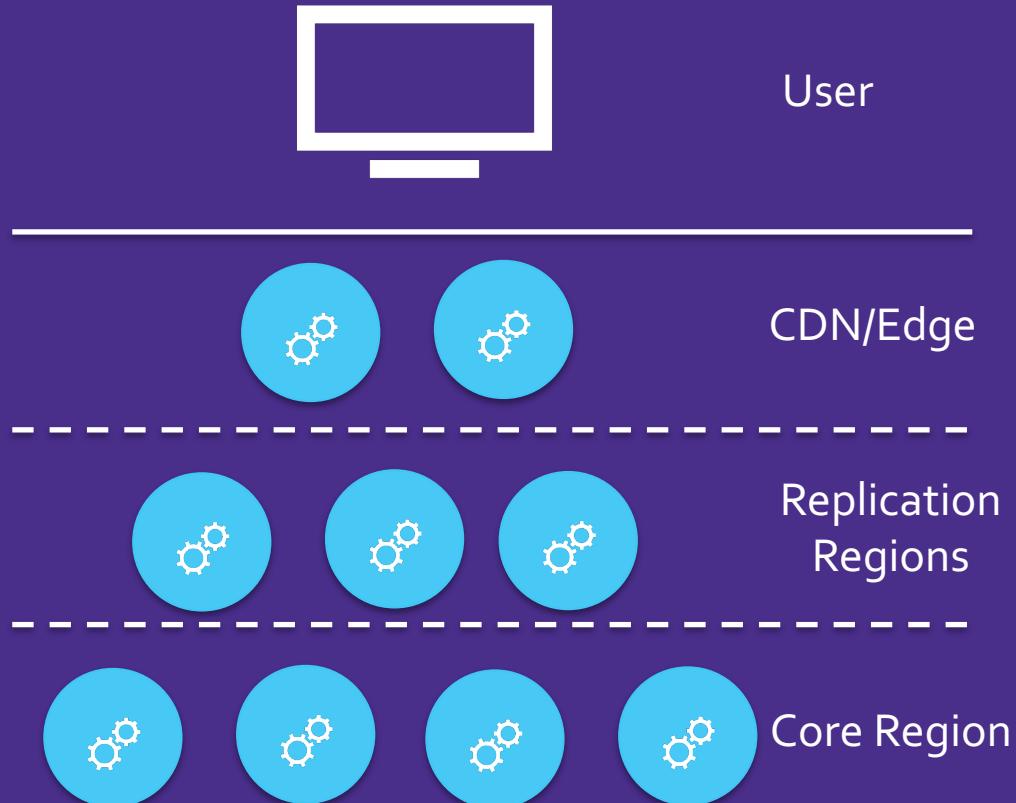
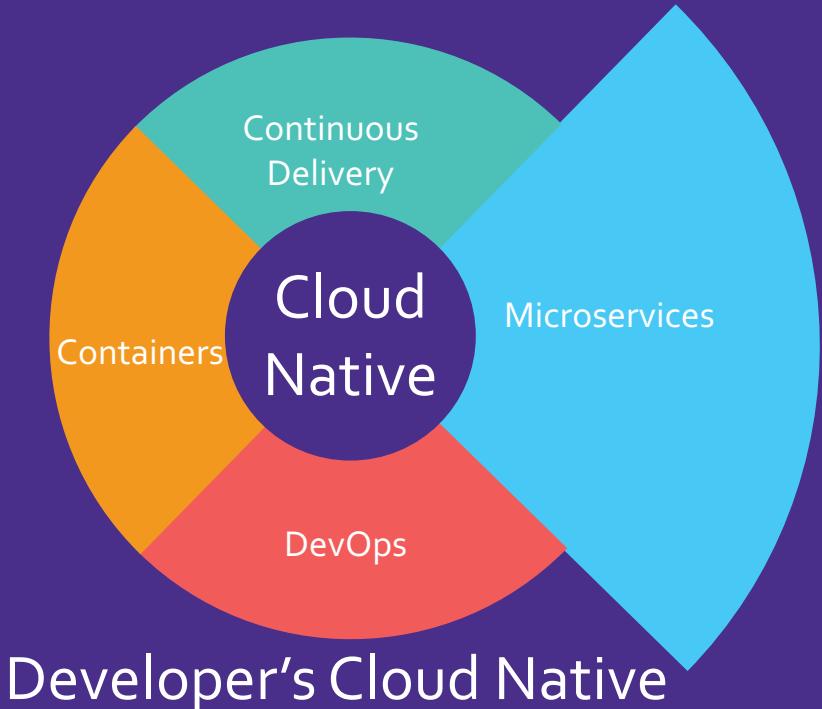
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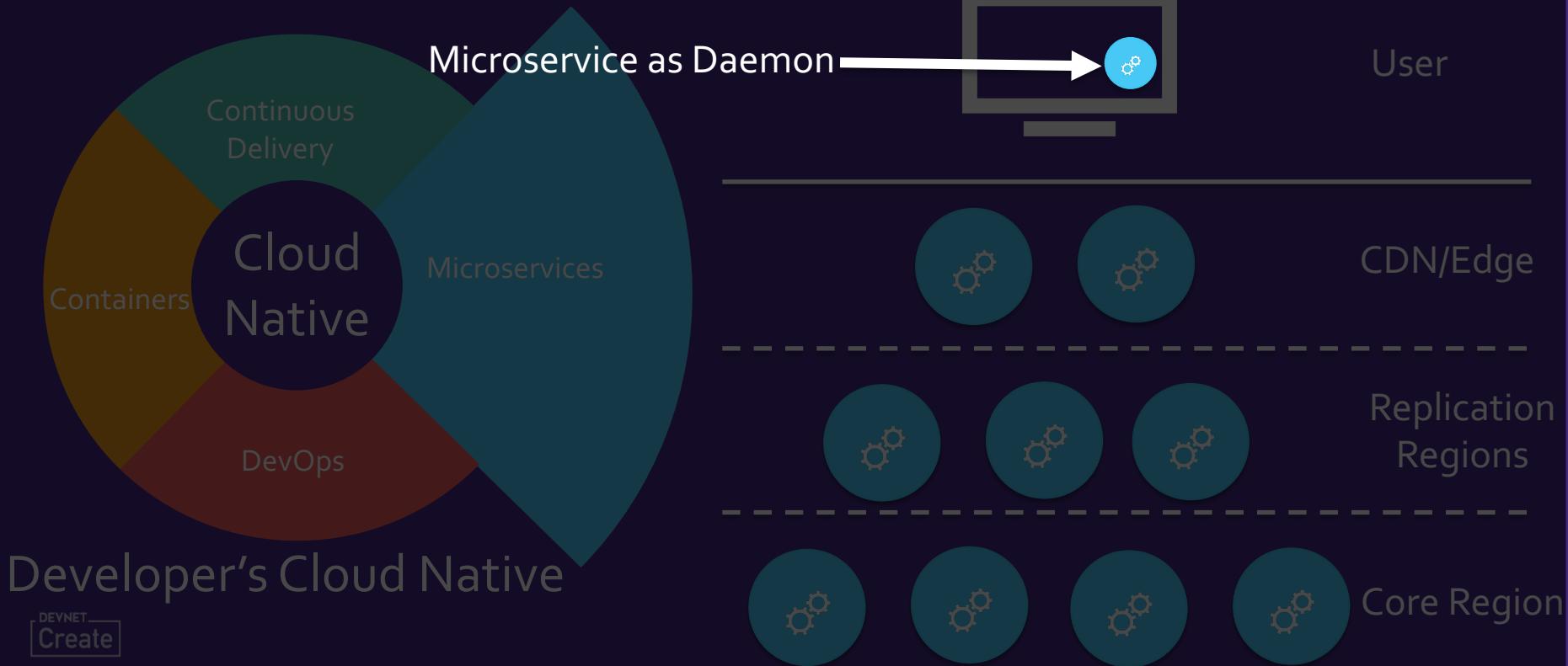
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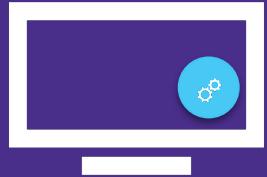
Making the “Cloud” Native



Making the “Cloud” Native



Making the “Cloud” Native



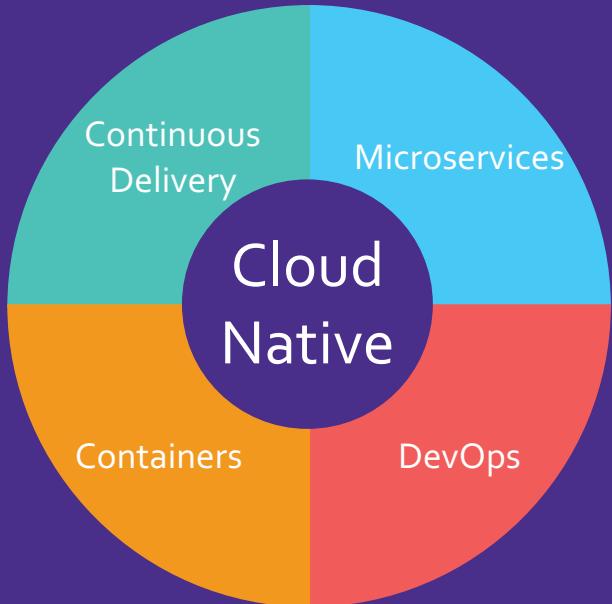
Microservice as Daemon

Bad Idea

- Security?
- How about updates?
- Offline support?
- Where is the truth?

Making the “Cloud” Native

Cloud Native for developers



User's Cloud

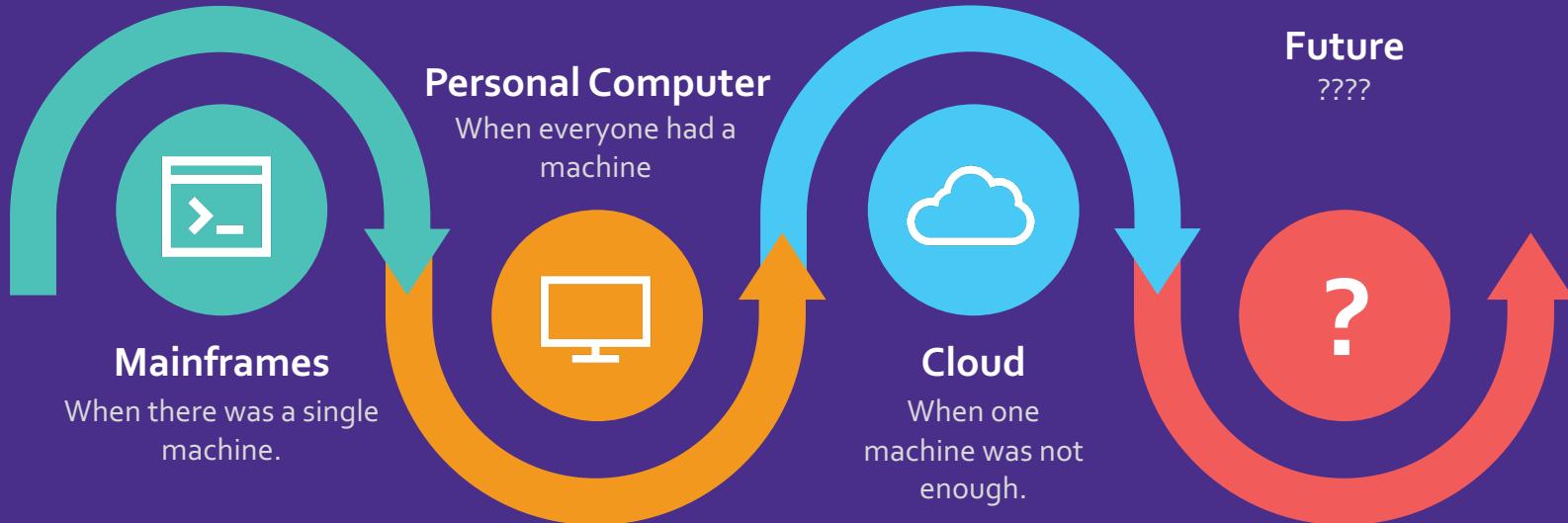
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User's Native

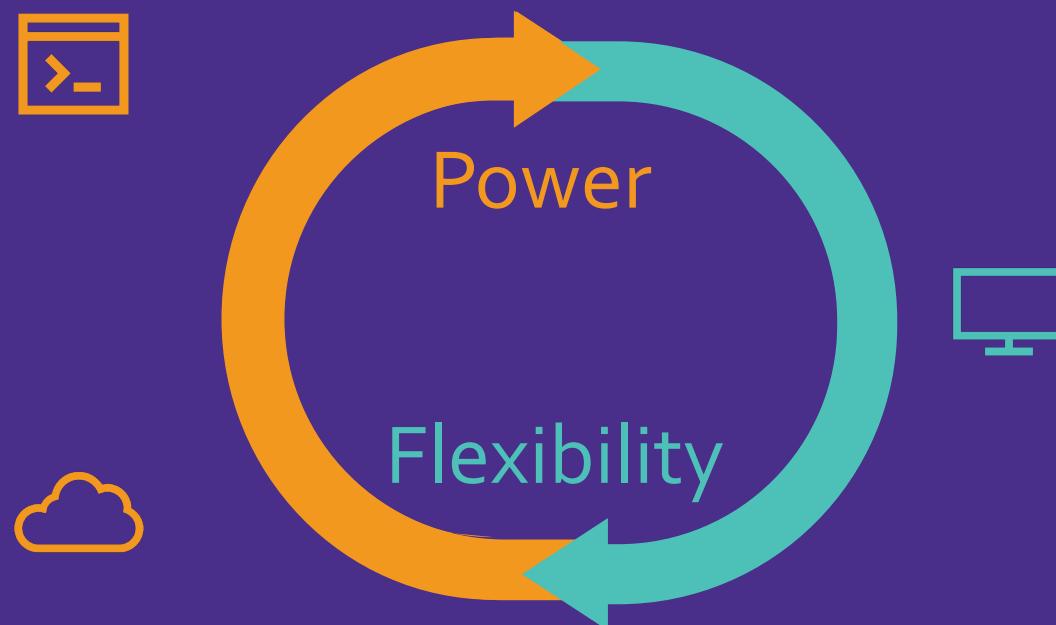
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History of Computing

History of Computing



History of Computing





Where does JavaScript fit in?

Where does JavaScript fit in?

- Built for network based async communication.
- Heavily invested language.
- The language designers have been challenged with making the language look native.

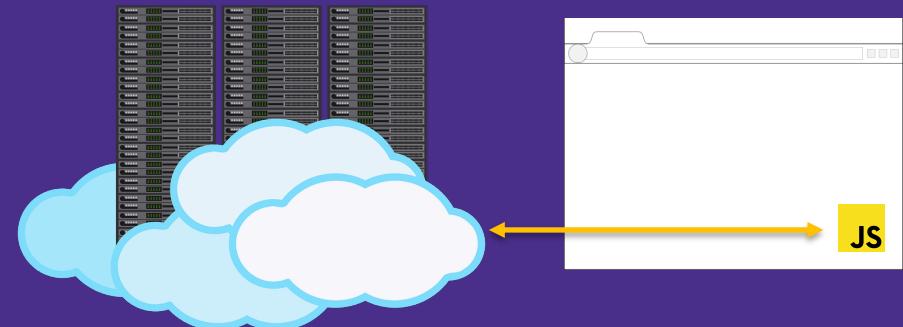


Image from [Pixabay](#), [Wikipedia](#)

Where does JavaScript fit in?

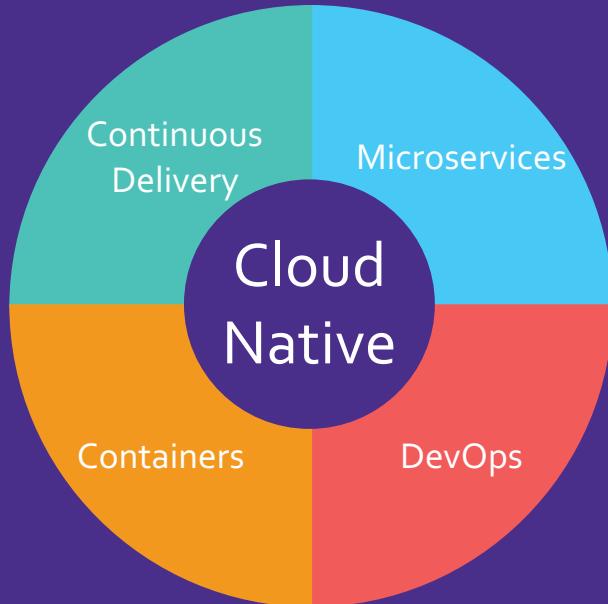
Service Workers



Image from [Pixabay](#), [Wikipedia](#)

Where does JavaScript fit in?

Cloud Native for developers



Service Workers

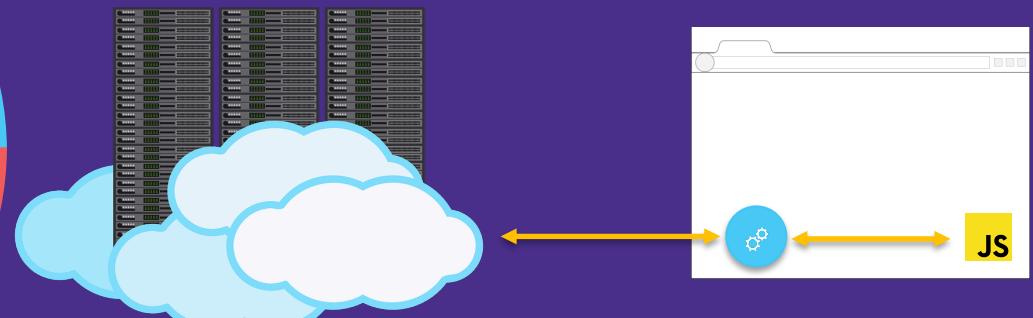


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Where does JavaScript fit in?

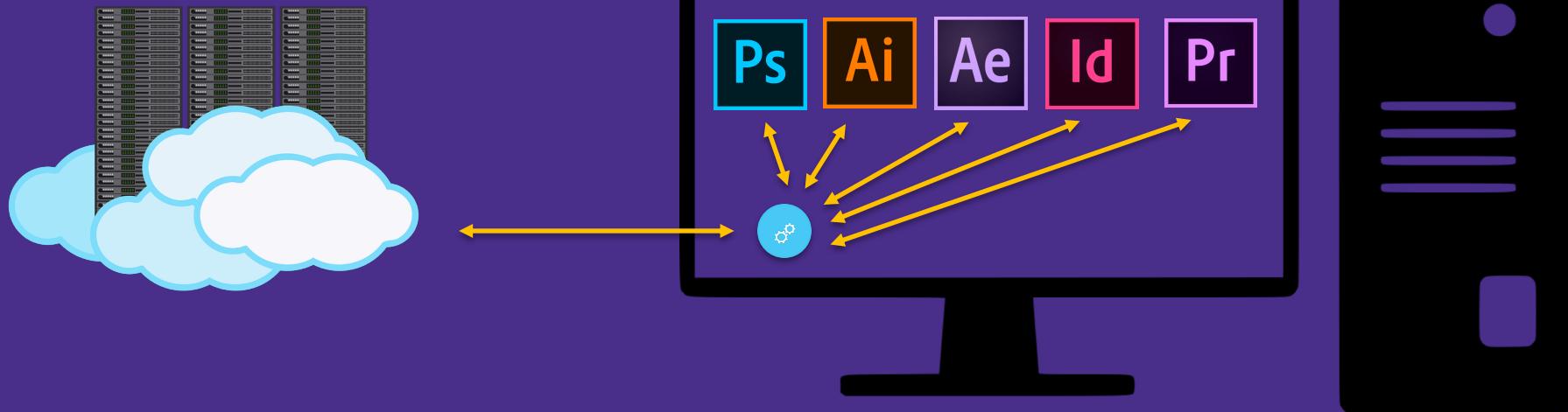
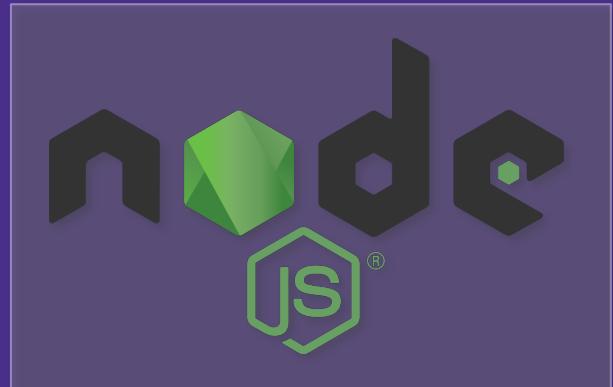


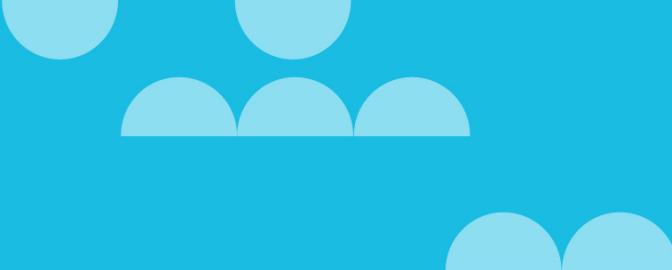
Image from [Pixabay](#), [Pixabay](#), [Wikipedia](#)

Where does JavaScript fit in?

- Built to be run 24x7.
- Asynchronous.
- I/O Optimized.
- Mostly self-contained.



Logo from [Wikipedia](#)

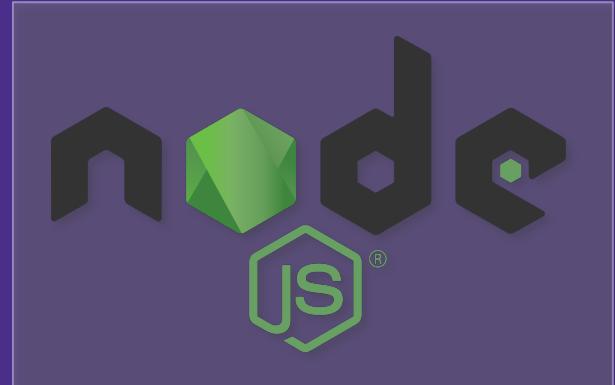
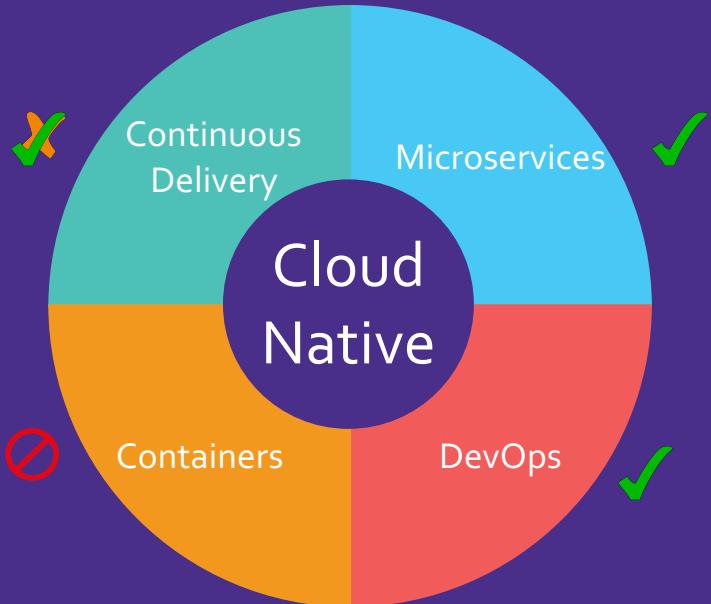


Running Node.js as a background process



Running Node.js as a background process

Cloud Native for developers

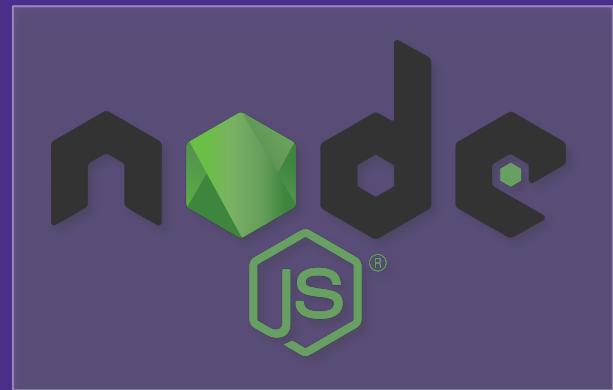


Logo from [Wikipedia](#)

Running Node.js as a background process

Caveats with Node.js

- Built for the server.
- No proxy support built in.
- Packaging is messy.

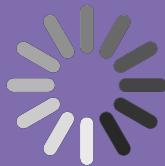


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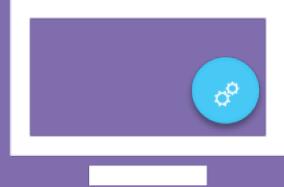


Its all about use cases

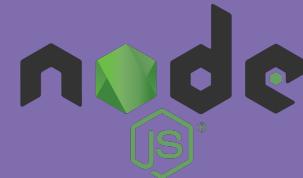
Conclusion



Cloud & native for user



Service as a daemon



Node.js on desktop

DEVNET Create



#

#

