



Do we still need architects?

Bert Jan Schrijver
bertjan@openvalue.eu





DALL·E 2: “a software architect questioning whether we still need architects, photo realistic”



Do we still need architects?

The background of the slide is an aerial photograph of a complex highway interchange. The interchange features multiple levels of overpasses and ramps, creating a dense network of roads that wind through a hilly landscape. The surrounding terrain is a mix of dry, brownish hills and some green vegetation. In the bottom right corner, there are several buildings and parking lots, indicating the proximity of a city or town. The overall image has a slightly grainy, high-angle perspective.

What is software architecture?

A close-up photograph of a man with short brown hair and blue eyes. He has a slight smile and is looking directly at the camera. His right hand is raised to his head, with his fingers partially hidden in his hair. He is wearing a light-colored, button-down shirt.

Why do we “do” architecture?

A photograph of two skateboarders on a paved road in a desert landscape. One skateboarder in a red shirt is skating away from the camera. Another skateboarder in a yellow shirt is performing a trick, with one foot on the board and one arm raised for balance. A third skateboard lies on the ground to the right. The background shows rolling hills under a clear sky.

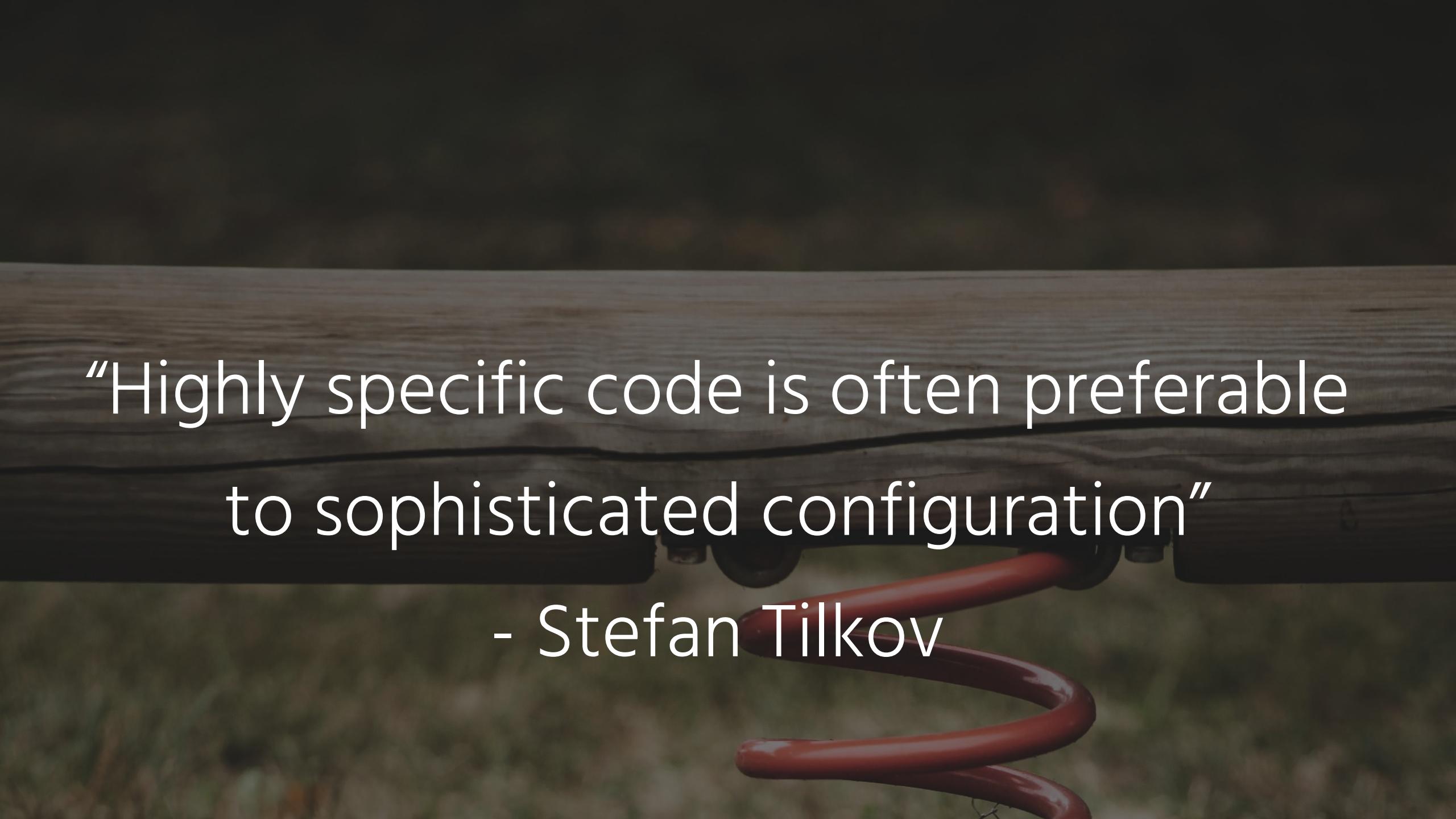
The impact of making the wrong decision



Source: <https://twitter.com/changelog/status/1586882941963091969>

A close-up photograph of a dark brown wooden bench. The bench is positioned horizontally across the frame. Below the bench, a single red, coiled metal spring is visible, extending from the left side towards the right. The background is a soft-focus view of a grassy field under a cloudy sky.

About flexibility in software...



“Highly specific code is often preferable
to sophisticated configuration”

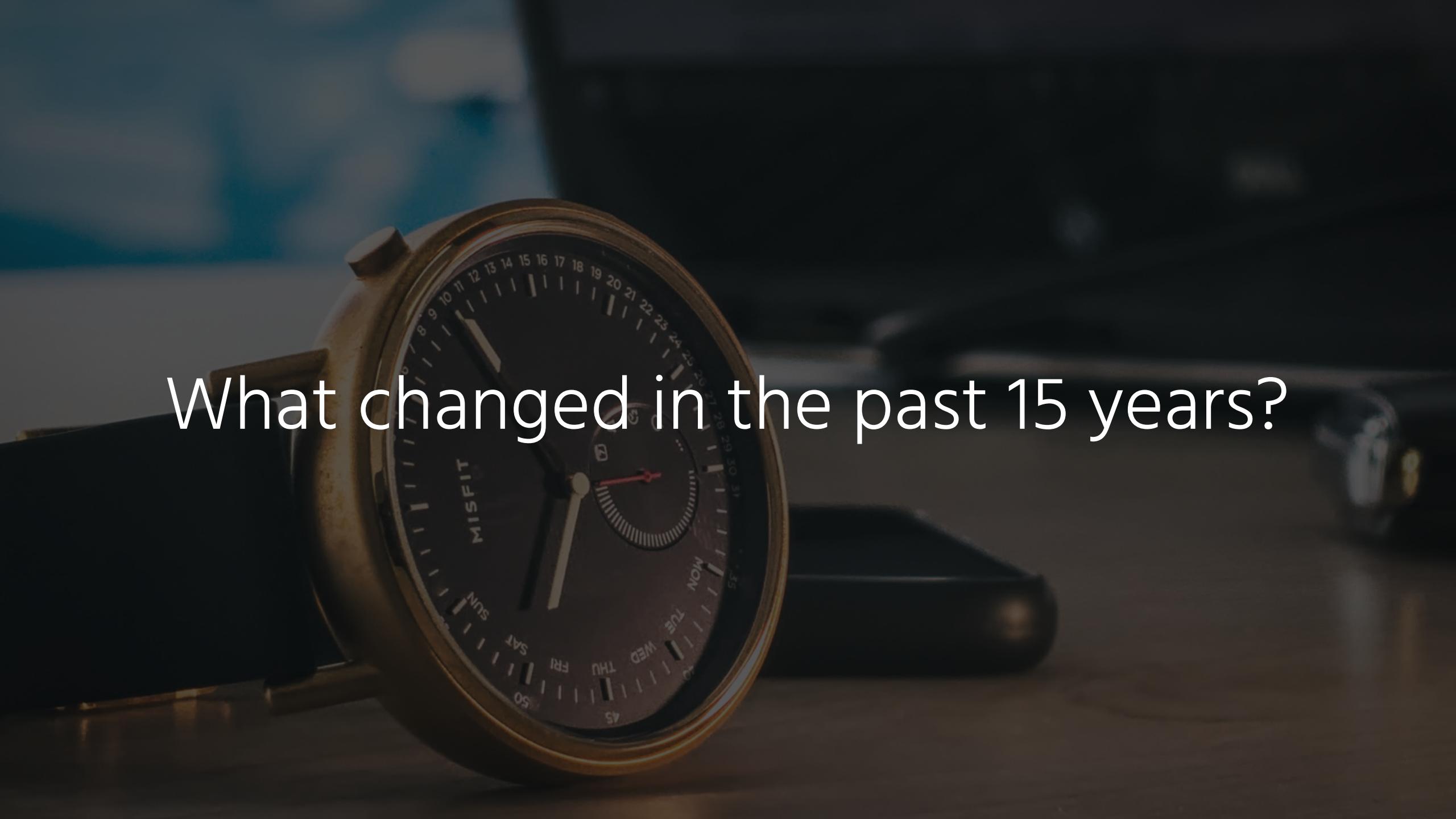
- Stefan Tilkov

I&NO

47423

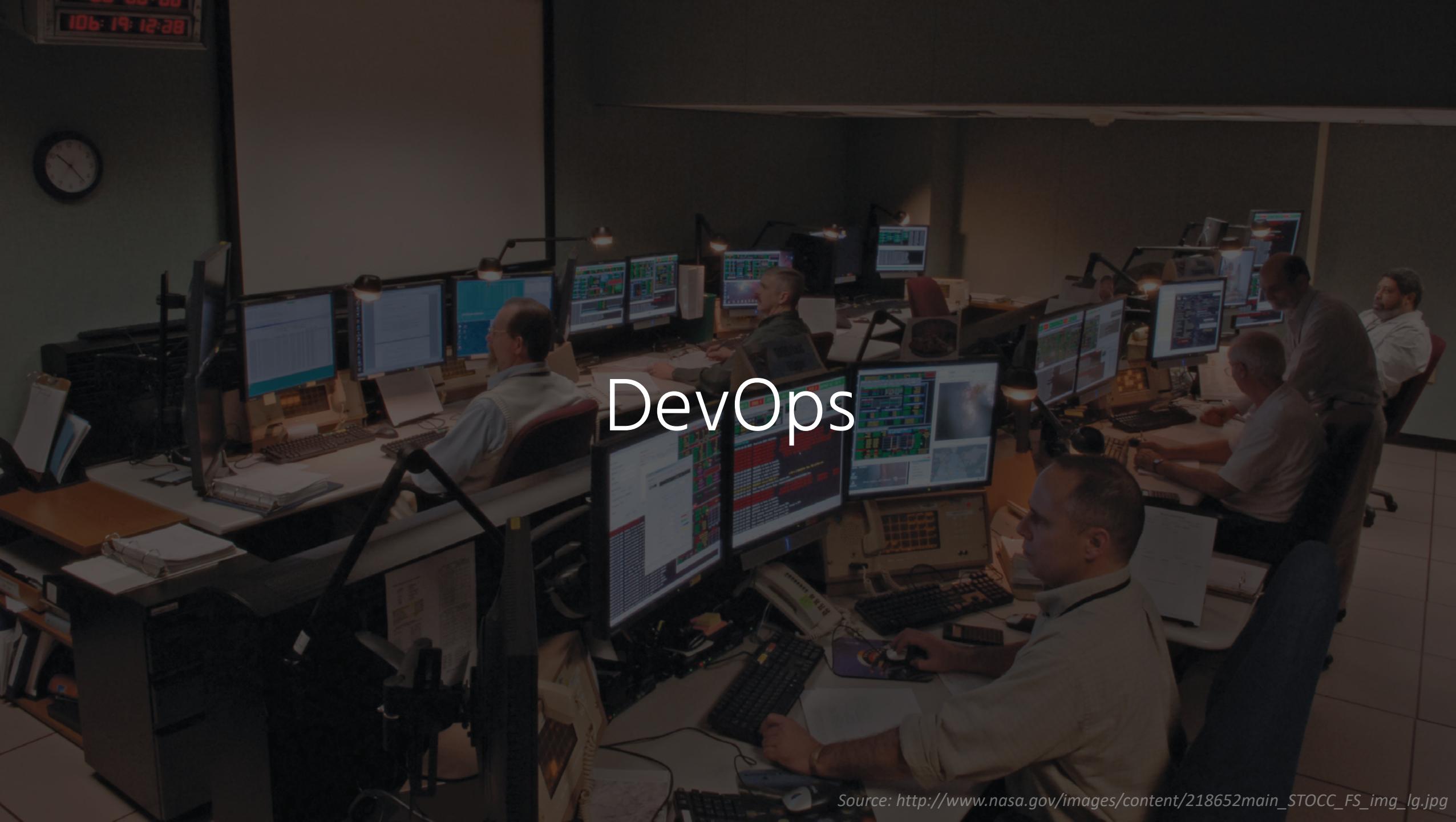
SPIR. 24 IN TRAVEL

Software architecture 15 years ago...



What changed in the past 15 years?

Agile software development



DevOps

Source: http://www.nasa.gov/images/content/218652main_STOCC_FS_img_lg.jpg

Principles of DevOps

-  Gradual changes
-  Customer oriented
-  Automation
-  Ownership
-  Collaboration
-  Experimentation
-  Continuous improvement



A KC-135 Stratotanker aircraft is shown from a rear three-quarter perspective, flying over a desert landscape. It is refueling an F/A-18 Hornet fighter jet, which is visible below and to the right. The KC-135 has "U.S. AIR FORCE" and the number "38" on its fuselage. The F/A-18 has a red, white, and blue vertical stabilizer. The background consists of a vast, arid terrain.

Continuous Delivery

A photograph of two skateboarders on a paved road in a desert landscape. One skateboarder, wearing a red and white striped shirt and dark pants, is riding away from the camera. The other skateboarder, wearing a yellow shirt and dark pants, is performing a trick, with one foot on the board and one arm raised. A third skateboard lies on the ground to the right. The background shows rolling hills and a clear sky.

“Continuous Delivery & DevOps
sound great, but it won’t work here...”

“CD & DevOps won’t work here”

- 
- A photograph showing two people longboarding down a paved road in a desert landscape. The person on the left is wearing a red t-shirt and dark pants, leaning into a turn. The person on the right is wearing a yellow t-shirt and dark pants, also leaning into the turn. Both are wearing sneakers. The road curves to the right, and there are hills and dry grass in the background.
- Stated reasons:
 - we're regulated
 - we're not building websites
 - too much legacy
 - our people are too stupid
 - Actual reasons:
 - our culture stinks
 - our architecture stinks

Source: talk by Jez Humble

https://www.youtube.com/watch?v=837Z_oehhRg



Cloud

**THERE IS NO CLOUD
IT'S JUST SOMEONE ELSE'S COMPUTER**

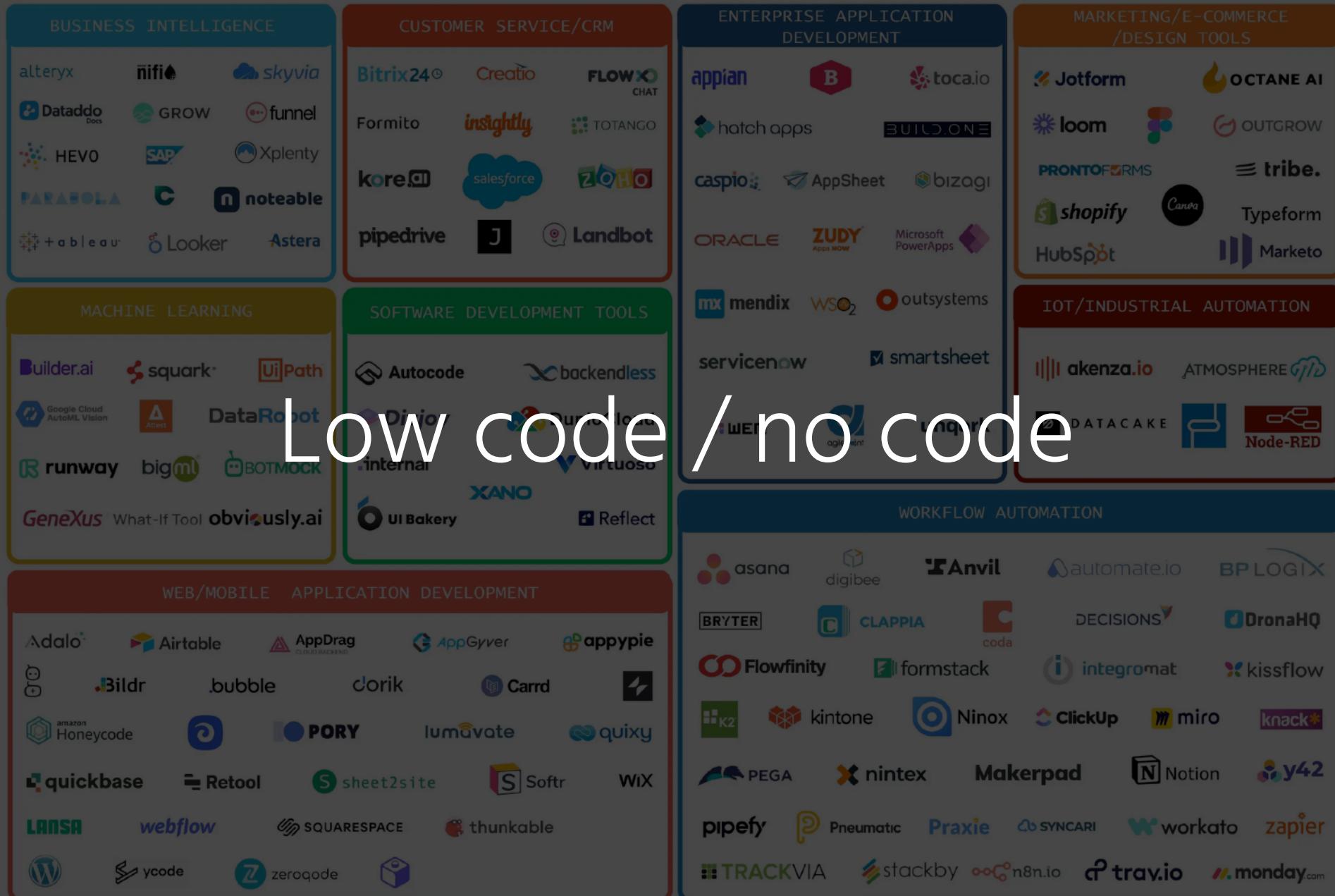


Microservices

Anatomy of a microservice

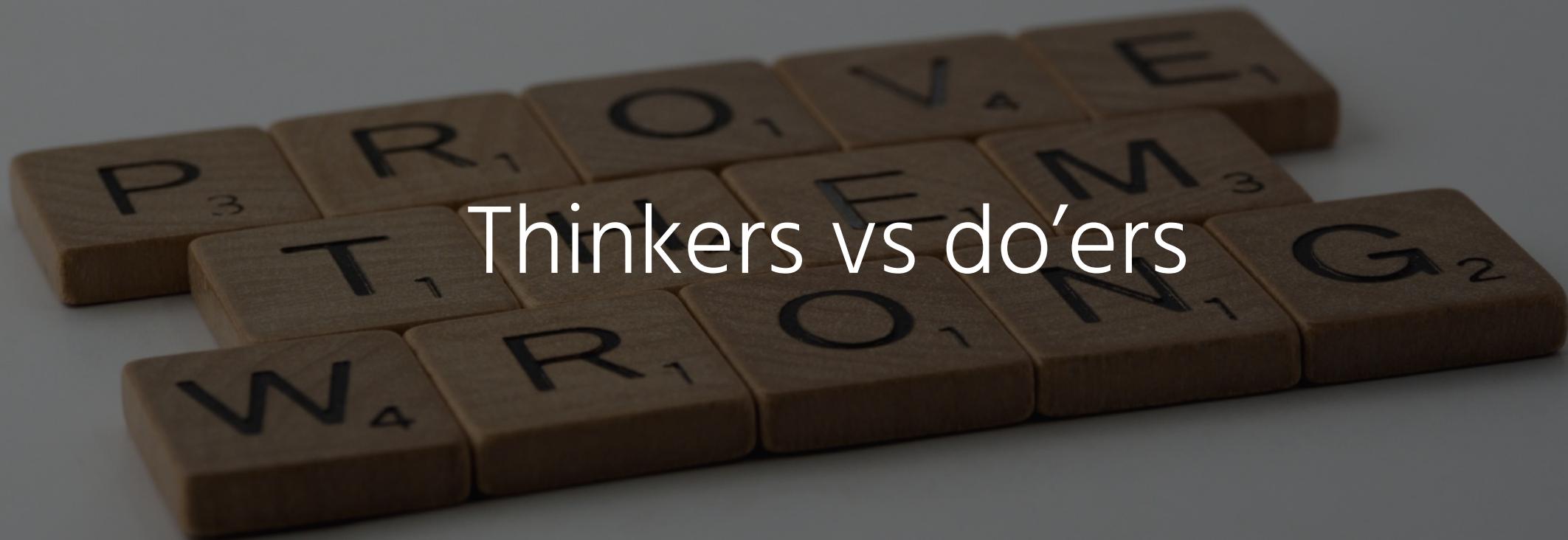
- Small in size, single responsibility
- Runs in its own process
- Independently develop, deploy, upgrade, scale
- Has its own data store
- Distributed by default
- Potentially heterogeneous/polyglot
- Light-weight communication

LOW-CODE/NO-CODE PLATFORM ECOSYSTEM

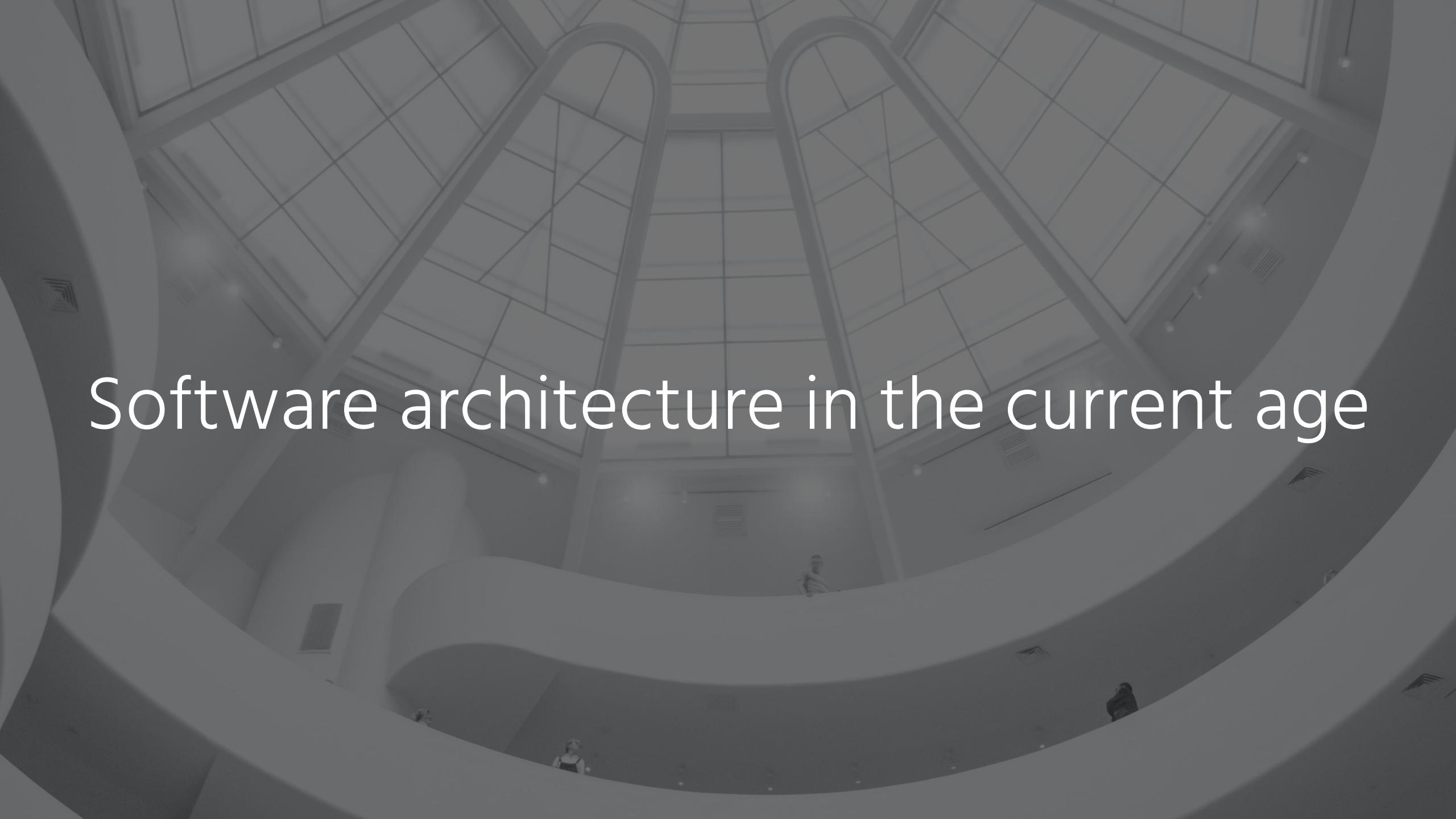


AI & ML

W
Ac



Thinkers vs do'ers



Software architecture in the current age

A photograph of a long, dark tunnel with a tiled floor and walls. People are walking away from the camera towards a bright exit at the end of the tunnel. The lighting is dramatic, with the bright light at the end creating a strong contrast with the dark interior.

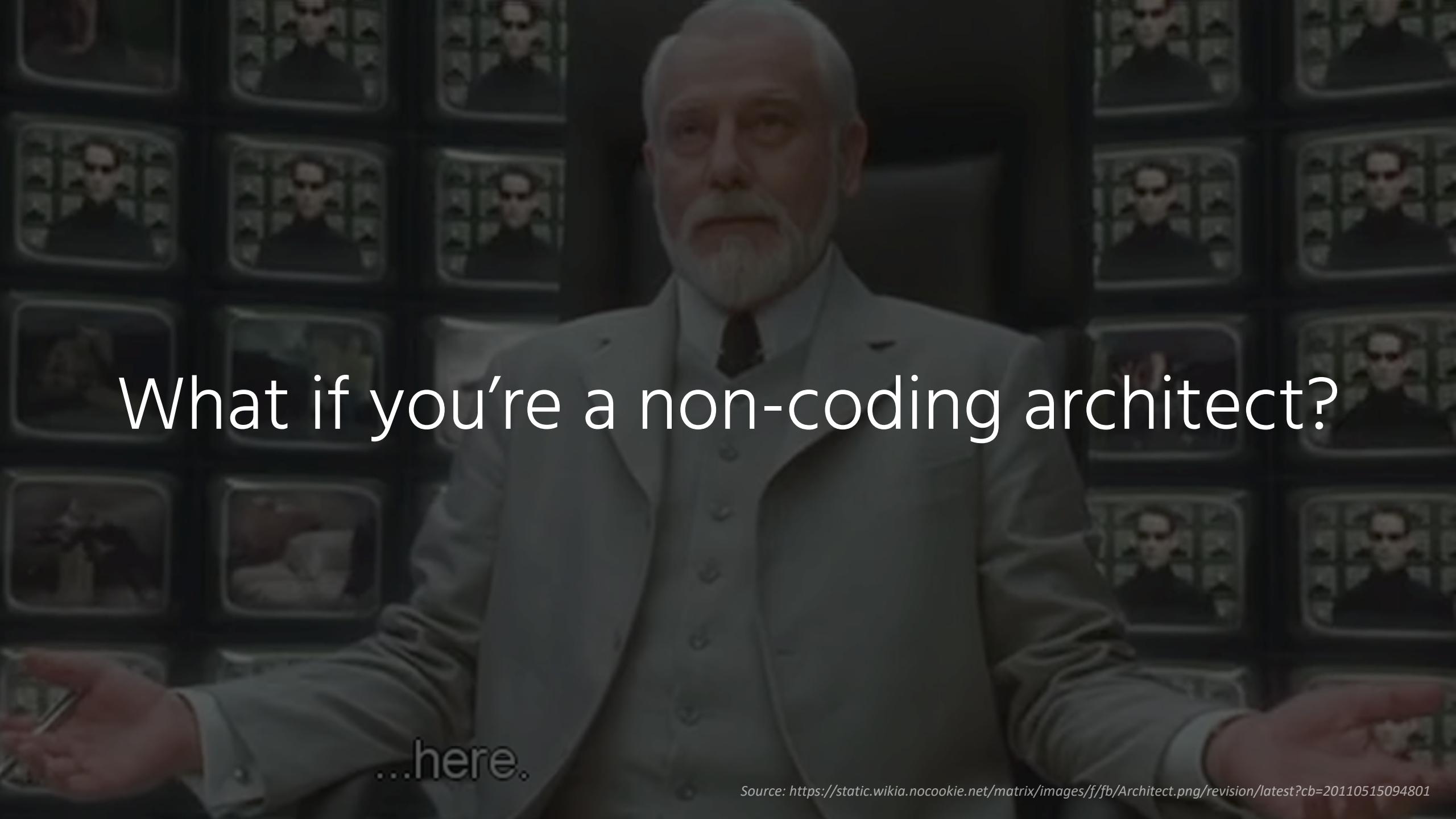
Generic vs specific

A wide-angle photograph of a massive server room. The space is filled with floor-to-ceiling server racks, their front panels glowing with a warm yellow light. A complex network of black metal beams and pipes forms a grid-like ceiling structure above. Numerous horizontal and vertical cables are suspended from the ceiling, creating a dense web of lines against the dark background. The floor is made of large, light-colored tiles. In the distance, more server racks and a few people can be seen, emphasizing the enormous scale of the facility.

Where does an architecture live?

A photograph of a person's hands typing on a MacBook Pro keyboard. The person is wearing red headphones. A code editor window is open on the screen, displaying a large amount of code. The code includes several 'File "stable", line 1' entries and other code snippets. The background is slightly blurred.

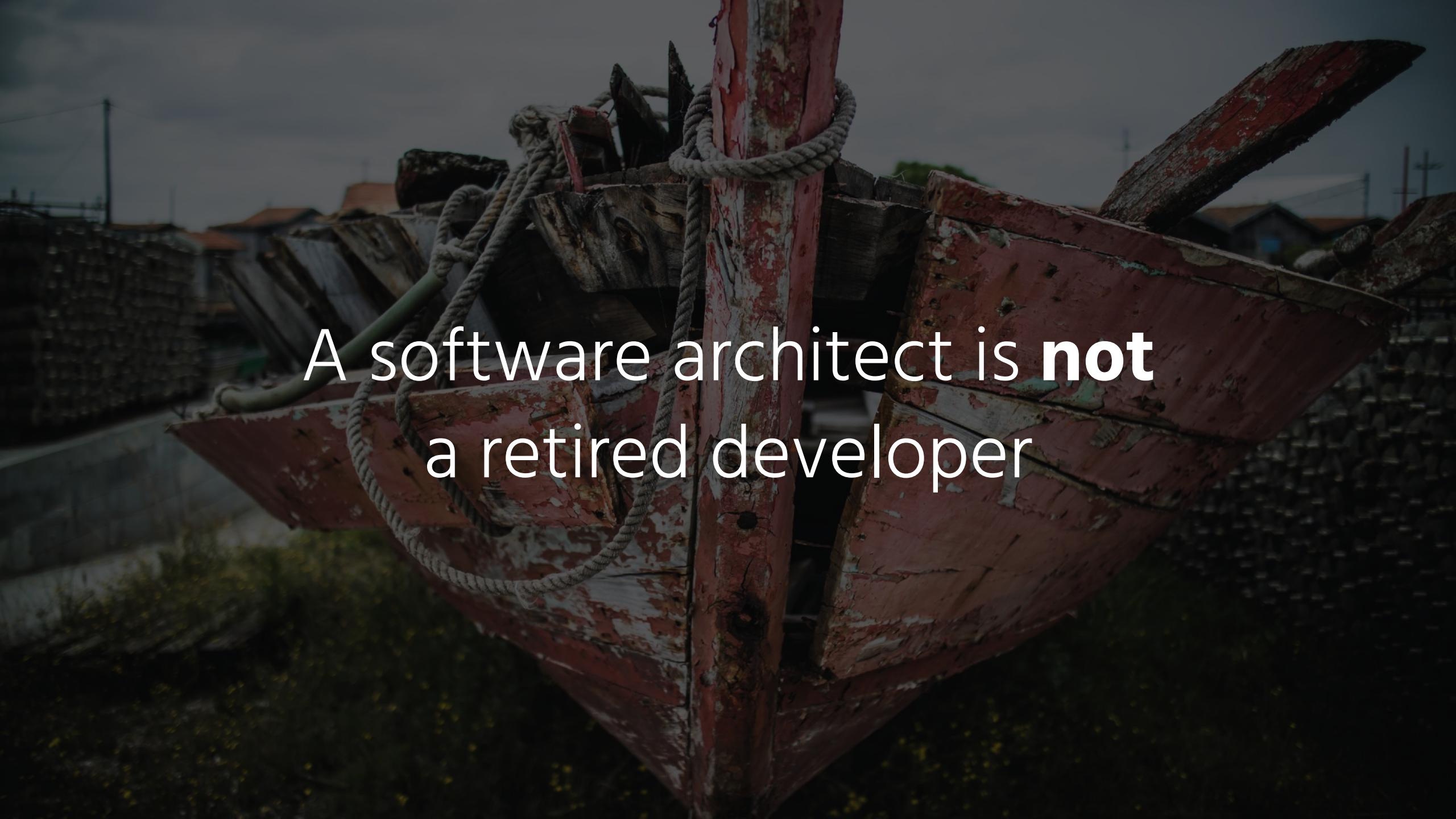
Should architects code?



What if you're a non-coding architect?

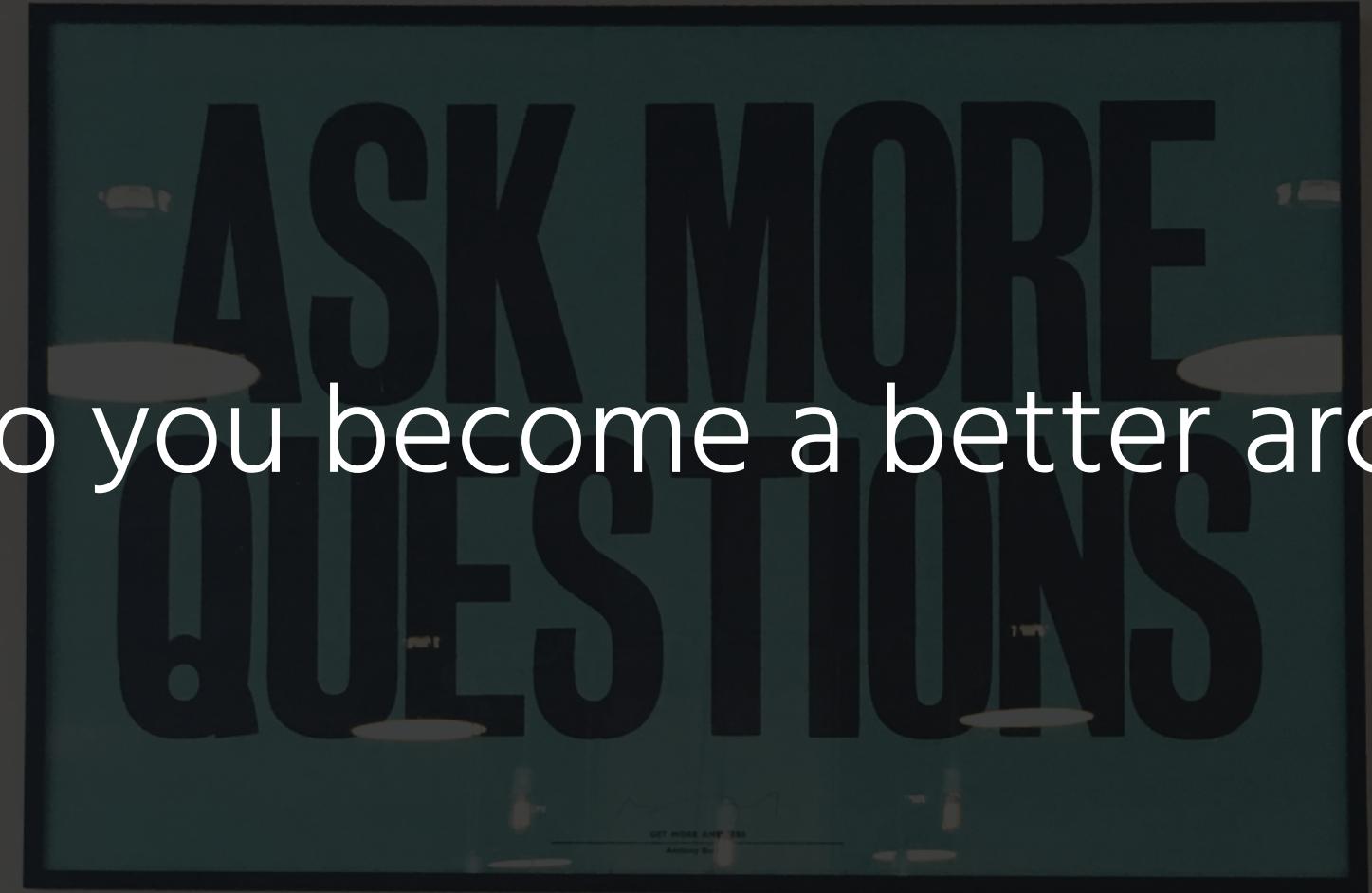
...here.

Source: <https://static.wikia.nocookie.net/matrix/images/f/fb/Architect.png/revision/latest?cb=20110515094801>



A software architect is **not**
a retired developer

How do you become a better architect?





Are architects still relevant?

Success Ln

Summary

Failure Dr

Success Ln

Do we still need architects?

Failure Dr



Questions?

Thanks for your time.

Got feedback? Tweet it!



All pictures belong
to their respective
authors

