



# a tale about scale

Norbert Hartl - ApptiveGrid

# a tale about scale

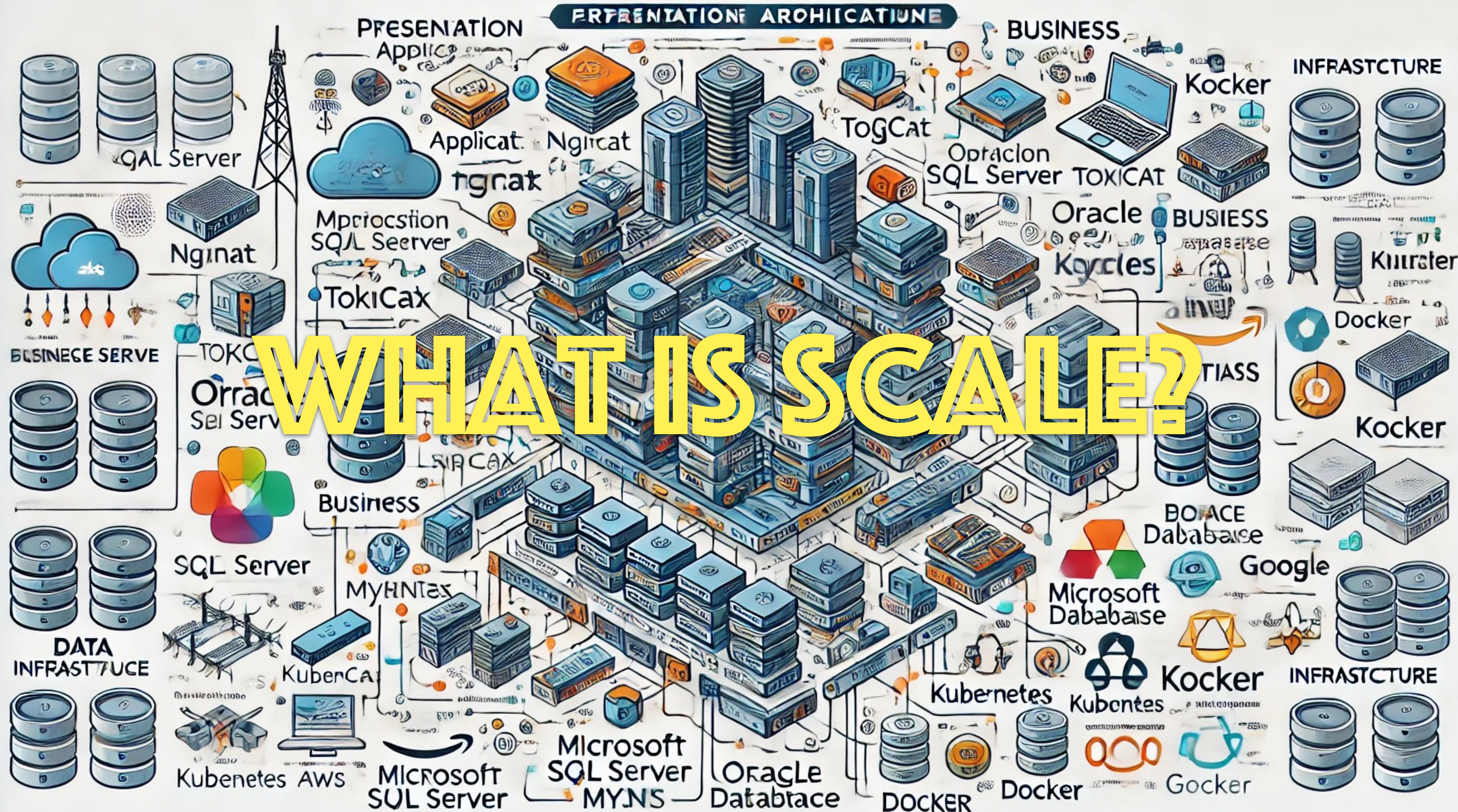
Caution: only remotely technical

I'm talking about  
pharo in practice

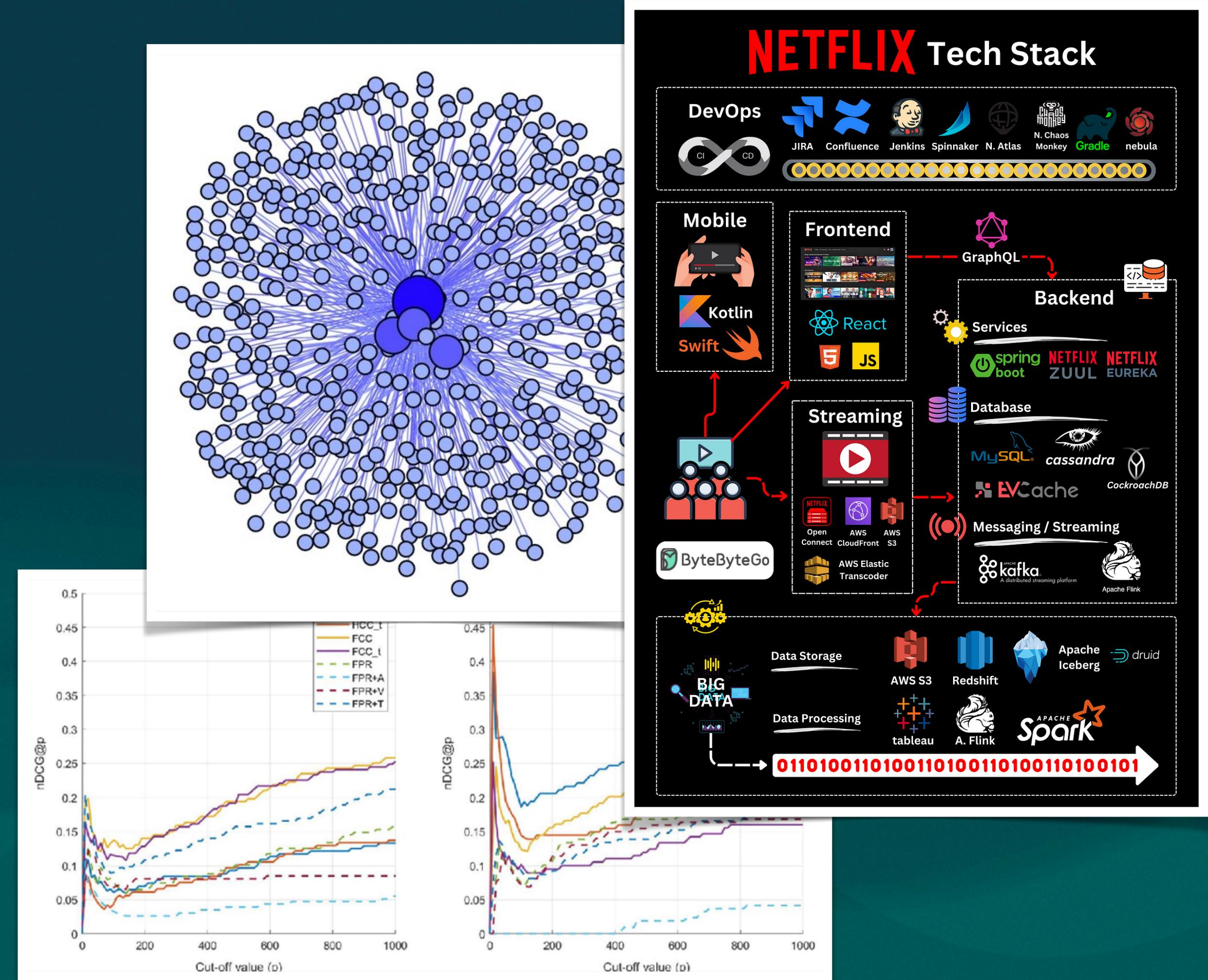
# Pharo days 2015



# WHAT IS SCALING?

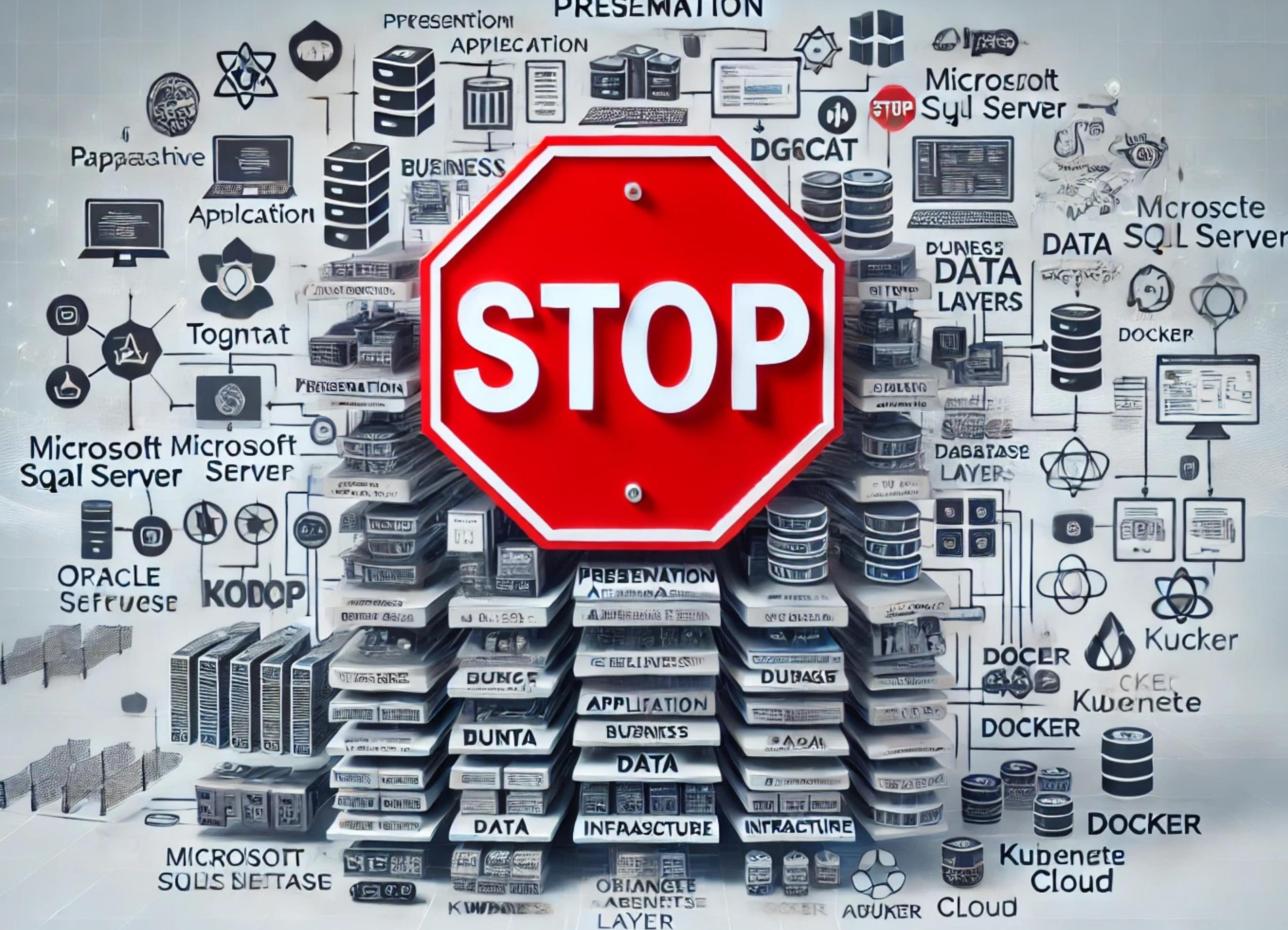


# technical scale



# PRESEMANATION

# STOP



**keeping focus - CPM model**

# CPM model

- Computer
- Pharo
- Me





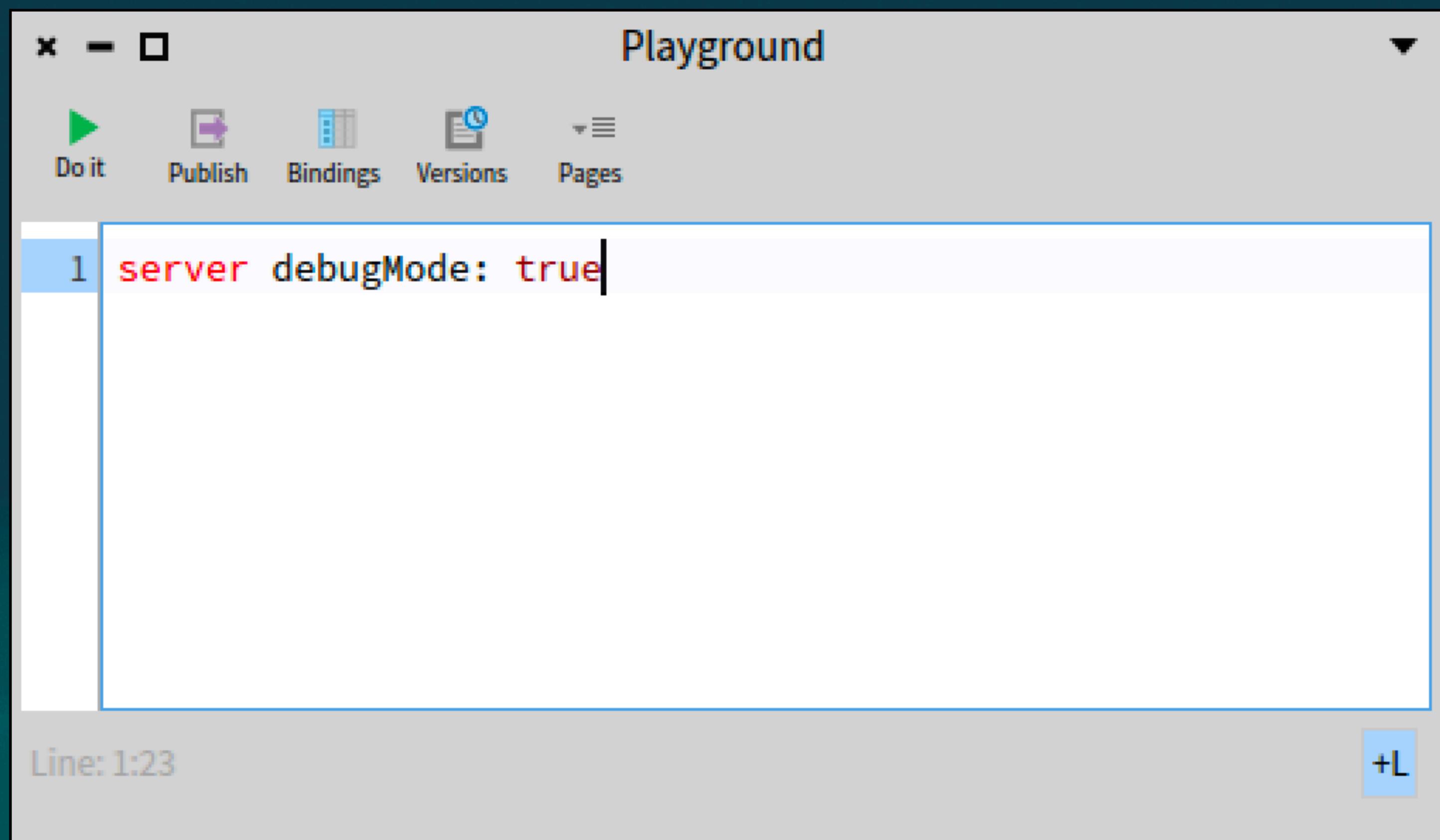
team scale



# two laptops on a network



# debugging



The screenshot shows the MuleSoft Anypoint Platform Playground interface. The title bar reads "Playground". Below the title bar is a toolbar with five icons: "Do it" (green play button), "Publish" (purple square), "Bindings" (blue grid), "Versions" (blue document with gear), and "Pages" (blue document with list). The main area contains a code editor window. The code editor has a light gray background with a blue vertical scrollbar on the right. A single line of configuration code is visible: "1 server debugMode: true". The number "1" is in a small blue box at the start of the line. The word "server" is in red, and "debugMode: true" is in orange. At the bottom left of the code editor, the text "Line: 1:23" is displayed. At the bottom right, there is a small blue button with the text "+L".

```
1 server debugMode: true
```

# Repeat



# DOS attacks





# deployment scale

The image is a composite of two screenshots. The top screenshot shows a terminal window titled '-bash' with the following command history:

```
local$ scp ApptiveGrid.* backend-server:  
local$ ssh backend-server  
backend-server$ restart-image.sh
```

The bottom screenshot shows a code editor interface with the following code:

```
1 AGModel readStonFromDisk
```

The code editor has a toolbar with buttons for 'Do it', 'Publish', 'Bindings', 'Versions', and 'Pages'. The 'Bindings' button is highlighted. A yellow tooltip 'Edit bindings list.' is displayed above the 'Bindings' button. The status bar at the bottom of the code editor shows 'Line: 1:1'.



# deployment scale

- use database
- add migration
- do backups





# team scale

- issue tracker
- code repository
- development process (pull requests, review,...)
- CI pipeline building artefacts
- artefact management
- deployment scripts





approx. 5000 users

# resilience

# resilience

- images can crash

# resilience

- images can crash
- You need more images

# resilience

- images can crash
- You need more images
- You need a load balancer

# resilience

- images can crash
- You need more images
- You need a load balancer
- Machines can also fail

# resilience

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# resilience

- images can crash
- You need more images
- You need a load balancer
- Machines can also fail
- You need more machines
- You need a machine for the load balancer

# resilience

- images can crash
- You need more images
- You need a load balancer
- Machines can also fail
- You need more machines
- You need a machine for the load balancer
- The load balancer machine can fail

# resilience

- images can crash
- You need more images
- You need a load balancer
- Machines can also fail
- You need more machines
- You need a machine for the load balancer
- The load balancer machine can fail
- You need a backup of the load balancer

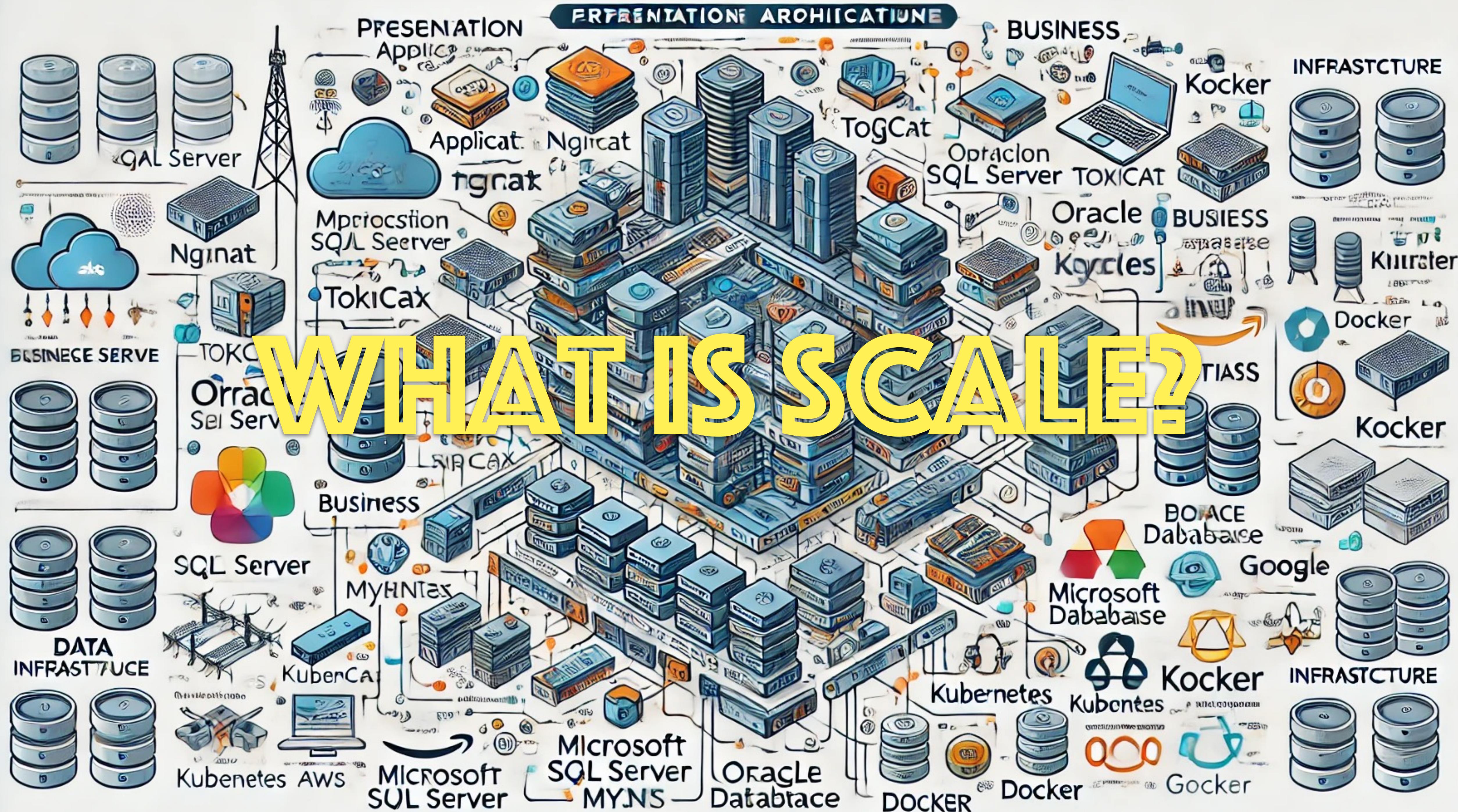
# resilience

- images can crash
- You need more images
- You need a load balancer
- Machines can also fail
- You need more machines
- You need a machine for the load balancer
- The load balancer machine can fail
- You need a backup of the load balancer
- ...

# resilience

... and so far I didn't even care about  
logging, monitoring, metrics, ...

# WHAT IS SCALING?



# When to scale? (Internet version)

technical scale -> success

# When to scale? (real version)

success -> technical scale

# Conclusion

- scaling is distraction

# Conclusion

- scaling is distraction
- no gain without losing something

# Conclusion

- scaling is distraction
- no gain without losing something
- when benefits outweigh the drawbacks significantly... scale

# Conclusion

- scaling is distraction
- no gain without losing something
- when benefits outweigh the drawbacks significantly... scale
- If not then not!

thank you!



ApptiveGrid

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