

# Resilience Patterns For Newbies

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# Resilience



**Partial failure**



# Client Side Patterns



**..just RETRY**

- 
- temporary network problems
  - temporary internal errors of target
  - temporary big loads on target

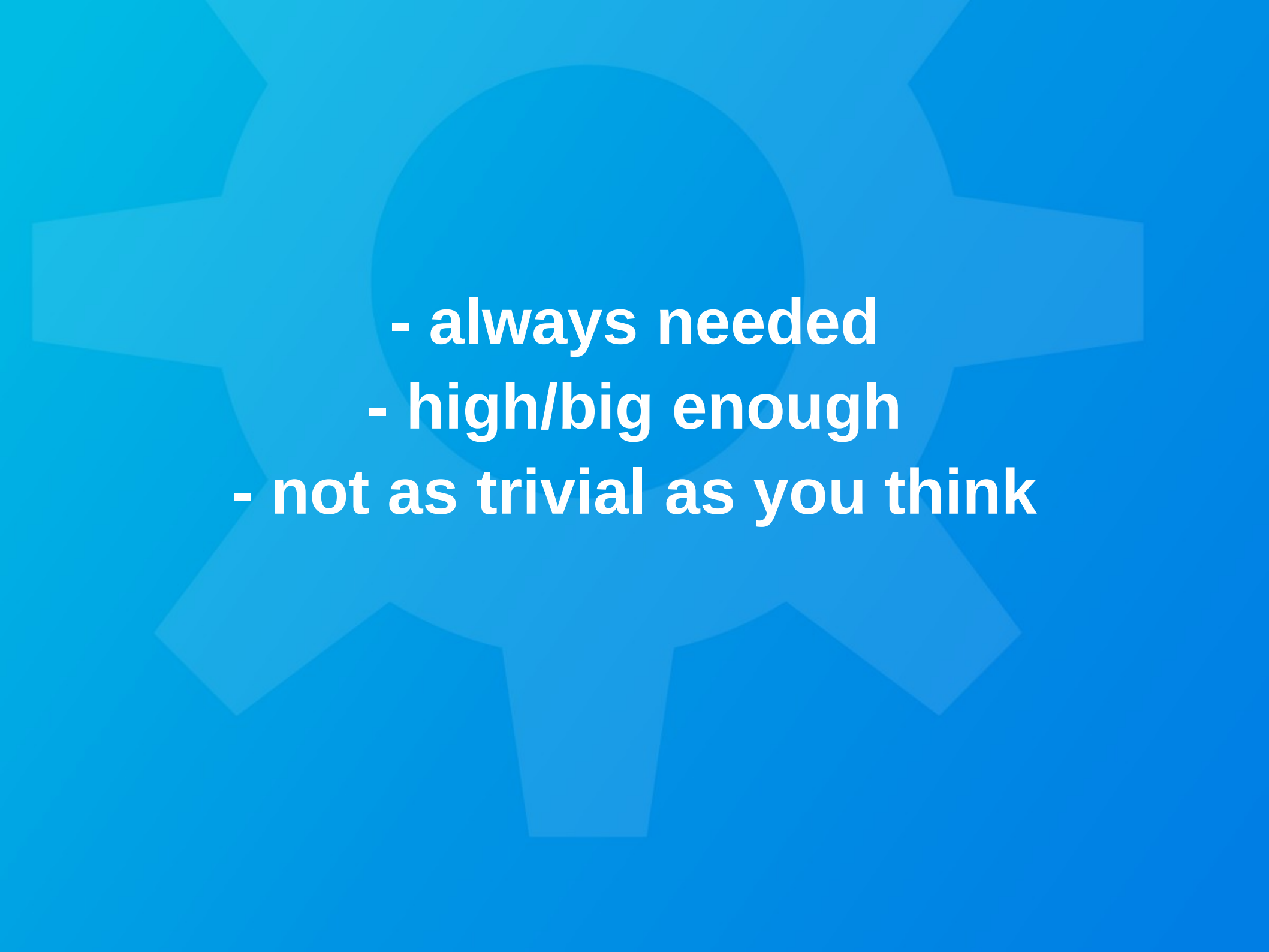


**and some code...**




**TIMEOUT** maybe?



- 
- always needed
  - high/big enough
  - not as trivial as you think



**and some code...**

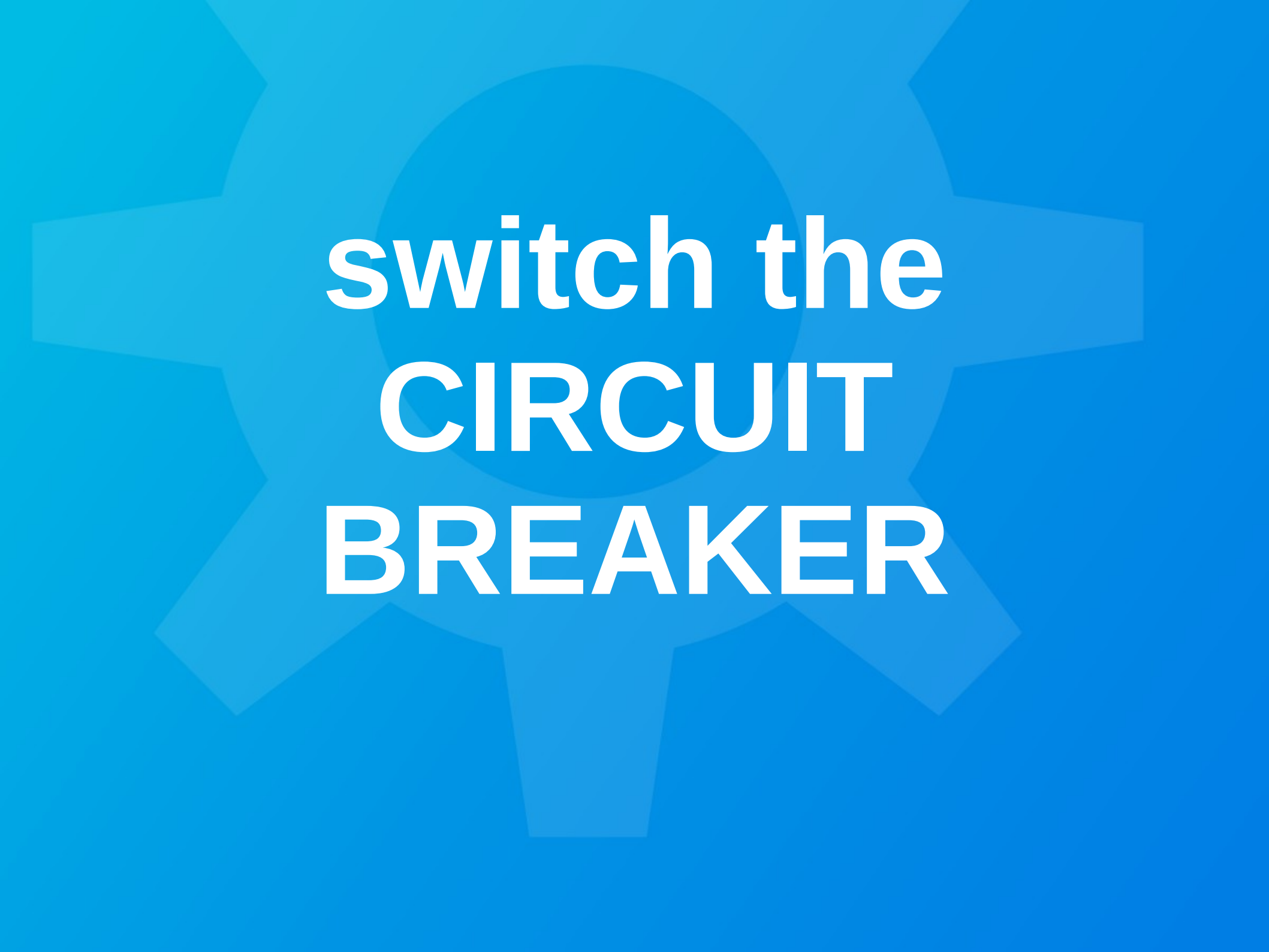


sometimes  
**FALLBACK**

- 
- not always possible
  - good if default is sufficient



**and some code...**



*switch the*  
**CIRCUIT  
BREAKER**

- 
- closed
  - opened
  - half



**and some code...**





sky is the limit,  
but in some case  
**RATE LIMITER**



**and some code...**



don't drown, you  
have a  
**BULKHEAD**



**and some code...**

A large, faint gear icon is centered in the background of the slide. The gear is a light blue color, matching the background, and has a circular center with eight teeth. The text "What else can I do?" is overlaid on the gear.

**What else can I  
do?**

A large, stylized blue gear is centered on a solid blue background. Inside the central circular hub of the gear, the text "Q&A" is written in a white, bold, sans-serif font.

**Q&A**