
Getting limited goods

what users want and what servers want

3.6.2021 · Stefan Huber

Aim of this talk

- It's **about basics** – not about a showcase
 - Just a couple of **thoughts** from a developer...
 - I wanted a **vaccination**
-

What is the Problem?

Limitation of goods

- **Supply** is not endless – COVID-19 vaccination
 - Outer **restrictions** – room is full (concerts)
-

Limitations of the servers

- Too less server **resources**
 - Too many **users/requests**
-

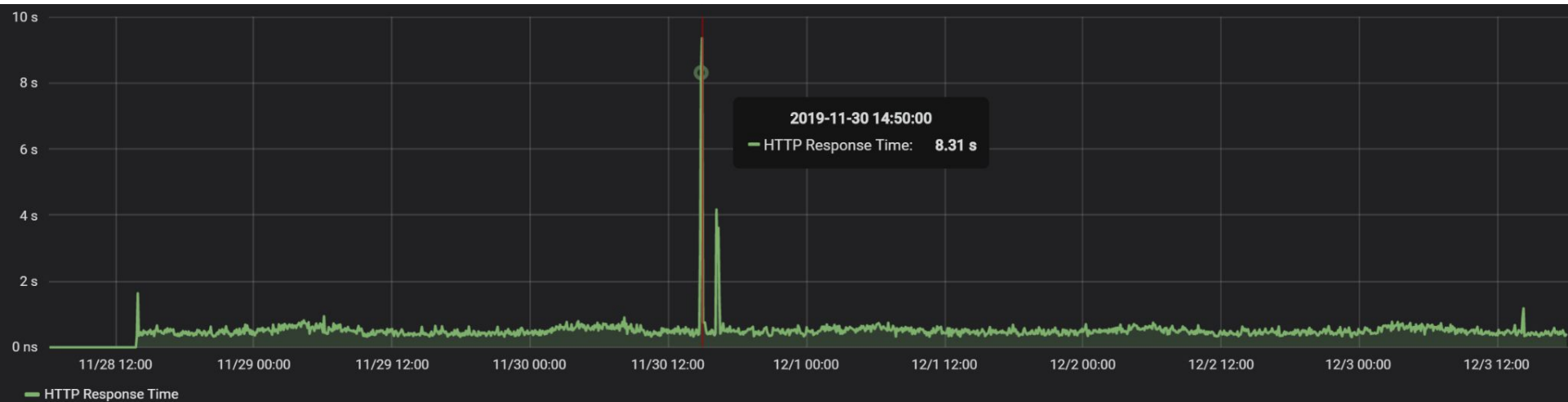
What people want

Give it to me!

- They want it
 - **They want it! Now!**
 - No reload/wait/get screwed
 - They probably **get mad** at you if they don't get it
-

**What is the problem
with the servers?**

Spikes



Two kinds of spikes

- Unplanned
 - Planned
-

Unplanned spikes

- «Evening News»
- «Go viral»

If the spike comes too quick you don't have a chance to start servers... Though luck...

Once down; people hammer reload...

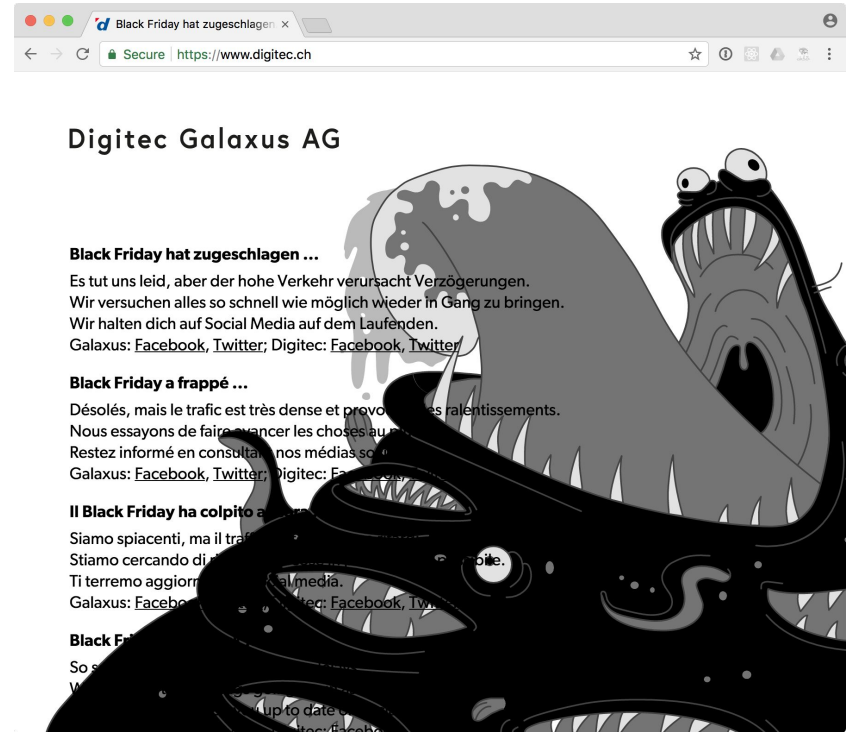
Planned spikes

- **Open the Gates** – Black Friday
 - **Gates get opened** – Newsletters/Articles/Strategy
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If you don't...

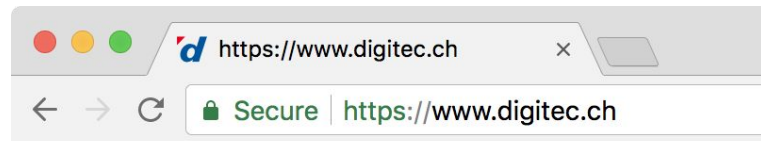
Black Friday

Digitec 2017



Black Friday

Digitec 2017




Black Friday

Digitec 2018

Security News & Trends

♥ 282 💬 379

Black Friday Live: Update 01:00 Uhr

 Dominik Bärlocher, Zürich · am 22.11.2018

Das Engineering macht sich bereit. Der Black Friday kommt. Die Redaktion ist live dabei und berichtet die ganze Nacht aus dem War Room.

Redaktor Dominik Bärlocher und Übersetzerin Anne Chapuis berichten live aus dem War Room des Engineerings während des Black Friday, so lange die Server halten.

23.11.2018 // 01:00 – Wir sind wieder online

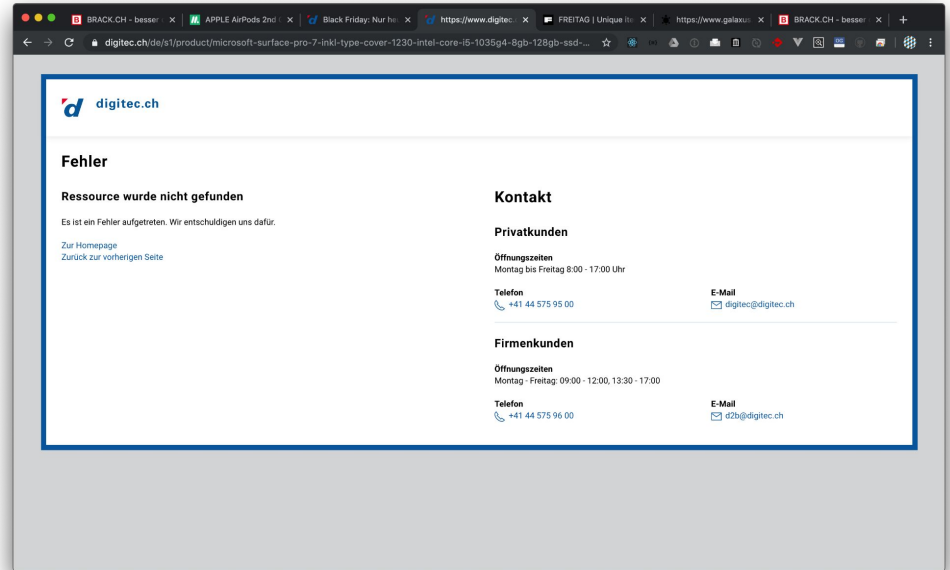
Die Downtime ist vorbei. Sie hat plusminus eine Minute gedauert. Der Grund: Ein Failover. Wir sind wieder da.

23.11.2018 // 00:57 – Wir sind down

Wir sind down. Gründe unbekannt. Wir arbeiten dran.

Black Friday

Digitec 2019



Black Friday

Digitec 2020 stays online

Spikes – not only your system

Microspot 2017

00:38 1

4G

In Verarbeitung



an



microspot.ch

microspot.ch

Warten auf Betrag

What's the problem with traffic?

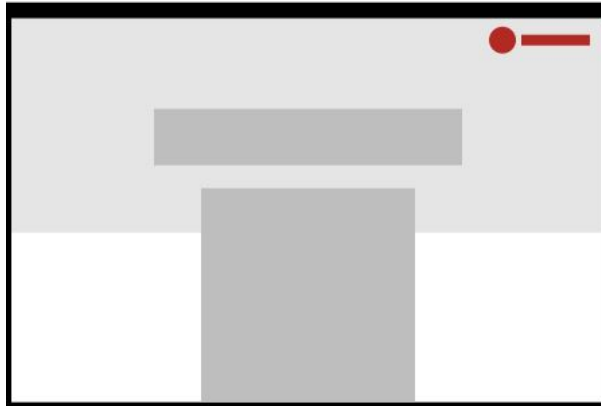
«Cheap» traffic

static

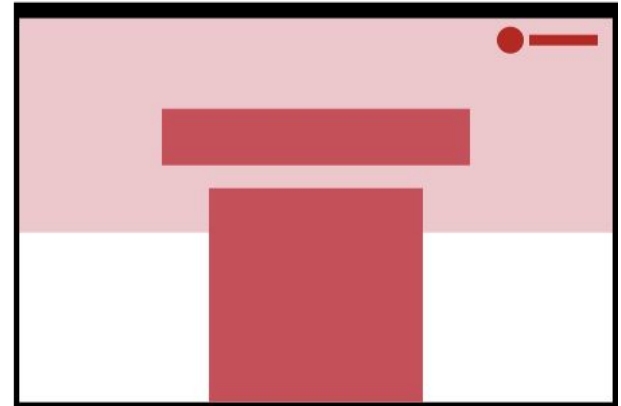


«Expensive» traffic

dynamic – right



dynamic – wrong



Who generates traffic?

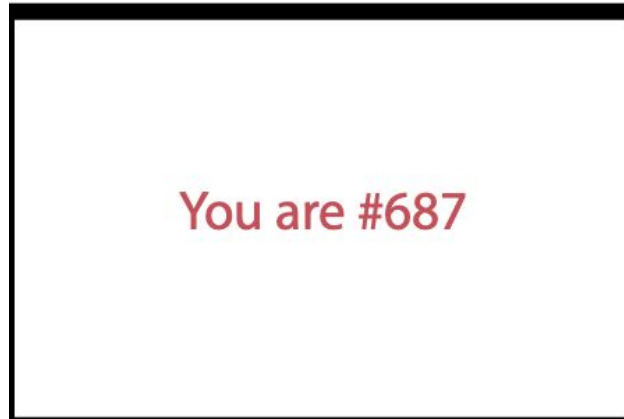
It's not only users...

- Users
 - Rotbots/Scraper
 - API
-

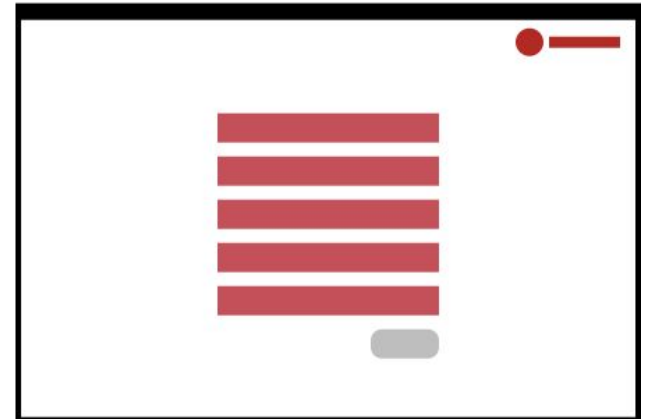
**«Strategies» to avoid
expensive traffic**

Gates

Minimal queue

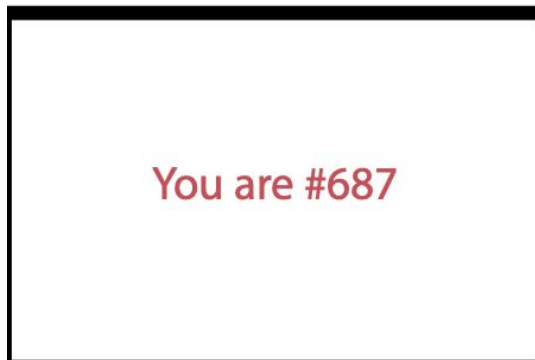


dynamic afterwards

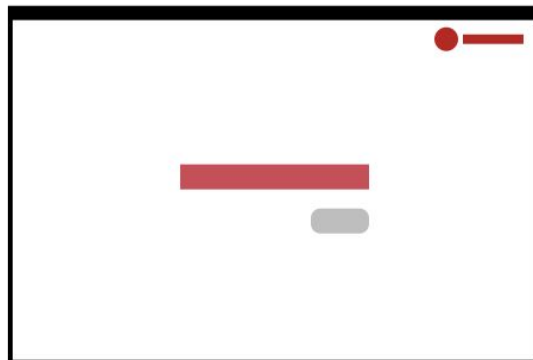


F###-up in Zurich

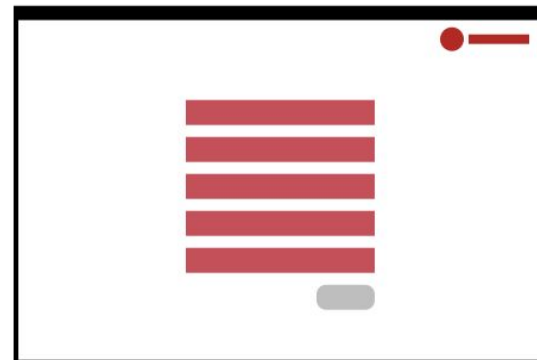
Minimal queue



SMS Gateway broke – security gone



dynamic afterwards



When is it gone?

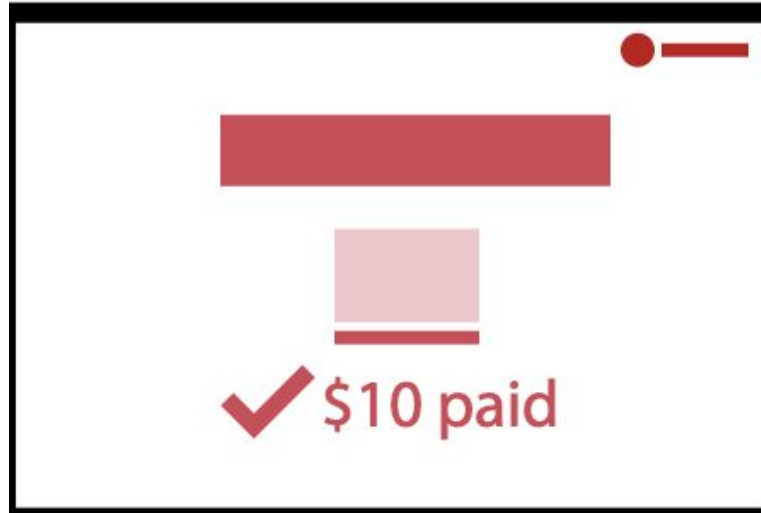
You will be «sold out» soon...

Reserved on «booking»



You have to cancel orders...

Reserved on «confirmation»



What is fair?

First come – first serve?

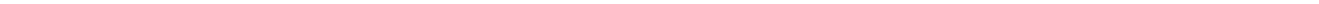
- We live in a global world and people sleep
 - Some people work with hands
 - People usually don't wait for your drop
-

What's the solution?

I don't know...

Technical excellence

- Avoid dynamic content
- Cache cache cache...



Strategies to avoid spikes

Simple tricks

- **Start** your **servers** early
- Newsletter spread over time
- **Know your clients** and products

Freitag doesn't sell black bags in the online-store.
Causes too much traffic/request.

Other tricks

- **Lottery** – it's «fair» for everyone (register at any time)
→ you will get robots...
- Automate **waiting lists!**
- Voucher systems (other sellers?)

Example: People who got in get a voucher and can invite other people (chain of trust) – Fair?

**Look forward to
better solutions.**

Thank you
