

CAMUNDA



From Zero to Traffic

Rolling out a carrier network with Camunda

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Technical Use Cases



About us



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About Swisscom



- Leading Telco in Switzerland
- Privatized 1997 (formerly postal service branch)
- 19'887 employees
- 10 Million subscribers
- Early adopter & driver of new net technologies



Running a carrier network



- You have a *lot* of nodes to worry about
- Demand is only increasing, *never* decreasing
- Population density per area changes constantly
- Technology is changing constantly
- Equipment vendors usually EOL/EOS after ~10yrs
- Older equipment may not support newer technologies
- 24/7 or “Five nines” isn’t just a sales pitch:
 - Millions of customers – even localized outages quickly impact a *lot* of people
 - Any downtime comes with heavy reputational damage

Ergo:

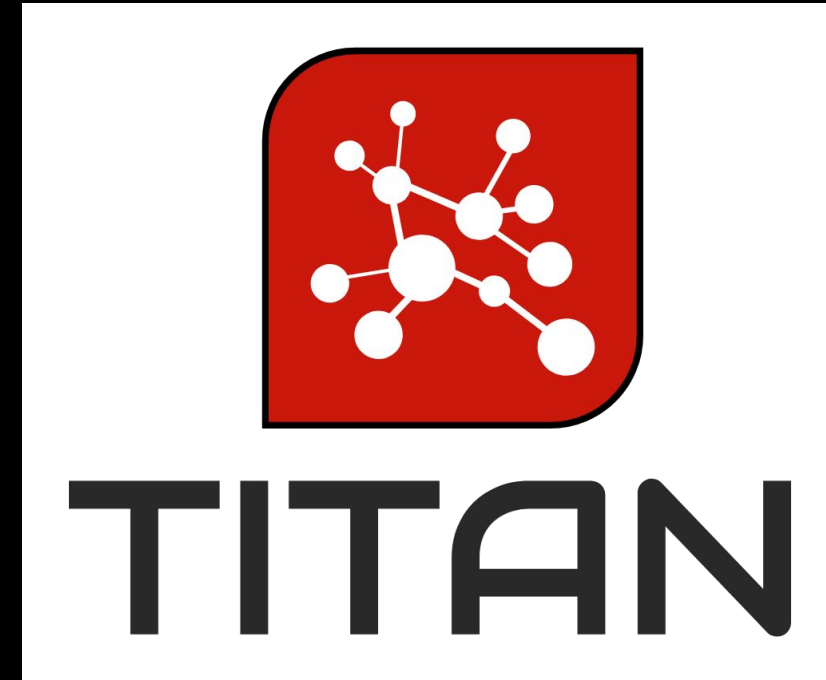
The network is completely renewed every ~8 yrs

Introducing “TITAN”



Key Facts

- Next-gen country-wide Transport Network
- Reduced Power consumption
- Reduced Footprint
- Increased Bandwidth (+reserves)
- ~10k Nodes across the country
- “Internal Startup”: Project Team has (almost) full autonomy across the whole Tech-Stack



Rollout Challenges



Process
complexity

Many
stakeholders

NOC Capacity

Node count

Cost

Vendor Lock-In

IT Systems:
“Cattle, not Pets”

Roadmaps vs.
Reality

Project plan / Use case



Camunda 8 was an ideal fit:

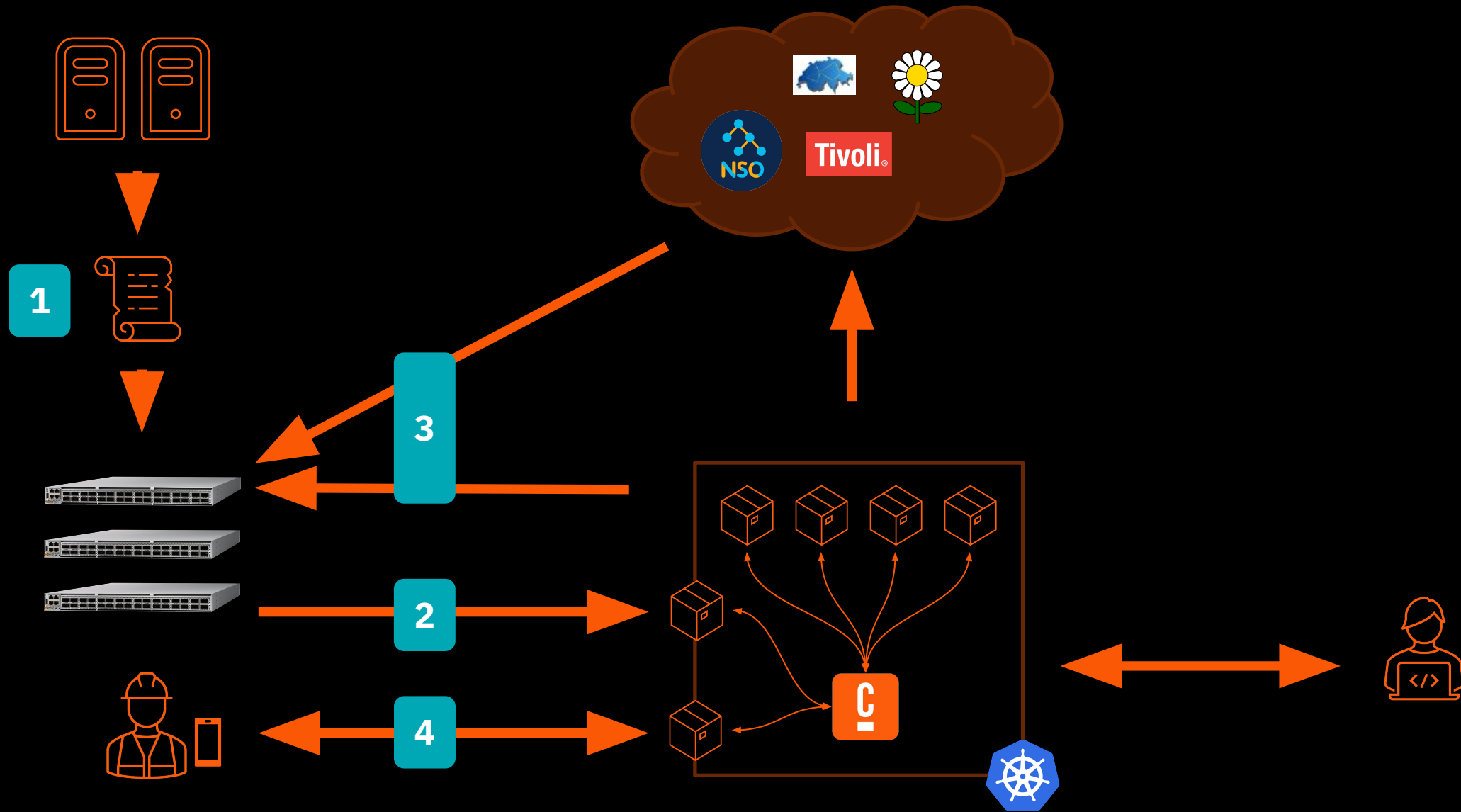
- BPMN for easy stakeholder coordination
- Closing the gap between “business” and “code”
- Language-agnostic for Task implementation
- Stellar documentation
- Self-Host capability
- High-quality libraries already existing

How we did it

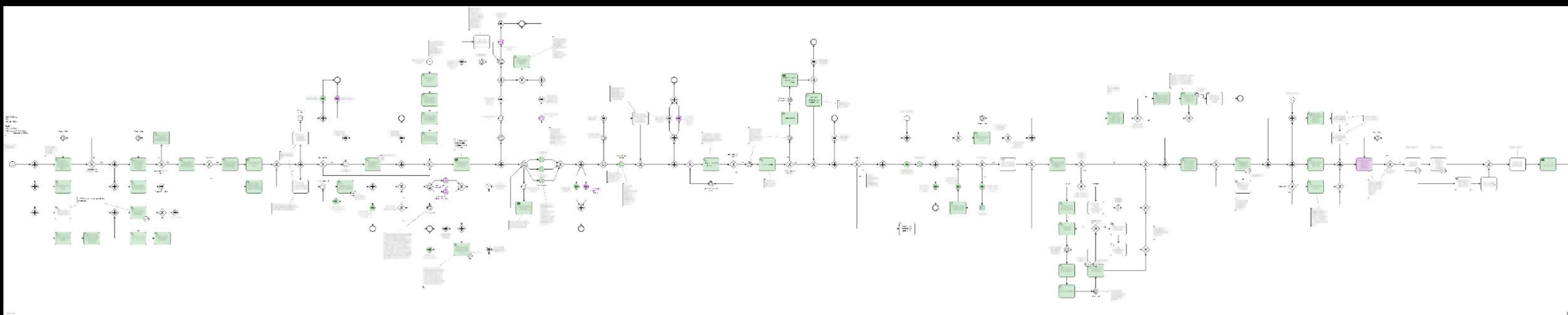
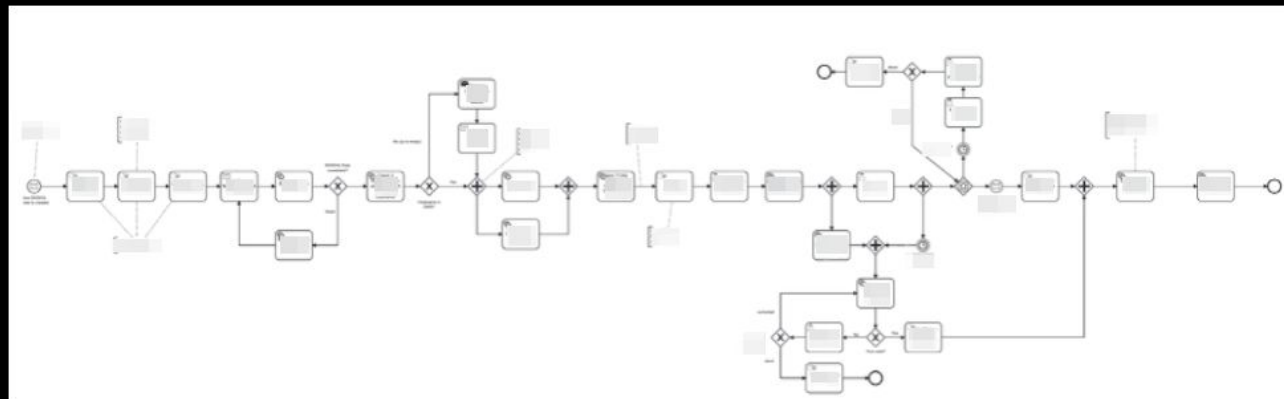


- Fully self-contained virtualized PoC (~2wks)
 - Network
 - Network devices
 - Servers
 - C8
 - Job Workers
- MVP
 - k3s for C8 & Job workers on internal Cloud
 - physical Hardware
 - Virtual Machines

The technical solution



The process



Key outcomes & impact



Supercharged
Developers

Stakeholder
satisfaction

Exceptionally
flexible
solution

Reusable
System
Architecture

Q&A

Thank you!



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