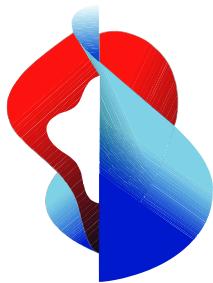


Swisscom: Building a next-gen network and boosting productivity with Camunda



swisscom

Switzerland's leading telecom provider uses Camunda to automate its national network rollout

[Swisscom](#), Switzerland's leading telecom provider, serves over 10 million subscribers across consumer and business segments. With a workforce of nearly 20,000 and a mandate to deliver high-speed, always-on connectivity, Swisscom is constantly evolving its infrastructure to meet new demands for performance, reliability, and cost efficiency.

At the center of its latest innovation effort is TITAN—a next-generation IP transport and aggregation network designed to converge multiple traffic types into one unified, scalable platform. TITAN will not only be more efficient to operate, it will also be Swisscom's largest infrastructure rollout to date, involving more than 10,000 nodes across the country.

Rolling out this carrier-grade network, however, brings significant technical and operational challenges.

The challenge: A cost-sensitive, high-stakes rollout at scale

Deploying a new network at national scale is inherently complex. Each node must be installed, configured, and integrated across a landscape of diverse systems and evolving technologies. Swisscom's team needed to manage this rollout while adapting to changing customer behavior and minimizing costs. “There are thousands of nodes to roll out, so automation is a must,” explained Roman Bigler, DevOps Engineer at Swisscom. “And the whole thing is quite cost-sensitive. Every little bit of cost that you incur per node scales linearly.”

The rollout process itself involves high numbers of stakeholders and a high volume of system integrations, from hardware installation to provisioning and troubleshooting. Workflows include long-running tasks (days and/or months) and manual work tasks. Delays are not an option.

“You can't take too long when you're rolling out a new network,” Roman added. “If you do, you run the risk that your existing hardware goes out of support. And that's something you want to absolutely avoid.”

It's a big challenge for Swisscom's relatively small network operations team, which is why the team chose Camunda to automate their end-to-end rollout process.

The approach: Build a flexible, collaborative automation layer

Swisscom set out to design an automation layer capable of orchestrating complex, long-running processes and managing exceptions to those processes. The team needed a platform that could handle both machine-to-machine and human-in-the-loop interactions while interfacing with multiple operational systems, databases, and

Key Benefits

- 10x productivity
- Flexible, modular automations
- Better collaboration
- Business-IT alignment
- Reusable architecture
- Shorter development cycles

Camunda Product

Camunda Platform

field devices. It needed to be agile and adaptable and empower the team to implement and maintain the rollout themselves. This meant developer flexibility, excellent support documentation, and strong modeling capabilities to engage stakeholders across business and technical domains.

“Camunda 8 was an ideal fit,” explains Roman, “because with BPMN, we could coordinate with stakeholders. Everybody understands flow chart diagrams, which was a godsend with non-technical stakeholders...It allowed us to close the gap between the business and the coders.”

The solution: From zero to traffic with Camunda

Using Camunda’s self-hosted platform and BPMN modeling environment, Swisscom’s carrier network team designed a process that begins when a newly installed network node boots up and executes a small script to talk to a Camunda workflow. The process then orchestrates communication between the network device and surrounding IT systems to configure the node and integrate it into the TITAN network. As an end-to-end process, it also orchestrates tasks to resolve incidents and troubleshoot devices. If a subprocess or task needs to be fixed, Swisscom’s developers have flexibility to react quickly to mitigate incidents by adjusting the process.

“We had never run Camunda by ourselves,” Roman shared. “But with the help of the documentation and existing, high-quality libraries, we were able to do a proof of concept in the span of two weeks. Then we created a minimum viable product over one to two months and were basically ready to rock.”

Why Camunda: Flexibility, faster rollout, and zero lock-in

For Swisscom, Camunda offered critical capabilities that stood out on multiple fronts:

- **Business-IT collaboration:** Camunda’s BPMN modeling environment helps bridge gaps between technical and non-technical stakeholders.
- **Flexibility and agility:** Developers appreciate Camunda’s gRPC interface and ability to use custom connectors, which allows developers to use their preferred tools and languages.
- **Self-sufficiency:** With excellent documentation and strong community resources, the team can implement and operate Camunda independently—controlling costs and accelerating time-to-value.
- **No vendor lock-in:** Camunda’s flexible, open platform eliminates vendor lock-in, so Swisscom can innovate and scale. As Roman explains, “You want to avoid vendor lock-in when you are running critical infrastructure.”
- **Modularity and reusability:** The resulting solution is flexible and reusable. “It’s very modular,” adds ICT Network Engineer Michael Schwizer. “What we’ve created here was used in Swisscom multiple times,” says Roman, “like in a blueprint fashion for another Camunda instance.”

The outcomes: 10x productivity and scalable success

Camunda process orchestration and automation is enabling Swisscom to roll out their TITAN network more efficiently while maintaining control over costs and processes. The platform’s collaborative environment is also speeding development cycles by giving developers and stakeholders a common language to work from. Developers are “tenfold more productive,” according to Roman, thanks to direct process alignment with stakeholders.

With Camunda and in a relatively short time, the team has developed and implemented a system architecture that can be reused across other Swisscom programs, further accelerating innovation and maximizing return on investment.