Swiss Section

Technical visit to the SBB Operation Management Centre in Ostermundigen

Report by Chris Glättli FIRSE

Heavy snowfall in November 2024 covered Switzerland the day before the Swiss Section's technical visit to the Swiss Federal Railways (SBB) Operation Management Centre (OMC), putting the national railway network into a state of high alert.

The large number of disruptions was quite a challenge for the OMC, testing the employees and the systems. Once again, the Swiss Section's technical visit offered a unique insight into how SBB manages crisis situations while keeping the wheels rolling.

The OMC belongs to SBBs infrastructure division, in the availability and maintenance business unit, and employs around 350 people. They oversee a wide range of critical systems essential to railway operations. That includes: railway communication networks like the GSM-R mobile network and operational telecommunications (e.g. function-based calls); the fixed SBB data network; and infrastructure networks for control systems such as interlockings and Radio Block Centres (RBCs).

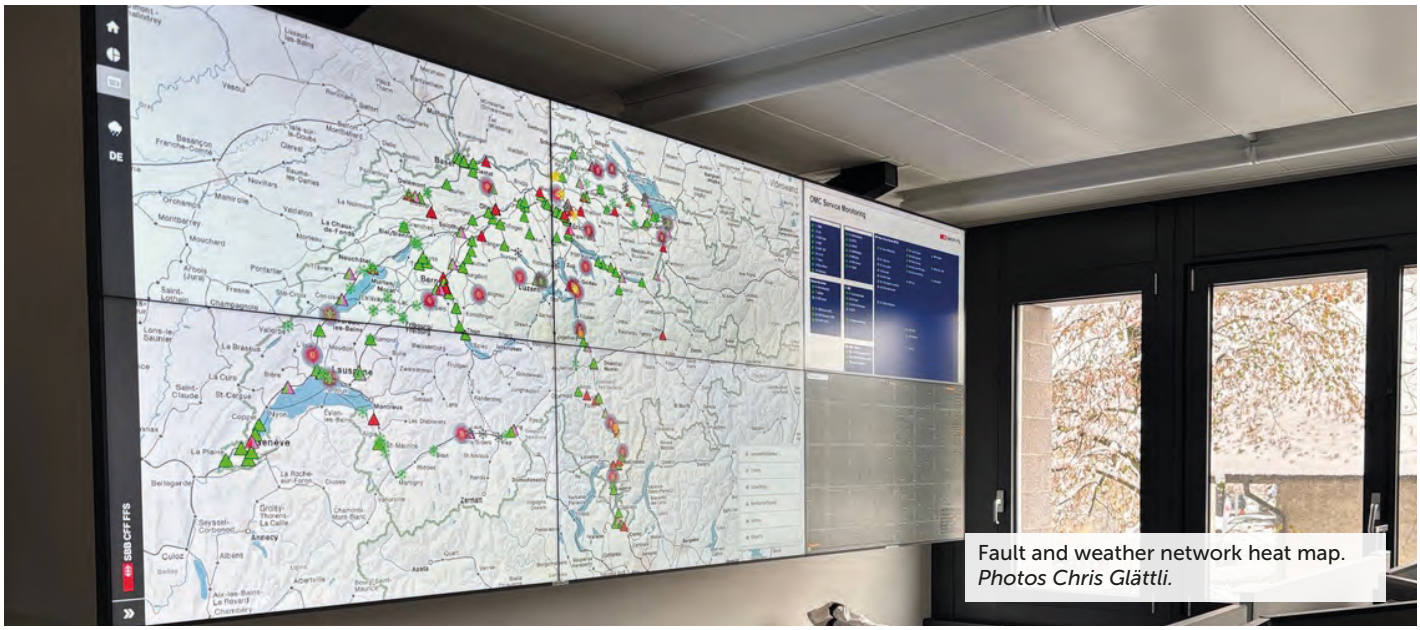
The SBB OMC in numbers

Employees: around 350, of whom around 100 are in first level (monitoring, fault management, switching/ operation), around 200 are in second level (technical operations by specialists in 15 competence centres for the various systems and technologies), and around 60 are in conceptual operations management.

Faults: around 80,000 are rectified annually, of which 6,000 are deemed relevant to rail operations, (that is they cause a train to be delayed by more than three minutes), while the others are 'only' relevant to customers (e.g. defective loudspeakers), or not noticeable to customers.

First-level calls: 20,000 per month.

Catenary: 320,000 times per year, overhead lines are switched off and on for construction work or in the event of faults.



Fault and weather network heat map. *Photos Chris Glättli.*

Additionally, the OMC manages the 16.7Hz traction power network (including switching overhead lines on and off during construction, accidents, or other events), as well as 50Hz power systems.

Cyber security is another key responsibility, as the OMC must detect and prevent cyber attacks on its systems. However, issues related to mobile phones or personal computers fall outside the OMC scope and are handled by the IT service desk, which collaborates closely with the OMC.

The integrated management system prevents an alarm triggered by a technician during a planned intervention from being understood and treated as a fault by those responsible for the system.

"Our slogan is 'Functioning systems. For our customers'," explained OMC manager Daniel Rickly. "Our purpose is to ensure that the systems needed for rail traffic function. Our primary goal is to avoid faults – and if they do occur, to resolve them as efficiently as possible.

He added, "Our work influences the overall goals, especially customer punctuality, but also customer satisfaction, staff motivation and the annual result. Safety is our top priority but is guaranteed by the systems themselves and the employees who take care of them."

One of the Swiss challenges is the multicultural environment and the three languages spoken. So the people answering the call must be able to communicate in German, French and Italian. Sometimes English is used to overcome language barriers.

Heavy snowfall put the SBB network under stress the day before our technical visit.

The publicly most-called phone number in Switzerland is the SBB hotline, where customers can get timetable information or report missing belongings. The most frequently called private number in Switzerland is the internal OMC number, which is dialled by SBB employees to request help or report a problem.

A networking dinner concluded yet another very interesting technical visit.

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