

Audit of the DTI key project Polycom Value Preservation 2030 with a focus on the border security subnetwork

Federal Office for Customs and Border Security, Federal Office for Civil Protection

Key points

Polycom is the security radio system of Switzerland's authorities and organisations for rescue and security. Due to the manufacturer's change of technology, the system in Switzerland needs to be brought up to date. Parallel operation is necessary as long as both technologies are in use. The Federal Office for Customs and Border Security (FOCBS) is contributing around CHF 65 million to this technological development. Together with the Federal Office for Civil Protection (FOCP), the Confederation is investing a total of around CHF 160 million in this project.

The FOCP determines the technical specifications for updating the radio system and is responsible for the underlying basic system. In the cantons and the Principality of Liechtenstein, the local infrastructures – the so-called subnetworks – are being brought up to date. The FOCBS is renewing its subnetworks in Switzerland's border belt and this work should be completed for the whole of the country by the end of 2024. By then, all subnetworks with their approximately 750 base stations and fixed radio antennas are expected to have been upgraded. The old infrastructure will then be dismantled so that parallel operation can be discontinued at the end of 2025, and the associated additional costs will no longer be incurred.

The Swiss Federal Audit Office conducted its first detailed audit of the Polycom Value Preservation 2030 project, focusing on the border security subnetwork and the part of the project for which the FOCBS is responsible. The aim of the audit was to assess the project and its project risks with regard to the achievement of objectives. This is the third audit of the DTI key project Polycom Value Preservation 2030.⁴

The audit showed that the project is being managed soundly, despite the rapid pace of the technological transition. The FOCBS ensures extensive coordination with the FOCP, the fourteen border cantons, the canton of Bern and the Principality of Liechtenstein, as well as with the suppliers. The planned infrastructure upgrade – i.e. migration completion by the end of 2024 – is within reach. All the more so because the FOCBS and FOCP can now rule out any conceptual risks. However, it remains to be seen to what extent the dismantling will be completed by the end of 2025. This time horizon remains ambitious in view of the volume of work still outstanding.

⁴ "Audit of the key ICT project Polycom value preservation 2030" (audit mandate 16375) and "Audit of the Polycom Value Preservation 2030 and National Secure Data System key ICT projects and the Mobile Broadband Security Communication Systems project" (audit mandate 21539), both audits are available on the SFAO website.

Half of the migration work has been completed and the agile approach is bearing fruit

Half of the FOCBS radio system has already been converted to the new technology and is in operation. The remaining work is set out in a detailed roll-out plan and is well coordinated. In consultation with the FOCP, the suppliers and the cantons, the order of the work packages is constantly being adjusted in order to optimise the progress of the project. Despite the tight schedule, it is realistic to expect the migration of the FOCBS subnetworks to be completed by the end of 2024. Following the successful changeover in some cantons, the FOCP and the FOCBS are very confident that conceptual risks can be largely eliminated in the Polycom Value Preservation 2030 project.

The integration of Polycom Value Preservation 2030 into the agile approach of the DaziT transformation project ensures a high level of visibility for the project. The working method in the project is flexible and solution-orientated. The FOCBS reacted immediately to delays in the procurement of components and the corresponding delays in the licensing of the radio relay systems. There is no steering committee for the project at the FOCBS. The progress of the project is continuously monitored by DaziT in a ten-week planning cycle.

The pressure to migrate is putting work on the back burner in favour of operational handover

Project tasks and risk management are strongly focused on the migration work. This has taken its toll and has led to a low level of readiness for the handover of operations. Important foundations for guaranteeing security in subsequent operations have fallen behind and are not yet sufficiently mature. This is fraught with risk, as the new technology is already in use and operates a mission-critical radio system. It must also function in emergency situations.

With the use of the new internet protocol (IP) technology and different solution approaches in the cantonal subnetworks, there is a risk that not all protection requirements will be met. The new operating concepts must be realised quickly if Polycom is to remain crisis-proof and independent of the civilian network. It is important to seize the moment because the level of knowledge surrounding the project is currently very high. For example, there are gaps in the content of concepts for IT security, network monitoring, maintenance planning and emergency plans. The SFAO recommended that the FOCBS finalise the operational concepts by the end of 2024, and apply risk and quality management more closely to the handover and safeguarding of operations.

Polycom's service life is not sufficiently secured

The FOCBS' existing operations team is preparing intensively for the technology change, but will only just be able to cover the planned service life due to its members reaching a certain age. The maintenance contract for the Polycom radio network will expire in 2030 at the latest. The FOCBS is therefore under significant pressure to secure the expertise over the entire service life of Polycom, and to quickly clarify the situation regarding the support contract, which is due to expire, in terms of procurement law.

At the end of 2026, the manufacturer Airbus will cease production of the radio equipment currently in use. This had numerous shortcomings when it was introduced. Airbus has verbally promised a successor model. The FOCBS, together with the FOCP, must ensure that the shortcomings eliminated in the predecessor model are factored into the development of a successor device in the form of quality criteria.

In 2017, Airbus confirmed in writing that it would provide technological support for Polycor's Tetrapol basic technology until 2035. These commitments were made a long time ago and are inadequate in relation to the importance of a mission-critical radio system. The SFAO recommends that the FOCP renew Airbus' confirmation of technical support for the Tetrapol basic technology by the end of 2024.

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