

# E-signatures and seals in the digitalisation strategy of municipalities and cantons.

Digital signatures and seals are a central component of any digitalisation initiative in municipalities, cantons, and state-owned enterprises. However, unnecessary complexity in procurement processes can significantly slow down progress and delay the successful implementation of such projects.

by Martin Riedener, CSO DeepCloud AG

## Complexity eats up progress

Switzerland likes to describe itself as a “world champion.” Business and political leaders take pride in the country’s strong performance in numerous international rankings. However, when it comes to the digitalisation of public authorities and public-sector-related organisations, Switzerland is far from leading the field—and not even positioned in the middle. The fact that Switzerland ranks 31st out of 37 countries in the EU’s eGovernment Benchmark 2024 should give cause for concern.

Why is this the case? It cannot simply be a question of funding. Although Swiss public administrations are relatively lean, authorities at various levels continue to invest substantial sums in digitalisation projects.

One possible explanation is that we are making the process unnecessarily complex. Too often, the focus is on finding perfect solutions capable of covering every conceivable use case and operating model. A current example can be found in the procurement of digital signature solutions for municipalities and cantons. eOperations, the joint IT service provider for cantons and municipalities, has issued a tender for such systems.

Cantons and municipalities wishing to participate must now launch one or more additional procurement procedures (so-called mini-tenders) from a pool of nine different providers. However, the key question—namely how a digital signature solution can be introduced and operated in a simple and efficient manner—was not addressed in the tender.



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Digitalisation projects in Swiss municipalities, cantons, and state-owned companies often face significant challenges. Relatively large segments of the population view such initiatives with mistrust or resistance, as clearly demonstrated by the narrow approval of the state-issued e-ID in the recent vote. In addition, there are objective structural obstacles. Switzerland’s federal system grants municipalities and cantons a high degree of autonomy, which they rightly insist upon. As a result, systems and processes vary widely from one municipality or canton to another.

Municipalities and cantons often decide independently on the pace and extent of their digitalisation efforts. Moreover, Switzerland is a small country, and many municipalities—and even some cantons—operate with limited resources. This decentralised structure has notable advantages, as public administrations are often highly citizen-oriented and, by European comparison, remarkably efficient despite their size.

Electronic signatures and seals are essential components of the digitalisation of public authorities and state-related organisations. Digital signatures enable documents to be signed with full legal validity and stored in an unalterable manner. They eliminate media disruptions as well as the time-consuming exchange of documents such as minutes, certificates, or contracts. Every municipality, regardless of size, will sooner or later need to adopt a solution for electronic signatures and seals. Such a solution should be seamlessly integrated into existing systems and processes, without requiring significant additional effort.

## A large-scale tender

In spring 2023, eOperations Switzerland, the joint IT service provider for the Confederation, cantons, and municipalities, issued a tender for the procurement of electronic signatures, seals, and time stamps for 23 cantons and approximately 1,500 municipalities. The tender was exceptionally complex, as it sought to cover virtually all

conceivable use cases within a single procurement process. The tender was divided into eight lots. These lots defined both the scope of services to be provided—such as signatures, seals, time stamps, workflows, and the certification of authorised signatories—and the respective operating models, including “hybrid cloud (plain)” and “software as a service (SaaS, plain).”

Within these eight lots, up to eight modules were specified. The modules covered qualified and advanced electronic signatures, regulated electronic seals, and

time stamps, along with the associated concepts and implementation services.

Both the preparation of the tender by eOperations and the submissions from a total of twelve software service providers are likely to have incurred costs amounting to several million Swiss francs. The resulting contractual structure is equally complex: nine service providers were awarded contracts for one or more lots. For each lot and each provider, a separate framework agreement was concluded—each comprising almost 300 pages.

## Too long and too many

I noticed three things about the tender:

### 1. Long planning horizons hinder digital progress

Those who plan over a seven-year horizon have already fallen behind in the digitalisation race. The proposed contracts cover a maximum period of seven years (five years plus an optional two-year extension). This timeframe is excessively long for the fast-moving digital sector, where new technologies typically lead to rapid innovation and significant price reductions within short cycles.

### 2. Theory beats practice: A demand that does not reflect reality

In the tender, eOperations assumed what appears to be an unrealistically high level of demand. It projected that by 2028, approximately 3,000 municipalities, cantons, and state-owned companies or organisations would obtain signature services from the selected providers. Over the five-year period leading up to the end of 2028, these so-called “demand centres” were expected to carry out more than 433 million signature transactions. In addition, over 160 million seal transactions and more than 17 million certified time stamps were anticipated. These projected maximum transaction volumes are far removed from our practical experience with municipalities that have implemented signature solutions from DeepCloud. This is particularly striking given that municipalities, in practice, apply electronic seals far more frequently than electronic signatures.

### 3. Project obligations for solutions that are already integrated

eOperations required in the tender that the proposed signature solutions be connectable to specialised applications via standard interfaces. However, the tender does not envisage electronic signatures, seals, and time stamps being fully integrated into business applications without additional implementation projects. In practice, this level of integration already exists with many DeepCloud partners, including Abacus, CMI, innosolv, and Microsoft. In these cases, no additional projects or consultancy services are required to introduce digital signatures and the associated workflows. The necessary functionality has already been embedded by the software providers and can therefore be deployed within a very short timeframe.

## A two-stage and complex process

eOperations has opted for a two-stage procurement process for digital signature solutions. In the first stage, providers eligible to deliver services across the eight defined lots are selected. In the second stage, the contracting authorities—namely cantons, municipalities, individual public bodies, or state-affiliated organisations—evaluate the specific pricing through so-called mini-tenders and award the contract to the most economically advantageous bidder.

Providers that are excluded in the first stage of the eOperations tender are no longer eligible to participate in these mini-tenders.

## St. Gallen chooses its own path

For the Canton of St. Gallen, the procurement process proposed by eOperations proved to be unsuitable. The canton therefore decided to launch a new open tender.

When asked about this decision, State Secretary Benedikt van Spyk explained the canton's approach as follows: "Under the eOperations tender, our requirements would have been distributed across three different lots. Each lot would have required a separate mini-tender. Based on our legal clarifications, it was not permissible to restrict the mini-tender to suppliers capable of delivering all required services. As a result, we would have had to conduct three separate mini-tender procedures and potentially conclude procurement contracts with three different providers. We therefore decided to issue a new open tender and request all three services from a single provider. This approach was supported by the responsible bodies within the Canton of St. Gallen given the initial situation."

In other projects, such as Terris or the eMoving service, St. Gallen continues to work successfully with eOperations, as van Spyk emphasised.

## Significant price discrepancies

In November 2023, contracts were awarded to six bidders per lot. The online trade publication Inside IT ran the headline: "eOperations Switzerland allocates billions for digital signatures." In fact, the total contract volume—amounting to CHF 17 billion—resembles the procurement of fifth-generation fighter aircraft more than the acquisition of a solution for digitally signing municipal council minutes in the small municipality of Hintertupfingen. Equally striking are the substantial price differences

## «eOperations Switzerland speaks billions for digital signatures.»

Inside IT

among the successful bidders. According to Inside IT, in Lot 1 (digital signatures in a hybrid cloud operating model), the bids submitted by the six awarded providers ranged from CHF 268 million to CHF 2.4 billion. Comparable disparities can be observed across the other lots. In a detailed press release, eOperations explained these differences by noting that providers may still reduce their prices during the mini-tender process and that the transaction volumes specified in the tender—covering signatures, seals, and time stamps—might ultimately not be fully realised.

There Significant price fluctuations can also be observed over time within the procurement period, as prices are volume-dependent. The Canton of Aargau, which successfully conducted a mini-tender for Lot 3 (Hybrid Cloud – Workflow Engine), has published its prices in a notably transparent manner. In 2025, municipalities in Aargau paid CHF 0.49 for a qualified electronic signature; in 2026, this price will increase to CHF 1.71. Prices are recalculated annually based on the volume purchased in the preceding year. It must therefore be assumed that transaction volumes in 2025 were relatively low—otherwise, a price increase of approximately 350 per cent would be difficult to explain.



**17 billion**

Total amount of surcharges



**268 million**



**2.4 billion**

The bids submitted by the six winners of the tender range from CHF 268 million to CHF 2.4 billion



## Much ado about nothing?

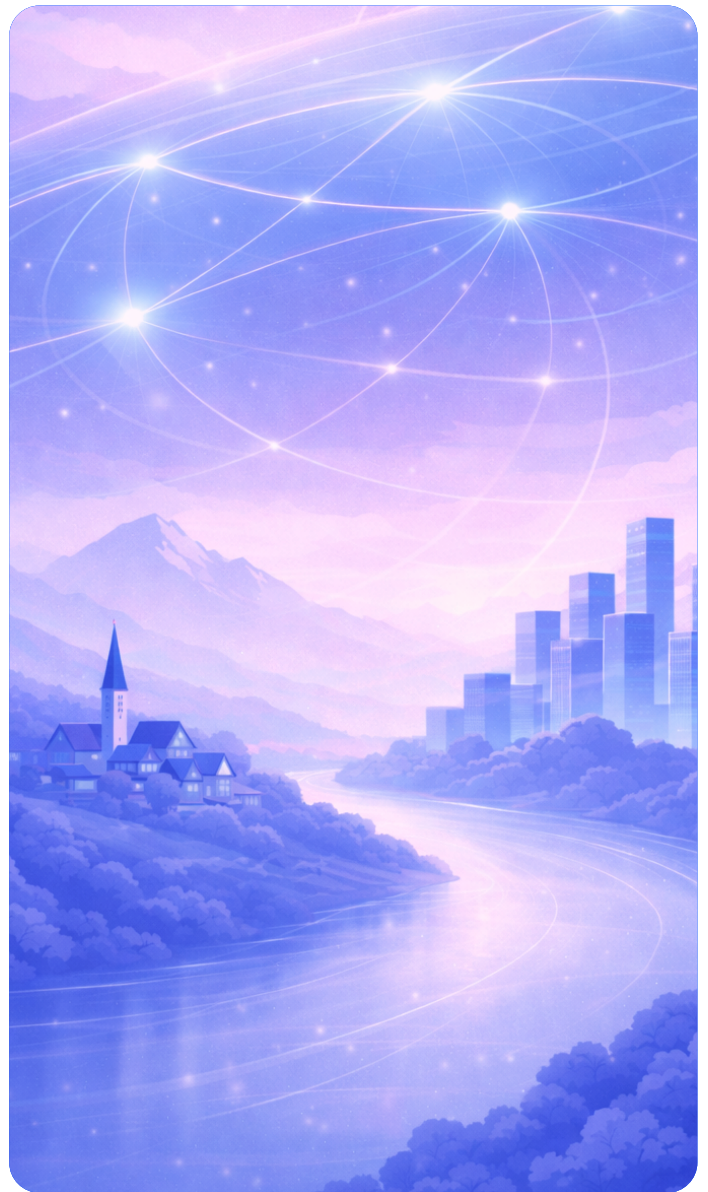
It remains unclear how many cantons have conducted mini-tenders and how many municipalities are actually procuring signature services on the basis of the resulting framework agreements. Contracting authorities that have concluded such agreements are required to submit annual financial reports to eOperations. However, these figures are not disclosed. According to Managing Director Daniel Arber, it was agreed that the reporting data would remain confidential, although he notes an increase in the number of mini-tender procedures.

To date, only the mini-tenders conducted by the Cantons of Aargau and Zurich have been made public. In both cases, SwissSign, the Swiss Post's digital signature solution, was awarded the contract. According to Simon Burgherr, project manager at the Zurich digitalisation network egovpartner, data on the number of municipalities procuring digital signatures, seals, or time stamps as a result of the Canton of Zurich's mini-tender is not yet available. Participation in the offer remains voluntary for municipalities.

## Digital Signatures and Seals via Direct Procurement

This raises the question of whether the high level of complexity involved in a mini-tender procedure for the procurement of digital signatures, seals, time stamps, and signature verification may deter cantonal procurement authorities. As a possible alternative, cities and municipalities may consider procuring these services step by step in cooperation with providers of existing specialist solutions such as Abacus, CMI, innosolv, or comparable systems. This is particularly relevant given that the costs of procurement and implementation generally remain well below the threshold of CHF 150,000 for a direct award per city or municipality.

In any case, it is advisable to discuss the situation regarding digital signatures and seals with your Abacus, CMI, or innosolv city consultant. They can outline possible approaches and demonstrate how digital signatures may be introduced efficiently and cost-effectively.



By the end of 2025, around 360 cities and municipalities will be using DeepSign. The sealing and signature processes are generated and stored directly from the specialised applications such as Abacus, innosolvcity, innosolvenergy, CMI, GeKo, Infogate, officeatwork, zeugnis.ch or PUPIL.