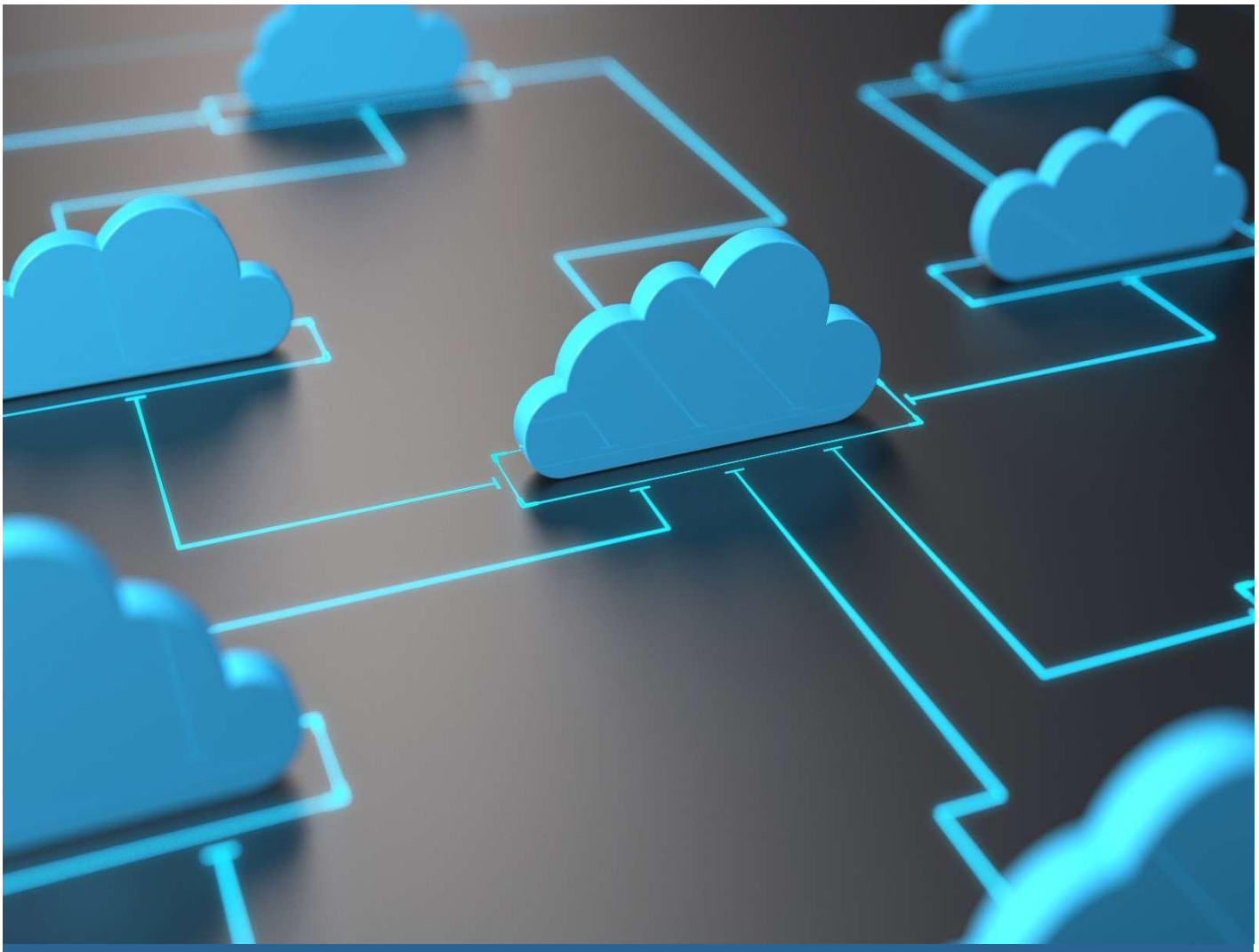

Is the introduction of cloud computing services in state administration purposeful?

Riga 2025

Latvijas Republikas
Valsts kontrole

Audit report

12 September 2025
Performance audit “Is the introduction of cloud computing services in state administration purposeful?”
The cover design includes an image from website *Microsoft Stock Images*.

Dear Reader,

Cloud computing is not just a technological concept, as it is an essential part of the digital transformation of state administration. More and more state services are based on data processing and storage in cloud computing solutions; however, the effective and secure implementation of these solutions requires careful planning, clear conditions and coordinated action.

Private sector practice shows that the implementation of cloud computing solutions can provide up to 20% cost reduction. Such an effect would also be expected in state administration, especially considering that the expenditure on the purchase of services and equipment related to cloud computing has tripled over the past five years by reaching already 285 million euros per year.

We have conducted the audit because the development of a national data processing cloud has been ongoing for more than a decade in Latvia. While encouraging active assessment of the possibilities of using cloud computing services, there is still a lack of clarity about the necessary resources, costs and financial benefits. Despite the initiated projects for the creation of a national data processing cloud, the centralization of ICT resources has not yet been fully implemented, and state institutions face various challenges.

In the audit, we assessed whether the current planning and project initiation activities forged the necessary prerequisites for the coordinated further development and use of cloud computing services in state administration. Unfortunately, the answer to this question is no because there is a lack of clear conditions, deadlines and support mechanisms for the implementation of cloud computing services, which hinders the effective and gradual transfer of ICT resources to the developing state data processing cloud or to appropriately provided private cloud computing solutions.

As a result of the audit, we have provided several recommendations to the Ministry of Smart Administration and Regional Development, which are aimed specifically at these practical aspects of implementing cloud computing services that state institutions lack. For example, developing migration plans, ensuring uniform rules and document templates, providing greater implementation support, as well as defining and monitoring service quality indicators.

At the same time, for the successful implementation of the common state data processing cloud, we expect action and support from the state institutions themselves by assessing and identifying the computing resources they need and developing potential ICT resource development and migration plans.

We would like to thank the audited entity, the Ministry of Smart Administration and Regional Development, as well as the Information Centre of the Ministry of the Interior, the Ministry of Agriculture, the National Library of Latvia and the Latvian State Radio and Television Centre for the information provided and cooperation, which made conducting this audit possible with the aim of promoting the thoughtful and useful development of cloud computing services in state administration.

Respectfully
Ms Ilze Bādere
Department Director

Summary

Main conclusions

Similar to other parts of the world, the use of cloud services is also being developed in Latvia. As for state administration, it is planned and implemented by the Ministry of Smart Administration and Regional Development (hereinafter referred to as the MSARD), which has identified **the advantages of cloud computing services and the possibilities of their use for the optimisation of information and communication technology (hereinafter referred to as the ICT) resources and higher ICT security** since 2013, as well as set the goal of introducing a national data processing cloud gradually. The implementation of cloud computing services simultaneously requires an appropriate implementation and management model, otherwise significant security, data protection and business continuity risks may arise instead of benefits.

Cloud computing provides a convenient, on-demand service for remote access to shared and configurable computing or software resources. Its benefits include more effective use of computing resources, access to newer technologies and cost reduction.

According to a 2011 European Commission survey [1], **the implementation of cloud computing has provided 10-20% cost reductions for 80% of companies.** Accordingly, the effective and well-considered implementation of public cloud computing services can also provide the prerequisites for achieving savings in ICT expenditure of state administration. Total ICT expenditure [2] of ministries and central government institutions has doubled over the past five years from 147 million euros in 2020 to 352 million euros in 2024. **The expenditure on the purchase of IT services and ICT equipment is most directly related to cloud computing of the total ICT expenditure, which has tripled from 85 million euros to 258 million euros. In Latvia, quantitative calculations of potential savings have not been made** and qualitative benefits such as improved security and resource optimisation are mainly envisaged, without planning financial savings.

The audit aimed to verify **whether the prerequisites were created for the coordinated development and use of cloud computing services in state administration**. One should conclude that the activities carried out by the MSARD over the past ten years have not been purposeful and effective enough to create all the prerequisites for the implementation and management of public cloud computing services in the country as a whole, in which all parties involved had a clear action plan, criteria and necessary resources for the gradual and appropriate transfer of institutional ICT resources to cloud computing resources.

Insufficiently coordinated planning for the implementation of cloud computing services

To achieve the benefits of cloud computing services, **there must be a well-thought-out and both vertically and horizontally coordinated policy implementation, and this is the function of the MSARD.** Simply setting general visions and goals is not enough. Otherwise, the development of cloud computing services will proceed individually, at the initiative of state institutions themselves and following their intentions and capabilities, rather than in accordance with common, coordinated national interests and needs.

For more than 10 years, the MSARD has indicated the problems of ICT resources and the desire to move from a decentralised environment to a few interconnected national data centres regularly in its guidelines and information reports. On this basis, it would also be possible to create a national data processing cloud. Although the problems and the necessary actions are clearly identified, **the tasks and activities approved in the policy planning documents of the MSARD are much narrower and fragmented.** Despite the fact that the area of public cloud computing is horizontal and affects many state institutions involved, the activities currently set by the MSARD are not sufficiently coordinated and do not provide a detailed picture of the comprehensive implementation of public cloud computing services and the gradual migration of public ICT computing resources to such public cloud computing sharing centres or private cloud computing services. **So far, only two sectors and two individual state institutions have submitted ICT resource development and migration plans to the MSARD, of which one plan has been coordinated.** In addition, **48% of state institutions in the survey indicate that they have not coordinated their developed plans or general analysis with the MSARD**, which does not indicate a coordinated and gradual development of public ICT resources.

The MSARD stated the following during the audit,

> *Within the framework of the national data processing cloud, the MSARD determines and implements a policy focusing on the infrastructure as a service (IaaS) level, as these services can be managed and provided with a unified approach. IaaS services are provided through cooperation between several service providers to reduce dependence on the use of a single technological platform and provide basic services, that is, computing power and data storage. In addition, each service provider can also offer its own specific services. At the same time, the policy of the MSARD does not limit the use of the platform as a service (PaaS) level, which can serve as additional services for IaaS solutions, as well as software as a service (SaaS) solutions, which are adapted to the specific business processes of specific institutions and the choice and use of which is the responsibility of each state institution.*

After long-term planning, the expansion of the infrastructure for the creation of a national data cloud has been launched in 2024, namely, four national cloud computing service centres have been identified (Latvian State Radio and Television Centre (LVRTC), National Library of Latvia (LNB), Information Centre of the Ministry of the Interior (MIIC), and Ministry of Agriculture with Rural Support Service (ZM/LAD)), and **the improvement of their ICT infrastructure has been supported by 12.5 million euros until 2026**. The number of 10 to 25 platforms and systems included in the projects and coordinated with the MSARD, which will be transferred to the resources of these cloud computing service providers, is only a minor part of the several hundred different systems, registers, platforms and similar resources used in the country as a whole. According to the auditors' estimate, **state cloud computing services are used to operate approximately half of information systems, and when using their own or attracting other resources, state institutions are already using much more ICT computing resources (4.7 times more RAM and 7 times more disk array capacity)**

than the four state cloud computing service centres can provide.

Consequently, the planned activities and the attracted funding will not be enough at present, and the MSARD will have to look for a solution for further development. This also concerns the issue of attracting cloud computing services provided by private individuals to provide the missing ICT computing resources and additional services, which change in different planning cycles and do not provide state institutions with an unambiguous and clear message about the possibilities and conditions for using such services. The risk is created by the fact found in the survey conducted during the audit that already now **86% of state institutions have started using various types of cloud computing services at different levels of readiness** (both for deploying essential IS and only for deploying individual support systems or storing communication and document resources) **and 54% of state institutions plan to continue expanding the scope of cloud computing use,** including using cloud computing services provided by Latvian (11%) and foreign (44%) private individuals actively without existing clear rules for the selection and use of such services.

To plan, organize and coordinate targeted measures for the implementation of cloud computing services in conditions of limited resources (both financial and human resources), in the opinion of the State Audit Office of Latvia, identifying the initial situation, obtaining high-quality, complete data on existing ICT computing resources, estimating the ICT computing resources needed in the future, and then developing migration plans is important. However, the audit found that the MSARD has not identified and updated information for more than 10 years so that planning is data-based. In addition, the MSARD, as the ministry responsible for the ICT sector, has not set a goal for savings and has not made an estimate of the financial benefits from the implementation of cloud computing services, although **financial savings are an important factor in motivating state institutions to consolidate ICT resources**. The MSARD has indicated during the audit that the increase in security expected from the implementation of cloud computing services is in contradiction with the potential savings.

Most of the activities for the migration of the remaining ICT resources to cloud computing resources can only be achieved by attracting additional funding, and the state institutions draw attention to the lack of information on the process of attracting the necessary funding for the transition in the survey conducted during the audit. Consequently, in the opinion of the State Audit Office of Latvia, significant obstacles and difficulties are expected for state institutions to use cloud computing services, especially in circumstances where the state determines these activities as mandatory activities without clearly visible benefits, including financial ones.

The lack of information on the actual situation in sectoral data centres, the shortcomings of the analysis, the generality of activities, together with other shortcomings observed in the development planning documents and the delay in the implementation of tasks to date, indicate a high risk that the four data centre development projects launched for 12.5 million euros will not achieve the set goal of ensuring widespread and secure use of state cloud computing services by 2027 and abandoning the use of data centres established in state institutions. It will also prevent financial benefits from being achieved, and the set of circumstances indicated prevents an impartial assessment of the effectiveness of the implementation of the overall cloud computing service system, as well as the economy and efficiency [3] of the invested funds.

No national regulatory environment for cloud computing services has been established

The uniform operation of everyday services in accordance with the intended policy can be achieved with a clear regulatory environment. However, **the provision of services has been launched without such a uniform environment in Latvia**, which jeopardises the quality of services, security and standardization and the possibility of mutual cooperation and resource substitution in everyday life and in critical situations. It also requires appropriate monitoring of the operation of the implemented services, both with certain criteria and clear responsibility for its provision.

The existing regulation is not sufficient to ensure uniform implementation and a monitoring mechanism. The draft Cabinet Regulation on the operation of the state data processing cloud [4] developed by the MSARD have been in the process of improvement and harmonization for a long time, that is, more than a year, and the requirements set were not approved before the launch of the development and adaptation projects of the service providers regulated by this regulation and provision of state cloud computing services to state institutions. It also prevents the establishment of clear performance and quality monitoring indicators and their monitoring. Moreover, the approval of the Cabinet Regulation will not solve everything, as the MSARD further plans to develop other internal procedures and regulations related to the provision of cloud computing services for state institutions. The situation is similar with security requirements for data centres that will ensure the provision of cloud computing services, as this draft Cabinet Regulation of the Ministry of Defence is also only at the development and coordination stage. Security is recognised as the most essential aspect of assessing the choice of cloud computing services. However, the survey results show that currently only 57% of state institutions are clear about what security requirements should be assessed when choosing cloud computing services.

As a result, although a standardized cloud computing service environment is planned, **the four state cloud computing service providers and the state data processing cloud development projects they have initiated and coordinated with the MSARD are already developing different approaches.** Namely, in aspects such as the creation and description of service catalogues, the approach to cost and pricing, the availability of computing resources and readiness to provide cross-sector services, the possibility of storing backup copies and restoring system operations at other state data processing cloud partners in interconnected data centres.

The continuous development of the regulatory environment by the MSARD does not create a picture of a well-thought-out and reliable expected cloud computing service provision environment and also makes it difficult for state institutions to prepare for the upcoming changes in a timely manner and might deter state institutions from more active use of cloud computing services. If the MSARD does not define the security and quality requirements for service provision clearly and does not assess and monitor them regularly, it is difficult to create the prerequisites for such a cloud computing service provision environment where both customers and the owner of the state cloud can verify the continuous compliance of the services provided clearly and traceably with the basic requirements set by the state and their sufficient reliability. Without the analysis of these indicators, it is impossible to initiate the necessary changes in the performance of services in a timely manner to improve quality in

cases of undesirable deviations.

In its turn, the uncertain regulatory environment for public cloud computing service providers poses a risk to the interoperability of cloud computing service platforms created by each service provider into a single platform, as well as additional investments in the future to ensure compliance with mandatory requirements that are yet to be imposed.

Lack of uniform information about cloud computing services and practical support

In order to assess and select cloud computing services thoughtfully, a unified service catalogue, service descriptions, pricing methodology, service provision terms and contracts, as well as various practical support processes are required, which are currently not fully provided and depend on the approach of each service provider.

The audit has established that state cloud computing service providers list and describe their services currently in a different level of detail in the unified environment created by the MSARD. Two out of four service providers are only developing their service cost accounting and pricing methodology, new standard service contracts (currently used contracts do not meet 61% of the best practice criteria) and service usage procedures are still being developed, and only two service providers have additional information on their cloud computing services on their websites.

A unified support environment for service providers and users is also still being developed. One plans that the State Digital Development Agency (hereinafter referred to as the SDDA) will provide it in the future as a broker (such support was not envisaged in the initially developed draft regulation and was included only after eight months and objections from several state institutions), an intermediary between service providers and users. Currently, the resources provided by the MSARD do not include unified methodological materials, summaries of experience, training or standardised consultations on the assessment, selection and implementation of cloud computing services. Providing support is essential because the survey conducted during the audit revealed that only half of the state institutions were clear about where to look for information about service providers and the services they offered, and only a third of the state institutions were informed about the implementation guidelines previously developed by the MSARD. **State institutions expect much more practical information on various aspects of cloud computing implementation, and a third of the state institutions are not clear about what activities the MSARD expects from them in the implementation of cloud computing.**

While the criteria for selecting cloud computing and assessment procedures have not yet been determined, state institutions cannot compare the offered standardized services, choose the most appropriate ones and plan financing for their implementation accordingly. There is a risk that state institutions might choose and start using cloud computing services that are not appropriate for their specific activities, are of poor quality or even unsafe. The survey conducted during the audit shows that state institutions as customers carry out a detailed risk assessment of the selection and use of cloud computing services only in 43% of cases. The fact that basic information on public cloud computing services is not sufficiently transparent also does not contribute to effective development and continuous improvement of the quality of services so that they meet the needs of customers and they would be happy to choose these

services.

Key recommendations

Based on the audit findings, four recommendations were issued to the Ministry of Smart Administration and Regional Development for improving the implementation of state cloud computing services:

- Implement the initiated cloud computing implementation policy to ensure a targeted transition to cloud computing services throughout the state administration;
- Safeguard coherence in the operation of the state data processing cloud and in the provision of services;
- Provide comprehensive information on cloud computing policy, laws and regulations, methodology and practical guidelines for service selection and implementation support to ensure a common understanding of the cloud computing service implementation policy and available support;
- Set significant quality and cost monitoring indicators for service providers, streamline their measurement and monitoring process centrally to ensure the provision of cloud computing services according to the initial intentions of the government.

References

1 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Unleashing the Potential of Cloud Computing in Europe (European Commission, 27.09.2012).

2 Reports of ministries and central government institutions (consolidated report on budget outturn (2_PB (Min) for 2020 and 2024): EKK2210 (expenditure on communication services); EKK2250 (IT services); EKK5120 (Licenses, concessions and patents); EKK 5140 (Creation of intangible investments); EKK5238 (Computer equipment, communication and other office equipment).

3 The principle of effectiveness concerns meeting the objectives set and achieving the intended results. The principle of efficiency means getting the most from the available resources. It is concerned with the relationship between resources employed and outputs delivered in terms of quantity, quality and timing. If there are several similar organizations, some of which are able to perform the relevant activities cheaper while maintaining constant quality, faster, with higher quality or more, this can be used as a criterion for others to strive for. The principle of economy means minimising the costs of resources. The resources used have to be available in due time, of appropriate quantity and quality, and at the best price. GUID 3910 "Central Concepts for Performance Auditing, paragraphs 8 a), b), 38, 41.

4 Draft Cabinet Regulation "State Data Processing Cloud Regulation" prepared by the Ministry of Smart Administration and Regional Development (project ID 24-TA-1050). Available at https://tapportals.mk.gov.lv/legal_acts/cec7dbd3-e9a1-4a3b-83a8-f403f585e5b4 (accessed on 1 August 2025).