



FOLKETINGET
STATSREVISORERNE



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RIGSREVISIONEN

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The authorities' portfolio management of critical IT systems

1. Introduction and conclusion

1.1. Purpose and conclusion

1. Government IT systems provide a range of essential services to, for instance, the financial sector, the judicial system, the health sector and the transport sector. Most of the services support critical infrastructure and are vital – not only to the operations of government but to society in general – and in the event of a breakdown, authorities, citizens and companies can be affected. It is, therefore, essential that government authorities have a clear picture of the state of their critical IT systems, as the authorities are responsible for maintaining, updating and ensuring an adequate security level of the systems.

Rigsrevisionen has highlighted problems relating to the state of the government's critical IT systems and IT security in general in several earlier reports. Rigsrevisionen, therefore, took the initiative to do the study in October 2022 to assess the authorities' management of their system portfolios, which is essential to mitigate security issues.

2. In 2018, the Danish Ministry of Finance implemented a mandatory model for portfolio management of government IT systems. The background for implementing the model was the government's strategy for managing government IT systems from 2017. The strategy reflected the fact that there are significant differences in the level of maturity of public-sector IT-organisations and that several authorities lacked the necessary resources, competencies and experience to develop and maintain their critical IT systems. Additionally, information collected by the Ministry of Finance in 2018 and 2019 on critical IT systems and IT-projects with cost budgets exceeding DKK 5 million showed that critical IT systems were challenged.

The model for portfolio management of government IT systems requires the authorities to map all their IT systems every three years, including systems that are essential to society as well as to the function of the authorities. The mapping provides an overview of the number and state of the authorities' critical IT systems. Based on this information, the authorities prepare action plans that address the challenges identified through the mapping exercise.

In 2021, Statens It-råd (the government's council for IT) established that 15% of the IT systems that are critical to the functioning of society and just under 30% of the IT systems that are critical to the function of the authorities still had not been mapped. The council also noted that many of the authorities' critical IT systems were not in a satisfactory technical condition.

Model for portfolio management of government IT systems

All authorities with annual IT costs exceeding DKK 30 million and/or responsibility for IT systems that are critical to society are required to manage their IT systems in accordance with the model.

Critical IT systems

The model for portfolio management of government IT systems operates with three categories of IT systems: systems that are critical to society, critical to the functions of authorities and non-critical systems. These two categories combined represent all critical IT systems. It is for each authority to categorize its systems.

Statens It-råd

The council was established in 2011, and the government appointed senior managers from the public and private sectors to serve on the council and advise public-sector authorities on managing IT-projects and IT-portfolio management based on risk assessments and reviews.

3. The purpose of the study is to assess whether the authorities' portfolio management of critical IT systems has been satisfactory.

The study includes 11 authorities under five ministries that have done the mapping and been reviewed twice by the Statens It-råd. They are the Danish Business Authority, the Danish Financial Supervisory Authority and the Danish Maritime Authority (under the Ministry of Industry, Business and Financial Affairs), the Department of Civil Affairs, the Danish Court Administration and the Danish Prison and Probation Service (under the Ministry of Justice), the Danish Geodata Agency, the Danish Meteorological Institute and the Agency for Data supply and Infrastructure (under the Ministry of Climate, Energy and Utilities), the Ministry of Children and Education and the Ministry of Immigration and Integration. Among the 11 authorities, Rigsrevisionen selected four that are included in parts of the study.



Main conclusion

It is Rigsrevisionen's assessment that the authorities' portfolio management of critical IT systems is not entirely satisfactory, and the basis upon which the authorities have made decisions on strategic priorities and investments in improving the state of their systems may, therefore, have been inadequate.

The mapping made by the authorities is not always providing an adequate overview of the state of their critical IT systems

Generally, the authorities have become better at mapping the state of their critical IT systems. However, the authorities' latest mapping shows that the technical condition of approx. 25% of the authorities' critical IT systems is not satisfactory.

In the most recent mapping done by five of the 11 authorities, the authorities have answered "don't know" and "0" to at least one out of three questions that, in the opinion of Rigsrevisionen, are so essential that the authorities should be able to answer them. One of the questions to which the authorities have answered "don't know" concerns whether all relevant security updates have been implemented.

The action plans prepared by the four selected authorities are not sufficiently supporting their work with the critical IT systems

In their action plans, the four selected authorities have prioritized the IT systems they intend to work with. However, the authorities have only, to a limited degree, defined activities for follow-up. Moreover, they have set measurable success criteria for only approx. 30% of the activities included in the authorities' most recent action plans, and resources have been allocated to the implementation of only approx. 20% of the activities.

Several authorities have informed Rigsrevisionen that they do not allocate resources specifically to implementing in-house activities. The four selected authorities also informed Rigsrevisionen that allocating resources to activities scheduled for implementation in two or three years is difficult, as budgets generally are set for one year at a time. It appears from the model for portfolio management of government IT systems that the authorities are required to estimate the amount of resources required to implement each individual activity. This step is necessary to ensure that the authorities have the resources to implement the activities in their action plans.

The four selected authorities have generally monitored the progress of activities

The study found that the four selected authorities generally reported progress of the activities to the Statens It-råd. However, the authorities have not in all cases reported the progress of each individual activity.