DG DIGIT

Unit.B2 (Interoperability Unit)

Open Source Software Country Intelligence Report

Czechia

2023

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Executive Summary

Until 2023, the Ministry of the Interior was the central body responsible for the development and supervision of OSS in Czechia as part of its work on the digitalisation of regional offices and municipalities through eGovernment initiatives to improve the performance of the Czech public administration. Since 2021, there has been important cooperation between the Czech Ministry of the Interior and Open Cities (Otevrena Mesta) NGO. The main area of cooperation is the code.gov.cz[1] repository that enables sharing open source projects across the public sector in the Czech Republic. Moving forward, it should also serve as a space for cooperation in open source initiatives and teams within the public sector. User-friendly methodology is necessary for real progress to be made in the OSS in the public sector (for example, how to use OSS in public institutions; how to develop OSS with special security requirements, etc.), which is the vision of code.gov.cz repository in the future. The government programme Digital Czechia also promotes the use of OSS within public administrations, particularly with regard to preventing vendor lock-in.

Since 2023, digitalisation agendas have been transferred from the Ministry of the Interior to the newly created Digital and Information Administration (DIA). The DIA is to be operational starting April 2023 and is independent of other ministries. The reorganisation of this structure also included the re-assignment of the pre-existing Department of the Chief Architect of eGovernment or the Government Council for the Information Society (RVIS), chaired by the Deputy Prime Minister for digitalisation, to the DIA. The DIA is divided into action units which will take over information systems that are shared across the public administration such as basic registers, CzechPoint, and the Citizen Portal. They will also set and enforce standards for digital services, user-friendliness, unified government, and design. One of these units' envisaged tasks is training public officials to use open source software. This new body will also be responsible for creating new services, one of their first projects being a mobile electronic wallet.

At the central level, ICT projects originating from public administrations throughout Czechia are approved by the Chief Architect of eGovernment, who sets out national interoperability policies and governs the National Architecture Plan. As part of this approval process, the Chief Architect invites public administrations to consider the use of OSS for solutions they are developing. If a public administration decides to use OSS, any additional customisation of the existing source code should be published for further sharing and reuse throughout the public sector. The decision to use OSS is evaluated based on criteria such as acquisition, maintenance, and support costs.

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[1] http://code.gov.cz

The use of OSS solutions in public administrations in Czechia has increased over the last years. Through the recent reorganisation of their digital administration, the government has raised the coordination possibilities among the different initiatives on digital policy. There are diverse OSS initiatives and strategic players at all levels of administration in Czechia, and some of their latest projects aim at enhancing collaboration to increase efficiency. This could lead to a coordinated approach to the use of OSS in public administrations, together with the further development of the country's digitalisation.

Actors

This section presents the key governmental bodies that are responsible for setting OSS policies and the main strategic players that work together with the government at all levels to raise awareness of OSS.

Policy makers

- The Digital and Information Agency (DIA) is the Czech central administrative authority for electronic identification, trust services, and public administration information systems. It was established on 1 January 2023 and will take over full competence over the administration of the basic registers, the administration of CzechPoints, and the Citizen's Web Portal from the Ministry of the Interior. The Agency is to be fully operational in 2023, and it is to introduce new services such as the electronic service eDokladovka. The Agency was established by amendment 471/2022 of Act No. 12/2020 Coll[2] on the Right to Digital Services.

- The Government Council for the Information Society (RVIS) is the permanent governing, advisory, initiating, and coordinating body of the government for the development of digital services in public administration and for the area of eGovernment.[3] Until 27 August 2022, the Council operated under the auspices of the Ministry of the Interior, and since then, it has been led by the Deputy Prime Minister for Digitalization

- The Ministry of the Interior[4] was the central authority in Czechia responsible for home affairs and policies pertaining to the modernisation of government administrations until 2023. A key task of the Ministry was to digitalise regional offices and municipalities through eGovernment initiatives in order to improve the performance of the Czech public administration. The agenda for increasing the use of open source solutions in the public sector was the responsibility of the eGovernment Department within the Ministry of the Interior.

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[2] § 2a paragraph 4 of the Act 12/2020 Coll. as amended from 1 January 2023.
[3] https://www.vlada.cz/assets/ppov/rvpis/statur-RVIS-2022.pdf
[4] https://www.mvcr.cz/soubor/public-administration-in-the-czech-republic.aspx

Strategic players

- The National Cyber and Information Security Agency (NÚKIB) is the central administrative body for cybersecurity, including the protection of classified data in information and communication systems and cryptographic protection. It is also responsible for implementing the public regulated service of the global navigation satellite system under the Galileo programme. It was established on 1 August 2017 by Act No. 205/2017 Coll., Amending Act No. 181/2014 Coll. on cybersecurity and on amendments to related acts (the Cyber Security Act). NÚKIB has also created a list of safety recommendations connected with OSS development in the public sector[5]. The list is one of the methodology elements of code.gov.cz repository. NÚKIB is a strategic partner in OSS politics and in the Czech eGovernment.

- National Agency for Communication and Information Technology (NAKIT)[6] was established on 1 February 2016 as a service organisation of the Ministry of the Interior of the Czech Republic. It provides information and communication technology services using more than 40 regional offices. The agency's status defines a wide range of activities and gives NAKIT the task of building new services related to IT infrastructure, application, and cyber-security. These services are mainly developed for rescue and security forces and public administrations.

- The Czech Open Society Foundation[7] advocates for improvements to services in public administrations by means of digitisation, innovation, and OSS solutions. They provide grants to organisations or people working to enhance the transparency and efficacy of public administrations. They also meet with citizens with an interest in OSS solutions for eGovernment services, organise events, and generally work to promote digital participation across Czechia.

- The Czech Centre for Science and Society (CCSS)[8] is an independent non-profit association that cooperates with organisations and individuals in Czechia and abroad. Their work focuses on the implementation of new communication and information technologies which have the potential to aid environmental protection efforts, risk management, agriculture, and rural sustainable development. They raise awareness of OSS solutions that have been financed by European Union initiatives and emphasise the importance of open data and OSS.

- Otevrena mesta[9] (Open Cities) is an association of 20 municipalities and regions which cooperate on open source solutions in order to save municipal resources and tackle common problems that public administrations face. Otevrena mesta has many special priorities,

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[5]https://www.nukib.cz/cs/infoservis/doporuceni/1827-nukib-a-ministerstvo-vnitra-vydaly-bezpecnostni-doporuceni-pro-vyvoj-otevreneho-softwaru/
[6]https://nakit.cz/en/
[7]https://osf.cz/en/
[8]http://www.ccss.cz/en/zkusebni-stranka/profil-ccss/
[9]https://www.otevrenamesta.cz/

including open data, online citizen participation, disclosure of contracts and good practices, open source solutions, and cooperation in digitisation across the public sector[10]. Otevrena mesta is also a strategic partner to the Ministry of the Interior in the development and promotion of the state code repository code.gov.cz in the public sector.

- Česko Digital is a community of IT professionals – developers, graphic designers, producers – who want to help the state and non-governmental organisations on a pro bono basis to simplify the process of digitisation in the public sector in Czechia, both for citizens and public administrations.[11] With over 5,700 volunteers in their community, they claim[12] to be the largest civic-tech organisation in Europe.

- Bison[13] is a non-governmental organisation whose name is short for "building and implementing of shared open source tools". The goals of the organisation are as follows:
  - To ensure optimal and efficient support of public administration performance through unique software solutions developed in public administration environment by public administration entities.
  - To create a unified, clearly defined platform for the development and dissemination of open-source software projects within public administration in order to support the highest quality performance of public administration and to optimise the resources necessary for the further development of open and shared software solutions in public administration.
  - To provide public administrations with the certainty of implementing proven and already working software solutions, including support, advice, and transfer of experience.
  - To share the know-how of individual public administrations among other public administrations while minimising costs as far as possible.

- Open Content[14] acts as an educational and integrative institution in the area of "open" aspects of our society, particularly in the areas of open data, education, research, access to state administration as well as issues of the Creative Commons licence family which represents an accessible option to contribute to the open culture through licensing own works.

Policy and legal framework

This section summarises the main open source software-related policies and legal acts of the last ten years, including the first known milestone in this domain. The list is presented in chronological order, starting from the most recent milestone.

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[10] https://www.otevrenamesta.cz/
[11] https://cesko.digital/
[12] https://cesko.digital/about
[13] https://www.spolek-bison.cz/
[14] https://www.opencontent.cz/

- The Czech implementation of the European Directive 2019/1024[15] on Open Data and the Reuse of Public Sector Information (the "OD Directive") was adopted in August 2022. One of its objectives is to support the provision of information and data in a way that makes it as easy as possible to reuse, notably through Open Data. To support this regulation, diverse amendments to existing regulations have been adopted.[16]

- On 1 February 2022, the Act No. 261/2021[17] Coll. entered into force, amending over 160 legal regulations to facilitate and accelerate the digital transformation of national public administration.

- In 2019, the Right to Digital Services Act (law nr. č. 12/2020 Sb.) was passed. The act emphasises the expansion of digitisation and eGovernment across the public sector.[18] Vladimir Dzurilla, the Chief Digital Officer in Czechia[19], has acknowledged the innovation potential of OSS in public administrations. In the context of this law, he intends to integrate an open source element into the Czech government portal, upon which other services could be built in the future.

- Enacted in 2018, the government programme Digital Czechia[20] expands on previous policy developments in relation to the modernisation of public administrations using eGovernment initiatives. The main objectives of Digital Czechia are to ensure the readiness of the public sector for rapid implementation and changes caused by digitisation, improve digital structures, and foster connectivity and trust in the digital environment. Furthermore, there is a chapter of the programme dedicated to open source solutions titled "Action Plan against vendor lock-in using open source solutions".

- The Czech Open Government 2006 Initiative[21] was launched to examine the future potential of OSS solutions within Czech public administrations. The possibility of the public administration acting as a producer of OSS solutions, rather than just a user thereof, was explored. At the time, however, there were legal issues to be addressed regarding the validity of OSS licences in light of Czech copyright regulations, the civic code, and contractual laws.

- The Czech Information and Communication Policy 2004[22] already encouraged the use of open standards in order to facilitate interoperability between and within Czech public administrations. At this time, the Czech Government recognised that open standards are a

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[15]https://eur-lex.europa.eu/eli/dir/2019/1024/oj
[16]https://data.gov.cz/%C4%8Dl%C3%A1nky/implementace-sm%C4%9Brnice-o-otev%C5%99en%C3%BDch-datech
[17]https://wipolex.wipo.int/en/legislation/details/21272
[18]https://www.zakonyprolidi.cz/cs/2020-12
[19]As reported in April 2020
[20]https://joinup.ec.europa.eu/sites/default/files/inlinefiles/Digital_Government_Factsheets_Czech%20Republic_2019.pdf
[21]https://ec.europa.eu/idabc/servlets/Doc6c34.pdf?id=24855
[22]https://ec.europa.eu/idabc/servlets/Doc5a7c.pdf?id=24853

prerequisite for OSS solutions;therefore, they began working to increase the use of OSS solutions in public administrations by providing methodological support and access to information.

Open source software initiatives

This section presents an overview of the main open source software-related initiatives in Czechia. The list is presented in chronological order, starting with the most recent initiative.

- Brno Declaration[23], 2022: Four associations published the Brno Open Source Declaration, which lays the path for the creation of the Czech National Open Source Programme Office (OSPO). Among others, the declaration plans for:
  - Signing a memorandum of cooperation with other actors from public and private sectors.
  - Signing the Manifesto of the EU public services OSPO.
  - Cooperation between Czech and international open source communities to establish a functional cooperation on particular projects.
  - Development of the Czech National open source Portal code.gov.cz and collaboration with the DIA.
  - Monitoring and promoting the activities and case studies of Czechia in the area of open source towards the public sector and academic institutions.
  - Establishment of the Czech National OSPO.

- CSGOV.cz[24], 2019: This project aims to facilitate the creation of a website for small municipalities and organisations to launch a simple yet flexible platform that can be expanded according to their needs and at minimal cost. Their software is open source and based on Drupal. They have also been developing it for Slovak local governments.

- Dotační Software 2[25], 2020: or DSW2 is a tool that enables the receipt, processing, and management of subsidy applications in open data. The project is currently being used, or tested, in several parts of Prague and other municipalities in Czechia.

- CityVizor, 2019[26]: CityVizor is an online visualisation platform used by 18 Czech municipalities and some city districts in Prague. The platform enables municipalities to show citizens how their money has been invested in their locality. CityVizor was developed as an OSS application by employees of the Ministry of Finance, maintained by Česko Digital, and it is now operated by the Open Cities association. The team is currently working on expanding the application for

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[23]https://cityvizor.cesko.digital/declaration
[24]https://www.csgov.cz/o-projektu
[25]https://dsw2.otevrenamesta.cz/about#:~:text=Dota%C4%8Dn%C3%AD%20software%20bude%20provozov%C3%A1n%20na,dota%C4%8Dn%C3%ADho%20port%C3%A1lu%20a%20technick%C3%BDch%20parametr%C5%AF.
[26]https://cityvizor.cz/landing

visualising the budgets of contributing organisations and optimising the connection to other accounting systems.

- Red Hat and the Czech Technical University, 2017[27]: In 2017, one of the leading providers of open source software solutions Red Hat opened an open source laboratory at the Faculty of Electrical Engineering at the Czech Technical University in Prague. Engineering students have the opportunity to work in collaboration with Red Hat's engineering teams on community-based OSS projects and research.

- Czech Public Broadcaster, 2015[28]: In 2015, the Czech government-owned radio broadcaster, Český rozhlas, switched from using a proprietary content management system to using the OSS solution, Drupal, on its website. The website uses Drupal with the aim of lowering costs.

- Supervizor, 2015[29]: Supervizor is an application used for the visualisation of expenses in institutions and public administrations, helping to provide transparency about government spending.[30] It was developed by employees of the Ministry of Finance of Czechia and is available on GitHub.

- SpisovaSluzbaOnline.cz, 2013[31]: In 2013, dozens of schools, municipalities and other public administrations implemented Spisovka, an open source electronic filing system. The software proved to be cost-effective, prevents vendor lock-in, and encourages the reuse of both the software itself and good practices. It was developed as a joint project of the Open Source Alliance and the Ministry of the Interior of Czechia.[32] Notable Czech public institutions using this OSS solution include the National Gallery in Prague and the Moravian Library in Brno.

- CzechPoint, 2007[33]: Since 2007, the Czech government has used a central information system that makes use of OSS solutions. CzechPoint allows citizens and enterprises to access certified documents and communicate directly with public administrations while public administrations can use it to share data among themselves. These services are provided at public administration contact points, identifiable by the blue CzechPoint logo. Aside from Suse Linux, CzechPoint uses the Tomcat Java application server. Open source tools such as Mrtgm Zabbix and Nagios are used to monitor and safeguard the system. CzechPoint is in the process of being updated at present. When complete, the system should be more open and be increasingly focused against vendor lock-in.

[27] https://www.redhat.com/en/about/press-releases/red-hat-opens-open-source-lab-czech-technical-university-prague
[28] https://www.root.cz/zpravicky/rozhlas-prevadi-weby-na-open-source/
[29] https://github.com/otevrena-data-mfcr/Supervizor
[30] https://www.europeandataportal.eu/sites/default/files/use_case_czech_republic_-_supervizor.pdf
[31] https://joinup.ec.europa.eu/collection/open-source-observatory-osor/news/czech-public-administrations
[32] http://www.spisovasluzbaonline.cz/spisova-sluzba
[33] https://www.czechpoint.cz/public/verejnost/sluzby-pro-verejnost/

- Vysocina Tourism, 2007[34]: In 2007, an allowance organisation of Czechia, Vysocina Tourism, implemented a tourist web portal using OSS. Zero-cost implications and the excellent functionality of OSS were the main motivations for this selection. In this instance, Apache 2, PHP4/5, Google API, MySQL databaseserver, Mozilla Firefox web browser, GIMP 2.6 graphical software, and Open Office were used.

- Open source in schools, 2006[35]: In 2006, an elementary school in the city of Šumperk began using GNU/Linux, an OSS solution. The school decided to stop paying for licences for proprietary operating systems and office applications. Instead, they used the money to increase the number of PCs from 20 to 31. The money that was saved was used to pay for a projector, a central server and improved networking facilities. Now there are two classrooms with a combined total of 120 PCs running entirely on GNU/Linux and other OSS solutions. Another Czech school, the Boženy Němcové Gymnasium, started using GNU/Linux as early as 1994.[36]

- Grygov, 2006[37]: Since 2006, OSS solutions have been used for most of the administration's applications, free public Internet access, and an SMS information system to keep the 1,400 citizens up to date on local issues. As a less-funded municipality at the time, the prospect of using OSS was promising from a financial perspective. Furthermore, the fact that the software is open source means that it is regularly updated, meaning that users are less likely to run into IT problems.

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[34]http://m.kr-vysocina.cz/assets/File.ashx?id_org=450008&id_dokumenty=4038665
[35]https://www.linuxexpres.cz/business/linux-a-open-source-resi-potreby-zakladni-skoly-v-sumperku
[36]https://www.linuxexpres.cz/business/gymnazium-bozeny-nemcove-pouziva-open-source-technologie
[37]https://www.linuxexpres.cz/business/grygov-diky-open-source-vycniva-nad-okolim-obcane-profituji

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