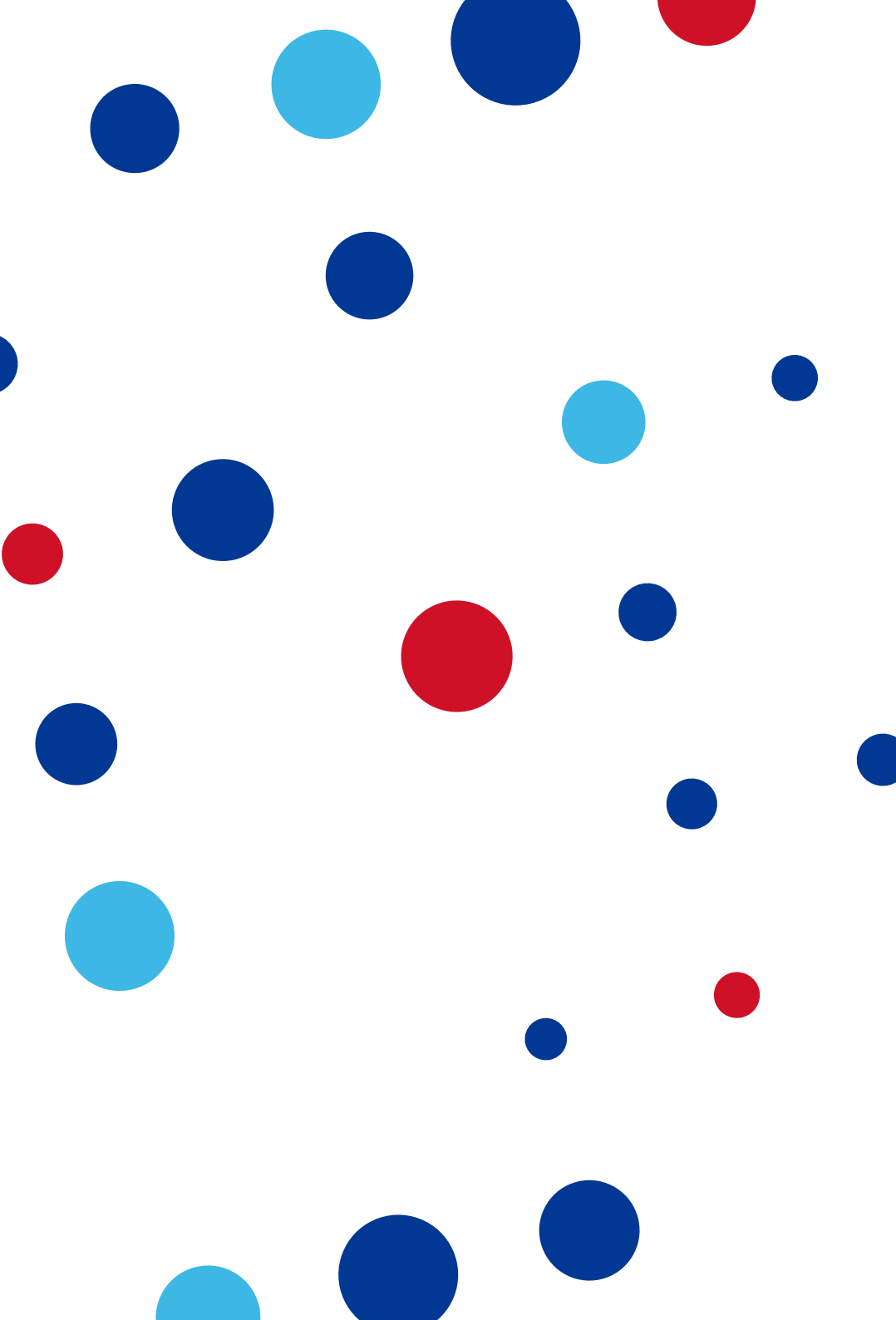


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1 Profile of the Association



CZ.NIC is a special interest Association of legal entities, an open and independent organisation whose main activity is the administration of the register of the top-level national .CZ domain, as well as ensuring the operation thereof.

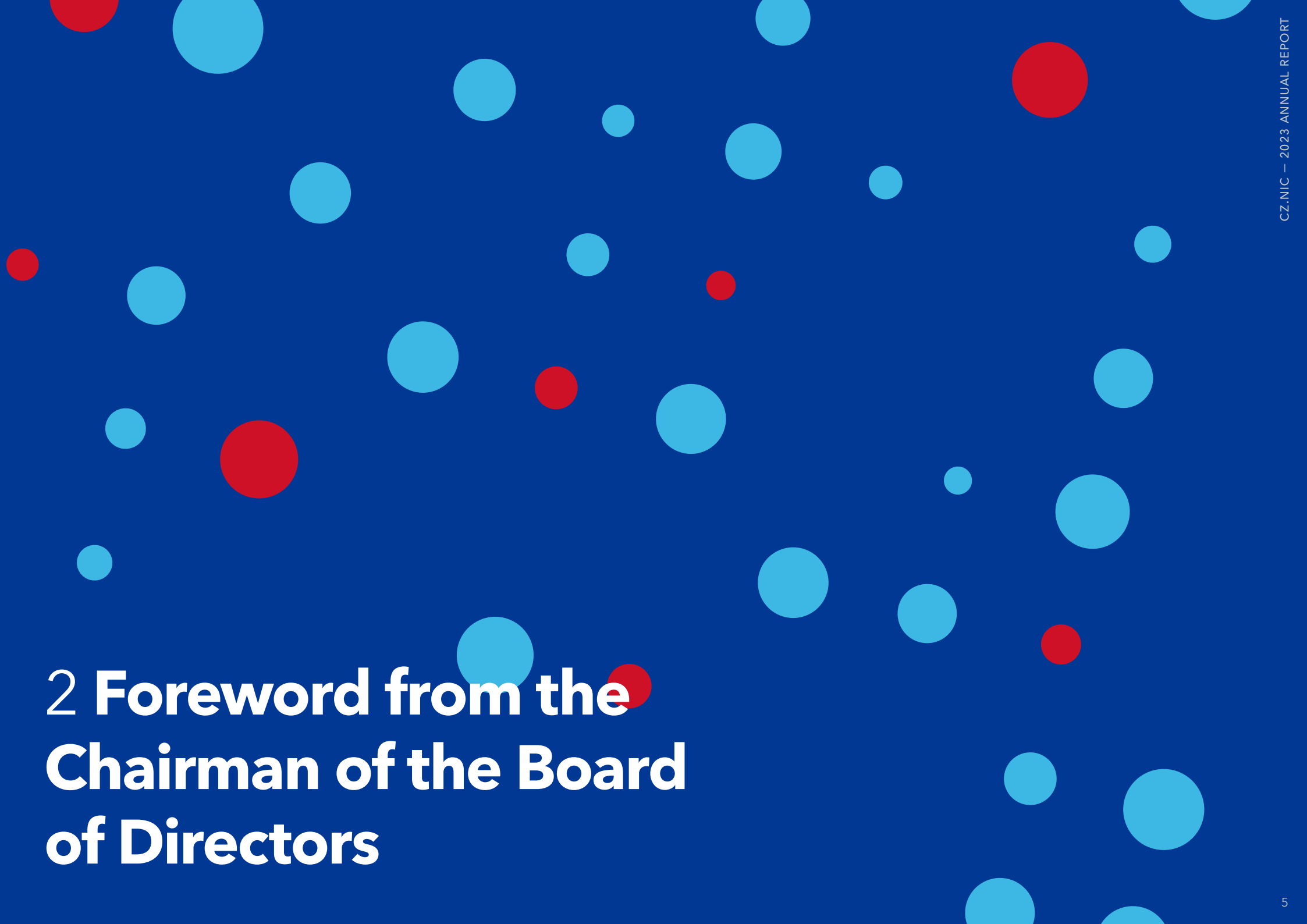
The activities of the Association in the field of security are of great importance, both through the CSIRT.CZ national security team and through security projects.

In addition to these activities, the Association is dedicated to research, development and awareness in the field of the internet, internet protocols, network traffic and new technologies in general. The CZ.NIC Association ranks the support and development of the internet community both in the Czech Republic and abroad among its long-term goals.

The CZ.NIC Association was established in May 1998, mainly as a result of the growing importance of the internet and, thus, the number of its users and those interested in registering domain names in ccTLD .CZ. At the end of 2023, the Association had 121 members divided into three chambers.

At present, the Association represents a stable and trustworthy entity capable of ensuring the reliable operation of the Czech national domain .CZ. Since 2013, the CZ.NIC Association has been the holder of the ISO 27001 certification, confirming the safe handling of information, including setting appropriate rules and procedures.

For domain name holders, registrars and other entities that use the internet for their work and leisure time, the Association is a reliable partner that not only provides domain name administration but also safeguards internet security and is involved in socially beneficial activities – in the form of both projects and awareness or educational activities.



2 Foreword from the Chairman of the Board of Directors

Ladies and Gentlemen,

We are pleased to present our annual report for the year 2023, in which we celebrated 25 years of our Association. This year was also a period of significant development, innovation and success for our Association, confirming our role as a key partner in the administration of internet infrastructure in the Czech Republic.

One of the key projects of 2023 was the continued modernisation of our DNS infrastructure. We also completed the upgrade of the second DNS node in the Czech Republic, increased performance, and opened new sites in South Africa and Australia. Thanks to these modifications, the entire system can handle up to 3/4 Tbps of traffic. Although the performance of the infrastructure was increased and the DNS response latency was reduced on average, we were able to reduce the number of servers and thus the overall power consumption.

The second significant achievement was the launch of the VIP domain service for demanding clients who can appreciate, among other things, the enormous performance and high reliability of our DNS infrastructure. The first customer of this service was HP Tronic with its datart.cz domain.

In 2023, the decision was also made to introduce a major innovation in the domain administration system. We started a project of auctioning cancelled domains, which will be launched next year.

We continued to develop the MojID identity system and a major redesign of the service is under way, which should significantly improve user experience and usability. Our vision with identities is long-term, which is why we joined the consortium working on the European Digital Wallet project.

We did not forget about the youngest internet users either and in co-production with Czech Television, Cinebonbon and Safer Internet Centrum we created a sequel to the successful series called Alenka v říši GIFů II (Alice in GIFland II). The thirteen episodes of the popular educational programme are aimed primarily at children who like to spend time online, but their parents will certainly appreciate it as well.

As part of the awareness-raising efforts, the CZ.NIC Edition published a book that is closely related to the main mission of the Association: Domain Name System, authored by Pavel Satrapa and one of the co-authors of this foreword, Ondřej Filip.

The year 2023 was also a good year in terms of management, with the approved budget being met. The positive financial result (portfolio income) had a particularly strong impact on the overall result. However, the slowdown in domain number growth suggests that it will probably be impossible to keep operating results in the black in future years without adjusting the price list.

We would like to express our deep gratitude to all those who supported us over the past year and contributed to our collective efforts to make the internet safer and more reliable. Our greatest thanks, of course, go to the employees of the Association for their hard work on which our success is based.

We thank you for your trust and support, and wish you pleasant reading of this annual report.

Sincerely,

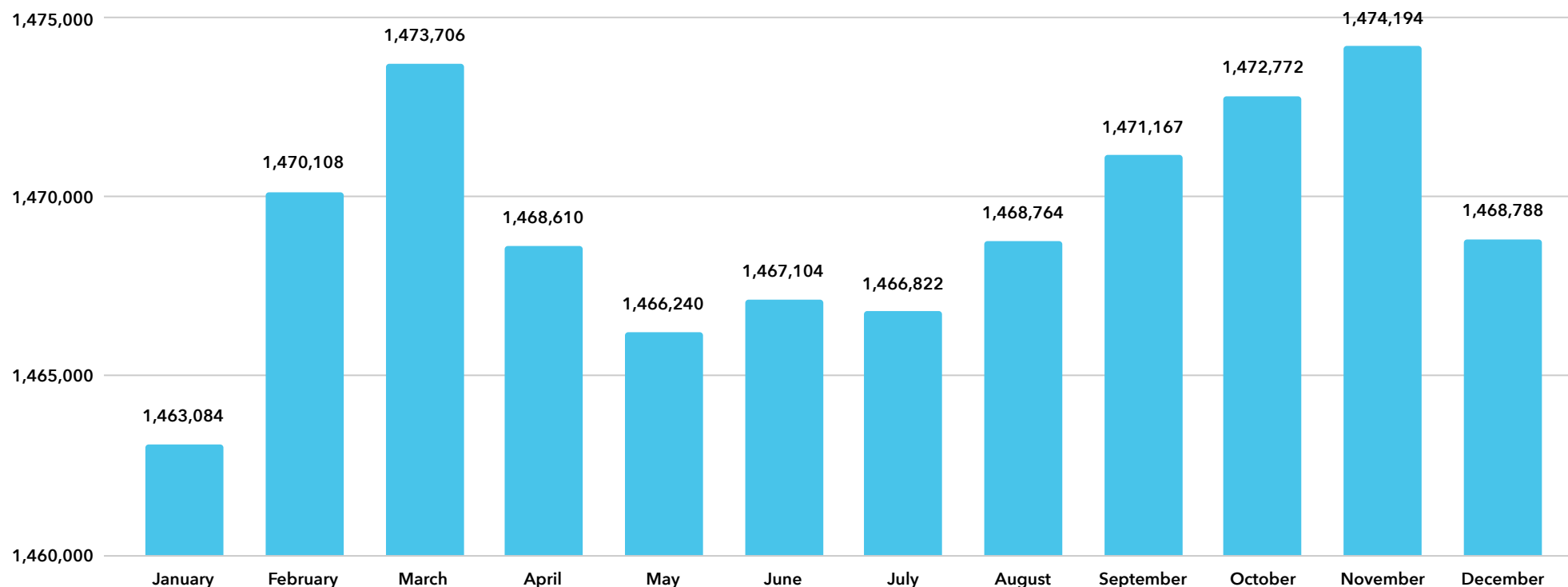
RNDr. Karel Taft, MBA - Chairman of the Board of Directors
Mgr. Ondřej Filip, MBA - CEO

3 The .CZ domain

3.1 Status and development of number of registrations

In the years 2022 and 2023, there was a slight decrease in the growth of the total number of .CZ domains from 3.8% to 2.7%. This may be due to the gradual return of business and social activities to the offline space after the COVID-19 pandemic.

Total number of registered .CZ domain names in 2023



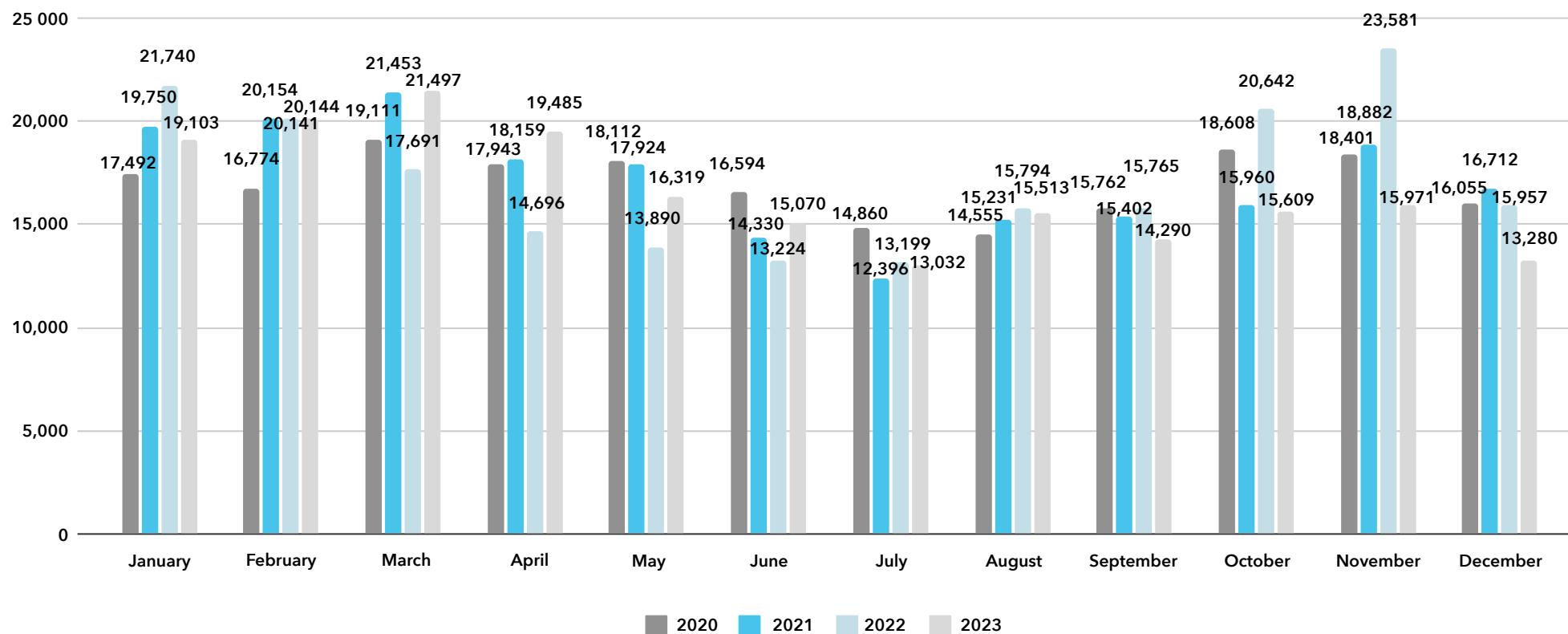
* The data in the chart is always as of the last day of the month; the increase in the number of domain names is calculated from 1 January to 31 December.

In 2023, year-on-year growth was lower – **0.4%**. The total number of registered .CZ domains at the end of the year was **1,468,788**.

The histogram below shows the monthly numbers of domain registrations over the last years. This is a comparison with 2020 and 2021, when the increase was influenced by the pandemic situation (COVID-19) in the Czech Republic. In 2022, the increase in the number of domains could have been linked to events in Ukraine.

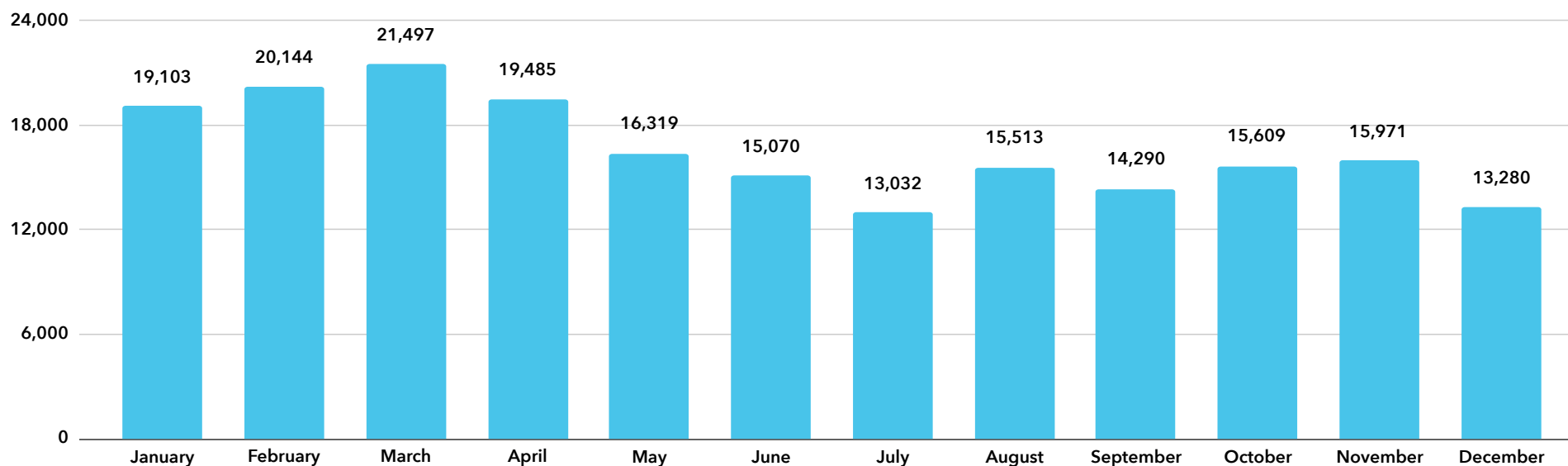
Registrations in 2023 followed a more usual course with no clear anomaly – during the year the numbers are comparable to previous years: a gradual increase from July and a decrease at the end of the year.

Number of domain registrations during 2020 - 2023

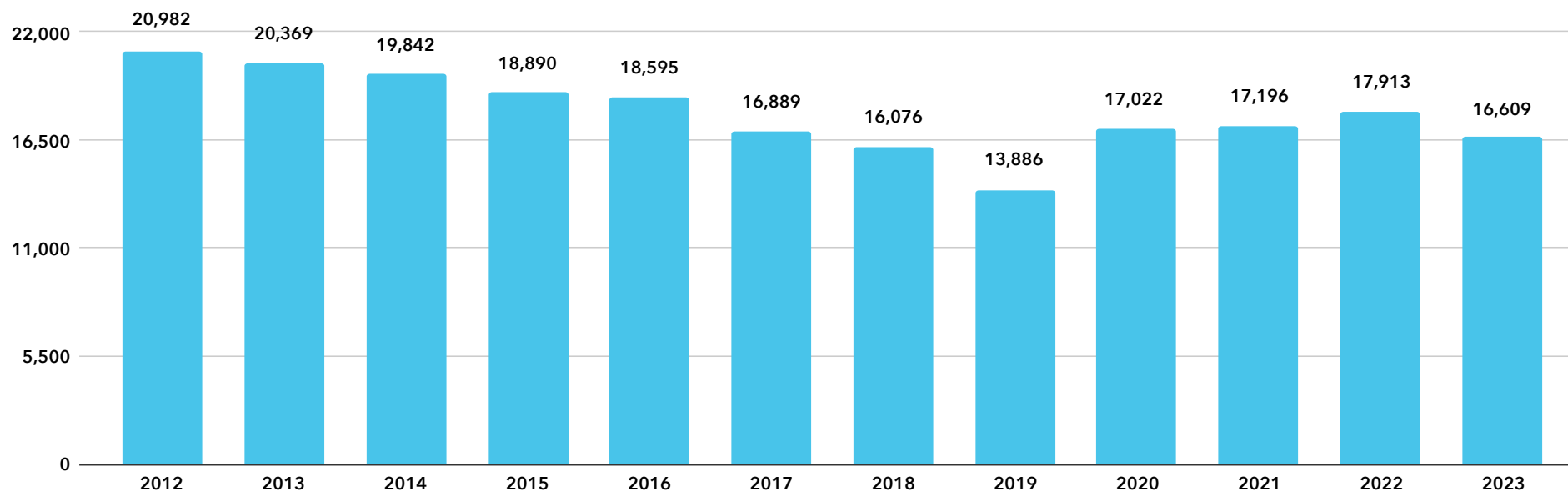


Number of newly-registered .CZ domain names in 2023

In 2023, an average of **16,609 new domain names** were registered **every month**. The increase in the number of registrations is slightly smaller than in the previous year.



Development of the average monthly number of new registrations



3.2 Publication of the list of domain names removed from the DNS

The CZ.NIC Association may decide to remove a particular domain name from the .CZ zone for several reasons. The effect of this intervention is that the services which are made available through such a domain name become unavailable (not completely, of course; they remain in place, but they cannot be found through the domain name).

This is most often the case if the holder's data is incorrect, incomplete or misleading and despite several requests it has not been corrected; other reasons may be decisions of public authorities (especially the police, but also the courts) or the application of Article 17 of the Rules of Registration of Domain Names (threat to national or international computer security, most often in connection with the spread of phishing).

The list of domain names currently removed from the zone is available on the Association's website and is intended to increase transparency in the removal of domain names from the DNS.

3.3 Registrars

The system of .CZ domain administration is based on a distributed principle in which the registration of domain names is carried out by **contractual partners of the CZ.NIC Association - registrars**. CZ.NIC acts towards them in a similar way to a wholesale partner, but also provides the technical aspects and functionality of the .CZ top-level domain.

During 2023, the Czech registrar ACTIVE 24, s. r. o. was transferred to the Slovak company Websupport s. r. o.

The new registrar from last year, SAV.COM, LLC from the USA, did not participate in the market at all after the conclusion of the contract and gave notice that it wanted to end the cooperation.

As of the end of 2023, **a total of 44 companies had concluded a registrar contract with the Association**, of which were 24 Czech and 20 foreign. This number of entities offers a broad choice for the end customer and also supports competition.

3.3.1 Overview of .CZ domain name registrars

List of all accredited registrars as of 31 December 2023

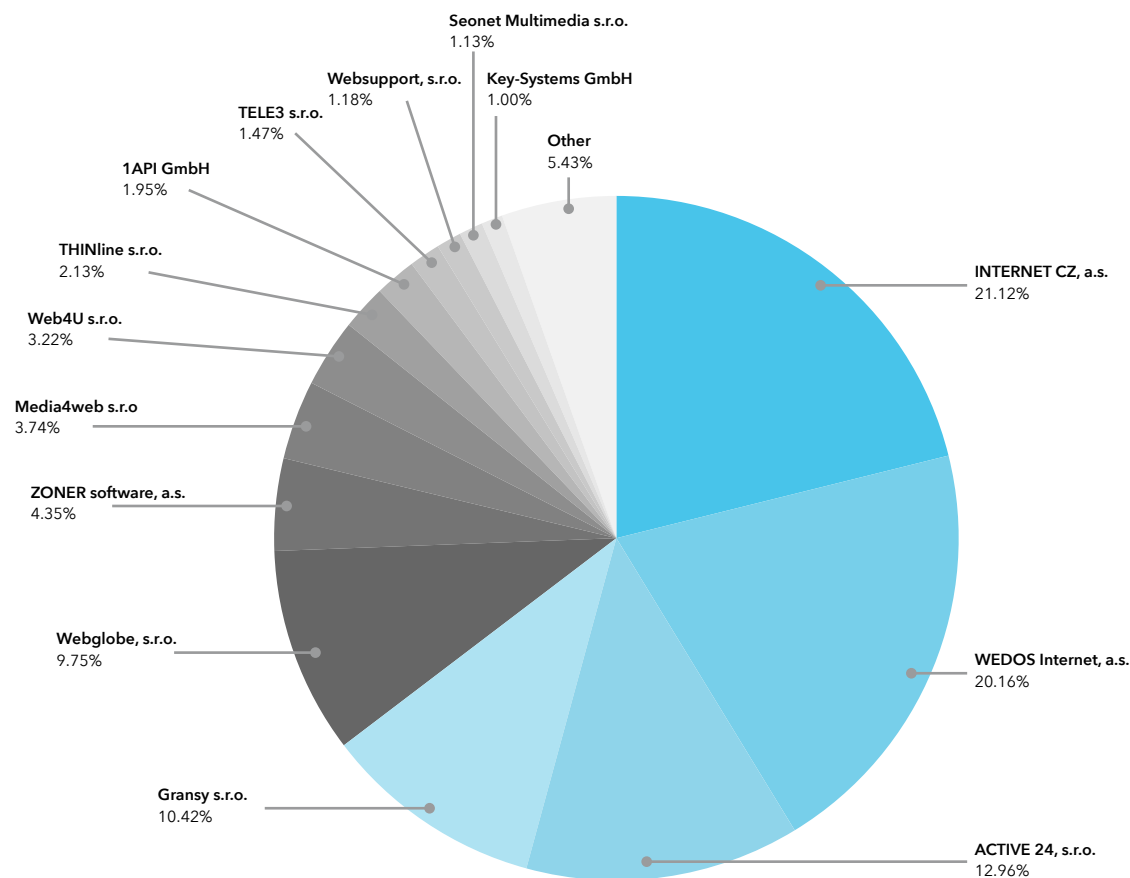
1API GmbH	nexum Trilog a.s.
ACTIVE 24, s.r.o.	Com Laude
AERO Trip PRO s.r.o.	ONE.CZ s.r.o.
Ascio Technologies inc.	Hosting Concepts B.V.
ASPone, s.r.o.	OVH, Sas
e-BAAN Net s.r.o.	PIPNI s.r.o.
CORE Association	Quantcom, a. s.
O2 Czech Republic a.s.	Safenames Ltd.
DomainProfi GmbH	SAV.COM, LLC
Gandi SAS	Seonet Multimedia s.r.o.
Gransy s.r.o.	Seznam.cz, a.s.
Instra Corporation Pty Ltd	TELE3 s.r.o.
INTERNET CZ, a.s.	THINline s.r.o.
InterNetX GmbH	ZooControl s.r.o.
Corporation Service Company	united-domains AG
(Singapore) Pte Ltd	Variomedia AG
Key-Systems GmbH	Web4U s.r.o.
KRAXNET s.r.o.	Webglobe, s.r.o.
Lexsynergy Limited	Websupport, s.r.o.
Markmonitor Inc.	WEDOS Internet, a.s.
Media4web, s.r.o.	ProfiHOSTING s.r.o.
MIRAMO spol. s r.o.	ZONER a.s.
Nameshield SAS	

3.3.2 Major domain name registrars

The most important registrar, according to the number of domains administered, was the same as in previous years - INTERNET.CZ, a.s., followed closely by WEDOS Internet, a.s., and then by ACTIVE 24, s.r.o., Gransy, s.r.o., and Webglobe, s.r.o.

Number of domains by registrars

The chart shows registrars with a market share of over 1%.



3.3.3 Certification of registrars

Launched in the middle of 2011, the certification project has the goal of making it easier for end users (i.e. parties interested in a new registration, as well as existing domain name holders) to find their way amongst the high number of registrars, particularly regarding their portfolios and the quality of service they offer. The certification methodology was prepared **in cooperation with registrars and the Association of E-commerce (APEK).**

Registrars that are interested in participating in the programme can receive the Certified Registrar logo, always for a period of one year.

At the end of 2023, seven registrars had five stars. For a long time, there has not been a registrar with only three stars or fewer among the certified registrars.

The service quality of registrars, reflected by the number of stars assigned

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
*****	3	6	8	9	10	10	9	9	9	8	7	7	7
****	3	5	4	3	2	2	3	3	3	3	3	2	2
***	2	1											
**	1												

Throughout the period under review, the programme was also being adjusted to be kept up to date and to better demonstrate to customers

the quality of the services offered. The new certification programme is expected to be introduced in 2024 and should also be linked to the co-marketing programme.

3.3.4 Cooperation with registrars

In accordance with its main activities and long-term objectives, the CZ.NIC Association aims to promote and support domain registration under the top-level .CZ domain. Given the distributed method used for the administration of the national domain, the CZ.NIC Association has limited options for addressing potential domain name holders through direct marketing.

Therefore, a **co-marketing programme** was established, in which CZ.NIC contributes (provided the prescribed conditions are met) to registrars for the implementation of communication campaigns aimed at promoting the registrations of domain names in ccTLD .CZ. The amount of the contribution depends on the size of the registrar, the volume of the campaign, and the fulfilment of other factors, such as the use of the MojelD service with a connection to NIA (which, among other things, influences the correctness of data in the register and the protection thereof) or domain security through DNSSEC, which are used by CZ.NIC to motivate the registrars to expand these technologies.

Also thanks to the co-marketing programme, the **Czech national domain .CZ is popular among users and is well and often visible**, for example on outdoor advertising. The high level of popularity of the programme is demonstrated by the number of registrars involved, as well as by the

volume of funds used. In 2023, the programme included eight registrars, to which the CZ.NIC Association paid a total of CZK 10,424,831.

3.3.5 Resolving disputes over domain names in ccTLD .CZ

It takes about two to three years to resolve a dispute in a general court, and this is only with the proviso that there are no complications that extend the duration of the dispute by another year or two (e.g. appeal proceedings). A lot happens in the internet environment in five years, so the Association tried to find an alternative way to resolve domain disputes faster and, at the same time, to make such a solution respectable, stable, and therefore effective. This is why the Alternative Dispute Resolution (ADR) system has been functioning since the summer of 2004. Until 2015, it took the form of arbitration, in which it was possible to conduct a dispute concerning a domain name with the Arbitration Court attached to the Economic Chamber of the Czech Republic and the Agricultural Chamber of the Czech Republic. The Arbitration Court considered over one hundred disputes during the ten years of the existence of this alternative method for solving disputes.

Following a decision by the Supreme Court at the end of 2013, there was a change, and in March 2015, the ADR system was introduced, the basic principles of which are essentially identical to those that have been successfully used in disputes over generic TLDs (UDRP) or domain names registered in the .EU top-level domain. The platform where the disputes take place is administered by a trusted entity on the basis of a concluded memorandum. That entity is the Arbitration Court attached to the

Economic Chamber of the Czech Republic and the Agricultural Chamber of the Czech Republic, which is one of the three permanent arbitration courts that exist in the Czech Republic. This permanent arbitration court enjoys considerable authority, with the undeniable advantage of the possibility of online proceedings.

However, the ADR system used since 2015 is not an arbitration procedure within the meaning of the arbitration law, which is also reflected in the terminology used. The system is based on a contractual arrangement and only a domain name transfer or cancellation can be claimed therein. Other claims, e.g. for compensation for damage, issuance of unjust enrichment, removal of a defective condition, or entitlement to adequate satisfaction, need to be brought before the court with legal jurisdiction. The decision that has been issued is not an enforcement title for the execution of the decision; the ongoing dispute in the new ADR system does not constitute an obstacle to *lis pendens* (i.e. ongoing proceedings in the same matter), and a resolved dispute does not constitute an obstacle to the resolution of the case. The same claims can, therefore, be brought to a general court during the proceedings or afterwards.

More than six years of using the new ADR system shows that this dispute resolution system has been accepted and that its popularity is stable:

Year	Number of disputes initiated in ADR
2015	7
2016	20
2017	22
2018	22
2019	29
2020	29
2021	22
2022	25
2023	33

Of general courts, the Municipal Court in Prague is the one that most often decides disputes over domain names, especially in view of the fact that it is a specialised court for, inter alia, competition and intellectual property disputes. In the case of so-called domain name disputes, these are the most frequently violated rights. In conclusion, it should be noted that the **majority of claimants, the owners of the rights, leave the** Arbitration Court attached to the Economic Chamber of the Czech Republic and the Agricultural Chamber of the Czech Republic with their claim being **satisfied**, and they usually receive the Expert's decision within three months of the commencement of the resolution of the dispute.

3.3.6 Customer support

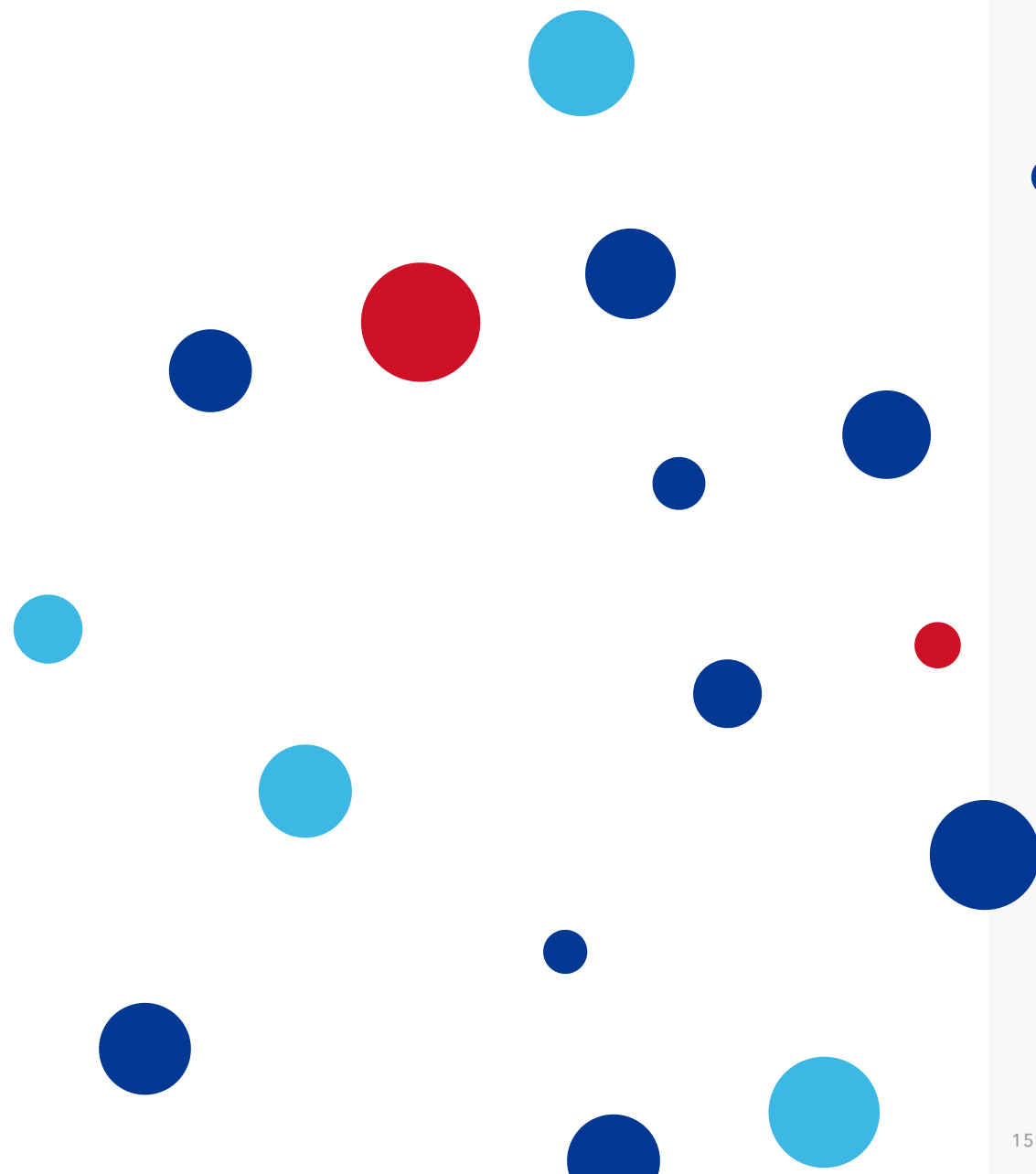
Customer support being available **24/7** is an integral part of securing the operation of the .CZ domain.

The main objective of customer support is **to provide the best possible care to domain name holders**, particularly in situations where a domain name is to be cancelled or transferred, or where contact details change. Assistance for MojID service users is also an integral part of customer support.

Customer support prides itself on a proactive approach to domain name holders. It aims to eliminate the possibility of a domain name being removed from the zone and cancelled as a result of, for example, an outdated contact or an omission of payment. Given the distributed .CZ domain administration system, customer support is the only case in which the CZ.NIC Association is in direct contact with domain name holders.

In addition to the standard emails which notify customers especially that their domain registration has not been renewed for the next period, our

customer support has manually checked almost 250,000 domains before their removal from the .CZ zone (i.e. before being effectively disabled) or contacted by phone or text message more than 190,000 holders who were threatened with domain name cancellation.



Development of individual customer support tasks

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Manual check of domain names before elimination	-	8,916	15,176	18,586	21,598	20,512	20,894	21,834	21,437	20,867	19,947	18,658	20,544	22,672
Manual check of domain names before cancellation	-	4,314	11,061	14,378	16,666	16,041	16,529	16,864	17,000	16,869	15,814	15,050	16,160	18,431
Calls to holders (contacts) of domain names scheduled for cancellation	4,263	4,314	4,767	6,690	7,808	7,367	7,826	7,573	790	904	632* ⁴	444* ⁴	552* ⁴	413
Text messages - information about upcoming domain name cancellation	-	-	-	-	-	-	-	8,139* ³	8,948	9,859	8,946	9,028	9,510	10,575
Emails sent before exclusion	1,201	1,429	1,708	1,716	1,915	1,718	1,849	3,157	2,826	3,036	2,554	2,066	3,633	1,477* ⁵
Responses to email inquiries	828	1,240	1,746	1,945	2,782	3,015	2,074	2,319	2,080	2,802	3,646	3,245	2,783	2,762
Responses to telephone inquiries	561	1,063	1,120	1,242	1,416	1,262	1,227	994	774	720	768	1,547	1,393	1,099
Requests (validation, blocking...)	145	180	248	315	455	405	701	776	559	363	246	162	155	182
Chat inquiries	-	-	-	-	-	166* ²	132	114	168	262	460	1,295	503	724
Manual data accuracy check	-	-	-	-	1,073* ¹	875	953	1,372	1,628	1,170	1,701	1,188	1,387	1,437

The data represents the average number of the given activities per month

*1 Monthly average from July 2014, when the practice of manual data review was introduced.

*2 Monthly average from April 2015, when the service was launched.

*3 Monthly average of text messages sent in the second half of 2017.

*4 Because of the limited operation of offices during the pandemic, the statistics take into account only a portion of the calls made.

*5 Only unique email addresses are counted in the statistics. If the same email appears in multiple domains, it will only be included once.

4 Infrastructure

4.1 Data centres

The DSDng central register system is fully redundant. All hardware and software is located in three mutually independent locations:

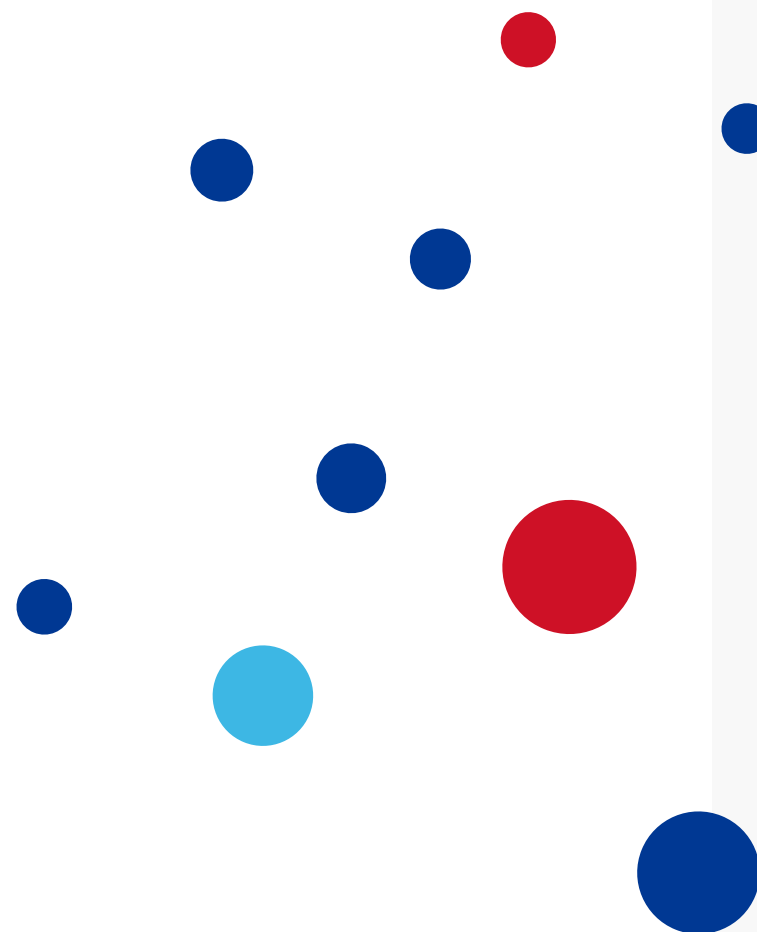
- the DC TOWER data centre of České Radiokomunikace in Prague 3,
- the CE Colo data centre in Prague 10,
- a non-public location outside Prague.

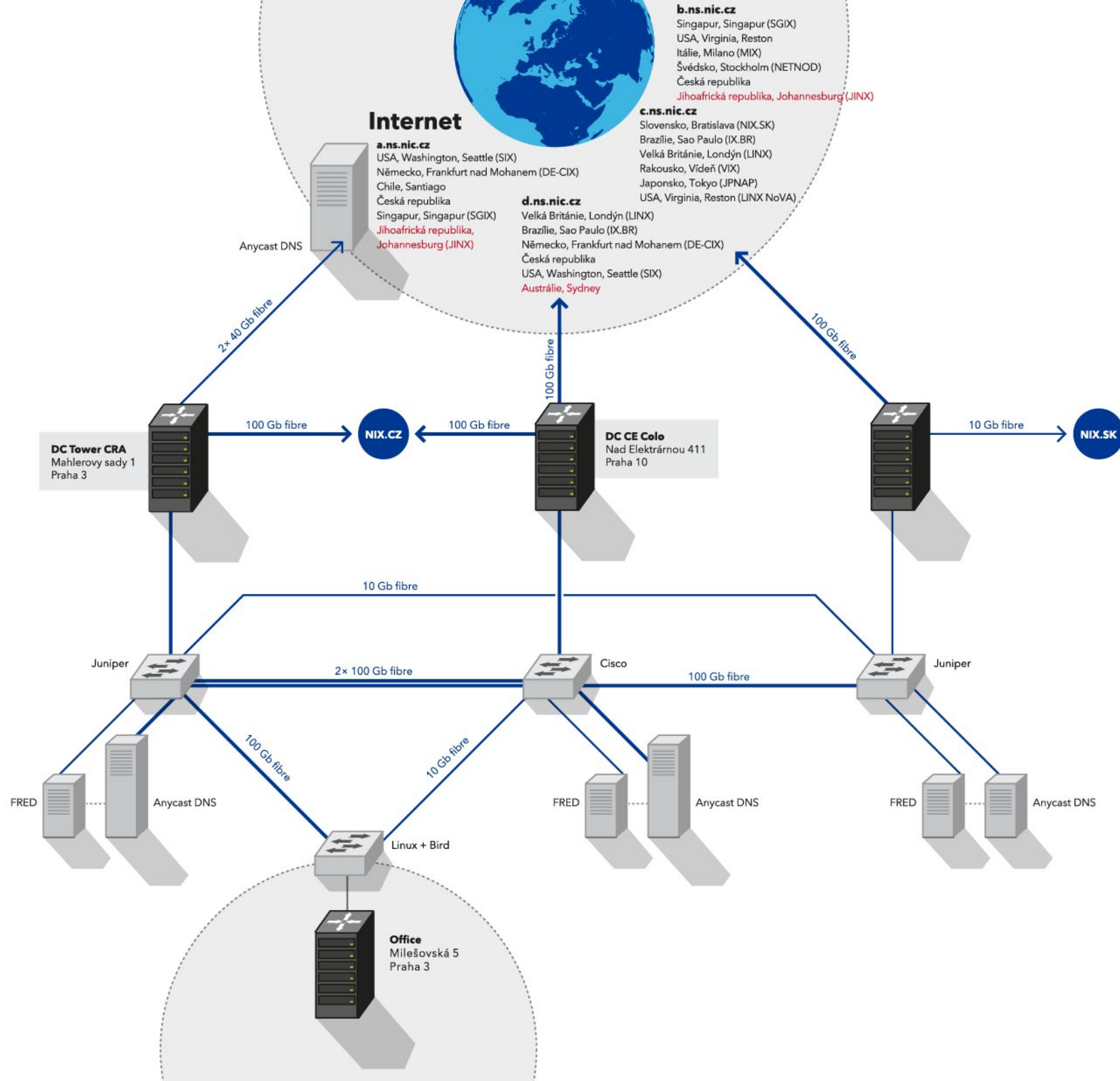
All these locations have their own internet connection, as well as a connection to the electrical distribution network. The DC TOWER data centre is connected to the distribution network from three independent transformer stations, while the CE Colo data centre and the location outside Prague are supplied from two transformer stations. A back-up power supply is available in all data centres via UPS, and possible longer electricity outages are bridged by power from diesel generators.

In 2023, the CZ.NIC Association retendered data centre services for the non-public location outside Prague. The competition resulted in a decision to move to new premises with a higher level of physical security and better energy efficiency. The actual relocation of the technology will take place in the following year.

As part of the network infrastructure development, the foreign connectivity in the DC TOWER site was strengthened from 20 Gbps to 80 Gbps.

Furthermore, in 2023 the Association passed the re-certification of meeting the technical requirements of the FENIX project.





4.2 Technical aspects of domain administration

The infrastructure of the register carefully follows the rules of diversity of hardware equipment so that a possible error of a particular hardware manufacturer affects only a part of the infrastructure, thus minimising the possibility of the failure of the central domain register as a whole. Therefore, technologies from different manufacturers are installed in every location. The same approach is also used by the Association for authoritative DNS (Domain Name System) software, which it operates on three different systems (Knot, Bind and NSD).

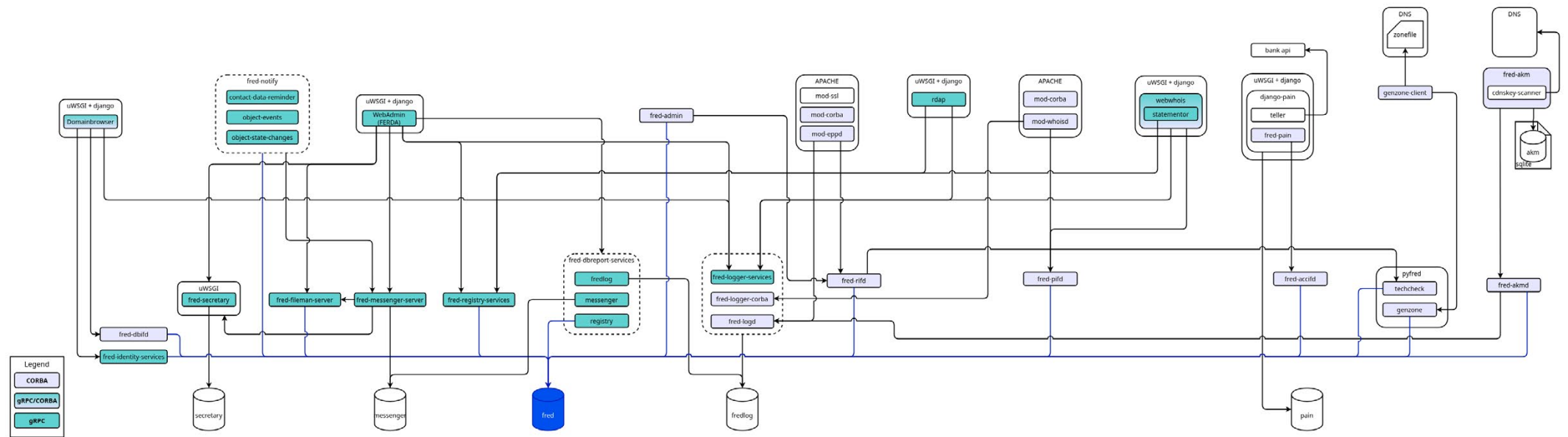
The actual **software of the central register** is designed in a way that ensures that any component of the architecture can be replaced by a copy thereof, which runs on the server in the other locations, at any time. A critical component is the PostgreSQL database, which is replicated to both of the other locations during standard operation. When the primary location is down, traffic can be redirected to the replicated database without any limitations or any impact on functionality. Back-up systems are designed and operated in such a way that the operation of the register can be taken over by any components within a very short time.

The central register system is prepared for operation on IPv4 and IPv6, and its current implementation for the .CZ domain (as well as all DNS servers) is operated on both these protocols.

In 2023, the Association continued to make extensive **changes to the [FRED system's](#)** architecture in order to increase its modularity and configurability. The message sender, which is no longer used, was

removed and replaced with the new Messenger module. The transition from the CORBA technology to gRPC for remote procedure calls continued. The modern gRPC is used for all newly-developed functions, for example for verifications, the public interface of the WebWHOIS register, or the innovated logging module, the so-called Logger.

The resilience of the [FRED system](#) has been verified over a long period of time by performance tests which are regularly run in a test environment, and the performance of different versions of the system is compared. Because of the increasing threats of cyber attacks, the Association has also started running performance tests in production environments in recent years. Such a test takes place in the context of an announced outage in an isolated production environment. In 2023, performance tests again focused on EPP throughput, specifically on the simulation of fights over revoked domains. Compared to tests in the previous year, the load was roughly 100 times higher than normal traffic, which revealed the first limits of the infrastructure. Some of these limits were increased thanks to configuration changes, while others will be subject to more extensive modifications in the future.



4.2.1 FRED (Free Registry for ENUM and Domains)

The FRED software for the operation of the central register, developed and operated by the CZ.NIC Association, was made available as open-source under the GNU GPLv3+ licence in order to support smaller registers. This way, smaller and newly-started registers can operate their domains on a system developed for the operation of the Czech domain, which is, however, prepared (thanks to its parameters and capacity) for a much higher number of domains than are currently registered in ccTLD .CZ.

Apart from the Czech Republic, in 2023 the FRED system ensured the domain administration in **ten additional countries of the world**. It is used to administer the domains of Argentina (.AR), Bosnia and Herzegovina (.BA), Costa Rica (.CR), Albania (.AL), North Macedonia (.MK), Tanzania (.TZ), Angola (.IT.AO and .CO.AO), Malawi (.MW), Lesotho (.LS), and Macao (.MO). The deployment in Argentina, with over 670,000 registered domain names, is the second-largest instance of the FRED system.



Countries where FRED is used for domain administration

The CZ.NIC Association offers paid support for the implementation and operation of the FRED system for other TLD. As part of this support, significant attention was given to upgrading the FRED system to the current version in 2023, particularly in the case of Costa Rica. There were also a number of presentations on the new features of the FRED system to a delegation of representatives of the Tanzanian register and several consultations on the topic of reports of registrar transactions for the Malawi register.

Because of its wide use around the world, the development of the FRED system in 2023 also focused on long-term sustainability and configurability. The Association is therefore continuously rewriting the oldest components of the system according to current standards and needs.

Because of the extensive architectural changes of the past years, in particular thanks to the use of Docker containers, the installation procedure for new parties interested in FRED to install a demo instance easily was revised in 2023.

Also in 2023, the FRED system was enhanced with new functionality. The developers built on the increased security of register object transfers using authinfo from the previous year. They introduced a configurable minimum number of characters (set to 8 for .CZ), prepared a function for registrars that tells them what email the authinfo has been sent to, and stopped allowing the creation of objects using the “create” command if it contains authinfo.

A completely new module completed in 2023 was the **contact verification module**, which significantly increases the level of automation of contact data verification. The invitation for verification is now sent by email and the verification takes place within the newly-developed verification portal, where the system monitors the running deadlines, sends reminders, and

can automatically remove the linked domains from the zone or delete them.

The verification module was supplemented with a system for evaluating the risks associated with removing individual domains from the zone. For those where the risks are too great, this action is subject to manual approval. The deletion of domains of contacts for which the contact details have not been verified in time is also handled responsibly. This irreversible action must always be confirmed manually. Contacts are included in the verification on the basis of both internal and external complaints, especially when the contact’s data may be false, incomplete or misleading.

At the end of 2023, an **automatic contact evaluation pilot** was also put into operation, which will give each contact a score based on the quality of its data compared to publicly available trusted registers (e.g. RÚIAN, i.e. Registry of territorial identification, addresses and real estate, or ARES i.e. Administrative register of economic subjects). The development of this part of the verification module will introduce the possibility of verifying the quality of contacts repeatedly in the next years and automatically inviting contacts with low scores to verify or complete the data. The verifications do not include contacts that are verified through the MojID service – this applies permanently to the accounts of individuals whose identity has been verified by connecting to the National Identification and Authentication Point (NIA) and temporarily to the accounts of legal entities that have been verified through the data box system or at a notary.

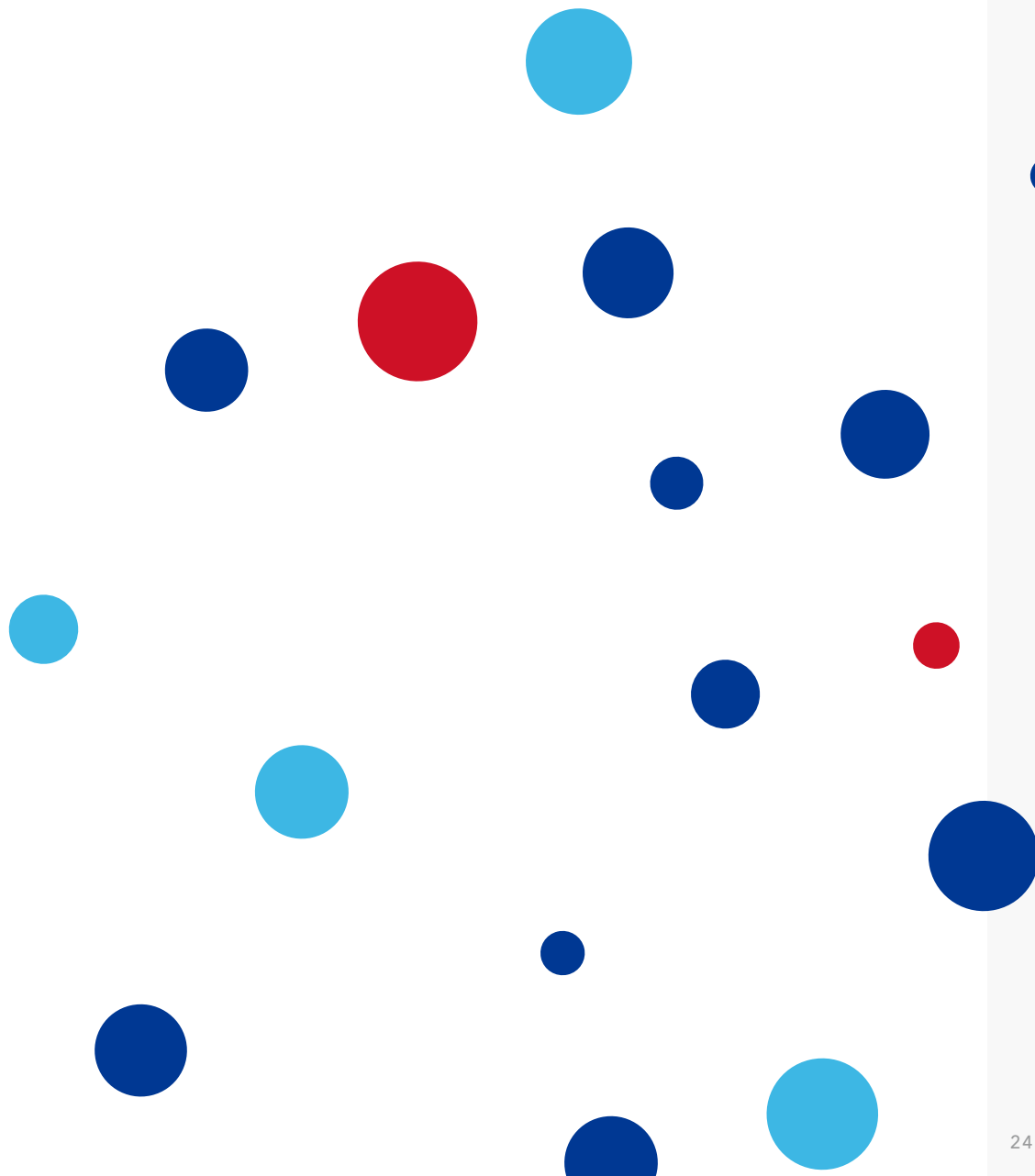
In 2023, the development of a separate **module for domain auctions** began, the deployment of which should bring fairer access to re-registrations of cancelled domains, which are now effectively available to a limited number of people. The extension for auctions was designed in such a way that its launch does not require modifications to the registrars’ systems.

The backend parts of this module were completed at the end of 2023, with frontend development and testing being planned for early 2024.

In the **FERDA module**, which is the web interface for helpdesk operators, the administration of registrars, verifications, and requests related to objects in the domain name register (provision of passwords for transfer, security of objects, listing of personal data - see: <https://www.nic.cz/page/4110/zadosti>) was added in 2023. The search and display of the register objects and request logs was also optimised in this module.

In 2023, the system of technical controls was also suspended, as it could not be operated effectively after the upgrades. The system will be replaced by a new one in 2024.

The year 2023 also brought a number of requirements for the FRED system resulting from the operational needs of the .CZ domain register. The sending of notifications asking for verification of the correctness of the data of contacts that have been connected to the National Identification and Authentication Point (NIA) thanks to MojeID was cancelled, as the data of these contacts is updated continuously. Thanks to the addition of public statistics from the .CZ domain register based on registrars' requests, the operation of original statistics could be discontinued. During the year, the Association again assisted in mass transfers of objects between the registrars Gransy s. r. o. and Webglobe, s. r. o., which were triggered by the ongoing consolidation of the .CZ domain market.



4.2.2 Authoritative DNS server system for .CZ

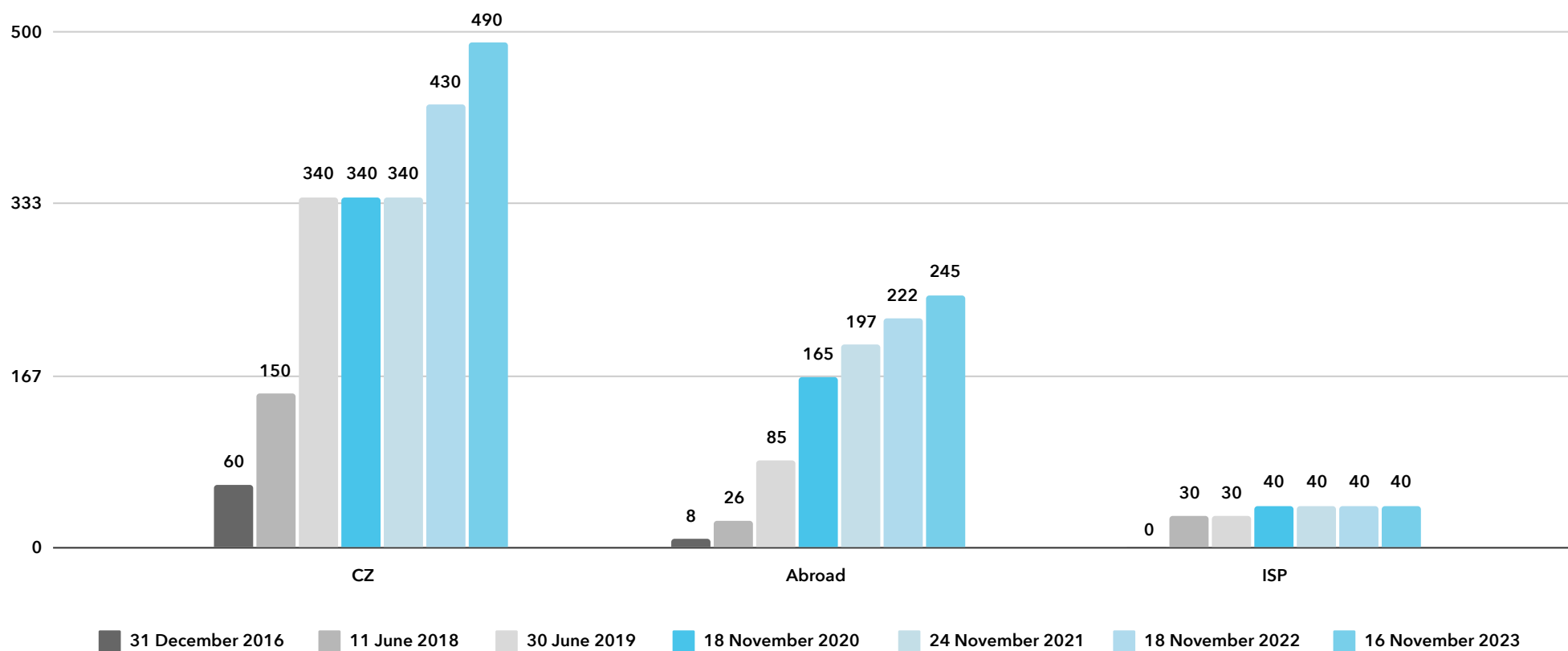
The servers administrating records of .CZ domains are operated by the CZ.NIC Association at **several sites around the world**.



Countries where servers managing records of .CZ domains are located

The total data capacity on DNS servers for .CZ increased to almost 775 Gbps in 2023.

Data capacity on DNS servers



4.2.3 DNS infrastructure upgrade

Also in 2023, the CZ.NIC Association continued **to increase the resilience of the .CZ DNS infrastructure against DoS attacks** and to cover the needs of the continuous growth of operations. Generational renewal of the second 100 Gbps DNS stack was carried out by HW and SW upgrading of the DC CE Colo site. The internal architecture of the stack went from 10 Gbps to 25 Gbps and XDP technology using KnotDNS was deployed. Thanks to these changes, the stack is now capable of handling more than 200 Gbps of DNS traffic, with possible extension to up to 600 Gbps, and with only ten servers handling it now instead of the previous 30. This reduced its operating energy consumption by about 2.3 kW.

In 2023, two new foreign locations were launched on two new continents: the first one of two nodes in Johannesburg, South Africa, with connectivity to the local JINX peering node; the second one of one node in Sydney, Australia. This extended the DNS anycast to all the continents of the world (except Antarctica).

Furthermore, two existing locations were renovated in terms of HW. The DNS stack at the DE-CIX site (Frankfurt am Main) was, in addition to renewal of the server, reinforced with a HW router with the possibility of increasing connectivity to up to 100 Gbps. In terms of traffic handled, this is the second most important location in Europe after Prague. The second location renovated in terms of HW was the Italian node connected to the MIX peering node (Milan).

In total, the capacity of the DNS infrastructure for the .CZ domain grew, at the end of 2023, to 775 Gbps distributed across 22 geographically remote locations in 14 countries on six continents. Thanks to the increasing use of XDP technology, a significant increase in capacity is being achieved, even with a reduction in the number of physical servers serving. The available HW power is thus used up to two-thirds more efficiently.

In order to verify the actual capacity of large DNS stacks after the transition to the new HW and XDP mode, a detailed performance test was conducted in 2023, which in practice confirmed the ability of the stack to handle actual traffic at the theoretically predicted values.

Another significant achievement was the optimisation of BGP propagation of individual IP anycast ranges, which reduced the median latency of DNS traffic measured by RIPE Atlas probes deployed around the world by up to half.

In order to ensure stable operation of the .CZ domain, the Association also performs, in addition to regular hardware renewals and upgrades, periodic maintenance and development of the DNS anycast software equipment. In 2023, migration to Debian 12 at all sites that use this distribution took place, as well as a number of SW updates to network equipment.

The hidden master and validation servers, where the .CZ zone is generated and defined checks are performed before the zone is distributed from them to all DNS anycast sites, were also updated.

SW updates were also performed on public DNSSEC validating ODVR DNS resolvers.

For planning the development of anycast, the Association makes good use of data from the ADAM project, which collects and processes traffic data from all DNS anycast hubs. One of the most important DNS traffic parameters monitored by the ADAM project is RTT (Round-Trip-Time) – the time required for communication between a DNS traffic source and an authoritative DNS server, or its weighted averages related to a specific DNS traffic source, or a geographical or network aggregation of these sources. Thanks to this method, the Association is able to manage the quality of DNS traffic of the .CZ domain in relation to the size of traffic from individual regions of the world effectively.

For major internet service providers, CZ.NIC operates **mirrors of .CZ DNS anycast nodes – ISP DNS stacks**, in the networks of those providers. The main advantage of this service is the full availability of services in the .CZ domain in the event of an attack against the authoritative DNS servers of the CZ.NIC Association.

Their customers will thus not be affected by any attack in any way, and the internet services in the .CZ domain will remain fully available to them. Another advantage is the acceleration of their responses in the network of a provider with the ISP DNS stack. The companies that use this service of the CZ.NIC Association are Seznam.cz, a.s., Vodafone Czech Republic, and CESNET.

4.2.4 Utilisation of .CZ DNS infrastructure

The Association offers, on a commercial and non-commercial basis, the hosting of secondary DNS servers for operators of foreign TLD registries. From a technical point of view, this involves the sharing of the capacity of

DNS servers, which are primarily intended for the .CZ domain, with other entities. As a result of significant upgrades in recent years, this capacity is dimensioned many times higher than its actual utilisation, and therefore it is useful and beneficial to use it for other projects as well.

For this purpose, the Association operates the separate IP anycast ranges “E” and “F”, which are reserved specifically for hosting purposes. Both anycast ranges are designed to ensure low latency anywhere in the world and to offer high handling capacity while still leaving some sites and capacity reserved only for .CZ TLDs. The hosting service set up in this way offers the possibility of easily using the infrastructure capacity for other entities and, at the same time, maintains significant independence of the operation of the .CZ domain itself.

In 2023, the “**VIP Domain**” service was launched, which now allows hosting of very important Czech SLD domains (second-level domains) on the same DNS anycast, thus helping ensure the security and resilience of the key infrastructure of important services on the Czech Internet.

4.3 Support for internet infrastructure

4.3.1 IPv6 support

IP addresses, similarly to DNS, are the basic building blocks of the internet. Without IP addresses, it is not possible to connect to the global

network, which also prevents the mutual recognition and interconnection of computers. The current space of IP addresses of the version 4 internet protocol (IPv4) has essentially been exhausted. The new version of internet protocol, IPv6, is the response to the lack of IPv4 addresses, as it offers a much bigger bank of addresses, as well as new options.

The long-term goals of the Association include **supporting the deployment of the IPv6 technology** at all levels, i.e. content, networks and end devices. In cooperation with registrars, which are often also web hosting operators, the CZ.NIC Association tries to support IPv6 on the side of web, email and DNS servers. Therefore, at the end of 2023, the Association added the accessibility of the main domain, order form, and administration panel for registrar customers over IPv6 as a mandatory condition of the certification programme for registrars, and increased the weight of IPv6 support on registrar services in the evaluation criteria. Evaluations under the new certification programme with these criteria will be carried out in the coming years. The association also participates in promoting IPv6 in state administration.

All services operated by the Association are available in dual-stack mode, i.e. on both IPv4 and IPv6.

In 2023, the representation of IPv6 traffic on authoritative DNS servers remains at around one-third and on the public ODVR resolver at one-tenth. The share therefore did not change significantly over the last year.

4.3.2 DNSSEC support

DNSSEC is a DNS extension that increases its security through asymmetric cryptography.

The **DNSSEC technology gives users the certainty** that the information they have obtained from DNS was provided from a correct source, that it is complete and that its integrity was not compromised during the transfer. **The DNSSEC technology has been available since 2008 within the Czech national domain .CZ.** The .CZ domain was thus one of the first top-level domains where this technology could be used.

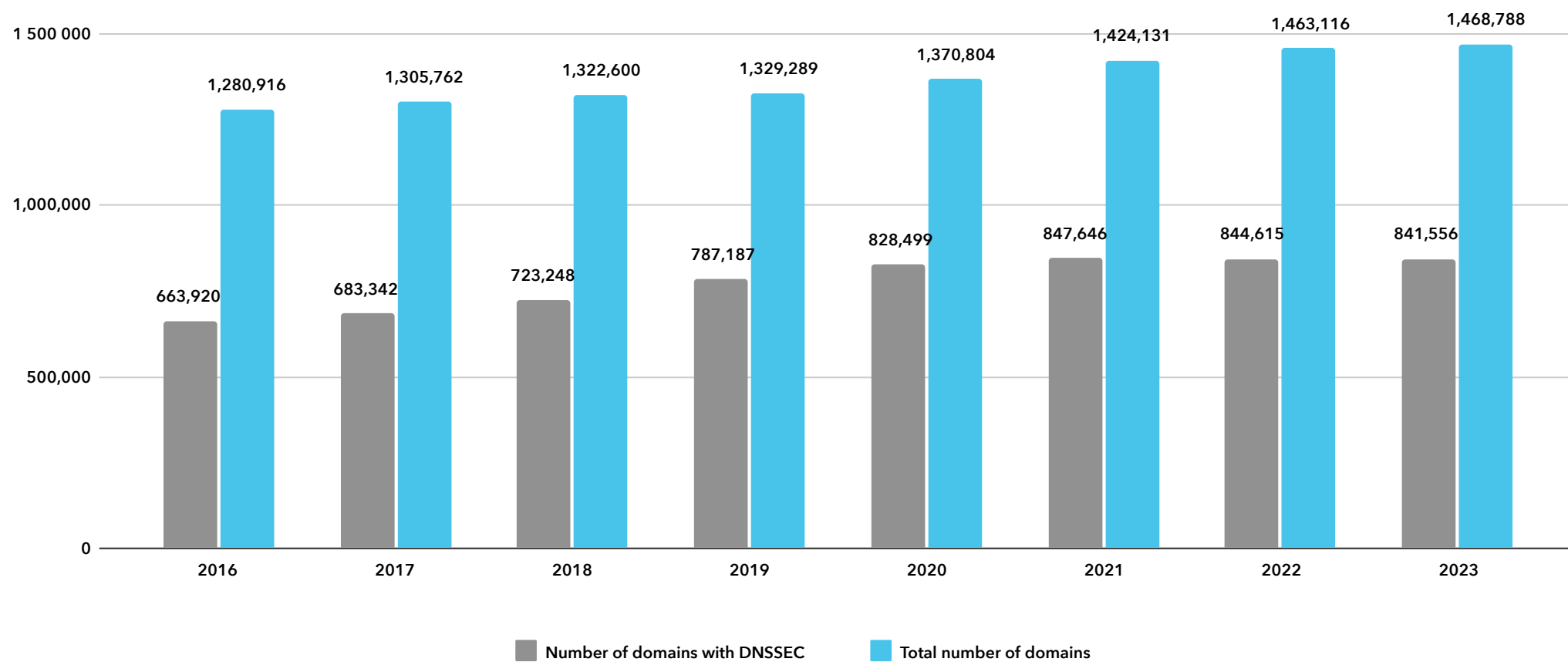
The absolute number of domains secured by DNSSEC grew until 2021, to which cooperation with registrars also contributed. However, the proportion of domains with this security extension has been declining slightly in recent years and was 57.3% at the end of 2023. Therefore, the CZ.NIC Association decided in 2023 to significantly increase the weight of the criterion which evaluates the proportion of secured domains using DNSSEC at individual registrars in the certification programme. This should again increase the motivation of DNSSEC registrars to set up for domains and thus ensure an increase in the number and share of secured .CZ domains in the coming years.

Ondřej Filip, Managing Director of the Association, continues as Cryptographic Officer Trusted Community Representative (TCR) in 2023. He is one of fourteen trusted representatives of this organisation who have access to the hardware security module, the initiation of which is necessary for the root zone signing process. The TCR group was established within the IANA international organisation in an effort to increase DNS security using the DNSSEC technology.

In addition to registrars, the main internet service providers in the Czech Republic are gradually introducing the DNSSEC technology as well. This makes the system fully functional for most regular internet users.

The high number of DNSSEC for the .CZ domain is aided, among other things, by the **support of the automated administration of DNSSEC keys**, which CZ.NIC introduced in 2017, the first in the world to do so.

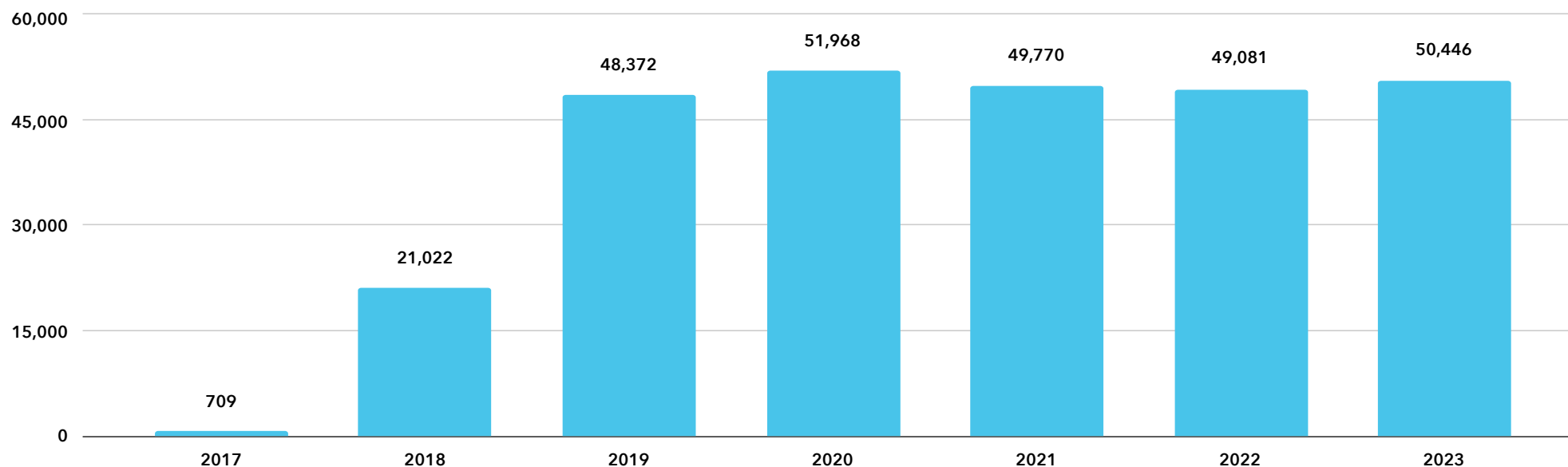
History of the number of .CZ domains with/without DNSSEC



This was possible thanks to the introduction of new standards, RFC 7344 and RFC 8078, into the FRED domain administration system. These extensions are thus available to all TLD administrators that use the FRED system. Administrators of authoritative DNS servers will then be assisted in the implementation of this simplification via Knot DNS, which is also compatible with these standards.

Thanks to this mechanism, DNSSEC can also be easily deployed for those domains where it was not previously possible – e.g. for domains whose registrar does not support DNSSEC, or for domains that are administered by someone other than the registrar. Nevertheless, the number of domains under the automated administration of DNSSEC keys has been rather stagnating in recent years, as can be seen in the chart below.

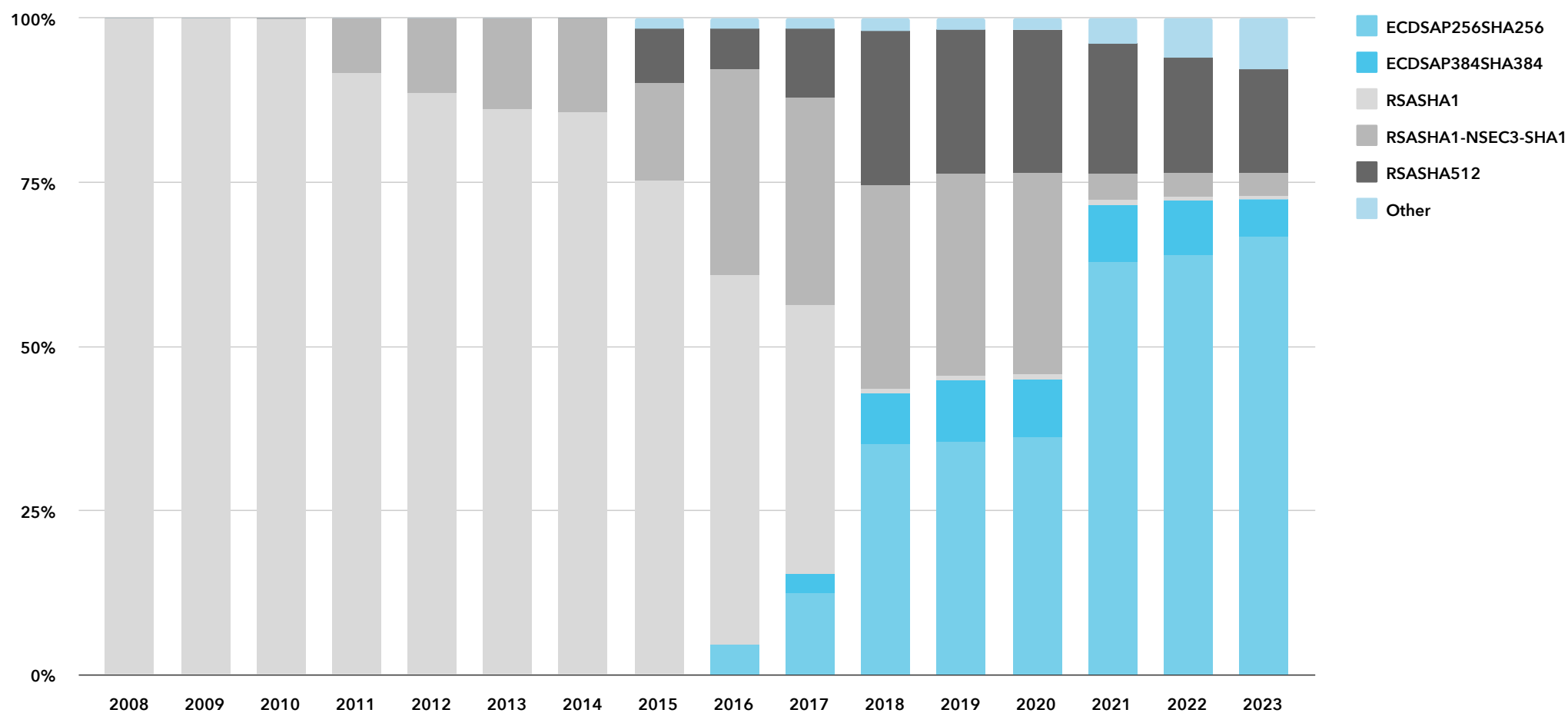
Development of the number of domains under the system of automated DNSSEC key management



History of the representation of individual DNSSEC algorithms in the .CZ domain since 2008

The choice of an encryption algorithm is a very important parameter affecting the level of security using the DNSSEC technology. The chart below shows how the representation of individual algorithms in the .CZ domain has been changing since 2008.

The year 2023 was the third year in a row when the previously dominant RSASHA1 and RSASHA1-NSEC3-SHA1 algorithms were rather among the exceptions (at the end of the year their share was 3.9%). These algorithms use the SHA-1 hash function, which is considered weak, but according to current recommendations does not pose a significant threat to DNSSEC security.



4.4 Support for basic internet infrastructure

Operation of root servers

In 2023, the CZ.NIC Association continued to operate mirrors on the K and L root servers. Therefore, CZ.NIC operates mirrors of two out of a total of 13 root name servers that are the basis of the internet domain names system (DNS). This increases not only the security and stability of the root servers on a global scale, but especially their availability in the European region. During the year 2023, a large HW renewal of the DNS stack for L-root was carried out in smart remote-hands mode by CZ.NIC administrators.

Support for evolving registers

Besides these root servers, the Association's infrastructure is also used to support emerging registers through the operation of secondary name servers for their ccTLD. Angola, Malawi, North Macedonia, Tanzania and, since 2020, also Guatemala have been using this option to manage their national domains. The Association also operated the infrastructure for the operation of the DNS register of domains of Brazil and the association of Latin American ccTLD LaTLD in its data centres in 2023.

Support for the Ukraine register

The ongoing military conflict in Ukraine is also having a significant impact on the online world and the operation of the .ua register. Ukraine faced

not only cyber attacks, but also physical shelling of data centres, power outages, and problems with staffing the operation of the register.

Support for the Ukrainian register therefore continued in 2023 and was significantly rationalised, moving from the original very ad hoc mode to a more systematic arrangement, thus optimising the use of both HW and human resources. Not only the DNS service or support systems, but also the register for the .ua domain itself is now operated primarily from the Association's data centres in the Czech Republic. The support of the Association has thus become a pillar for keeping the Ukrainian domain in continuous operation.

Hosting DNS zones and servers

On the basis of the bilateral sharing of knowledge and long-term cooperation, the Association also operates a secondary authoritative DNS server for the Czech neutral peering hub NIX.CZ.

Another form of support aimed at the local internet community is hosting the servers of certain non-profit organisations, e.g. the server of the Jeden svět na školách (One World in Schools) project of the Člověk v tísni (People in Need) organisation, or operating a server with a mirror of popular Linux distributions – Ubuntu, Debian, Fedora, etc.

Open DNSSEC Validating Resolvers (ODVR)

Since 2010, the Association has also operated Open DNSSEC Validating Resolvers ([ODVR](#)), which are freely available for use as an alternative to DNS resolvers operated by connection providers.

The ODVR service (also because it is operated on the Association-developed Knot Resolver) supports encrypted DNS communication using

DNS-over-HTTPS (DoH) and DNS-over-TLS (DoT). Since 2020, the option of using this encrypted DNS communication has even been incorporated in the user interface of the Google Chrome browser (from version 87 on Windows and Android OS).

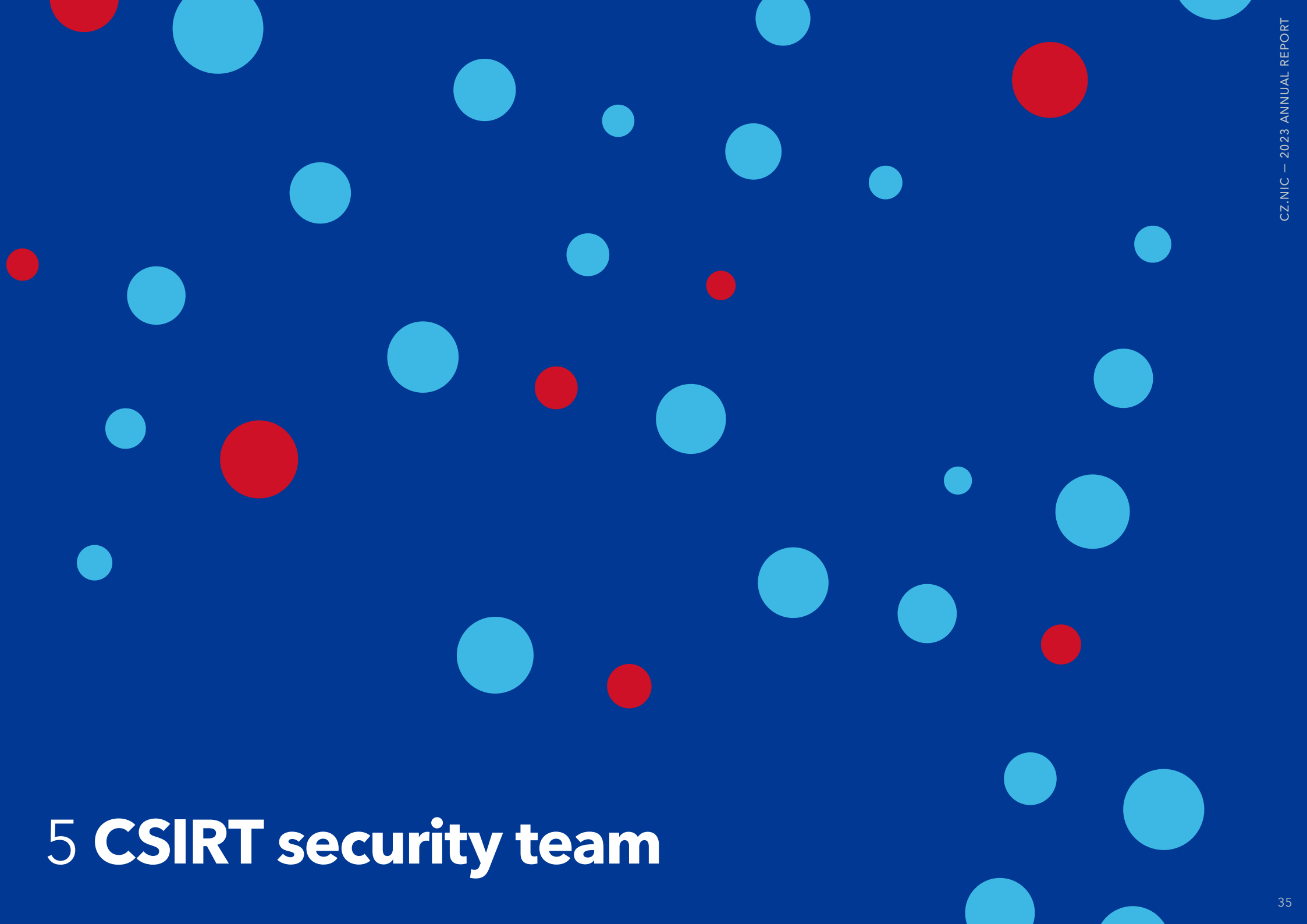
RIPE Atlas Anchor hosting

The CZ.NIC Association is actively involved in the RIPE Atlas global monitoring network project and supports this project by hosting fixed monitoring points called RIPE Atlas Anchor.

In the past, the Association also participated in this project by supplying components for the production of HW probes for the Ripe Atlas project, implemented on the basis of the Turris MOX platform by the CZ.NIC business partner.

Hosting a public NTP server

One of the key operating conditions of many computer systems is correct time synchronisation. Systems connected to the internet use the NTP internet protocol for this purpose. The CZ.NIC Association has long been hosting a public top-level NTP server (stratum 1) controlled by GPS with support for the European Galileo satellite system and fitted with a high-quality oscillator of the OCXO DHQ type.



5 CSIRT security team

The growing importance of the internet and the rising number of its users are accompanied by a growing number of security incidents, such as the misuse of a computer, a network element, or a network for illegal activities (e.g. spam), copyright breaches, phishing, or data interception. The severity of these incidents is also increasing. Dependence on cyberspace and the level of criticality of failure associated with it is also greater, where not only the ordinary user or various private law institutions are exposed, but also the infrastructure of the state itself.

It is therefore necessary to create, formalise and streamline the defence against attacks on these entities – CSIRTs (Computer Security Incident Response Teams) are being created for this purpose. The CZ.NIC Association has long-term experience with projects in the field of internet infrastructure, and therefore it is involved in supporting the activities of security teams at the national and academic levels. The Association also runs its own CZ.NIC-CSIRT team, responsible for dealing with incidents within AS25192, as well as incidents that affect the name servers for the .CZ domain and 0.2.4.e164.arpa.

5.1 CSIRT.CZ – National CERT Team of the Czech Republic

The [CSIRT.CZ](#) security team is the official national security team of the Czech Republic, which is operated in accordance with Act No. 181/2014 Coll., on cybersecurity, and the public law contract concluded on 18 December 2015 with the National Security Authority (NSA). As of 1

August 2017, the newly-established National Cyber and Information Security Agency (NÚKIB) took over the position of the NSA and thus became the manager of cybersecurity issues and the national authority in this field.

The main objective of the CSIRT.CZ team is to resolve incidents related to cybersecurity in networks operated in the Czech Republic.

In addition, it also focuses on prevention, research and education.

CSIRT.CZ collects and evaluates data on notified incidents and forwards the data to the persons responsible for the operation of the network or service which is the source of the incident in question, and/or provides help with coordination.

In its activities, the team cooperates with a number of entities with which it exchanges information on individual incidents and their solutions on the basis of mutual trust.

Cooperation of CSIRT.CZ

In order to be able to fulfil the obligations defined by the legislative framework binding for the Czech Republic effectively, the team cooperates with various entities at both the national and the international level:

- **national level** – cooperation mainly with NÚKIB (especially the government CERT team), the Police of the Czech Republic (PCR), CSIRT/ CERT with different constituencies, internet service providers (ISP), banks and others,

- **international level** – the team is part of the CSIRTs Network structure (a network bringing together national and governmental CSIRTs/CERTs of the EU Member States) and cooperates actively with the European Network and Information Security Agency (ENISA) and the EUROPOL organisation.

Other international structures of which it is an active member include:

- FIRST (an organisation that connects security teams from around the world and is thus a platform through which the teams involved can respond effectively to security incidents and threats and cooperate to resolve them),
- Trusted Introducer – TI (an organisation established by the European CERT community back in 2000 to address common needs and to build an infrastructure that provides important support to security teams; the organisation certifies security teams according to their proven and tested level).

In 2023, the CSIRT.CZ security team continued to participate in the Safer Internet Centre (SIC CZ) project, which is implemented by the CZ.NIC Association under the name **Bezpečně na netu** Safe on the Net.

Cooperation takes place at the level of ensuring the operation of the so-called STOPonline.cz hotline, which is intended for reporting illegal online content and for awareness and education of both children and parents. The team members also participated in the training activities of the SIC CZ project.

5.1.1 Traffic statistics

In 2023, CSIRT.CZ handled **2,752** security incidents. Compared to the previous year, their number increased by almost 33%. The team once again achieved the highest registered number of addressed incidents in the records of its own statistics, which it has kept since 2008. Such a high increase in the number of incidents could not be managed without the continued development of the ticketing system and further automation of the tasks performed.

Number of incidents addressed

	2020	2021	2022	2023
Sensor Network*	16,217	10,284	8,815	8,903
Phishing	738	1,277	1,485	2,064
Malware	216	163	220	163
Spam	109	141	224	352
Other	86	58	63	35
Information gathering	68	67	69	105
DOS	0	0	0	12
Intrusions	16	11	0	21
Total	1,267	1,725	2,067	2,752

* Sensor Network is not included in the total number

In 2023, on the basis of trends in recent years, the incident taxonomy was modified to address the long-term decline or increase in certain types of incidents. The trend of a sharp increase in reported incidents falling under the category of phishing continued last year.

The speed and efficiency of incident handling and of the process of resolving security incidents are influenced, inter alia, by advances in the

development of open-source tools and utilities. Newly-developed or improved tools and utilities help share information between the various relevant entities more quickly.

In order to improve the quality of the incident handling process, to facilitate and streamline cooperation at the national and international level, the systems, tools and add-ons used by the CSIRT.CZ team are constantly being developed.

A few years ago, the team developed its own open-source tool, Convey, which allows for the bulk analysis of incidents involving a large number of constituents and for the automation of communication involving multiple parties. This tool is still being developed.

The handling of data received from the Police of the Czech Republic was clarified and the possibilities of working with text were expanded; this includes the ability to attach screenshots to text data. This feature was crucial when processing a batch of images that were received and needed to be distributed in bulk. Usually, only a list of compromised IP addresses is distributed, but in this case it was necessary to send out screenshots of the compromised email boxes as well. Other enhancements include the ability to join tables and support for importing XLSX format, making it easier to work with heterogeneous data files. The handling of regular expressions was also improved, which contributes to more efficient and accurate data processing.

5.1.2 Awareness and educational activities

In the area of training and education, a training course on **Internet Security and Privacy** focusing on the most common threats in the area of cyber security was implemented in cooperation with the CZ.NIC Academy. Recognition of threats and risks is aimed at understanding, preventing and familiarising users with active and passive digital footprints, safe behaviour principles, privacy and anonymity on the internet.

Tailor-made training for the State Office for Nuclear Safety was also delivered, as well as, together with colleagues from [STOPonline.cz](https://stoponline.cz), training for the Police of the Czech Republic in the Karlovy Vary Region. We managed to establish cooperation with the “Stárneme ve zdraví” (Ageing in Health) organisation, and cooperation with the Municipal Police in Mikulov has also been going on well. The experience from our own development, automation and modifications was then transferred to the Python programming language course at the CZ.NIC Academy.

Knowledge, experience and activities are published on the blog of the CZ.NIC Association. The “**Myš je pro kočku**” (**The Mouse is for the Cat**) series continued to be published in 2023. In addition, members of the security team published articles describing not only their experience with fighting phishing domains, but also with responding to the constant increase in the use of social engineering techniques, which are no longer just about phishing.

CSIRT.CZ has also traditionally dedicated itself to presenting its own experience at various forums and conferences. Among the presentations for the professional public we can mention, for example, presentations at

TF-CSIRT meeting events, for NatCSIRT, Where Digital Networks Go, or at the Internet and Technology event. As part of the activities for the general public, the opportunity to participate in the Czech Digital Week event was used, where the practical experience of the CSIRT.CZ and CZ.NIC-CSIRT teams was presented, as well as the experience of operating the STOPonline.cz line. Among other awareness-raising activities that the team has been involved in for a long time is publishing news from the world of security. Active cooperation with the Root.cz server continues with our own Postřehy z bezpečnosti (Security Insights) series. This is a regular security review of the past few days. The published information highlights the most interesting events and news.

5.1.3 National and international cooperation

The CSIRT.CZ team cooperates intensively with other teams dealing with cybersecurity, both nationally and internationally. Regarding national cooperation, two meetings of the CSIRT.CZ working group were held. The first of these was held in April in response to the forthcoming amendment to the Cyber Security Act. Here representatives from the National Cyber and Information Security Agency (NÚKIB) presented the main plans for the transposition of the NIS2 (Network and Information Security 2) Directive in the Czech Republic to the members of the working group, which in this case also included representatives of registrars. The next meeting took place in the autumn and the participants listened to a number of interesting lectures. About eighty members attended each meeting.

Another interesting event at the national level was the Table Top exercise organised by the NÚKIB. This exercise provided an opportunity to present the team's activities to representatives from the telecommunications sector and to appeal for the importance of cooperation.

At the national level, cooperation with the Police of the Czech Republic and other entities ensuring the security of the Czech Republic continued.

In terms of international cooperation, the work in the field of cybersecurity in the Czech Republic was presented, together with NÚKIB, to delegations from Albania, Iceland, Colombia and Estonia. Other important activities in the field of international cybersecurity are mandatory activities stemming from the NIS Directive and the Cyber Security Act. A specific type of cooperation is regular and close interaction between the CSIRT.CZ national security team and the GovCERT.CZ government team within the CSIRTs Network established on the basis of the European NIS Directive. The CSIRTs Network brings together national and government teams from the member states of the European Union. This traditional cooperation between the National CERT team (CSIRT.CZ) and NÚKIB (the GovCERT.CZ government team) is based mainly on joint incident handling, the sharing of necessary information and expert consultations. Together, these teams fulfil the duties defined by the NIS Directive in the established [CSIRT Network](#), where they actively cooperate, inter alia, with other European national and governmental teams. The national security team CSIRT.CZ and the government team GovCERT.CZ meet several times a year on various occasions. This ensures sufficient space for regular sharing of the activities of individual teams, consultation and possible coordination of cooperation. In 2023, the CSIRT Network working group held several working groups and nearly thirty online meetings with representatives of other EU Member States, CERT-EU members and representatives of the European Commission. The main objective of these meetings is to exchange up-to-date information between EU Member States.

Involvement in the international Trusted Introducer community was extended this year by membership of the TF-CSIRT Executive Committee. This community brings together cybersecurity professionals from across sectors. Also thanks to FÉNIX's support, the Czech Republic currently has 65 member teams, of which four are certified, 20 accredited and 41 listed (one team is currently awaiting re-certification). Within the international association of the FIRST incident response teams, the Czech Republic currently has six participating teams and one Liaison member. In addition to the above, the team cooperates with other security teams and entities in the area of national and international security through the consultations and support it provides.

5.1.4 Preventive activities

The main role of CSIRT.CZ is prevention and awareness-raising. Ongoing prevention services include:

Penetration testing

In 2023, penetration testing of several commercial entities and stress testing of a major customer from the public administration were successfully performed. Selected parts of the .CZ domain register also underwent penetration testing.

PROKI (Prediction and Protection from Cyber Incidents)

In 2023, the focus was on stabilising the system and its easier administration. New IntelMQ documentation was created and

configuration was simplified. At the same time, new bots were created and existing bots were extended with new features. To save space, we also streamlined the storage of data in the database. At the same time, the MDM project was terminated because of cost savings and its agenda was moved to the PROKI project.

The analysis of the outputs from the Turriz mini-pots also continued using a separate part of PROKI, where tens of millions of events per day are recorded. The largest numbers of attacks are recorded from Iran and Romania.

The most common passwords are 123456, admin, <empty>, anonymous, QWE~!@#, root. Some more complex attacks were also detected, such as attacks on WEB servers in Czech domains, where attempts were made to guess the password to the ftp storage in order to modify the WEB server pages.

PROKI statistics	Number
Number of emails sent from PROKI	34,718
Number of unique recipients (abuse contacts) of PROKI reports	726
Number of unique Czech IP addresses that we recorded by some means	50,265

Web scanner

Web scanner is one of the preventive security services that is intended for operators and administrators of websites, especially non-profit organisations and public administration, helping them detect potential vulnerabilities in their internet presentations. The vulnerability assessment

takes into account current trends and rankings compiled within the Open Web Application Security Project (OWASP). During 2023, 14 web applications were tested on the basis of nine orders placed. As part of our cooperation in the “Zlatý Erb” (Golden Coat of Arms) competition, we provided a security audit of web applications to the finalists of the national round. We performed a basic security check of 15 websites and rated them according to predefined criteria. For each website, we wrote a final report with findings, and these were forwarded to the individual network administrators.

Automated testing for schools

As part of the internal cooperation on the bezpecnyinternet.cz project, a service for automatic testing of web presentations for institutions working with children was launched. The primary focus is thus on schools, but other similar entities have also expressed interest in regular testing. The tests uncovered, among other things, a highly dangerous web application offered on a commercial basis that contained critical vulnerabilities that made it possible to gain access to personal information about children and employees. Currently, 26 subjects are subject to regular testing.

Honeypots

Other activities beyond the mandatory activities defined by the Cyber Security Act include the operation of honeypots. In 2023, major modifications were made to the Cowrie honeypots and 72 unique malware samples were recorded. Because of the discontinuation of support for Dionaea honeypots, their operation was terminated. However, we continue to run honeypots within the HAAS project, which are a valuable source of information for us.

HAAS statistics	Number
Number of registered users	6,565
Number of connections/attacks	75,007,272
Number of commands executed	33,081,165
Number of unique attacking IP addresses	132,749
Number of unique samples captured	95,843

Identification of compromised websites

In addition to the above-mentioned regular activities focused on prevention, a one-off preventive action aimed at tracking down long-term compromised websites in the .CZ domain was also performed in the year under review. On the basis of the analysis of an earlier incident using the outputs from the ADAM project, it was possible to identify domain names whose operators were completely unaware of their being compromised. A total of 95 such websites were found and all their operators were informed.

5.2 CZ.NIC-CSIRT

The CZ.NIC-CSIRT team is responsible for **handling incidents that affect name servers for the .CZ domain, 0.2.4.e164.arpa and AS 25192.**

On the basis of the [Rules of Registration](#), the CZ.NIC Association is entitled to cancel the delegation of a domain name if it is used in a way that threatens national or international computer security. This can happen, for example, by distributing harmful content (viruses,

malware) or by faking the content of another service (phishing) through the domain name or services available through it.

The CZ.NIC-CSIRT team can also cancel a domain name when the server available through the domain name is the control centre of networked hardware which distributes harmful content (botnet).

Fighting phishing in .CZ domains in 2023

In 2023, the active fight against the abuse of .CZ domains to attack Czech users continued. Thanks to the information from the ADAM project, registrations that were at risk of being subsequently misused by a phishing attack continued to be successfully predicted.

Since January, 125 phishing attacks exploiting .CZ domains have been recorded. 114 of them were eliminated under the methodology for the cancellation of domain name delegation based on Article 17.1 of [the Rules of Registration](#). With the ability to predict the actions of attackers to some extent, their number gradually decreased and on 16 August 2023 the last .CZ domain recorded by us (www1-ibfio.cz) was registered.

Internal security

Within the CZ.NIC Association, the CZ.NIC-CSIRT team also ensures the implementation and fulfilment of the certification of internationally accepted information security management systems (ISMS) in compliance with the ISO 27001 standard. An external re-certification audit took place in 2023, which confirmed that the CZ.NIC Association continued to meet all the requirements of this standard. New versions of internal guidelines

were also issued. In addition to the above, the CZ.NIC-CSIRT team was involved in the further development of the internal SIEM (Security Information and Event Management) and updated the KSK ceremony documentation.

Physical security of workplaces

As part of improving internal security, we replaced the security system (EZS) at the company's headquarters with a system that can be developed in the future in accordance with the needs of the Association, with a focus on greater physical security and financial savings. The original system faced the limits of possible expansion as well as little support from the entities offering the necessary service.

In 2023, we also managed to agree with the landlord of the Pilsen branch on the implementation of modifications that significantly improved the level of physical security at this branch.

6 MojelD

[MojelD](#) is a unique service for electronic authentication that allows internet users in the Czech Republic to log in to various online services using **uniform identification data**. It is a win-win situation. The user gets a means of identification without having to remember various login credentials for those applications that support MojelD. On the other hand, the operator implementing MojelD significantly improves the user experience of its service and obtains verified information about its visitors and clients.

This service has already been operated by the CZ.NIC Association for **fourteen** years.

Since 2020, MojelD has also been one of the possible means of communication with state administration bodies thanks to its **connection with the National Identification and Authentication Point (NIA)**. Moreover, in 2021 MojelD was accredited by the Ministry of the Interior to the “high” level of assurance. Therefore, there is currently not any **more secure means of electronic identification** in the Czech Republic.

Security is generally a very important aspect of the service. Some outdated security methods, such as one-time password logins, were removed in previous years. The convenient, modern and accessible **MojelD Klíč** mobile app thus remains the most used account security option.

The second area of interest, in addition to security, is improving the user experience of the service. **UX design** improvement was completed in 2023. Its aims were easier and clearer onboarding of new users and connection of the service to the **National Identification and Authentication Point (NIA)**, as well as orientation in the user account.

6.1 Security of the MojelD service

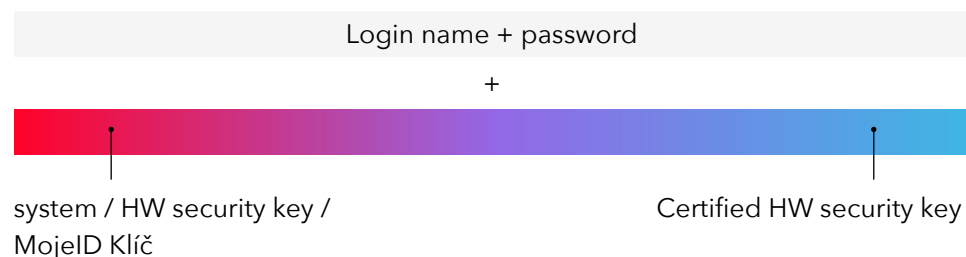
The basic features of MojelD include the security and trustworthiness of the entire system and the protection of personal data. The register of user details is protected on the same high level as the .CZ domains register. At each login, the user themselves can define which details from their profile are to be handed over to the provider for whose services the user wants to sign up using MojelD. This gives the user **maximum control over their data**.

MojelD offers a wide range of login options. A **login name and password** are the basics. Furthermore, the service provider may determine whether this level of security is sufficient for them or whether the user must provide additional authentication by one of these means:

- **the MojelD Klíč*** mobile application,
- **a system** security key (often included with common operating systems, such as Windows 10+ and Android version 7+),
- **a hardware** security key (a suitable USB/NFC key is a prerequisite for the “high” assurance level).

* The one-time password login options and the legacy MojelD Authenticator app were discontinued during 2022.

Security level options for login methods



6.2 Private sector and public administration partnership services

A key factor in the systematic expansion of the MojelD service is its support by internet service providers. The growing range of places where MojelD can be used has an impact on attracting new users, for whom it is important to be able to log in to as many services as possible with one name and password - whether those they use every day or those they are visiting for the first time.

In the areas listed below, the Association aims to maintain and consolidate its position, but it also seeks to penetrate new segments.

6.2.1 Private sector service providers

The partner network of private service providers had a similar composition in 2023 as in the previous year. The list of partners can be found in the catalogue on the mojelD website.

In the private sector, MojelD is used by:

- **e-shops** that are interested in the possibility of verifying the full age of their customers when selling specific goods or services,
- **community** servers,
- discussion **forums**,
- **news** sites,
- servers providing **microservices**,
- **advertising** servers and others.

6.2.2 Public administration service providers

In the autumn of 2020, the option **of linking** the MojelD account to the **National Identification and Authentication Point (NIA)** was launched.

Individuals can thus use MojelD to **log in to state administration and self-government services**, such as:

- **the Citizen's Portal** (checking the validity of documents, the balance of points in a driver's account, extracts from public registers, etc.),
- the Financial Administration Portal **Moje daně (My Taxes)** (online filing of personal income tax returns, real estate tax returns and other tax returns),
- **the ePortal of the Czech Social Security Administration** (for example, to view the pension insurance information sheet),
- the client applications **of health insurance companies** (reports on care provided, insurance premium payers and arrears, applications for contributions from prevention funds, etc.),
- the patient application for eReceipt electronic prescriptions,
- the web portals of some **regions, cities and municipalities**,
- **library systems**,
- the systems of **educational institutions** and other entities.

The development of eGovernment services in general helps expand the network of public administration partners. For example, in 2023, MojelD users were able to use the service in the following cases:

- electronic filing of **tax returns**,
- application for a **new driving licence** via the Transport Portal,
- application for **parental allowance** online.

6.2.3 Cooperation and implementation partners

The search for new technical partners for MojelD integration continued in 2023. When implementing MojelD, service providers do not depend

solely on technical support from the CZ.NIC Association. Their current list is available on the MojelD website, on the How to Get Started page.

We succeeded in integrating MojelD into Seznam.cz. At the end of 2023, we introduced a new option to link an account on Seznam.cz with MojelD, which increases the security of accounts on this platform and ensures that Seznam.cz users' accounts cannot be irretrievably stolen. For 2024, we plan also to extend the deployment of MojelD to other Seznam.cz services such as Email, Sbazar, Sreality, discussion forums, etc.

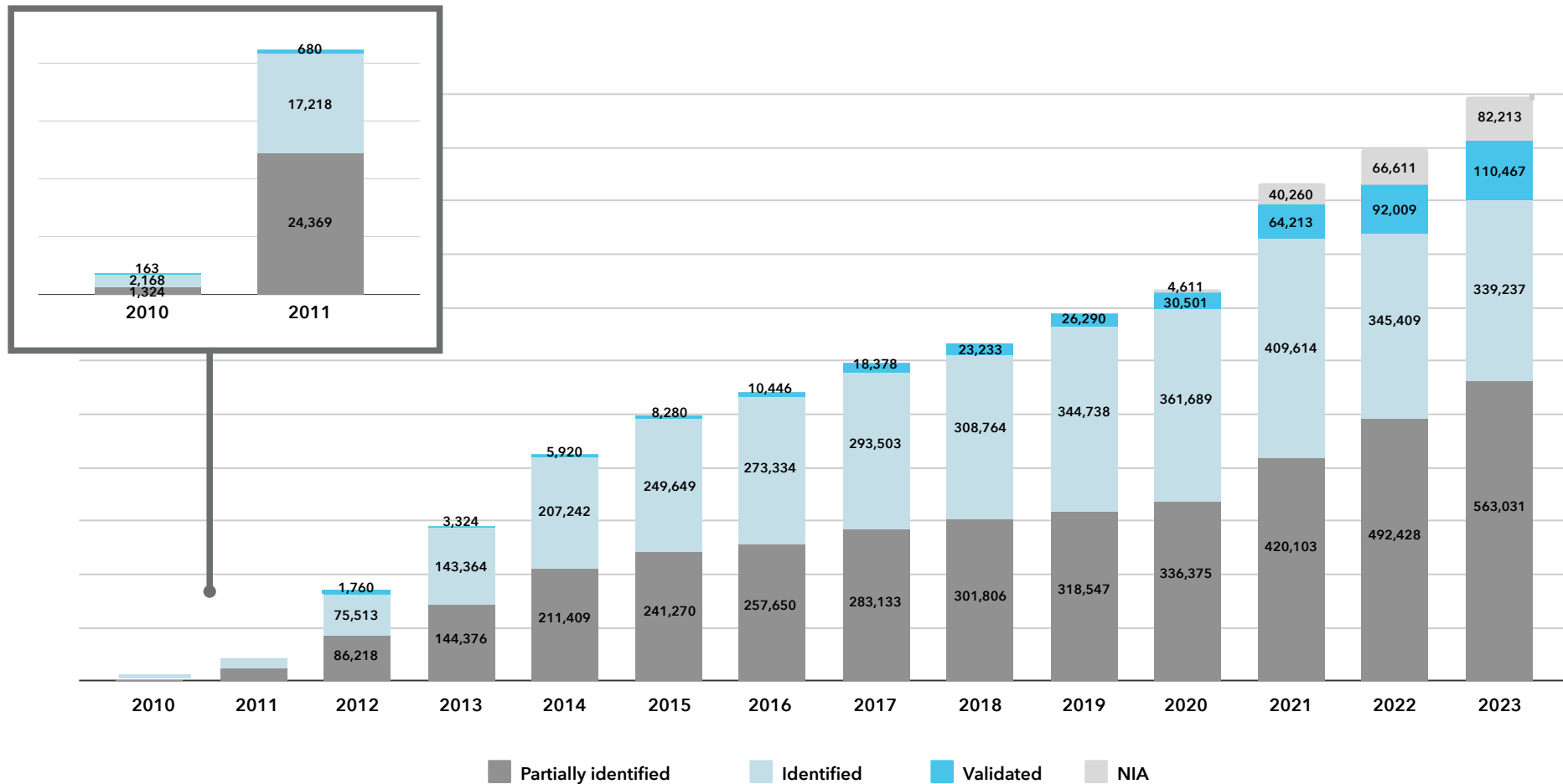
We are also deepening our cooperation with EzConvey s. r. o., where MojelD plays an important role in the process of the digitalisation of corporate agendas and online forms not only for public institutions. At the end of 2023, EzConvey introduced a new module for Online Elections of which MojelD is a key component. In 2024, we expect to expand the implementation of these solutions to specific companies and public institutions in order to support the daily use of MojelD in both the private and public sectors. In this way, MojelD users gain automatic knowledge and an easier way to use MojelD with other service providers as well.

6.3 Users of MojelD

The user base is the most valuable asset of the MojelD service. Without an increasing number of users, it would be difficult to attract more and more important service providers and make the service known among the general public. Throughout 2023, the MojelD user base grew by more than **120,000** new users, to a total of **1,051,082** users.

In 2023, efforts continued to increase the number of users connected to the National Identification and Authentication Point (NIA). As of 31 December 2023, the total number of such users was **82,213**. Compared to the end of 2022, the number of users linked to the NIA **increased by more than 15,000**, and its further growth will be one of the targets in 2024.

Level of user identity authentication



MojelD presentations at professional conferences

In 2023, the CZ.NIC Association presented the MojelD service at the **ISSS 2023** conference, which took place on 15 and 16 May 2023 in Hradec Králové. Participants had the opportunity to visit the MojelD stand and the Czech POINT mobile stand, where they could verify their identity and access online public administration services. MojelD specialists present at the stand helped with the process of activating eGovernment services and provided participants with the necessary USB/NFC security keys, or assisted with the activation of the MojelD Klíč mobile application.

The growing popularity of the service is also evidenced by the fact that MojelD was nominated for the **Crystal Magnifier 2023 - Czech Internet Award** in the Tools and Services category.

6.4 MojelD as a tool for cross-border authentication in Europe

Also in the previous year, the CZ.NIC Association actively participated in the Czech Republic's involvement in building an infrastructure for cross-border electronic identification, as defined by the eIDAS regulation. This regulation builds on the work under the STORK (Secure idenTity acrOss boRders linKed) pilot project, which the Association participated in, together with the Ministry of the Interior of the Czech Republic, in

2012–2014. As an output of this project, the Association operated a gateway for cross-border authentication that used MojelD as the only means of authentication.

This gateway was gradually replaced in 2018 and 2020 by the official eIDAS node for the Czech Republic, operated by the Association on the basis of a contract with the Digital and Information Agency (formerly the National Registers Authority). This node also includes a middleware component necessary for logging in with the German electronic identity card.

The Association has twice won tenders to operate this system, namely for the years 2018 to 2020 and for 2020 to 2024. As a part of the contract, the active involvement of the Association's staff in the functioning of the eIDAS Cooperation Group and eIDAS Technical SubGroup platforms continued throughout the year. In 2023, countries such as Austria, Poland, Liechtenstein and Slovenia were connected to the eIDAS node.

At the beginning of 2022, the process of assessing MojelD as a means also recognisable abroad was completed and in June the Ministry of the Interior of the Czech Republic submitted the official notification of MojelD. Since July 2022, when the MojelD notification process was completed in accordance with the requirements of the eIDAS regulation, MojelD users have been able to access public services not only in the Czech Republic, but also in the other 26 EEC countries. MojelD is the only non-state means that can be used in this way across borders.

At the same time, the Association is actively monitoring the ongoing revision of the eIDAS regulation, which is to come up with a revolutionary wallet concept for the European Digital Identity. In order to pilot the entire ecosystem around this wallet, the European Commission has launched large-scale pilot projects. These projects officially kicked off in April 2023. In one of them, the EWC consortium (Eudi Wallet Consortium;

note. EU Digital Identity Wallet Consortium), of which the Association is a part, is participating. Because of delays in legislation and publication of the reference implementation of the wallet, activity in 2023 under the project was minimal.

7 Turris

Turris network devices have been developed by the Association since 2013. They use a Linux-based open source system, have the ability to update automatically throughout their lifetime, and have a distributed adaptive firewall as well as other superior security features. More information about Turris models can be found on the [turris.cz website](https://turris.cz).

In 2023, orders contracted in 2022 were mainly produced and delivered. Assistance was provided to one of the customers in refurbishing routers and subsequently in putting them back into service. However, the main activity was working on new hardware models and preparing the migration to the new version of OpenWrt.

7.1 Hardware development

In 2023, the hardware section of the Turris team continued working on new devices.

Turris Omnia Enterprise. This router will support multiple 10 Gbps WAN and LAN ports, Wi-Fi 6E connectivity and 5G. Despite the complexity of such a device, several prototypes were produced in 2023. Several Security Operation Centres (SoCs) were selected on which the new product could be built, and the necessary documentation was obtained. The goal is at least one 10 Gbps port, a 64-bit CPU, and readiness of devices for Wi-Fi 7 and 5G. Development will continue in 2024, when the first prototypes are expected to be produced and tested.

In 2023, over seven thousand devices were produced. More than a thousand of one customer's devices were refurbished, usually by

adding missing accessories or replacing a damaged box. This testifies to the quality of the routers and their ability to meet the needs of customers.

All Turris devices are manufactured in the Czech Republic.

7.2 Software development

Software development continued in 2023 as well. One of the big priorities was the migration to the new version of OpenWrt. In preparation, a system of phased deployment of updates was established. Despite several problems, the update was ready for the beginning of 2024.

New features were also added to the current version of the system. Support for 4G modems with fail-over function was integrated. Users can thus update the rescue system and factory image simply from the web interface.

Some typical scenarios of the BIRD routing daemon were also included in the LuCI web interface.

As part of the Turris Sentinel security programme, monthly reports summarising the security incidents that had been captured were issued on a regular basis. At the same time, discussions were initiated with potential customers to deploy Sentinel beyond Turris routers as well. A typical customer for this system could be an ISP which could use its free IP addresses to help collect data and offer its customers protection with a dynamic firewall. A pilot project was agreed and the first ISP which helps collect data. Deploying a dynamic firewall was more complicated, as backbone routers tend to be specialised and closed devices. Various proprietary APIs were experimented with here, but unfortunately their

documentation and usability is insufficient. The most promising way seems to be to connect to the BIRD routing daemon and use FlowSpec or directly BGP. A prototype was created for this variant, but its testing and debugging is not scheduled until 2024.

In 2024, the Turris project will migrate to the new version of OpenWrt. There are also plans to continue to expand the reForis user interface with new features.

7.3 Business cooperation

Business activities in 2023 were in the spirit of improving business results, increasing profit and turnover, and expanding the customer portfolio.

Activity at international trade fairs and conferences increased slightly in 2023, and the IT Partners exhibition in Paris was also a success.

A new version of the Turris Omnia 4G router, which is based on customer requirements, was launched.

Despite the early stage of development of Turris Omnia Enterprise, we are already seeing interest in this device from universities and ISPs.

8 CZ.NIC Labs

The CZ.NIC Labs department is dedicated to research and development of innovative projects for the benefit of both the Czech and global internet communities. The projects focus mainly on infrastructure protocols and services, network security, traffic monitoring, analyses and DNS statistics. In addition, applications for the general public are being developed. CZ.NIC Labs currently have workplaces in all branches of the Association.

In 2023, CZ.NIC Labs worked on the following main projects:

- [ADAM](#) – a system for statistical analyses, monitoring and data display,
- [BIRD](#) – a multiprotocol routing daemon,
- [Datovka](#) – a desktop and mobile application for using data boxes,
- [Knot DNS](#) – an authoritative DNS server,
- [Knot Resolver](#) – a recursive DNS server,
- [Tablexia](#) – an educational application.

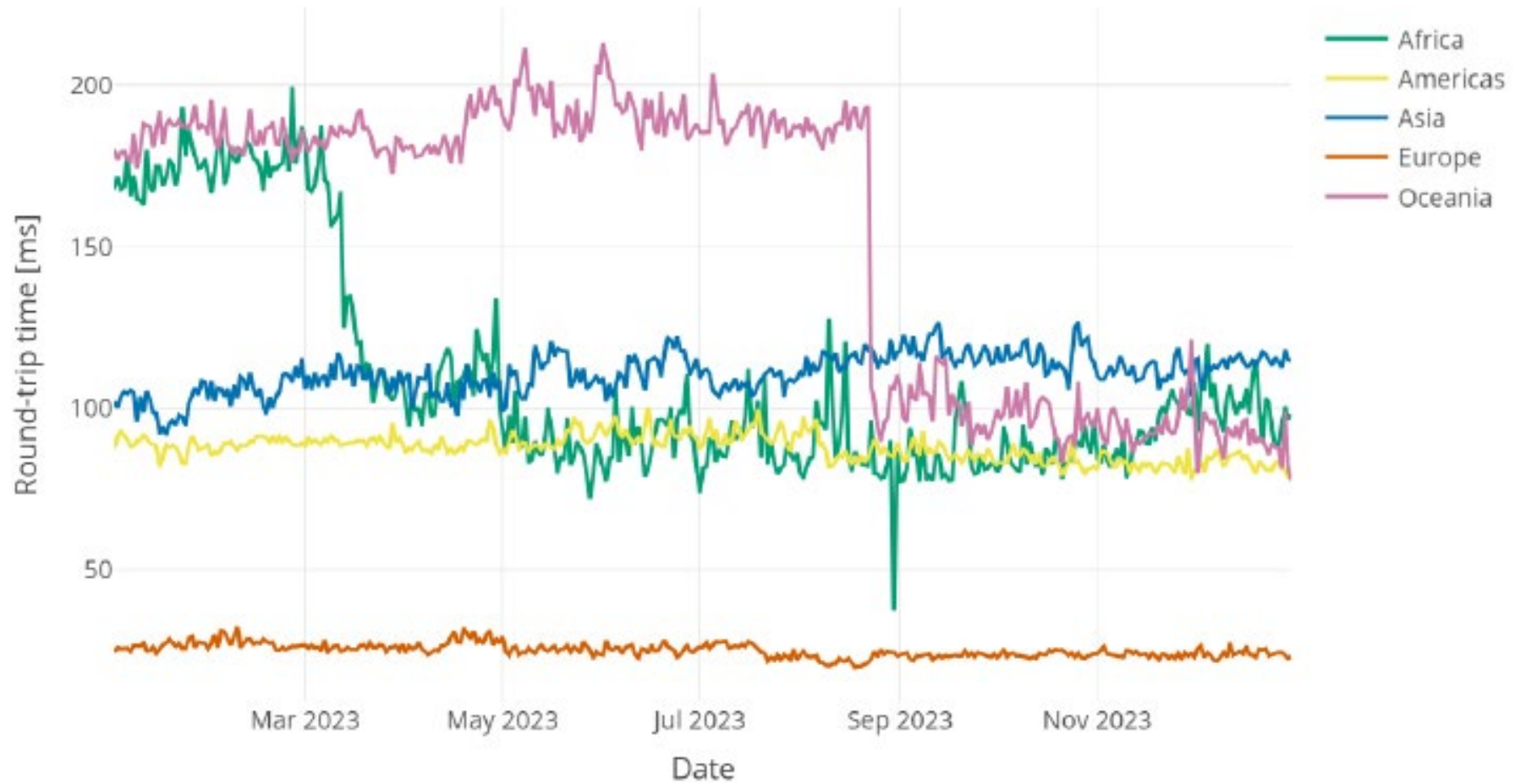
8.1 ADAM

The main tasks of the ADAM (Advanced DNS Analytics and Monitoring) project are to develop tools for the widespread collection and processing of data from DNS servers, to improve and expand data analysis methods, and to develop appropriate user interfaces and reporting methods.

The data collection and processing system developed in the past years is already in full production. The DNS Probe software developed by the Association collects transaction data from all authoritative and recursive servers and sends it in C-DNS (RFC 8616) format for processing to the central collector, from where it is stored in the Apache Hadoop distributed database.

Outputs of the ADAM project intended for the public are available on the [CZ.NIC Association's statistics](#) website.

Chart of RTT (Round-Trip Time) improvement after the launch of anycast nodes of the .CZ domain in Sydney (August 2023) and Johannesburg (March 2023).



8.2 BIRD

BIRD is a software daemon for dynamic routing of traffic on computer networks, designed for Linux and BSD. The project originally began at the Faculty of Mathematics and Physics of Charles University, and CZ.NIC Labs are participating in its further development. It is currently the most used software on route servers within peering centres in the world. According to a survey conducted by EURO-IX, more than two-thirds of the centres use it.

For the current version of BIRD 2, the development of new features, as well as fixes and enhancements, was underway in 2023. In particular, more comprehensive MPLS support was implemented, the filtering subsystem was upgraded, a new BMP protocol was included, and support for the now increasingly required IPv4 routing through IPv6 networks was extended.

At the end of 2023, support for BIRD 1 was terminated. There had been no developments in this series since 2019. It is recommended to upgrade to the more powerful and better-equipped BIRD 2 series. The more powerful BIRD 2 series has been presented at a number of professional meetings. The team does not plan to support BIRD 1 in 2024, except for customers who specifically request this support as part of the paid BIRD Support programme.

In addition, in 2023 two alpha versions of the multi-threaded BIRD 3 series, which can better exploit the potential of modern multi-core processors, were released. This version is already stable for light duty applications. However, the team is continuing to work on stabilising and incorporating the results of the development into version 2, so that the development of the BIRD 2 series can be prospectively curtailed and

purely multi-threaded development can continue. Release of the stable series 3 version is planned for 2024.

8.3 Datovka

The Datovka project is developing a library and applications for communication with the state's Information System for Data Boxes (ISDS). The library and the desktop application are available for the Windows and macOS operating systems and Linux distributions. We distribute the mobile application for Android and iOS.

One of the biggest innovations in 2023 was the inclusion of support for bulk data messaging (VoDZ). The launch of VoDZ sending in the ISDS production environment was eventually postponed by the state until January 2024. In addition to VoDZ, support was added to the applications and library for new operations announced by the ISDS operator during 2023, such as the ability to identify the sender.

In the desktop application, we continued to work on user interface modifications and a toolbar configuration option was added. We added remembering the layout of control elements or window sizes. We continued to increase the robustness of the application, adding features to verify the integrity of freshly-stored data after mailbox synchronisation. We started distributing the desktop application in a native binary form to macOS systems with ARM processors.

The second big piece of news in 2023 was a complete redesign of the mobile app user interface. The new interface is more modern and more in line with the concept of app controls on Android and iOS. Along with the change in the look of the mobile app, we modified the instructions for

using it. We added new short educational videos that guide users through the most common tasks.

The Datovka project also enjoys the greatest support from users, at least in terms of financial support. You can contribute to the project by making a donation directly on the [website](#).

8.4 Knot DNS and Knot Resolver

8.4.1 Knot DNS

Knot DNS is a software implementation of an authoritative DNS server. Its main goals include achieving high performance in processing DNS queries and the efficient administration of large TLD zones, including advanced automation of DNSSEC signing. The project has already gained recognition both in the DNS community and among users, whose number is constantly increasing.

In 2023, the implementation of DNS query processing over the QUIC encrypted protocol was completed, both in XDP mode and in the conventional mode used on BSD and macOS systems. At the same time, bi-directional support for zone transfers over the QUIC protocol was implemented with the option of opportunistic, strict or mutual authentication.

On the basis of the increasing needs of users for efficient operation of multiple primary servers, some supporting features for such deployments

were designed and implemented. Specifically, it is possible to set a preference for the most recently used primary server, which allows the continuity of differential transfers to be ensured. It is also possible to set up congruence serial arithmetic, which prevents the occurrence of different zone contents with the same version and violation of the integrity of incremental zone transfers.

The feature of automatic synchronisation of DNSKEY records between multiple signing servers using dynamic DNS is newly supported as well.

Other notable new features include support for calculating the zone difference from the incoming full transfer, enhanced validation of the input SKR in offline KSK mode, and an external REST interface for zone content management.

8.4.2 Knot Resolver

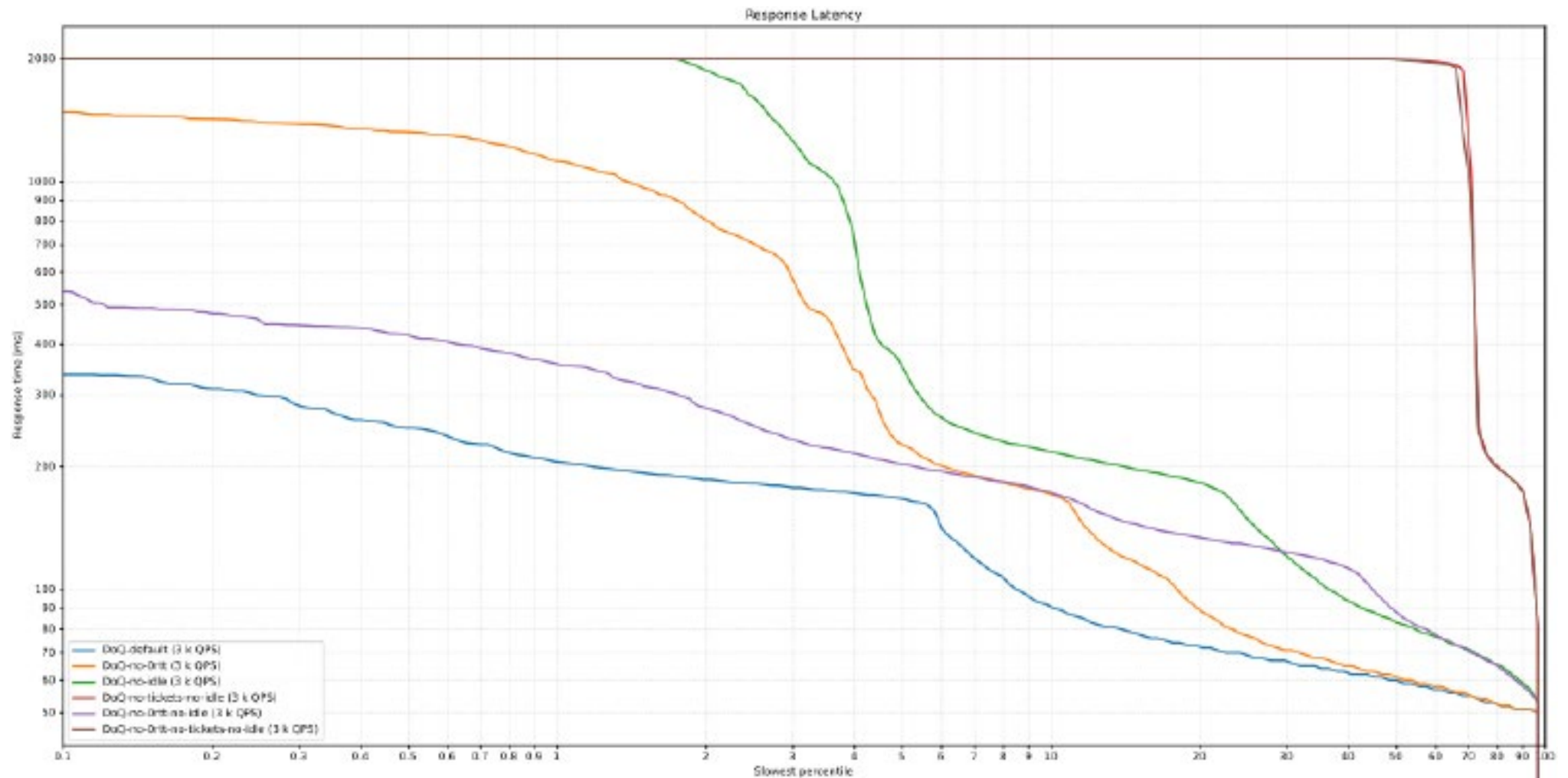
The Knot Resolver project is developing recursive DNS resolver and pioneering technologies that improve performance, security and user privacy. Knot Resolver is deployed on the public ODVR resolver operated by the CZ.NIC Association, is used as a system resolver on Turris routers, and is utilised by a number of internet service providers. Knot Resolver is also used as a core technology in the European DNS4EU project.

In 2023, the development of Knot Resolver software was focused on completing version 6.0. These preparations included re-implementation of the policy module for more convenient modification of the resolver behaviour and improvement of declarative configuration. Part of the work involved updating the documentation and debugging the manager component that manages Knot Resolver processes uniformly on different platforms. The Knot Resolver transport layer was also refactored in

preparation for the planned implementation of the DNS-over-QUIC protocol, support for which will be added during 2024.

The Knot Resolver team is also developing related support tools. These include DNS Shotgun, a tool for stress testing of DNS resolvers. In 2023, support for the DNS-over-QUIC protocol was added to that. This will also help in the development and testing of support for this protocol in the Knot Resolver itself in 2024.

Response latency



8.5 Tablexia

Tablexia is an educational app that helps with the development of cognitive skills. It is intended primarily for children with dyslexia at the second level of elementary school. In 2023, a research study on the effectiveness of the app was completed. The conclusions of the study confirmed that the app helps, but the measured benefit is relatively small. The app has its own circle of regular users, which is evident from the app usage statistics and also from the frequency of user support queries.

In the second half of 2023, the CZ.NIC Association decided to stop further development of the Tablexia project and to find a partner to take over the project. At the very end of 2023, negotiations with a serious bidder began.

9 Education and awareness

9.1

Communication with the public

The basic pillar of the media communication of the Czech national domain administrator, the CZ.NIC Association, is continuous, regular and systematic cooperation with public and private media. Newspapers, radio and television stations as well as major media servers dealing with the internet and technologies thus provided news about the CZ.NIC Association.

In total, the Association published:

- **12 press releases,**
- **24 press announcements,**

which were given to both professional journalists and journalists from media focusing on the general public or specific target groups. The CZ.NIC Association publishes these releases in the News section at www.nic.cz. The News section is also part of the information website of the Association's educational centre (CZ.NIC Academy), the CSIRT.CZ security team, and selected projects of the Association.

The communication mainly covered topics related to the basic activities of the Association, its key projects and activities, and also topics related to the activities of the Association, such as cybersecurity, personal data protection, and education and awareness in the field of the internet and internet technologies.

As in previous years, press releases appeared mainly in technically-oriented media. This most frequently meant the Root.cz and Lupa.cz portals. The Řízení školy (School Management) magazine informed on the topic of the online safety of children on the internet.

CZ.NIC Association employees published 66 authored articles in 2023. Ondřej Filip, Managing Director of the CZ.NIC Association, and other employees were guests on television and radio programmes, mainly on Czech Television, FTV Prima and Czech Radio. The audience was interested in topics related to security in cyberspace, mobile internet and the Czech national domain.

Social media

For the administrators of the Czech national domain, accounts on social networks – Facebook, X (formerly Twitter) and LinkedIn – are an integral part of communication with the public. Supporters are informed, in regular contributions, about the activities of the Association, events and current happenings in individual projects. The most followed account of the Association is the one on the X network; the others follow:

 5,969

 3,539

 2,052

Other communication channels

Another important part of communication is the weekly **NIC-NEWS** newsletter, through which messages are sent to subscribers to the email conference of the same name.

In 2023, the Association's staff wrote 72 articles for the online [CZ.NIC Staff Blog](#). The blog plays the role of the Association's official communication channel, so it is also used by journalists with a different focus.

	Media outputs		Social networks (fans)	
	Articles	Blog	Facebook	X
2012	21	97	900	630
2013	29	95	1,100	1,000
2014	38	84	1,500	1,750
2015	57	82	1,800	2,370
2016	57	59	2,600	3,088
2017	73	49	2,826	3,573
2018	56	55	2,905	3,942
2019	63	47	2,984	4,297
2020	64	50	3,156	4,605
2021	71	56	3,215	5,049
2022	60	67	3,506	5,812
2023	66	72	3,539	969

Internal communication is provided primarily by the **IN Newsletter**, which CZ.NIC employees usually receive once every two weeks.

9.2 Popularisation series

The CZ.NIC Association supports education as well as the production of popular television programmes. In co-production with Czech Television, series such as **Nauč tetu na netu (Teach Your Aunt to Use the Internet)**,

Lovci záhad (Hunters of Mysteries) (selected episodes), or **Nebojte se Internetu (Don't Be Afraid of the Internet)** were produced in the past.

The second series of **Datová Lhota**, which aired on CT:D in 2023, seems to be even more successful than the first series from 2020. Both series have ten episodes. Cooperation with Czech Television on this programme will continue.

Another project, **Alenka v říši GIFů (Alice in GIFland)**, dealt with digital literacy and the prevention of risky behaviour on the internet.

The 125-episode series titled **Jak na internet (How to use the internet)** for the general public was widely distributed and is still available on various platforms.

A documentary film called **V síti (Caught in the Net)** dealing with the issue of children's risky online communication, was created with the support of the Association as well. In early 2021, the film won the Czech Lion Award in the Best Documentary category.

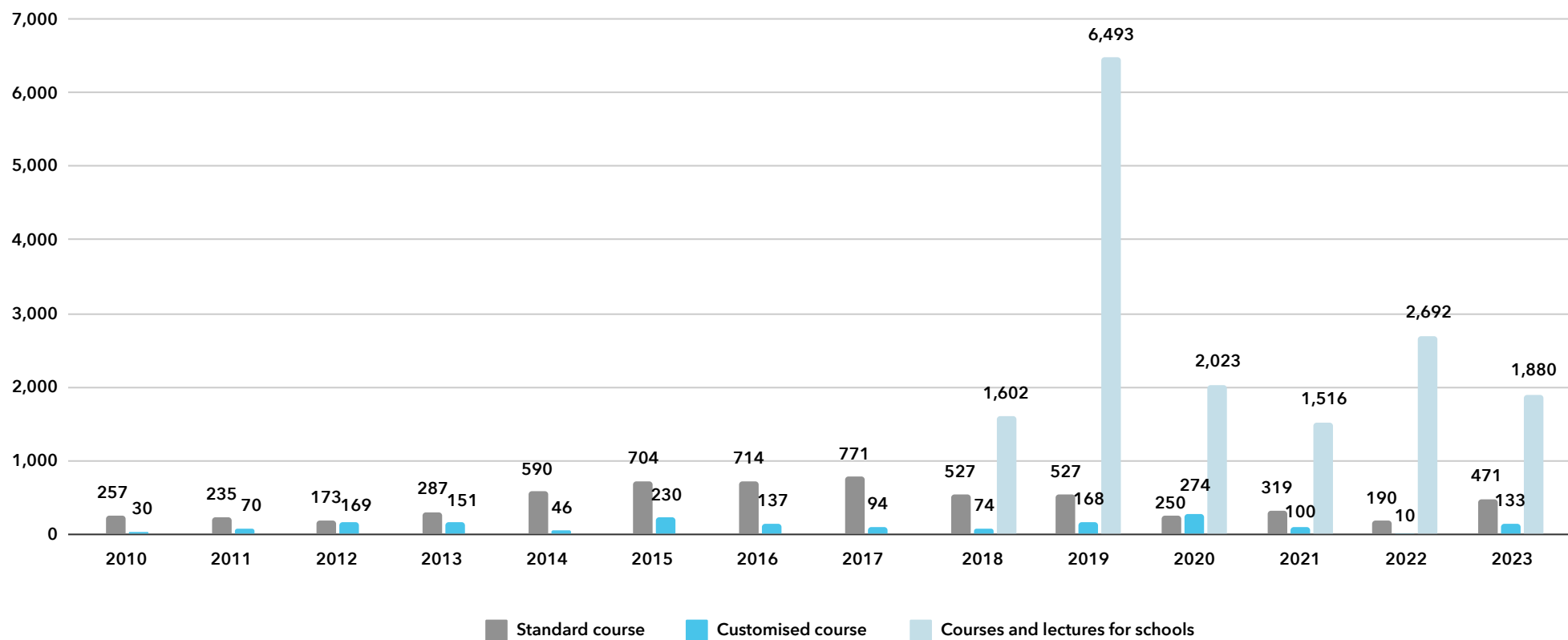
The [#martyisdead](#) series, also co-produced by the CZ.NIC Association, was awarded the **Czech Lion** in the category of outstanding achievement in the field of audiovisual production for its worldwide success. This project won the Global Emmy Award in 2020.

9.3 The CZ.NIC Academy educational centre

In 2023, the [CZ.NIC Academy](#) expanded its course offer with five new courses: Programming in Shell, Kubernetes – Container Orchestration, Introduction to Programming (in Python), Digital Footprint and Identity, and BIRD 3 for Developers.

In 2023 the CZ.NIC Academy not only offered its premises for holding full-time courses, but also served as a background for other events, both internal (training of new employees, workshops for developers and administrators, company hackathon) and external (meetings with registrars). In July, the Academy held its traditional company suburban summer camp for the children of employees. In November, the CZ.NIC Education Centre joined the Czech Digital Week event with three evening seminars and lectures.

Development of the number of participants in the CZ.NIC Academy



List of courses and lectures for schools held in 2023

Name	Number of courses	Number of participants
Current Trends in Children's Risky Behaviour on the Internet	4	142
Discussion of the Book "ONLINE ZOO"	22	411
Safe Internet	8	157
Digital Footprint	9	241
Hate Speech	1	10
Cyberbullying	9	359
Online Content Beyond the Edge	9	213
Risky Phenomena on the Internet	4	112
Social Networks	8	196
Follow the Animals to the ON-LINE ZOO	2	39

List of professional courses conducted at the CZ.NIC Academy in 2023

Name	Number of courses	Number of participants
Ansible – Mass Automation and Server Management	6	64
Internet Security and Privacy	2	13
Security of Web Applications	4	60
BIRD3 for Developers	1	8
Data Boxes in Theory and Practice	1	7
Barrier-Free Digital Design for Beginners	1	7
DNSSEC – Securing DNS	1	11
Email Authentication	2	24
Electronic Signatures and Their Verification	2	25
Git – Universal Versioning System	3	32

Containers (not only) with Docker	5	72
Kubernetes – Container Orchestration	3	34
Lego Programming	1	5
The Principles and Administration of DNS	1	8
Programming in Shell	2	18
Python Formally	3	31
Turris in Practice	1	6
Introduction to Forensic Memory Analysis	2	20
Introduction to Linux	3	18
Introduction to Programming (in Python)	1	8

List of tailored courses conducted at the CZ.NIC Academy in 2023

Name	Number of courses	Number of participants
Current Trends in Children's Risky Behaviour on the Internet	4	142
Discussion of the Book "ONLINE ZOO"	22	411
Safe Internet	8	157
Digital Footprint	9	241
Hate Speech	1	10
Cyberbullying	9	359
Online Content Beyond the Edge	9	213
Risky Phenomena on the Internet	4	112
Social Networks	8	196
Follow the Animals to the ON-LINE ZOO	2	39

Total number of all courses conducted at the CZ.NIC Academy in 2023

Course type	Total number of courses	Total number of participants
Professional courses	45	471
Customised courses	4	133
Schools	76	1,880
Total	125	2,484

9.4 Conferences

The traditional conference of the CZ.NIC Association entitled **Internet and Technology** was merged for the first time with the **LinuxDays** (2023) community event. It took place on 7 and 8 October at the Faculty of Information Technology of the Czech Technical University in Dejvice, Prague. The programme of the separate session of the CZ.NIC Association offered contributions that provided information about news from the world of domains and key projects of the Association, as well as presentations on topics related to DNS or internet security.

In 2023, the CZ.NIC Association presented itself at a number of events and professional conferences in the Czech Republic and abroad. Among the Czech ones we can mention InstallFest, Openalt, ISSS, Where Digital Networks Go and the Zlín Film Festival. As for the events abroad, the Association presented itself, for example, at events of the CENTR or ICANN organisations.

In 2023, the CZ.NIC, NIX.CZ and CESNET associations organised another annual meeting of the CSNOG (Czech and Slovak Network Operators Group) community. The main objective of this event was to mutually

exchange experience, discuss current topics, and share solutions leading to the development of internet networks in the Czech and Slovak Republics. The meeting took place on 16 and 17 May in the premises of Tomáš Baťa University in Zlín and was attended by almost 130 participants, mainly from the Czech and Slovak Republics.

9.5 CZ.NIC Edition

Publishing professional and popularising publications on topics related to the internet and its technologies is a traditional awareness-raising activity of the Association. Printed and electronic books are published in the CZ.NIC Edition.

Printed books are offered by the book distribution networks Kosmas, Euromedia Group and Pemic Books, and in the IKAR network in Slovakia.

In the area of e-books, we managed to establish cooperation with the distributor bookUP, which represents the sale of e-books through the Luxor e-shop. Electronic versions of the books are also available at Palmknihy, Kosmas, Knihy Dobrovský and other retailers. The PDF format is available for free download on the [CZ.NIC Edition](#) website.

In 2023, the Edition was expanded with the [Micro:bit krok za krokem \(Micro:bit step-by-step\)](#) title by Martin Malý. This title is very popular with readers and sold 1,198 printed copies in just four months after its release, making it the number one-selling book in 2023.

The second title published by the Edition at the end of the year is [Domain Name System](#) by Pavel Satrapa and Ondřej Filip. This title covers DNS, from the basic principles of its operation to the more challenging parts.

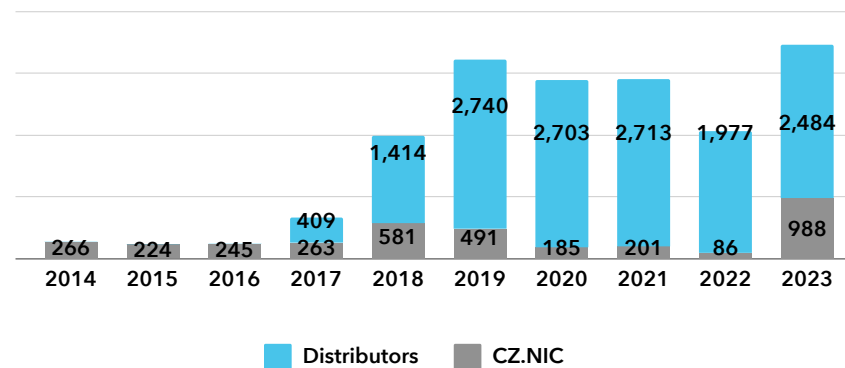
A link is now added to the publications with the option to send any financial contribution to a specific book.

In 2023, the Edition's offering grew to **29 professional or popular science titles**.

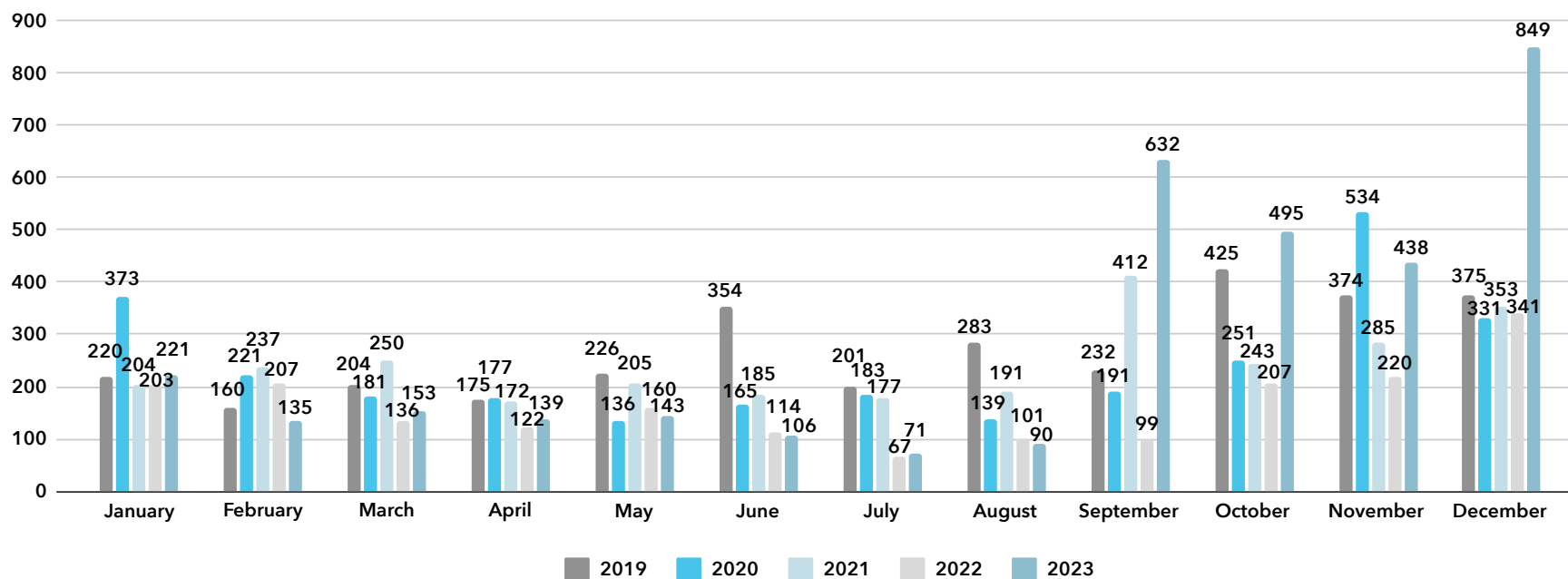
In 2023, a total of **3,472 printed books were sold** in the CZ.NIC Edition, which represents an increase compared to the previous years.

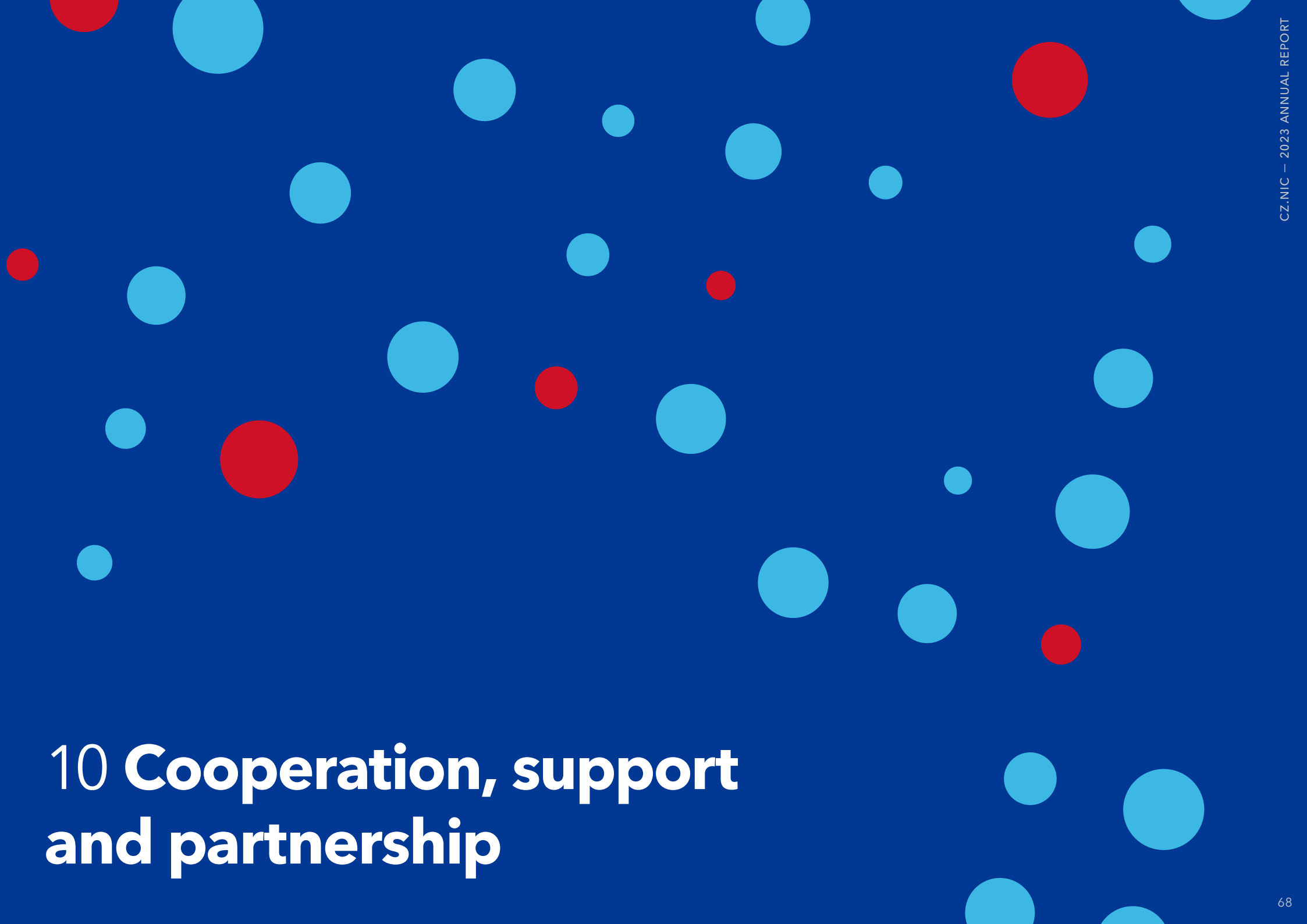
E-book sales increased from 33 in 2022 to 376 in 2023.

Overview of book sales by channel



Development of the sale of titles in the CZ.NIC Edition





10 Cooperation, support and partnership

Connecting tens of millions of users across all continents, the internet is clearly the most important communication tool today. We often hear that the internet has no borders and does not fall under the authority of any government. This does not mean, however, that the internet is not governed or that it has no rules. Nevertheless, unlike many other sectors, the rules are often created by the internet community, which also includes employees of the CZ.NIC Association.

To ensure that no efforts of any member or organisation are in vain, mutual cooperation is essential, both at the national and international levels.

Cooperation with Czech partners helps find the most acceptable system for national domain administration for the Czech user. At the same time, it contributes, mostly thanks to the projects of our Labs, to the expansion of new technologies and the development of the information society.

International cooperation not only helps to follow world trends, but also – thanks to the active participation of the association's employees – contributes to their creation and shaping, which affects our everyday lives.

Thanks to their high level of expertise, the representatives of the Association, both management and other staff, are welcome guests at both domestic and international expert forums.

10.1 Cooperation in the Czech Republic

The CZ.NIC Association is a natural partner of public administration and special-interest associations operating in the field of the internet.

10.1.1 Cooperation with public administration

The domain name **administration system**, together with the related **internet infrastructure, is a core critical infrastructure** of the state, similar to the energy or transport networks. The CZ.NIC Association considers the protection of this key infrastructure as one of its basic duties. Without the efficient and secure functioning of this critical infrastructure, neither the further development of the digital economy in the Czech Republic nor the further development of e-government services for Czech citizens and companies doing business in the Czech Republic, is possible.

The Association therefore cooperates continuously with a number of state authorities and organisations, such as the **National Cyber and Information Security Agency** (NÚKIB), the Ministry of the Interior of the Czech Republic, and the Police of the Czech Republic. The CZ.NIC Association operates the so-called **National CSIRT** of the Czech Republic for the NÚKIB on the basis of a public-law contract. In 2023, the National CSIRT was invited to participate in the Cyber Security Committee,

a permanent working body of the National Security Council. As part of the modifications to the Committee's statute, the CZ.NIC Association, as a workplace of the National CERT Team, will become a regular member of this working body from 2024.

For the **Ministry of the Interior of the Czech Republic**, the CZ.NIC Association is already operating the national **eIDAS** hub during the second period on the basis of a contract from an open tender. A great benefit of the use of state administration services in EU countries for citizens of the Czech Republic is the use of MojelD, which can also be used for state administration services in other EU countries thanks to European notification. The **MojelD** service also confirmed its function as the **most versatile identity tool in the Czech Republic** in 2023.

Another flagship project in cooperation with the state administration is the **Safer Internet Centre of the Czech Republic** project, which includes the [STOPonline.cz](https://stoponline.cz) service, whose staff are dedicated to reporting objectionable content on the internet, especially child pornography.

The Association was actively involved in debates on legislative proposals with a potential impact on the digital environment, both at the national and European level. Its representatives cooperated with a number of institutions, including the Czech Telecommunications Office, the Ministry of Industry and Trade of the Czech Republic, the Police of the Czech Republic, and judicial and bailiff authorities, as well as with authorities authorised by law, such as the Office for Personal Data Protection, trade licensing authorities, tax authorities, the Customs Administration and others.

10.1.2 Cooperation with the Non-Profit Sector

The CZ.NIC Association supports a number of organisations and projects in the non-profit sector.

People in Need

The Association supports, in particular, the educational project of the humanitarian and educational organisation Člověk v tísni (People in Need) entitled **One World**. This project offers schools documentary films and accompanying methodological aids for teaching current topics of the contemporary world and modern history.

10.1.3 Membership of professional and interest organisations

Czech Television - Děčko

In 2023, the CZ.NIC Association was represented in "**Děčkolegium**" – an informal board of advisors providing expert advice, feedback and opinions on the programmes and content of the popular Czech Television children's channel Děčko. It also helps to acquaint parents with media issues.

NIX.CZ

The largest Czech Internet Exchange Point (IXP) covers Czech and foreign internet service providers for the purpose of interconnecting their networks. The NIX.CZ Association is the largest IXP in the Czech Republic and one of the most important ones in the world.

The CZ.NIC Association is a member of NIX.CZ and contributes actively to its activities, primarily through the FENIX project. NIX.CZ also uses the products of CZ.NIC Labs, especially the BIRD multiprotocol routing daemon.

Involvement in the FENIX project

The FENIX project was established in 2013 on the platform of the biggest Czech peering hub, NIX.CZ. It aims to ensure the availability of internet services during massive DoS attacks among the entities that are involved. The project is aimed at companies providing connectivity to major content providers that need to ensure operation even in critical situations.

Participation is open to entities that meet certain conditions, including running a CERT/CSIRT team, supporting IPv6 and DNSSEC, and implementing response rate limiting and source address filtering on their network as defined by BCP-38.

10.2 Social responsibility (supporting third parties and projects)

The main activity of the Association is to operate and develop trusted, secure and stable infrastructure and generally beneficial internet services, especially the .CZ domain, for the benefit of the internet community in the Czech Republic. At the same time, however, it is mindful of responsible behaviour towards its surroundings and society as a whole, and considers it one of its main duties. Corporate social responsibility is an integral part of the corporate culture and includes economic, social and environmental aspects.

The Association cares about the satisfaction not only of the internet community in the Czech Republic, but also of its employees and partners. In doing so, it is mindful of responsible attitudes, ethical behaviour, environmental protection, innovative approaches, and support for beneficial activities and organisations.

Thanks to the activities on the international internet scene, foreign stakeholder organisations are increasingly choosing the CZ.NIC Association as a partner for cooperation and the Czech Republic as the location for their meetings. This gives representatives of the local internet community easier access to interesting topics and to the world's leading experts from the field of the internet.

Environmental responsibility

The CZ.NIC Association is fully aware of its responsibility towards the environment and tries to reflect this fact in its activities. It complies with environmental standards to minimise the impact of its activities on the natural environment.

The Association is committed to environmentally friendly operations on its own premises – whether it is the efficient use of electricity or the sorting and recycling of waste. It consistently takes care to digitise all documentation and electronic communication. Using modern technology, it reduces excess heating so that waste is avoided but a comfortable working environment is maintained. It also emphasises the environmental impact assessment of its suppliers – e.g. the DC TOWER and CE Colo data centres, where the HW and SW for the central register system are operated, are certified according to the ISO 14001 (EMS) standard.

The Association also promotes environmental responsibility among its employees, who repeatedly participate in the “Do práce na kole” (“Bike to Work”) event, which not only promotes the idea of active transport but also motivates regular exercise.

Assistance to Ukraine in the context of the armed conflict

In the year under review, the employees of the Association made a financial donation of **CZK 16,300** to help Ukraine. The donation was provided by the Embassy of Ukraine in the Czech Republic.

Helping animals

The CZ.NIC Association has been contributing to the breeding of Southern Cassowaries in the zoos in Prague, Zlín and Jihlava on a long-term basis.

Faculty of Mathematics and Physics, Charles University

In the years 2021–2026, the Association will continue to be a partner of the Faculty of Mathematics and Physics of Charles University, where both entities will cooperate particularly in the field of research, development and education, as they are connected by a number of topics related to the internet and internet networks, as well as by key projects of the Association, such as the BIRD routing daemon and the Knot DNS authoritative DNS server. As part of this cooperation, the CZ.NIC Association regularly supports the Kasiopea programming competition, intended primarily for secondary school students.

Whistleblowing

The CZ.NIC Association has established an internal system for reporting possible illegal activities in accordance with the whistleblower protection legislation. The purpose is to provide a credible way to report possible illegal behaviour while allowing for a timely response and corrective measures. Information is available on the Association’s website. The CZ.NIC Association thus confirms its position to support legal and ethical behaviour and the values and activities of all parties involved.

10.3 Cooperation abroad

10.3.1 Membership of professional and interest organisations

APWG (Anti-Phishing Working Group)

A global coalition of private companies, state institutions and security forces focused on the global fight against cybercrime, especially spam.

CENTR (Council of European National Top-Level Domain Registries)

A non-profit organisation associating administrators of top-level domain names, both national and generic. It primarily targets European registers, but its members also include representatives of more distant regions, e.g. Canada and Japan.

The CZ.NIC Association has been a member since 2001 and has been regularly involved in individual working groups' meetings. The CENTR Technical Working Group has been headed for a long time by Jaromír Talíř, a technical partner of the Association.

DNS-OARC (The Domain Name System Operations, Analysis and Research Centre)

A trusted platform that brings together key entities to share their experience from DNS operation, analysis, and research to be able to coordinate their activities efficiently, particularly those concerning the security of the system. Jaromír Talíř, a technical partner of the CZ.NIC Association, was a member of the DNS-OARC Board of Directors until October 2022.

EURid (The European Registry of Internet Domain Names)

An association, which, under the authority of the European Commission, administers the .EU top-level domain. CZ.NIC is its associate member and has a representative on the Board of Directors.

EuroISPA (European Internet Services Providers Associations)

The European Internet Services Providers Association is the largest organisation, bringing together more than 2,300 organisations around the world. The main objective of EuroISPA, of which CZ.NIC has been a member since 2008, is to represent ISPs within the legislative processes of the European Union and facilitate the exchange of experience among individual internet service providers.

CSIRT Network

A CSIRT teams interest group, which acts as a contact point for the obliged entities identified in the NIS Directive (Directive of the European Parliament and of the Council concerning measures for a high common level of security of network and information systems across the

Union). The group primarily deals with technical issues related to the implementation of this agenda.

FIRST (Forum of Incident Response and Security Teams)

The first international organisation associating security teams. It has over 700 teams in more than 100 countries around the world, with significant representation of American and European teams. It is the only organisation that provides membership to teams from around the world and also covers product teams. The CSIRT.CZ team became a member of the FIRST organisation as early as 2015.

ICANN (Internet Corporation for Assigned Names and Numbers)

An international non-profit organisation founded in 1998, the main task of which is to administer and assign not only generic top-level domain names (gTLDs) and top-level national domain names (ccTLDs), but also IP addresses. The CZ.NIC Association, as a national domain administrator, sends its representatives to regular meetings, and its experts actively participate in the activities of the working groups. Ondřej Filip, managing director of CZ.NIC, is a member of the prestigious Security & Stability Advisory Committee (SSAC) within ICANN.

IETF (Internet Engineering Task Force)

An organisation founded in 1986, which is directly linked to the birth of the internet. It is made up of an international community of leading specialists, network architects, and representatives from the commercial sector. The IETF approves and promotes internet standards – and RFC documents – which govern the majority of internet operations. Our employees are actively involved in some of them. Meetings of members

of this organisation have also taken place several times, thanks to the cooperation of the CZ.NIC Association in Prague. The CZ.NIC Labs' employees participate, within the IETF, mainly in the activities of the DNSOP (DNS operation), NETCONF (network devices configuration) and NETMOD (configuration and status data modelling) working groups. Ladislav Lhotka, a technical partner of the Association, has long been an active member of the IETF community, and he is the first Czech ever to participate in the creation of an internet standard as the lead author (RFC 6110). In recent years, the IETF has issued new standards (RFC 9108 and RFC 9130), which Ladislav co-authored.

INHOPE (International Association of Internet Hotlines)

INHOPE is an international association of over 55 hotlines aimed at combating and eliminating illegal online content, especially child pornography. The main benefits of INHOPE membership include access to the ICCAM database (derived from "I see Child Abuse Material") and the possibility of effective cooperation with other countries and institutions, particularly Interpol, in removing illegal content.

The CZ.NIC Association, with the STOPonline.cz line operated by it, became an associate member in June 2017. In 2018, the Association had gained full membership of this prestigious association, as part of the implementation of the Safer Internet Centre project. In recent years, the Association has also received a special financial reward in recognition of the high number of reports processed.

Europol (European Union Agency for Law Enforcement Cooperation)

Europol is an organisation dedicated to preventing and combating organised crime. The organisation falls under the European Union and

seeks to improve cooperation between the Member States, in particular through police and judicial consultancy and its awareness-raising and educational activities.

software, that issuers, wallet providers and relying parties can use to establish implementations that preserve user choice, security and privacy.

RIPE NCC (Réseaux IP Européens Network Coordination Centre)

An independent non-profit organisation that supports internet infrastructure. Its core activities include the operation of the RIR (Regional Internet Registry), which allocates internet resources and related services (such as IP addresses) to its members. The CZ.NIC Association, as one of the members, not only attends regular meetings, but also participates in other thematic meetings and training events organised by this organisation. In the reporting year, Ondřej Filip, Managing Director of the CZ.NIC Association, became the Chair of the Board of Directors of this organisation.

Linux Foundation Europe

LF is a non-profit technology consortium established to promote the development of Linux. It is supported by leading Linux and open source companies and developers from all over the world. Through the Linux Foundation's programmes, end users, developers and industrial entities cooperate on technical, legal and promotional issues related to Linux.

Open Wallet Foundation OpenID

OWF is a consortium of companies and non-profit organisations that cooperate in order to expand open, secure and interoperable digital wallet solutions globally, as well as to provide access to expertise in this area. OWF aims to underpin best practice for digital wallet technology by cooperating on standards-based components, developed as open

11 Grant projects

In 2023, the Association joined the EWC and DNS4EU international consortia and the continuation of the Safer Internet Centre of the Czech Republic project. At the same time, several other project opportunities were explored within the Digital Europe Program calls launched by the European Commission.

In accordance with the CZ.NIC development strategy for the period 2022-2024, the CZ.NIC Association's attention focused on cybersecurity, electronic identity and safer behaviour on the internet for children and young people.

In addition to the practical application of professional skills and knowledge, the implementation of projects and participation in international consortia brings us cooperation with interesting Czech and foreign partners across the private, academic, non-profit and public spheres. In our communication with the agencies that administer the projects in question for the Commission, we confirmed that CZ.NIC is considered a competent, trustworthy and respected partner.

Involvement in European Cooperation Projects

During the period under review, the CZ.NIC Association was part of three projects co-financed by the EU's programmes Connecting Europe Facility (CEF) and Digital Europe Program (DEP). Through the instruments concerned, the European Commission implements its strategies and goals in key areas of the European economy. In doing so, great attention is paid to information and communication technologies and European networks.

The following projects were implemented with the financial support of the European Commission in 2023:

EU Digital Identity Wallet Consortium (EWC; project no. 101102744).

Electronic identity is one of the priority areas of interest for the Association. In addition to the development of the MojID solution and support for its dissemination, in 2023 the CZ.NIC Association started cooperation on the EU Digital Wallet Consortium (EWC) project, which aims to take advantage of the upcoming EU digital identity. The project consortium consists of 41 partners from different European countries.

The planned solution is built on the Reference Wallet Application and aims to introduce a solution targeted at Digital Travel Credentials. The project aims to go beyond the simple digitisation of travel documents and to fully exploit the potential of the proposed "EU Digital Identity Wallet" (EDIW). The vision of the project is to provide free, seamless and secure cross-border operation with the ability for wallet holders to identify themselves when working, studying, paying or interacting with administration online anywhere in Europe.

Involvement in the project is important both in terms of sharing experience and fostering cooperation across Europe, as well as for the practical implementation of the Commission's intentions in the field of cross-border digital identity. The planned end date of the project consortium is 31 March 2025.

DNS4EU and European DNS Shield (DNS4EU; project no. 101095329)

The DNS area is one of the core pillars of the CZ.NIC Association's activities. The expertise and years of experience of the Association with the development and operation of DNS resolvers were behind the project coordinator's offer to become part of the European consortium DNS4EU. The project aims to build a recursive European DNS resolver

service infrastructure based on a highly federated and distributed DNS protection ecosystem.

From a technology perspective, the project combines cloud and on-premise components delivered through publicly available resolvers in a DNS4EU cloud and the on-premise DNS resolvers of MNO, Telco and ISP. The availability of both cloud and on-premise DNS resolvers is intended to ensure a significant level of adoption and to fulfil the core objective of strengthening European sovereignty and providing a secure and open alternative DNS resolver for EU citizens, businesses and public administration bodies.

During 2023, the CZ.NIC Association's activities focused on the development of its own open-source Knot DNS and its selected functionalities needed for real deployment in the DNS4EU infrastructure. Concurrent activities here included developing new or updated standards in the DNS protocol, testing the impact on various devices and applications, monitoring DNS resolution issues, and troubleshooting end-user DNS resolution problems.

DNS4EU is also an important project for the European Commission. The project is scheduled to end on 31 December 2025.

Safer Internet Centre CZ (SIC CZ) (project no. 101083580)

The safety of children and young people on the internet and strengthening their digital skills and knowledge has been a long-standing theme for the Association. The CZ.NIC Association took over responsibility for coordinating national activities aimed at improving online safety for children in 2019, when it took the lead in the consortium of the national Safer Internet Centre of the Czech Republic project. The Association subsequently became an integral part of Insafe, an

organisation that brings together European Safer Internet centres, as well as INHOPE, an organisation which coordinates the cooperation of national hotlines for reporting illegal content on the internet.

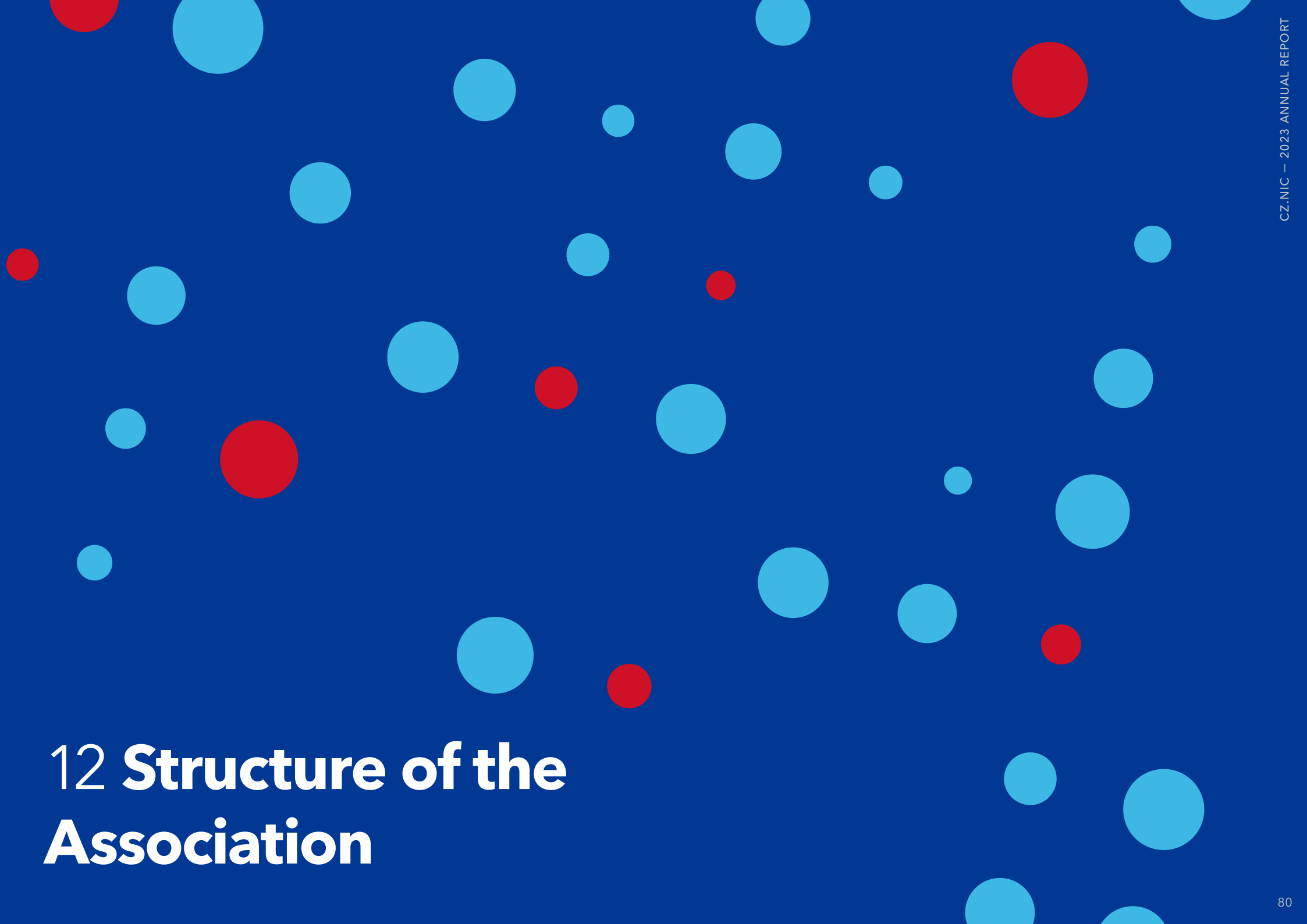
In 2023, in cooperation with the project partners Člověk v tísni (People in Need), Linka bezpečí (Helpline) and Dětské krizové centrum (Children's Crisis Centre), a total of 240 school visits were carried out, 128 other educational events were organised, 19 professional seminars were held, and 31 original printed material publications were published. The newly-created website www.bezpecnyinternet.cz with preventive and educational content for children, teachers and parents, introduced by the CZ.NIC Association in spring 2023, received over half a million visits. Last but not least, 507 mentions in national and regional media is an interesting number.

The CZ.NIC Association manages the project consortium, oversees negotiations with the European Commission and HaDEA agency, and represents SIC CZ at the international level. The Association's staff are involved in the working and governing bodies of Insafe and INHOPE, as well as contributing to key European events such as the Safer Internet Forum and the Insafe Training Meeting. Their activities help spread the good name of the Association and the entire Czech Republic in Europe.

The main outputs of the Safer Internet project in 2023 include:

- the airing of the new series of Alenka v říši GIFů II. (Alice in GIFland II.), which Czech Television presented on CT :D;
- the design and launch of the cited web portal SIC CZ;
- the creation of an Instagram account [No_Net_Drama](#), the content of which is prepared in cooperation with a young digital agency in order to best reach the "Alpha" and "Z" generations;

- the creation of 3D haptic models for the children's book [ON-LINE ZOO](#) in cooperation with organisations and schools supporting visually impaired and blind children;
- the creation of a new Digital Footprint course in cooperation with the CZ.NIC Academy and implementation of professional seminars and training events across the country for a number of target groups, including clients and educators in children's homes or partners in selected regions;
- the development and deployment of an automated tool for vulnerability scanning of websites of schools and organisations working with children;
- active participation in the national Czech Digital Week in close cooperation with the Office of the Government of the Czech Republic.



12 Structure of the Association

12.1 Members

The member base of the association is made up of a number of entities which are significantly **involved in the functioning of the Czech internet**. Among its members there are representatives of internet and telecommunications service providers, domain name registrars, publishers of internet and print media, e-commerce businesses, and companies for whom the internet and domain names are an important communication tool.

The CZ.NIC Association is thus one of the places where these representatives can meet and, at the same time, influence the future direction of the Czech internet. Further expansion of the Association's knowledge portfolio, streamlining its management and response to the constant development of the internet, allows a wide range of business activities for members and their involvement in the Association's activities, either by attending General Meetings, working groups and seminars, or email conferences, or by directly working in the Association's bodies.

Membership conditions

A legal entity that meets the following general terms and conditions for membership can become a member of the Association:

- location of the registered office or organisational unit in the territory of a Member State of the European Union,
- holding at least one domain name in ccTLD CZ,
- payment of the entrance membership fee.

The members of the Association are divided into three chambers:

- Chamber of Domain Name Holders,
- ISP Chamber,
- Chamber of Registrars.

The statutes govern the special terms and conditions of membership of the individual chambers. The chamber arrangement brings benefits to the members of the Association, who can easily formulate and defend their opinions and interests together with other similarly-oriented entities.

This arrangement also makes the operation and negotiations of the Association bodies, particularly the Collegium and General Meeting, more efficient.

12.1.1 Number of members by chamber

As of 31 December 2023, the CZ.NIC Association had a total of **120 members**.

Development of the number of members by chamber

Chamber/ Year	ISP	Registrars	Domain name holders	Total
2008	15	11	31	57
2009	17	14	32	63
2010	19	19	37	75
2011	23	17	49	89
2012	27	18	61	106
2013	27	19	65	111
2014	24	20	69	113
2015	23	20	72	115
2016	25	20	67	112
2017	26	18	71	115
2018	26	19	69	114
2019	27	17	72	116
2020	27	17	75	119
2021	29	16	75	120
2022	28	16	77	121
2023	28	16	76	120

Division of members by chamber

ISP	23.2%
Registrars	13.2%
Domain name holders	63.6%

12.1.2 Overview of members by chamber

Overview of members of individual chambers as of 31 December 2023

Chamber of Domain Name Holders (Business Name, Company ID No.)

ABRATICA s.r.o.	26108534
ACOMWARE s.r.o.	25047965
AdminIT s.r.o.	27864901
Advio Network, s.r.o.	28565673
Adytia Innovation OÜ	14498430
AKREDIT, spol. s r. o.	25797387
ALEF NULA, a.s.	61858579
ALENSA, s.r.o.	27179681
AliaWeb, spol. s r. o.	26117363
Asociace pro elektronickou komerci, z.s. (Association of E-commerce)	68684797
AUDITEL, s.r.o.	26775034
CD PROFESIONAL security agency, s.r.o.	25712713
CISCO SYSTEMS (Czech Republic) s.r.o.	63979462
.CO.CZ s. r. o.	14364786
COMGUARD a. s.	4305426

ComSource s.r.o.	29059291
Com-Sys TRADE spol. s r. o.	16188781
CQK HOLDING a.s.	28405579
CYBERSALES a.s.	26199653
Česká unie vydavatelů, z. s. (Czech Publishers Association)	15887081
Datahost s.r.o.	26390973
DELL Computer, spol. s r. o.	45272808
ECOMOLE LTD.	9526615
ekolo.cz s.r.o.	27141659
eMan a. s.	27203824
Fortion Networks, s.r.o.	26397994
Gordian Investments s. r. o.	24159778
Greenlux s.r.o.	28608747
Holubová advokáti s.r.o.	24686727
ICZ a.s.	25145444
igloonet, s.r.o.	27713482
I. H. P. společnost s ručením omezeným	48117846
INBES, spol. s r. o.	14502593
Intell. Net s.r.o.	27971546
Internet Info, s.r.o.	25648071
Internet Mall, a.s.	26204967
Klíč, spol. s r. o.	28129377
Laurián s.r.o.	29018919
MAFRA, a.s.	45313351
Mailkit s.r.o.	26449901
MARIAS s.r.o.	26136139
MASANTA s.r.o.	25730533
MEASUREMENT PRAHA, s. r. o.	4404971
MEDIA FACTORY Czech Republic a.s.	26288311
Michal Krsek & partneři s.r.o.	27418570
Modrá Busina s.r.o.	28885961
Moonlake Web Services, s.r.o.	29249911
Neutral czFree eXchange, z.s.p.o.	75093201

NEW MEDIA GROUP s.r.o.	26124611
Nux s.r.o.	27234631
Občanské sdružení Ubuntu pro Českou republiku	22674608
Orego finance s.r.o.	24718955
PharoCom s. r. o.	25172131
Prague Business Office s.r.o.	27143481
Pražský Účetní Servis s.r.o.	26740575
Qrator Labs CZ s.r.o.	3620174
Seyfor, a. s.	1572377
SH.cz s.r.o.	25492063
Skymia s. r. o.	28238613
Software602 a.s.	63078236
Socha, spol. s r.o.	48291153
SVBsoft, s. r. o.	28523644
TechLabs s. r. o.	8618445
Tech Ware spol. s r.o.	14891107
TIKWI s.r.o.	28917651
Trustica s.r.o.	26514362
ÚVT, s.r.o.	25701118
Vedea s.r.o.	28913876
VIZUS.CZ s.r.o.	27155315
VOLNÝ, a.s.	63080150
Vymáhání a odkup pohledávek s.r.o., in liquidation	27566510
Webarium, s.r.o.	26089602
Webnames s.r.o.	44848692
Web security s.r.o.	6927351
Ztracené kobylinky, z.s.	22753001
1X s.r.o.	44632142
1X s.r.o.	44632142

ISP Chamber (business name, company identification number)

ABAK, spol. s r.o. CZE ABAK, GmbH GER ABAK, Co.Ltd. ENG	40763153
Casablanca INT a.s.	9070931
CESNET, z.s.p.o.	63839172
COOLHOUSING s.r.o.	14893983
ČD – Telematika a.s.	61459445
České Radiokomunikace a.s.	24738875
Dragon Internet a.s.	27237800
Družstvo EUROSIGNAL	26461129
Faster CZ spol. s r.o.	60722266
FreeTel, s.r.o.	24737887
H17 Networks, s.r.o.	27374041
INTERNEXT 2000, s.r.o.	25352288
IPEX a.s.	45021295
JHComp s. r. o.	26051362
LAM plus s.r.o.	25129619
Mach3net s.r.o.	27344860
Master Internet, s.r.o.	26277557
Nej.cz s.r.o.	3213595
NetArt Group s.r.o.	27612694
NetX Networks a.s.	8544603
Pe3ny Net s.r.o.	27252183
PODA a.s.	25816179
STARNET, s.r.o.	26041561
T-Mobile Czech Republic a.s.	64949681
ÚVT Internet s.r.o.	24288705
VIVO CONNECTION, spol. s r.o.	26900696
VSHosting s.r.o.	61505455
2 connect a.s.	29007542

Chamber of Registrars (business name, company identification number)

ACTIVE 24, s.r.o.	25115804
ASPone, s.r.o.	28274326
e-BAAN Net s.r.o.	26867257
INTERNET CZ, a.s.	26043319
KRAXNET s.r.o.	26460335
Media4web, s.r.o.	26735903
ONE.CZ s.r.o.	25503651
O2 Czech Republic a.s.	60193336
Quantcom, a. s.	28175492
Seonet Multimedia s.r.o.	27522041
Seznam.cz, a.s.	26168685
TELE3 s.r.o.	26096960
Webglobe, s.r.o.	26159708
Web4U s.r.o.	17311501
ZONER a.s.	49437381
ZooControl s.r.o.	5766656

12.2 Bodies of the association

12.2.1 General Meeting

The supreme body of the Association is the General Meeting, i.e. all members of the Association. They are divided into three chambers – the

Chamber of Registrars, the ISP Chamber, and the Chamber of Domain Name Holders.

Each member of the Association has the right to participate in the General Meeting and promote their ideas, opinions and comments.

12.2.2 Collegium

The Collegium is a body of the Association consisting of members elected by the individual chambers of the General Meeting and/or by other persons.

The powers of the Collegium include, for example, approving the Association's concept and budget, approving agreements concluded between the Association and the state, and electing and removing members of the Board of Directors and the Supervisory Board.

The Collegium has a total of 21 members, of which 18 are elected by the individual chambers of the General Meeting. Public administration bodies nominate three members. Members of the Collegium are elected to serve three-year terms of office.

Members of the Collegium elected by the General Meeting

Chamber of Domain Name Holders

- Ohnesorg Dan (re-elected for a further term of office from 20 December 2023)
- Gruntorád Jan
- Košata Bedřich

- Ohnesorg Dan
- Redl Jan (re-elected for a further term of office from 20 December 2023)
- Taft Karel

ISP Chamber

- Dragon Tomáš
- Košnar Tomáš
- Pečinka Vlastimil (re-elected for a further term of office from 20 December 2023)
- Pospíchal Zbyněk
- Procházka Marcel (re-elected for a further term of office from 20 December 2023)
- Švácha Milan

Chamber of Registrars

- Filípková, Ilona
- Kukačka Martin
- Kysela Stanislav
- Pohořelická Martina (from 20 December 2023)
- Polanský Lukáš
- Syrovátka Erich (from 20 December 2023)
- Šmída Petr (until 19 December 2023)
- Štéc Petr (until 19 December 2023)

Members of the Collegium nominated by state administration bodies

- **Bumbálková Zina**, Ministry of Industry and Trade of the Czech Republic
- **Náhlavská Lenka**, Czech Chamber of Commerce
- **Peterka Jiří**, Czech Telecommunication Office

12.2.3 Board of Directors

The Board of Directors is a governing body that manages the Association's activities and acts in its name.

Members of the Board of Directors

- **Taft Karel**, Chair of the Board of Directors
- **Antoš Marek**, Vice-Chair of the Board of Directors
- **Filípková Ilona**, Member
- **Košňar Tomáš**, Member
- **Kukačka Martin**, Member

12.2.4 Supervisory Board

The Association's control body, which supervises the performance of the Board of Directors and the implementation of the Association's activities.

Members of the Supervisory Board

- **Redl Jan**, Chair of the Supervisory Board
- **Gruntorád Jan**, Member
- **Pečínka Vlastimil**, Member

12.2.5 Management

- **Filip Ondřej**, Chief Executive Officer
- **Peterka Martin**, Chief Operating Officer and Deputy Managing Director
- **Brůna Zdeněk**, Chief Technical Officer
- **Fuňka Tomáš**, Chief Financial Officer
- **Hála Tomáš**, Chief Information Officer
- **Písek Ondřej**, Chief Marketing Officer
- **Sládek Vilém**, Chief Communications Officer
- **Hrušecký Michal**, Head of the Hardware Development Department
- **Chmelová Kateřina**, Chief Sales Officer
- **Chomyn Josef**, Head of Research Team (CZ.NIC Labs)
- **Lhotka Ladislav**, Technical Fellow
- **Talíř Jaromír**, Technical Fellow
- **Novák Jaromír**, Partner for Relations with the Public Administration

13 Human resources

The strength of the Association lies in its professionally competent and qualified employees, who are essential for the fulfilment of the Association's objectives and further development. It is no exaggeration to say that many of our employees are leading experts in their fields, with both a Czech and an international reputation.

To strengthen individual competencies, all employees are continuously educated in the fields of foreign languages, so-called soft skills and professional knowledge, so that they can achieve the highest possible professional and personal qualities and contribute with their knowledge and skills to the further development of the Association and thus also the Czech internet.

13.1 Number of employees

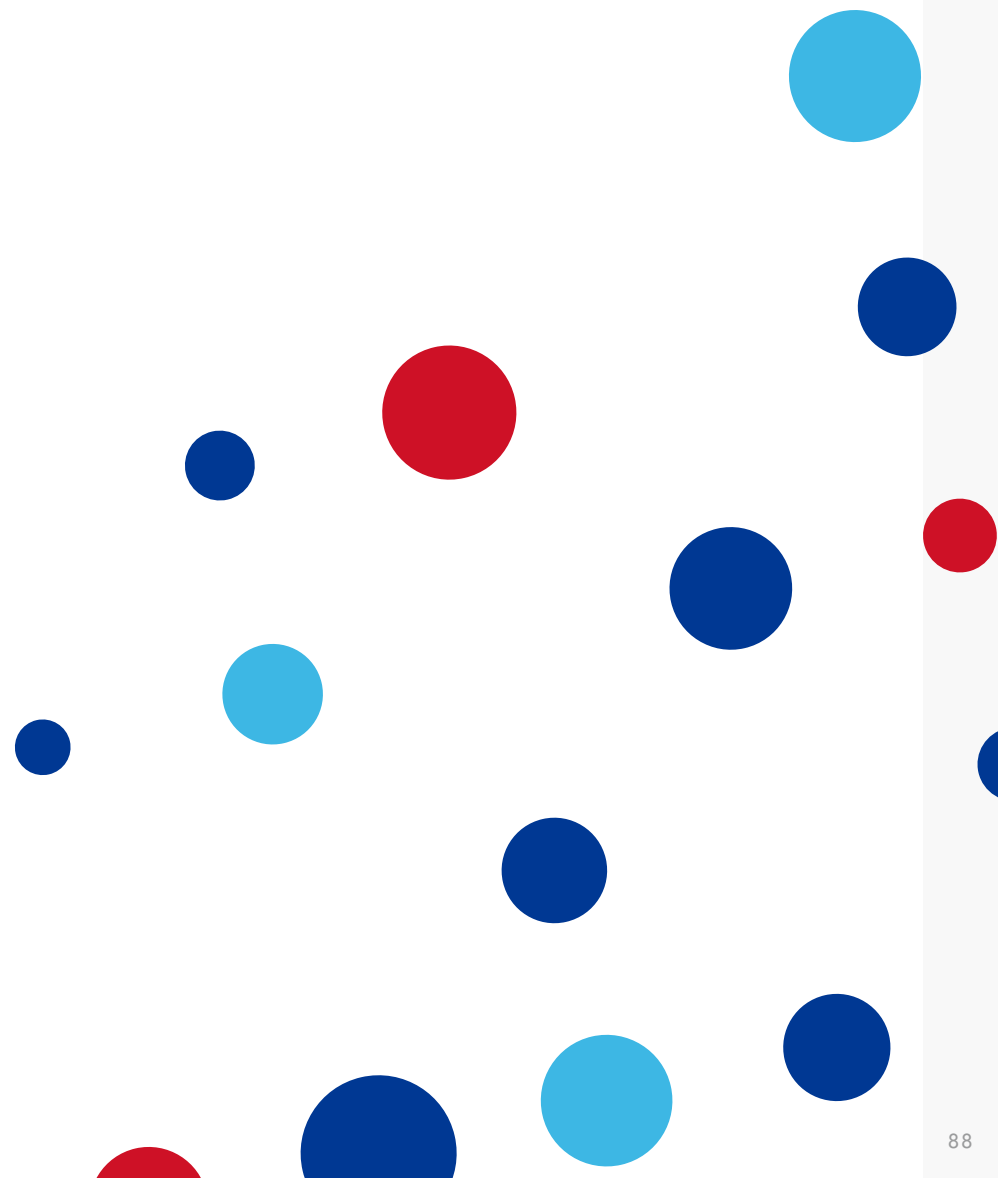
In 2023, the number of employees of the Association decreased slightly. A separate sales department under the leadership of the new director Kateřina Chmelová, who also became a member of the management, was separated from the marketing department. In addition to marketing, our development, customer support, HW development and EU projects departments weakened slightly.

On the other hand, more colleagues work in the network administration department and in our laboratories. The CSIRT team was strengthened as well.

In addition to employing experienced professionals, we also like to nurture new talent. Therefore, many departments are assisted by university and secondary school students working on the basis of work

agreements. We also enable secondary school students to gain their first work experience as part of compulsory internships.

In addition to employing experienced professionals, we are also happy to nurture new talents, which is why we have university and secondary



State and Development of Employee Numbers

Department	Number of employees (as of 31 December 2022)	Number of FTEs (as of 31 December 2022)	Number of employees (as of 31 December 2023)	Number of FTEs (as of 31 December 2023)
Management	12	11.60	13	12.60
Marketing/PR	12	10.00	7	5.00
Sales	x	x	3	3.00
Academy	1	1.00	1	1.00
Development	28	23.60	26	21.40
Network Administration	12	9.50	13	12.00
CZ.NIC Labs	21	17.00	22	17.50
Legal	2	1.75	2	1.75
Secretariat	2	2.00	2	2.00
HR	1	0.00	1	0.63
Customer Support	12	12.00	11	11.00
CSIRT	11	9.00	12	8.90
HW Development Department	19	16.30	17	12.38
EU Projects	6	2.75	4	2.75
Total	139	116.50	134	111.90

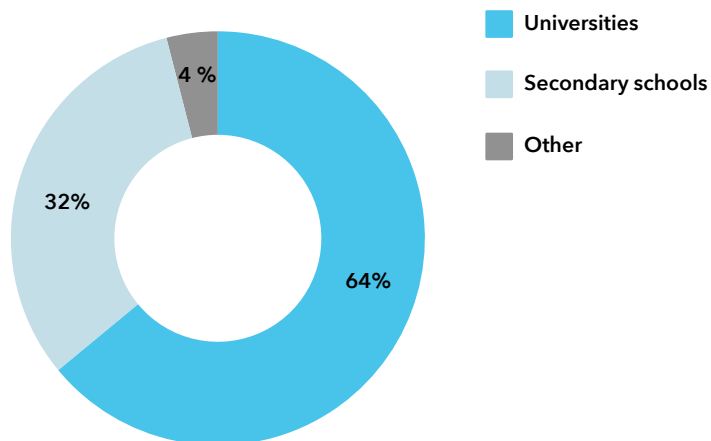
school students helping us on the basis of work agreements in many departments.

13.2 Employee structure

Employee structure by education

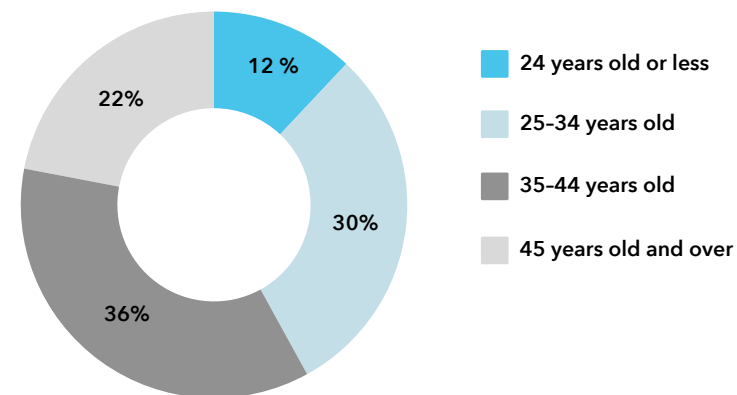
Most employees of the Association have a university degree. The CZ.NIC Association also provides fresh university graduates with the opportunity to acquire professional experience, building suitable conditions for them and assigning them to its branches in Brno, České Budějovice and Plzeň.

At the same time, the Association has an open door for talented secondary school students and university students. Therefore, the ratio of university-educated to secondary-school-educated workers has changed slightly in favour of secondary school graduates.



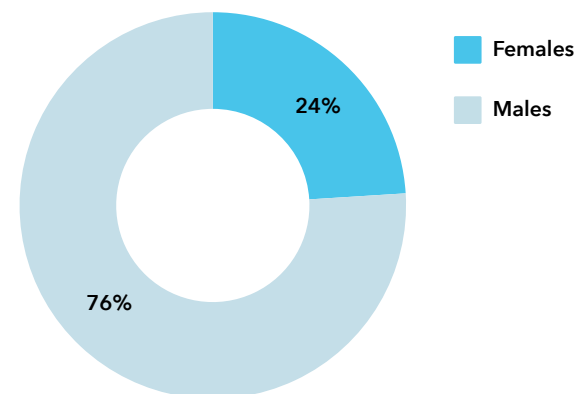
Employee structure by age

The average age of the Association's employees is 37 years. In terms of age structure, employees aged 35-44 predominate.



Employee structure by gender

In recruiting new employees, the CZ.NIC Association encourages equal opportunities and the involvement of women. Among other things, we offer the possibility of working part-time, which allows employees to combine their work and parental responsibilities. Given the structure of graduates in the technical branches of universities, however, the proportion of men still prevails, just like in other technology companies.



Employee ombudsman

The CZ.NIC Association is aware that satisfied employees are key to its successful operation. This is why the Association has created the position of an employee ombudsman. The ombudsman looks after the employees and defends their interests. This prevents conflicts and misunderstandings and resolves dissatisfaction, problems and obstacles in working relationships or processes. The ombudsman is an impartial confidant, advisor and facilitator in achieving change/solution. The ombudsman is appointed by the Board of Directors of the Association on the basis of a proposal from the management.

In 2023, the employment ombudsman dealt with one case.

14 Selected financial indicators

14.1 Balance sheet

	2018	2019	2020	2021	2022	2023
Total assets	534,656	569,478	602,667	633,438	653,028	703,113
Fixed assets	89,103	89,001	80,579	75,682	81,573	75,734
Intangible fixed assets	1,438	1,333	931	253	845	149
Tangible fixed assets	87,665	87,668	79,648	75,429	80,728	75,585
Non-current financial assets	0	0	0	0	0	0
Current assets	444,082	479,202	521,033	556,449	569,256	625,473
Inventories	40,435	41,045	49,591	57,000	71,762	40,563
Receivables	8,860	10,425	14,560	24,348	34,393	21,530
Current financial assets	132,609	194,885	206,593	208,510	204,559	231,211
Cash	262,178	232,847	250,289	266,591	258,542	332,169
Accrual of assets	1,471	1,275	1,055	1,307	2,199	1,906
Total liabilities	534,656	569,478	602,667	633,438	653,028	703,113
Equity	338,039	358,705	382,368	403,553	415,460	451,583
Share capital and capital funds	0	0	0	0	0	0
Funds from profit	167,121	172,853	193,520	217,183	236,983	249,912
Profit/loss of previous years	165,185	165,185	165,185	165,185	165,548	165,548
Profit/loss of the current fiscal period	5,733	20,667	23,663	21,185	12,929	36,123
External sources	67,723	68,862	72,841	79,128	82,402	94,328
Reserves	6,454	8,691	14,512	14,671	18,227	20,343
Payables	61,269	60,171	58,329	64,457	64,175	73,985
Accrual of liabilities	128,894	141,911	147,458	150,757	155,166	157,202

In thousands of CZK

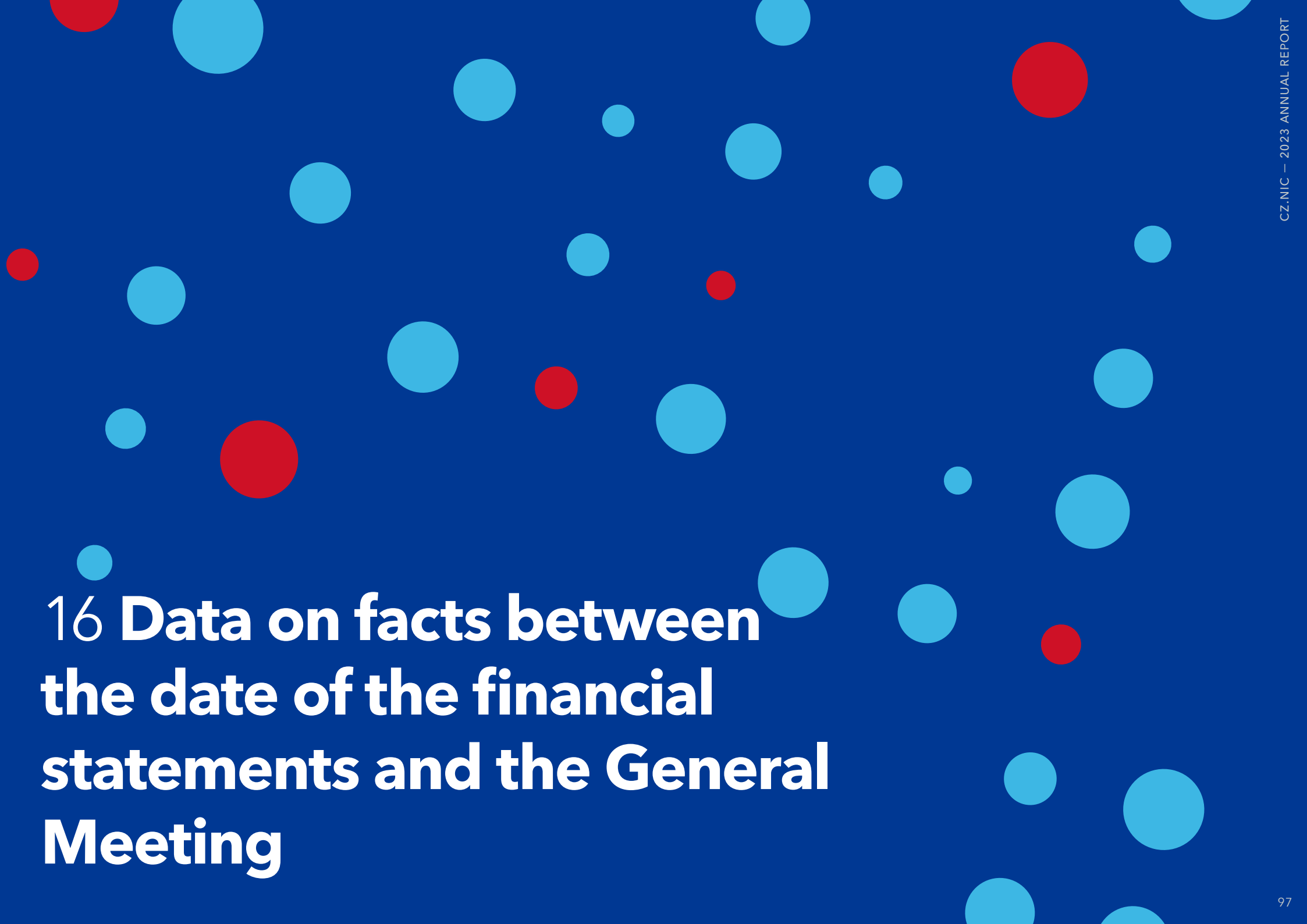
14.2 Profit and Loss Statement

	2018	2019	2020	2021	2022	2023
Revenue from the sale of products and services	178,530	193,364	207,631	220,532	231,276	231,283
Sales of goods	11,267	20,210	24,522	54,530	50,954	48,156
Other operating income	13,304	13,813	11,657	9,878	4,277	7,049
Production consumption	67,523	70,268	65,827	94,937	93,216	93,383
Change in inventories of the Association's own operations	-951	82	256	445	341	74
Activation	0	0	0	0	0	0
Personnel costs	111,018	117,380	129,418	144,066	150,897	167,653
Valuation adjustments in the operating area	12,747	17,104	14,393	12,924	12,211	11,937
Other operating expenses	3,957	5,005	7,663	2,865	11,338	5,340
Operating profit/loss	8,807	17,548	26,253	29,703	18,504	8,101
Interest yields and similar revenue	311	1,286	920	279	4,616	11,864
Other financial income	57,271	30,343	24,606	43,495	70,838	120,978
Other financial expenses	58,233	25,590	22,578	47,976	73,855	96,773
Financial profit/loss	-651	6,039	2,948	-4,202	1,599	36,069
Profit before tax	8,156	23,587	29,201	25,501	16,404	44,170
Income tax	2,423	2,920	5,538	4,316	3,475	8,047
Profit after tax	5,733	20,667	23,663	21,185	12,929	36,123

In thousands of CZK

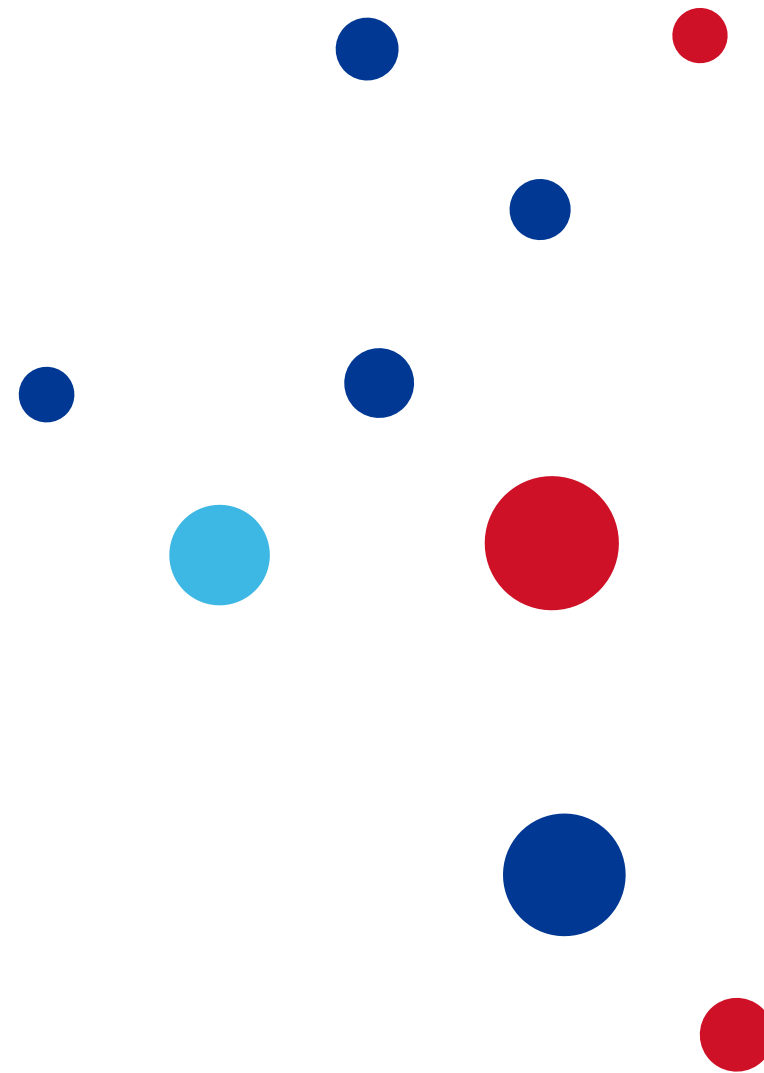
15 List of suppliers

In 2023, the Association did not pay more than CZK 5 million (excluding VAT) to any supplier for the supply of goods or services (Art. 45.4. of the Statutes).



16 Data on facts between the date of the financial statements and the General Meeting

No events occurred in the given time period that would have an impact on the data presented in the financial statements for 2023.



17 Auditor's report

Zpráva nezávislého auditora	
Účetní jednotka:	CZ.NIC, z.s.p.o.
Sídlo:	Milešovská 1136/5, 130 00 Praha 3 - Vinohrady
Právní forma:	Zájmové sdružení právnických osob (dále jen „Sdružení“)
Identifikační číslo:	679 85 726
Rozvahový den:	31.12.2023
Účetní období:	01.01.2023 – 31.12.2023
Účel činnosti:	Sdružení zejména a) provozuje a rozvíjí doménu nejvyšší úrovně ccTLD CZ; b) provozuje a rozvíjí důvěryhodnou, bezpečnou a stabilní informační a komunikační infrastrukturu, včetně vývoje a podpory rozvoje internetových služeb, a to především prostřednictvím inovativních projektů s otevřeným zdrojovým kódem; c) šíří a podporuje výuku, vzdělávání, osvětu a diskusi o aspektech internetových technologií; d) zabývá se zvyšováním úrovně kybernetické bezpečnosti.

Výrok auditora

Provedli jsme audit přiložené účetní závěrky výše uvedené účetní jednotky sestavené na základě českých účetních předpisů, která se skládá z rozvahy k 31.12.2023, výkazu zisku a ztráty za období 01.01.2023 - 31.12.2023, přehledu o peněžních tocích, přehledu o změnách vlastního kapitálu a přílohy této účetní závěrky včetně významných (materiálních) informací o použitých účetních metodách.. Údaje o účetní jednotce jsou uvedeny v příloze této účetní závěrky.

Podle našeho názoru účetní závěrka podává věrný a poctivý obraz aktiv a pasiv účetní jednotky k 31.12.2023 a nákladů a výnosů a výsledku jejího hospodaření za rok končící 31.12.2023 v souladu s českými účetními předpisy.

Základ pro výrok

Audit jsme provedli v souladu se zákonem o auditorech a standardy Komory auditorů České republiky pro audit, kterými jsou mezinárodní standardy pro audit (ISA) případně doplněné a upravené souvisejícími aplikačními doložkami. Naše odpovědnost stanovená těmito předpisy je podrobněji popsána v oddílu Odpovědnost auditora za audit účetní závěrky. V souladu se zákonem o auditorech a Etickým kodexem přijatým Komorou auditorů České republiky jsme na účetní jednotce nezávislí a splnili jsme i další etické povinnosti vyplývající z uvedených předpisů. Domníváme se, že důkazní informace, které jsme shromáždili, poskytují dostatečný a vhodný základ pro vyjádření našeho výroku.

Ostatní informace uvedené ve výroční zprávě

Ostatními informacemi jsou v souladu s § 2 písm. b) zákona o auditorech informace uvedené ve výroční zprávě mimo účetní závěrku a naši zprávu auditora. Za ostatní informace odpovídá představenstvo Sdružení.

Naš výrok k účetní závěrce se k ostatním informacím nevztahuje. Přesto je však součástí

našich povinností souvisejících s ověřením účetní závěrky seznámení se s ostatními informacemi a posouzení, zda ostatní informace nejsou ve významném (materiálním) nesouladu s účetní závěrkou či s našimi znalostmi o účetní jednotce získanými během ověřování účetní závěrky nebo zda se jinak tyto informace nejeví jako významně (materiálně) nesprávné. Také posuzujeme, zda ostatní informace byly ve všech významných (materiálních) ohledech vypracovány v souladu s příslušnými právními předpisy. Tímto posouzením se rozumí, zda ostatní informace splňují požadavky právních předpisů na formální náležitosti a postup vypracování ostatních informací v kontextu významnosti (materiality), tj. zda případné nedodržení uvedených požadavků by bylo způsobilé ovlivnit úsudek činěný na základě ostatních informací.

Na základě provedených postupů, do míry, jež dokážeme posoudit, uvádíme, že

- ostatní informace, které posuzují skutečnosti, jež jsou též předmětem zobrazení v účetní závěrce, jsou ve všech významných (materiálních) ohledech v souladu s účetní závěrkou a
- ostatní informace byly vypracovány v souladu s právními předpisy.

Dále jsme povinni uvést, zda na základě poznatků o povědomí o Sdružení, k nimž jsme dospěli při provádění auditu, ostatní informace neobsahují významné (materiální) věcné nesprávnosti. V rámci uvedených postupů jsme v obdržených ostatních informacích žádné významné (materiální) věcné nesprávnosti nezjistili.

Odpovědnost statutárního orgánu účetní jednotky za účetní závěrku

Představenstvo účetní jednotky odpovídá za sestavení účetní závěrky podávající věrný a poctivý obraz v souladu s českými účetními předpisy a za takový vnitřní kontrolní systém, který považuje za nezbytný pro sestavení účetní závěrky tak, aby neobsahovala významné (materiální) nesprávnosti způsobené podvodem nebo chybou.

Při sestavování účetní závěrky je představenstvo účetní jednotky povinno posoudit, zda je účetní jednotka schopna nepřetržitě trvat, a pokud je to relevantní, popsat v příloze účetní závěrky záležitosti týkající se jeho nepřetržitého trvání a použití předpokladu nepřetržitého trvání při sestavení účetní závěrky, s výjimkou případů, kdy představenstvo plánuje zrušení účetní jednotky nebo ukončení její činnosti, resp. kdy nemá jinou reálnou možnost než tak učinit.

Odpovědnost auditora za audit účetní závěrky

Naším cílem je získat přiměřenou jistotu, že účetní závěrka jako celek neobsahuje významnou (materiální) nesprávnost způsobenou podvodem nebo chybou a vydat zprávu auditora obsahující náš výrok. Přiměřená míra jistoty je velká míra jistoty, nicméně není zárukou, že audit provedený v souladu s výše uvedenými předpisy ve všech případech v účetní závěrce odhalí případnou existující významnou (materiální) nesprávnost. Nesprávnosti mohou vznikat v důsledku podvodů nebo chyb a považují se za významné (materiální), pokud lze reálně předpokládat, že by jednotlivě nebo v souhrnu mohly ovlivnit ekonomická rozhodnutí, která uživatelé účetní závěrky na jejím základě přijmou.

Při provádění auditu v souladu s výše uvedenými předpisy je naší povinností uplatňovat během celého auditu odborný úsudek a zachovávat profesní skepticismus. Dále je naší povinností:

- Identifikovat a vyhodnotit rizika významné (materiální) nesprávnosti účetní závěrky způsobené podvodem nebo chybou, navrhnout a provést auditorské postupy reagující na tato rizika a získat dostatečné a vhodné důkazní informace, abychom na jejich základě mohli vyjádřit výrok. Riziko, že neodhalíme významnou (materiální) nesprávnost, k níž došlo v důsledku podvodu, je větší než riziko neodhalení významné (materiální) nesprávnosti způsobené chybou, protože součástí podvodu mohou být tajné dohody

(koluze), falšování, úmyslná opomenutí, nepravdivá prohlášení nebo obcházení vnitřních kontrol.

- Seznámit se s vnitřním kontrolním systémem účetní jednotky relevantním pro audit v takovém rozsahu, abychom mohli navrhnout auditorské postupy vhodné s ohledem na dané okolnosti, nikoli abychom mohli vyjádřit názor na účinnost jejího vnitřního kontrolního systému.
- Posoudit vhodnost použitých účetních pravidel, přiměřenost provedených účetních odhadů a informace, které v této souvislosti představenstvo účetní jednotky uvedlo v příloze účetní závěrky.
- Posoudit vhodnost použití předpokladu nepřetržitého trvání při sestavení účetní závěrky představenstvem a to, zda s ohledem na shromážděné důkazní informace existuje významná (materiální) nejistota vyplývající z událostí nebo podmínek, které mohou významně zpochybnit schopnost účetní jednotky nepřetržitě trvat. Jestliže dojdeme k závěru, že taková významná (materiální) nejistota existuje, je naší povinností upozornit v naší zprávě na informace uvedené v této souvislosti v příloze účetní závěrky, a pokud tyto informace nejsou dostatečné, vyjádřit modifikovaný výrok. Naše závěry týkající se schopnosti účetní jednotky nepřetržitě trvat vycházejí z důkazních informací, které jsme získali do data naší zprávy. Nicméně budoucí události nebo podmínky mohou vést k tomu, že účetní jednotka ztratí schopnost nepřetržitě trvat.
- Vyhodnotit celkovou prezentaci, členění a obsah účetní závěrky, včetně přílohy, a dále to, zda účetní závěrka zobrazuje podkladové transakce a události způsobem, který vede k věrnému zobrazení.

Naší povinností je informovat představenstvo a dozorčí radu mimo jiné o plánovaném rozsahu a načasování auditu a o významných zjištěních, která jsme v jeho průběhu učinili, včetně zjištěných významných nedostatků ve vnitřním kontrolním systému.

INTEREXPERT BOHEMIA, spol. s r.o.
Mikulandská 2, 110 00 Praha 1
Oprávnění KA ČR č. 267

Ing. Emil Bušek, jednatel a auditor
Oprávnění KA ČR č. 1325

Datum:	30-05-2024
Podpis auditora:	



Název a sídlo účetní jednotky

CZ.NIC, z.s.p.o.
Milešovská 1136/5
130 00 Praha 3
IČ: 67985726

ROZVAHA
k 31.12.2023

AKTIVA		řádek č.	Běžné úč. období			Minulé úč. období
			Brutto	Korekce	Netto	Netto
			v tis. Kč	v tis. Kč	v tis. Kč	v tis. Kč
	AKTIVA CELKEM	001	856 296	-155 425	700 871	653 028
A.	Pohledávky za upsaný základní kapitál	002			0	0
B.	Dlouhodobý majetek	003	227 306	-151 572	75 734	81 573
B.I.	Dlouhodobý nehmotný majetek	004	17 981	-17 832	149	845
B.I.1.	Nehmotné výsledky výzkumu a vývoje	005			0	0
B.I.2.	Ocenená práva	006	17 981	-17 832	149	245
B.I.2.1.	Software	007	7 124	-7 124	0	0
B.I.2.2.	Ostatní ocenitelná práva	008	10 857	-10 708	149	245
B.I.3.	Goodwill	009			0	0
B.I.4.	Ostatní dlouhodobý nehmotný majetek	010			0	0
B.I.5.	Poskytnuté zálohy na dlouhodobý nehmotný majetek a nedokončení dlouhodobý nehmotný majetek	011	0	0	0	600
B.I.5.1.	Poskytnuté zálohy na dlouhodobý nehmotný majetek	012			0	0
B.I.5.2.	Nedokončený dlouhodobý nehmotný majetek	013			0	600
B.II.	Dlouhodobý hmotný majetek	014	209 325	-133 740	75 585	80 728
B.II.1.	Pozemky a stavby	015	89 481	-29 661	59 820	63 094
B.II.1.1.	Pozemky	016	5 027	0	5 027	5 027
B.II.1.2.	Stavby	017	84 454	-29 661	54 793	58 067
B.II.2.	Hmotné movité věci a jejich soubory	018	118 584	-104 079	14 505	16 383
B.II.3.	Oceňovací rozdíl k nabytému majetku	019			0	0
B.II.4.	Ostatní dlouhodobý hmotný majetek	020	0	0	0	0
B.II.4.1.	Pěstební celky trvalých porostů	021			0	0
B.II.4.2.	Dospělá zvířata a jejich skupiny	022			0	0
B.II.4.3.	Jiný dlouhodobý hmotný majetek	023			0	0
B.II.5.	Poskytnuté zálohy na dlouhodobý hmotný majetek a nedokončení dlouhodobý hmotný majetek	024	1 260	0	1 260	1 251
B.II.5.1.	Poskytnuté zálohy na dlouhodobý hmotný majetek	025	1 260		1 260	1 251
B.II.5.2.	Nedokončený dlouhodobý hmotný majetek	026			0	0
B.III.	Dlouhodobý finanční majetek	027	0	0	0	0
B.III.1.	Podíly - ovládaná nebo ovládající osoba	028			0	0
B.III.2.	Záplůčky a úvěry - ovládaná nebo ovládající osoba	029			0	0
B.III.3.	Podíly - podstatný vliv	030			0	0
B.III.4.	Záplůčky a úvěry - podstatný vliv	031			0	0
B.III.5.	Ostatní dlouhodobé cenné papíry a podíly	032			0	0
B.III.6.	Záplůčky a úvěry - ostatní	033			0	0
B.III.7.	Ostatní dlouhodobý finanční majetek	034	0	0	0	0
B.III.7.1.	Jiný dlouhodobý finanční majetek	035			0	0
B.III.7.2.	Poskytnuté zálohy na dlouhodobý finanční majetek	036			0	0

AKTIVA		řádek č.	Běžné úč. období			Minulé úč. období
			Brutto	Korekce	Netto	Netto
			v tis. Kč	v tis. Kč	v tis. Kč	v tis. Kč
C.	Oběžná aktiva	037	627 084	-3 853	623 231	569 258
C.I.	Zásoby	038	44 416	-3 853	40 563	71 762
C.I.1.	Materiál	039	34 334	-3 853	30 481	58 239
C.I.2.	Nedokončená výroba a polotovary	040	0		0	0
C.I.3.	Výrobky a zboží	041	10 082	0	10 082	13 527
C.I.3.1.	Výrobky	042	988		988	1 064
C.I.3.2.	Zboží	043	9 094		9 094	12 463
C.I.4.	Mladá a ostatní zvířata a jejich skupiny	044	0		0	0
C.I.5.	Poskytnuté zálohy na zásoby	045	0		0	0
C.II.	Pohledávky	046	19 288	0	19 288	34 393
C.II.1.	Dlouhodobé pohledávky	047	3 448	0	3 448	2 616
C.II.1.1.	Pohledávky z obchodních vztahů	048			0	0
C.II.1.2.	Pohledávky - ovládaná nebo ovládající osoba	049			0	0
C.II.1.3.	Pohledávky - podstatný vliv	050			0	0
C.II.1.4.	Odložená daňová pohledávka	051	3 161		3 161	2 308
C.II.1.5.	Pohledávky - ostatní	052	287	0	287	308
C.II.1.5.1.	Pohledávky za společníky	053			0	0
C.II.1.5.2.	Dlouhodobé poskytnuté zálohy	054	287		287	308
C.II.1.5.3.	Dohadné účty aktivní	055			0	0
C.II.1.5.4.	Jiné pohledávky	056			0	0
C.II.2.	Krátkodobé pohledávky	057	15 840	0	15 840	31 777
C.II.2.1.	Pohledávky z obchodních vztahů	058	4 659		4 659	25 231
C.II.2.2.	Pohledávky - ovládaná nebo ovládající osoba	059			0	0
C.II.2.3.	Pohledávky - podstatný vliv	060			0	0
C.II.2.4.	Pohledávky - ostatní	061	11 181	0	11 181	6 546
C.II.2.4.1.	Pohledávky za společníky	062			0	
C.II.2.4.2.	Sociální zabezpečení a zdravotní pojištění	063			0	
C.II.2.4.3.	Stát - daňové pohledávky	064	580		580	1 801
C.II.2.4.4.	Krátkodobé poskytnuté zálohy	065	507		507	1 695
C.II.2.4.5.	Dohadné účty aktivní	066	9 324		9 324	2 771
C.II.2.4.6.	Jiné pohledávky	067	770		770	279
C.III.	Krátkodobý finanční majetek	068	231 211	0	231 211	204 559
C.III.1.	Podíly - ovládaná nebo ovládající osoba	069			0	0
C.III.2.	Ostatní krátkodobý finanční majetek	070	231 211		231 211	204 559
C.IV.	Peněžní prostředky	071	332 169	0	332 169	258 542
C.IV.1.	Peněžní prostředky v pokladně	072	58		58	43
C.IV.2.	Peněžní prostředky na účtech	073	332 111		332 111	258 499
D.	Časové rozlišení aktiv	074	1 906	0	1 906	2 199
D.1.	Náklady příštích období	075	1 906		1 906	2 199
D.2.	Komplexní náklady příštích období	076			0	
D.3.	Příjmy příštích období	077			0	

PASIVA		Řádek č.	Běžné úč. období	Minulé úč.období
			Netto	Netto
			v tis. Kč	v tis. Kč
	PASIVA CELKEM	078	700 871	653 028
A.	Vlastní kapitál	079	451 583	415 460
A.I.	Základní kapitál	080	0	0
A.I.1.	Základní kapitál	081		
A.I.2.	Vlastní podíly (-)	082		
A.I.3.	Změny základního kapitálu	083		
A II.	Ážio a kapitálové fondy	084	0	0
A.II. 1.	Ážio	085		
A.II. 2.	Kapitálové fondy	086	0	0
A.II. 1.2.	Ostatní kapitálové fondy	087		
A.II. 1.3.	Oceňovací rozdíly z přecenění majetku a závazků (+/-)	088		
A.II. 1.4.	Oceňovací rozdíly z přecenění při přeměnách obchodních korporací (+/-)	089		
A.II. 1.5.	Rozdíly z přeměn obchodních korporací (+/-)	090		
A.II. 1.6.	Rozdíly z ocenění při přeměnách obchodních korporací (+/-)	091		
A.III.	Fondy ze zisku	092	249 912	236 983
A.III.1.	Ostatní rezervní fondy	093		
A.III.2.	Statutární a ostatní fondy	094	249 912	236 983
A.IV.	Výsledek hospodaření minulých let (+/-)	095	165 548	165 548
A.IV.1.	Nerozdělený zisk minulých let	096	166 570	166 570
A.IV.2.	Neuhrazená ztráta minulých let (-)	097	0	0
A.IV.3.	Jiný výsledek hospodaření minulých let (+/-)	098	-1 022	-1 022
A.V.	Výsledek hospodaření běžného účetního období (+/-)	099	36 123	12 929
A.VI.	Rozhodnuto o zálohové výplatě podílu na zisku (-)	100		
B.+C.	Cizí zdroje	101	92 086	82 402
B.	Rezervy	102	20 343	18 227
B.1.	Rezerva na důchody a podobné závazky	103		
B.2.	Rezerva na daň z příjmů	104		
B.3.	Rezervy podle zvláštních právních předpisů	105		
B.4.	Ostatní rezervy	106	20 343	18 227
C.	Závazky	107	71 743	64 175
C.I.	Dlouhodobé závazky	108	7 019	6 689
C.I.1.	Vydané dluhopisy	109	0	0
C.I.1.1.	Vyměnitelné dluhopisy	110		
C.I.1.2.	Ostatní dluhopisy	111		
C.I.2.	Závazky k úvěrovým institucím	112		
C.I.3.	Dlouhodobé přijaté zálohy	113	7 019	6 689
C.I.4.	Závazky z obchodních vztahů	114		
C.I.5.	Dlouhodobé směnky k úhradě	115		
C.I.6.	Závazky - ovládaná nebo ovládající osoba	116		
C.I.7.	Závazky - podstatný vliv	117		
C.I.8.	Odložený daňový závazek	118		
C.I.9.	Závazky - ostatní	119	0	0
C.I.9.1.	Závazky ke společníkům	120		
C.I.9.2.	Dohadné účty pasivní	121		
C.I.9.3.	Jiné závazky	122		

PASIVA		Řádek č.	Běžné úč. období	Minulé úč.období
			Netto	Netto
			v tis. Kč	v tis. Kč
C.II.	Krátkodobé závazky	123	64 724	57 486
C.II.1.	Vydané dluhopisy	124	0	0
C.II.1.1.	Vyměnitelné dluhopisy	125		
C.II.1.2.	Ostatní dluhopisy	126		
C.II.2.	Závazky k úvěrovým institucím	127		
C.II.3.	Krátkodobé přijaté zálohy	128		9
C.II.4.	Závazky z obchodních vztahů	129	17 421	21 609
C.II.5.	Krátkodobé směnky k úhradě	130		
C.II.6.	Závazky - ovládaná nebo ovládající osoba	131		
C.II.7.	Závazky - podstatný vliv	132		
C.II.8.	Závazky ostatní	133	47 303	35 868
C.II.8.1.	Závazky ke společníkům	134		
C.II.8.2.	Krátkodobé finanční výpomoci	135		
C.II.8.3.	Závazky k zaměstnancům	136	18 971	15 213
C.II.8.4.	Závazky ze sociálního zabezpečení a zdravotního pojištění	137	10 876	8 727
C.II.8.5.	Stát - daňové závazky a dotace	138	15 424	11 006
C.II.8.6.	Dohadné účty pasivní	139	1 858	711
C.II.8.7.	Jiné závazky	140	174	211
D.	Časové rozlišení pasiv	141	157 202	155 166
D.1.	Výdaje příštích období	142	161	248
D.2.	Výnosy příštích období	143	157 041	154 918

Sestaveno dne:	30.5.2024	Podpisový záznam statutárního orgánu účetní jednotky
Právní forma účetní jednotky	zájmové sdružení právnických osob	RNDr. Karel Taft, MBA
Předmět podnikání	provoz a rozvoj domény nejvyšší úrovně ccLTD CZ	

Zpracováno v souladu s vyhláškou č. 500/2002 Sb.
ve znění pozdějších předpisů

VÝKAZ ZISKU A ZTRÁTY
k 31.12.2023

		Běžné úč. období		Minulé úč.období
		řádek č.	v tis. Kč	v tis. Kč
I.	Tržby z prodeje výrobků a služeb	01	231 283	231 276
II.	Tržby za prodej zboží	02	48 156	50 954
A.	Výkonová spotřeba	03	93 383	93 216
A.1.	Náklady vynaložené na prodané zboží	04	35 274	34 517
A.2.	Spotřeba materiálu a energie	05	9 464	10 787
A.3.	Služby	06	48 645	47 912
B.	Změna stavu zásob vlastní činnosti (+/-)	07	74	341
C.	Aktivace (-)	08		
D.	Osobní náklady	09	167 653	150 897
D.1.	Mzdové náklady	10	124 192	111 663
D.2.	Náklady na sociální zabezpečení, zdravotní pojištění a ostatní náklady	11	43 461	39 234
D.2.1.	Náklady na sociální zabezpečení a zdravotní pojištění	12	40 481	36 558
D.2.2.	Ostatní náklady	13	2 980	2 646
E.	Úpravy hodnot v provozní oblasti	14	11 937	12 211
E.1.	Úpravy hodnot dlouhodobého nehmotného a hmotného majetku	15	12 315	10 140
E.1.1.	Úpravy hodnot dlouhodobého nehmotného a hmotného majetku - trvalé	16	12 315	10 140
E.1.2.	Úpravy hodnot dlouhodobého nehmotného a hmotného majetku - dočasné	17		
E.2.	Úpravy hodnot zásob	18	-378	2 071
E.3.	Úpravy hodnot pohledávek	19	0	0
III.	Ostatní provozní výnosy	20	7 049	4 277
III.1.	Tržby z prodaného dlouhodobého majetku	21	623	650
III.2.	Tržby z prodaného materiálu	22	0	0
III.3.	Jiné provozní výnosy	23	6 426	3 627
	Ostatní provozní náklady	24	5 340	15 037
F.1.	Zůstatková cena prodaného dlouhodobého majetku	25	322	
F.2.	Zůstatková cena prodaného materiálu	26		
F.3.	Daně a poplatky	27	69	144
F.4.	Rezervy v provozní oblasti a komplexní náklady příštích období	28	2 117	3 555
F.5.	Jiné provozní náklady	29	2 832	11 338
*	Provozní výsledek hospodaření (+/-)	30	8 101	14 806

Název a sídlo účetní jednotky

CZ.NIC, z.s.p.o.

Milešovská 1136/5

130 00 Praha 3

IČ: 67985726

		Běžné úč. období		Minulé úč.období
		řádek č.	v tis. Kč	v tis. Kč
IV.	Výnosy z dlouhodobého finančního majetku - podíly	31	0	0
IV.1	Výnosy z podílů - ovládaná nebo ovládající osoba	32		
IV.2.	Ostatní výnosy z podílů	33		
G.	Náklady vynaložené na prodané podíly	34	0	0
V.	Výnosy z ostatního dlouhodobého finančního majetku	35	0	0
V.1.	Výnosy z ostatního dlouhodobého finančního majetku - ovládaná nebo ovládající osoba	36		
V.2.	Ostatní výnosy z ostatního dlouhodobého finančního majetku	37		
H.	Náklady související s ostatním dlouhodobým finančním majetkem	38	0	0
VI.	Výnosové úroky a podobné výnosy	39	11 864	4 616
VI.1.	Výnosové úroky a podobné výnosy - ovládaná nebo ovládající osoba	40		
VI.2.	Ostatní výnosové úroky a podobné výnosy	41	11 864	4 616
I.	Úpravy hodnot a rezervy ve finanční oblasti	42	0	0
J.	Nákladové úroky a podobné náklady	43	0	0
J.1.	Nákladové úroky a podobné náklady - ovládaná nebo ovládající osoba	44		
J.2.	Ostatní nákladové úroky a podobné náklady	45		
VII.	Ostatní finanční výnosy	46	120 978	70 838
K.	Ostatní finanční náklady	47	96 773	73 855
*	Finanční výsledek hospodaření (+/-)	48	36 069	1 599
**	Výsledek hospodaření před zdaněním (+/-)	49	44 170	16 404
L.	Daň z příjmů	50	8 047	3 475
L.1.	Daň z příjmů splatná	51	8 900	4 506
L.2.	Daň z příjmů odložená	52	-853	-1 031
**	Výsledek hospodaření po zdanění (+/-)	53	36 123	12 929
M.	Převod podílu na výsledku hospodaření společníkům (+/-)	54	0	0
***	Výsledek hospodaření za účetní období (+/-)	55	36 123	12 929
*	Čistý obrát za účetní období = I. + II. + III. + IV. + V. + VI. + VII.	56	419 330	361 961

Sestaveno dne:	30.5.2024	Podpisový záznam statutárního orgánu účetní jednotky
Právní forma účetní jednotky:	zájmové sdružení právnických osob	RNDr. Karel Taft, MBA
Předmět podnikání:	provoz a rozvoj domény nejvyšší úrovně ccLD CZ	

Zpracováno v souladu s vyhláškou č. 500/2002 Sb.
ve znění pozdějších předpisů

Název a sídlo účetní jednotky
CZ.NIC, z.s.p.o.
Milešovská 1136/5
130 00 Praha 3
IČ: 67985726

PŘEHLED O PENĚŽNÍCH TOCÍCH (CASH FLOW)

k 31.12.2023

	Rád.	Běžné úč. období
	č.	v tis. Kč
P. Stav peněžních prostředků a peněžních ekvivalentů na začátku účetního období	1	258 542
Peněžní toky z hlavní výdělečné činnosti (provozní činnosti)		0
Z. Účetní zisk nebo ztráta před zdaněním	2	44 170
A. 1 Úpravy o nepeněžní operace	3	2 266
A. 1 1 Odpisy stálých aktiv a umořování opravné položky k nabytému majetku	4	12 315
A. 1 2 Změna stavu opravných položek, rezerv	5	2 116
A. 1 3 Zisk z prodeje stálých aktiv	6	-301
A. 1 4 Výnosy z podílů na zisku	7	0
A. 1 5 Vyučtované nákladové úroky s výjimkou úroků zahrnovaných do ocenění DM a vyučtované výnosové úroky	8	-11 864
A. 1 6 Případné úpravy o ostatní nepeněžní operace	9	0
A. * Čistý peněžní tok z provozní činnosti před zdaněním a změnami pracovního kapitálu	10	46 436
A. 2 Změny stavu nepeněžních složek pracovního kapitálu	11	29 219
A. 2 1 Změna stavu pohledávek z provozní činnosti, přechodných účtů aktiv	12	15 398
A. 2 2 Změna stavu krátkodobých závazků z provozní činnosti, přechodných účtů pasiv	13	9 274
A. 2 3 Změna stavu zásob	14	31 199
A. 2 4 Změna stavu krátkodobého finančního majetku nespádajícího do peněžních prostředků a ekvivalentů	15	-26 652
A. ** Čistý peněžní tok z provozní činnosti před zdaněním	16	75 658
A. 3 Vyplacené úroky s výjimkou úroků zahrnovaných do ocenění dlouhodobého majetku	17	0
A. 4 Přijaté úroky	18	11 864
A. 5 Zaplacená daň z příjmů a doměrky daně za minulá období	19	-8 047
A. 6 Přijaté podíly na zisku	20	0
A. *** Čistý peněžní tok z provozní činnosti	21	79 472
Peněžní toky z investiční činnosti		0
B. 1 Výdaje spojené s nabytím stálých aktiv	22	-6 476
B. 2 Příjmy z prodeje stálých aktiv	23	301
B. 3 Zápůjčky a úvěry spřízněným osobám	24	0
B. *** Čistý peněžní tok vztahující se k investiční činnosti	25	-6 175
Peněžní toky z finančních činností		0
C. 1 Dopady změn dlouhodobých, resp. krátkodobých závazků	26	330
C. 2 Dopady změn vlastního kapitálu na peněžní prostředky a ekvivalenty	27	0
C. 2 1 Zvýšení peněžních prostředků z důvodů zvýšení základního kapitálu, ážia a fondů ze zisku.	28	-12 929
C. 2 2 Vyplacení podílů na vlastním jmění společníkům	29	0
C. 2 3 Další vklady peněžních prostředků společníků a akcionářů	30	0
C. 2 4 Úhrada ztráty společníky	31	0
C. 2 5 Přímé platby na vrub fondů	32	12 929
C. 2 6 Vyplacené podíly na zisku včetně zaplacené daně	33	0
C. *** Čistý peněžní tok vztahující se k finanční činnosti	34	330
F. Čisté zvýšení resp. snížení peněžních prostředků	35	73 627
R. Stav peněžních prostředků a pen. ekvivalentů na konci účetního období	36	332 169

Zpracováno v souladu s vyhláškou č. 500/2002 Sb.
ve znění pozdějších předpisů

Název a sídlo účetní jednotky
CZ.NIC, z.s.p.o.
Milešovská 1136/5
130 00 Praha 3
IČ: 67985726

PŘEHLED O ZMĚNÁCH VLASTNÍHO KAPITÁLU

k 31.12.2023

	Základní kapitál	Ážio	Kapitálové fondy	Fondy ze zisku	Výsledek hospodaření minulých let	Zisk (+) Ztráta (-) za období	Zálohy na výplatu podílu na zisku	Vlastní kapitál
	v tis. Kč	v tis. Kč	v tis. Kč	v tis. Kč	v tis. Kč	v tis. Kč	v tis. Kč	v tis. Kč
Minulé účetní období								
Počáteční zůstatek k 1.1.2022				217 183	165 185	21 185		403 553
Zvýšení	0	0	0	21 185	-1 022	12 929		33 092
Distribuce								0
Snížení	0	0	0	-1 385	1 385	-21 185		-21 185
Ostatní pohyby								0
Konečný zůstatek k 31.12.2022	0	0	0	236 983	165 548	12 929	0	415 460

Běžné účetní období								
Počáteční zůstatek k 1.1.2023	0	0	0	236 983	165 548	12 929	0	415 460
Zvýšení	0	0	0	12 929		36 123		49 052
Distribuce								0
Snížení	0	0	0	0		-12 929		-12 929
Ostatní pohyby								0
Konečný zůstatek k 31.12.2023	0	0	0	249 912	165 548	36 123	0	451 583

PŘÍLOHA
ROČNÍ ÚČETNÍ ZÁVĚRKY
K 31. 12. 2023

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1 VŠEOBECNÉ INFORMACE

Název: CZ.NIC, z. s. p. o. (dále jen „sdružení“)
Sídlo: Milešovská 1136/5, Praha 3 - Vinohrady
Právní forma: zájmové sdružení právnických osob
Obchodní rejstřík: Městský soud v Praze oddíl L vložka 58624
Datum vzniku: 27. 5. 1998
Identifikační číslo: 67985726
Předmět podnikání: provoz a rozvoj domény nejvyšší úrovně ccTLD CZ,
provoz a rozvoj důvěryhodné, bezpečné a stabilní informační a komunikační infrastruktury,
vývoj a podpora rozvoje internetových služeb,
osvětové aktivity v oblasti domén a kybernetické bezpečnosti

Kategorie účetní jednotky: Střední účetní jednotka

Rozvahový den: 31.12.2023

Zápisy do spolkového rejstříku

V průběhu roku došlo k následujícím zápisům do spolkového rejstříku:

doc. JUDr. PhDr. Marek Antoš, Ph.D., LL.M. byl zapsán jako místopředseda představenstva.

Ing. Tomáš Košnar byl zapsán jako člen představenstva.

Ing. Martin Kukačka byl zapsán jako člen představenstva.

V souladu s rozhodnutím Nejvyššího soudu ČR, sp. zn. 27 Cdo 3549/2020, byly zapsány konkrétní obory činnosti sdružení (předmět podnikání).

Statutární a dozorčí orgány

Statutární a dozorčí orgány sdružení jsou k 31.12.2023:

Představenstvo:

Předseda: RNDr. Karel Taft, MBA

Místopředseda: doc. JUDr. PhDr. Marek Antoš, Ph.D., LL.M.

Členové: Ing. Ilona Filípková, Ing. Tomáš Košnar, Ing. Martin Kukačka

Dozorčí rada:

Předseda: Mgr. Jan Redl

Členové: Ing. Jan Gruntorád, CSc., Mgr. Vlastimil Pečínka

Organizační struktura společnosti

Sdružení má definovanou organizační strukturu – nejvyšším orgánem sdružení je valná hromada, tvořená všemi členy sdružení, kteří jsou rozděleni do tří komor. Následuje kolegium, které je složeno ze členů, fyzických osob, volených

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jednotlivými komorami valné hromady. Statutárním orgánem sdružení je představenstvo, kontrolním orgánem dozorčí rada. Působnost jednotlivých orgánů je definována stanovami sdružení.

2 ZÁKLADNÍ VÝCHODISKA PRO VYPRACOVÁNÍ ÚČETNÍ ZÁVĚRKY

Příložená účetní závěrka byla připravena v souladu se zákonem č. 563/1991 Sb., o účetnictví, ve znění pozdějších předpisů (dále jen „zákon o účetnictví“) a prováděcí vyhláškou č. 500/2002 Sb., kterou se provádějí některá ustanovení zákona č. 563/1991 Sb., o účetnictví, ve znění pozdějších předpisů, pro účetní jednotky, které jsou podnikateli účtujícími v soustavě podvojného účetnictví, ve znění pozdějších předpisů, ve znění platném pro rok 2023 (dále jen „prováděcí vyhláška k zákonu o účetnictví“).

3 OBECNÉ ÚČETNÍ ZÁSADY A POUŽITÉ ÚČETNÍ METODY

a) Zásady vedení účetnictví

Účetnictví je vedeno v souladu s účetními předpisy platnými v České republice. Částky v účetní závěrce a v příloze jsou zaokrouhleny na tisíce českých korun, není-li uvedeno jinak.

b) Dlouhodobý nehmotný majetek

Nakoupený dlouhodobý nehmotný majetek je oceňován v pořizovacích cenách, které zahrnují cenu pořízení a všechny náklady s pořízením související. Účetní odpisy dlouhodobého nehmotného majetku jsou vypočteny na základě pořizovací ceny a předpokládané doby ekonomické použitelnosti příslušného majetku. Účetní odpisy jsou kalkulovány ve shodě s odpisy stanovenými zákonem o daních z příjmu.

c) Dlouhodobý hmotný majetek

Nakoupený dlouhodobý hmotný majetek je oceňován v pořizovacích cenách, které zahrnují cenu pořízení a veškeré náklady s pořízením související. Dlouhodobý hmotný majetek vytvořený vlastní činností se oceňuje vlastními náklady. Účetní odpisy jsou kalkulovány ve shodě s odpisy stanovenými zákonem o daních z příjmu. Náklady na opravy a údržbu dlouhodobého hmotného majetku se účtují přímo do nákladů. Rezerva je tvořena na významné opravy, které bude podle odhadu vedení třeba provést v budoucích účetních obdobích. Technické zhodnocení každého jednotlivého dlouhodobého hmotného majetku přesahující 80 tis. Kč za účetní období je aktivováno. Dlouhodobý hmotný majetek, jehož doba použitelnosti je delší než jeden rok a pořizovací cena nepřevyšuje 80 tis. Kč za položku, je účtován do nákladů při jeho pořízení.

d) Dlouhodobý finanční majetek

Dlouhodobý finanční majetek je při nabytí oceněn v pořizovacích cenách. Součástí pořizovací ceny jsou přímé náklady s pořízením související (např. poplatky a provize makléřům a burzám).

e) Krátkodobý finanční majetek

Krátkodobý finanční majetek tvoří cenné papíry k obchodování, dlužné cenné papíry se splatností do 1 roku držené do splatnosti, vlastní akcie, vlastní dluhopisy. Krátkodobý finanční majetek je oceněn pořizovací cenou. K rozvahovému

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dni sdružení přeceňuje krátkodobý finanční majetek reálnou hodnotou. Toto přecenění je v daném účetním období zachyceno ve výnosech, resp. nákladech souvisejících s krátkodobým finančním majetkem.

f) Zásoby

Nakupované zásoby jsou oceněny pořizovacími cenami s použitím metody váženého aritmetického průměru. Pořizovací cena zásob zahrnuje náklady na jejich pořízení včetně nákladů s pořízením souvisejících (náklady na přepravu, clo, provize atd.). Výrobky a nedokončená výroba se oceňují kalkulovanými vlastními náklady. Vlastní náklady zahrnují přímé náklady vynaložené na výrobu, popř. i přiřaditelné nepřímé náklady, které se vztahují k výrobě. Nepřímé náklady se přiřazují na jednotky ks. Opravná položka k pomalu obrátkovým a zastaralým zásobám či jinak dočasně znehodnoceným zásobám je tvořena na základě analýzy obrátkovosti zásob a na základě individuálního posouzení hodnoty zásob.

g) Pohledávky a závazky

Pohledávky se oceňují při svém vzniku jmenovitou hodnotou. Ocenění pochybných pohledávek se snižuje pomocí opravných položek na vrub nákladů na jejich realizační hodnotu, a to na základě individuálního posouzení jednotlivých dlužníků a věkové struktury pohledávek. Dohadné účty aktivní se oceňují na základě odborných odhadů a propočtů. Pohledávky i dohadné účty aktivní se rozdělují na krátkodobé (doba splatnosti do 12 měsíců včetně) a dlouhodobé (splatnost nad 12 měsíců), s tím, že krátkodobé jsou splatné do jednoho roku od rozvahového dne.

h) Peníze a peněžní ekvivalenty

Peněžní prostředky (hotovost, bankovní účty, ceniny) jsou oceněny ve jmenovité hodnotě.

i) Vlastní kapitál

Ostatní kapitálové fondy jsou tvořeny z rozhodnutí valné hromady, a to ze zisku sdružení.

j) Účtování výnosů a nákladů

Výnosy a náklady jsou časově rozlišeny, tj. jsou zařazeny do toho účetního období, do kterého věcně i časově přísluší. V souladu s principem opatrnosti sdružení účtuje na vrub nákladů tvorbu rezerv a opravných položek na krytí rizik, ztrát a znehodnocení, která jsou ke dni sestavení účetní závěrky známa.

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k) Přepočet cizí měny

Majetek a závazky v cizí měně jsou přepočítávány na českou měnu v kurzu platném ke dni uskutečnění příslušné účetní operace, vyhlášeném k tomuto datu Českou národní bankou („ČNB“). A dále pak kurzem, skutečně použitým bankou pro konkrétní transakci (např. v případě pokladních transakcí či převodu peněz mezi bankovními účty).

Veškerá peněžní aktiva a pasiva, pohledávky a závazky vedené v cizích měnách byly přepočteny v rámci roční účetní závěrky kurzem zveřejněným ČNB k rozvahovému dni. Veškeré realizované a nerealizované kursové zisky a ztráty jsou vykázány ve výkazu zisku a ztrát.

l) Daň z příjmů

Daň z příjmů ve výkazu zisku a ztráty za dané období se skládá ze splatné daně a ze změny stavu v odložené dani. Splatnou daň z příjmů účetní jednotka vypočetla s použitím platné daňové sazby z hospodářského výsledku, upraveného o stálé a přechodné rozdíly. Odložená daň zohledňuje všechny dočasné rozdíly mezi zůstatkovou hodnotou aktiva nebo pasiva v rozvaze a jejich daňovou hodnotou. Uplatňuje se zde sazba daně z příjmů právnických osob platná pro účetní období, ve kterém se očekává realizace odložené daně. Odložená daňová pohledávka je zaúčtována, pokud je pravděpodobné, že bude možné ji daňově uplatnit v následujících účetních obdobích.

m) Dotace

Dotace je zaúčtována v okamžiku jejího přijetí či nezpochybnitelného nároku na přijetí. Dotace přijatá na úhradu nákladů se účtuje do provozních nebo finančních výnosů. Dotace přijatá na pořízení dlouhodobého majetku včetně technického zhodnocení a na úhradu úroků zahrnutých do pořizovací ceny majetku snižuje pořizovací cenu nebo vlastní náklady na pořízení. Dotační programy jsou sledovány v oddělené evidenci prostřednictvím účetního softwaru tak, aby splňovaly požadavky jednotlivých poskytovatelů dotací.

n) Změny způsobů oceňování, srovnatelnost údajů z minulého a běžného období

Ve srovnání s minulým účetním obdobím nedošlo k žádným podstatným změnám způsobů oceňování, odpisování a účtování.

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4 DLOUHODOBÝ NEHMOTNÝ, HMOTNÝ A FINANČNÍ MAJETEK

a) Přehled dlouhodobého majetku

Přehled o stavu dlouhodobého nehmotného, hmotného a finančního majetku v letech 2022 a 2023 v pořizovacích cenách:

	Stav k 31.12.2022	Přírůstky	Vyřazení	Stav k 31.12.2023
Nehmotné výsledky výzkumu a vývoje	0	0	0	0
Software	7 124	0	0	7 124
Ocenitelná práva	10 799	58	0	10 857
Goodwill (+/-)	0	0	0	0
Jiný dlouhodobý nehmotný majetek	0	0	0	0
Nedokončený dlouhodobý nehmotný majetek	600	700	-1 300	0
Poskytnuté zálohy na dlouhodobý nehmotný majetek	0	0	0	0
Pozemky	5 027	0	0	5 027
Stavby	84 454	0	0	84 454
Samostatné movité věci	116 552	7 331	-5 299	118 584
Jiný dlouhodobý hmotný majetek	0	0	0	0
Nedokončený dlouhodobý hmotný majetek	1 251	6 097	-6 088	1 260
Poskytnuté zálohy na dlouhodobý hmotný majetek	0	0	0	0
Oceňovací rozdíl k nabytému majetku	0	0	0	0
Celkem 2023	225 807	14 186	-12 687	227 306

Účetní jednotka nevykazuje žádný dlouhodobý finanční majetek

Přehled o stavu opravných položek a oprávek:

	Stav k 31.12.2022	Odpisy	Prodeje, likvidace, vyřazení	Stav k 31.12.2023	Opravné položky	Účetní hodnota
Nehmotné výsledky výzkumu a vývoje	0	0	0	0	0	0
Software	7 124	0	0	7 124	0	0
Ocenitelná práva	10 554	154	0	10 708	0	149
Goodwill (+/-)	0	0	0	0	0	0
Nedokončený dlouhodobý nehmotný majetek	0	0	0	0	0	0
Jiný dlouhodobý nehmotný majetek	0	0	0	0	0	0
Poskytnuté zálohy na DNM	0	0	0	0	0	0
Pozemky	0	0	0	0	0	5 027
Stavby	26 387	3 274	0	29 661	0	54 793
Samostatné movité věci	100 169	9 209	-5 299	104 079	0	14 505
Jiný dlouhodobý hmotný majetek	0	0	0	0	0	0
Nedokončený dlouhodobý hmotný majetek	0	0	0	0	0	1 260
Poskytnuté zálohy na DHM	0	0	0	0	0	0
Oceňovací rozdíl k nabytému majetku	0	0	0	0	0	0
Celkem 2023	144 234	12 637	-5 299	151 572	0	75 734

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5 ZÁSoby

	K 31. 12. 2022	K 31. 12. 2023
Materiál	62 090	34 334
Nedokončená výroba a polotovary	0	0
Výrobky	1 064	988
Zboží	12 463	9 094
Poskytnuté zálohy na zásoby	0	0
Celkem (Brutto)	75 617	44 416
Opravná položka k zásobám	3 855	3 853

Opravná položka byla stanovena na základě posouzení hodnoty zásob a je důsledkem zastarání vybraného materiálu pro výrobu.

6 POHLEDÁVKY

	K 31. 12. 2022	K 31. 12. 2023
Krátkodobé pohledávky	31 777	15 840
Dlouhodobé pohledávky	2 616	3 448
Celkem	34 393	19 288

Účetní jednotka nevytváří opravné položky k pohledávkám, protože neeviduje žádné pohledávky po splatnosti.

7 KRÁTKODOBÝ FINANČNÍ MAJETEK

Krátkodobý finanční majetek tvoří cenné papíry k obchodování, držené za účelem provádění operací na finančním trhu. Správa cenných papírů je zajišťována kvalifikovanými správci, specializovanými investičními společnostmi. Cenné papíry jsou ke konci účetního období přeceněny na reálnou tržní hodnotu. Finanční majetek rovněž zahrnuje hotovost a finanční prostředky na bankovních účtech.

8 ČASOVÉ ROZLIŠENÍ AKTIV

Náklady příštích období zahrnují služby hrazené předem, které jsou účtovány do výnosů období, do kterého věcně a časově přísluší. Jedná se především o předplacené servisní záruky a pojistné, členské příspěvky a nájemné placené předem.

9 VLASTNÍ KAPITÁL

V roce 2022 bylo zjištěno, že v minulých letech nebyla zaúčtována řádná daň z příjmu právnických osob ve výši 1 022 tis. Kč, a proto byla zaúčtována proti jinému výsledku hospodaření minulých let.

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Účetní období od 01.01.2023 do 31.12.2023
(v tisících Kč)

10 REZERVY

Jednotlivé rezervy se v roce 2023 vyvíjely následovně:

	Zůstatek k 31.12.2022	Netto změna v roce 2023	Zůstatek k 31.12.2023
Na důchody a podobné závazky	0	0	0
Na daň z příjmu	0	0	0
Podle zvláštních právních předpisů	0	0	0
Ostatní	18 227	2 117	20 343
Celkem	18 227	2 117	20 343

Ostatní rezervy zahrnují náklady na nevyplacenou dovolenou a benefity, odměny pro management a statutární orgány a plánované mezinárodní konference.

11 ZÁVAZKY

	K 31.12.2022	K 31.12.2023
Krátkodobé závazky	57 486	64 724
Dlouhodobé závazky	6 689	7 019
Ostatní	0	0
Celkem	64 175	71 743

Přehled o závazcích vůči orgánům státní správy:

	K 31.12.2022	K 31.12.2023
Sociální zabezpečení	5 994	7 409
Zdravotní pojištění	2 733	3 466
Daňové nedoplatky	11 006	15 424
Celkem	19 733	26 299

Jedná se o závazky vyplývající z daně z příjmů a DPH za období 12/2023.

12 ČASOVÉ ROZLIŠENÍ PASIV

Výnosy příštích období zahrnují služby hrazené předem, které jsou účtovány do výnosů období, do kterého věcně a časově přísluší. Jedná se především o registrace doménových jmen.

13 DERIVÁTY

V rámci správy finančního portfolia jsou ve velmi omezené míře využívány měnové swapy. Jedná se o krátkodobé termínované operace realizované za účelem zajištění kurzového rizika pro cenné papíry denominované v zahraničních měnách (EUR, USD) K rozvahovému dni se finanční deriváty přeceňují na reálnou hodnotu a změny reálných hodnot se účtují do finančních nákladů, respektive výnosů.

14 VÝNOSY

Výnosy se člení následovně:

	2022	2023
Tržby za prodej zboží	50 954	48 156
Tržby za prodej vlastních výrobků	358	706
Tržby za prodej služeb	230 918	230 577
Změna stavu vnitropodnikových zásob vlastní výroby	0	0
Tržby za prodej vlastního majetku a materiálů	650	623
Ostatní provozní výnosy	3 627	6 426
Výnosové úroky	4 616	11 864
Finanční výnosy	70 838	120 978
Celkem	361 961	419 330

15 OSOBNÍ NÁKLADY

	2022	2023
Celkový počet zaměstnanců	139	134
Počet členů řídících a kontrolních orgánů	8	8
Mzdové náklady	111 663	124 192
Sociální a zdravotní pojištění	36 588	40 481
Ostatní sociální náklady	2 646	2 980
Celkem osobní náklady	150 897	167 653

V roce 2022 a 2023 neobdrželi členové řídících, kontrolních a správních orgánů žádné zálohy, závdavky, zápůjčky, úvěry, přiznané záruky ani jiné výhody. Mimo stanovených odměn neobdrželi členové statutárních orgánů žádná jiná plnění.

	2022	2023
Mimořádné odměny členům satutárních orgánů	2 043	2 351

16 MIMOŘÁDNÉ NÁKLADY A VÝNOSY

Společnost v účetním období neevduje žádné mimořádné náklady a výnosy.

17 DAŇ Z PŘÍJMŮ

Daňový náklad v jednotlivých obdobích zahrnuje:

	2022	2023
Splatná daň	4 506	8 900
Odložená daň - pohledávka	-1 031	-853
Celkem	3 475	8 047

18 VÝDAJE NA VÝVOJ

Na vývoj bylo v roce 2023 vynaloženo celkem 7. 274 tis. Kč, celá částka byla zaučtována do nákladů. Sdružení uplatňuje v roce 2023 odčitatelnou položku pro výzkum a vývoj dle § 34 odst. 4 v celkové výši 7.274 tis. Kč.

19 VÝZNAMNÉ POLOŽKY VÝKAZU ZISKU A ZTRÁTY

Odměna statutárnímu auditorovi za audit roční účetní závěrky činí 90.000 Kč. Odměna daňovému poradci za zpracování DPPO pro rok 2023 činí 65.000 Kč. Položka služby představuje náklady na marketing, pronájem datových center a kanceláří, cestovní náklady, poradenské služby a jiné režijní služby. Ostatní provozní výnosy tvoří zejména přijaté dotace z grantových projektů v celkové výši 6 088 tis. Kč. Ostatní finanční výnosy tvoří výnosy z prodeje cenných papírů. Dále pak dividendy, přijaté kupóny z dluhopisů a připsané úroky z termínovaných a spořicíh účtů, přijaté dary a kurzové zisky. Ostatní finanční náklady tvoří především náklady na nákup cenných papírů a kurzové ztráty.

20 PŘEDPOKLAD NEPŘETRŽITÉHO TRVÁNÍ SPOLEČNOSTI

Sdružení vykazuje k 31.12.2023 kladný vlastní kapitál. Vzhledem ke kladnému vlastnímu kapitálu není pochybnost o předpokladu nepřetržitého trvání sdružení v budoucnu. Účetní závěrka k 31. prosinci 2023 byla sestavena za předpokladu nepřetržitého trvání sdružení. Příložená účetní závěrka tudíž neobsahuje žádné úpravy, které by mohly z této nejistoty vyplývat.

21 UDÁLOSTI PO DATU ÚČETNÍ ZÁVĚRKY

Mezi rozvahovým dnem a vyhotovením této roční účetní závěrky nedošlo k žádným událostem, které by měly významný dopad na účetní závěrku k 31. 12. 2023.

Sestaveno dne 30. 5. 2024

Statutární orgán
RNDr. Karel Taft, MBA
Předseda představenstva

Zpracoval(a)
Iveta Merhoutová
VGD, s.r.o.

18 Seat and contact details

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