

## 2005-2009 Medium-Term Strategy of CZ.NIC, z.s.p.o.

*Vision: The CZ top-level domain, TLD.CZ, is a part of the national wealth of the Czech Republic and a major element from the viewpoint of the economic performance of the Czech Republic. The main priority in managing the CZ domain is to ensure organizational as well as operational stability.*

*CZ.NIC z.s.p.o., a special interest association of legal entities, is the delegated CZ domain manager. It uses its resources and know-how to develop and operate its infrastructure while ensuring that the association represents the interests of the local Internet community and does not compete with its members.*

The medium-term strategy of CZ.NIC, z.s.p.o. for 2005-2009 evolves from the past management of the CZ domain, describes the current status of the association and outlines future strategic aspects of how the association should develop and how the CZ domain should be managed.

### A. History

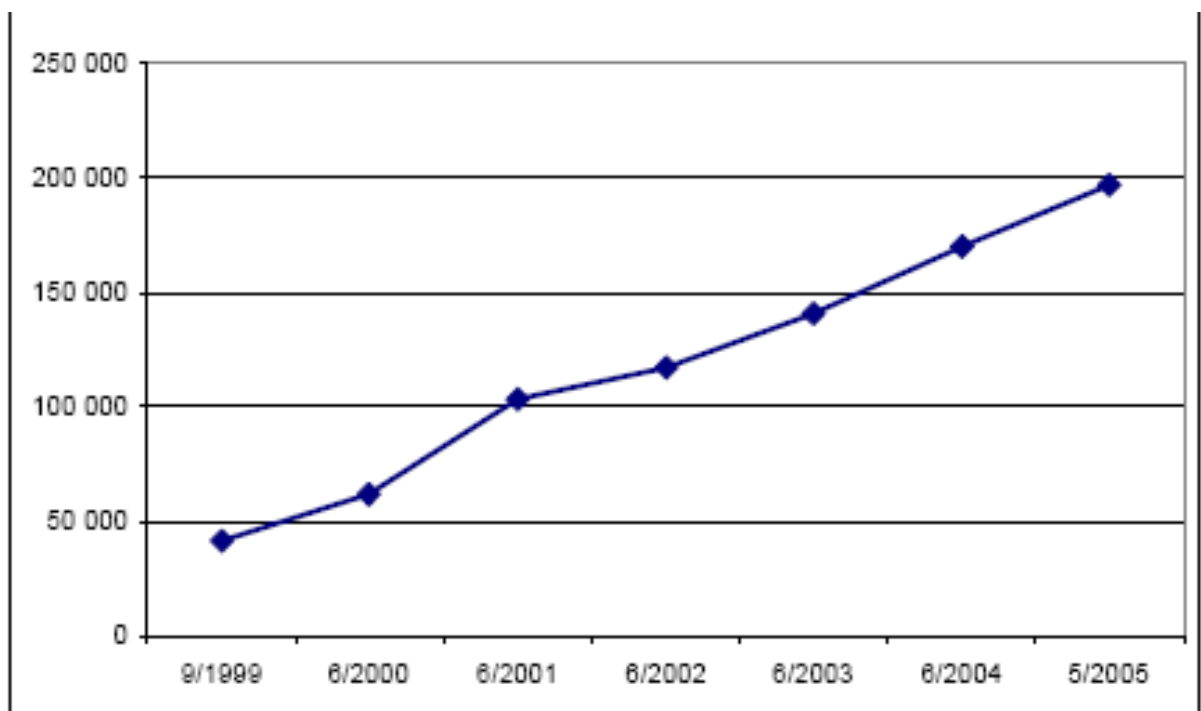
The CZ top-level domain (ccTLD CZ) was created in early 1993 as a successor domain of the CS domain, which had been delegated to the former Czech and Slovak Federative Republic. The first domain manager was CONET s.r.o., which was later on renamed to Internet CZ s.r.o. and then to EUnet Czechia s.r.o.

The manager created rules for assigning domains and bore the costs of operating the registration system; the registration and use of second-level domain names was free of charge. With the growing importance of the Internet, accompanied by an ever growing number of new domain name registration requests, it became necessary to institutionalize the registration procedure. Therefore, in 1998, major Internet access providers in the Czech Republic formed CZ.NIC, z.s.p.o. as a special interest association of legal entities on the platform of the NIX.CZ z.s.p.o. association. The newly formed association took over the CZ domain management agenda and created rules for second-level domain name registration. The registration system operator was selected in a public tender, in which only one bidder participated. Therefore, the association selected the only bidder, EUnet Czechia s.r.o., later on renamed to KPNQwest Czechia s.r.o., to operate the registration system. The operator participated in managing the technical aspects of operation and on September 1, 1999 it officially began to manage the CZ domain. At the same time, fees were introduced for second-level domain name registration.

CZ.NIC acted in the role of the register as well as the registrar. In accordance with the trends prevailing abroad, a decision was later made to introduce a decentralized form of domain management, within which other entities were allowed to join the process of domain name registration as registrars. The objective was primarily to separate the agenda of the technical operation of the registration system from the care of end holders of domain names and to introduce a competitive environment that would allow the domain name end holders to receive better services. A tender was conducted for a new system that would allow the connection of new registrars, in which the winning bidder was PRAGONET, a.s. (presently T-Systems PragoNet, a.s.) with GTS as subcontractor, later on transformed into ICZ a.s. The decentralized system of CZ domain management was launched in September 2003, and on September 15, 2003 the Last Resort Registrar (LRR) began to operate as a special registrar, acting primarily in the role of a safety net, and on October 13, 2003 the first commercial registrars began to cooperate.

The following chart shows the development of the number of domain names delegated to the CZ zone:

Number of domains in zone



## B. Current Status

### 1. Financial Aspects

In order to prepare a development strategy for CZ.NIC, it is key to estimate how the market will develop of second-level domain name registration in the CZ zone. This estimate is based on historical data series and the forecasted global changes and trends.

A detailed analysis of the time series shows that the growth rate is significantly influenced by the number of available domain names that are “interesting” for potential holders. As the domain space grew full, the growth rate gradually declined; a rapid growth occurred in late 2003 when about 50,000 domains were released, which had been blocked by unsettled, usually speculative, registration requests before the decentralized system of CZ domain management was launched. It is evident from the above that a gradual slowdown can again be expected in the growth of the number of domain names in the CZ zone.

The registration of second-level domain names in the CZ zone has a natural competition in the registration under gTLD's (com, net, org, info etc) and other ccTLD's (de, at, pl etc.). When deciding whether to register a second-level domain name under the CZ, gTLD or other ccTLD domains, a potential holder in particular considers whether the desired second-level domain name is available in the given top-level domain, how realistic it is to register the foreseen name in all these domains, how specifically focused the holder is on particular markets in terms of language, geographic territory or otherwise, and finally what are the prices and terms of registration in each of the domains.

When assessing how competitive the price is of second-level domain name registration under the CZ domain, it is practical to compare the price with retail prices of those ccTLD's that have a similar number of registered domains. Specific TLD's differ in the number of registered domain names, level of support and intervention by the government, existence of registrars and the price model toward them. The comparison is to some extent distorted by the existing networks of registrars and various price schemes, both on the level of the register and each of the registrars.

The following table compares the prices of domain name registration in European countries based on data from March 2005. In view of the above differences in specific models, this table should only be considered as an informative price comparison.

* Data as of March 2005			Annual price for				Number of		Ratios		
			registrar	registrar (EUR)	end holder	end holder average (EUR)	domains (thsd.)	population (mil.)	price for end holder / number of domains (mil.)	price for end holder / population (mil.)	number of domains / population (mil.)
1	Austria	at	10	10	€ 24-55	30	393	8.1	76.34	3.7	48,518.52
2	Belgium	be	6	6	€ 7-100	25	423	10.2	59.1	2.45	41,470.59
3	Cyprus	cy	41	41	CYP 25	43	?	0.8	0	53.75	0
4	Czech Republic	cz	CZK 500	16	CZK 700-750	22	202	10.2	108.91	2.16	19,803.92
5	Denmark	dk	DKK 60	8	DKK 60	8	596	5.3	13.42	1.51	112,452.83
6	Estonia	ee	0	0	0	0	24	1.4	0	0	17,142.86
7	Germany	de	5	5	€ 6-39	15	8,650	82	1.73	0.18	105,487.80
8	Greece	gr	?		€ 12-58	35		10.5	0	3.33	0
9	Finland	fi	18	18	18	18	102	5.1	176.47	3.53	20,000.00
10	France	fr	9	9	€ 34-99	35	365	60.4	95.89	0.58	6,043.05
11	Hungary	hu	?		HUF 2,000	8	170	10.2	47.06	0.78	16,666.67
12	Ireland	ie	39	39	€ 50-90	70	47	3.7	1,489.36	18.92	12,702.70
13	Italy	it	4.91	4.91	€ 13-35	24	1,057	57.6	22.71	0.42	18,350.69
14	Latvia	lv	30	30	30	30		2.4	0	12.5	0
15	Lithuania	lt	23	23	LTL 94.4	27.5	23	3.5	1,195.65	7.86	6,571.43
16	Luxembourg	lu	40	40	40	40	20	0.5	2,000.00	80	40,000.00
17	Poland	pl	15-50	15-50	50	50	175	38.6	285.71	1.3	4,533.68
18	Portugal	pt	24	24	24	24	63	10.8	380.95	2.22	3,846.15
19	Slovakia	sk	SKK 600	15	SKK 600	15	74	5.4	202.7	2.78	13,703.70
20	Slovenia	sl	SIT 4,000	16	SIT 4,000	16		2	0	8	0
21	Spain	es	54	54	€ 66-100	75	80	39.4	937.5	1.9	1,949.15
22	Sweden	se	SEK 160	17.4	SEK 160	17.4	337	8.9	51.63	1.96	37,865.17
23	Netherlands	nl	4	4	€ 9-48	25	1,474	15.8	16.96	1.58	93,291.14
24	UK	uk	4	4	€ 2.5-29	17	4,108	58.6	4.14	0.29	70,102.39
25											
		com					33,352				
		net					5,324				
		org					3,307				
		info					3,334				
		biz					1,088				

From 1999 until 2003, the CZ domain was operated by means of outsourcing, with CZ.NIC and the outsourced contractor each collecting a fixed share of the revenues. The current regimen, introduced with the decentralized system of CZ domain management, is flexible and adjusts according to the number of registered domain names; this approach brings a higher income to CZ.NIC with a reasonably greater business risk. The domain name registration price for the registrar (the "wholesale price") consists of a fixed annual fee and a fee per domain name. Thus, the domain name unit price declines with the number of domain names

growing. This model has an inherent risk that if the number of registered domain names began to decline, the price would incrementally rise and, if the critical number of domain names was reached, the registration system operation would begin to generate a loss. For this reason, it is vital that a sufficient effort be made to assure and maintain an ongoing growth of the registered domain names.

The financing of CZ.NIC is based on fees received for the domain names registered, which represents the main source of income for the association. Additional revenues come from annual fees from registrars and from one-off membership fees paid by newly acceding association members.

It is an important aspect of the financial management of CZ.NIC that its members do not distribute profits generated by the association, if any.

## **2. CZ.NIC Organization Structure**

The supreme body of CZ.NIC is its General Meeting, followed by the Board of Directors and the management. The Supervisory Board serves as a supervisory body of the association.

Members convened at a session of the General Meeting may decide on the accession of additional members.

The association communicates with major organizations involved in the national Internet infrastructure, members of the Internet community as well as government bodies (in particular the Czech Ministry of Informatics, NIX.CZ, Association of Public Telecommunication Network Operators - APVTS, Czech Telecommunications Office, Association for Information Society, Office for Competition Protection, Office for Personal Data Protection, Czech Economic Chamber).

The association furthermore communicates with international organizations dealing with the Internet or, if relevant, is a member of such organizations. We can in particular mention ICANN (Internet Corporation for Assigned Names and Numbers), CENTR (Council of European National TLD Registries), RIPE (Réseaux IP Européens), IETF (Internet Engineering Task Force) and EURid (European Registry of Internet Domain Names).

## **3. Management**

The association has 4 full-time employees led by a director. The management in particular manages key aspects of outsourcing - the technical administration of the CZ domain. Furthermore, the staff provides general information to domain name holders, notify holders (by telephone or e-mail) of the upcoming expiration date of their registration, and provide payment system support for the LRR. The missing role of the broader management is to some extent compensated by the Board of Directors. Apart from the distributed system of CZ domain management, some other activities are also outsourced that need to be performed in order for the association to operate smoothly (internal IT administration, accounting, legal advisory, PR).

## **4. Registry - Registrar - Registrant System**

As the Registry, CZ.NIC defines conditions for registrars and regulates their number by setting an annual fee. CZ.NIC also serves as a safety net (LRR) should a registrar suddenly terminate its activities. CZ.NIC competes with registrars since, by means of its LRR role, it is also a registrar. As of July 1, 2004, the association acted as registrar for some 1% of all registered domains.

## **5. Dispute Resolution**

It was an important step toward resolving disputes concerning domain names when a system was introduced as of August 1, 2004 for Alternative Domain Name Dispute Resolution (ADR) in cooperation with the Arbitration Court with the Economic and the Agrarian Chambers of the Czech Republic.

## **6. Projects**

One of the business activities of CZ.NIC is supporting charitable projects related to the association's activities. CZ.NIC has to date granted contributions to charitable projects in the period of 2002-2003 only; the contributions provided did not generate any significant benefits.

## **B. Future, Outlook for 2005-2009**

CZ.NIC continues to manage the CZ domain. The association is prepared to negotiate and cooperate with anyone who is interested in establishing a purposeful and strategic cooperation pertaining to CZ domain management.

### **1. Financial Aspects**

When managing the CZ domain's operation, it is possible to choose anything between a complete outsourcing and performing all tasks using one's own resources and staff. Therefore, all the available options need to be analyzed. When the existing contract with T-Systems PragoNet, a.s. has expired, the decision how the distributed CZ domain management system should be operated in the future should be made following a due consideration of the operating expenses, required capital expenses, inherent risks and other factors. The decision will have been made by the end of 2005 so that there is enough time for the subsequent steps - conduct a public tender for the system supplier (operator) or develop (take over) the system using the association's own resources, or combine these two options. The decision should primarily be based on detailed assessments of each of the options (ranging from the full outsourcing to completely internal resources) and on a risk analysis, which would in particular evaluate the operation stability and other operational risks, financial reserves and the association's legal liability.

While doing this, CZ.NIC must generate a sufficient amount of funds in order to be able to finance the inevitable renewal of technologies, cope with contingencies and to finance projects. Any additional expected profit then needs to be eliminated by reducing the price of services rendered to registrars in order to facilitate the potential reduction of prices for end holders.

### **2. CZ.NIC Organization Structure**

CZ.NIC still remains a special interest association of legal entities. In view of the planned amendment of the civil codes, which is expected to affect the provisions that govern special-interest associations of legal entities, the review of the status of association will only be conducted after this legislative change takes effect.

The current organization of the association's activities has shown to be vulnerable in view of a potential hostile takeover. Such an action may have the form of either control being taken over by a certain group, which would subsequently withdraw funds from the association, or re-delegation of domain management. The existing mechanisms may not be sufficient to prevent this scenario completely. The risk of CZ.NIC's position becoming unstable would directly affect the CZ domain operation stability as such. In order to improve the association's stability, its Articles need to be changed regarding the association's structure and a stable system must be created. CZ.NIC should further regulate its relationship with the government in terms of national domain management delegation.

### **3. Management**

The management and the team of employees will be strengthened, yet the actual positions and numbers of staff will be determined based on the analysis mentioned in Paragraph C.1.

### **4. Registry - Registrar - Registrant System**

The current Registry-Registrar relationship (CZ.NIC - registrars) needs to be reconsidered in particular from the financial viewpoint. One of the available financial models is to replace the annual fee and the service-based fee with an initial payment, which would represent an advance payment for a given volume of services (= minimum number of domain names per year). Once this advance payment has been used up, the registrar would be charged for every

additional service rendered based on the valid pricelist (if the registrar does not use up the first advance payment, the association would not return the unused balance).

The LRR's role of registrar needs to be reviewed by limiting its function to a "safety net" only (i.e. the LRR would not be allowed to make any new registrations, the existing registrations would no longer be renewed).

However, any changes in the CZ.NIC - registrars - end holders relationship need to be based on an analysis of the impacts such changes would have on the operation of CZ.NIC and its ability to ensure a continuous management of the CZ domain.

## **5. Projects**

Apart from managing the CZ domain, CZ.NIC should manage projects relating to domain management and administration and, if relevant, other projects following up on the CZ domain management. Every project is on the general level approved by the General Meeting. The General Meeting at the same time defines the basic financial parameters of the projects by setting its budget.

The need for projects, in which CZ.NIC should get involved, changes over time and to a great extent depends on ad hoc needs. For this reason, it is not possible to plan projects for the entire period of 2005-2009.

### **a) Basic Projects**

#### **1. IDN Implementation**

The IDN (Internationalized Domain Names) is a global project that allows the use of national alphabets in creating and using domain names. As part of the project, a national profile will be defined to implement the Czech language in the DNS system so as to facilitate the full use of diacritics to create domain names. The project will in all respects observe international standards and it will be implemented in the Czech Republic if users show a sufficient level of interest. The IDN will be designed to ensure that:

- The registration of additional domain names with diacritics stimulates the growth of registered domain names;
- The IDN is a differentiating element in comparison with other domain names, in particular EU and gTLD;
- The IDN does not affect the legal certainty of domain name holders and incite additional domain name disputes.

#### **2. ENUM Implementation**

The ENUM is a system adopted and coordinated by the ITU (International Telecommunication Union), which allows Internet service identification according to the telephone number (the telephone number is mapped to the NAPTR records, which may contain references to a wide range of services).

The project will aim to prepare the implementation of this system for the Czech Republic (telephone numbers with the +420 prefix). The project includes the management of the 0.2.4.e164.arpa domain (national domain for telephone numbers with the +420 prefix) as well as the system operation. Registrations under the ENUM system should

- Stimulate the growth of the number of registered domain names;
- Introduce new methods for change authentication and authorization;
- Introduce new solutions for personal data protection.

#### **3. Participation in EU domain management**

CZ.NIC is still an associated member of the EURid consortium, which manages the EU domain. The goal is to continue to maintain our influence on the management of this domain.

As part of the EU domain management project, CZ.NIC will be involved in establishing a center for regional management in the CEE region (Central and Eastern Europe).

4. Operate an anycast mirror of F root server

CZ.NIC will operate a back-up of an anycast mirror of F root server in the Czech Republic.

5. Develop name server structure for CZ domain

In order to improve the CZ domain operation stability, the name server structure under the CZ domain will be modified with the following priorities in particular:

- Add foreign mirrors for the primary name server;
- Diversify the operation of the association's own secondary servers;
- Implement the TSIG for communication with secondary servers;
- Monitor the quality of services and global connectivity of name servers under the association's own direct control.

6. Expand services toward IPv6

The association will expand its services toward the full IPv6 functionality both in delegations and on the part of application servers and network services, including load distribution, protection against DoS and monitoring.

7. Participate in introducing DNSSEC

The association will implement pilot servers for DNSSEC LAV, verify registration procedures and generate a signed zone.

**b) Legal Issues Related to Domain Names**

1. Education as dispute prevention

By means of a web presentation in the Czech language, CZ.NIC will publish information about lawsuits relating to domain names, in particular about court rulings and arbitration awards, both from the Czech Republic and other countries (WIPO's recommendations and findings, decisions of competent authorities of EU Member States if relevant).

2. Practical assistance in legal matters

CZ.NIC will actively cooperate with the Arbitration Court with the Economic and the Agrarian Chambers of the Czech Republic in resolving disputes concerning domain names as part of alternative dispute resolution, in particular by timely submitting requested source data and documents pertaining to the disputes under review, giving expert technical opinions and standpoints on specific disputes and, if relevant, actively participating by means of association members' representatives or association body members acting as arbiters.

**c) Active Cooperation in Preparing Legislative Changes in IT/Telecommunications**

CZ.NIC has become one of significant players in the process of legislative proposals/changes in IT and telecommunications, in particular in handling legislative issues pertaining to domain names.

**d) Foreign Activities Stimulated by Global Internet Development**

CZ.NIC will continue to foster its cooperation with foreign or international organizations, in particular with ICANN (by means of membership in ccNSO), CENTR, EURid, RIPE, IETF.