

.PL DOMAIN NAME MARKET

NASK'S REPORT FOR THE FIRST QUARTER OF 2017

Q1 2017







Dear readers,

In the first months of 2017 NASK ended the direct service of registrants of .pl domain names. As a result of NASK's cessation of the direct service and registration of .pl domain names, 100% of registrants are serviced by NASK's Partners in the Registry-Registrar model.

As in every quarter, you will find in the report detailed information on .pl domain name market in respect of both registrars and registrants. A short summary of the first three months of 2017 was presented in part "Q1 2017 in .pl registry – facts and figures". This is the first edition when the report has been extended with a new cycle, titled "Insight into .pl registry", containing interviews with employees engaged in daily performance of tasks pertaining to NASK's role as a country code registry.

In the beginning of April 2017 NASK's Partners were invited to take part in the workshops on DNSSEC service, organized by .pl registry. Events of this kind, embedded in the activity of ccTLD registries and good practices of cooperation with Partners, will be permanently present in the activity calendar of the Polish registry. The participants of the meet-

ing, held in April, were the Partners willing to apply gained knowledge and practical skills while implementing the service increasing the security level of .pl domain names at their clients. For more details read the interview with Maciej Andziński who conducted DNSSEC workshop for NASK's Partners and shares his observations and knowledge on the application of DNSSEC in Poland and abroad.

I wish you pleasant reading of the report on the .pl domain name market for the first quarter of 2017.

> Wojciech Kamieniecki NASK Director



over 481 thousand renewed names

 $\begin{array}{c} 254\,013\,\text{new names} \\ \hline 2\,822\,\text{names registered daily average} \end{array}$

2 677 692 active .pl domain names

33.25%

of registrants were natural persons



66.75%

of registrants were entrepreneurs

2.61 names fell for one registrant



34 054 names secured with DNSSEC

1 010 agreements on options renewed for consecutive 3 years



of Partners' share in the .pl domain name market

37 582 transfers

40 016

4 623 new agreements on options

effectiveness of options 44.95%

.pl domain names active in DNS

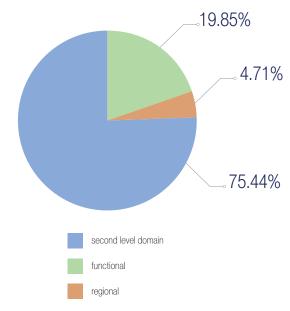
Domains in .pl registry

At the end of March 2017 there were 2 677 692 domain names active in DNS. From the beginning of the year that number decreased by 25 473.

In the first quarter of 2017 in .pl registry out of all names active in DNS 75.44% were registered directly in the top level domain (.pl), 19.85% in functional domains (e.g.: .com.pl, .net.pl) and 4.71% of names in the regional domains (e.g.: .waw.pl, .bialystok.pl).

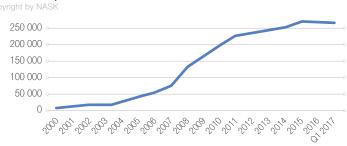
Number of domain names in DNS as divided into the type of zone, Q1 2017

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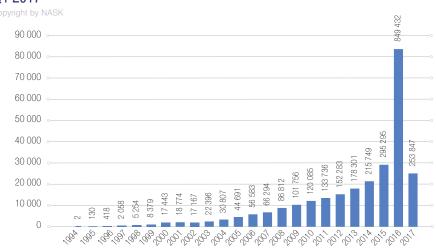


The age of all names, active in .pl registry, was divided as follows: **9.48%** - names registered in 2017, **31.72%** - in 2016, **36.43%** - names registered between 2006 and 2010, whereas **6.25%** - names registered between 1994 and 2005.

Number of .pl domain names in DNS



Number of domain names active in DNS as divided into the year of registration, Q1 2017



.pl domain names active in DNS

Transfers

From the beginning of January to the end of March 2017 .pl domain registrants **37 582** times changed a registrar servicing their names. In **1 193** cases the service was transferred with a simultaneous renewal of the .pl domain name for a consecutive billing period with **677** of them being effected after the previous billing period had been completed.

Renewal of a domain name for a consecutive billing period

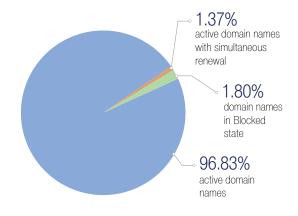
In the first three months of 2017 over **481 thousand** names were renewed, constituting **61.14%** of all .pl domain names subject to be renewed for a consecutive billing period in a discussed quarter.

Out of all renewed names, those maintained directly in the .pl domain constituted **76.17%**, in functional domains **19.22%** while in regional domains **4.61%**.

Out of all .pl domain names renewed in the first quarter of 2017 32.72% were registered before 2011, 7.40% in 2011, 8.33% in 2012, 9.04% in 2013, 10.90% in 2014, 13.62% in 2015, 17.93% of names in 2016, whereas for 0.06% of names a registration date fell in 2017.

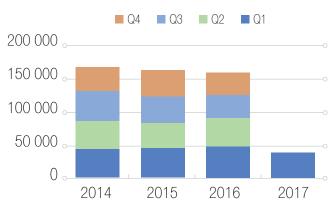
Division of transfers, Q1 2017

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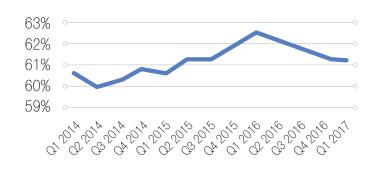
Number of transfers of .pl domain names

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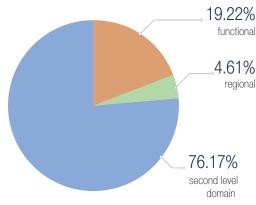
Renewal rate of .pl domain names

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Structure of renewed .pl domain names, Q1 2017

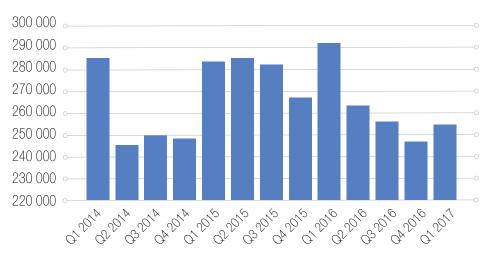
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New domain names in .pl registry

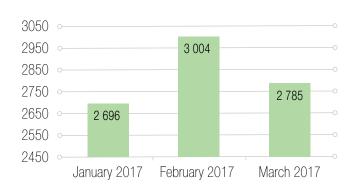
Number of .pl domain name registrations

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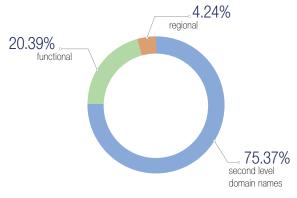


Number of .pl domain name registrations, daily average, Q1 2017

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Numbers of new second level, regional and funcional .pl domain name registrations, Q1 2017



During the first quarter of 2017 **254 013** names were registered in the .pl domain. The number of registrations in particular months of the first quarter amounted to: **83 561** in January, **84 118** in February and **86 334** in March.

Daily average 2 822 .pl domain names were registered, while the amount of registrations effected in particular months equalled 2 696 in January, 3 004 in February and 2 785 in March. The share of registrations of second level domain names, i.e. directly in the .pl domain, in the total number of registrations amounted to 75.37%.

The share of domain name registrations in functional extensions, e.g. .com.pl, .org.pl, amounted to 20.39%, while 4.24% of all the names, entered in the .pl registry within the period under discussion, constituted new registrations of regional domains, e.g. .waw.pl, .bialystok.pl.

Registrants of .pl domain names



Registrants in the .pl registry

At the end of March 2017 in the .pl registry there were recorded 1 026 507 unique registrants among which 66.75% constituted entrepreneurs and 33.25% natural persons. During the first qu-

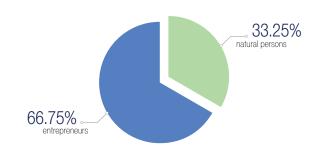
arter of 2017 the registry was enlarged by **1 035** registrants.

Out of 2 677 692 .pl domain names, active in DNS, 69.75% were maintained for entrepreneurs and

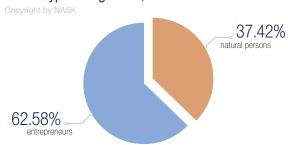
organizations, while **30.25%** for natural persons. On average **2.61** .pl domain names fell for one registrant.

From among 254 013 new registrations 62.58% were executed for entrepreneurs and organizations, whereas 37.42% for natural persons.

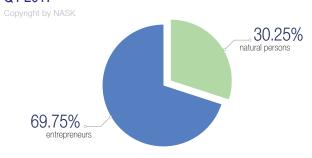
Division of Registrants of .pl domain names, Q1 2017



Division of .pl domain name registrations for the type of registrant, Q1 2017



Division of .pl domain names for Registrants, Q1 2017



Place of residence of .pl domain name registrants

94.38% of names were maintained for the registrants domiciled in Poland. From among .pl domain names registered for foreign registrants most numerous names were maintained for re-

gistrants from Germany (1.34%), United States (0.86%) and Great Britain (0.62%).

More than **92%** of new .pl domain names were registered for registrants domiciled in Poland. The

highest number of .pl domain names abroad was registered for registrants from Cyprus (3.82%), Germany (0.75%) and Great Britain (0.64%).

Registrants of .pl domain names

Registrants vs .pl domain names

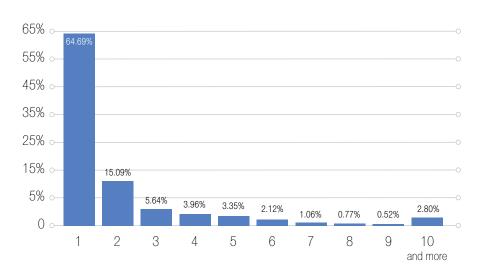
At the end of the first quarter of 2017 NASK was maintaining one domain name for 64.69% of registrants, two domain names for 15.09% and three domain names for 5.64%. 100 and more .pl domain names were held by 0.10% of registrants, with 67 thereof owned more than one thousand names.

Assignments

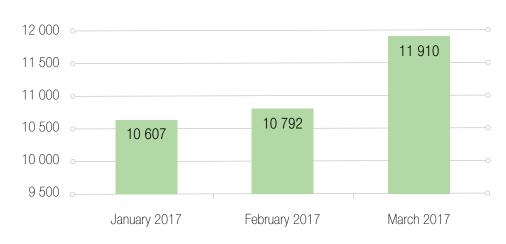
From the beginning of January to the end of March 2017 there were 33 309 changes of .pl domain names registrants.

Division of registrants by account of the number of maintained .pl domain names, Q1 2017

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Number of changes of .pl domain name registrants, Q1 2017

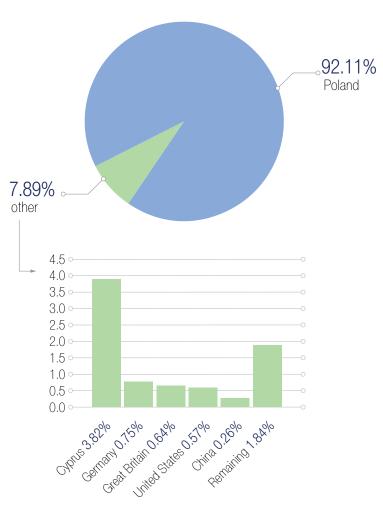


Registrants of .pl domain names

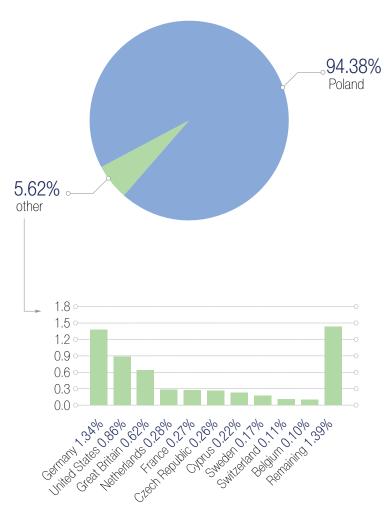


Division of .pl domain name registrations for a registrant's country, Q1 2017

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Division of .pl domain names active in DNS for registrant's country, Q1 2017



Additional services of .pl registry



IDNs

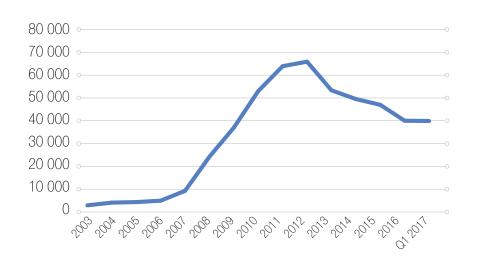
At the end of March 2017 the .pl registry contained 40 016 names with national diacritic signs (IDNs). As compared to the previous quarter that number decreased by 0.25%.

As the first quarter of 2017 ended, IDNs constituted **1.49%** of all .pl domain names active in DNS.

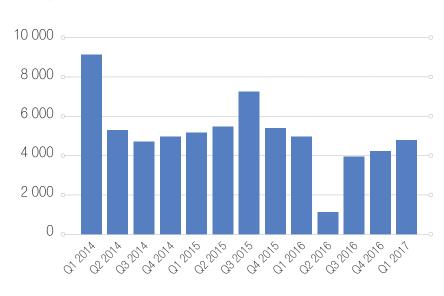
During the first quarter of 2017 there were registered **4 800** IDNs which constituted **1.89%** of all registered .pl domain names.

Number of .pl IDNs active in DNS

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Number of .pl IDNs registrations



Additional services of .pl registry



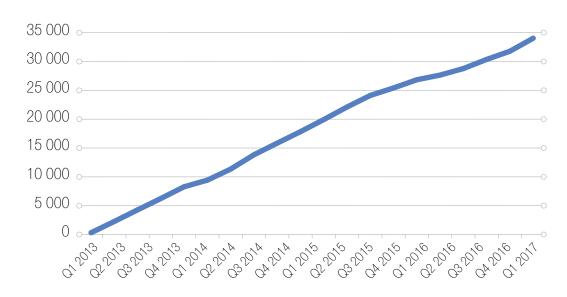
DNSSEC

The number of .pl domain names, secured with DNSSEC (Domain Name System Security Extensions) protocol at the end of March 2017, amounted to **34 054**.

86.87% of secured names were registered directly in the .pl domain, 10.04% in functional domains and remaining 3.09% in regional domains. In the first quarter of 2017 1.78% of newly registered names were signed with DNSSEC protocol.

Daily average 25 .pl domain names, with entries confirming proper protection with DNSSEC protocol, were being added to DNS.

Number of the .pl domain names secured with DNSSEC



Additional services of .pl registry



Options

Number of WLS registrations Copyright by NASK		
Q1 2017	4 623	
Q4 2016	2 295	
Q3 2016	2 230	
Q2 2016	2 346	
Q1 2016	2 801	
Q4 2015	2 267	
Q3 2015	1 989	
Q2 2015	2 173	
Q1 2015	2 757	
Q4 2014	3 795	
Q3 2014	5 547	
Q2 2014	5 706	
Q1 2014	8 644	

From the beginning of January to the end of March 2017 **4 623** agreements on options for registration of .pl domain names were concluded. The number of agreements concluded in particular months of the first quarter of 2017 equaled: **1 797** in January, **1 493** in February and **1 333** in March.

A record-breaking number of active agreements, 1 010, were renewed for succesive 3 years.

It is a result twice as much higher than in the previous quarter when 405 agreements on options had been renewed.

During the quarter under discussion 1 137 active agreements on options ended with providing a .pl domain name for registration, whereas in 98 cases the registration procedure was not completed by an option holder, which resulted in the domain names being released to the group of names available for registration.

Since launching the service in 2004 to the end of the first quarter of 2017 the efficiency of providing pl domain names for registration, under agreements on options, amounted to 44.95%.

Registrars of .pl domain names



.pl Registry Partner Programme

The .pl registry, at the end of the first quarter of 2017, was cooperating under Partner Programme with 211 registrars. 131 NASK's Partners had their registered offices in Poland, 54 in other European countries and 26 beyond Europe.

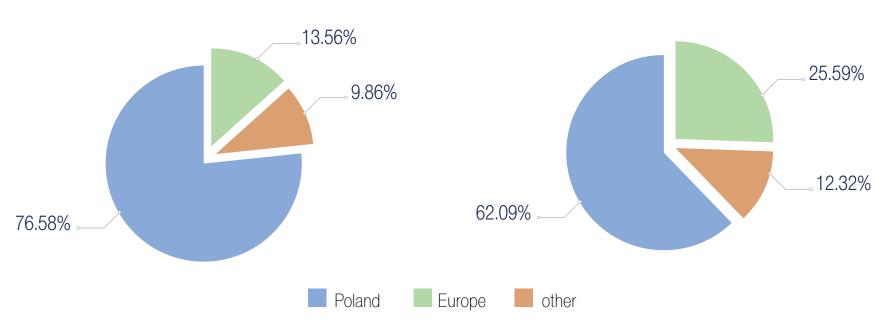
During the first quarter one new entity joined the Partner Programme,

while two registrars resigned therefrom, being still at the phase of technical development of their systems.

Registrars from Poland, at the end of March 2017, were servicing **76.58%** of active .pl domain names, **13.56%** of names were being serviced by registrars of other European countries and **9.86%** from remaining countries.

Division of .pl domain names for Partner's registered office, Q1 2017

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Division of Partners for their place of residence, Q1 2017

Registrars of .pl domain names

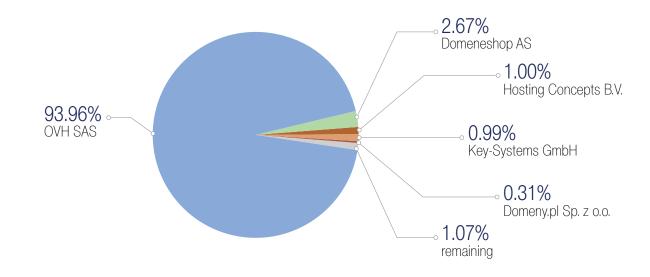


Division of .pl domain name market

Out of **2 677 692** .pl domain names, active in DNS at the end of March 2017, the largest share, namely **22.35%**, was being serviced by Home.pl S.A. The highest number, as much as **34.61%** of names, was registered through Nazwa.pl Sp. z o.o., which was servicing also the most numerous amount of registrants in the Polish registry. The share of the registrar, mentioned above, in the registrant market equaled **23.47%**.

In the discussed quarter, options were most frequently set through Michau Enterprises Ltd., assisting in conclusion of **45.90%** of agreements. The leader in providing DNSSEC services, thanks to which the Internet users are able to authenticate the information receiving from DNS, was OVH SAS which was servicing **93.96%** of secured names.

Market share between Partners considering .pl domain names secured with DNSSEC, Q1 2017

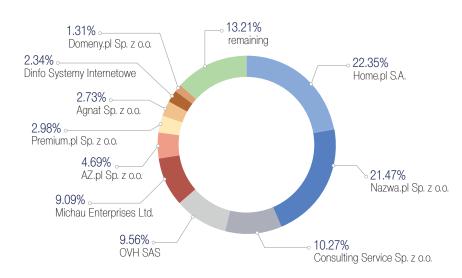


Registrars of .pl domain names



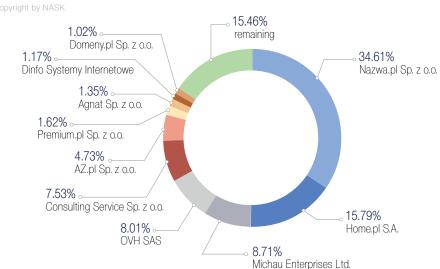
Market share bewteen Partners considering .pl domain names, Q1 2017

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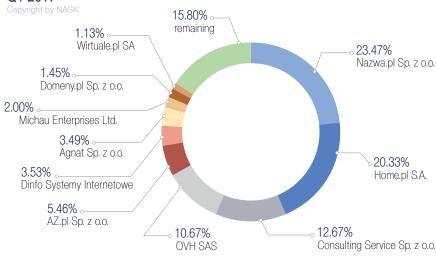


name registrations, Q1 2017 Copyright by NASK

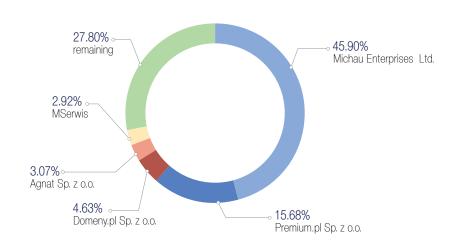
Market share between Partners considering new .pl domain



Market share between Partners considering .pl domain name Registrants, Q1 2017



WLS market share between Partners, Q1 2017



Insight into .pl registry



Why should I care about DNSSEC?

Interview with Maciej Andziński, a DNS specialist in the .pl registry, a long-standing professional in the security of the Internet and an author of publications on DNS and DNSSEC.

Maciej, you are involved in the field of DNS security in the .pl registry where registrants have been allowed to secure their domain names with DNSSEC solution for 5 years. Why do you think they should pay more attention to DNSSEC?

DNS has been present in the Internet since its early days and designed in times when the net has not been called "global" yet, with the standards of security being entirely different. However, over the years the Internet has changed totally, key protocols providing communication in the global network, where DNS should be included, have been subject to slight modifications. As a result, many of those protocols were not meeting security standards of that time, therefore there arose a need of their redevelopment. In case of DNS, a supplement eliminating its susceptibility is actually DNSSEC. Why is it worth paying

attention? We are more and more concerned about the security in the Internet, and DNSSEC is at the heart of communication in this network. DNSSEC, being a supplement of DNS, is becoming an applicable standard in the Internet.

How then would you explain what exactly DNSSEC is and what its presence denotes for a typical user of the Internet?

DNSSEC (DNS Security Extensions) is the extension of DNS (Domain Name System), being an underlying instrument of communication in the Internet. In a certain sense, DNS might be denoted as a "phone book" of the Internet, the main purpose of that system is to translate the name, understood for a human (e.g. www.nask.pl), into information useful for computers (e.g. IP address, thanks to which the transmission of data in the Internet is possible). DNSSEC is the extension of DNS, which with the application of asymmetric cryptography implements mechanisms of data authentication. In other words, information in DNS, secured with DNSSEC, has

a digital signature, therefore the verification of that information is possible. For an average internaut this technical slang means that, for example, after entering the address of their bank in a browser, they may be sure that in fact the website of that bank will be opened, not a website of a criminal who wants to steal their money.

At the end of march 2017, there were 34 054 domain names secured in .pl registry, whereby 93% being serviced by one registrar. What, in your opinion, may cause the actual situation, i.e. low level of applying DNSSEC amongst registrars?

Implementation of each new technology entails the necessity of incurring certain expenses. According to our observations, it is just the main cause of the low rate of DNSSEC implementation in Poland. IT security is a value that is difficult to convert into profit in Zlotys or any other currency. It is frequently so that the implementation of security solutions implicates the complication of system and procedures, resulting with the security being neglected. Besides,

Insight into .pl registry



for some registrars DNSSEC still remains a curiosity. On the other hand, DNSSEC workshops, recently organized by NASK, have shown that this technology generates a lot of interest.

As a chairperson, how do you evaluate the DNS-SEC workshops, held on 5 April 2017, for the Partners of .pl registry? From the survey, carried out among the attendants, we know their opinions, but what was the feedback for the .pl registry after that event?

I am pleased that the workshops attracted great interest. The main purpose of the workshops was to get the participants acquainted with the DNSSEC technology, in turn, for the registry it was an excellent opportunity to better understand the needs of the entities interested in the implementation of DNSSEC.

How does Poland fare by account of DNSSEC application as compared to other countries?

When we look at global statistics regarding the application of DNSSEC we may distinguish several outstanding domain registries, e.g. .nl (Netherlands), .no (Norway), .cz (Czech Republic), where the percent-

age of signed domains fluctuates at around 50% and more. In Poland this rate amounts to only over 1% with almost all of domain names, secured with DNSSEC, being registered by foreign NASK's Partners. I am mentioning about registrars since they are a natural liaison between the registry and registrants of domain names, thus their participation in the process of securing a domain name with DNSSEC is necessary. As a registry, we are trying to both build the awareness of threats at domain registrants and promote secure solutions among the Partners, the example of that activities are DNSSEC workshops, organized recently at NASK.

What are global trends in the development of DNSSEC technology?

Previously I have compared DNS to a "phone book" of the Internet, in that "book" we may save a variety of information useful in the process of transmitting data through the Internet. DNSSEC, by means of cryptography, enters digital signatures for data in DNS, in other words, we gain guarantee of the credibility of information saved in that "phone book" of the Internet. That, in turn, paves the way to many

new applications of DNS, e.g. using it as a carrier of information on a digital certificate for a domain name. Those certificates are currently a foundation of a secure data transmission during browsing websites or sending email, however, the method of their authentication leaves a lot to be desired. The idea of using DNS as a trusted source of information on certificates (DANE – DNS-Based Authentication of Named Entities, RFC6698) is only one of examples of recent concepts on how to apply DNSSEC.

Back to our native soil, who, according to you, should in particular be interested in that service? Are there in this group, for example, Polish e-commerce entrepreneurs?

Definitely yes. I would recommend the implementation of DNSSEC to every domain name holder. First of all, this technology should be attractive for entities particularly exposed to hacker attacks, e.g. banks or online shops.

Does a secured domain name, where an online shop is operating, protect an e-entrepreneur from a black scenario written by a hacker?

Insight into .pl registry



The security of Internet systems is a complex issue, therefore it is difficult to talk about any remedy. However, DNSSEC is a perfect, often an underestimated tool, which may significantly improves the security of an e-entrepreneur.

And how should a registrar prepare to the implementation of the DNSSEC technology? How can a Partner check whether they are ready for DNS-SEC?

The best solution is to come and join workshops organized by NASK. There are many compilations on good practices regarding the implementation of DNSSEC, it is by far an important subject, for the discussion of which we do not have enough time during this short interview, I believe. There is no universal formula for everyone. Launching DNSSEC itself is not very complicated, however, it is worth to be appropriately prepared for it, because possible errors may be painful. Besides, as everywhere where cryptography is engaged, the same iron rules are binding: safe storing of cryptographic material and cyclic exchange of keys.

Those Partners which are not interested in launch-

ing DNSSEC should also remember one thing: DNS-SEC has been applied in the .pl registry for almost 6 years and one cannot ignore its existence. Each year we detect tens of domain names which have ceased to be visible in the Internet due to wrong execution of a domain transfer from a partner, where the domain name has been secured with DNSSEC, to a partner which does not support this technology.

In many ways of our life activity we try to verify the authenticity of obtained information and, for example, while preparing for a journey we check, just to be on the safe side, the level of provided medical services and then we care for obtaining credible information. I will venture an opinion that a DNSSEC service is an answer for us why we should verify information coming from the Internet. Would you agree with that?

Interesting comparison. Indeed, the issue of the credibility of information, published in the Internet, has been frequently raised lately. Although DNSSEC is more related to technical aspects of the operation of global network, some correlative meaning may be perceived here.

The Internet plays more and more significant role in our lives and more and more daily matters are moved to a virtual reality. In consequence, the issue of providing security and privacy in the Internet has become a matter of pressing concern. The asymmetric cryptography lends here a hand and encryption of transmission in the Internet slowly becomes a standard. While implementing the mechanisms of asymmetric cryptography, DNSSEC perfectly fits into that trend.

We are waiting then for the actions to be taken in that field by NASK's Partners and we wish all common users of the Internet safety and comfort, as in case of a journey. Thank you very much for the conversation.

Thank you.

The interview was conducted by Anna Gniadek and Alina Wiśniewska-Skura.