

.pl domain name market

NASK'S REPORT FOR THE SECOND QUARTER OF 2018

Q2 2018

NASK



Domain Name Registry

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Introduction



Wojciech Kamieniecki

NASK PIB Director

Dear Readers,

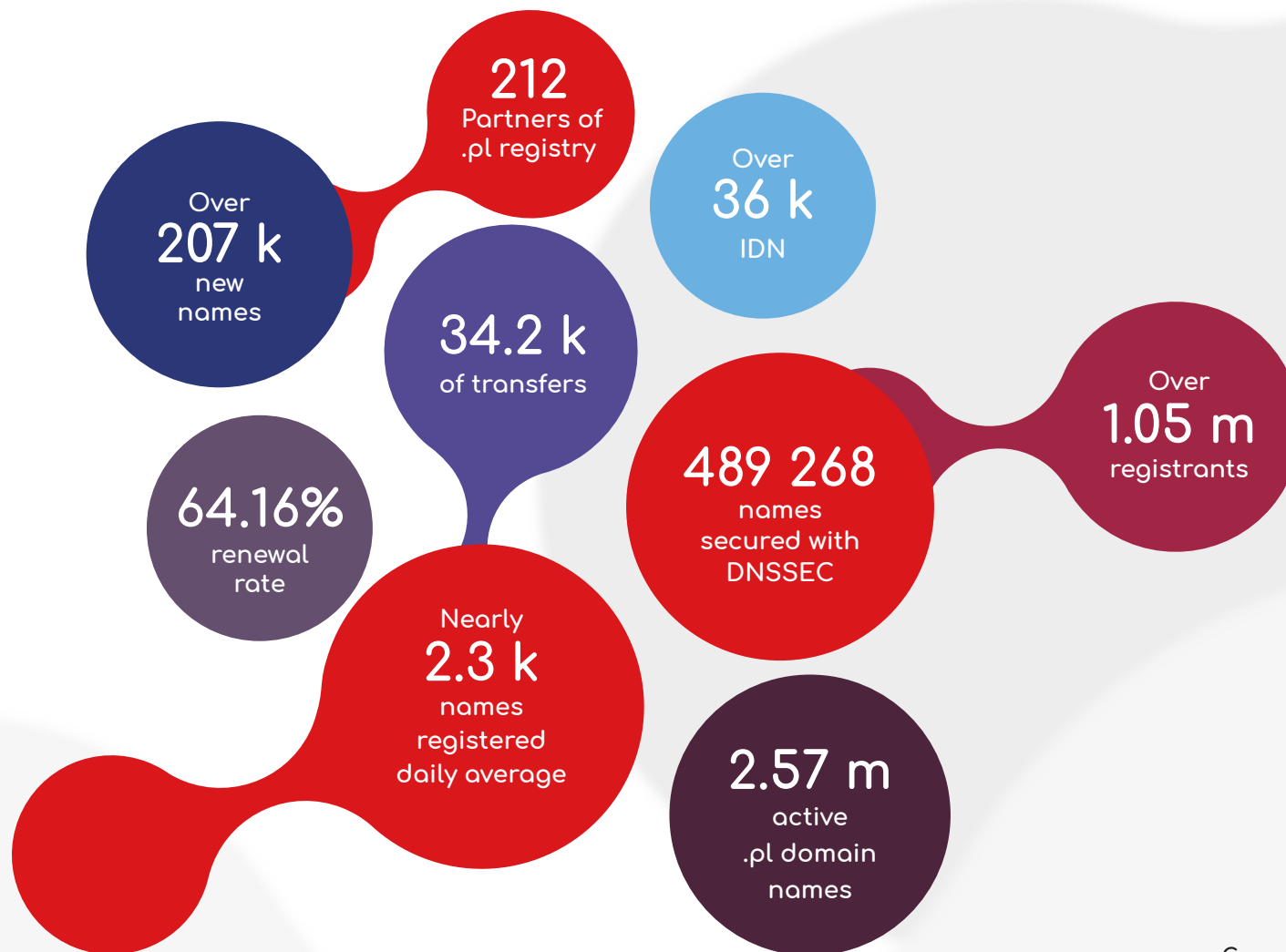
The second quarter of 2018, when **207 551** .pl domain names were registered, is already behind us. At the end of June **2 569 681** active domain names were being maintained in the registry for over one million registrants. The number of registrants increased by almost **5 500. 2 281** names were registered daily average. The increase in the share of foreign registrations is noticeable, **9.27%** of names were registered for registrants domiciled, among others, in Cyprus, Germany and Great Britain. The renewal rate grew again, amounting, at the end of the quarter, to **64.16%**.

The number of .pl domain names, secured with the DNSSEC, amounted to **489 268**, maintaining a growing trend also in the second quarter of 2018.

In June a consecutive edition of the **Open Day in .pl registry** was held at NASK for all entities, interested in becoming a Partner and developing their business in cooperation with the registry. Participants of the event were provided with details of joining the DNS Partner Programme. There were raised technical issues pertaining to quality and security as well as marketing strategy of the .pl registry.

I invite you to get acquainted with the newest NASK report, presenting the specific data from the .pl domain market for the second quarter of 2018.

Facts and figures



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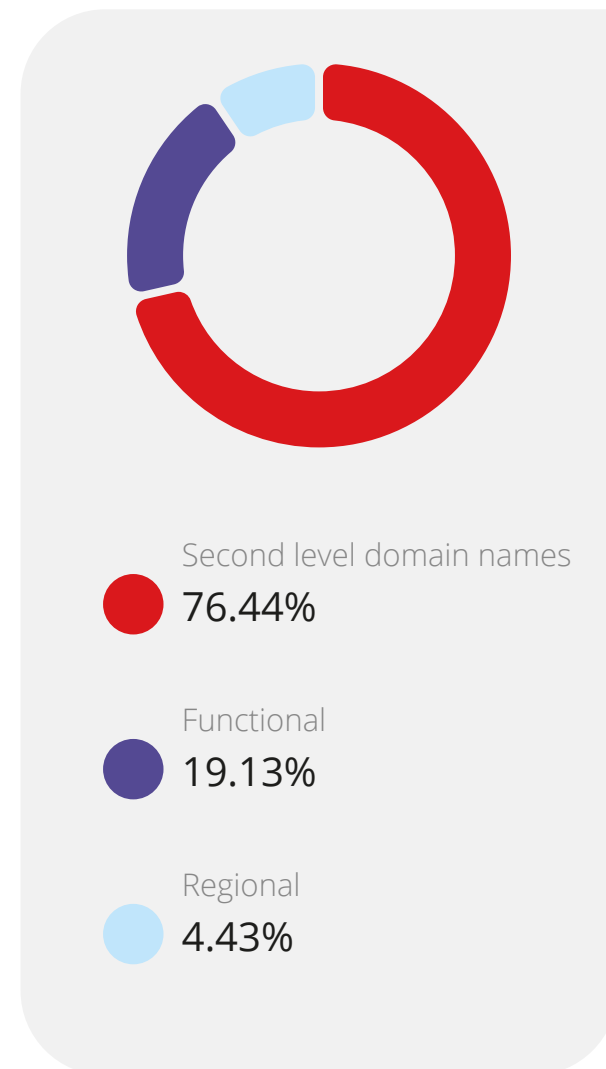
.pl domain names active in DNS

Domains in .pl registry

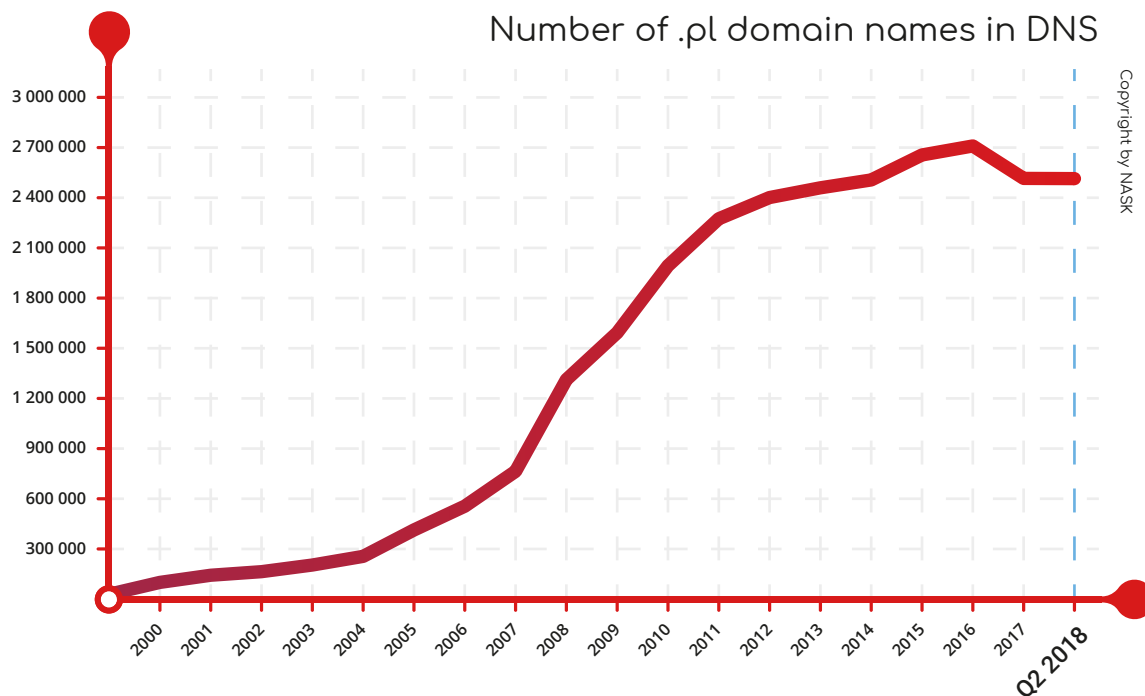
In the .pl registry, at the end of the second quarter of 2018, there were **2 569 681** domain names active in DNS. As compared to the end of the first quarter of 2018 the volume of the registry decreased by **595** names. It denotes that during the period under discussion, the decrease amounted to 0.02%.

Out of all domain names, active in DNS, **76.44%** were being maintained directly in the .pl top level domain, **19.13%** in functional domains (e.g. .edu.pl, .com.pl, .net.pl), whereas **4.43%** in regional domains (e.g. .waw.pl, .wroclaw.pl).

Number of domain names active in DNS as divided into the type of zone, Q2 2018



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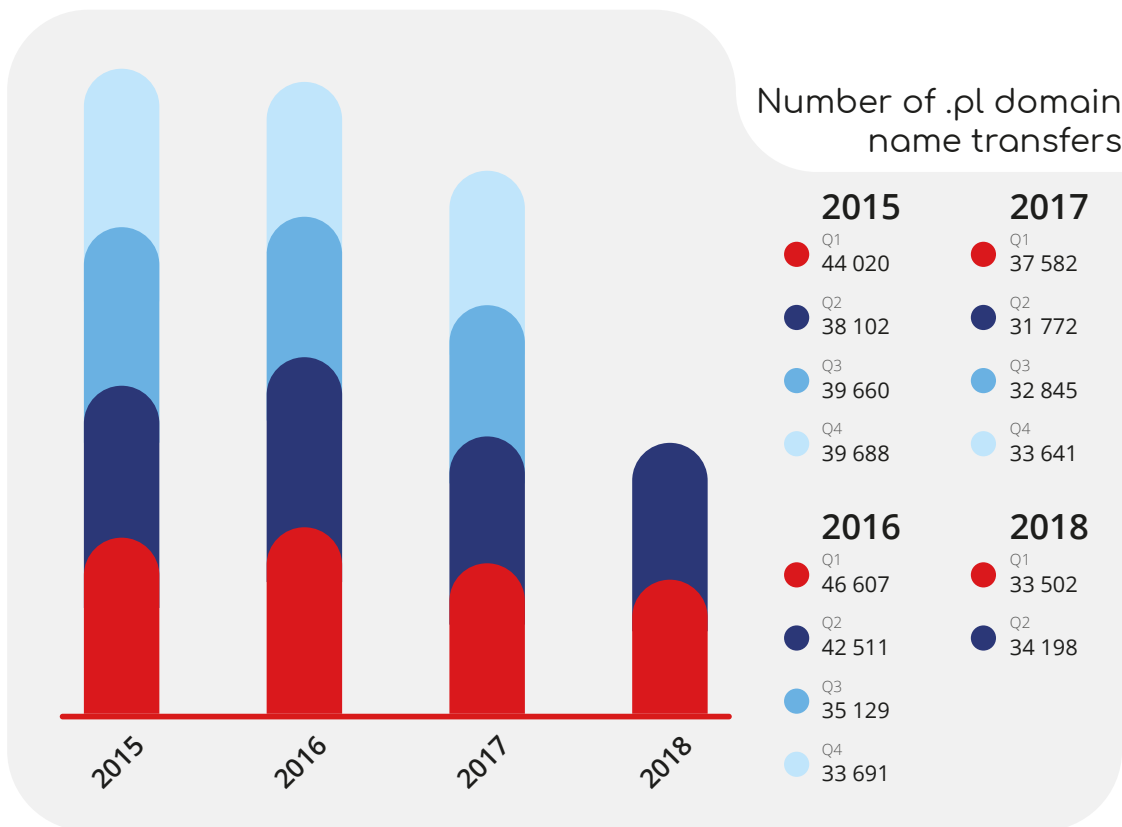
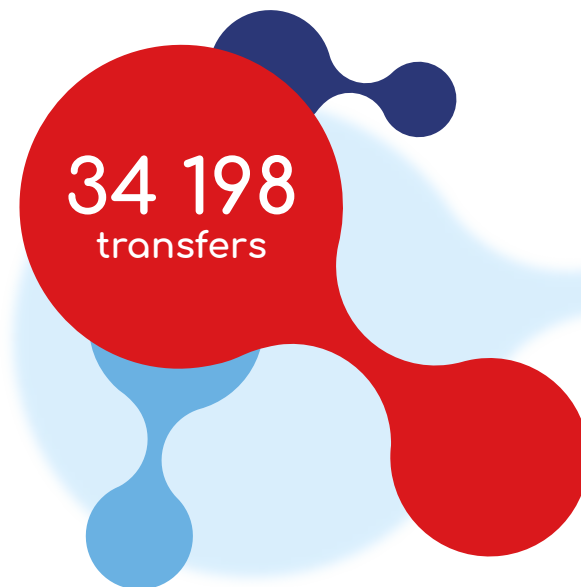


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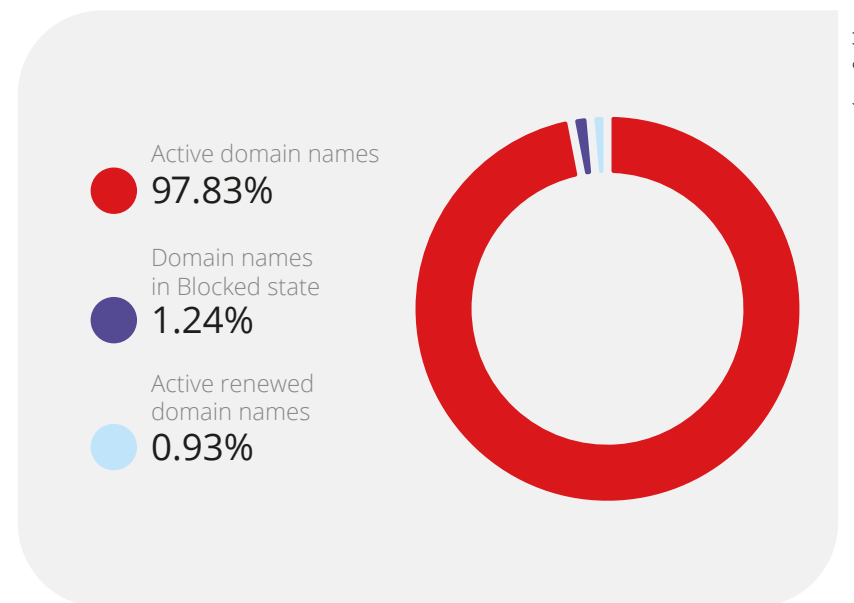
.pl domain names active in DNS

Transfers

From the beginning of April to the end of June 2018 registrants **34 198** times changed a registrar servicing their .pl domain names, i.e. by 696 transfers more than during the previous quarter, constituting ca. 380 domain transfers daily average.



Division of transfers, Q2 2018



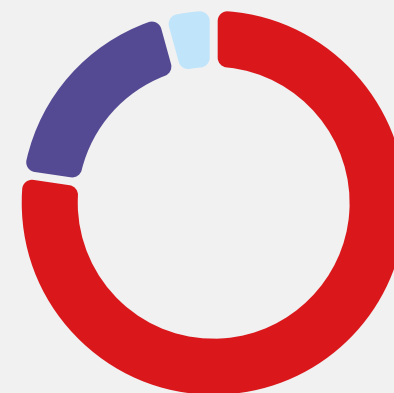
.pl domain names active in DNS

Renewal of a domain name for a consecutive billing period

The renewal rate increased again and, at the end of June 2018, amounted to **64.16%, being the highest rate since the first quarter of 2009** when it amounted to 66.06%. In the second quarter of 2018 over **383 thousand** names were renewed, with second level domain names constituting 77.37%, functional domain names 18.32% and regional domain names 4.31%.

84% of .pl domain names, renewed between 1 April and 30 June 2018, were registered before 2017, while 15.89% in 2017.

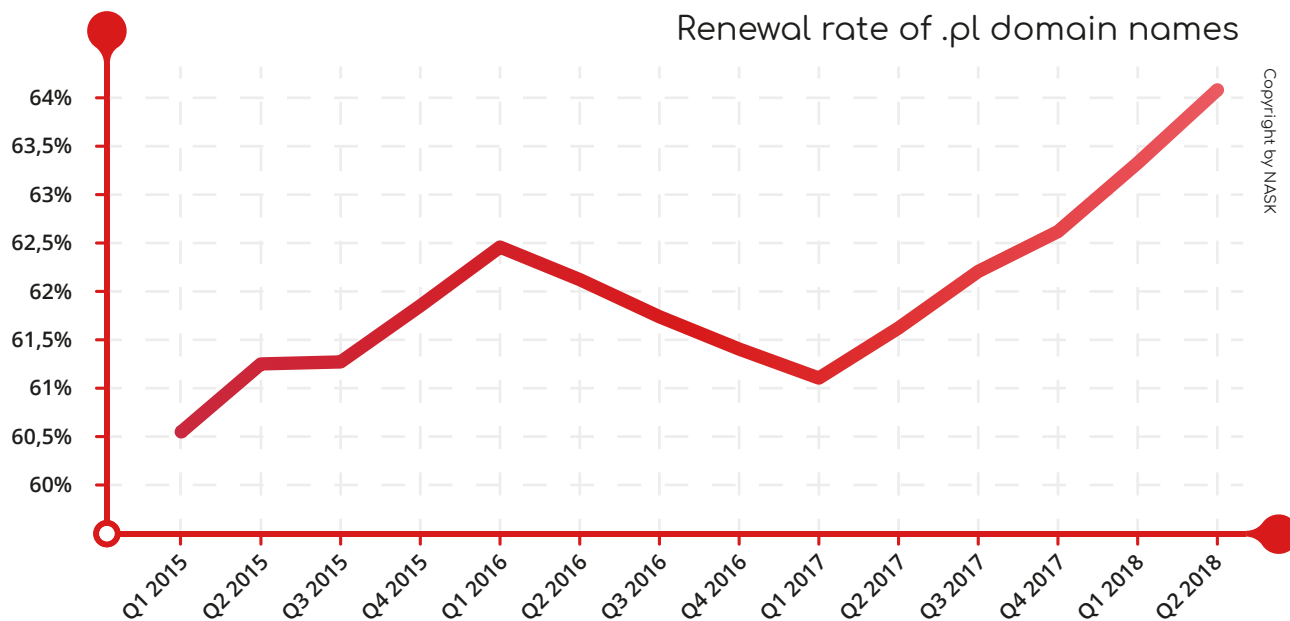
Structure of renewed .pl domain names, Q2 2018



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- Second level domain names
77.37% 296 558
- Functional
18.32% 70 236
- Regional
4.31% 16 508

Renewal rate of .pl domain names



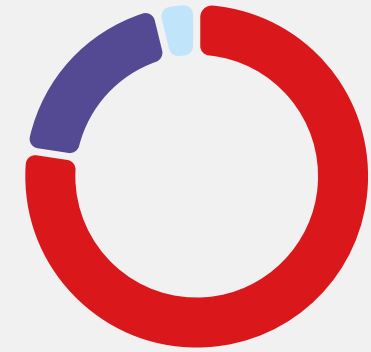
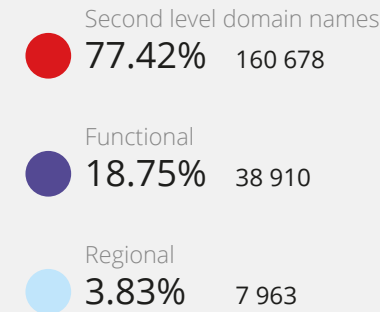
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New domain names in .pl registry

During the second quarter of 2018 nearly **207.5 thousand** .pl domain names were registered. A daily average number of registered .pl domain names, during particular months, was comparable and amounted to 2.3 thousand.

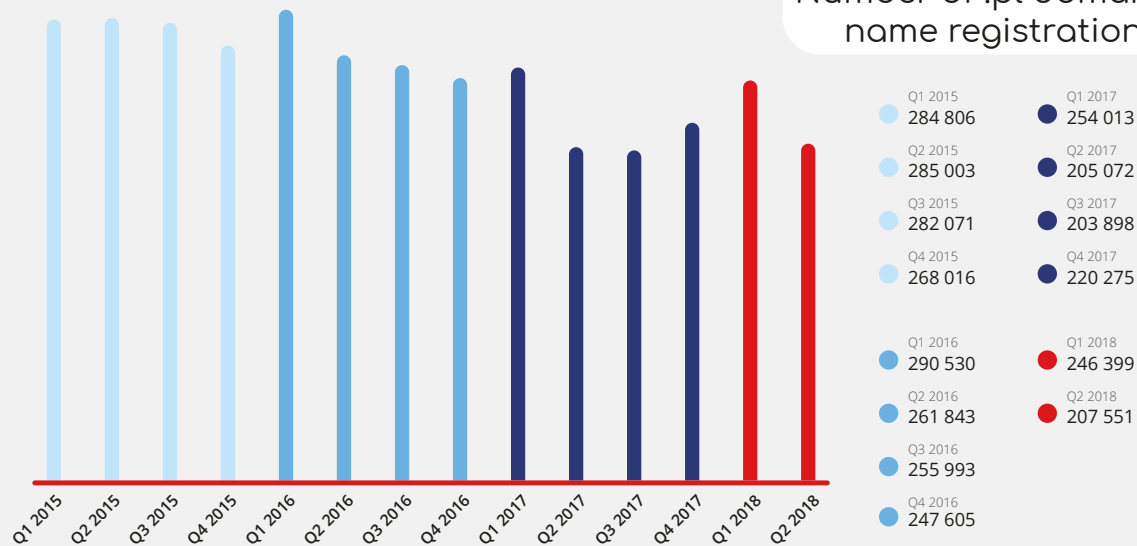
From the beginning of April to the end of June 2018 77.42% of registrations were effected directly in the .pl domain (second level domain names), 18.75% in functional domains, whereas remaining 3.83% in regional domains.

.pl domain name registrations as divided into a type of zone, Q2 2018



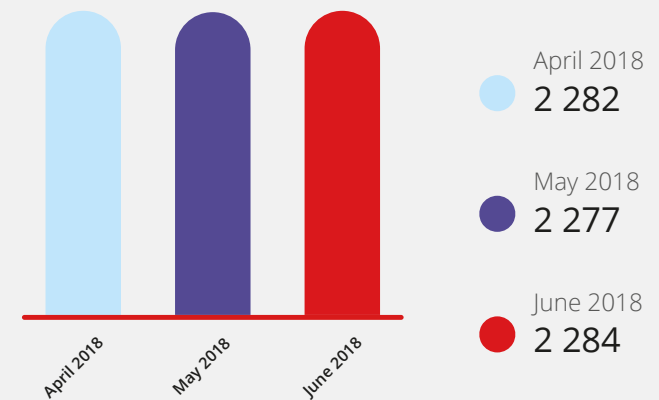
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Number of .pl domain name registrations



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Number of .pl domain name registrations, daily average, Q2 2018



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Registrants of .pl domain names

Registrants in the .pl registry

In the .pl registry, at the end of the second quarter of 2018, there were **1 053 194** unique entries of .pl domain name registrants. It is by **5 342** registrants more than in the first quarter of 2018. 2.44 .pl domain names fell for one registrant on average. Entrepreneurs constituted 66.44% and natural persons 33.56% of all registrants.

Place of residence of .pl domain name registrants

A share of foreign .pl domain name registrants is growing. Out of all new .pl domain names registrations, effected in the second quarter of 2018, **90.73%** were realized for registrants from Poland (previously 91.40%), while remaining 9.27% of names for foreign registrants (previously 8.60%), domiciled, among others, in Cyprus (4.33%), Germany (0.88%) and Great Britain (0.77%). At the end of June 2018, from amongst all the domain names, active in DNS, **93.77%** were being maintained for the registrants from Poland, while 6.23% of names for registrants from abroad. In this group the most numerous registrants were from Germany (1.51%), Great Britain (0.68%) and United States (0.61%).

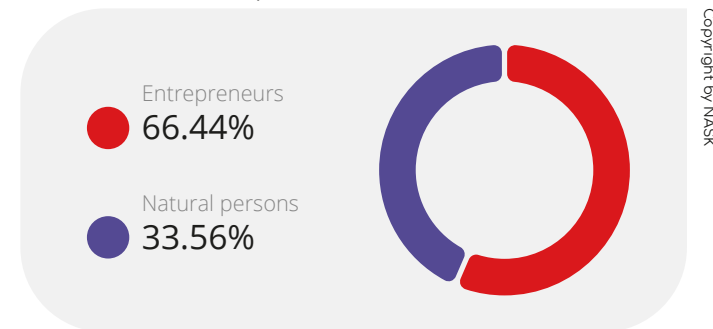
Registrants vs .pl domain names

For entrepreneurs and organizations there were being maintained in the registry 68.54% of names, active in DNS, whereas remaining 31.46% for natural persons. For entrepreneurs and organizations 63.53% of new registrations were executed, while for natural persons 36.47%. At the end of June 2018 the .pl registry was maintaining one domain name for **67.29%** of registrants, two domain names for **15.14%**, three domain names for **5.79%**. Fewer than 5 names were held by 91.70% of registrants, whereas 10 and more .pl domain names by 2.54% of registrants.

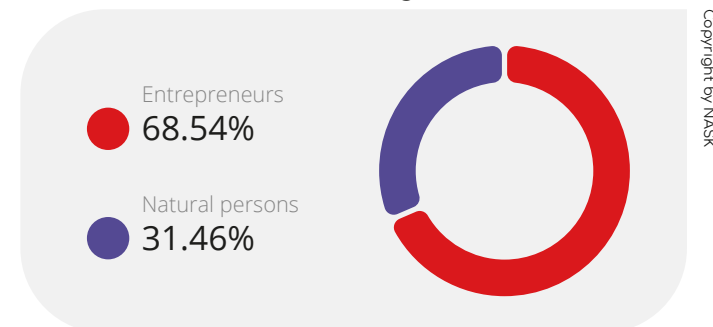
Assignments

In the second quarter of 2018 there were **30.6 thousand** changes of .pl domain names registrants. The number, mentioned above, was by ca. 8% lower than in the previous quarter.

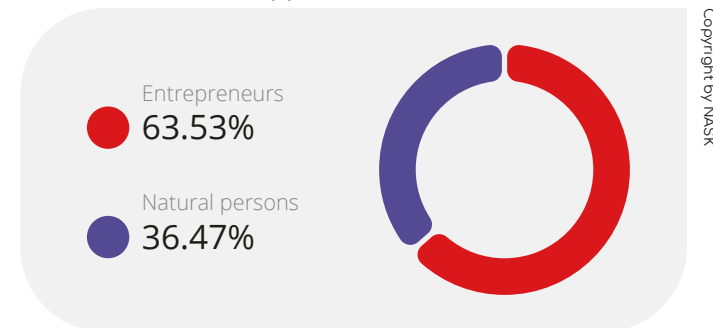
Division of registrants of .pl domain names, Q2 2018



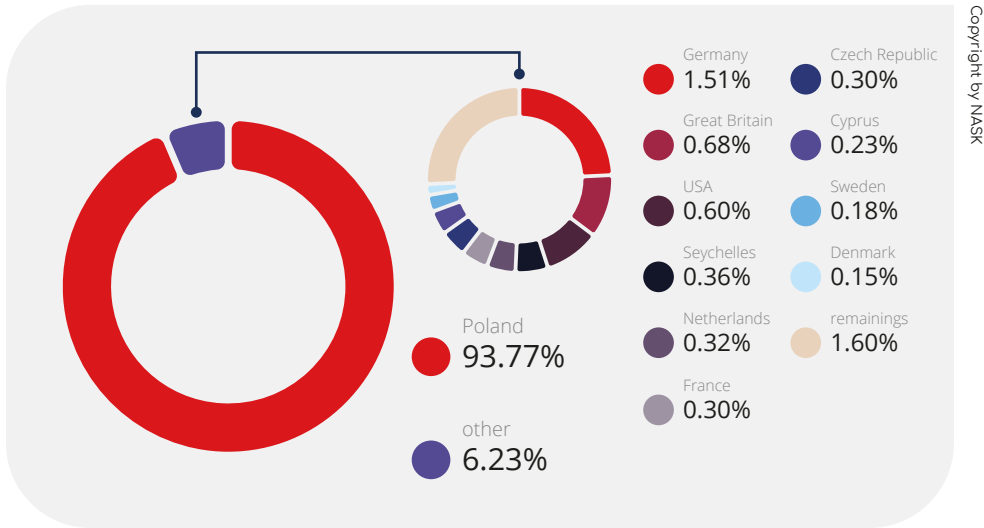
Division of active .pl domain names for registrants, Q2 2018



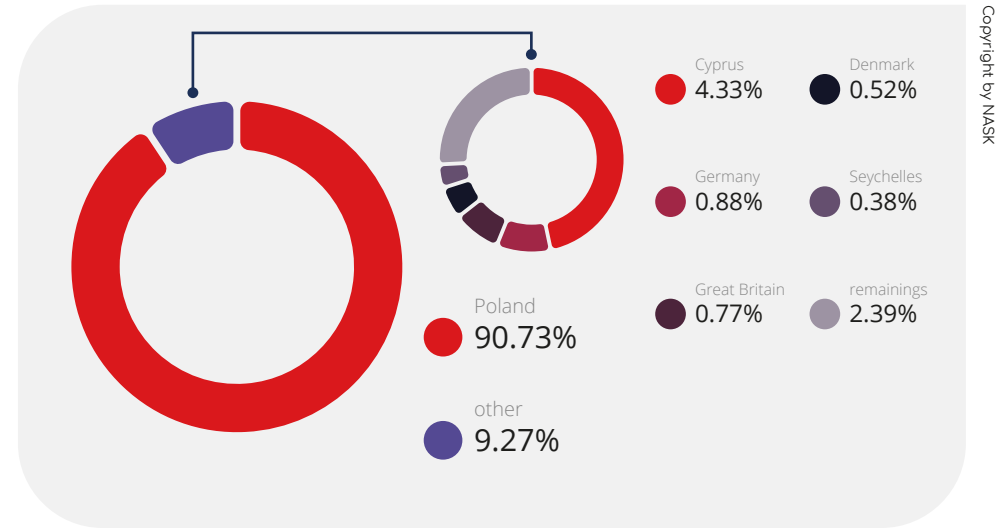
Division of .pl domain name registrations for the type of registrant, Q2 2018



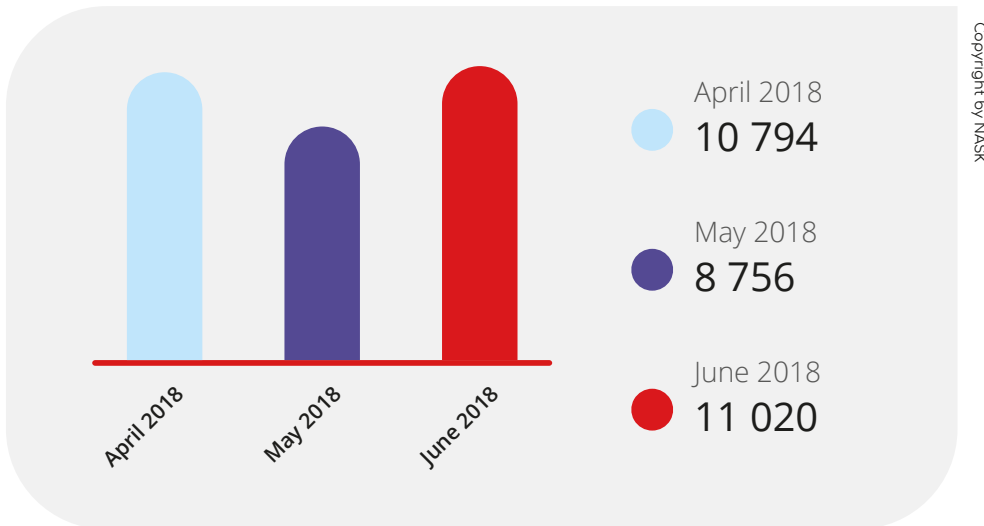
Division of .pl domain names active in DNS for registrant's country, Q2 2018



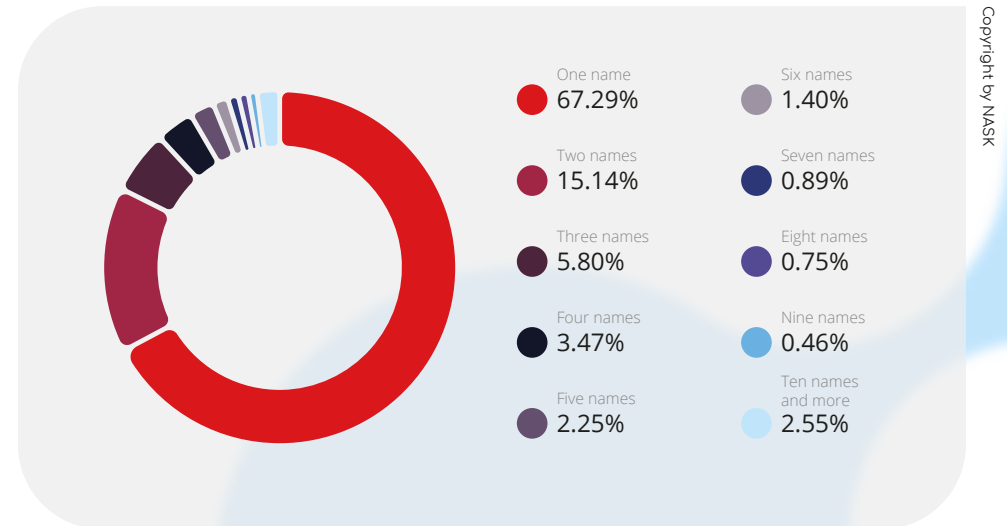
Division of .pl domain name registrations for a registrant's country, Q2 2018



Number of changes of .pl domain name registrants, Q2 2018



Division of registrants by account of the number of maintained .pl domain names, Q2 2018

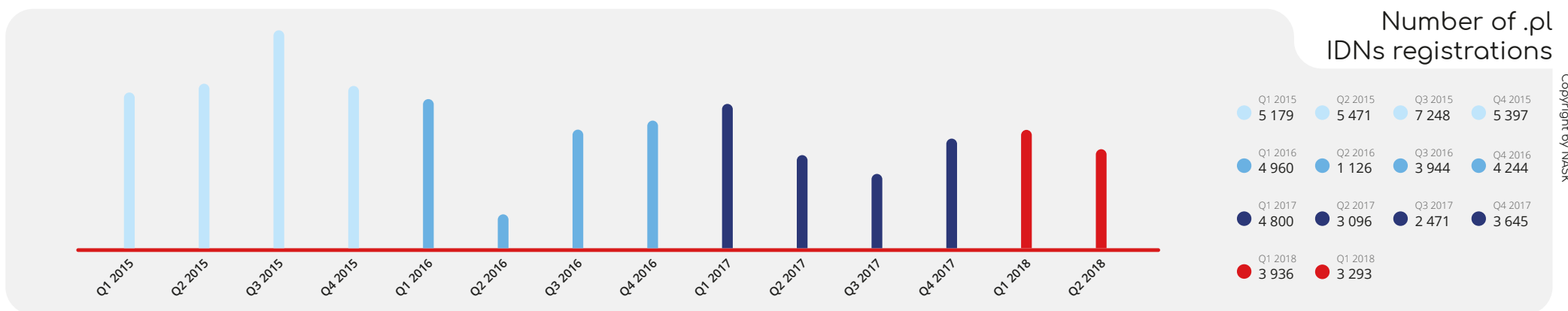
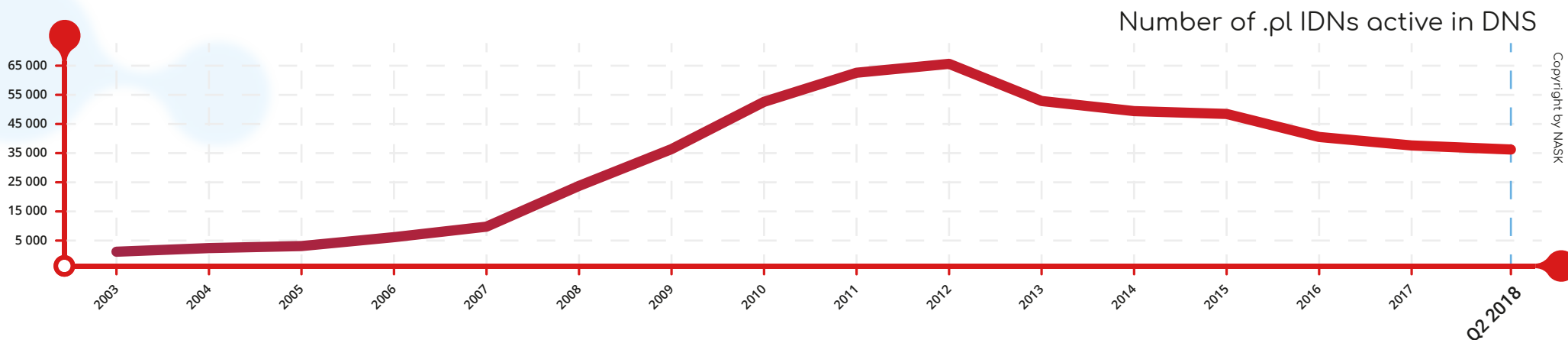


Additional services of .pl registry

IDNs

At the end of the second quarter of 2018, the .pl registry contained 36 392 names, active in DNS, with national diacritic signs (IDNs), constituting 1.42% of all active .pl domain names.

From the beginning of April to the end of June 2018 3 293 IDNs were registered, i.e. 1.59% of all .pl domain names registered during that period.



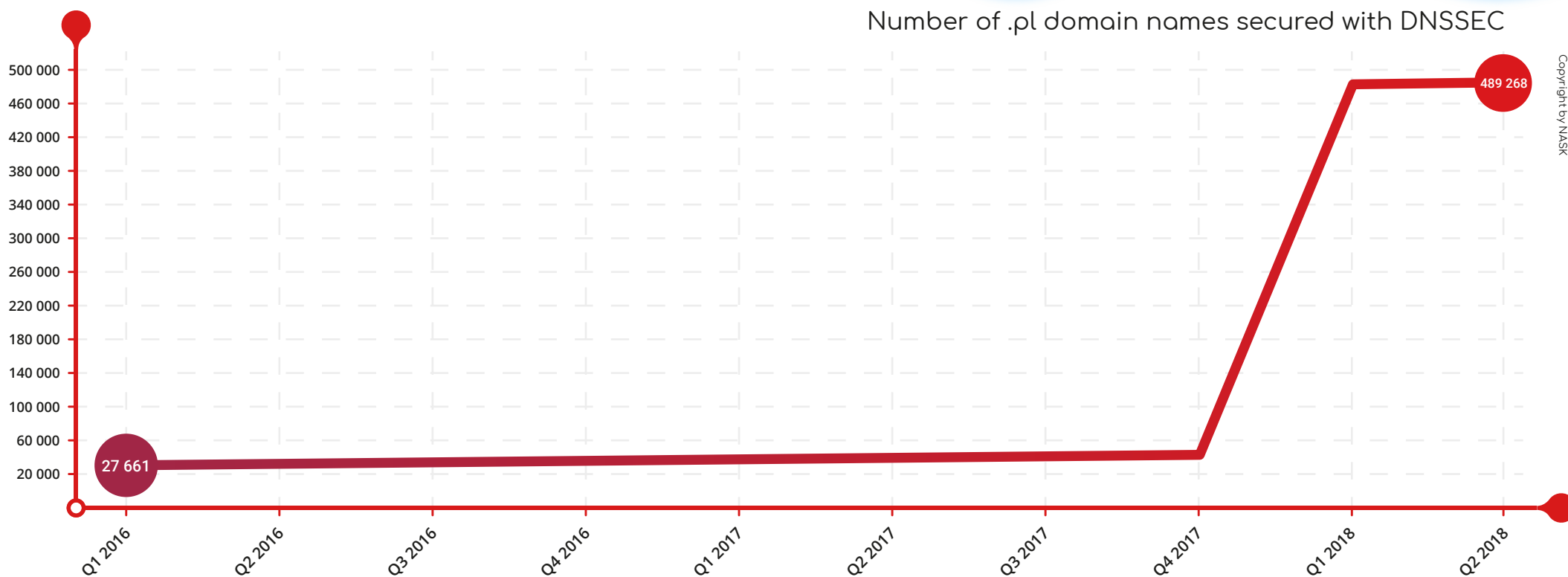
Additional services of .pl registry

DNSSEC

In the .pl registry, at the end of the second quarter of 2018 there were **489 268** names secured with DNSSEC protocol, i.e. by 2 029 names more than in the preceding quarter.

70.53% of secured names were registered directly in the .pl domain, **26.90%** in the functional domains, whereas **2.57%** in the regional domains.

489 268
names
secured with
DNSSEC



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Additional services of .pl registry

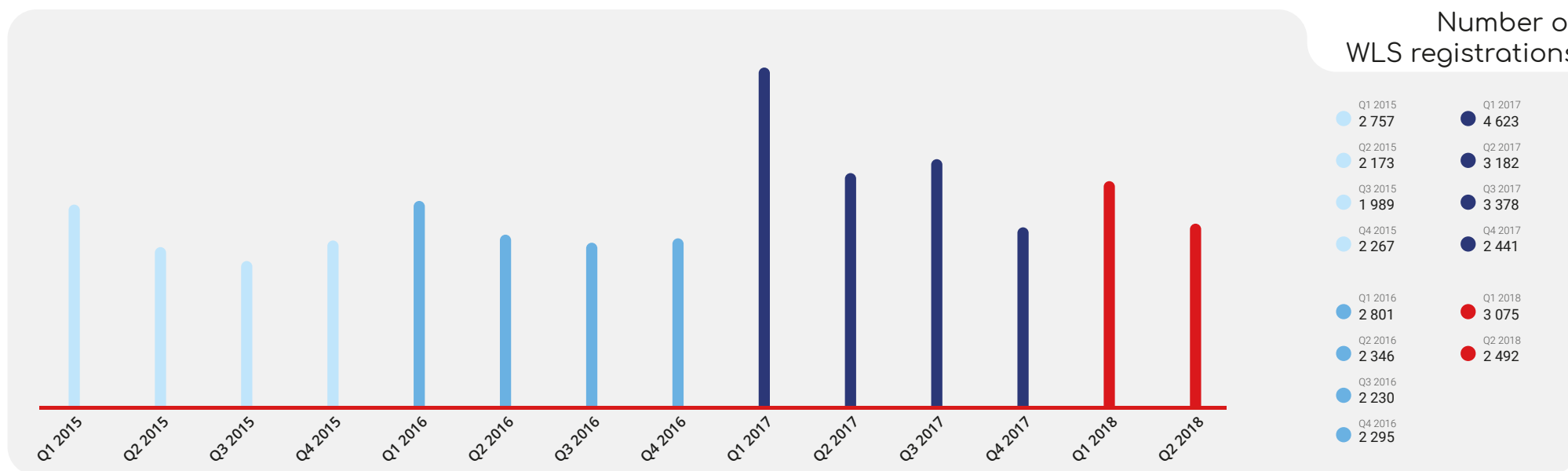
Options

During the second quarter of 2018 **2 492** agreements on options for the registration of .pl domain names were concluded. It was by nearly 19% less than in the preceding quarter.

1 384 agreements on options ended with providing a domain name for registration, i.e. by almost 80 more than in the first quarter, whereas in 124 cases the registration procedure was not completed due to reasons attributable to an option holder, which resulted in the domain names being released to the group of names available for registration.

Since launching the service of option for registration of a domain name in June 2004, the .pl registry has concluded more than 212 thousand agreements.

2 492
new options



Registrars of .pl domain names

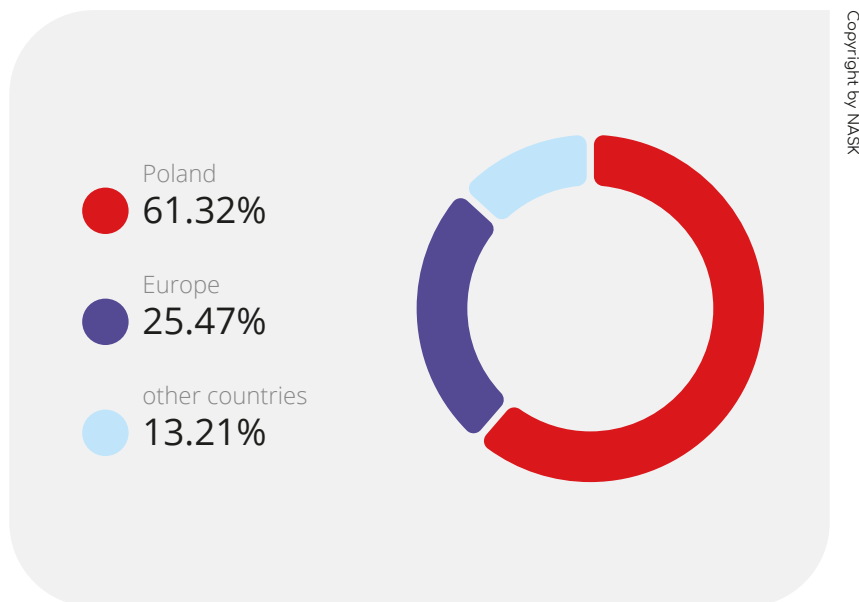
.pl Registry Partner Programme

The .pl registry, in the second quarter of 2018, was cooperating with **212** registrars from 23 countries.

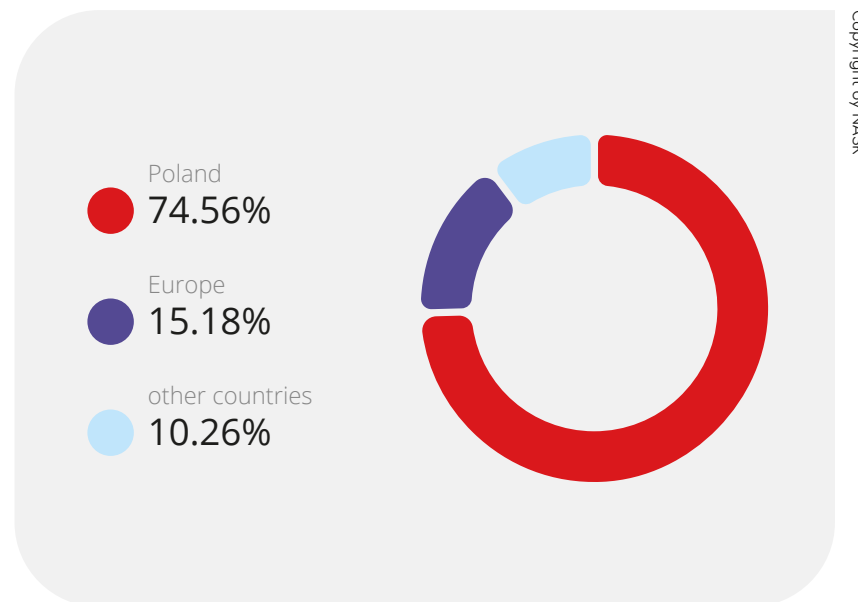
130 registrars had their registered offices in Poland and were servicing in total 74.56% of .pl domain names, 54 registrars, seated in other European countries, were servicing 15.18% of .pl domain names, while 28 registrars, domiciled beyond Europe, were servicing 10.26% of .pl domain names.

212
Partners
of .pl registry

Division of Partners
for their place of residence, Q2 2018



Division of .pl domain names
for Partner's registered office, Q2 2018



Registrars of .pl domain names

Division of .pl domain name market

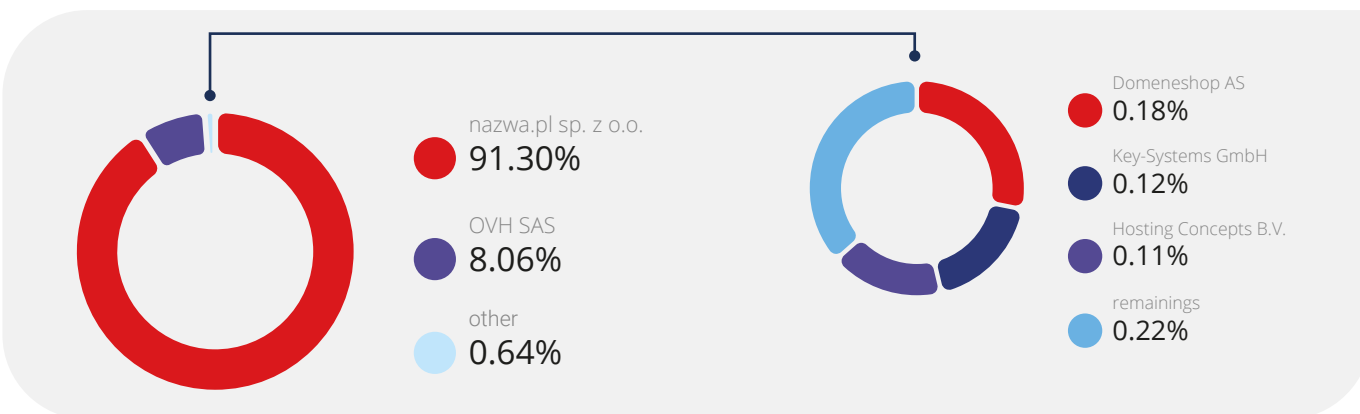
In the second quarter of 2018, nazwa.pl sp. z o.o. remained on a leader position in the .pl domain name market in respect of the share of particular Partners both in the number of serviced .pl domain names - 22.36% and new registrations - 32.72% (dropped from 34.19%). That registrar services also the highest number of .pl domain name registrants – 22.98% (dropped from 23.04%).

As for the end of the second quarter of 2018, H88 S.S. appeared in the breakdown of biggest registrars.

During the discussed period most numerous options for registration of .pl domain names were being serviced by Michau Enterprises Ltd. - 42.89% (increased from 41.69%).

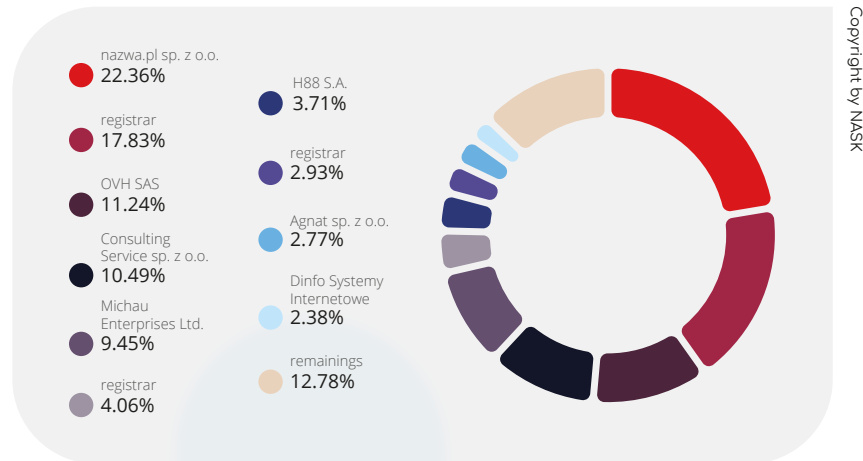
In the second quarter of 2018 the highest number of domain names, secured with the DNSSEC protocol, was being serviced by nazwa.pl sp. z o.o., 91.30% of secured names (in the previous quarter that share amounted to 91.17%). The second place was taken by OVH SAS with share of 8.06%. In the forefront there were also Domeneshop AS, Key-Systems GmbH and Hosting Concepts B.V.

Partner's market share in the service of .pl domain names secured with DNSSEC, Q2 2018

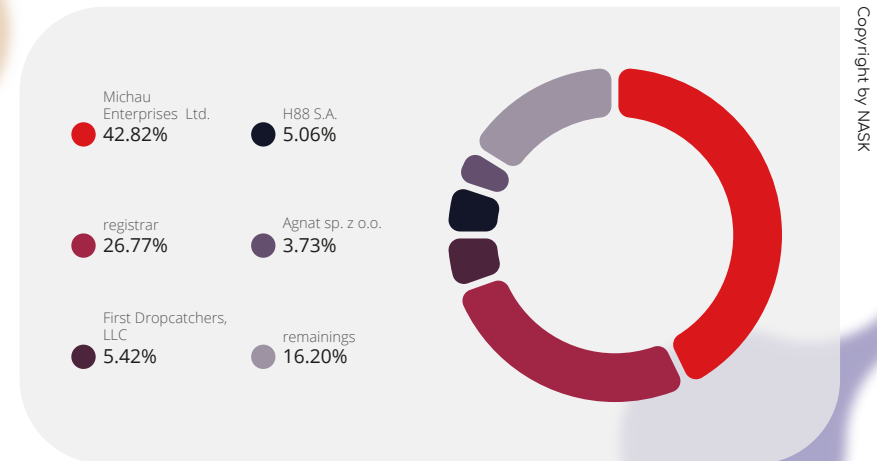


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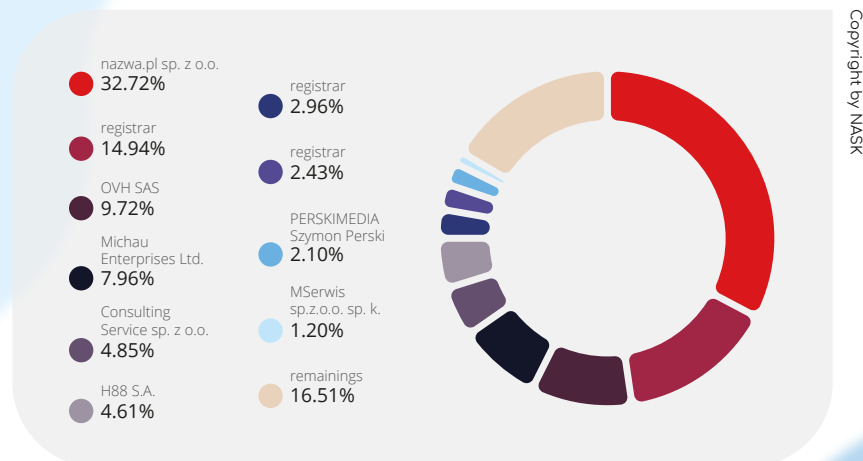
Partner's market share in the service of .pl domain names, Q2 2018*



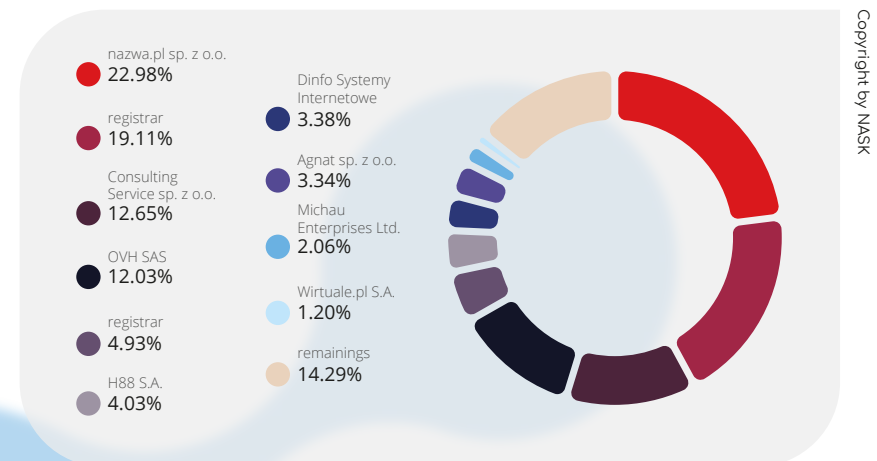
Partner's share in the WLS market, Q2 2018*



Partner's market share in registration of new .pl domain names, Q2 2018*



Partner's market share in the service of registrants of .pl domain names market, Q2 2018*



Insight into .pl registry

Anycast



Krzysztof Olesik

DNS Technical Team Manager
NASK PIB

What is anycast?

In straight words anycast may be described as a method of transmitting data in the network to a „nearest” host (computer or other device connected to a network) from a group of many hosts having the same IP address. The nearest host is determined not on the basis of a geographical location but in accordance with the topology and policy of data transmission in the network.

In order to describe how the service works we will use an example from everyday life and illustrate it as a network of branches of a particular bank. A resident of Poznan would prefer to have access to their bank in a location situated as close as possible to their domiciled address despite the fact that the headquarters of the bank is in Łódź. Thanks to bank branches (for anycast: instances) the resident of Poznan is able to use the bank’s services locally. All the data, applying to the bank’s customer, are available in each branch, therefore they do not have to travel to other city in order to use banking services.

To better understand the mechanism of anycast let me compare it to other network communication models: unicast, broadcast and multicast.

In the unicast model data are sent from a source host to a target host. It is a “one-to-one” model of communication, a most frequently applied method of communication in a computer network, e.g. PC communicating with a web (world wide web) server.

Broadcast and multicast mechanisms are examples of “one-to-many” model of communication. In the broadcast model data are transmitted

from a host to all hosts within a broadcast domain, while in the multicast model the transmission is routed between a host and target hosts belonging to a particular multicast group.

Contrary to presented models, **anycast is an example of “one-to-one-of-many” communication** scheme. Anycast model is applied, among others, to scale and increase accessibility and security of the DNS service. Thanks to anycast only one IP address is enough to launch an unlimited number of geographically scattered DNS servers located in different segments of the global network.

Why domain name registries, including the .pl registry, are interested in anycast DNS technology?

Pursuant to the features, specified above, the anycast technology allows the service to be geographically scattered and situated as close to the receiver as possible. Such an approach is reflected in faster operation of the service. The proximity of the service facilitates its accessibility since there are fewer network elements, engaged in the communication, being exposed to any malfunction or failure. Combination of the features of the service with the potential of dynamic routing protocols (data transmission routing) even better translates into the accessibility of the service. In case of a failure of a local node of the service, or its heavy loading, traffic flow is distributed to other nearest node. By applying an unlimited number of anycast DNS servers we can make an impact on the increase in the capacity of the service, and its resistance to DDoS attacks. We may argue to compare it to retention tanks and natural broods designed to protect from flooding. From a DNS perspective, another important advantage of anycast is that the service is visible as a single IP address. Adding successive DNS servers does not require

Insight into .pl registry

any additional entries in the delegation of a domain name. **A good example is the root zone, delegated to 13 servers, represented physically by 931 instances of DNS servers.**

To sum up, we may specify the following advantages of applying the anycast technology in DNS:

- **increasing the accessibility of the DNS service**
 - unlimited number of locations and servers
 - automatic exclusion from routing to nodes subject to a failure
- **increasing the capacity of the service**
 - unlimited number of locations and servers
- **improving scaling**
 - unlimited number of nodes and servers
- **speed of the service operation**
 - communication with a nearest target host
- **increasing resistance to DDos attacks**
 - local utilizing of malicious traffic
- **one server of domain name delegation – unlimited number of physical instances**
 - with one IP address and one host name many instances of DNS servers may operate

What are the challenges related to anycast DNS?

There emerge new challenges in the anycast technology. Multiplication of devices and technologies in the DNS infrastructure involves higher costs of its exploitation. More sophisticated knowledge and network administration skills are required in particular to detect a problematic anycast instance or elements related thereto. A scattered infrastructure requires a special approach to data consistency on servers. In case of dynamic DNS updates, propagation of data in anycast DNS cloud must be enough fast to meet the requirements of dynamic updates of DNS database servers.

We may therefore list the following challenges of maintaining the service, based on the anycast technology:

- **detecting and solving complex problems,**
- **attaining higher competences in administration than only DNS,**
- **service level monitoring.**



Text:

Anna Gniadek, Weronika Rakowska, Tomasz Szladowski

Compilation of data gathered from the .pl domain name registry system:
Izabela Domagała

Translation:

Piotr Studziński-Raczyński

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