



## *Центр регистрации доменов*

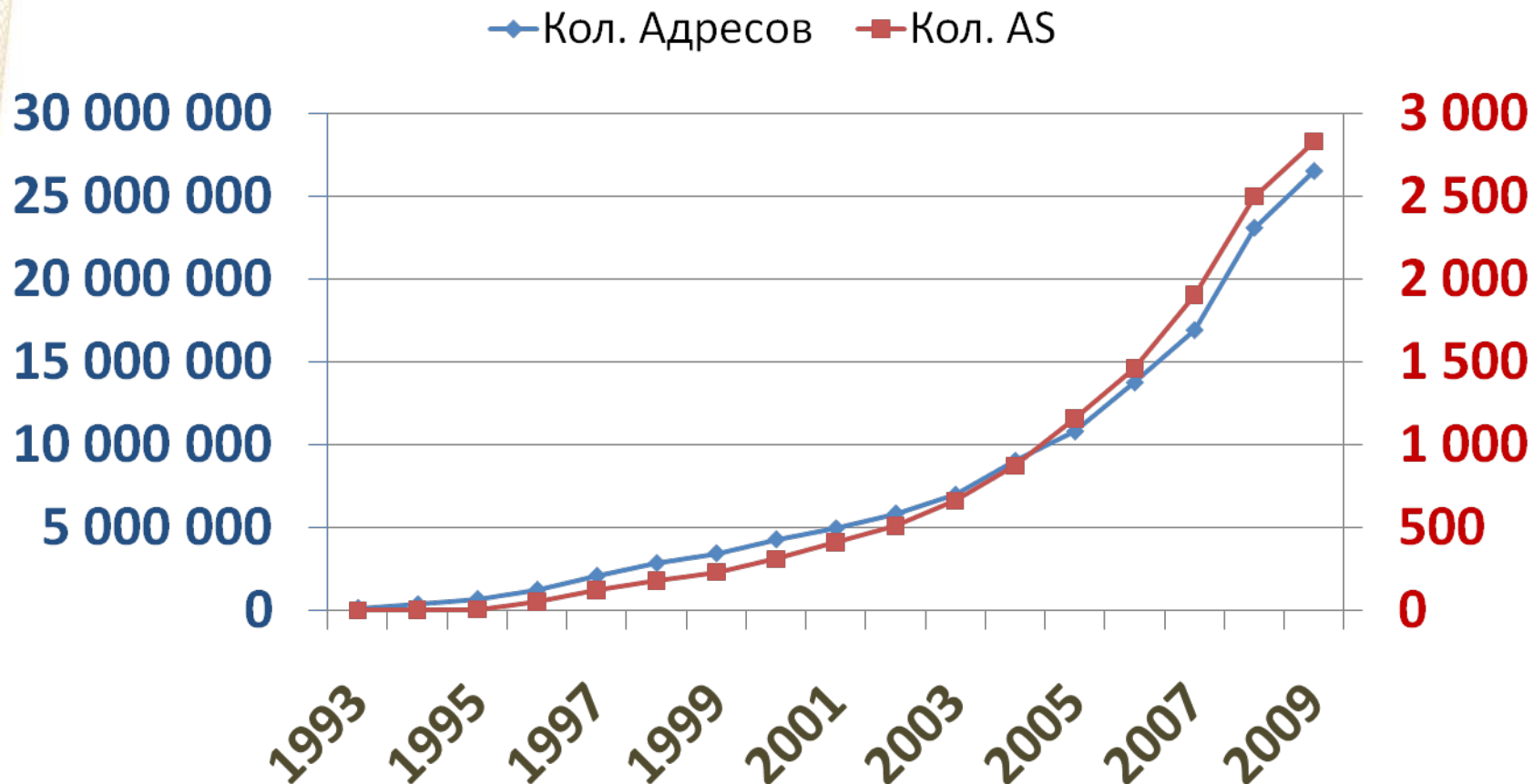
# Statistics of Address Space Allocation in Russia

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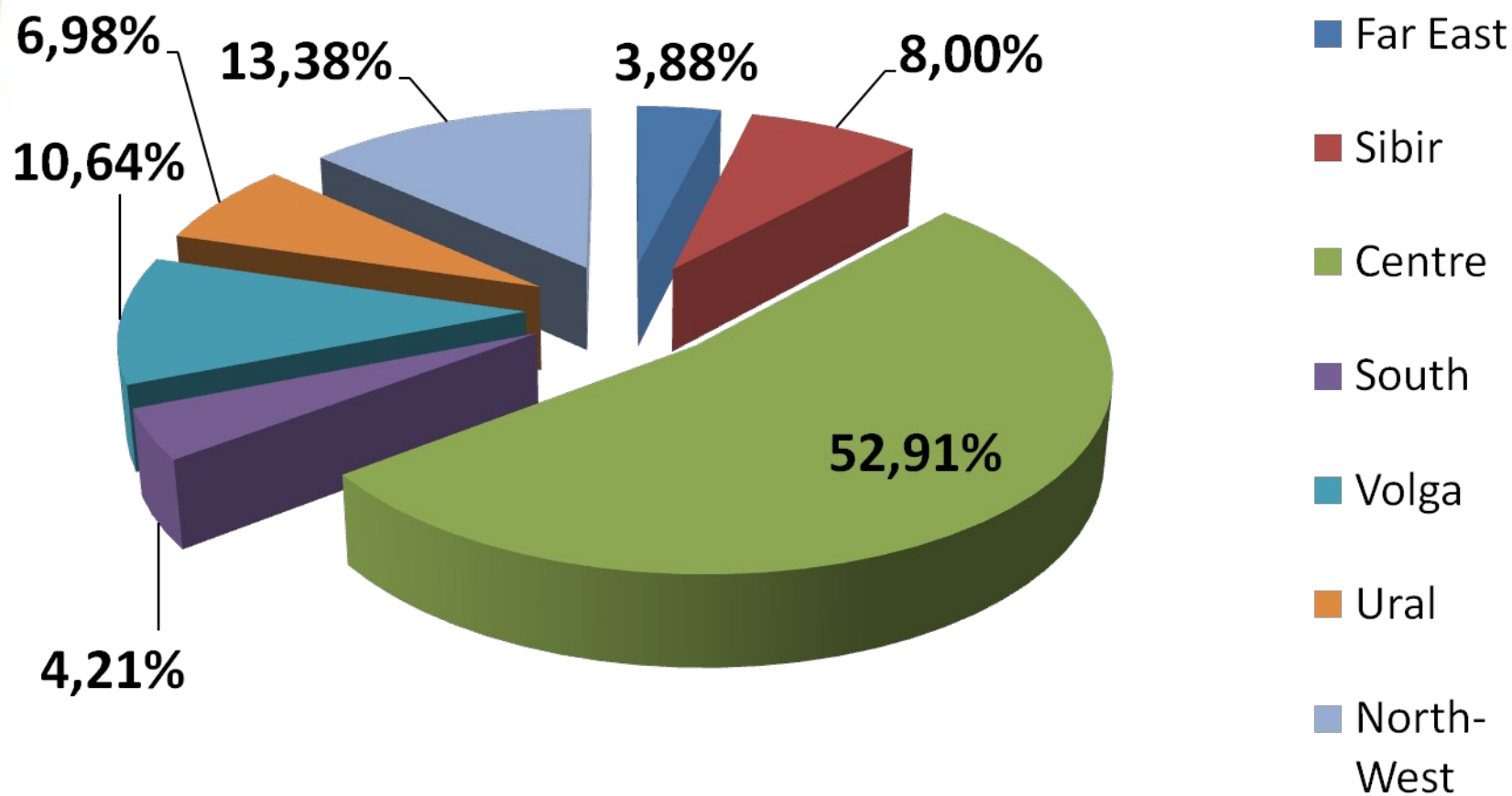
**Moscow-2009**

[www.nic.ru](http://www.nic.ru)

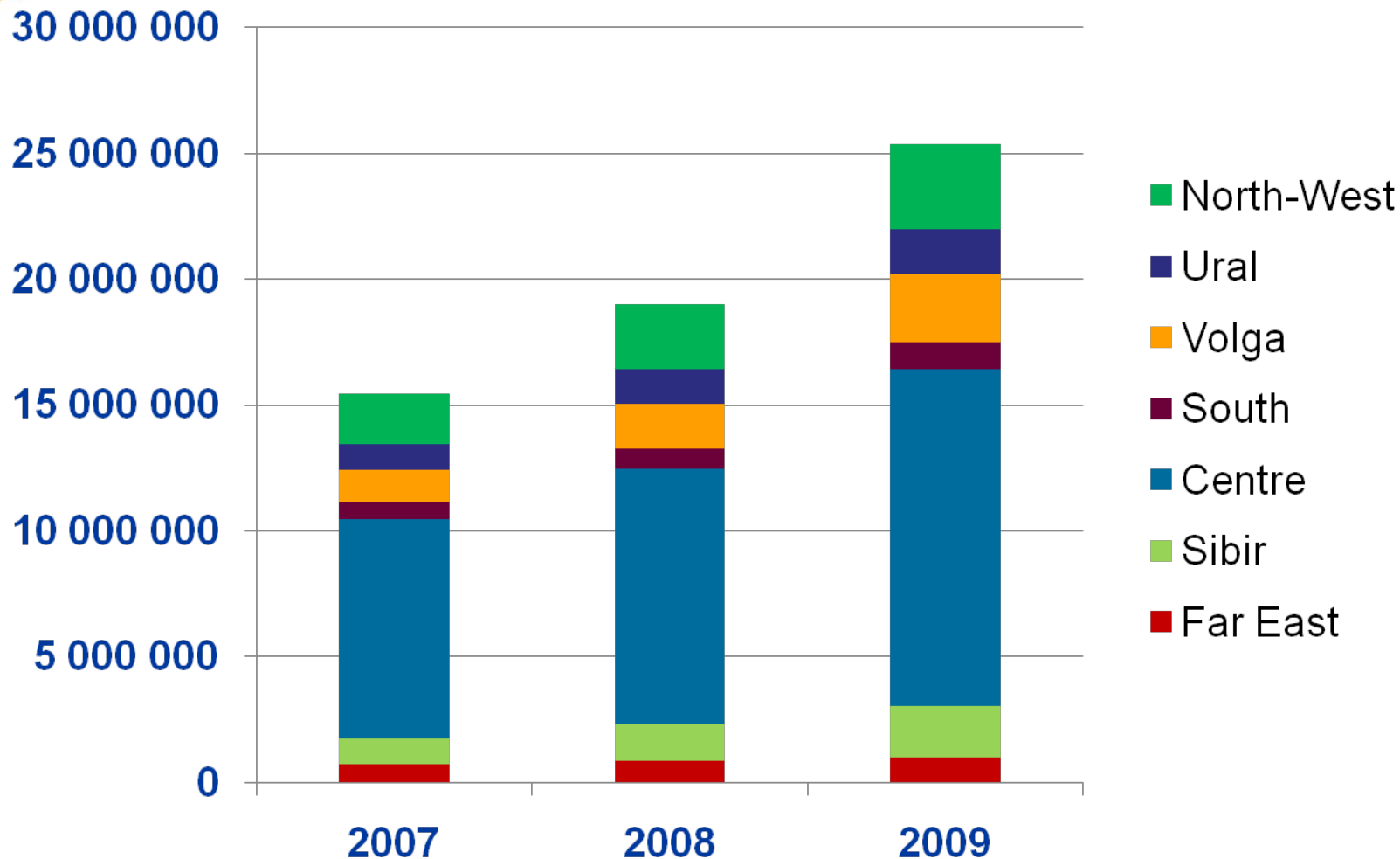
# Russian Internet ☺: Address space & AS



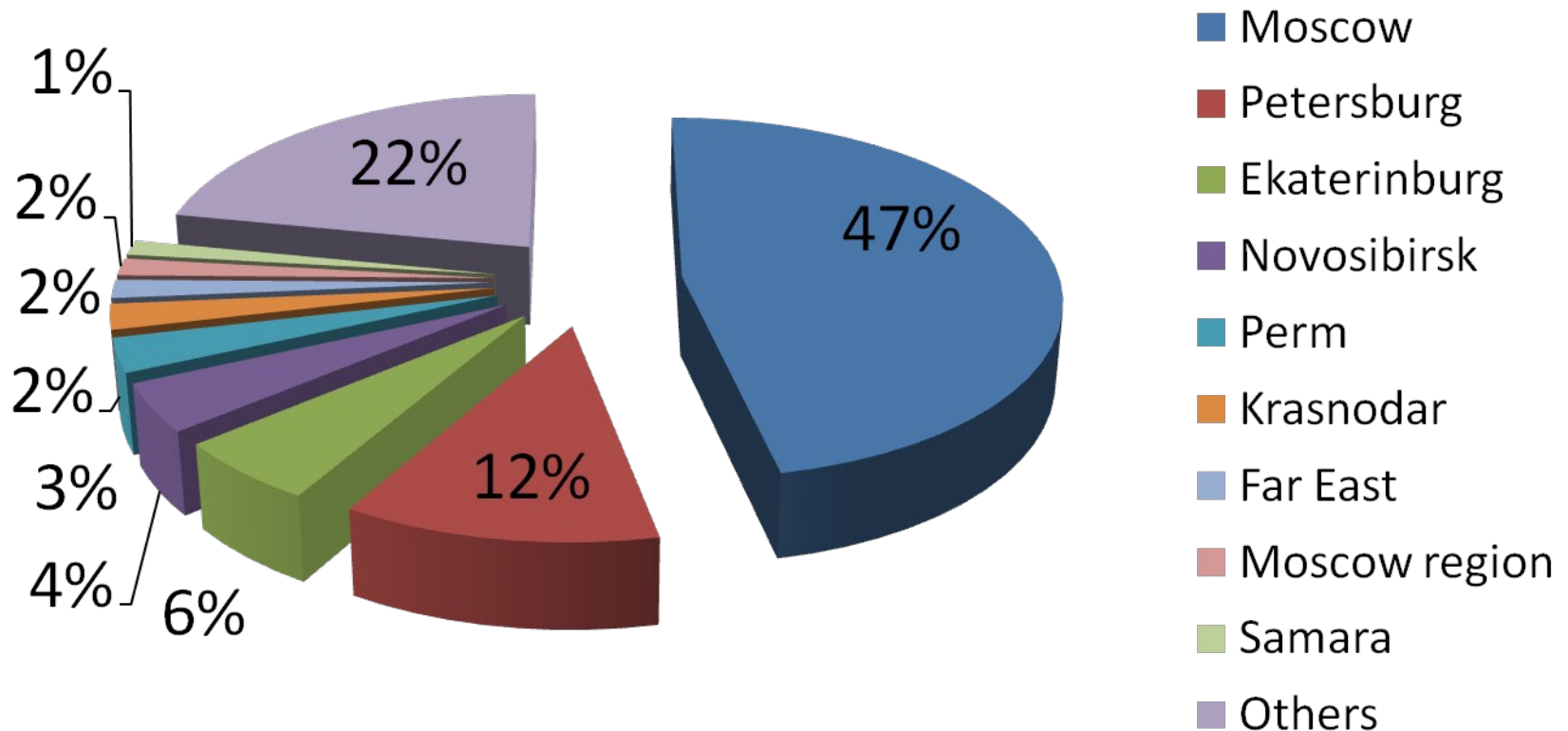
# Ipv4 distribution on the districts of Russia (2009)

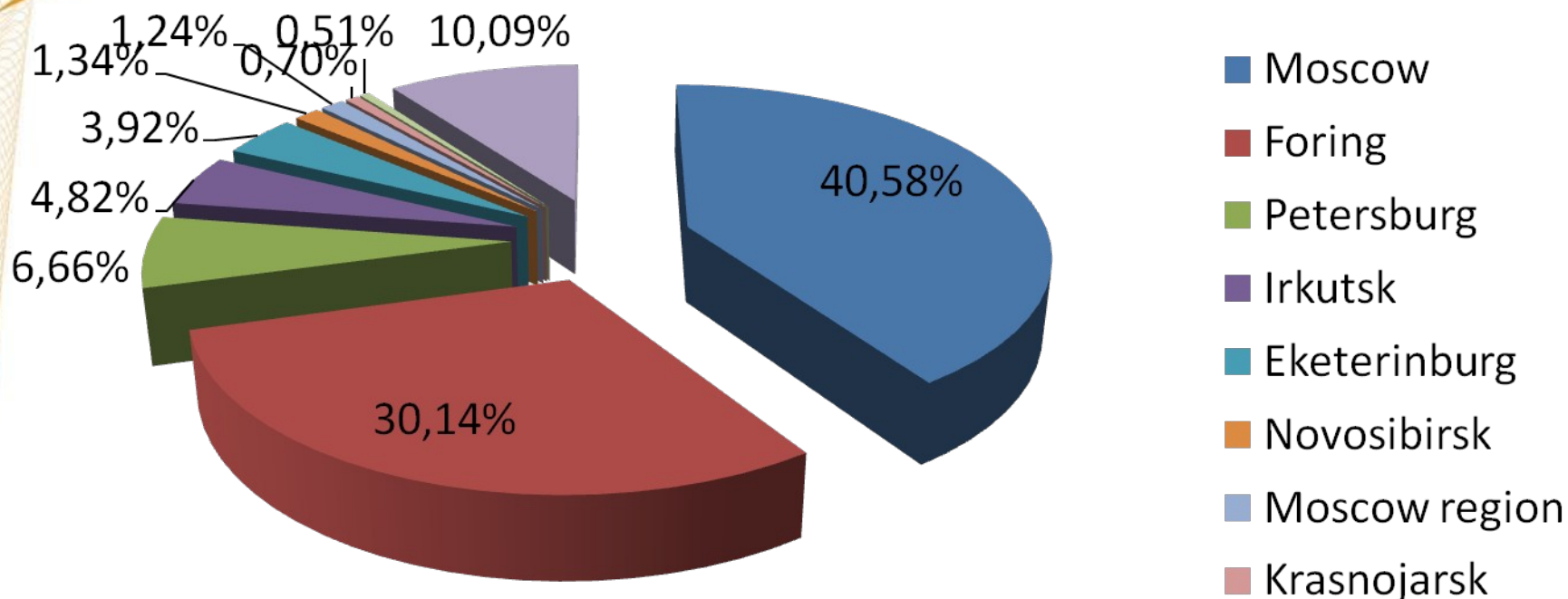


# Ipv4 distribution on the districts of Russia (2007-2009)



# IPv4 Distribution on Russian regions (2009)





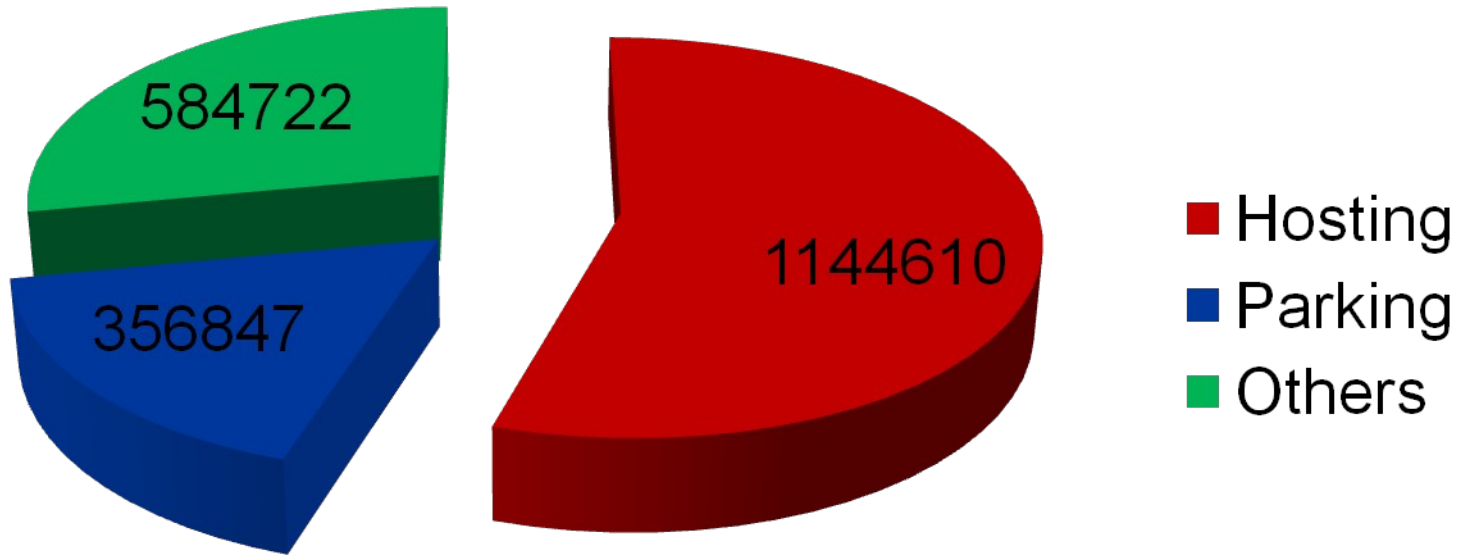
Всего для размещения информационных ресурсов используют **127 292** адреса

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| <b>Region</b> | <b>Sites</b> |
|---------------|--------------|
| Rostov        | 1391         |
| Volgograd     | 726          |
| Krasnodar     | 726          |
| Stavropol     | 458          |
| Moscow        | 429          |
| Samara        | 224          |
| Unknown       | 220          |
| Dagestan      | 145          |
| Astrakhan     | 140          |
| Petersburg    | 106          |

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# .RU domain usage (01/09/2009)





# Reverse proxy using & botnets = Fast-flux

It is a short TTL that permits fast A records changing

Cache DNS-server

Botnet



Hidden content server

HTTP - reverse proxy - server

194.32.33.x  
120.33.10.y  
140.120.12.z  
...

A set of the hosts routed through varied AS

3. GET <http://site.ru>  
HTTP/1.1  
Host: site.ru

4. 200 Ok...

2. Site.ru A  
194.32.33.x  
120.33.10.y  
140.120.12.z  
...

1. Site.ru A ?

Users

# Fast-flux: botnets in Russia

(<http://dnsbl.abuse.ch/statistic/fastflux.php> - 19/04/2009)

| Rank | AS number             | AS name   | # of bots |
|------|-----------------------|---|-----------|
| 1    | <a href="#">8402</a>  | <b>CORBINA-AS Corbina Telecom</b>                           | 10'204    |
| 2    | <a href="#">8997</a>  | <b>ASN-SPBNIT OJSC North-West Telecom Autonomous System</b> | 3'832     |
| 3    | <a href="#">8615</a>  | <b>CNT-AS CNT Autonomous System</b>                         | 3'429     |
| 4    | <a href="#">12695</a> | <b>DINET-AS Digital Network JSC</b>                         | 936       |
| 5    | <a href="#">42011</a> | <b>TRCODINTSOVO-AS TRC Odintsovo</b>                        | 909       |
| 6    | <a href="#">12714</a> | <b>TI-AS NetByNet Holding</b>                               | 765       |
| 7    | <a href="#">30784</a> | <b>ISKRATELECOM-AS Iskratelecom Autonomous System</b>       | 622       |
| 8    | <a href="#">25405</a> | <b>NMTS-AS OJSC VolgaTelecom, Nizhny Novgorod</b>           | 525       |
| 9    | <a href="#">6828</a>  | <b>USI Uralsviazinform</b>                                  | 390       |
| 10   | <a href="#">42754</a> | <b>AROMA-LESK-AS Aroma Lesk Ltd.</b>                        | 352       |

## Summary results:

| Description   | Value |
|---|-------|
| Number of the domains with TTL < 1000 & multiple IPs                        | 1633  |
| Number of the second level domains with TTL < 1000 & multiple IPs           | 522   |
| Number of the nnn.ru domains with TTL < 1000 & multiple IPs                 | 312   |
| Number of the domain names pointing to the end user access pools including: | 1287  |
| - Geographic Distribution   | 398   |
| - AS Distribution   | 743   |

- ❑ Moscow still is the main driver of the address space using
- ❑ Moscow`s share in the Russian address space decreased till 47%
- ❑ The number of AS correlates with internet regional expansion
- ❑ Only 1% of the Russian address space are used by information resources
- ❑ The major part of address space mentioned above is used for parking and virtual hosting
- ❑ Russian address space is exploited by botnets (our ASs are in the first lines of the botnets ratings)
- ❑ There are 1633 domain names in zone .RU can be qualified as fast-flux domains (not only Russian domain space is used for its support)



# Thank you!

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