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НАЦИОНАЛЬНОГО ДОМЕНА  
СЕТИ ИНТЕРНЕТ

# DNS root servers update Threats and perspectives

Mikhail Anisimov  
m.anisimov@cctld.ru

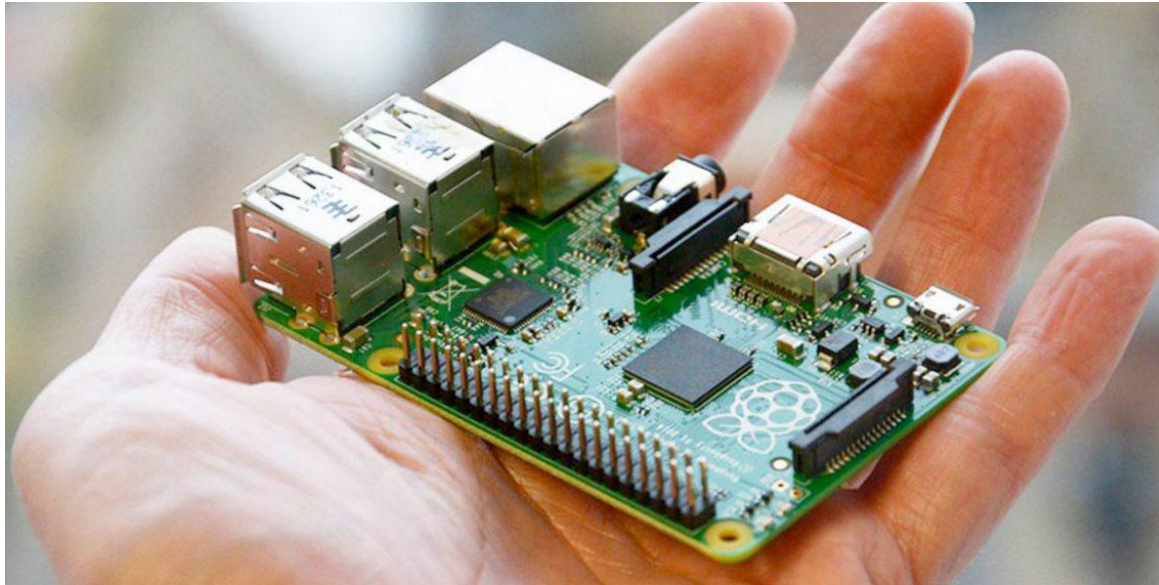
# DNS Root increase plan



As of 2018-06-05, the root server system consists of 928 instances operated by the 12 independent root server operators.

Current number of servers: 928

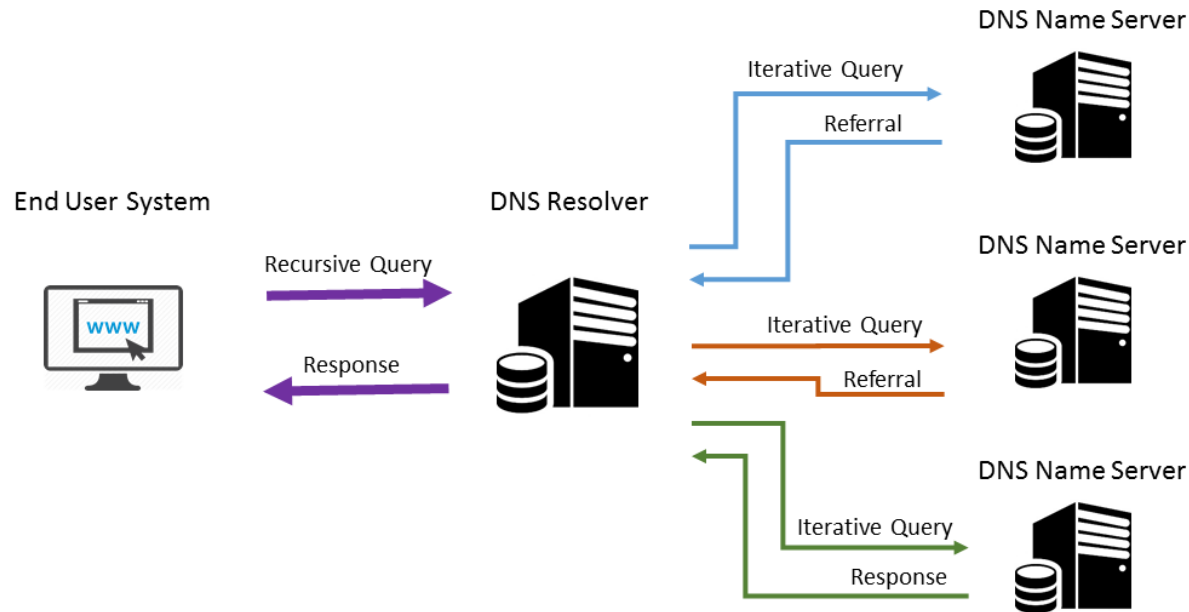
ICANN, Internet System Consortium, RIPE NCC and Netnod plan to increase the number of L, I, K and F servers respectively



## Hyperlocalization:

- Based on Raspberry Pi modules
- Total number of DNS nodes will increase up to 10 000
- Every node will serve a much more tiny area (every big city or specific region)

# DNS Root scaling program



## Root scaling:

- Root zone file stays over the BIND on the DNS resolvers (Internet carrier side)
- Local zone file updates every week or more often
- Root scaling dramatically decrease the load on servers nodes

Yeti DNS – scalability project aimed to increase the DNS system capacity and resiliency of the global network



Yeti DNS features:

- IPv6-only operation
- DNSSEC key rollover
- Renumbering issues
- Scalability issues
- Multiple zone file signers

## Root DNS in Russia

1. 11 Root node instances (mirrors of L, F, K, J, I servers)
2. Cities: Moscow, St. Petersburg, Rostov-on-Don, Ekaterinburg, Novosibirsk
3. Alternative Root backup system based on MSK-IX nodes (now part of Rostelecom group). Developing since 2014.

Thank you!

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