# DNS AND K-ROOT

The RIPE NCC runs two independent and equally important DNS services.

The first is K-root, one of the 13 Internet root name servers. The K-root service is provided by a set of distributed nodes using IPv4 and IPv6 anycast. The second is a DNS service for RIPE NCC zones, reverse DNS and secondary DNS, which we refer to as AuthDNS.

We continue to improve resiliency and availability of both services by adding hosted nodes. Since 2022, we have been accepting applications to run these services on virtual servers, in addition to dedicated hardware. This allowed us to expand these services to areas that were less well-served previously.

In 2023, we brought up two new AuthDNS nodes, bringing the total number of nodes to 16. These serve zones for reverse delegations for RIPE NCC member allocations, country code Top-Level Domain (ccTLD) secondary services and RIPE NCC authoritative zones. In the K-root cluster, 17 instances were added, while one instance was decommissioned, bringing the total to 116.

Towards the end of 2023, we began upgrading our DNS servers with a more up-to-date operating system, as well as improving the configuration management and statistics gathering. We upgraded seven servers, with the rest to follow in 2024.
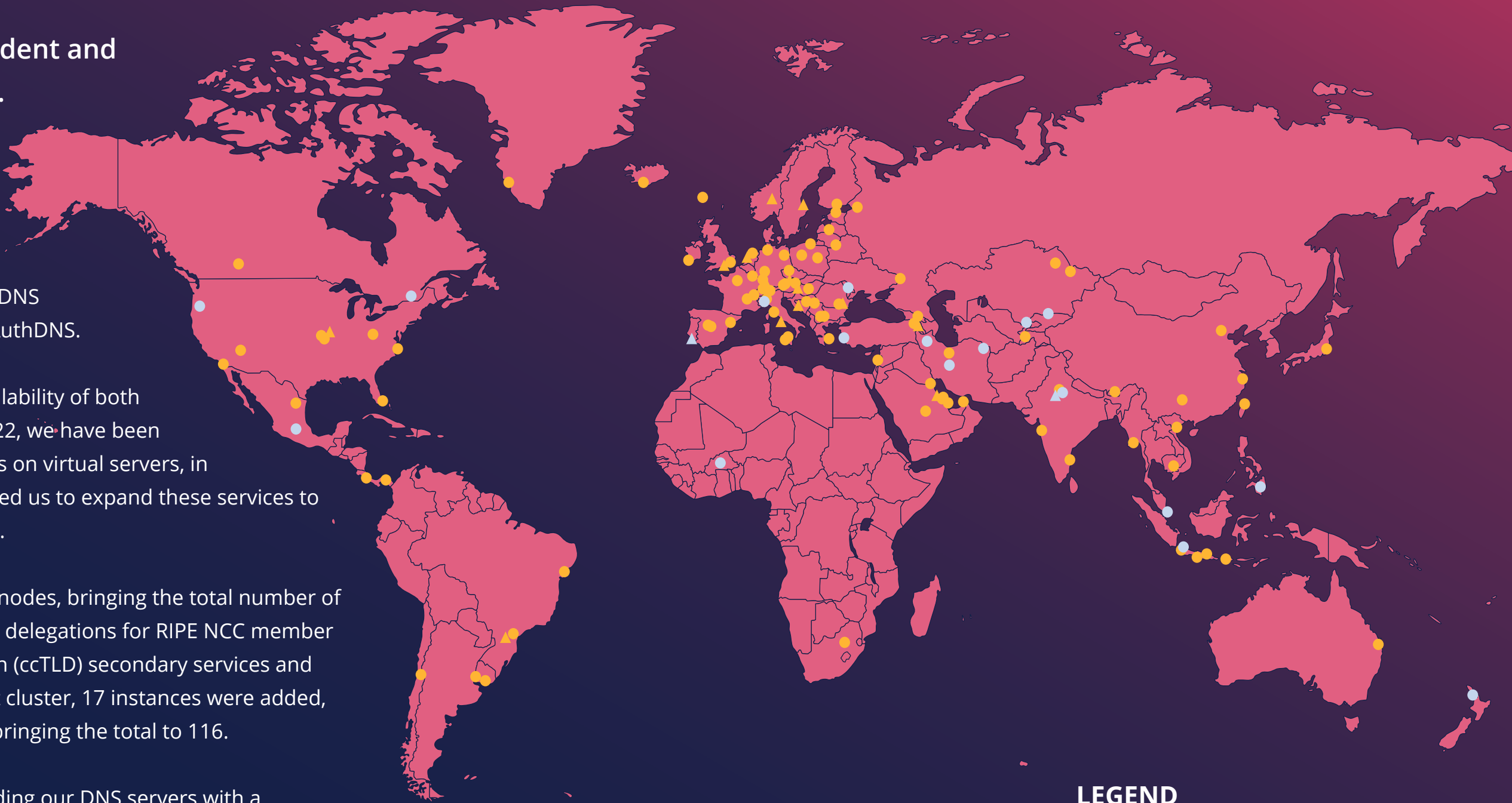
LEGEND

▲ AuthDNS   ● Existing

● K-Root   ● New