سرور نام

ترجمه (رزولیشن) ،DNS مهمترین عملکرد سرورهای نام‌های دامنه به یاد ماندنی انسان (example.com) به آدرس‌های پروتکل اینترنت (IP) عددی مربوطه (159.89.194.43)، [1] دومین فضای نام اصلی اینترنت که برای شناسایی و مکان یابی سیستم ها و منابع کامپیوتری در اینترنت استفاده می شود.

DNS (سیستم نام دامنه) اگرچه معمولاً در ارجاع به استفاده می‌شود، اما عبارت سرور نام ممکن است برای هر برنامه رایانه‌ای که یک سرویس شبکه را برای ارائه پاسخ به پرسش‌ها در برابر یک سرویس

دایرکتوری پیاده‌سازی می‌کند، استفاده شود که اغلب متنی با معنا و مفهوم انسانی را ترجمه می‌کند. شناسه مبتنی بر یک شناسایی داخلی سیستم، اغلب عددی یا جزء آدرس دهی. این سرویس توسط سرور در پاسخ به درخواست پروتکل سرویس انجام می شود .

سرور نام دامنه

The Internet maintains two principal namespaces: the domain name hierarchy[2] and the IP address system.[3] The Domain Name System maintains the domain namespace and provides translation services between these two namespaces. Internet name servers implement the Domain Name System.[4] The top hierarchy of the Domain Name

System is served by the root name servers maintained by delegation by the Internet Corporation for Assigned Names and Numbers (ICANN). DNS servers, which are located all over the world, translate domain names into IP addresses, giving them control over which server a user may access via a given domain. Below the root, Internet resources are organized into a hierarchy of domains, administered by the respective registrars and domain name holders. A DNS name server is a server that stores the DNS records, such as address (A, AAAA) records, name server (NS) records, and mail exchanger (MX) records for a domain name (see also List

of DNS record types) and responds with answers to queries against its database.

Authoritative name server

An authoritative name server is a name server that gives answers in response to questions asked about names in a zone. An authoritative-only name server returns answers only to queries about domain names that have been specifically configured by the administrator. Name servers can also be configured to give authoritative answers to queries in some zones, while acting as a caching name server for all other zones.[5]

An authoritative name server can either be a *primary* server or a *secondary* server. A primary server for a zone is the server that stores the definitive versions of all records in that zone. It is identified in the start-of-authority (SOA) resource record. A secondary server for a zone uses an automatic updating mechanism to maintain an identical copy of the primary server's database for a zone. Examples of such mechanisms include DNS zone transfers and file transfer protocols. DNS provides a mechanism whereby the primary for a zone can notify all the known secondaries for that zone when the contents of the zone have changed. The contents of a zone are either

manually configured by an administrator, or managed using Dynamic DNS.[6]

Every domain name appears in a zone served by one or more authoritative name servers. The fully qualified domain names of the authoritative name servers of a zone are listed in the NS records of that zone. If the server for a zone is not also authoritative for its parent zone, the server for the parent zone must be configured with a delegation for the zone.[7]

When a domain is registered with a domain name registrar, the zone administrator provides the list of name

servers (typically at least two, for redundancy[8]) that are authoritative for the zone that contains the domain. The registrar provides the names of these servers to the domain registry for the top-level domain containing the zone. The domain registry in turn configures the authoritative name servers for that top-level domain with delegations for each server for the zone. If the fully qualified domain name of any name server for a zone appears within that zone, the zone administrator provides IP addresses for that name server, which are installed in the parent zone as glue records; otherwise, the delegation consists of the list of NS records for that zone.[9]

Authoritative answer

A name server indicates that its response is authoritative by setting the *Authoritative Answer* (*AA*) bit in the response to a query on a name for which it is authoritative. Name servers providing answers for which they are not authoritative (for example, name servers for parent zones) do not set the *AA* bit.[4]

Recursive query

If a name server cannot answer a query because it does not contain an entry for the host in its DNS cache, it may recursively query name servers higher up in the hierarchy.[10] This is known as a

recursive query or *recursive lookup*. A server providing recursive queries is known as a *recursive name server* or *recursive DNS*, sometimes abbreviated as **recdns**.[11]

In principle, authoritative name servers suffice for the operation of the Internet. However, with only authoritative name-servers operating, every DNS query must start with recursive queries at the root zone of the Domain Name System and each user system must implement resolver software capable of recursive operation.

Caching name server

Caching name servers (*DNS caches*) store DNS query results for a period of time determined in the configuration (time-to-live) of each domain-name record. DNS caches improve the efficiency of the DNS by reducing DNS traffic across the Internet, and by reducing load on authoritative name-servers, particularly root name-servers. Because they can answer questions more quickly, they also increase the performance of end-user applications that use the DNS. *Recursive name servers* resolve any query they receive, even if they are not authoritative for the question

being asked, by consulting the server or servers that are authoritative for the question. Caching name servers are often also recursive name servers—they perform every step necessary to answer any DNS query they receive. To do this the name server queries each authoritative name-server in turn, starting from the DNS root zone. It continues until it reaches the authoritative server for the zone that contains the queried domain name. That server provides the answer to the question, or definitively says it can't be answered, and the *caching resolver*سپس این پاسخ را به مشتری که سوال پرسیده است برمی گرداند. توابع اقتدار، حل و ذخیره کش همگی می توانند در اجرای یک سرور

وجود داشته باشند، اما این مورد نیاز نیست: DNS می تواند هر یک از این توابع را به DNS یک سرور تنهایی، بدون اجرای بقیه اجرا کند. ارائه دهندگان خدمات اینترنتی به طور معمول برای مشتریان خود رسیورهای کش را ارائه می دهند. بعلاوه، بسیاری از روترهای شبکه خانگی برای بهبود کارایی در شبکه محلی، از حل کننده های کش استفاده می کنند. برخی از سیستم ها از رمز استفاده می کنند که مخفف "نام سرویس ذخیره سازی `nscd` دیمون" است. [12]

همچنین ببینید

- بستن
- مقایسه نرم افزار سرور DNS
- Trojan.Win32.DNSChanger
- پسوندهای امنیتی سیستم نام دامنه

- پروتکل دسترسی به دایرکتوری سبک وزن
- سرویس اطلاعات شبکه
- سوئیچ سرویس نام (NSS)
- resolvconf برای resolv.conf ، حل کننده یونیکس / لینوکس
- شبکه سرور ریشه را باز کنید
- نامهای واقعی
- مدیریت شده DNS لیست ارائه دهندگان
- سرورهای نام بازگشتی عمومی

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لینک های خارجی

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