

Domain Name Basics

Domain Connect

Tobias Sattler
tobiassattler.com

What is Domain Connect?

Domain Connect is an **open standard**, licensed under MIT, to support users to **configure** the **DNS** settings of their domain name to work with a service running at a service provider **smoothly**.

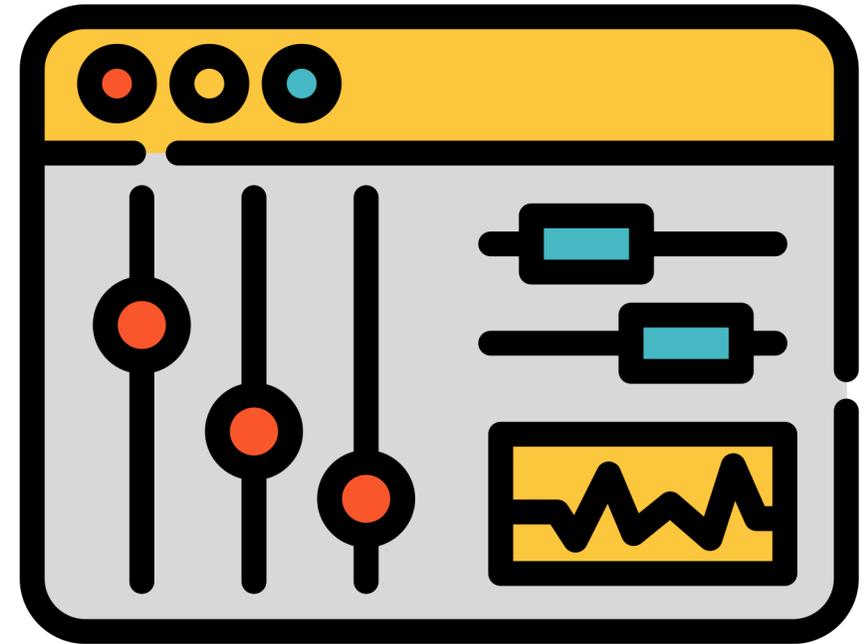
The goal is that a user can do so without understanding any of the complexity of the DNS.



Is such a service necessary?

If you register a domain and want to use it with a service, such as G Suite, Microsoft 365, or Shopify, you will usually get a **guide** from these service providers on how to **configure** your **DNS**.

Those guides can't cover all domain name registrars, and therefore, they are reduced to the necessary. Sometimes you will get a step-to-step guide with screenshots, but if the website changes, then those guides are **not** always **updated**. Which, in turn, results in support cases for domain name registrars.

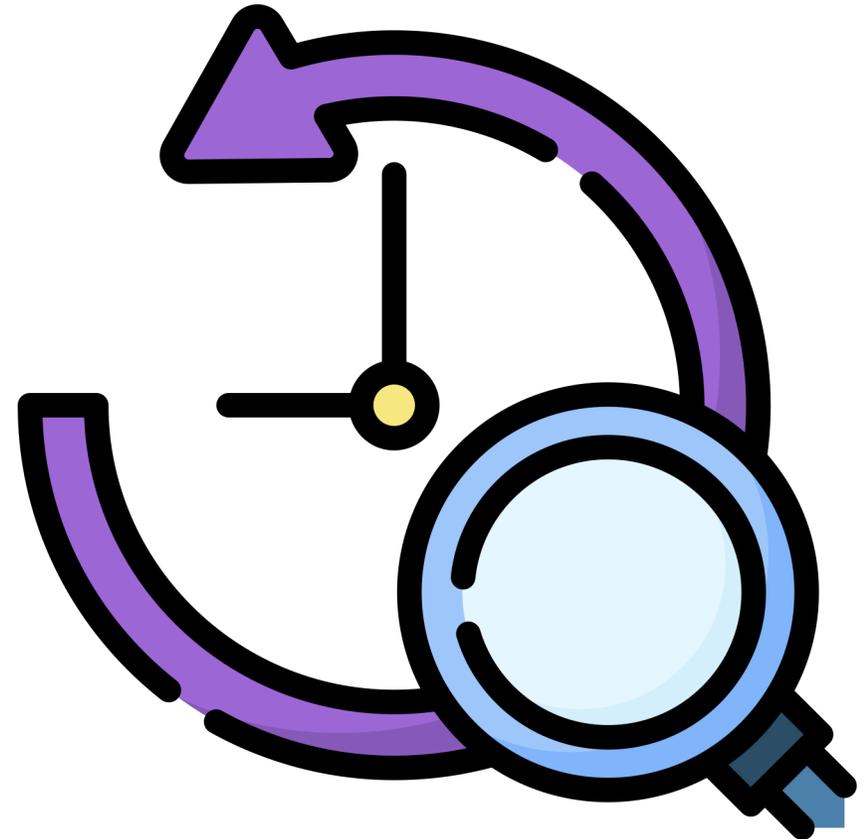


History

Due to its size, **GoDaddy** naturally had a more significant interest in solving this issue. Therefore they **designed** Domain Connect to reduce the customer care impact.

In 2016 they published an IETF Internet-Draft on **Domain Connect**, which has expired by now.

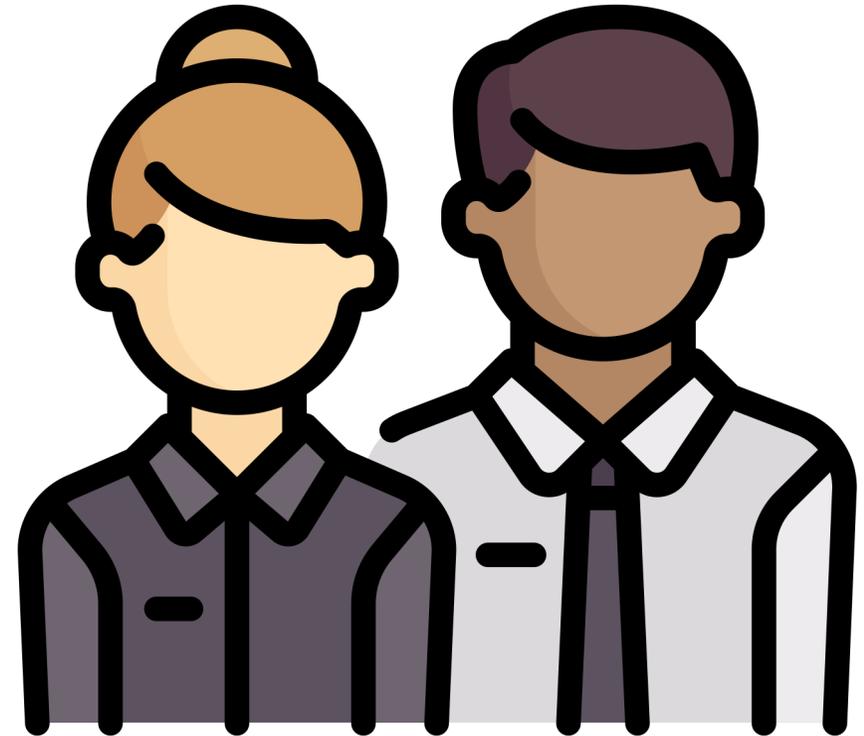
In 2017 GoDaddy published the specification on GitHub and licensed it under **MIT** to let others participate more easily.



Who is involved?

Since it is an open standard, there are now more players involved than at the beginning. In addition to GoDaddy, several other players are included in the further development of the standard, such as IONOS, Microsoft, and Squarespace.

If you want to get involved yourself, please check the GitHub repository at <https://github.com/Domain-Connect> and the website <https://domainconnect.org>.

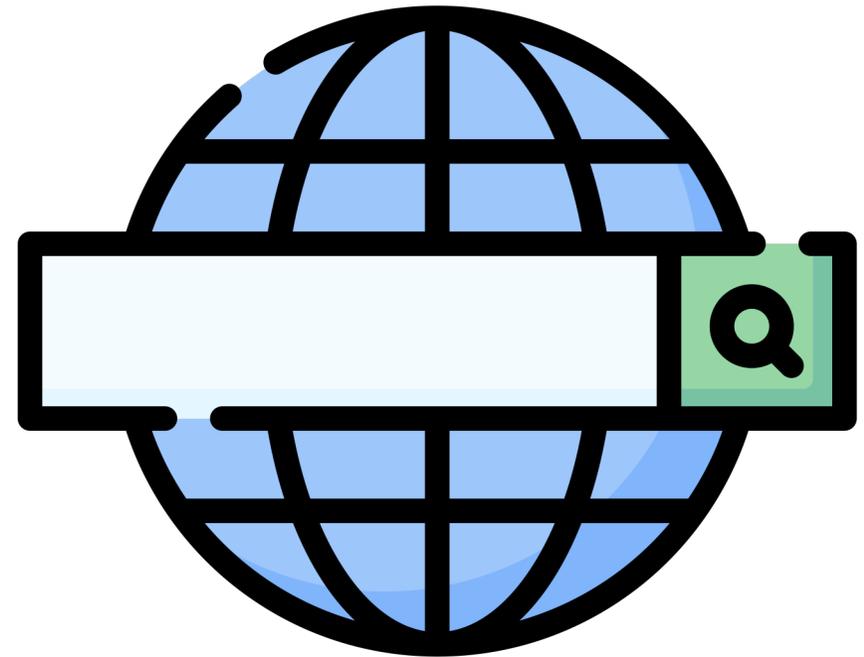


How does it work?

An essential part of Domain Connect is a TXT record in the zone of a domain, which is created by the DNS provider.

With this record, a service provider can identify whether the respective domain supports Domain Connect.

If this is the case, the service provider can pass the corresponding DNS configuration to the DNS provider, which can then be set.

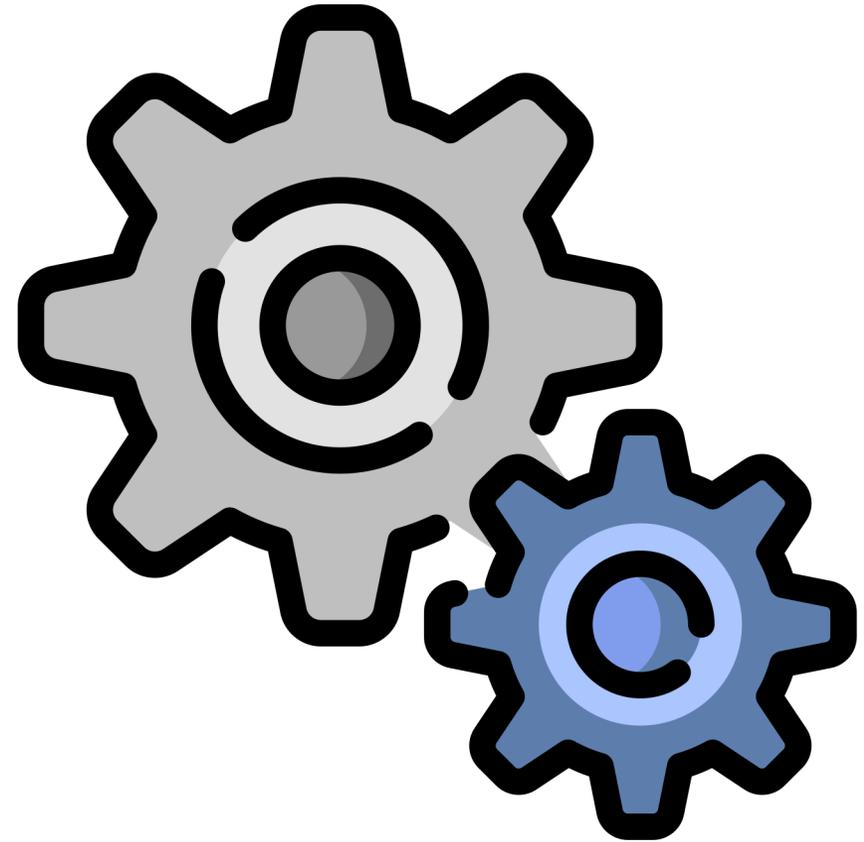


Behind the scenes

From a **technical** perspective, it is much **more complicated** than the short abstract.

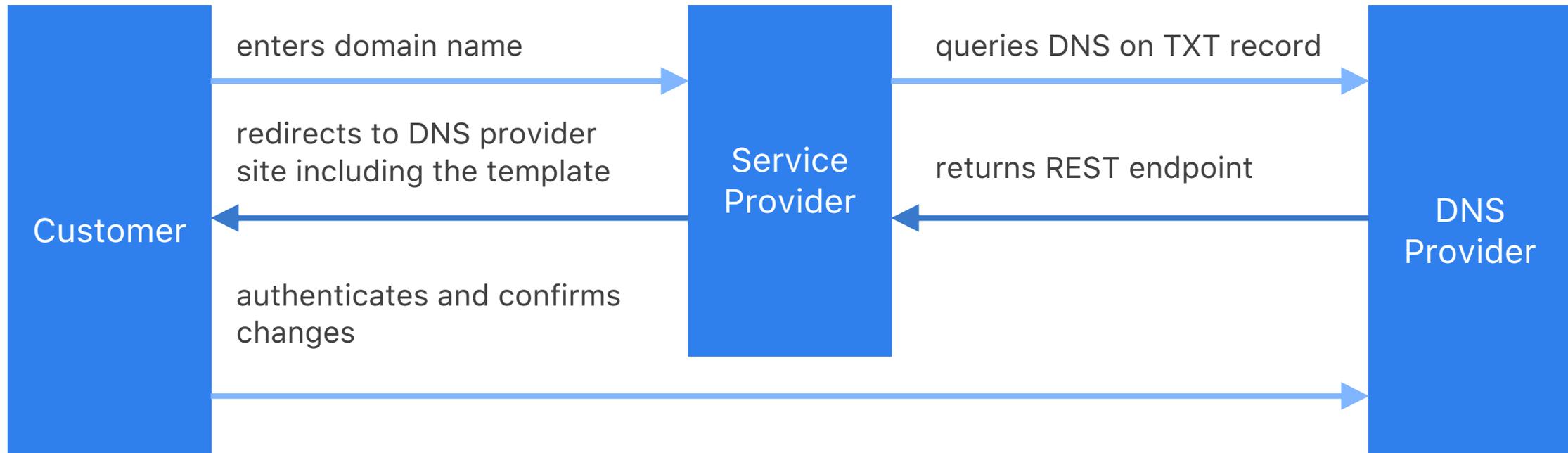
Under the hood, it works using a series of **templates**, authored by the service providers, which instruct the registrar or DNS provider on how to set up the domain to use it.

Due to the high risk of malicious exploitation, it's not entirely frictionless. Service provider templates must be manually **pre-approved** and **white-listed** by registrars.



Synchronous Flow

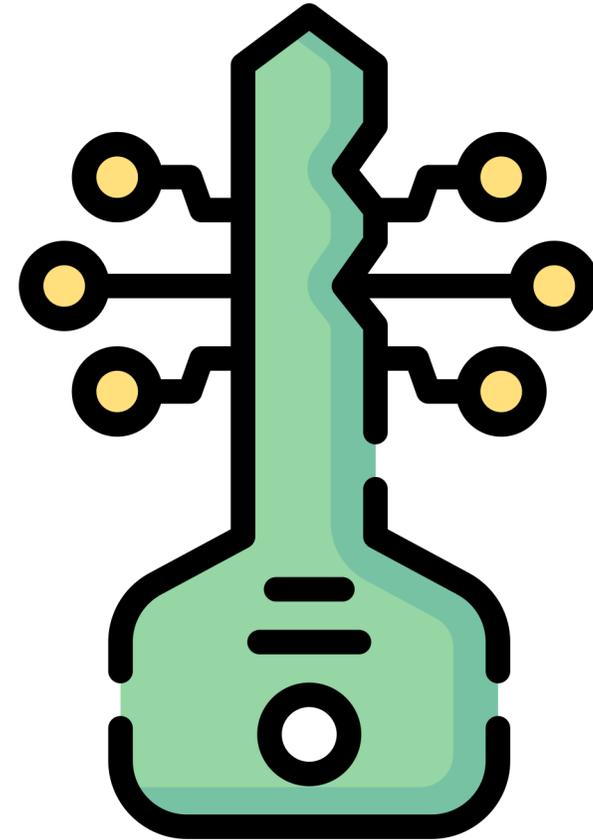
This **simplified** flow explains what happens if Domain Connect is used, which is used the most.



Asynchronous Flow

The **asynchronous** flow begins **similarly** to the **synchronous** flow. Instead of applying the DNS changes on user consent, **OAuth** access is granted to the Service Provider.

The permission granted in the OAuth token is a **right** for the Service Provider to **apply** a requested **template** to the specific domain DNS under the control of a particular user at the DNS Provider.



Adoption

The **biggest challenge** of Domain Connect is to overcome the classic **chicken and egg dilemma**. The Domain Connect services will not be accepted unless multiple DNS providers support them. On the other hand, DNS providers cannot participate in the Domain Connect project as long as there are no services they can use.

There are more than **25 service** providers, such as Google, Microsoft, and Wordpress.com, and **+15 DNS providers**, such as GoDaddy, IONOS, and Plesk, on board.



Future

For the long-term success of Domain Connect, more service providers and DNS providers must support it even more.

If you want to get involved yourself, please check the GitHub repository at <https://github.com/Domain-Connect> and the website <https://domainconnect.org>.



Thank you!