Getting a Domain Name

Before you can connect your server to the World Wide Web and access it through a Web browser, you will need a domain name. This address will be used to generate the SSL certificate that web browsers rely on to create a secure network connection and verify we are who we say we are.

Domain Registrars

While ICANN – an American 501(c)3 non-profit located in California – is tasked with the development of the global Internet infrastructure and security, they do not have the capacity to orchestrate over 350 million global web domain names. Instead, over 2,800 domain name registrars have been accredited to operate in their capacity.

This process requires ongoing adherence to strict regulations including additional clearance required to offer special or country-specific domains. These rules, set by ICANN, require that the ownership of domains can be transferred between registrars. They set explicit pricing restrictions on some top-level domains – such as .com and .net – while also imposing a maximum domain registration period of ten years.

While the ICANN has requirements for domain registrars, they are not all created equal. Some employ annoying marketing strategies while others have lax security or even actively malicious practices. Aside from select pricing restrictions that are required for accreditation, domain registrars are free to operate their service however they desire. This includes pricing schemes that reflects expected market desirability and popularity – such as home.tech costing $650,000.

Domain registrars are required to provide information to WHOIS – a public-access database about domains, including contact information for the person who owns the right to it. Registrars commonly offer privacy services that withhold personal identifying information.

> You don't need to pay for an SSL certificate through the domain registrar because we will be generating them for free using SWAG.

Cloudflare

Based in America, this company provides cybersecurity services to nearly 20% of websites, including a free consumer tier. They are also an accredited registrar that provides at-cost domain name services for most top-level domains.

Micro.Domains

This service leverages Namecheap's infrastructure to sell domain names that are 5-characters or less. While these domain names are often random, they offer marginal 'security by obscurity' for accessing personal web services at a reasonable and transparent price.

PorkBun

This service is operated by the American business Top Level Design, offering an intuitive experience and transparent rates for domains down to $2.

NameSilo

This service is operated out of America and focuses on customer privacy. They offer transparent pricing and accept many different payment options.

Dynamic DNS

Most consumer Internet Service Providers assign Public IP addresses to residential networks that can change at any time. Proprietary Dynamic DNS services offer tools for consumers to quickly update their Public IP address and make sure their server is always accessible. There are several free services available, but they come with drawbacks.

> SWAG can generate a working SSL certificate to ensure data privacy, but browsers may not be able to verify this certificate and can lead to browser-based warnings.

DuckDNS

This free service offers a free sub-domain under duckdns.org – such as example.duckdns.org. They use Amazon servers, but can be easily integrated into your Web server setup.

DDclient

This open-source utility makes it simple to keep one or more Dynamic DNS services up-to-date with your current Public IP address. This will require more initial setup, but it can create redundancy through multiple services. DDclient currently supports over 30 different dynamic DNS services. During the creation of an SSL certificate, you will need to manually validate your server using the HTTP mechanism provided by SWAG.

Manufacturer DDNS

Consumer routers from mainstream technology manufacturers – such as ASUS, TP-Link and Netgear – are providing built-in Dynamic DNS features. This will provide a sub-domain under their dynamic domain service. During the creation of an SSL certificate, you will need to manually validate your server using the HTTP mechanism provided by SWAG.

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