

A Domain Name for your PC



n a m e your space

Using dynamic DNS with Broadband Connectivity

Introduction – The Power of dynamic DNS

If you've ever thought about hosting a web, FTP, email, or other server type directly from your broadband Internet connection, you may have found your dynamic IP address to be a serious stumbling block. Many broadband Internet Service Providers (ISPs) will "lease" dynamic IP addresses to your PC, meaning that your IP address is subject to change after some period of time.

Friends and family can't readily access web and other services if the host's IP address is always changing. Further, IP addresses are difficult to remember and communicate to others effectively. What you really need, of course, is a domain name like *yourname.domain.com*. But this hasn't been possible in the past, because a domain name must point to a *static* IP address (e.g. one that doesn't change), and yours is probably *dynamic*.

This is the problem that dynamic DNS solves.

Dynamic DNS is a service that allows you to associate a friendly, easy-to-remember domain name with an Internet-connected computer, even if that computer's IP address is subject to change.

How does dynamic DNS Work?

Although there are significant differences between dynamic DNS provider implementations, the core methodology is almost always the same: a small piece of client software installed on the Internet-connected PC alerts the dynamic DNS provider whenever an IP address change occurs. The dynamic DNS provider then immediately updates its DNS records to reflect your PC's current IP address.

The result is that friends and family members can simply use your domain name to access the web, FTP, email, or other services that you're hosting on your PC, without regard to what IP address is currently assigned. The effect is seamless, and entirely transparent to end-users.

Most dynamic DNS providers allow you to choose between either a *subdomain* such as *yourname.domain.com* or a top-level domain name such as *yourname.com*. The registration of a top-level domain typically requires the payment of an additional registrar fee. Existing top-level domains can also usually be utilized with dynamic DNS services by working with the original domain registrar to assign DNS authority to the dynamic DNS provider.

Other Nifty Tricks

In addition to the principal function of resolving domain names, dynamic DNS providers can often provide a range of other useful services. A few of these are outlined briefly below.

- ❑ HTTP port redirection – some ISPs will block requests made to your machine on port 80, which is used to service HTTP (web) requests, thereby preventing such requests from reaching your web server. A few dynamic DNS services can relay web requests made for your domain, allowing your web server to process requests on a non-standard port.
- ❑ HTTP redirection – allows for the redirection of web requests for your domain to another URL. You may be able to employ one set of redirection settings when you're online, and another when you're offline.
- ❑ Mail services – some dynamic DNS providers provide mail services that will can either provide direct access to email messages sent to your domain, or provide backup for a mail server you're running (in case your mail server goes down).
- ❑ Wildcard aliases – these allow extensions of your domain, such as *ftp.yourname.domain.com* to automatically resolve to your core domain name without additional configuration.

Conclusion

If your ISP assigns your IP addresses dynamically and you're interested in turning your PC into a file sharing, web, or FTP server, then dynamic DNS is for you. It typically costs far less per year than getting a static IP address from your ISP, and has the benefit of providing you with an easy-to-use, personalized domain name.

When shopping for a dynamic DNS solution, make sure that it supports your operating system platform. Several dynamic DNS providers, such as [DNS2Go](#) from Deerfield.com, support multiple platforms such as Windows, Linux, Mac, etc. Also, if you're running behind a firewall, make sure any dynamic DNS clients you use can work with it (SOCKS5 support will often make this easier). Many dynamic DNS providers also offer free trial periods, so you can try before you buy.

Although dynamic DNS will work with pretty much any Internet connection type (e.g. dial-up, cable modem, etc.), it's broadband users that really have the bandwidth to effectively host services on their PC. With dynamic DNS, it's not just possible – it's easy and fun!

Mark Richards is the Internal Product Manager for Deerfield.com, an organization dedicated to providing end-to-end software solutions for companies who wish to maximize the level of service they provide online. Deerfield.com's software offerings include DNS2Go, a powerful and affordable dynamic DNS solution.

Deerfield Communications, Inc.

PO BOX 851

Gaylord, MI 49735

USA

Phone (989) 732-8856

Fax (989) 731-9299

Sales Email: sales@deerfield.com

Feedback Email: feedback@deerfield.com

www.deerfield.com

