WP engine®

DEBUNKING THE MYTHS OF DEDICATED IP ADDRESSES
HOW THE MODERN WEB MAKES DEDICATED IPS OBSOLETE

WHITE PAPER

DEBUNKING THE MYTHS
OF DEDICATED IP ADDRESSES

It was long thought that dedicated IP addresses were the knight in shining armor for web-based brands and businesses. Articles outlined their myriad benefits–SEO improvements, SSL compatibility, email delivery, and protection from noisy neighbors–and made it clear that if you ran your business on the web, a dedicated IP address paved the way for online success. But as the web has matured, and technology has evolved, dedicated IP addresses have gone the way of hit counters and "under construction" pages. They're now part of technology's past.

Today's modern web technologies make dedicated IP addresses essentially obsolete. The advent of intelligent search engines, proper authentication protocols, advanced encryption methods, improved email systems, and dynamic DNS have replaced the need for your website to have a dedicated IP address.

While there will always be rare, one-off use cases where a dedicated IP address may be beneficial (and why we'll continue to make them available to you when they're needed), we wanted to take the opportunity to dispel some of the common myths around dedicated IPs. In many cases, it's these same myths that made dedicated IP addresses an early web necessity before the modern web solved most, if not all, of the challenges once fixed by a dedicated IP.

WHAT IS A DEDICATED IP ADDRESS?

First, let's look at what a dedicated IP address is.

As you likely know, an IP address is a unique set of numbers that routes internet traffic to the right place. It's often compared to a zip code or a postal code, because different people can share the same IP address. In hosting environments, you're often given the choice between a shared IP address and a dedicated IP address. In shared environments, you may share your IP address with numerous other sites (don't worry, web hosts use tools to ensure the correct content is served when a visitor requests your site). Conversely, a dedicated IP address is yours and yours alone. You can have different sites that serve from that address, but it belongs to you and you're in complete control.

Sounds great, right? But that's where it gets tricky. A dedicated IP address is largely unnecessary thanks to today's modern web.

MYTH 1

FOR SEO PURPOSES, I NEED A DEDICATED IP ADDRESS.

There is a common belief that sites that have a dedicated IP address will perform better in search engine results than sites on shared IPs. The thinking is that sites do not share the risk of being banned for sharing the same IP with another website hosted on the same server in the event that site gets banned by a search engine. This is a myth. It's actually been confirmed that having dedicated IP addresses will not affect your SEO in any way.

Same goes for building a link network–which, really, Google doesn't want you doing anyway. Still, some believe that using dedicated IPs to build a link network will prevent Google from recognizing it, thus improving SEO. That's a myth. It only takes Google longer to figure it out. For black hat actors, the temporary advantage is useful, but for legitimate digital marketers and websites, this arms race is dangerous and not useful.

There are some cases, however, when you might want to distribute your sites across several different IP addresses. For example, agencies might want to host a portfolio of sites in several different physical servers, perhaps even in different data centers to mitigate against the possibility that their entire client base be taken offline in the event of an outage. In this case, the solution is for the client sites to be distributed across different servers, which naturally also then receive distinct IP addresses, not a set of dedicated IP addresses, that all point to a single piece of hardware. If this is something you need, WP Engine recommends you reach out to us and request to distribute your sites.

MYTH 2

IF I SHARE AN IP ADDRESS WITH ANOTHER SITE AND MY "IP NEIGHBOR" DOES SOMETHING BAD, THAT CAN HURT ME.

You don't need to worry about this. In fact, nowadays, the web operates on the premise of sharing IPs with your neighbor, and Google acknowledges it.

The majority of sites on the web today are hosted behind shared IP addresses, using the widely accepted practice of virtual hosting. This means that for the largest number of sites on the web, modern search engines like Google must crawl them, interpret them, and detect when they may harm Google search results or Google's resources. It's 2016, and Google has figured out that a website isn't just an IP address, and virtual hosting is a widely used and acceptable practice.

Google will not penalize your site for the SEO behavior of a "noisy IP neighbor" (e.g. a black hat SEO sharing your IP). Google's mission is to provide the best search results, and blanketly banning or penalizing sites because of a noisy neighbors does not improve search results, because that would put the majority of sites on the web at risk of de-ranking based on criteria beyond their control.

Additionally, there can still be noisy neighbor issues even with a dedicated IP address. If you share an IP address by what is called an IP "Class," and the bad actor launches attacks from enough IPs in the

"Class C" you share with the bad actor, Google (or any other ISP, network, etc.) can ban the entire Class C (including you). In that instance having a dedicated IP address or even hundreds of IP addresses may not be enough to fully protect you from noisy neighbors. What really protects you from noisy neighbors are diligent managed hosting providers like WP Engine who work to resolve network abuse issues that can cause problems for other customers. We have you covered.

MYTH 3
A DEDICATED IP ADDRESS IS REQUIRED FOR SSL.

It's a common misconception that a dedicated IP address is required to ensure a website can properly use an SSL certificate. That's false.

WP Engine and most modern web hosts support a technology called Server Name Indication or SNI. This means that our servers intelligently serve the correct SSL certificate for the domain name being requested. SNI makes it so you no longer need a dedicated IP address to use your site's SSL certificate. While some older browsers do not support SNI, WP Engine and other providers no longer support SSL for those browsers due to recent security vulnerabilities, most notably the POODLE vulnerability in 2014. Therefore, a dedicated IP is not required to have SSL function appropriately on all supported browsers.

MYTH 4
MY EMAIL WON'T BE DELIVERED WITHOUT A DEDICATED IP.

Simply put, for WP Engine customers, email is not sent from your site's IP address. We do not send email from our own servers. Instead, we partner with several of the world's largest email infrastructure providers, which removes the need for a dedicated IP, and also increases deliverability for your emails.

In addition, we do not recommend sending bulk emails via WP Engine, as this can cause disruption to the performance of emails across our customer base, and prevents you from having visibility into the behavior and deliverability of your own emails. There are many companies that specialize in email services that can provide a solution for your website. Please see our Support Garage article for more information.

IN CONCLUSION

The modern web has made dedicated IP addresses largely obsolete, and it's very likely that you don't need a dedicated IP address for your site. If you're concerned about SEO, noisy neighbors, SSL, or email and think your site requires a dedicated IP address, contact WP Engine and we'll help you find the right solution for your business.

ABOUT WP ENGINE

WP Engine powers amazing digital experiences for websites and applications built on WordPress. The company's premium managed hosting platform provides the performance, reliability and security required by the biggest brands in the world, while remaining affordable and intuitive enough for smaller businesses and individuals. Companies of all sizes rely on WP Engine's award-winning customer service team to quickly solve technical problems and create a world-class customer experience. Founded in 2010, WP Engine is headquartered in Austin, Texas and has offices in San Francisco, California, San Antonio, Texas, and London, England.