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HTTP Proxies Bypass Firewalls

This may seem painfully obvious to some people, but I looked around and couldn't find a reference to it, so I apologize ahead of time for anyone who already knew this. When we normally think of how attackers use proxies they are almost always just trying to hide their IP addresses. id and I have written papers on bypassing content restricting firewalls using proxies, etc... Those are all fine topics, but that's not what this post is about. I was pouring through my logs a few weeks ago and came across a number of people attempting to see if I was running an open proxy. Obviously I'm not, and the reason someone would likely check is that it is a robot looking at large swaths of the web for open proxies.

I ran into an open proxy after that and started poking around with it. The obvious way to look for it was to type in "GET http://www.yahoo.com/ HTTP/1.0″ and see if it shows you Yahoo's homepage. But then it occurred to me that this could be used for Intranet hacking as well. The open proxy doesn't have to point out to the web. It can, in fact, be pointed inward, to internal addresses. Here's a diagram of what I'm talking about:

[[image: image]](http://ha.ckers.org/images/proxy-hacking.png) Click to enlarge

The first scenario is what most bad guys use proxies for. They connect back out to the Internet, to hide their real IP addresses. The second scenario, however, would allow them to use that same proxy server to hack other machines on the same network, including the firewall itself. The funny

part is that there are tons of machines out on the Internet who have already been compromised, and the bad guys have intentionally placed proxies on these machines for other nefarious purposes. But it can also be used for internal reconnaissance, or worse. And yes, I have found this in the wild. By quickly enumerating the most likely places within RFC1918, it's fairly easy to spot where the majority of devices are in most networks (note that this kind of internal scanning will be come more difficult with IPv6).

If there are internal machines with critical vulnerabilities on them, the proxy can be used to connect back into that network, to exploit those vulnerabilities which may give a bigger foothold or uncover other sensitive information. If you haven't scanned your own network for open proxies, you probably should. This is yet another reason to limit what your web servers have access to within your own networks.

Recovery notes

Source evidence recovered on 2026-09-14. The earlier source capture (SHA-256 `b5c76d12321e57b9aac317d23674de3538b69b7816eb671377edeabbb8e6d73f`) is no longer available. This publication uses a separately preserved capture of the same document recorded on 2026-08-06 (SHA-256 `dec896bccb12438abe19f9b0f872a2ad4e94c4bbc6a5d8d236ca0f156be04aa3`). The retained article text was checked against this replacement capture. All post prose and inward-facing-proxy explanation agree, including Yahoo absolute request example and RFC1918 enumeration. Only unmatched retained line is masthead/title formatting. Source references same proxy-hacking.png. Existing capture-quality limitations remain recorded separately. The missing earlier capture remains documented in the archive history.