serverfault

Best way to prevent default server?

Asked 12 years, 4 months ago   Modified 8 months ago   Viewed 48k times

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I have a number of vhosts, and I'd like to "turn off" the default vhost, either by blank page, error page, or generally whatever is the most efficient use of Nginx's resources, whilst only allowing other vhosts to be access via pre-defined domains.

`nginx` `virtualhost`

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6 Answers

Sorted by: Highest score (default) ⬍

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61

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Define a **default_server** that returns an HTTP 444 code:

```
server {
    listen      80 default_server;
    server_name _;
    return      444;
}
```

✓

(Returning a 4xx error code means requests can be interpreted by a client as an unsuccessful request, rather an HTTP 200 Blank Page But Totally Worked Trust Me.)

For port 443 / SSL requests, you can use `ssl_reject_handshake on`

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edited May 2, 2024 at 14:40   answered Sep 25, 2014 at 3:01
TheMaking   Rob Howard
3 ● 2   726 ● 6 ● 4

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3   444 is a non-standard nginx specific code: "*a special nginx's non-standard code 444 is returned that closes the connection*" – bzeaman Apr 13, 2016 at 9:39 ✎

4   This does not work for https. A simple listen 443 default_server won't work either as the ssl handshake happens first of all and nginx will error before returning 444. One solution I have yet to try but should work is to create a self signed certificate for the default https server and optinally redirect to http to avoid any browser errors. – Simon Bengtsson Jul 21, 2016 at 14:22 ✎

3   The nginx ticket to provide a nice way to refuse SSL connections is here. They also provide a workaround, setting `ssl_ciphers aNULL;` . – nh2 Jun 27, 2018 at 17:26

2   Note the workaround I mentioned will break non-SNI-capable HTTPS clients (like nginx's own `proxy_pass` , unless you set `proxy_ssl_server_name on;`) from reaching any other `server_names` (so essentially break the legitimate `server_name`s for port 443 that you *do* want to let through). See trac.nginx.org/nginx/ticket/195#comment:11 for details. – nh2 Jun 27, 2018 at 22:48

3   I am not editing this in because it will only work in the recent `1.19.4` release, but `ssl_reject_handshake` is now available to provide better handling of the https case. – anx Nov 16, 2020 at 14:21

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4

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Just define *default* vhost that will point to directory with blank index.html file.

```
server {
    listen      80 default_server;
    server_name  _ ;
    root /var/www/placeholder ;
    index index.html;
}
```

and place blank index in /var/www/placeholder

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it will catch every request that does not hit any of your domainnames and response with blank page. – wojciechz Aug 23, 2012 at 9:31

Can't you just `return '';` instead of `root...index` ? – oriadam Aug 23, 2016 at 0:14

2

This is what worked for me for both HTTP and HTTPS on Debian 10 (buster) running nginx `1.18.0` .

Note: I always append `include /etc/nginx/sites-enabled/*;` to the `http` section of `/etc/nginx/nginx.conf` and manage vhosts using `/etc/nginx/sites-available` and /etc/nginx/sites-enabled` folders.

Step 1: create self-signed placeholder cert

```
$ mkdir -p /usr/local/etc/ssl

$ cd /usr/local/etc/ssl

$ openssl req -new -x509 -days 1 -nodes -out default-cert.pem -keyout default-key.pem
Generating a RSA private key
.+++++
.......................+++++
writing new private key to 'default-key.pem'
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:
State or Province Name (full name) [Some-State]:
Locality Name (eg, city) []:
Organization Name (eg, company) [Internet Widgits Pty Ltd]:
Organizational Unit Name (eg, section) []:
Common Name (e.g. server FQDN or YOUR name) []:
Email Address []:
```

Step 2: create default vhost

```
cat << EOF > /etc/nginx/sites-available/default
server {
    listen 80 default_server;
    listen 443 default_server ssl;

    return 444;

    ssl_ciphers aNULL;
    ssl_certificate /usr/local/etc/ssl/default-cert.pem;
    ssl_certificate_key /usr/local/etc/ssl/default-key.pem;
}
EOF
```
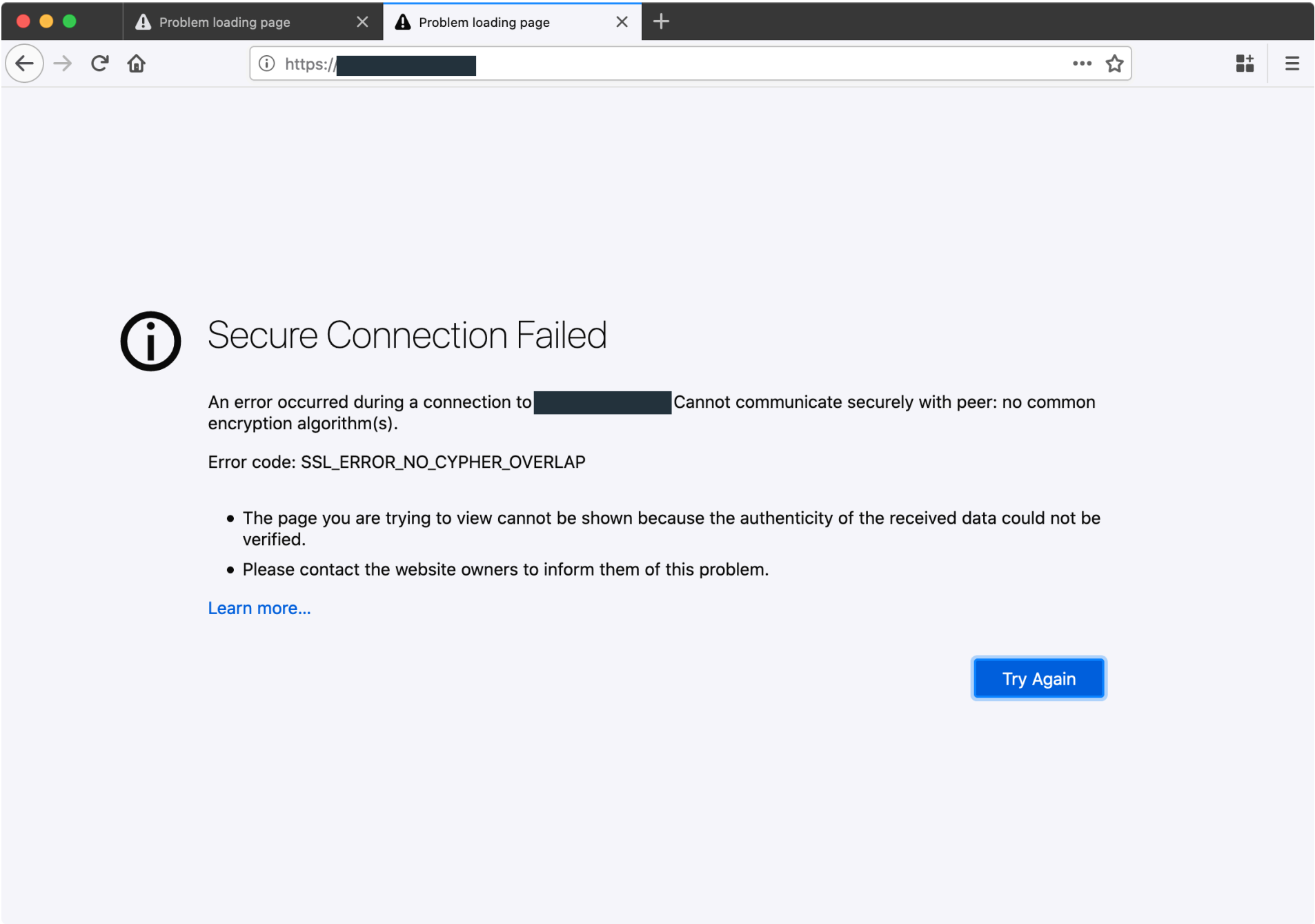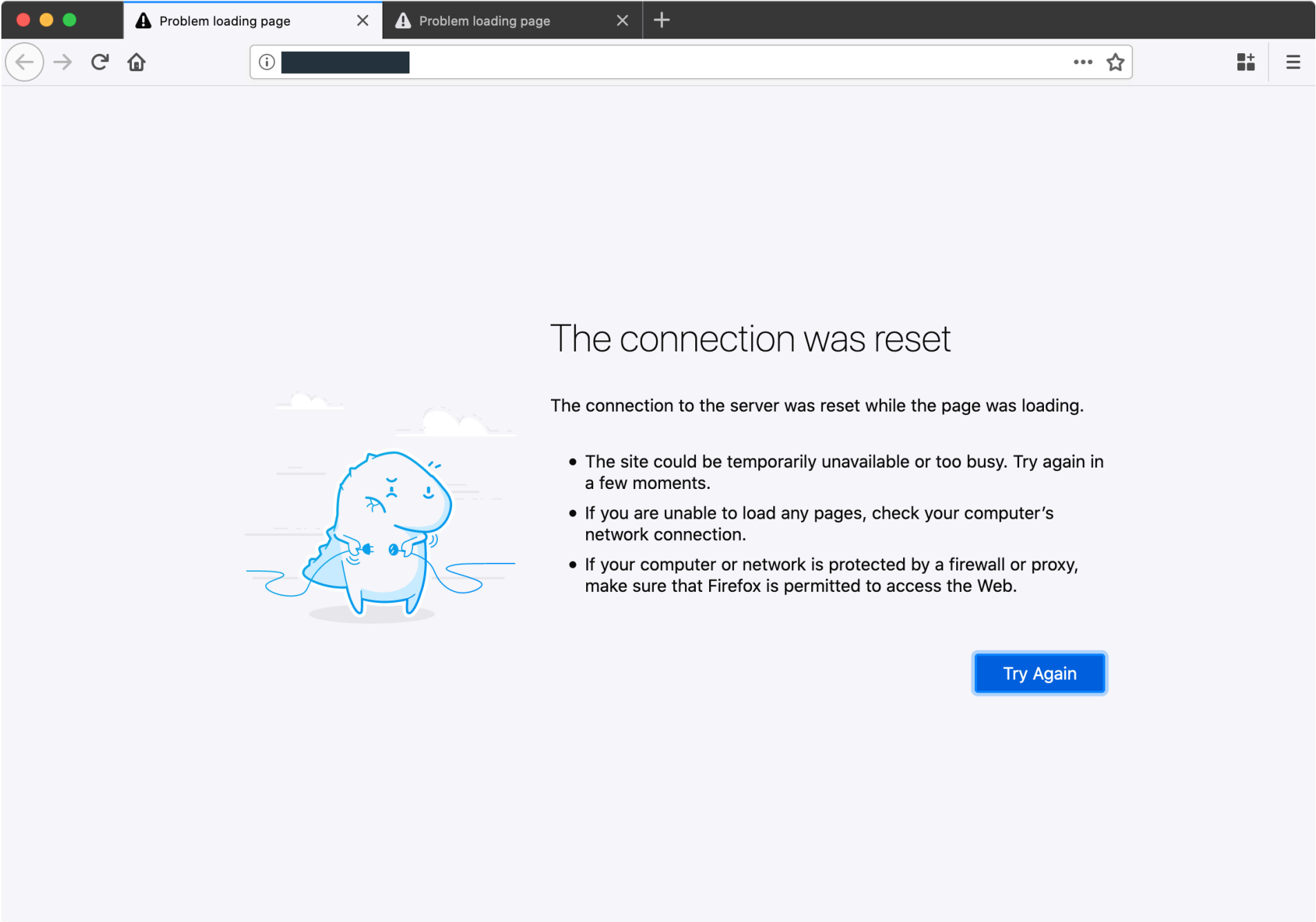
Step 3: enable default vhost

```
cd /etc/nginx/sites-enabled
ln -s ../sites-available/default default
```

Step 4: restart nginx

The connection was reset

The connection to the server was reset while the page was loading.

- The site could be temporarily unavailable or too busy. Try again in a few moments.
- If you are unable to load any pages, check your computer's network connection.
- If your computer or network is protected by a firewall or proxy, make sure that Firefox is permitted to access the Web.

Try Again

ⓘ Secure Connection Failed

An error occurred during a connection to ▮▮▮▮▮▮▮ Cannot communicate securely with peer: no common encryption algorithm(s).

Error code: SSL_ERROR_NO_CYPHER_OVERLAP

- The page you are trying to view cannot be shown because the authenticity of the received data could not be verified.
- Please contact the website owners to inform them of this problem.

Learn more…

Try Again

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edited Nov 16, 2020 at 14:09

answered Nov 16, 2020 at 14:01

sunknudsen
801 ● 5 ● 20 ● 31

Why are you manually creating a new cert? Was always having a dummy certificate already configured not the point of the `ssl-cert` package in debian&ubuntu? – anx Nov 16, 2020 at 14:17

@anx I didn't know about that... what cert (and path) do you recommend using? – sunknudsen Nov 16, 2020 at 14:20 ✏️

On my machine (Ubuntu 20.04), I'm able to `include snippets/snakeoil.conf`, which points to the `/etc/ssl/certs/ssl-cert-snakeoil.pem` and `/etc/ssl/private/ssl-cert-snakeoil.key` the ssl-cert package generates. – theY4Kman Sep 18, 2021 at 19:07

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why not just deny all

1

```
server {
    listen       80 default_server;
    server_name  _;

    location / {
        deny    all;
    }
}
```

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answered Oct 8, 2019 at 14:23

Joel Ma
11 ● 1

I learn this form asp.net core document

1

https://docs.microsoft.com/en-us/aspnet/core/host-and-deploy/linux-nginx?view=aspnetcore-3.1#configure-nginx

```
server {
    listen  80 default_server;
    # listen [::]:80 default_server deferred;
    return   444;
}
```

You can find it in nginx document too

https://nginx.org/en/docs/http/request_processing.html

```
server {
    listen      80;
    server_name "";
    return      444;
}
```

> Here, the server name is set to an empty string that will match requests without the "Host" header field, and a special nginx's non-standard code 444 is returned that closes the connection.

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answered Dec 24, 2019 at 14:45

ws_
111 ● 2

In newer versions you can simply do this:

0

```
server {
    listen      80;
    server_name "";
    return      444;
}
```

Taken trom http://nginx.org/en/docs/http/request_processing.html

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answered Jul 17, 2023 at 10:48

andyhasit
173 ● 1 ● 7