NGINX HARDENING CHEATSHEET





HOWTO: A+ SSL Labs and Mozilla Observatory with TLS 1.3 support

The following rules are security-oriented but blindly deploying of some of them (e.g. CSP) will broke the most of web apps!

O Hide Nginx version number

server_tokens off;

O Hide Nginx server signature

more_set_headers "Server: Unknown";

O Use 2048-bit private keys

openssl genrsa -out domain.com.key 2048 # certbot certonly -d domain.com --rsa-key-size 2048

© Keep only TLS 1.3 + TLS 1.2

ssl_protocols TLSv1.3 TLSv1.2;

O Use only strong ciphers for TLS 1.3 + TLS 1.2 + min. 2048 DH

ssl ciphers "ECDHE-ECDSA-AES256-GCM-SHA384:ECDHE-RSA-AES256-GCM-SHA384:ECDHE-ECDSA-CHACHA20-POLY1305:ECDHE-RSA-CHACHA20-POLY1305:ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES128-GCM-SHA256:DHE-RSA-AES256-GCM-SHA384:DHE-RSA-CHACHA20-POLY1305:DHE-RSA-AES128-GCM-SHA256";

ssl_dhparam ffdhe2048.pem;

O Use more secure ECDH Curves

ssl_ecdh_curve X25519:secp521r1:secp384r1:prime256v1;

Enable DNS CAA (On your DNS service that supports CAA Policy

your.domain. CAA 0 issue "certificate-authority"

These guidelines provides recommendations for modern and compatible setup.



Do not follow guides just to get 100% of something. Think about what you actually do at your server!

Keep NGINX up-to-date!

(e) Force all connections over TLS

return 301 https://\$host\$request_uri;

O Defend against the BEAST attack

ssl_prefer_server_ciphers on;

O HTTP Strict Transport Security

add_header Strict-Transport-Security "max-age=63072000; includeSubdomains" always; O Disable HTTP compression

gzip off; # Only for private resources when using TLS.

Reduce XSS risks (Content-Security-Policy)

add_header Content-Security-Policy "default-src 'none'; script-src 'self'; connect-src 'self'; img-src 'self'; style-src 'self';" always;



Based on trimstray/nginx-admins-handbook

Control the behavior of the Referer header (Referrer-Policy)

add_header Referrer-Policy "no-referrer";

Provide clickjacking protection (X-Frame-Options)

add_header X-Frame-Options "SAMEORIGIN" always;

Prevent some categories of XSS attacks (X-XSS-Protection)

add_header X-XSS-Protection "1; mode=block" always

Prevent Sniff Mimetype (X-Content-Type-Options)

add_header X-Content-Type-Options "nosniff" always;

Deny the use of browser features (Feature-Policy)

add_header Feature-Policy "geolocation 'none'; midi 'none'; notifications 'none'; push 'none'; sync-xhr 'none'; microphone 'none'; camera 'none'; magnetometer 'none'; gyroscope 'none'; speaker 'none'; vibrate 'none'; fullscreen 'none'; payment 'none'; usb 'none';";