v2.0.6-tls13

trimstray

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!

Hide Nginx version number

```
server_tokens off;
```

Hide Nginx server signature

```
more_clear_headers '';
```

Use strong ECC/RSA private keys

```
# min. 256-bit for ECDSA (ECC)
# min. 2048-bit for RSA
```

Keep only TLS 1.3 + TLS 1.2

```
ssl_protocols TLSv1.3 TLSv1.2;
```

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;
```

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" )
```

Keep NGINX up-to-date!

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

Enable OCSP Stapling

```
ssl_stapling on;
ssl_stapling_verify on;
ssl_trusted_certificate ssl/inter-CA-chain.pem
resolver 1.1.1.1 8.8.8.8 valid=300s;
resolver_timeout 5s;
```

Force all connections over TLS

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

Defend against the BEAST attack

```
ssl_prefer_server_ciphers on;
```

HTTP Strict Transport Security

```
add_header Strict-Transport-Security "max-age=63072000; includeSubdomains" always;
```

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';";
```