

■ TLS Clock Skew Lab

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■ Goal:

Break HTTPS by simulating a bad system clock.

■ Lab Setup:

- Ubuntu or Windows machine
- Change clock manually (e.g., set to 2020)
- Visit <https://example.com> or any HTTPS site

■ Result:

- Browser shows cert error: `NET::ERR_CERT_DATE_INVALID`
- TLS handshake fails due to expired/not-yet-valid cert

■ Fix Steps:

- Reset system time to current UTC
- Ensure NTP sync is working

■ Teaching Points:

- HTTPS depends on trust and time
- How does this affect malware, AV, and browsers?
- Could this break updates or cause false alerts?