LWAN

LIGHTWEIGHT ASYNCHRONOUS MULTI-THREADED EVENT-BASED WEB SERVER

About LWAN

- Lwan is a **high-performance** & **scalable** web server.
- An effort focused mostly on building a **solid infrastructure** for a lightweight and speedy web server.
- Tiny source code
- Low **disk** *and* **memory** footprints, it's suitable to be used from **embedded devices** to **robust servers**.
- Written by a single developer

Lightweight

- Minimal Codebase
  - Less than 8000 lines of code
- Guava Inspired loading cache (Tremendously Efficient)
- Easy to use API as a result
- Only the bare minimum amount of system calls are made

Extensible

- Written in C
- Lua can also be used to write handlers for LWAN
- Support for IPv6
- Not a full framework, can be extended to be made into one
- Makes very efficient use of threading

Efficient

- Resources are freed the moment a client connection is closed
  - Keeps latencies lows
  - Allows more predictability than garbage collectors
- A cooperative multitasking scheduler handles multiple connections to make sure they are processed in the fastest possible way
- One developer leads to consistency across the code base and an intricate knowledge in and out of the server

Downsides

- Potentially Insecure
- There are many other possible alternatives such as Apache / nginx
- Hasn’t been properly field tested
- The web server is rarely a bottleneck

Why Use it?

- Consistently in top 10 rankings when it comes to web framework benchmarks
- Several times has appeared as #1
- Source code can be analyzed to make other projects equally as efficient with such few lines of code
- With a framework this fast, people can innovate and create things previously left undone due to lack of technology by the sever
- More of a proof of concept

References

- http://lwan.ws/
- https://github.com/lpereira/lwan