

Eclipse Leshan



LESHAN

Leshan

Java library for implementing servers & clients

Friendly for any Java developer

Simple (no framework, few dependencies)

But also a Web UI for discovering and testing

Build using “mvn install”

Based on Californium and Scandium

History

Started 22 Jul. 2013 @ Sierra Wireless

First external contribution 10 March 2014

Public sandbox Jul. 2014

Proposed as an Eclipse project Sep. 2014

Client contributed Oct. 2014

Activity

~80 pull requests

16k Lines of Java code

1730 downloads in December

261 commits in 2015

241 mailing list messages in 2015

Public sandbox

<http://leshan.eclipse.org>

Bleeding edge: deployed on master commit

IPv4 and IPv6

Press “CoAP messages” for low-level traces



Maven modules

leshan-core

leshan-server-core

leshan-server-cf

leshan-client-core

leshan-client-cf

leshan-all

leshan-client-example

leshan-standalone

leshan-bs-server

leshan-integration-tests

commons elements

server lwm2m logic

californium server

client lwm2m logic

californium client

everything above in 1 jar

application with web UI

standalone bootstrap

Leshan Features

Client initiated bootstrap

Registration/Deregistration

Read, Write, Create objects

TLV encoding/decoding, JSON

OSGi friendly:

<https://github.com/eclipse/leshan.osgi>



Leshan security

DTLS Pre-Shared-Key

DTLS Raw-Public-Key

DTLS X.509



Leshan standalone

Web User Interface: Javascript (AngularJS) + Bootstrap

HTTP JSON API Servlets

Client registry

Request sender

Observation
registry

Security
registry

CoAP + DTLS server server (Californium + Scandium)



License

Dual-licensing: Eclipse Public License (EPL) & Eclipse Distribution License (EDL, BSD 3-clause)

IANAL, but...

- Can I re-use Leshan in a commercial solution?

YES

- Do I have to contribute back my modifications upstream?

NO

Get Involved!



- Open bugs / fix bugs
- Request new features
- Write articles, tutorials
- Share testimonials
- Participate on the mailing list
 - leshan-dev@eclipse.org