# Openflow Protocol Library

## Welcome to

## Introduction

OpenFlow Protocol Library is component in OpenDaylight, that mediates communication between OpenDaylight controller and hardware devices supporting OpenFlow protocol. Primary goal is to provide user (or upper layers of OpenDaylight) communication channel, that can be used for managing network hardware devices.

### Key objectives

- Simultaneous support of multiple versions of OpenFlow wire-protocol
- Extensibility to support later OpenFlow versions and OpenFlow extensions
- Immutable transfer objects generation
- Scalable non-blocking implementation
- Pipeline processing
- Scatter buffer
- TLS support

### Common principles

- Serialization (message coding / decoding) logic is separated from implementation of transfer objects.

- All transfer objects returned from this library are immutable.

- Input/Output processing is done via processing pipeline, which could be modified in runtime based on session characteristics (e.g. support of multiple binary protocol versions).

## Architecture

- Architecture

## Documentation

- User Guide

- Developer Guide

# Requirements

## Release Planning

## Project Facts

Project Creation Date: July 18th, 2013

Lifecycle State: Incubation

Type: Protocol

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IRC: freenode.net #opendaylight

Mailing List: openflowjava-dev@lists.opendaylight.org
   Archives: mailing list archives

Meetings: See Community Meetings

Repository: git clone https://git.opendaylight.org/gerrit/openflowjava

Jenkins: jenkins silo

Gerrit Patches: code patches /reviews

Bugs:

- open bugs

# Testing

- [Testing](#)
- [Beryllium system test plan](#)

- Testing environment
  - [OpenVirtualSwitch](#)

# Release Notes

- [Release Notes](#)

# Links

- [Project Proposal](#)
- [HYDROGEN Release Plan](#)
- [PROJECT Plan 2013](#)
- [HELIUM Release Plan](#)
- [LITHIUM Release Plan](#)
- [BERYLLIUM Release Plan](#)
- [BORON Release Plan](#)
- [CARBON Release Plan](#)

- [Future progress](#)