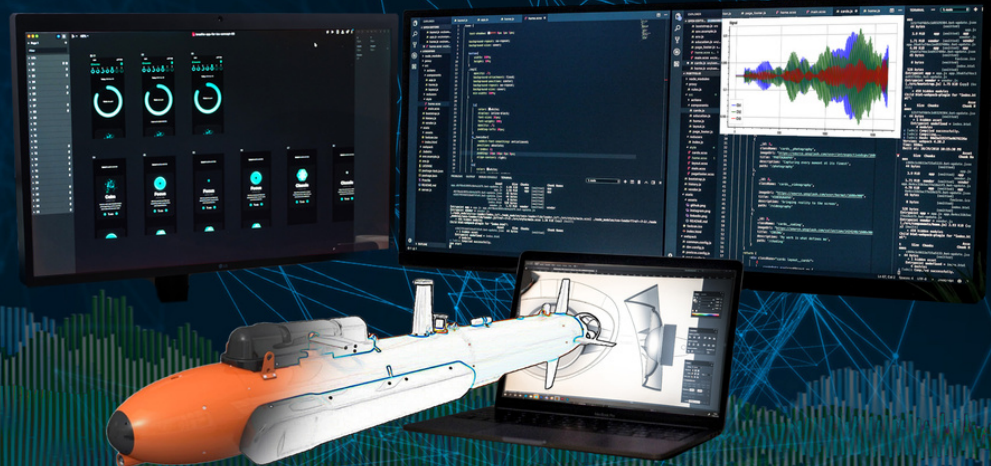


Ripple

One-stop software solution to manage all your in-robot communication interfaces



FOR

- Marine Robotics OEMs
- Marine Robotics payload OEMs
- Sensor package OEMs
- OEM modem vendors



Single Interface

Single software interface to all the communication devices, both above and underwater.



Smart Codecs

Content-aware encoders for navigational data, sensor payloads, image and video streams.



End-End Connectivity

Hardware agnostic end-end connectivity from user to vehicle over IP networks.



Relay & Routing

Transparent relaying, routing and remote configuration capabilities.



Payload Prioritization

Easily configurable policies to define link and data priority per packet to provide quality of service.

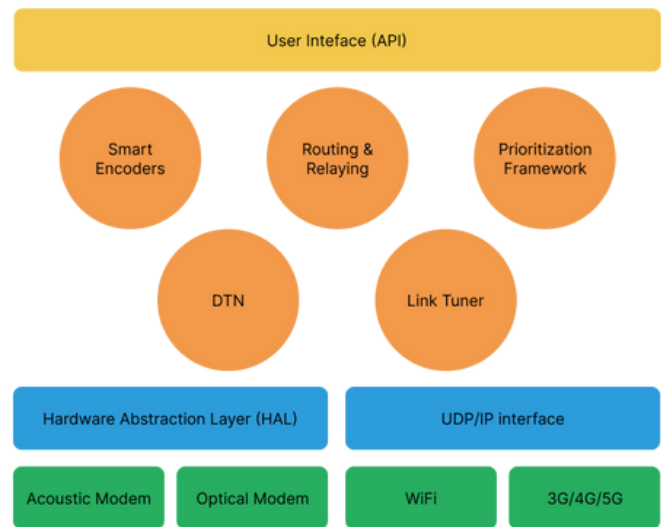


DTN, Link Tuning

Packet level Delay Tolerance (DTN) and reliable delivery. Optional support for link tuning and security modules.

RIPPLE

Ripple is a software package that provides a single software interface to all the communication devices, both above and underwater on your underwater vehicle, be it wireless or wired. It provides features such as payload and link prioritization based on policies set by the user. Ripple provides API support to specify "capabilities" such as priority or compression at a packet level.



Example

```
> transport << new DatagramReq(to: 31, data: nav[64], priority: high)
AGREE
```

CAPABILITIES

PRIORITY	Per packet priority
TTL	Delay tolerance
COMPRESSION	Content-aware compression
FRAGMENTATION	Fragmentation and reassembly
RELIABILITY	Reliable payload delivery
PROGRESS	Progress notification

Smart encoders are available for different data types such as navigational data, sensor payloads, images, and video. It abstracts out the encoding considerations for various underlying communication interfaces from the user.

Ripple also provides hardware-agnostic end-to-end connectivity from the user all the way to the underwater vehicle. It can transparently manage routing and relaying between underwater nodes (both mobile as well as static) from terrestrial networks to reach the destination.

Delay tolerance (DTN), fragmentation & reassembly, etc. are automatically handled in the background while switching between various interfaces with different constraints. Users can also choose to go with the adaptive link tuning option where Ripple will learn and adapt the performance of various links to meet the user's needs.

REQUEST A DEMO

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