

# Package: rho.http (via r-universe)

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**Type** Package

**Depends** R (>= 4.4.0)

**Title** Rho Async HTTP and SSE

**Version** 0.0.1.9001

**Description** Provides typed HTTP request and response values,  
nanonext-backed asynchronous requests, and Server-Sent Events  
decoding for the Rho provider layer.

**License** MIT + file LICENSE

**Encoding** UTF-8

**Roxygen** list(markdown = TRUE)

**Imports** S7, s7contract, rho.async (>= 0.0.1.9001), nanonext (>= 1.10.1.9001), yyjsonr

**Suggests** tinytest, knitr

**Remotes** RGenomicsETL/Rho/packages/rho.async,  
RGenomicsETL/nanonext@5302ac39732477aafbd042ab61e314d763220658

**URL** <https://github.com/RGenomicsETL/Rho>,  
<https://r genomicsetl.github.io/Rho/rho.http/>

**BugReports** <https://github.com/RGenomicsETL/Rho/issues>

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**Repository** <https://r genomicsetl.r-universe.dev>

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## Description

RhoHttpRequest is a typed request value. HttpClient requires [rho\\_http\\_send\(\)](#) and [rho\\_http\\_open\\_stream\(\)](#). The latter resolves to a RhoHttpBodyStream after the response head arrives. RhoSseDecoder preserves protocol state across arbitrary byte chunks. [rho\\_sse\\_connect\(\)](#) is the default composition over any RhoHttpClient implementation and exposes decoded RhoSseEvent values through the common Rho stream protocol. WebSocketClient is deliberately separate: an HTTP client does not imply that it can open a WebSocket. [rho\\_ws\\_connect\(\)](#) resolves to a RhoWebSocket, an asynchronous duplex whose inbound values use the common stream protocol.

## Details

[rho\\_http\\_client\(\)](#) constructs the built-in RhoNanonextHttpClient. Its TLS configuration is created in memory by `nanonext::tls_config()`; this package does not search the host filesystem for certificate bundles. Another client subclasses RhoHttpClient, implements HttpClient, and returns its own RhoHttpBodyStream subclass with stream-next and close methods. Providers and SSE decoding do not depend on its connection handle.

[rho\\_http\\_open\\_execution\(\)](#) reports where response-head opening runs. The built-in client returns RhoHttpAioOpen; a worker-owned implementation may return RhoHttpWorkerOpen. The inherited RhoHttpClient method deliberately returns RhoHttpCallerOpen until a subclass declares asynchronous opening. The latter records that constructing the response stream may occupy the calling R process even though later body reads are asynchronous.

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