



# DataScript Events

Avi Technical Reference (v17.2)

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## About DataScript Events

DataScripts execute when various events are triggered by data plane traffic. A single rule may execute different code during different events.

Many DataScript functions are only available within specific events. For instance, `avi.http.redirect` may only be used within an HTTP request event, whereas the `avi.http.response` function may be used within the HTTP request or the HTTP response events.

Some DataScript functions, such as `avi.http.method`, may be used in either the request or response events, even though the data returned is specifically from the client's HTTP request.

Some DataScript functions may contain a context parameter, which means that while the function may be called during any event, it is grabbing data from an explicit event. Allowed values for any function's context parameter are listed in the relevant Knowledge Base article. Consider [avi.http.get\\_header](#) as an example. Executing it during an HTTP response event will return headers from the server's response. However, by adding a context parameter set to `avi.HTTP_REQUEST`, headers from the client request may be retrieved and evaluated during the response event.

```
if avi.http.get_header("my_header", avi.HTTP_REQUEST) then
  avi.http.close_conn()
end
```

While the DataScript above could be applied to either the HTTP request or response events, it is explicitly inspecting headers from the client's request due to the optional context parameter.

## Supported DataScript Events

- **HTTP\_REQ ?** This event triggers when all the headers of the HTTP request have been parsed successfully, but before any potential POST body has been received.
- **HTTP\_RESP ?** This event triggers when all headers of the HTTP response have been parsed successfully, but before the response body has been received.
- **RESP\_FAILED ?** This event is added with Avi Vantage 17.1.3. It triggers when any error/timeout happens before a valid response header can be received from the server and forwarded to the client. There are only 3 HTTP functions which can be invoked from the RESP\_FAILED event:
  - `avi.http.response()`
  - `avi.http.redirect()`
  - `avi.http.internal_status()`

All other HTTP functions return ERROR and the client connection will abort.

Examples under which the RESP\_FAILED event occurs include:

- TCP/SSL connection/handshake to back-end server fails
- Request proxy/send to back-end server times out
- No Response or partial Response Headers or Bad Response Headers from server
- Server resets connection while Avi is waiting for the back-end server to respond