

 aio-lib/aiohttp Public

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## Commit 0c2e9da



 **Dreamsorcerer** authored on Jan 12 · ✓ 34 / 38 · Verified

Add max\_headers parameter (#11955) (#11959) (#11960)

(cherry picked from commit [ed6440c](#))
















(cherry picked from commit [30ec25f](#))

 **master** (#11960) ·  v3.13.5 v3.13.4

1 parent [016e652](#) commit 0c2e9da 

 **12 files changed** +277 -130 lines changed

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CHANGES/11955.feature.rst



@@ -0,0 +1 @@

+ Added ``max\_headers`` parameter to limit the number of headers that should be read from a response -- by :user:`Dreamsorcerer`.

aiohttp/\_http\_parser.pyx



@@ -279,6 +279,7 @@ cdef class HttpParser:

279 279           object \_name  
280 280           bytes \_raw\_value  
281 281           bint     \_has\_value

282 +           int \_header\_name\_size

282 283  
283 284           object \_protocol  
284 285           object \_loop



@@ -329,7 +330,7 @@ cdef class HttpParser:

329 330           self, cparser.llhttp\_type mode,  
330 331           object protocol, object loop, int limit,  
331 332           object timer=None,  
332 -           size\_t max\_line\_size=8190, size\_t max\_headers=32768,  
333 +           size\_t max\_line\_size=8190, size\_t max\_headers=128,  
333 334           size\_t max\_field\_size=8190, payload\_exception=None,  
334 335           bint response\_with\_body=True, bint read\_until\_eof=False,  
335 336           bint auto\_decompress=True,



@@ -352,6 +353,7 @@ cdef class HttpParser:

352 353           self.\_raw\_name = EMPTY\_BYTES  
353 354           self.\_raw\_value = EMPTY\_BYTES  
354 355           self.\_has\_value = False  
356 +           self.\_header\_name\_size = 0  
355 357  
356 358           self.\_max\_line\_size = max\_line\_size  
357 359           self.\_max\_headers = max\_headers



@@ -383,11 +385,14 @@ cdef class HttpParser:

```

383 385         value = self._raw_value.decode('utf-8', 'surrogateescape')
384 386
385 387         self._headers.append((name, value))
388 +         if len(self._headers) > self._max_headers:
389 +             raise BadHttpMessage("Too many headers received")
386 390
387 391         if name is CONTENT_ENCODING:
388 392             self._content_encoding = value
389 393
390 394         self._has_value = False
395 +         self._header_name_size = 0
391 396         self._raw_headers.append((self._raw_name, self._raw_value))
392 397         self._raw_name = EMPTY_BYTES
393 398         self._raw_value = EMPTY_BYTES

```



```
@@ -574,7 +579,7 @@ cdef class HttpRequestParser(HttpParser):
```

```

574 579
575 580     def __init__(
576 581         self, protocol, loop, int limit, timer=None,
577 -         size_t max_line_size=8190, size_t max_headers=32768,
582 +         size_t max_line_size=8190, size_t max_headers=128,
578 583         size_t max_field_size=8190, payload_exception=None,
579 584         bint response_with_body=True, bint read_until_eof=False,
580 585         bint auto_decompress=True,

```



```
@@ -638,7 +643,7 @@ cdef class HttpResponseParser(HttpParser):
```

```

638 643
639 644     def __init__(
640 645         self, protocol, loop, int limit, timer=None,
641 -         size_t max_line_size=8190, size_t max_headers=32768,
646 +         size_t max_line_size=8190, size_t max_headers=128,
642 647         size_t max_field_size=8190, payload_exception=None,
643 648         bint response_with_body=True, bint read_until_eof=False,
644 649         bint auto_decompress=True

```



```
@@ -677,8 +682,8 @@ cdef int cb_on_url(cparser.llhttp_t* parser,
```

```

677 682     cdef HttpParser pyparser = <HttpParser>parser.data
678 683     try:
679 684         if length > pyparser._max_line_size:
680 -         raise LineTooLong(

```

|     |     |   |
|-----|-----|---|
| 681 | -   | 'Status line is too long', pyparser._max_line_size, length)               |
| 685 | +   | status = pyparser._buf + at[:length]                                      |
| 686 | +   | raise LineTooLong(status[:100] + b"...", pyparser._max_line_size)         |
| 682 | 687 | extend(pyparser._buf, at, length)   |
| 683 | 688 | except BaseException as ex:   |
| 684 | 689 | pyparser._last_error = ex   |
| ↕   |     | @@ -690,11 +695,10 @@ cdef int cb_on_url(cparser.llhttp_t* parser,        |
| 690 | 695 | cdef int cb_on_status(cparser.llhttp_t* parser,                           |
| 691 | 696 | const char *at, size_t length) except -1:                                 |
| 692 | 697 | cdef HttpParser pyparser = <HttpParser>parser.data                        |
| 693 | -   | cdef str reason   |
| 694 | 698 | try:  |
| 695 | 699 | if length > pyparser._max_line_size:                                      |
| 696 | -   | raise LineTooLong(  |
| 697 | -   | 'Status line is too long', pyparser._max_line_size, length)               |
| 700 | +   | reason = pyparser._buf + at[:length]                                      |
| 701 | +   | raise LineTooLong(reason[:100] + b"...", pyparser._max_line_size)         |
| 698 | 702 | extend(pyparser._buf, at, length)   |
| 699 | 703 | except BaseException as ex:   |
| 700 | 704 | pyparser._last_error = ex   |
| ↕   |     | @@ -711,8 +715,9 @@ cdef int cb_on_header_field(cparser.llhttp_t* parser, |
| 711 | 715 | pyparser._on_status_complete()  |
| 712 | 716 | size = len(pyparser._raw_name) + length                                   |
| 713 | 717 | if size > pyparser._max_field_size:                                       |
| 714 | -   | raise LineTooLong(  |
| 715 | -   | 'Header name is too long', pyparser._max_field_size, size)                |
| 718 | +   | name = pyparser._raw_name + at[:length]                                   |
| 719 | +   | raise LineTooLong(name[:100] + b"...", pyparser._max_field_size)          |
| 720 | +   | pyparser._header_name_size = size   |
| 716 | 721 | pyparser._on_header_field(at, length)                                     |
| 717 | 722 | except BaseException as ex:   |
| 718 | 723 | pyparser._last_error = ex   |
| ↕   |     | @@ -727,9 +732,9 @@ cdef int cb_on_header_value(cparser.llhttp_t* parser, |
| 727 | 732 | cdef Py_ssize_t size  |
| 728 | 733 | try:  |
| 729 | 734 | size = len(pyparser._raw_value) + length                                  |
| 730 | -   | if size > pyparser._max_field_size:                                       |
| 731 | -   | raise LineTooLong(  |
| 732 | -   | 'Header value is too long', pyparser._max_field_size, size)               |
| 735 | +   | if pyparser._header_name_size + size > pyparser._max_field_size:          |

```

736 +         value = parser._raw_value + at[:length]
737 +         raise LineTooLong(value[:100] + b"...", parser._max_field_size)
733 738         parser._on_header_value(at, length)
734 739     except BaseException as ex:
735 740         parser._last_error = ex

```

```

▼ aiohttp/client.py
@@ -195,6 +195,7 @@ class _RequestOptions(TypedDict, total=False):
195 195     auto_decompress: Union[bool, None]
196 196     max_line_size: Union[int, None]
197 197     max_field_size: Union[int, None]
198 +     max_headers: Union[int, None]
198 199     middlewares: Optional[Sequence[ClientMiddlewareType]]
199 200
200 201
@@ -259,6 +260,7 @@ class ClientSession:
259 260         "_read_bufsize",
260 261         "_max_line_size",
261 262         "_max_field_size",
263 +         "_max_headers",
262 264         "_resolve_charset",
263 265         "_default_proxy",
264 266         "_default_proxy_auth",
@@ -303,6 +305,7 @@ def __init__(
303 305         read_bufsize: int = 2**16,
304 306         max_line_size: int = 8190,
305 307         max_field_size: int = 8190,
308 +         max_headers: int = 128,
306 309         fallback_charset_resolver: _CharsetResolver = lambda r, b: "utf-8",
307 310         middlewares: Sequence[ClientMiddlewareType] = (),
308 311         ssl_shutdown_timeout: Union[_SENTINEL, None, float] = sentinel,
@@ -402,6 +405,7 @@ def __init__(
402 405         self._read_bufsize = read_bufsize
403 406         self._max_line_size = max_line_size
404 407         self._max_field_size = max_field_size
408 +         self._max_headers = max_headers

```

```

405 409
406 410     # Convert to list of tuples
407 411     if headers:
    ↓
    ↑ @@ -518,6 +522,7 @@ async def _request(
518 522         auto_decompress: Optional[bool] = None,
519 523         max_line_size: Optional[int] = None,
520 524         max_field_size: Optional[int] = None,
525 +         max_headers: Optional[int] = None,
521 526         middlewares: Optional[Sequence[ClientMiddlewareType]] = None,
522 527     ) -> ClientResponse:
523 528
    ↓
    ↑ @@ -607,6 +612,9 @@ async def _request(
607 612         if max_field_size is None:
608 613             max_field_size = self._max_field_size
609 614
615 +         if max_headers is None:
616 +             max_headers = self._max_headers
617 +
610 618         traces = [
611 619             Trace(
612 620                 self,
    ↓
    ↑ @@ -750,6 +758,7 @@ async def _connect_and_send_request(
750 758
        timeout_ceil_threshold=self._connector._timeout_ceil_threshold,
751 759             max_line_size=max_line_size,
752 760             max_field_size=max_field_size,
761 +             max_headers=max_headers,
753 762         )
754 763         try:
755 764             resp = await req.send(conn)
    ↓

```

▼ aiohttp/client\_proto.py ...

```

    ↑ @@ -230,6 +230,7 @@ def set_response_params(
230 230         timeout_ceil_threshold: float = 5,
231 231         max_line_size: int = 8190,
232 232         max_field_size: int = 8190,

```

```

233 +         max_headers: int = 128,
233 234         ) -> None:
234 235         self._skip_payload = skip_payload
235 236
@@ -248,6 +249,7 @@ def set_response_params(
248 249         auto_decompress=auto_decompress,
249 250         max_line_size=max_line_size,
250 251         max_field_size=max_field_size,
252 +         max_headers=max_headers,
251 253         )
252 254
253 255         if self._tail:

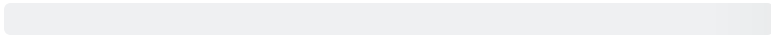
```

▼ aiohttp/http\_exceptions.py

```

@@ -80,11 +80,12 @@ class DecompressSizeError(PayloadEncodingError):
80 80
81 81     class LineTooLong(BadHttpMessage):
82 82         def __init__(
83 -         self, line: str, limit: str = "Unknown", actual_size: str = "Unknown"
83 +         self,
84 +         line: Union[str, bytes],
85 +         limit: Union[str, int] = "Unknown",
86 +         actual_size: str = "Unknown",
84 87         ) -> None:
85 -         super().__init__(
86 -             f"Got more than {limit} bytes ({actual_size}) when reading {line}."
87 -         )
88 +         super().__init__(f"Got more than {limit} bytes when reading: {line!r}.")
88 89         self.args = (line, limit, actual_size)
89 90
90 91

```



**Comments** 0



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