

CURLOPT\_OPEN\_SOCKET\_FUNCTION(3) curl\_easy\_setopt options CURLOPT\_OPEN\_SOCKET\_FUNCTION(3)

## NAME

CURLOPT\_OPEN\_SOCKET\_FUNCTION – set callback for opening sockets

## SYNOPSIS

```
#include <curl/curl.h>
```

```
typedef enum {
    CURLSOCKTYPE_IPCXN, /* socket created for a specific IP connection */
    CURLSOCKTYPE_ACCEPT, /* socket created by accept() call */
    CURLSOCKTYPE_LAST /* never use */
} curlsocktype;
```

```
struct curl_sockaddr {
    int family;
    int socktype;
    int protocol;
    unsigned int addrlen;
    struct sockaddr addr;
};
```

```
curl_socket_t opensocket_callback(void *clientp,
                                   curlsocktype purpose,
                                   struct curl_sockaddr *address);
```

```
CURLcode curl_easy_setopt(CURL *handle, CURLOPT_OPEN_SOCKET_FUNCTION, opensocket_callback);
```

## DESCRIPTION

Pass a pointer to your callback function, which should match the prototype shown above.

This callback function gets called by libcurl instead of the *socket(2)* call. The callback's *purpose* argument identifies the exact purpose for this particular socket: *CURLSOCKTYPE\_IPCXN* is for IP based connections and *CURLSOCKTYPE\_ACCEPT* is for sockets created after *accept()* - such as when doing active FTP. Future versions of libcurl may support more purposes.

The *clientp* pointer contains whatever user-defined value set using the *CURLOPT\_OPEN\_SOCKET\_DATA(3)* function.

The callback gets the resolved peer address as the *address* argument and is allowed to modify the address or refuse to connect completely. The callback function should return the newly created socket or *CURL\_SOCKET\_BAD* in case no connection could be established or another error was detected. Any additional *setsockopt(2)* calls can of course be done on the socket at the user's discretion. A *CURL\_SOCKET\_BAD* return value from the callback function will signal an unrecoverable error to libcurl and it will return *CURLE\_COULDNT\_CONNECT* from the function that triggered this callback. This return code can be used for IP address blacklisting.

If you want to pass in a socket with an already established connection, pass the socket back with this callback and then use *CURLOPT\_SOCKOPT\_FUNCTION(3)* to signal that it already is connected.

## DEFAULT

The default behavior is the equivalent of this:

```
return socket(addr->family, addr->socktype, addr->protocol);
```

## PROTOCOLS

All

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### **EXAMPLE**

### **AVAILABILITY**

Added in 7.17.1.

### **RETURN VALUE**

Returns CURLE\_OK if the option is supported, and CURLE\_UNKNOWN\_OPTION if not.

### **SEE ALSO**

**CURLOPT\_OPEN\_SOCKET\_DATA(3), CURLOPT\_SOCKOPT\_FUNCTION(3), CURLOPT\_CLOSE\_SOCKET\_FUNCTION(3),**