

**NAME**

`ne_request_create`, `ne_request_dispatch`, `ne_request_destroy` - low-level HTTP request handling

**SYNOPSIS**

```
#include <ne_request.h>
```

```
ne_request *ne_request_create(ne_session *session, const char *method, const char *path);
```

```
int ne_request_dispatch(ne_request *req);
```

```
void ne_request_destroy(ne_request *req);
```

**DESCRIPTION**

The **ne\_request** object represents an HTTP request and the associated response. The **ne\_request\_create** function creates a new request object for the given *session*. The target resource for the request is identified by the *path*, and the method to be performed on that resource via the *method* parameter.

The *path* string used must conform to the `abs_path` definition given in RFC2396, with an optional "?query" part, and must be URI-escaped by the caller (for instance, using **ne\_path\_escape**). If the string comes from an untrusted source, failure to perform URI-escaping results in a security vulnerability.

To dispatch a request, and process the response, the **ne\_request\_dispatch** function can be used. An alternative is to use the (more complex, but more flexible) combination of the **ne\_begin\_request**, **ne\_end\_request**, and **ne\_read\_response\_block** functions; see **ne\_begin\_request**.

To add extra headers in the request, the functions `ne_add_request_header` and `ne_print_request_header` can be used. To include a message body with the request, one of the functions **ne\_set\_request\_body\_buffer**, `ne_set_request_body_fd`, or **ne\_set\_request\_body\_provider** can be used.

The return value of **ne\_request\_dispatch** indicates merely whether the request was sent and the response read successfully. To discover the result of the operation, `ne_get_status`, along with any processing of the response headers and message body.

A request can only be dispatched once: calling **ne\_request\_dispatch** more than once on a single **ne\_request** object produces undefined behaviour. Once all processing associated with the request object is complete, use the **ne\_request\_destroy** function to destroy the resources associated with it. Any subsequent use of the request object produces undefined behaviour.

If a request is being using a non-idempotent method such as POST, the `NE_REQFLAG_IDEMPOTENT` flag should be disabled; see `ne_set_request_flag`.

**RETURN VALUE**

The `ne_request_create` function returns a pointer to a request object (and never NULL).

The `ne_request_dispatch` function returns zero if the request was dispatched successfully, and a non-zero error code otherwise.

**ERRORS****NE\_ERROR**

Request failed (see session error string)

**NE\_LOOKUP**

The DNS lookup for the server (or proxy server) failed.

**NE\_AUTH**

Authentication failed on the server.

**NE\_PROXYAUTH**

Authentication failed on the proxy server.

**NE\_CONNECT**

A connection to the server could not be established.

**NE\_TIMEOUT**

A timeout occurred while waiting for the server to respond.

**EXAMPLE**

An example of applying a MKCOL operation to the resource at the location `http://www.example.com/foo/bar/`:

```
ne_session *sess = ne_session_create("http", "www.example.com", 80);
ne_request *req = ne_request_create(sess, "MKCOL", "/foo/bar/");
if (ne_request_dispatch(req)) {
    printf("Request failed: %s\n", ne_get_error(sess));
}
ne_request_destroy(req);
```

**SEE ALSO**

`ne_get_error`, `ne_set_error`, `ne_get_status`, `ne_add_request_header`, `ne_set_request_body_buffer`, `ne_set_request_flag`.

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