NAME

ares_query − Initiate a single-question DNS query

SYNOPSIS

#include <ares.h>

typedef void (*ares_callback)(void *_arg_, int _status_,
int _timeouts_, unsigned char *_abuf_, int _alen_)

void ares_query(ares_channel _channel_, const char *_name_,
int _dnsclass_, int _type_, ares_callback _callback_,
void *_arg_)

DESCRIPTION

The **ares_query** function initiates a single-question DNS query on the name service channel identified by *channel*. The parameter *name* gives the query name as a NUL-terminated C string of period-separated labels optionally ending with a period; periods and backslashes within a label must be escaped with a backslash. The parameters *dnsclass* and *type* give the class and type of the query using the values defined in **<arpa/nameser.h>**. When the query is complete or has failed, the ares library will invoke *callback*. Completion or failure of the query may happen immediately, or may happen during a later call to **ares_process**(3) or **ares_destroy**(3).

The callback argument *arg* is copied from the **ares_query** argument *arg*. The callback argument *status* indicates whether the query succeeded and, if not, how it failed. It may have any of the following values:

ARES_SUCCESS The query completed successfully.

ARES_ENODATA The query completed but contains no answers.

ARES_EFORMERR The query completed but the server claims that the query was malformatted.

ARES_ESERVFAIL The query completed but the server claims to have experienced a failure. (This code can only occur if the **ARES_FLAG_NOCHECKRESP** flag was specified at channel initialization time; otherwise, such responses are ignored at the **ares_send**(3) level.)

ARES_ENOTFOUND
The query completed but the queried-for domain name was not found.

ARES_ENOTIMP The query completed but the server does not implement the operation requested by the query. (This code can only occur if the **ARES_FLAG_NOCHECKRESP** flag was specified at channel initialization time; otherwise, such responses are ignored at the **ares_send**(3) level.)

ARES_EREFUSED The query completed but the server refused the query. (This code can only occur if the **ARES_FLAG_NOCHECKRESP** flag was specified at channel initialization time; otherwise, such responses are ignored at the **ares_send**(3) level.)

ARES_EBADNAME The query name *name* could not be encoded as a domain name, either because it contained a zero-length label or because it contained a label of more than 63 characters.

ARES_ETIMEOUT No name servers responded within the timeout period.

ARES_ECONNREFUSED
No name servers could be contacted.

ARES_ENOMEM Memory was exhausted.

ARES_EDESTRUCTION
The name service channel *channel* is being destroyed; the query will not be completed.

The callback argument *timeouts* reports how many times a query timed out during the execution of the given request.

If the query completed (even if there was something wrong with it, as indicated by some of the above error codes), the callback argument *abuf* points to a result buffer of length *alen*. If the query did not complete, *abuf* will be NULL and *alen* will be 0.

SEE ALSO

ares_process(3)

AUTHOR

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