

**NAME**

`ares_send` – Initiate a DNS query

**SYNOPSIS**

```
#include <ares.h>
```

```
typedef void (*ares_callback)(void *arg, int status,
int timeouts, unsigned char *abuf, int alen)
```

```
void ares_send(ares_channel channel, const unsigned char *qbuf,
int qlen, ares_callback callback, void *arg)
```

**DESCRIPTION**

The `ares_send` function initiates a DNS query on the name service channel identified by `channel`. The parameters `qbuf` and `qlen` give the DNS query, which should already have been formatted according to the DNS protocol. 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_send` 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.

**ARES\_EBADQUERY**

The query buffer was poorly formed (was not long enough for a DNS header or was too long for TCP transmission).

**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, 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.

Unless the flag **ARES\_FLAG\_NOCHECKRESP** was set at channel initialization time, `ares_send` will normally ignore responses whose questions do not match the questions in `qbuf`, as well as responses with reply codes of **SERVFAIL**, **NOTIMP**, and **REFUSED**. Unlike other query functions in the ares library, however, `ares_send` does not inspect the header of the reply packet to determine the error status, so a callback status of **ARES\_SUCCESS** does not reflect as much about the response as for other query functions.

**SEE ALSO**

`ares_process(3)`

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