

NAME

`ares_gethostbyname` – Initiate a host query by name

SYNOPSIS

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

```
typedef void (*ares_host_callback)(void *arg, int status,  
int timeouts, struct hostent *hostent)
```

```
void ares_gethostbyname(ares_channel channel, const char *name,  
int family, ares_host_callback callback, void *arg)
```

DESCRIPTION

The `ares_gethostbyname` function initiates a host query by name on the name service channel identified by `channel`. The parameter `name` gives the hostname as a NUL-terminated C string, and `family` gives the desired type of address for the resulting host entry. 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)`, `ares_destroy(3)` or `ares_cancel(3)`.

The callback argument `arg` is copied from the `ares_gethostbyname` 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 host lookup completed successfully.

ARES_ENOTIMP The ares library does not know how to find addresses of type `family`.

ARES_EBADNAME The hostname `name` is composed entirely of numbers and periods, but is not a valid representation of an Internet address.

ARES_ENOTFOUND

The address `addr` was not found.

ARES_ENOMEM Memory was exhausted.

ARES_ECANCELLED

The query was cancelled.

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.

On successful completion of the query, the callback argument `hostent` points to a **struct hostent** containing the name of the host returned by the query. The callback need not and should not attempt to free the memory pointed to by `hostent`; the ares library will free it when the callback returns. If the query did not complete successfully, `hostent` will be **NULL**.

SEE ALSO

`ares_process(3)`, `ares_gethostbyaddr(3)`

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