

**NAME**

`ares_gethostbyaddr` – Initiate a host query by address

**SYNOPSIS**

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

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

```
void ares_gethostbyaddr(ares_channel channel, const void *addr,  
int addrlen, int family, ares_host_callback callback,  
void *arg)
```

**DESCRIPTION**

The `ares_gethostbyaddr` function initiates a host query by address on the name service channel identified by *channel*. The parameters *addr* and *addrlen* give the address as a series of bytes, and *family* gives the type of address. 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_gethostbyaddr` 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 look up addresses of type *family*.

**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_gethostbyname(3)`

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