## NAME

ares_getnameinfo − Address-to-nodename translation in protocol-independent manner

## SYNOPSIS

**#include <ares.h>**

**typedef void (*ares_nameinfo_callback)(void *_arg_, int _status_, int _timeouts_, char *_node_, char *_service_)**

**void ares_getnameinfo(ares_channel _channel_, const struct sockaddr *_sa_, ares_socklen_t _salen_, int _flags_, ares_nameinfo_callback _callback_, void *_arg_)**

## DESCRIPTION

The **ares_getnameinfo** function is defined for protocol-independent address translation. The function is a combination of *ares_gethostbyaddr(3)* and *getservbyport(3)*. The function will translate the address either by executing a host query on the name service channel identified by *channel* or it will attempt to resolve it locally if possible. The parameters *sa* and *len* give the address as a sockaddr structure, and *flags* gives the options that the function will use. Valid flags are listed below:

**ARES_NI_NOFQDN**
Only the nodename portion of the FQDN is returned for local hosts.

**ARES_NI_NUMERICHOST**
The numeric form of the hostname is returned rather than the name.

**ARES_NI_NAMEREQD**
An error is returned if the hostname cannot be found in the DNS.

**ARES_NI_NUMERICSERV**
The numeric form of the service is returned rather than the name.

**ARES_NI_TCP** The service name is to be looked up for the TCP protocol.

**ARES_NI_UDP** The service name is to be looked up for the UDP protocol.

**ARES_NI_SCTP** The service name is to be looked up for the SCTP protocol.

**ARES_NI_DCCP** The service name is to be looked up for the DCCP protocol.

**ARES_NI_NUMERICSCOPE**
The numeric form of the scope ID is returned rather than the name.

**ARES_NI_LOOKUPHOST**
A hostname lookup is being requested.

**ARES_NI_LOOKUPSERVICE**
A service name lookup is being requested.

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

**ARES_EBADFLAGS**
The *flags* parameter contains an illegal value.

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 *node* contains a string representing the hostname (assuming **ARES_NI_LOOKUPHOST** was specified). Additionally, *service* contains a string representing the service name (assuming **ARES_NI_LOOKUPSERVICE** was specified). If the query did not complete successfully, or one of the values was not requested, *node* or *service* will be **NULL**.

## SEE ALSO

**ares_process**(3), **ares_getaddrinfo**(3)

## AUTHOR

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