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_ECANCELLED

  The query was cancelled.

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),

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