NSNetService Class Reference

Cocoa > Networking



Ć

Apple Inc. © 2009 Apple Inc. All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, mechanical, electronic, photocopying, recording, or otherwise, without prior written permission of Apple Inc., with the following exceptions: Any person is hereby authorized to store documentation on a single computer for personal use only and to print copies of documentation for personal use provided that the documentation contains Apple's copyright notice.

The Apple logo is a trademark of Apple Inc.

Use of the "keyboard" Apple logo (Option-Shift-K) for commercial purposes without the prior written consent of Apple may constitute trademark infringement and unfair competition in violation of federal and state laws

No licenses, express or implied, are granted with respect to any of the technology described in this document. Apple retains all intellectual property rights associated with the technology described in this document. This document is intended to assist application developers to develop applications only for Apple-labeled computers.

Every effort has been made to ensure that the information in this document is accurate. Apple is not responsible for typographical errors.

Apple Inc. 1 Infinite Loop Cupertino, CA 95014 408-996-1010

Apple, the Apple logo, Bonjour, Cocoa, Mac, and Mac OS are trademarks of Apple Inc., registered in the United States and other countries.

Simultaneously published in the United States and Canada.

Even though Apple has reviewed this document, APPLE MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS DOCUMENT, ITS QUALITY, ACCURACY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS DOCUMENT IS PROVIDED "AS 1S," AND YOU, THE READER, ARE ASSUMING THE ENTIRE RISK AS TO ITS QUALITY AND ACCURACY.

IN NO EVENT WILL APPLE BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY

DEFECT OR INACCURACY IN THIS DOCUMENT, even if advised of the possibility of such damages.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, ORAL OR WRITTEN, EXPRESS OR IMPLIED. No Apple dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Contents

NSNetService Class Reference 5

```
Overview 5
Tasks 6
  Creating Network Services 6
  Configuring Network Services 6
  Managing Run Loops 7
  Using Network Services 7
Class Methods 8
  dataFromTXTRecordDictionary: 8
  dictionaryFromTXTRecordData: 8
Instance Methods 9
  addresses 9
  delegate 10
  domain 10
  getInputStream: 10
  hostName 11
  initWithDomain:type:name: 11
  initWithDomain:type:name:port: 12
  name 13
  port 13
  publish 14
  publishWithOptions: 14
  removeFromRunLoop:forMode: 14
  resolve 15
  resolveWithTimeout: 15
  scheduleInRunLoop:forMode: 16
  setDelegate: 16
  setTXTRecordData: 17
  startMonitoring 17
  stop 18
  stopMonitoring 18
  TXTRecordData 18
  type 19
Delegate Methods 19
  netService:didNotPublish: 19
  netService:didNotResolve: 19
  netService:didUpdateTXTRecordData: 20
  netServiceDidPublish: 20
  netServiceDidResolveAddress: 21
  netServiceDidStop: 21
  netServiceWillPublish: 21
```

netServiceWillResolve: 22

Constants 22

NSNetServices Errors 22 NSNetServices Error 23 NSNetServiceOptions 24

Appendix A Deprecated NSNetService Methods 25

Deprecated in Mac OS X v10.4 25 protocolSpecificInformation 25 setProtocolSpecificInformation: 25

Document Revision History 27

Index 29

NSNetService Class Reference

Inherits from NSObject

Conforms to NSObject (NSObject)

Framework /System/Library/Frameworks/Foundation.framework

Availability Available in Mac OS X v10.2 and later.

Declared in NSNetServices.h

Companion guides Bonjour Overview

NSNetServices and CFNetServices Programming Guide

Related sample code CocoaEcho

CocoaSOAP GridCalendar PictureSharing

PictureSharingBrowser

Overview

The NSNetService class represents a network service that your application publishes or uses as a client. This class and the NSNetServiceBrowser class use multicast DNS to convey information about network services to and from your application. The API of NSNetService provides a convenient way to publish the services offered by your application and to resolve the socket address for a service.

The types of services you access using NSNetService are the same types that you access directly using BSD sockets. HTTP and FTP are two services commonly provided by systems. (For a list of common services and the ports used by those services, see the file /etc/services.) Applications can also define their own custom services to provide specific data to clients.

You can use the NSNetService class as either a publisher of a service or as a client of a service. If your application publishes a service, your code must acquire a port and prepare a socket to communicate with clients. Once your socket is ready, you use the NSNetService class to notify clients that your service is ready. If your application is the client of a network service, you can either create an NSNetService object directly (if you know the exact host and port information) or you can use an NSNetServiceBrowser object to browse for services.

To publish a service, you must initialize your NSNetService object with the service name, domain, type, and port information. All of this information must be valid for the socket created by your application. Once initialized, you call the publish (page 14) method to broadcast your service information out to the network.

When connecting to a service, you would normally use the <code>NSNetServiceBrowser</code> class to locate the service on the network and obtain the corresponding <code>NSNetService</code> object. Once you have the object, you proceed to call the <code>resolveWithTimeout</code>: (page 15) method to verify that the service is available and ready for your application. If it is, the <code>addresses</code> (page 9) method returns the socket information you can use to connect to the service.

The methods of NSNetService operate asynchronously so that your application is not impacted by the speed of the network. All information about a service is returned to your application through the NSNetService object's delegate. You must provide a delegate object to respond to messages and to handle errors appropriately.

Tasks

Creating Network Services

```
- initWithDomain:type:name: (page 11)
```

Returns the receiver, initialized as a network service of a given type and sets the initial host information.

- initWithDomain:type:name:port: (page 12)

Initializes the receiver as a network service of type type at the socket location specified by domain, name, and port.

Configuring Network Services

+ dataFromTXTRecordDictionary: (page 8)

Returns an NSData object representing a TXT record formed from a given dictionary.

+ dictionaryFromTXTRecordData: (page 8)

Returns a dictionary representing a TXT record given as an NSData object.

- addresses (page 9)

Returns an array containing NSData objects, each of which contains a socket address for the service.

- domain (page 10)

Returns the domain name of the service.

- getInputStream:outputStream: (page 10)

Retrieves by reference the input and output streams for the receiver and returns a Boolean value that indicates whether they were retrieved successfully.

hostName (page 11)

Returns the host name of the computer providing the service.

- name (page 13)

Returns the name of the service.

type (page 19)

Returns the type of the service.

- TXTRecordData (page 18)

Returns the TXT record for the receiver.

```
- setTXTRecordData: (page 17)
```

Sets the TXT record for the receiver, and returns a Boolean value that indicates whether the operation was successful.

- delegate (page 10)

Returns the delegate for the receiver.

- setDelegate: (page 16)

Sets the delegate for the receiver.

- protocol Specific Information (page 25) Deprecated in Mac OS X v10.4

Returns protocol specific information for legacy ZeroConf-style clients. (Deprecated. Use TXTRecordData (page 18) instead.)

- setProtocolSpecificInformation: (page 25) Deprecated in Mac OS X v10.4

Sets protocol specific information for legacy ZeroConf-style clients. (Deprecated. Use setTXTRecordData: (page 17) instead.)

Managing Run Loops

```
- scheduleInRunLoop:forMode: (page 16)
```

Adds the service to the specified run loop.

- removeFromRunLoop:forMode: (page 14)

Removes the service from the given run loop for a given mode.

Using Network Services

- publish (page 14)

Attempts to advertise the receiver's on the network.

- publishWithOptions: (page 14)

Attempts to advertise the receiver on the network, with the given options.

- netServiceWillPublish: (page 21) delegate method

Notifies the delegate that the network is ready to publish the service.

- netService:didNotPublish: (page 19) delegate method

Notifies the delegate that a service could not be published.

- netServiceDidPublish: (page 20) delegate method

Notifies the delegate that a service was successfully published.

- resolve (page 15)

Starts a resolve process for the receiver. (Deprecated. Use resolveWithTimeout: (page 15) instead.)

- resolveWithTimeout: (page 15)

Starts a resolve process of a finite duration for the receiver.

- netServiceWillResolve: (page 22) delegate method

Notifies the delegate that the network is ready to resolve the service.

- netService:didNotResolve: (page 19) delegate method

Informs the delegate that an error occurred during resolution of a given service.

- netServiceDidResolveAddress: (page 21) delegate method

Informs the delegate that the address for a given service was resolved.

Tasks 7

- port (page 13)

Provides the port of the receiver.

startMonitoring (page 17)

Starts the monitoring of TXT-record updates for the receiver.

- netService:didUpdateTXTRecordData: (page 20) delegate method

Notifies the delegate that the TXT record for a given service has been updated.

- stop (page 18)

Halts a currently running attempt to publish or resolve a service.

- stopMonitoring (page 18)

Stops the monitoring of TXT-record updates for the receiver.

- netServiceDidStop: (page 21) delegate method

Informs the delegate that a publish (page 14) or resolveWithTimeout: (page 15) request was stopped.

Class Methods

dataFromTXTRecordDictionary:

Returns an NSData object representing a TXT record formed from a given dictionary.

+ (NSData *)dataFromTXTRecordDictionary:(NSDictionary *)txtDictionary

Parameters

txtDictionary

A dictionary containing a TXT record.

Return Value

An NSData object representing TXT data formed from txtDictionary. Fails an assertion if txtDictionary cannot be represented as an NSData object.

Availability

Available in Mac OS X v10.4 and later.

See Also

- TXTRecordData (page 18)
- + dictionaryFromTXTRecordData: (page 8)

Declared In

NSNetServices.h

dictionary From TXTRecord Data:

Returns a dictionary representing a TXT record given as an NSData object.

+ (NSDictionary *)dictionaryFromTXTRecordData:(NSData *)txtData

Parameters

txtData

A data object encoding a TXT record.

Return Value

A dictionary representing txtData. The dictionary's keys are NSString objects using UTF8 encoding. The values associated with all the dictionary's keys are NSData objects that encapsulate strings or data.

Fails an assertion if txtData cannot be represented as an NSDictionary object.

Availability

Available in Mac OS X v10.4 and later.

See Also

- TXTRecordData (page 18)
- + dataFromTXTRecordDictionary: (page 8)

Declared In

NSNetServices.h

Instance Methods

addresses

Returns an array containing NSData objects, each of which contains a socket address for the service.

- (NSArray *)addresses

Return Value

An array containing NSData objects, each of which contains a socket address for the service. Each NSData object in the returned array contains an appropriate sockaddr structure that you can use to connect to the socket. The exact type of this structure depends on the service to which you are connecting. If no addresses were resolved for the service, the returned array contains zero elements.

Discussion

It is possible for a single service to resolve to more than one address or not resolve to any addresses. A service might resolve to multiple addresses if the computer publishing the service is currently multihoming.

Availability

Available in Mac OS X v10.2 and later.

See Also

- resolve (page ?)

Related Sample Code

CocoaSOAP

PictureSharingBrowser

Declared In

NSNetServices.h

Instance Methods 2009-04-08 | © 2009 Apple Inc. All Rights Reserved.

delegate

Returns the delegate for the receiver.

- (id)delegate

Return Value

The delegate for the receiver.

Availability

Available in Mac OS X v10.2 and later.

See Also

```
- setDelegate: (page 16)
```

Declared In

NSNetServices.h

domain

Returns the domain name of the service.

```
- (NSString *)domain
```

Return Value

The domain name of the service.

This can be an explicit domain name or it can contain the generic local domain name, @"local." (note the trailing period, which indicates an absolute name).

Availability

Available in Mac OS X v10.2 and later.

Related Sample Code

GridCalendar

Declared In

NSNetServices.h

getInputStream:outputStream:

Retrieves by reference the input and output streams for the receiver and returns a Boolean value that indicates whether they were retrieved successfully.

```
- (BOOL)getInputStream:(NSInputStream **)inputStream outputStream:(NSOutputStream **)outputStream
```

Parameters

inputStream

Upon return, the input stream for the receiver.

outputStream

Upon return, the output stream for the receiver.

Return Value

YES if the streams are created successfully, otherwise NO.

Discussion

After this method is called, no delegate callbacks are called by the receiver.

Availability

Available in Mac OS X v10.4 and later.

Declared In

NSNetServices.h

hostName

Returns the host name of the computer providing the service.

```
- (NSString *)hostName
```

Return Value

The host name of the computer providing the service. Returns nil if a successful resolve has not occurred.

Availability

Available in Mac OS X v10.4 and later.

Declared In

NSNetServices.h

initWithDomain:type:name:

Returns the receiver, initialized as a network service of a given type and sets the initial host information.

```
- (id)initWithDomain:(NSString *)domain type:(NSString *)type name:(NSString *)name
```

Parameters

domain

The domain for the service. For the local domain, use @"local." not @"".

type

The network service type.

type must contain both the service type and transport layer information. To ensure that the mDNS responder searches for services, as opposed to hosts, prefix both the service name and transport layer name with an underscore character ("_"). For example, to search for an HTTP service on TCP, you would use the type string "_http._tcp.". Note that the period character at the end of the string, which indicates that the domain name is an absolute name, is required.

name

The name of the service to resolve.

Return Value

The receiver, initialized as a network service named name of type type in the domain domain.

Discussion

This method is the appropriate initializer to use to resolve a service—to publish a service, use initWithDomain:type:name:port: (page 12).

Instance Methods 11

If you know the values for *domain*, *type*, and *name* of the service you wish to connect to, you can create an NSNetService object using this initializer and call resolveWithTimeout: (page 15) on the result.

You cannot use this initializer to publish a service. This initializer passes an invalid port number to the designated initializer, which prevents the service from being registered. Calling publish (page 14) on an NSNetService object initialized with this method generates a call to your delegate's netService:didNotPublish: (page 19) method with an NSNetServicesBadArgumentError error.

Availability

Available in Mac OS X v10.2 and later.

See Also

- initWithDomain:type:name:port: (page 12)

Related Sample Code

CocoaSOAP

GridCalendar

Declared In

NSNetServices.h

initWithDomain:type:name:port:

Initializes the receiver as a network service of type type at the socket location specified by domain, name, and port.

- (id)initWithDomain:(NSString *)domain type:(NSString *)type name:(NSString *)name port:(int)port

Parameters

domain

The domain for the service. For the local domain, use @"local." not @"".

It is generally preferred to use a <code>NSNetServiceBrowser</code> object to obtain the local registration domain in which to publish your service. To use this default domain, simply pass in an empty string (@" ").

type

The network service type.

type must contain both the service type and transport layer information. To ensure that the mDNS responder searches for services, as opposed to hosts, prefix both the service name and transport layer name with an underscore character ("_"). For example, to search for an HTTP service on TCP, you would use the type string "_http._tcp.". Note that the period character at the end of the string, which indicates that the domain name is an absolute name, is required.

name

The name by which the service is identified to the network. The name must be unique.

port

The port on which the service is published.

port must be a port number acquired by your application for the service.

Discussion

You use this method to create a service that you wish to publish on the network. Although you can also use this method to create a service you wish to resolve on the network, it is generally more appropriate to use the initWithDomain:type:name: (page 11) method instead.

When publishing a service, you must provide valid arguments in order to advertise your service correctly. If the host computer has access to multiple registration domains, you must create separate <code>NSNetService</code> objects for each domain. If you attempt to publish in a domain for which you do not have registration authority, your request may be denied.

It is acceptable to use an empty string for the domain argument when publishing or browsing a service, but do not rely on this for resolution.

This method is the designated initializer.

Availability

Available in Mac OS X v10.2 and later.

See Also

- initWithDomain:type:name: (page 11)

Related Sample Code

CocoaEcho

CocoaHTTPServer

CocoaSOAP

PictureSharing

Declared In

NSNetServices.h

name

Returns the name of the service.

```
- (NSString *)name
```

Return Value

The name of the service.

Availability

Available in Mac OS X v10.2 and later.

Related Sample Code

GridCalendar

Declared In

NSNetServices.h

port

Provides the port of the receiver.

- (NSInteger)port

Return Value

The receiver's port. -1 when it has not been resolved.

Availability

Available in Mac OS X v10.5 and later.

Declared In

NSNetServices.h

publish

Attempts to advertise the receiver's on the network.

- (void)publish

Discussion

This method returns immediately, with success or failure indicated by the callbacks to the delegate.

Availability

Available in Mac OS X v10.2 and later.

See Also

- stop (page 18)

Declared In

NSNetServices.h

publishWithOptions:

Attempts to advertise the receiver on the network, with the given options.

- (void)publishWithOptions:(NSNetServiceOptions)serviceOptions

Parameters

serviceOptions

Options for the receiver.

Discussion

This method returns immediately, with success or failure indicated by the callbacks to the delegate.

Availability

Available in Mac OS X v10.5 and later.

Declared In

NSNetServices.h

removeFromRunLoop:forMode:

Removes the service from the given run loop for a given mode.

- (void)removeFromRunLoop:(NSRunLoop *)aRunLoop forMode:(NSString *)mode

Parameters

aRunLoop

The run loop from which to remove the receiver.

mode

The run loop mode from which to remove the receiver. Possible values for *mode* are discussed in the "Constants" section of NSRunLoop.

Discussion

You can use this method in conjunction with scheduleInRunLoop:forMode: (page 16) to transfer the service to a different run loop. Although it is possible to remove an NSNetService object completely from any run loop and then attempt actions on it, it is an error to do so.

Availability

Available in Mac OS X v10.2 and later.

See Also

```
- scheduleInRunLoop:forMode: (page 16)
```

Declared In

NSNetServices.h

resolve

Starts a resolve process for the receiver. (Deprecated. Use resolveWithTimeout: (page 15) instead.)

- (void)resolve

Discussion

Attempts to determine at least one address for the receiver. This method returns immediately, with success or failure indicated by the callbacks to the delegate.

In Mac OS X v10.4, this method calls resolveWithTimeout: (page 15) with a timeout value of 5.

Availability

Available in Mac OS X v10.2 and later.

See Also

```
addresses (page 9)stop (page 18)resolveWithTimeout: (page 15)
```

Declared In

NSNetServices.h

resolveWithTimeout:

Starts a resolve process of a finite duration for the receiver.

- (void)resolveWithTimeout:(NSTimeInterval) timeout

Parameters

timeout

The maximum number of seconds to attempt a resolve.

Instance Methods 2009-04-08 | © 2009 Apple Inc. All Rights Reserved.

Discussion

If the resolve succeeds before the timeout period lapses, the receiver sends netServiceDidResolveAddress: (page 21) to the delegate. Otherwise, the receiver sends netService:didNotResolve: (page 19) to the delegate.

Availability

Available in Mac OS X v10.4 and later.

See Also

- addresses (page 9)
- stop (page 18)

Related Sample Code

CocoaSOAP

Declared In

NSNetServices.h

scheduleInRunLoop:forMode:

Adds the service to the specified run loop.

- (void)scheduleInRunLoop:(NSRunLoop *)aRunLoop forMode:(NSString *)mode

Parameters

aRunLoop

The run loop to which to add the receiver.

mode

The run loop mode to which to add the receiver. Possible values for *mode* are discussed in the "Constants" section of NSRunLoop.

Discussion

You can use this method in conjunction with removeFromRunLoop: forMode: (page 14) to transfer a service to a different run loop. You should not attempt to run a service on multiple run loops.

Availability

Available in Mac OS X v10.2 and later.

See Also

- removeFromRunLoop:forMode: (page 14)

Related Sample Code

CocoaSOAP

Declared In

NSNetServices.h

setDelegate:

Sets the delegate for the receiver.

- (void)setDelegate:(id)delegate

Parameters

delegate

The delegate for the receiver.

Discussion

The delegate is not retained.

Availability

Available in Mac OS X v10.2 and later.

See Also

- delegate (page 10)

Declared In

NSNetServices.h

setTXTRecordData:

Sets the TXT record for the receiver, and returns a Boolean value that indicates whether the operation was successful.

- (BOOL)setTXTRecordData:(NSData *)recordData

Parameters

recordData

The TXT record for the receiver.

Return Value

YES if recordData is successfully set as the TXT record, otherwise NO.

Availability

Available in Mac OS X v10.4 and later.

See Also

- TXTRecordData (page 18)

Declared In

NSNetServices.h

startMonitoring

Starts the monitoring of TXT-record updates for the receiver.

- (void)startMonitoring

Discussion

The delegate must implement netService:didUpdateTXTRecordData: (page 20), which is called when the TXT record for the receiver is updated.

Availability

Available in Mac OS X v10.4 and later.

See Also

- stopMonitoring (page 18)

Instance Methods

17

Declared In

NSNetServices.h

stop

Halts a currently running attempt to publish or resolve a service.

- (void)stop

Discussion

This method results in the sending of a netServiceDidStop: (page 21) message to the delegate.

Availability

Available in Mac OS X v10.2 and later.

Related Sample Code

CocoaSOAP

PictureSharingBrowser

Declared In

NSNetServices.h

stopMonitoring

Stops the monitoring of TXT-record updates for the receiver.

- (void)stopMonitoring

Availability

Available in Mac OS X v10.4 and later.

See Also

- startMonitoring (page 17)

Declared In

NSNetServices.h

TXTRecordData

Returns the TXT record for the receiver.

- (NSData *)TXTRecordData

Availability

Available in Mac OS X v10.4 and later.

See Also

```
- setTXTRecordData: (page 17)
+ dictionaryFromTXTRecordData: (page 8)
+ dataFromTXTRecordDictionary: (page 8)
```

Declared In

NSNetServices.h

type

Returns the type of the service.

- (NSString *)type

Return Value

The type of the service.

Availability

Available in Mac OS X v10.2 and later.

Related Sample Code

GridCalendar

Declared In

NSNetServices.h

Delegate Methods

netService:didNotPublish:

Notifies the delegate that a service could not be published.

- (void)netService:(NSNetService *)sender didNotPublish:(NSDictionary *)errorDict

Parameters

sender

The service that could not be published.

errorDict

A dictionary containing information about the problem. The dictionary contains the keys NSNetServicesErrorCode and NSNetServicesErrorDomain.

Discussion

This method may be called long after a netServiceWillPublish: (page 21) message has been delivered to the delegate.

Availability

Available in Mac OS X v10.2 and later.

Declared In

NSNetServices.h

netService:didNotResolve:

Informs the delegate that an error occurred during resolution of a given service.

Delegate Methods 2009-04-08 | © 2009 Apple Inc. All Rights Reserved. - (void)netService:(NSNetService *)sender didNotResolve:(NSDictionary *)errorDict

Parameters

sender

The service that did not resolve.

errorDict

A dictionary containing information about the problem. The dictionary contains the keys NSNetServicesErrorCode and NSNetServicesErrorDomain.

Discussion

Clients may try to resolve again upon receiving this error. For example, a DNS rotary may yield different IP addresses on different resolution requests.

Availability

Available in Mac OS X v10.2 and later.

Declared In

NSNetServices.h

netService:didUpdateTXTRecordData:

Notifies the delegate that the TXT record for a given service has been updated.

- (void)netService:(NSNetService *)sender didUpdateTXTRecordData:(NSData *)data

Parameters

sender

The service whose TXT record was updated.

data

The new TXT record.

Availability

Available in Mac OS X v10.4 and later.

See Also

startMonitoring (page 17)

Declared In

NSNetServices.h

netServiceDidPublish:

Notifies the delegate that a service was successfully published.

- (void)netServiceDidPublish:(NSNetService *)sender

Parameters

sender

The service that was published.

Availability

Available in Mac OS X v10.4 and later.

Declared In

NSNetServices.h

netServiceDidResolveAddress:

Informs the delegate that the address for a given service was resolved.

- (void)netServiceDidResolveAddress:(NSNetService *)sender

Parameters

sender

The service that was resolved.

Discussion

The delegate can use the addresses (page 9) method to retrieve the service's address.

Availability

Available in Mac OS X v10.2 and later.

See Also

- addresses (page 9)

Declared In

NSNetServices.h

netServiceDidStop:

Informs the delegate that a publish (page 14) or resolveWithTimeout: (page 15) request was stopped.

- (void)netServiceDidStop:(NSNetService *)sender

Parameters

sender

The service that stopped.

Availability

Available in Mac OS X v10.2 and later.

See Also

- stop (page 18)

Declared In

NSNetServices.h

netServiceWillPublish:

Notifies the delegate that the network is ready to publish the service.

- (void)netServiceWillPublish:(NSNetService *)sender

Delegate Methods

21

Parameters

sender

The service that is ready to publish.

Discussion

Publication of the service proceeds asynchronously and may still generate a call to the delegate's netService:didNotPublish: (page 19) method if an error occurs.

Availability

Available in Mac OS X v10.2 and later.

Declared In

NSNetServices.h

netServiceWillResolve:

Notifies the delegate that the network is ready to resolve the service.

```
- (void)netServiceWillResolve:(NSNetService *)sender
```

Parameters

sender

The service that the network is ready to resolve.

Discussion

Resolution of the service proceeds asynchronously and may still generate a call to the delegate's netService:didNotResolve: (page 19) method if an error occurs.

Availability

Available in Mac OS X v10.2 and later.

Declared In

NSNetServices.h

Constants

NSNetServices Errors

If an error occurs, the delegate error-handling methods return a dictionary with the following keys.

```
extern NSString *NSNetServicesErrorCode;
extern NSString *NSNetServicesErrorDomain;
```

Constants

NSNetServicesErrorCode

This key identifies the error that occurred during the most recent operation.

Available in Mac OS X v10.2 and later.

Declared in NSNetServices.h.

NSNetServicesErrorDomain

This key identifies the originator of the error, which is either the NSNetService object or the mach network layer. For most errors, you should not need the value provided by this key.

Available in Mac OS X v10.2 and later.

Declared in NSNetServices.h.

Declared In

NSNetServices.h

NSNetServicesError

These constants identify errors that can occur when accessing net services.

```
typedef enum {
   NSNetServicesUnknownError = -72000,
   NSNetServicesCollisionError = -72001,
   NSNetServicesNotFoundError = -72002,
   NSNetServicesActivityInProgress = -72003,
   NSNetServicesBadArgumentError = -72004,
   NSNetServicesCancelledError = -72005,
   NSNetServicesInvalidError = -72006,
   NSNetServicesTimeoutError = -72007,
} NSNetServicesError;
```

Constants

NSNetServicesUnknownError

An unknown error occurred.

Available in Mac OS X v10.2 and later.

Declared in NSNetServices.h.

NSNetServicesCollisionError

The service could not be published because the name is already in use. The name could be in use locally or on another system.

Available in Mac OS X v10.2 and later.

Declared in NSNetServices.h.

NSNetServicesNotFoundError

The service could not be found on the network.

Available in Mac OS X v10.2 and later.

Declared in NSNetServices.h.

NSNetServicesActivityInProgress

The net service cannot process the request at this time. No additional information about the network state is known.

Available in Mac OS X v10.2 and later.

Declared in NSNetServices.h.

NSNetServicesBadArgumentError

An invalid argument was used when creating the NSNetService object.

Available in Mac OS X v10.2 and later.

Declared in NSNetServices.h.

Constants
2009-04-08 | © 2009 Apple Inc. All Rights Reserved.

NSNetServicesCancelledError

The client canceled the action.

Available in Mac OS X v10.2 and later.

Declared in NSNetServices.h.

NSNetServicesInvalidError

The net service was improperly configured.

Available in Mac OS X v10.2 and later.

Declared in NSNetServices.h.

NSNetServicesTimeoutError

The net service has timed out.

Available in Mac OS X v10.4 and later.

Declared in NSNetServices.h.

Declared In

NSNetServices.h

NSNetServiceOptions

These constants specify options for a network service.

```
enum {
    NSNetServiceNoAutoRename = 1 << 0
};
typedef NSUInteger NSNetServiceOptions;</pre>
```

Constants

NSNetServiceNoAutoRename

Specifies that the network service not rename itself in the event of a name collision.

Available in Mac OS X v10.5 and later.

Declared in NSNetServices.h.

Availability

Available in Mac OS X v10.5 and later.

Declared In

NSNetServices.h

Deprecated NSNetService Methods

A method identified as deprecated has been superseded and may become unsupported in the future.

Deprecated in Mac OS X v10.4

protocolSpecificInformation

Returns protocol specific information for legacy ZeroConf-style clients. (Deprecated in Mac OS X v10.4. Use TXTRecordData (page 18) instead.)

- (NSString *)protocolSpecificInformation

Return Value

Any protocol-specific data associated with the service.

Discussion

This method is provided for legacy support of older ZeroConf-style clients and its use is discouraged.

Availability

Available in Mac OS X v10.2 and later.

Deprecated in Mac OS X v10.4.

See Also

- setProtocolSpecificInformation: (page 25)

Declared In

NSNetServices.h

setProtocolSpecificInformation:

Sets protocol specific information for legacy ZeroConf-style clients. (Deprecated in Mac OS X v10.4. Use setTXTRecordData: (page 17) instead.)

- (void)setProtocolSpecificInformation:(NSString *)specificInformation

Parameters

specific Information

Information for the protocol.

Discussion

Attaches protocol-specific data to the service.

This method is provided for legacy support of older ZeroConf-style clients and its use is discouraged.

APPENDIX A

Deprecated NSNetService Methods

Availability

Available in Mac OS X v10.2 and later. Deprecated in Mac OS X v10.4.

See Also

- protocolSpecificInformation (page 25)

Declared In

NSNetServices.h

Document Revision History

This table describes the changes to NSNetService Class Reference.

Date	Notes
2009-04-08	Miscellaneous edits.
2008-02-08	Corrected typographical errors.
2007-04-24	Updated for Mac OS X v10.5.
2006-05-23	Added "NSNetServices and CFNetServices Programming Guide" as a companion document.
	First publication of this content as a separate document.

REVISION HISTORY

Document Revision History

Index

Α	<pre>netService:didUpdateTXTRecordData: <nsobject> delegate method 20</nsobject></pre>
	netServiceDidPublish: < NSObject > delegate method
addresses instance method 9	20 not Sonvi collid Dosol vo Addinoss . < NSObjects delegate
	<pre>netServiceDidResolveAddress: <nsobject> delegate method 21</nsobject></pre>
_	netServiceDidStop: < NSObject > delegate method
D	21
dataFromTXTRecordDictionary: class method 8	netServiceWillPublish: < NSObject> delegate
delegate instance method 10	method 21
dictionaryFromTXTRecordData: class method 8	<pre>netServiceWillResolve: <nsobject> delegate method 22</nsobject></pre>
domain instance method 10	NSNetServiceNoAutoRename constant 24
	NSNetServiceOptions data type 24
	NSNetServices Errors 22
G	NSNetServicesActivityInProgress constant 23
<u>-</u>	NSNetServicesBadArgumentError constant 23
<pre>getInputStream:outputStream: instance method 10</pre>	NSNetServicesCancelledError constant 24
	NSNetServicesCollisionError constant 23
	NSNetServicesError 23 NSNetServicesErrorCode constant 22
Н	NSNetServicesErrorDomain constant 23
<u> </u>	NSNetServicesInvalidError constant 24
hostName instance method 11	NSNetServicesNotFoundError constant 23
	NSNetServicesTimeoutError constant 24
	NSNetServicesUnknownError constant 23
<u> </u>	
<pre>initWithDomain:type:name: instance method 11 initWithDomain:type:name:port:instance method</pre>	Р
12	port instance method 13
	protocolSpecificInformation instance method 25
	publish instance method 14
NI	<pre>publishWithOptions: instance method 14</pre>
<u>N</u>	·
name instance method 13	
<pre>netService:didNotPublish: <nsobject> delegate</nsobject></pre>	R
method 19	
netService:didNotResolve: < NSObject> delegate	<pre>removeFromRunLoop:forMode: instance method 14</pre>
method 19	resolve instance method 15
	resolveWithTimeout: instance method 15

S

```
scheduleInRunLoop:forMode: instance method 16
setDelegate: instance method 16
setProtocolSpecificInformation: instance method
    25
setTXTRecordData: instance method 17
startMonitoring instance method 17
stop instance method 18
stopMonitoring instance method 18
```

T

TXTRecordData instance method 18 type instance method 19