
NSURLProtectionSpace Class Reference

Networking, Internet, & Web: Protocol Streams



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NSURLProtectionSpace Class Reference

Inherits from	NSObject
Conforms to	NSCopying NSObject (NSObject)
Framework	/System/Library/Frameworks/Foundation.framework
Availability	Available in Mac OS X v10.2 with Safari 1.0 installed. Available in Mac OS X v10.2.7 and later.
Companion guide	URL Loading System
Declared in	NSURLProtectionSpace.h
Related sample code	ImageClient

Overview

NSURLProtectionSpace represents a server or an area on a server, commonly referred to as a realm, that requires authentication. An NSURLProtectionSpace's credentials apply to any requests within that protection space.

Adopted Protocols

NSCopying
- copyWithZone:

Tasks

Creating a Protection Space

- [initWithHost:port:protocol:realm:authenticationMethod:](#) (page 7)
Initializes a protection space object.
- [initWithProxyHost:port:type:realm:authenticationMethod:](#) (page 8)
Initializes a protection space object representing a proxy server.

Getting Protection Space Properties

- [authenticationMethod](#) (page 6)
Returns the authentication method used by the receiver.
- [distinguishedNames](#) (page 6)
Returns an array of acceptable certificate-issuing authorities for client certificate authentication.
- [host](#) (page 7)
Returns the receiver's host.
- [isProxy](#) (page 9)
Returns whether the receiver represents a proxy server.
- [port](#) (page 9)
Returns the receiver's port.
- [protocol](#) (page 9)
Returns the receiver's protocol.
- [proxyType](#) (page 10)
Returns the receiver's proxy type.
- [realm](#) (page 10)
Returns the receiver's authentication realm
- [receivesCredentialSecurely](#) (page 10)
Returns whether the credentials for the protection space can be sent securely.
- [serverTrust](#) (page 11)
Returns a representation of the server's SSL transaction state.

Instance Methods

authenticationMethod

Returns the authentication method used by the receiver.

```
- (NSString *)authenticationMethod
```

Return Value

The authentication method used by the receiver. The supported authentication methods are listed in “Constants” (page 11).

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

Declared In

NSURLProtectionSpace.h

distinguishedNames

Returns an array of acceptable certificate-issuing authorities for client certificate authentication.

- (NSArray *)distinguishedNames

Return Value

An array of acceptable certificate-issuing authorities, or `nil` if the authentication method of the protection space is not client certificate.

Discussion

The returned issuing authorities are encoded with Distinguished Encoding Rules (DER).

Availability

Available in Mac OS X v10.6 and later.

Declared In

NSURLProtectionSpace.h

host

Returns the receiver's host.

- (NSString *)host

Return Value

The receiver's host.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

Related Sample Code

ImageClient

Declared In

NSURLProtectionSpace.h

initWithHost:port:protocol:realm:authenticationMethod:

Initializes a protection space object.

```
- (id)initWithHost:(NSString *)host port:(NSInteger)port protocol:(NSString *)protocol realm:(NSString *)realm authenticationMethod:(NSString *)authenticationMethod
```

Parameters

host

The host name for the protection space object.

port

The port for the protection space object. If *port* is 0 the default port for the specified protocol is used, for example, port 80 for HTTP. Note that servers can, and do, treat these values differently.

protocol

The protocol for the protection space object. The value of *protocol* is equivalent to the scheme for a URL in the protection space, for example, "http", "https", "ftp", etc.

realm

A string indicating a protocol specific subdivision of the host. *realm* may be `nil` if there is no specified realm or if the protocol doesn't support realms.

authenticationMethod

The type of authentication to use. *authenticationMethod* should be set to one of the values in “Constants” (page 11) or `nil` to use the default, `NSURLAuthenticationMethodDefault`.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

See Also

- [initWithProxyHost:port:type:realm:authenticationMethod:](#) (page 8)

Declared In

NSURLProtectionSpace.h

initWithProxyHost:port:type:realm:authenticationMethod:

Initializes a protection space object representing a proxy server.

```
- (id)initWithProxyHost:(NSString *)host port:(NSInteger)port type:(NSString *)proxyType realm:(NSString *)realm authenticationMethod:(NSString *)authenticationMethod
```

Parameters

host

The host of the proxy server for the protection space object.

port

The port for the protection space object. If *port* is 0 the default port for the specified proxy type is used, for example, port 80 for HTTP. Note that servers can, and do, treat these values differently.

proxyType

The type of proxy server. The value of *proxyType* should be set to one of the values specified in “Constants” (page 11).

realm

A string indicating a protocol specific subdivision of the host. *realm* may be `nil` if there is no specified realm or if the protocol doesn't support realms.

authenticationMethod

The type of authentication to use. *authenticationMethod* should be set to one of the values in “Constants” (page 11) or `nil` to use the default, `NSURLAuthenticationMethodDefault`.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

See Also

- [initWithHost:port:protocol:realm:authenticationMethod:](#) (page 7)

Declared In

NSURLProtectionSpace.h

isProxy

Returns whether the receiver represents a proxy server.

- (BOOL)isProxy

Return Value

YES if the receiver represents a proxy server, NO otherwise.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

Related Sample Code

ImageClient

Declared In

NSURLProtectionSpace.h

port

Returns the receiver's port.

- (NSInteger)port

Return Value

The receiver's port.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

Declared In

NSURLProtectionSpace.h

protocol

Returns the receiver's protocol.

- (NSString *)protocol

Return Value

The receiver's protocol, or nil if the receiver represents a proxy protection space.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

Declared In

NSURLProtectionSpace.h

proxyType

Returns the receiver's proxy type.

```
- (NSString *)proxyType
```

Return Value

The receiver's proxy type, or `nil` if the receiver does not represent a proxy protection space. The supported proxy types are listed in [“Constants”](#) (page 11).

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

Declared In

NSURLProtectionSpace.h

realm

Returns the receiver's authentication realm

```
- (NSString *)realm
```

Return Value

The receiver's authentication realm, or `nil` if no realm has been set.

Discussion

A realm is generally only specified for HTTP and HTTPS authentication.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

Related Sample Code

ImageClient

Declared In

NSURLProtectionSpace.h

receivesCredentialSecurely

Returns whether the credentials for the protection space can be sent securely.

```
- (BOOL)receivesCredentialSecurely
```

Return Value

YES if the credentials for the protection space represented by the receiver can be sent securely, NO otherwise.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

Declared In

NSURLProtectionSpace.h

serverTrust

Returns a representation of the server's SSL transaction state.

- (SecTrustRef)serverTrust

Return Value

The server's SSL transaction state, or `nil` if the authentication method of the protection space is not server trust.

Availability

Available in Mac OS X v10.6 and later.

Declared In

NSURLProtectionSpace.h

Constants

NSURLProtectionSpace Proxy Types

These constants describe the supported proxy types used in [initWithProxyHost:port:type:realm:authenticationMethod:](#) (page 8) and returned by [proxyType](#) (page 10).

```
NSString *NSURLProtectionSpaceHTTPProxy;
NSString *NSURLProtectionSpaceHTTPSPProxy;
NSString *NSURLProtectionSpaceFTPProxy;
NSString *NSURLProtectionSpaceSOCKSPProxy;
```

Constants

`NSURLProtectionSpaceHTTPProxy`
The proxy type for HTTP proxies.
Available in Mac OS X v10.2 and later.
Declared in `NSURLProtectionSpace.h`.

`NSURLProtectionSpaceHTTPSPProxy`
The proxy type for HTTPS proxies.
Available in Mac OS X v10.2 and later.
Declared in `NSURLProtectionSpace.h`.

`NSURLProtectionSpaceFTPProxy`
The proxy type for FTP proxies.
Available in Mac OS X v10.2 and later.
Declared in `NSURLProtectionSpace.h`.

`NSURLProtectionSpaceSOCKSPProxy`
The proxy type for SOCKS proxies.
Available in Mac OS X v10.2 and later.
Declared in `NSURLProtectionSpace.h`.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

Declared In

NSURLProtectionSpace.h

NSURLProtectionSpace Authentication Methods

These constants describe the available authentication methods used in [initWithHost:port:protocol:realm:authenticationMethod:](#) (page 7), [initWithProxyHost:port:type:realm:authenticationMethod:](#) (page 8) and returned by [authenticationMethod](#) (page 6).

```
NSString *NSURLAuthenticationMethodDefault;
NSString *NSURLAuthenticationMethodHTTPBasic;
NSString *NSURLAuthenticationMethodHTTPODigest;
NSString *NSURLAuthenticationMethodHTMLForm;
NSString *NSURLAuthenticationMethodNegotiate;
NSString *NSURLAuthenticationMethodClientCertificate;
NSString *NSURLAuthenticationMethodServerTrust;
```

Constants

NSURLAuthenticationMethodDefault

Use the default authentication method for a protocol.

Available in Mac OS X v10.2 and later.

Declared in NSURLProtectionSpace.h.

NSURLAuthenticationMethodHTTPBasic

Use HTTP basic authentication for this protection space.

This is equivalent to NSURLAuthenticationMethodDefault for HTTP.

Available in Mac OS X v10.2 and later.

Declared in NSURLProtectionSpace.h.

NSURLAuthenticationMethodHTTPODigest

Use HTTP digest authentication for this protection space.

Available in Mac OS X v10.2 and later.

Declared in NSURLProtectionSpace.h.

NSURLAuthenticationMethodHTMLForm

Use HTML form authentication for this protection space.

This authentication method can apply to any protocol.

Available in Mac OS X v10.2 and later.

Declared in NSURLProtectionSpace.h.

NSURLAuthenticationMethodNegotiate

Use negotiate authentication for this protection space.

Available in Mac OS X v10.5 and later.

Declared in NSURLProtectionSpace.h.

`NSURLAuthenticationMethodClientCertificate`

Use client certificate authentication for this protection space.

This authentication method can apply to any protocol.

Available in Mac OS X v10.6 and later.

Declared in `NSURLProtectionSpace.h`.

`NSURLAuthenticationMethodServerTrust`

Use server trust authentication for this protection space.

This authentication method can apply to any protocol.

Available in Mac OS X v10.6 and later.

Declared in `NSURLProtectionSpace.h`.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

Declared In

`NSURLProtectionSpace.h`

Document Revision History

This table describes the changes to *NSURLProtectionSpace Class Reference*.

Date	Notes
2009-08-12	Added API information for additional authentication methods.
2006-05-23	First publication of this content as a separate document.

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