| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Authenticator.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PREV CLASS   [**NEXT CLASS**](http://docs.google.com/java/net/Authenticator.RequestorType.html) | [**FRAMES**](http://docs.google.com/index.html?java/net/Authenticator.html)    [**NO FRAMES**](http://docs.google.com/Authenticator.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#3znysh7) | FIELD | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: FIELD | [CONSTR](#1t3h5sf) | [METHOD](#2s8eyo1) |

## **java.net**

Class Authenticator

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **java.net.Authenticator**

public abstract class **Authenticator**extends [Object](http://docs.google.com/java/lang/Object.html)

The class Authenticator represents an object that knows how to obtain authentication for a network connection. Usually, it will do this by prompting the user for information.

Applications use this class by overriding [getPasswordAuthentication()](http://docs.google.com/java/net/Authenticator.html#getPasswordAuthentication()) in a sub-class. This method will typically use the various getXXX() accessor methods to get information about the entity requesting authentication. It must then acquire a username and password either by interacting with the user or through some other non-interactive means. The credentials are then returned as a [PasswordAuthentication](http://docs.google.com/java/net/PasswordAuthentication.html) return value.

An instance of this concrete sub-class is then registered with the system by calling [setDefault(Authenticator)](http://docs.google.com/java/net/Authenticator.html#setDefault(java.net.Authenticator)). When authentication is required, the system will invoke one of the requestPasswordAuthentication() methods which in turn will call the getPasswordAuthentication() method of the registered object.

All methods that request authentication have a default implementation that fails.

**Since:** 1.2 **See Also:**[setDefault(java.net.Authenticator)](http://docs.google.com/java/net/Authenticator.html#setDefault(java.net.Authenticator)), [getPasswordAuthentication()](http://docs.google.com/java/net/Authenticator.html#getPasswordAuthentication())

| **Nested Class Summary** | |
| --- | --- |
| static class | [**Authenticator.RequestorType**](http://docs.google.com/java/net/Authenticator.RequestorType.html)            The type of the entity requesting authentication. |

| **Constructor Summary** | |
| --- | --- |
| [**Authenticator**](http://docs.google.com/java/net/Authenticator.html#Authenticator())() |

| **Method Summary** | |
| --- | --- |
| protected  [PasswordAuthentication](http://docs.google.com/java/net/PasswordAuthentication.html) | [**getPasswordAuthentication**](http://docs.google.com/java/net/Authenticator.html#getPasswordAuthentication())()            Called when password authorization is needed. |
| protected  [String](http://docs.google.com/java/lang/String.html) | [**getRequestingHost**](http://docs.google.com/java/net/Authenticator.html#getRequestingHost())()            Gets the hostname of the site or proxy requesting authentication, or null if not available. |
| protected  int | [**getRequestingPort**](http://docs.google.com/java/net/Authenticator.html#getRequestingPort())()            Gets the port number for the requested connection. |
| protected  [String](http://docs.google.com/java/lang/String.html) | [**getRequestingPrompt**](http://docs.google.com/java/net/Authenticator.html#getRequestingPrompt())()            Gets the prompt string given by the requestor. |
| protected  [String](http://docs.google.com/java/lang/String.html) | [**getRequestingProtocol**](http://docs.google.com/java/net/Authenticator.html#getRequestingProtocol())()            Give the protocol that's requesting the connection. |
| protected  [String](http://docs.google.com/java/lang/String.html) | [**getRequestingScheme**](http://docs.google.com/java/net/Authenticator.html#getRequestingScheme())()            Gets the scheme of the requestor (the HTTP scheme for an HTTP firewall, for example). |
| protected  [InetAddress](http://docs.google.com/java/net/InetAddress.html) | [**getRequestingSite**](http://docs.google.com/java/net/Authenticator.html#getRequestingSite())()            Gets the InetAddress of the site requesting authorization, or null if not available. |
| protected  [URL](http://docs.google.com/java/net/URL.html) | [**getRequestingURL**](http://docs.google.com/java/net/Authenticator.html#getRequestingURL())()            Returns the URL that resulted in this request for authentication. |
| protected  [Authenticator.RequestorType](http://docs.google.com/java/net/Authenticator.RequestorType.html) | [**getRequestorType**](http://docs.google.com/java/net/Authenticator.html#getRequestorType())()            Returns whether the requestor is a Proxy or a Server. |
| static [PasswordAuthentication](http://docs.google.com/java/net/PasswordAuthentication.html) | [**requestPasswordAuthentication**](http://docs.google.com/java/net/Authenticator.html#requestPasswordAuthentication(java.net.InetAddress,%20int,%20java.lang.String,%20java.lang.String,%20java.lang.String))([InetAddress](http://docs.google.com/java/net/InetAddress.html) addr, int port, [String](http://docs.google.com/java/lang/String.html) protocol, [String](http://docs.google.com/java/lang/String.html) prompt, [String](http://docs.google.com/java/lang/String.html) scheme)            Ask the authenticator that has been registered with the system for a password. |
| static [PasswordAuthentication](http://docs.google.com/java/net/PasswordAuthentication.html) | [**requestPasswordAuthentication**](http://docs.google.com/java/net/Authenticator.html#requestPasswordAuthentication(java.lang.String,%20java.net.InetAddress,%20int,%20java.lang.String,%20java.lang.String,%20java.lang.String))([String](http://docs.google.com/java/lang/String.html) host, [InetAddress](http://docs.google.com/java/net/InetAddress.html) addr, int port, [String](http://docs.google.com/java/lang/String.html) protocol, [String](http://docs.google.com/java/lang/String.html) prompt, [String](http://docs.google.com/java/lang/String.html) scheme)            Ask the authenticator that has been registered with the system for a password. |
| static [PasswordAuthentication](http://docs.google.com/java/net/PasswordAuthentication.html) | [**requestPasswordAuthentication**](http://docs.google.com/java/net/Authenticator.html#requestPasswordAuthentication(java.lang.String,%20java.net.InetAddress,%20int,%20java.lang.String,%20java.lang.String,%20java.lang.String,%20java.net.URL,%20java.net.Authenticator.RequestorType))([String](http://docs.google.com/java/lang/String.html) host, [InetAddress](http://docs.google.com/java/net/InetAddress.html) addr, int port, [String](http://docs.google.com/java/lang/String.html) protocol, [String](http://docs.google.com/java/lang/String.html) prompt, [String](http://docs.google.com/java/lang/String.html) scheme, [URL](http://docs.google.com/java/net/URL.html) url, [Authenticator.RequestorType](http://docs.google.com/java/net/Authenticator.RequestorType.html) reqType)            Ask the authenticator that has been registered with the system for a password. |
| static void | [**setDefault**](http://docs.google.com/java/net/Authenticator.html#setDefault(java.net.Authenticator))([Authenticator](http://docs.google.com/java/net/Authenticator.html) a)            Sets the authenticator that will be used by the networking code when a proxy or an HTTP server asks for authentication. |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [toString](http://docs.google.com/java/lang/Object.html#toString()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Constructor Detail** |
| --- |

### Authenticator

public **Authenticator**()

| **Method Detail** |
| --- |

### setDefault

public static void **setDefault**([Authenticator](http://docs.google.com/java/net/Authenticator.html) a)

Sets the authenticator that will be used by the networking code when a proxy or an HTTP server asks for authentication.

First, if there is a security manager, its checkPermission method is called with a NetPermission("setDefaultAuthenticator") permission. This may result in a java.lang.SecurityException.

**Parameters:**a - The authenticator to be set. If a is null then any previously set authenticator is removed. **Throws:** [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - if a security manager exists and its checkPermission method doesn't allow setting the default authenticator.**See Also:**[SecurityManager.checkPermission(java.security.Permission)](http://docs.google.com/java/lang/SecurityManager.html#checkPermission(java.security.Permission)), [NetPermission](http://docs.google.com/java/net/NetPermission.html)

### requestPasswordAuthentication

public static [PasswordAuthentication](http://docs.google.com/java/net/PasswordAuthentication.html) **requestPasswordAuthentication**([InetAddress](http://docs.google.com/java/net/InetAddress.html) addr,  
 int port,  
 [String](http://docs.google.com/java/lang/String.html) protocol,  
 [String](http://docs.google.com/java/lang/String.html) prompt,  
 [String](http://docs.google.com/java/lang/String.html) scheme)

Ask the authenticator that has been registered with the system for a password.

First, if there is a security manager, its checkPermission method is called with a NetPermission("requestPasswordAuthentication") permission. This may result in a java.lang.SecurityException.

**Parameters:**addr - The InetAddress of the site requesting authorization, or null if not known.port - the port for the requested connectionprotocol - The protocol that's requesting the connection ([getRequestingProtocol()](http://docs.google.com/java/net/Authenticator.html#getRequestingProtocol()))prompt - A prompt string for the userscheme - The authentication scheme **Returns:**The username/password, or null if one can't be gotten. **Throws:** [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - if a security manager exists and its checkPermission method doesn't allow the password authentication request.**See Also:**[SecurityManager.checkPermission(java.security.Permission)](http://docs.google.com/java/lang/SecurityManager.html#checkPermission(java.security.Permission)), [NetPermission](http://docs.google.com/java/net/NetPermission.html)

### requestPasswordAuthentication

public static [PasswordAuthentication](http://docs.google.com/java/net/PasswordAuthentication.html) **requestPasswordAuthentication**([String](http://docs.google.com/java/lang/String.html) host,  
 [InetAddress](http://docs.google.com/java/net/InetAddress.html) addr,  
 int port,  
 [String](http://docs.google.com/java/lang/String.html) protocol,  
 [String](http://docs.google.com/java/lang/String.html) prompt,  
 [String](http://docs.google.com/java/lang/String.html) scheme)

Ask the authenticator that has been registered with the system for a password. This is the preferred method for requesting a password because the hostname can be provided in cases where the InetAddress is not available.

First, if there is a security manager, its checkPermission method is called with a NetPermission("requestPasswordAuthentication") permission. This may result in a java.lang.SecurityException.

**Parameters:**host - The hostname of the site requesting authentication.addr - The InetAddress of the site requesting authentication, or null if not known.port - the port for the requested connection.protocol - The protocol that's requesting the connection ([getRequestingProtocol()](http://docs.google.com/java/net/Authenticator.html#getRequestingProtocol()))prompt - A prompt string for the user which identifies the authentication realm.scheme - The authentication scheme **Returns:**The username/password, or null if one can't be gotten. **Throws:** [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - if a security manager exists and its checkPermission method doesn't allow the password authentication request.**Since:** 1.4 **See Also:**[SecurityManager.checkPermission(java.security.Permission)](http://docs.google.com/java/lang/SecurityManager.html#checkPermission(java.security.Permission)), [NetPermission](http://docs.google.com/java/net/NetPermission.html)

### requestPasswordAuthentication

public static [PasswordAuthentication](http://docs.google.com/java/net/PasswordAuthentication.html) **requestPasswordAuthentication**([String](http://docs.google.com/java/lang/String.html) host,  
 [InetAddress](http://docs.google.com/java/net/InetAddress.html) addr,  
 int port,  
 [String](http://docs.google.com/java/lang/String.html) protocol,  
 [String](http://docs.google.com/java/lang/String.html) prompt,  
 [String](http://docs.google.com/java/lang/String.html) scheme,  
 [URL](http://docs.google.com/java/net/URL.html) url,  
 [Authenticator.RequestorType](http://docs.google.com/java/net/Authenticator.RequestorType.html) reqType)

Ask the authenticator that has been registered with the system for a password.

First, if there is a security manager, its checkPermission method is called with a NetPermission("requestPasswordAuthentication") permission. This may result in a java.lang.SecurityException.

**Parameters:**host - The hostname of the site requesting authentication.addr - The InetAddress of the site requesting authorization, or null if not known.port - the port for the requested connectionprotocol - The protocol that's requesting the connection ([getRequestingProtocol()](http://docs.google.com/java/net/Authenticator.html#getRequestingProtocol()))prompt - A prompt string for the userscheme - The authentication schemeurl - The requesting URL that caused the authenticationreqType - The type (server or proxy) of the entity requesting authentication. **Returns:**The username/password, or null if one can't be gotten. **Throws:** [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - if a security manager exists and its checkPermission method doesn't allow the password authentication request.**Since:** 1.5 **See Also:**[SecurityManager.checkPermission(java.security.Permission)](http://docs.google.com/java/lang/SecurityManager.html#checkPermission(java.security.Permission)), [NetPermission](http://docs.google.com/java/net/NetPermission.html)

### getRequestingHost

protected final [String](http://docs.google.com/java/lang/String.html) **getRequestingHost**()

Gets the hostname of the site or proxy requesting authentication, or null if not available.

**Returns:**the hostname of the connection requiring authentication, or null if it's not available.**Since:** 1.4

### getRequestingSite

protected final [InetAddress](http://docs.google.com/java/net/InetAddress.html) **getRequestingSite**()

Gets the InetAddress of the site requesting authorization, or null if not available.

**Returns:**the InetAddress of the site requesting authorization, or null if it's not available.

### getRequestingPort

protected final int **getRequestingPort**()

Gets the port number for the requested connection.

**Returns:**an int indicating the port for the requested connection.

### getRequestingProtocol

protected final [String](http://docs.google.com/java/lang/String.html) **getRequestingProtocol**()

Give the protocol that's requesting the connection. Often this will be based on a URL, but in a future JDK it could be, for example, "SOCKS" for a password-protected SOCKS5 firewall.

**Returns:**the protcol, optionally followed by "/version", where version is a version number.**See Also:**[URL.getProtocol()](http://docs.google.com/java/net/URL.html#getProtocol())

### getRequestingPrompt

protected final [String](http://docs.google.com/java/lang/String.html) **getRequestingPrompt**()

Gets the prompt string given by the requestor.

**Returns:**the prompt string given by the requestor (realm for http requests)

### getRequestingScheme

protected final [String](http://docs.google.com/java/lang/String.html) **getRequestingScheme**()

Gets the scheme of the requestor (the HTTP scheme for an HTTP firewall, for example).

**Returns:**the scheme of the requestor

### getPasswordAuthentication

protected [PasswordAuthentication](http://docs.google.com/java/net/PasswordAuthentication.html) **getPasswordAuthentication**()

Called when password authorization is needed. Subclasses should override the default implementation, which returns null.

**Returns:**The PasswordAuthentication collected from the user, or null if none is provided.

### getRequestingURL

protected [URL](http://docs.google.com/java/net/URL.html) **getRequestingURL**()

Returns the URL that resulted in this request for authentication.

**Returns:**the requesting URL**Since:** 1.5

### getRequestorType

protected [Authenticator.RequestorType](http://docs.google.com/java/net/Authenticator.RequestorType.html) **getRequestorType**()

Returns whether the requestor is a Proxy or a Server.

**Returns:**the authentication type of the requestor**Since:** 1.5

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Authenticator.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PREV CLASS   [**NEXT CLASS**](http://docs.google.com/java/net/Authenticator.RequestorType.html) | [**FRAMES**](http://docs.google.com/index.html?java/net/Authenticator.html)    [**NO FRAMES**](http://docs.google.com/Authenticator.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#3znysh7) | FIELD | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: FIELD | [CONSTR](#1t3h5sf) | [METHOD](#2s8eyo1) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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