| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/KerberosTicket.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**](http://docs.google.com/javax/security/auth/kerberos/KerberosPrincipal.html)   [**NEXT CLASS**](http://docs.google.com/javax/security/auth/kerberos/ServicePermission.html) | [**FRAMES**](http://docs.google.com/index.html?javax/security/auth/kerberos/KerberosTicket.html)    [**NO FRAMES**](http://docs.google.com/KerberosTicket.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) |

## **javax.security.auth.kerberos**

Class KerberosTicket

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **javax.security.auth.kerberos.KerberosTicket**

**All Implemented Interfaces:** [Serializable](http://docs.google.com/java/io/Serializable.html), [Destroyable](http://docs.google.com/javax/security/auth/Destroyable.html), [Refreshable](http://docs.google.com/javax/security/auth/Refreshable.html)

public class **KerberosTicket**extends [Object](http://docs.google.com/java/lang/Object.html)implements [Destroyable](http://docs.google.com/javax/security/auth/Destroyable.html), [Refreshable](http://docs.google.com/javax/security/auth/Refreshable.html), [Serializable](http://docs.google.com/java/io/Serializable.html)

This class encapsulates a Kerberos ticket and associated information as viewed from the client's point of view. It captures all information that the Key Distribution Center (KDC) sends to the client in the reply message KDC-REP defined in the Kerberos Protocol Specification ([RFC 1510](http://www.ietf.org/rfc/rfc1510.txt)).

All Kerberos JAAS login modules that authenticate a user to a KDC should use this class. Where available, the login module might even read this information from a ticket cache in the operating system instead of directly communicating with the KDC. During the commit phase of the JAAS authentication process, the JAAS login module should instantiate this class and store the instance in the private credential set of a [Subject](http://docs.google.com/javax/security/auth/Subject.html).

It might be necessary for the application to be granted a [PrivateCredentialPermission](http://docs.google.com/javax/security/auth/PrivateCredentialPermission.html) if it needs to access a KerberosTicket instance from a Subject. This permission is not needed when the application depends on the default JGSS Kerberos mechanism to access the KerberosTicket. In that case, however, the application will need an appropriate [ServicePermission](http://docs.google.com/javax/security/auth/kerberos/ServicePermission.html).

Note that this class is applicable to both ticket granting tickets and other regular service tickets. A ticket granting ticket is just a special case of a more generalized service ticket.

**Since:** 1.4 **See Also:**[Subject](http://docs.google.com/javax/security/auth/Subject.html), [PrivateCredentialPermission](http://docs.google.com/javax/security/auth/PrivateCredentialPermission.html), [LoginContext](http://docs.google.com/javax/security/auth/login/LoginContext.html), [GSSCredential](http://docs.google.com/org/ietf/jgss/GSSCredential.html), [GSSManager](http://docs.google.com/org/ietf/jgss/GSSManager.html), [Serialized Form](http://docs.google.com/serialized-form.html#javax.security.auth.kerberos.KerberosTicket)

| **Constructor Summary** | |
| --- | --- |
| [**KerberosTicket**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#KerberosTicket(byte%5B%5D,%20javax.security.auth.kerberos.KerberosPrincipal,%20javax.security.auth.kerberos.KerberosPrincipal,%20byte%5B%5D,%20int,%20boolean%5B%5D,%20java.util.Date,%20java.util.Date,%20java.util.Date,%20java.util.Date,%20java.net.InetAddress%5B%5D))(byte[] asn1Encoding, [KerberosPrincipal](http://docs.google.com/javax/security/auth/kerberos/KerberosPrincipal.html) client, [KerberosPrincipal](http://docs.google.com/javax/security/auth/kerberos/KerberosPrincipal.html) server, byte[] sessionKey, int keyType, boolean[] flags, [Date](http://docs.google.com/java/util/Date.html) authTime, [Date](http://docs.google.com/java/util/Date.html) startTime, [Date](http://docs.google.com/java/util/Date.html) endTime, [Date](http://docs.google.com/java/util/Date.html) renewTill, [InetAddress](http://docs.google.com/java/net/InetAddress.html)[] clientAddresses)            Constructs a KerberosTicket using credentials information that a client either receives from a KDC or reads from a cache. |

| **Method Summary** | |
| --- | --- |
| void | [**destroy**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#destroy())()            Destroys the ticket and destroys any sensitive information stored in it. |
| boolean | [**equals**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) other)            Compares the specified Object with this KerberosTicket for equality. |
| [Date](http://docs.google.com/java/util/Date.html) | [**getAuthTime**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getAuthTime())()            Returns the time that the client was authenticated. |
| [KerberosPrincipal](http://docs.google.com/javax/security/auth/kerberos/KerberosPrincipal.html) | [**getClient**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getClient())()            Returns the client principal associated with this ticket. |
| [InetAddress](http://docs.google.com/java/net/InetAddress.html)[] | [**getClientAddresses**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getClientAddresses())()            Returns a list of addresses from where the ticket can be used. |
| byte[] | [**getEncoded**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getEncoded())()            Returns an ASN.1 encoding of the entire ticket. |
| [Date](http://docs.google.com/java/util/Date.html) | [**getEndTime**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getEndTime())()            Returns the expiration time for this ticket's validity period. |
| boolean[] | [**getFlags**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getFlags())()            Returns the flags associated with this ticket. |
| [Date](http://docs.google.com/java/util/Date.html) | [**getRenewTill**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getRenewTill())()            Returns the latest expiration time for this ticket, including all renewals. |
| [KerberosPrincipal](http://docs.google.com/javax/security/auth/kerberos/KerberosPrincipal.html) | [**getServer**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getServer())()            Returns the service principal associated with this ticket. |
| [SecretKey](http://docs.google.com/javax/crypto/SecretKey.html) | [**getSessionKey**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getSessionKey())()            Returns the session key associated with this ticket. |
| int | [**getSessionKeyType**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getSessionKeyType())()            Returns the key type of the session key associated with this ticket as defined by the Kerberos Protocol Specification. |
| [Date](http://docs.google.com/java/util/Date.html) | [**getStartTime**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getStartTime())()            Returns the start time for this ticket's validity period. |
| int | [**hashCode**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#hashCode())()            Returns a hashcode for this KerberosTicket. |
| boolean | [**isCurrent**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#isCurrent())()            Determines if this ticket is still current. |
| boolean | [**isDestroyed**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#isDestroyed())()            Determines if this ticket has been destroyed. |
| boolean | [**isForwardable**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#isForwardable())()            Determines if this ticket is forwardable. |
| boolean | [**isForwarded**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#isForwarded())()            Determines if this ticket had been forwarded or was issued based on authentication involving a forwarded ticket-granting ticket. |
| boolean | [**isInitial**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#isInitial())()            Determines if this ticket was issued using the Kerberos AS-Exchange protocol, and not issued based on some ticket-granting ticket. |
| boolean | [**isPostdated**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#isPostdated())()            Determines is this ticket is post-dated. |
| boolean | [**isProxiable**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#isProxiable())()            Determines if this ticket is proxiable. |
| boolean | [**isProxy**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#isProxy())()            Determines is this ticket is a proxy-ticket. |
| boolean | [**isRenewable**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#isRenewable())()            Determines is this ticket is renewable. |
| void | [**refresh**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#refresh())()            Extends the validity period of this ticket. |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#toString())()            Returns a string representation of the object. |

| **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()), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [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** |
| --- |

### KerberosTicket

public **KerberosTicket**(byte[] asn1Encoding,  
 [KerberosPrincipal](http://docs.google.com/javax/security/auth/kerberos/KerberosPrincipal.html) client,  
 [KerberosPrincipal](http://docs.google.com/javax/security/auth/kerberos/KerberosPrincipal.html) server,  
 byte[] sessionKey,  
 int keyType,  
 boolean[] flags,  
 [Date](http://docs.google.com/java/util/Date.html) authTime,  
 [Date](http://docs.google.com/java/util/Date.html) startTime,  
 [Date](http://docs.google.com/java/util/Date.html) endTime,  
 [Date](http://docs.google.com/java/util/Date.html) renewTill,  
 [InetAddress](http://docs.google.com/java/net/InetAddress.html)[] clientAddresses)

Constructs a KerberosTicket using credentials information that a client either receives from a KDC or reads from a cache.

**Parameters:**asn1Encoding - the ASN.1 encoding of the ticket as defined by the Kerberos protocol specification.client - the client that owns this service ticketserver - the service that this ticket is forsessionKey - the raw bytes for the session key that must be used to encrypt the authenticator that will be sent to the serverkeyType - the key type for the session key as defined by the Kerberos protocol specification.flags - the ticket flags. Each element in this array indicates the value for the corresponding bit in the ASN.1 BitString that represents the ticket flags. If the number of elements in this array is less than the number of flags used by the Kerberos protocol, then the missing flags will be filled in with false.authTime - the time of initial authentication for the clientstartTime - the time after which the ticket will be valid. This may be null in which case the value of authTime is treated as the startTime.endTime - the time after which the ticket will no longer be validrenewTill - an absolute expiration time for the ticket, including all renewal that might be possible. This field may be null for tickets that are not renewable.clientAddresses - the addresses from where the ticket may be used by the client. This field may be null when the ticket is usable from any address.

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

### getClient

public final [KerberosPrincipal](http://docs.google.com/javax/security/auth/kerberos/KerberosPrincipal.html) **getClient**()

Returns the client principal associated with this ticket.

**Returns:**the client principal.

### getServer

public final [KerberosPrincipal](http://docs.google.com/javax/security/auth/kerberos/KerberosPrincipal.html) **getServer**()

Returns the service principal associated with this ticket.

**Returns:**the service principal.

### getSessionKey

public final [SecretKey](http://docs.google.com/javax/crypto/SecretKey.html) **getSessionKey**()

Returns the session key associated with this ticket.

**Returns:**the session key.

### getSessionKeyType

public final int **getSessionKeyType**()

Returns the key type of the session key associated with this ticket as defined by the Kerberos Protocol Specification.

**Returns:**the key type of the session key associated with this ticket.**See Also:**[getSessionKey()](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getSessionKey())

### isForwardable

public final boolean **isForwardable**()

Determines if this ticket is forwardable.

**Returns:**true if this ticket is forwardable, false if not.

### isForwarded

public final boolean **isForwarded**()

Determines if this ticket had been forwarded or was issued based on authentication involving a forwarded ticket-granting ticket.

**Returns:**true if this ticket had been forwarded or was issued based on authentication involving a forwarded ticket-granting ticket, false otherwise.

### isProxiable

public final boolean **isProxiable**()

Determines if this ticket is proxiable.

**Returns:**true if this ticket is proxiable, false if not.

### isProxy

public final boolean **isProxy**()

Determines is this ticket is a proxy-ticket.

**Returns:**true if this ticket is a proxy-ticket, false if not.

### isPostdated

public final boolean **isPostdated**()

Determines is this ticket is post-dated.

**Returns:**true if this ticket is post-dated, false if not.

### isRenewable

public final boolean **isRenewable**()

Determines is this ticket is renewable. If so, the [refresh](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#refresh()) method can be called, assuming the validity period for renewing is not already over.

**Returns:**true if this ticket is renewable, false if not.

### isInitial

public final boolean **isInitial**()

Determines if this ticket was issued using the Kerberos AS-Exchange protocol, and not issued based on some ticket-granting ticket.

**Returns:**true if this ticket was issued using the Kerberos AS-Exchange protocol, false if not.

### getFlags

public final boolean[] **getFlags**()

Returns the flags associated with this ticket. Each element in the returned array indicates the value for the corresponding bit in the ASN.1 BitString that represents the ticket flags.

**Returns:**the flags associated with this ticket.

### getAuthTime

public final [Date](http://docs.google.com/java/util/Date.html) **getAuthTime**()

Returns the time that the client was authenticated.

**Returns:**the time that the client was authenticated or null if not set.

### getStartTime

public final [Date](http://docs.google.com/java/util/Date.html) **getStartTime**()

Returns the start time for this ticket's validity period.

**Returns:**the start time for this ticket's validity period or null if not set.

### getEndTime

public final [Date](http://docs.google.com/java/util/Date.html) **getEndTime**()

Returns the expiration time for this ticket's validity period.

**Returns:**the expiration time for this ticket's validity period.

### getRenewTill

public final [Date](http://docs.google.com/java/util/Date.html) **getRenewTill**()

Returns the latest expiration time for this ticket, including all renewals. This will return a null value for non-renewable tickets.

**Returns:**the latest expiration time for this ticket.

### getClientAddresses

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

Returns a list of addresses from where the ticket can be used.

**Returns:**ths list of addresses or null, if the field was not provided.

### getEncoded

public final byte[] **getEncoded**()

Returns an ASN.1 encoding of the entire ticket.

**Returns:**an ASN.1 encoding of the entire ticket.

### isCurrent

public boolean **isCurrent**()

Determines if this ticket is still current.

**Specified by:**[isCurrent](http://docs.google.com/javax/security/auth/Refreshable.html#isCurrent()) in interface [Refreshable](http://docs.google.com/javax/security/auth/Refreshable.html) **Returns:**true if this Object is currently current, false otherwise.

### refresh

public void **refresh**()  
 throws [RefreshFailedException](http://docs.google.com/javax/security/auth/RefreshFailedException.html)

Extends the validity period of this ticket. The ticket will contain a new session key if the refresh operation succeeds. The refresh operation will fail if the ticket is not renewable or the latest allowable renew time has passed. Any other error returned by the KDC will also cause this method to fail. Note: This method is not synchronized with the the accessor methods of this object. Hence callers need to be aware of multiple threads that might access this and try to renew it at the same time.

**Specified by:**[refresh](http://docs.google.com/javax/security/auth/Refreshable.html#refresh()) in interface [Refreshable](http://docs.google.com/javax/security/auth/Refreshable.html) **Throws:** [RefreshFailedException](http://docs.google.com/javax/security/auth/RefreshFailedException.html) - if the ticket is not renewable, or the latest allowable renew time has passed, or the KDC returns some error.**See Also:**[isRenewable()](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#isRenewable()), [getRenewTill()](http://docs.google.com/javax/security/auth/kerberos/KerberosTicket.html#getRenewTill())

### destroy

public void **destroy**()  
 throws [DestroyFailedException](http://docs.google.com/javax/security/auth/DestroyFailedException.html)

Destroys the ticket and destroys any sensitive information stored in it.

**Specified by:**[destroy](http://docs.google.com/javax/security/auth/Destroyable.html#destroy()) in interface [Destroyable](http://docs.google.com/javax/security/auth/Destroyable.html) **Throws:** [DestroyFailedException](http://docs.google.com/javax/security/auth/DestroyFailedException.html) - if the destroy operation fails.

### isDestroyed

public boolean **isDestroyed**()

Determines if this ticket has been destroyed.

**Specified by:**[isDestroyed](http://docs.google.com/javax/security/auth/Destroyable.html#isDestroyed()) in interface [Destroyable](http://docs.google.com/javax/security/auth/Destroyable.html) **Returns:**true if this Object has been destroyed, false otherwise.

### toString

public [String](http://docs.google.com/java/lang/String.html) **toString**()

**Description copied from class:** [**Object**](http://docs.google.com/java/lang/Object.html#toString()) Returns a string representation of the object. In general, the toString method returns a string that "textually represents" this object. The result should be a concise but informative representation that is easy for a person to read. It is recommended that all subclasses override this method.

The toString method for class Object returns a string consisting of the name of the class of which the object is an instance, the at-sign character `@', and the unsigned hexadecimal representation of the hash code of the object. In other words, this method returns a string equal to the value of:

getClass().getName() + '@' + Integer.toHexString(hashCode())

**Overrides:**[toString](http://docs.google.com/java/lang/Object.html#toString()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a string representation of the object.

### hashCode

public int **hashCode**()

Returns a hashcode for this KerberosTicket.

**Overrides:**[hashCode](http://docs.google.com/java/lang/Object.html#hashCode()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a hashCode() for the KerberosTicket**Since:** 1.6 **See Also:**[Object.equals(java.lang.Object)](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### equals

public boolean **equals**([Object](http://docs.google.com/java/lang/Object.html) other)

Compares the specified Object with this KerberosTicket for equality. Returns true if the given object is also a KerberosTicket and the two KerberosTicket instances are equivalent.

**Overrides:**[equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)) in class [Object](http://docs.google.com/java/lang/Object.html) **Parameters:**other - the Object to compare to **Returns:**true if the specified object is equal to this KerberosTicket, false otherwise. NOTE: Returns false if either of the KerberosTicket objects has been destroyed.**Since:** 1.6 **See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/KerberosTicket.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**](http://docs.google.com/javax/security/auth/kerberos/KerberosPrincipal.html)   [**NEXT CLASS**](http://docs.google.com/javax/security/auth/kerberos/ServicePermission.html) | [**FRAMES**](http://docs.google.com/index.html?javax/security/auth/kerberos/KerberosTicket.html)    [**NO FRAMES**](http://docs.google.com/KerberosTicket.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) |

[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.

Copyright 2006 Sun Microsystems, Inc. All rights reserved. Use is subject to [license terms](http://docs.google.com/legal/license.html). Also see the [documentation redistribution policy](http://java.sun.com/docs/redist.html).