| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ChannelBinding.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/org/ietf/jgss/GSSContext.html) | [**FRAMES**](http://docs.google.com/index.html?org/ietf/jgss/ChannelBinding.html)    [**NO FRAMES**](http://docs.google.com/ChannelBinding.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#2s8eyo1) |

## **org.ietf.jgss**

Class ChannelBinding

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **org.ietf.jgss.ChannelBinding**

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

This class encapsulates the concept of caller-provided channel binding information. Channel bindings are used to strengthen the quality with which peer entity authentication is provided during context establishment. They enable the GSS-API callers to bind the establishment of the security context to relevant characteristics like addresses or to application specific data.

The caller initiating the security context must determine the appropriate channel binding values to set in the GSSContext object. The acceptor must provide an identical binding in order to validate that received tokens possess correct channel-related characteristics.

Use of channel bindings is optional in GSS-API. ChannelBinding can be set for the [GSSContext](http://docs.google.com/org/ietf/jgss/GSSContext.html) using the [setChannelBinding](http://docs.google.com/org/ietf/jgss/GSSContext.html#setChannelBinding(org.ietf.jgss.ChannelBinding)) method before the first call to [initSecContext](http://docs.google.com/org/ietf/jgss/GSSContext.html#initSecContext(byte%5B%5D,%20int,%20int)) or [acceptSecContext](http://docs.google.com/org/ietf/jgss/GSSContext.html#acceptSecContext(byte%5B%5D,%20int,%20int)) has been performed. Unless the setChannelBinding method has been used to set the ChannelBinding for a GSSContext object, null ChannelBinding will be assumed.

Conceptually, the GSS-API concatenates the initiator and acceptor address information, and the application supplied byte array to form an octet string. The mechanism calculates a MIC over this octet string and binds the MIC to the context establishment token emitted by initSecContext method of the GSSContext interface. The same bindings are set by the context acceptor for its GSSContext object and during processing of the acceptSecContext method a MIC is calculated in the same way. The calculated MIC is compared with that found in the token, and if the MICs differ, accept will throw a GSSException with the major code set to [BAD\_BINDINGS](http://docs.google.com/org/ietf/jgss/GSSException.html#BAD_BINDINGS), and the context will not be established. Some mechanisms may include the actual channel binding data in the token (rather than just a MIC); applications should therefore not use confidential data as channel-binding components.

Individual mechanisms may impose additional constraints on addresses that may appear in channel bindings. For example, a mechanism may verify that the initiator address field of the channel binding contains the correct network address of the host system. Portable applications should therefore ensure that they either provide correct information for the address fields, or omit setting of the addressing information.

**Since:** 1.4

| **Constructor Summary** | |
| --- | --- |
| [**ChannelBinding**](http://docs.google.com/org/ietf/jgss/ChannelBinding.html#ChannelBinding(byte%5B%5D))(byte[] appData)            Creates a ChannelBinding object without any addressing information. |
| [**ChannelBinding**](http://docs.google.com/org/ietf/jgss/ChannelBinding.html#ChannelBinding(java.net.InetAddress,%20java.net.InetAddress,%20byte%5B%5D))([InetAddress](http://docs.google.com/java/net/InetAddress.html) initAddr, [InetAddress](http://docs.google.com/java/net/InetAddress.html) acceptAddr, byte[] appData)            Create a ChannelBinding object with user supplied address information and data. |

| **Method Summary** | |
| --- | --- |
| boolean | [**equals**](http://docs.google.com/org/ietf/jgss/ChannelBinding.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) obj)            Compares two instances of ChannelBinding. |
| [InetAddress](http://docs.google.com/java/net/InetAddress.html) | [**getAcceptorAddress**](http://docs.google.com/org/ietf/jgss/ChannelBinding.html#getAcceptorAddress())()            Get the acceptor's address for this channel binding. |
| byte[] | [**getApplicationData**](http://docs.google.com/org/ietf/jgss/ChannelBinding.html#getApplicationData())()            Get the application specified data for this channel binding. |
| [InetAddress](http://docs.google.com/java/net/InetAddress.html) | [**getInitiatorAddress**](http://docs.google.com/org/ietf/jgss/ChannelBinding.html#getInitiatorAddress())()            Get the initiator's address for this channel binding. |
| int | [**hashCode**](http://docs.google.com/org/ietf/jgss/ChannelBinding.html#hashCode())()            Returns a hashcode value for this ChannelBinding 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()), [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** |
| --- |

### ChannelBinding

public **ChannelBinding**([InetAddress](http://docs.google.com/java/net/InetAddress.html) initAddr,  
 [InetAddress](http://docs.google.com/java/net/InetAddress.html) acceptAddr,  
 byte[] appData)

Create a ChannelBinding object with user supplied address information and data. null values can be used for any fields which the application does not want to specify.

**Parameters:**initAddr - the address of the context initiator. null value can be supplied to indicate that the application does not want to set this value.acceptAddr - the address of the context acceptor. null value can be supplied to indicate that the application does not want to set this value.appData - application supplied data to be used as part of the channel bindings. null value can be supplied to indicate that the application does not want to set this value.

### ChannelBinding

public **ChannelBinding**(byte[] appData)

Creates a ChannelBinding object without any addressing information.

**Parameters:**appData - application supplied data to be used as part of the channel bindings.

| **Method Detail** |
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### getInitiatorAddress

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

Get the initiator's address for this channel binding.

**Returns:**the initiator's address. null is returned if the address has not been set.

### getAcceptorAddress

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

Get the acceptor's address for this channel binding.

**Returns:**the acceptor's address. null is returned if the address has not been set.

### getApplicationData

public byte[] **getApplicationData**()

Get the application specified data for this channel binding.

**Returns:**the application data being used as part of the ChannelBinding. null is returned if no application data has been specified for the channel binding.

### equals

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

Compares two instances of ChannelBinding.

**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:**obj - another ChannelBinding to compare this one with **Returns:**true if the two ChannelBinding's contain the same values for the initiator and acceptor addresses and the application data.**See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### hashCode

public int **hashCode**()

Returns a hashcode value for this ChannelBinding object.

**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 value**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)

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ChannelBinding.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*** |
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| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [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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