| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/GSSName.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/org/ietf/jgss/GSSManager.html)   [**NEXT CLASS**](http://docs.google.com/org/ietf/jgss/MessageProp.html) | [**FRAMES**](http://docs.google.com/index.html?org/ietf/jgss/GSSName.html)    [**NO FRAMES**](http://docs.google.com/GSSName.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | CONSTR | [METHOD](#2et92p0) | DETAIL: [FIELD](#tyjcwt) | CONSTR | [METHOD](#26in1rg) |

## **org.ietf.jgss**

Interface GSSName

public interface **GSSName**

This interface encapsulates a single GSS-API principal entity. The application obtains an implementation of this interface through one of the createName methods that exist in the [GSSManager](http://docs.google.com/org/ietf/jgss/GSSManager.html) class. Conceptually a GSSName contains many representations of the entity or many primitive name elements, one for each supported underlying mechanism. In GSS terminology, a GSSName that contains an element from just one mechanism is called a Mechanism Name (MN)

Since different authentication mechanisms may employ different namespaces for identifying their principals, GSS-API's naming support is necessarily complex in multi-mechanism environments (or even in some single-mechanism environments where the underlying mechanism supports multiple namespaces). Different name formats and their definitions are identified with [Oid's](http://docs.google.com/org/ietf/jgss/Oid.html) and some standard types are defind in this interface. The format of the names can be derived based on the unique Oid of its name type.

Included below are code examples utilizing the GSSName interface. The code below creates a GSSName, converts it to an MN, performs a comparison, obtains a printable representation of the name, exports it to a byte array and then re-imports to obtain a new GSSName.

GSSManager manager = GSSManager.getInstance();  
  
 // create a host based service name  
 GSSName name = manager.createName("service@host",  
 GSSName.NT\_HOSTBASED\_SERVICE);  
  
 Oid krb5 = new Oid("1.2.840.113554.1.2.2");  
  
 GSSName mechName = name.canonicalize(krb5);  
   
 // the above two steps are equivalent to the following  
 GSSName mechName = manager.createName("service@host",  
 GSSName.NT\_HOSTBASED\_SERVICE, krb5);  
   
 // perform name comparison  
 if (name.equals(mechName))  
 print("Names are equals.");  
   
 // obtain textual representation of name and its printable  
 // name type  
 print(mechName.toString() +  
 mechName.getStringNameType().toString());  
   
 // export and re-import the name  
 byte [] exportName = mechName.export();  
   
 // create a new name object from the exported buffer  
 GSSName newName = manager.createName(exportName,  
 GSSName.NT\_EXPORT\_NAME);

**Since:** 1.4 **See Also:**[export()](http://docs.google.com/org/ietf/jgss/GSSName.html#export()), [equals(GSSName)](http://docs.google.com/org/ietf/jgss/GSSName.html#equals(org.ietf.jgss.GSSName)), [GSSManager.createName(String, Oid)](http://docs.google.com/org/ietf/jgss/GSSManager.html#createName(java.lang.String,%20org.ietf.jgss.Oid)), [GSSManager.createName(String, Oid, Oid)](http://docs.google.com/org/ietf/jgss/GSSManager.html#createName(java.lang.String,%20org.ietf.jgss.Oid,%20org.ietf.jgss.Oid)), [GSSManager.createName(byte[], Oid)](http://docs.google.com/org/ietf/jgss/GSSManager.html#createName(byte%5B%5D,%20org.ietf.jgss.Oid))

| **Field Summary** | |
| --- | --- |
| static [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) | [**NT\_ANONYMOUS**](http://docs.google.com/org/ietf/jgss/GSSName.html#NT_ANONYMOUS)            Name type for representing an anonymous entity. |
| static [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) | [**NT\_EXPORT\_NAME**](http://docs.google.com/org/ietf/jgss/GSSName.html#NT_EXPORT_NAME)            Name type used to indicate an exported name produced by the export method. |
| static [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) | [**NT\_HOSTBASED\_SERVICE**](http://docs.google.com/org/ietf/jgss/GSSName.html#NT_HOSTBASED_SERVICE)            Oid indicating a host-based service name form. |
| static [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) | [**NT\_MACHINE\_UID\_NAME**](http://docs.google.com/org/ietf/jgss/GSSName.html#NT_MACHINE_UID_NAME)            Name type to indicate a numeric user identifier corresponding to a user on a local system. |
| static [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) | [**NT\_STRING\_UID\_NAME**](http://docs.google.com/org/ietf/jgss/GSSName.html#NT_STRING_UID_NAME)            Name type to indicate a string of digits representing the numeric user identifier of a user on a local system. |
| static [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) | [**NT\_USER\_NAME**](http://docs.google.com/org/ietf/jgss/GSSName.html#NT_USER_NAME)            Name type to indicate a named user on a local system. |

| **Method Summary** | |
| --- | --- |
| [GSSName](http://docs.google.com/org/ietf/jgss/GSSName.html) | [**canonicalize**](http://docs.google.com/org/ietf/jgss/GSSName.html#canonicalize(org.ietf.jgss.Oid))([Oid](http://docs.google.com/org/ietf/jgss/Oid.html) mech)            Creates a name that is canonicalized for some mechanism. |
| boolean | [**equals**](http://docs.google.com/org/ietf/jgss/GSSName.html#equals(org.ietf.jgss.GSSName))([GSSName](http://docs.google.com/org/ietf/jgss/GSSName.html) another)            Compares two GSSName objects to determine if they refer to the same entity. |
| boolean | [**equals**](http://docs.google.com/org/ietf/jgss/GSSName.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) another)            Compares this GSSName object to another Object that might be a GSSName. |
| byte[] | [**export**](http://docs.google.com/org/ietf/jgss/GSSName.html#export())()            Returns a canonical contiguous byte representation of a mechanism name (MN), suitable for direct, byte by byte comparison by authorization functions. |
| [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) | [**getStringNameType**](http://docs.google.com/org/ietf/jgss/GSSName.html#getStringNameType())()            Returns the name type of the printable representation of this name that can be obtained from the toString method. |
| int | [**hashCode**](http://docs.google.com/org/ietf/jgss/GSSName.html#hashCode())()            Returns a hashcode value for this GSSName. |
| boolean | [**isAnonymous**](http://docs.google.com/org/ietf/jgss/GSSName.html#isAnonymous())()            Tests if this name object represents an anonymous entity. |
| boolean | [**isMN**](http://docs.google.com/org/ietf/jgss/GSSName.html#isMN())()            Tests if this name object represents a Mechanism Name (MN). |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/org/ietf/jgss/GSSName.html#toString())()            Returns a textual representation of the GSSName object. |

| **Field Detail** |
| --- |

### NT\_HOSTBASED\_SERVICE

static final [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) **NT\_HOSTBASED\_SERVICE**

Oid indicating a host-based service name form. It is used to represent services associated with host computers. This name form is constructed using two elements, "service" and "hostname", as follows: service@hostname.

It represents the following Oid value:

{ 1(iso), 3(org), 6(dod), 1(internet), 5(security), 6(nametypes), 2(gss-host-based-services) }

### NT\_USER\_NAME

static final [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) **NT\_USER\_NAME**

Name type to indicate a named user on a local system.

It represents the following Oid value:

{ iso(1) member-body(2) United States(840) mit(113554) infosys(1) gssapi(2) generic(1) user\_name(1) }

### NT\_MACHINE\_UID\_NAME

static final [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) **NT\_MACHINE\_UID\_NAME**

Name type to indicate a numeric user identifier corresponding to a user on a local system. (e.g. Uid).

It represents the following Oid value:

{ iso(1) member-body(2) United States(840) mit(113554) infosys(1) gssapi(2) generic(1) machine\_uid\_name(2) }

### NT\_STRING\_UID\_NAME

static final [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) **NT\_STRING\_UID\_NAME**

Name type to indicate a string of digits representing the numeric user identifier of a user on a local system.

It represents the following Oid value:

{ iso(1) member-body(2) United States(840) mit(113554) infosys(1) gssapi(2) generic(1) string\_uid\_name(3) }

### NT\_ANONYMOUS

static final [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) **NT\_ANONYMOUS**

Name type for representing an anonymous entity.

It represents the following Oid value:

{ 1(iso), 3(org), 6(dod), 1(internet), 5(security), 6(nametypes), 3(gss-anonymous-name) }

### NT\_EXPORT\_NAME

static final [Oid](http://docs.google.com/org/ietf/jgss/Oid.html) **NT\_EXPORT\_NAME**

Name type used to indicate an exported name produced by the export method.

It represents the following Oid value:

{ 1(iso), 3(org), 6(dod), 1(internet), 5(security), 6(nametypes), 4(gss-api-exported-name) }

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

### equals

boolean **equals**([GSSName](http://docs.google.com/org/ietf/jgss/GSSName.html) another)  
 throws [GSSException](http://docs.google.com/org/ietf/jgss/GSSException.html)

Compares two GSSName objects to determine if they refer to the same entity.

**Parameters:**another - the GSSName to compare this name with **Returns:**true if the two names contain at least one primitive element in common. If either of the names represents an anonymous entity, the method will return false. **Throws:** [GSSException](http://docs.google.com/org/ietf/jgss/GSSException.html) - when the names cannot be compared, containing the following major error codes: [GSSException.BAD\_NAMETYPE](http://docs.google.com/org/ietf/jgss/GSSException.html#BAD_NAMETYPE), [GSSException.FAILURE](http://docs.google.com/org/ietf/jgss/GSSException.html#FAILURE)

### equals

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

Compares this GSSName object to another Object that might be a GSSName. The behaviour is exactly the same as in [equals](http://docs.google.com/org/ietf/jgss/GSSName.html#equals(org.ietf.jgss.GSSName)) except that no GSSException is thrown; instead, false will be returned in the situation where an error occurs.

**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:**another - the object to compare this name to **Returns:**true if the object to compare to is also a GSSName and the two names refer to the same entity.**See Also:**[equals(GSSName)](http://docs.google.com/org/ietf/jgss/GSSName.html#equals(org.ietf.jgss.GSSName))

### hashCode

int **hashCode**()

Returns a hashcode value for this GSSName.

**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)

### canonicalize

[GSSName](http://docs.google.com/org/ietf/jgss/GSSName.html) **canonicalize**([Oid](http://docs.google.com/org/ietf/jgss/Oid.html) mech)  
 throws [GSSException](http://docs.google.com/org/ietf/jgss/GSSException.html)

Creates a name that is canonicalized for some mechanism.

**Parameters:**mech - the oid for the mechanism for which the canonical form of the name is requested. **Returns:**a GSSName that contains just one primitive element representing this name in a canonicalized form for the desired mechanism. **Throws:** [GSSException](http://docs.google.com/org/ietf/jgss/GSSException.html) - containing the following major error codes: [GSSException.BAD\_MECH](http://docs.google.com/org/ietf/jgss/GSSException.html#BAD_MECH), [GSSException.BAD\_NAMETYPE](http://docs.google.com/org/ietf/jgss/GSSException.html#BAD_NAMETYPE), [GSSException.BAD\_NAME](http://docs.google.com/org/ietf/jgss/GSSException.html#BAD_NAME), [GSSException.FAILURE](http://docs.google.com/org/ietf/jgss/GSSException.html#FAILURE)

### export

byte[] **export**()  
 throws [GSSException](http://docs.google.com/org/ietf/jgss/GSSException.html)

Returns a canonical contiguous byte representation of a mechanism name (MN), suitable for direct, byte by byte comparison by authorization functions. If the name is not an MN, implementations may throw a GSSException with the NAME\_NOT\_MN status code. If an implementation chooses not to throw an exception, it should use some system specific default mechanism to canonicalize the name and then export it. Structurally, an exported name object consists of a header containing an OID identifying the mechanism that authenticated the name, and a trailer containing the name itself, where the syntax of the trailer is defined by the individual mechanism specification. The format of the header of the output buffer is specified in RFC 2743.

The exported name is useful when used in large access control lists where the overhead of creating a GSSName object on each name and invoking the equals method on each name from the ACL may be prohibitive.

Exported names may be re-imported by using the byte array factory method [GSSManager.createName](http://docs.google.com/org/ietf/jgss/GSSManager.html#createName(byte%5B%5D,%20org.ietf.jgss.Oid)) and specifying the NT\_EXPORT\_NAME as the name type object identifier. The resulting GSSName name will also be a MN.

**Returns:**a byte[] containing the exported name. RFC 2743 defines the "Mechanism-Independent Exported Name Object Format" for these bytes. **Throws:** [GSSException](http://docs.google.com/org/ietf/jgss/GSSException.html) - containing the following major error codes: [GSSException.BAD\_NAME](http://docs.google.com/org/ietf/jgss/GSSException.html#BAD_NAME), [GSSException.BAD\_NAMETYPE](http://docs.google.com/org/ietf/jgss/GSSException.html#BAD_NAMETYPE), [GSSException.FAILURE](http://docs.google.com/org/ietf/jgss/GSSException.html#FAILURE)

### toString

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

Returns a textual representation of the GSSName object. To retrieve the printed name format, which determines the syntax of the returned string, use the [getStringNameType](http://docs.google.com/org/ietf/jgss/GSSName.html#getStringNameType()) method.

**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 representing this name in printable form.

### getStringNameType

[Oid](http://docs.google.com/org/ietf/jgss/Oid.html) **getStringNameType**()  
 throws [GSSException](http://docs.google.com/org/ietf/jgss/GSSException.html)

Returns the name type of the printable representation of this name that can be obtained from the toString method.

**Returns:**an Oid representing the namespace of the name returned from the toString method. **Throws:** [GSSException](http://docs.google.com/org/ietf/jgss/GSSException.html) - containing the following major error codes: [GSSException.FAILURE](http://docs.google.com/org/ietf/jgss/GSSException.html#FAILURE)

### isAnonymous

boolean **isAnonymous**()

Tests if this name object represents an anonymous entity.

**Returns:**true if this is an anonymous name, false otherwise.

### isMN

boolean **isMN**()

Tests if this name object represents a Mechanism Name (MN). An MN is a GSSName the contains exactly one mechanism's primitive name element.

**Returns:**true if this is an MN, false otherwise.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/GSSName.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/org/ietf/jgss/GSSManager.html)   [**NEXT CLASS**](http://docs.google.com/org/ietf/jgss/MessageProp.html) | [**FRAMES**](http://docs.google.com/index.html?org/ietf/jgss/GSSName.html)    [**NO FRAMES**](http://docs.google.com/GSSName.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | CONSTR | [METHOD](#2et92p0) | DETAIL: [FIELD](#tyjcwt) | CONSTR | [METHOD](#26in1rg) |

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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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