| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/security/PrivateKey.html) | **Use** | [**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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| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/security//class-usePrivateKey.html)    [**NO FRAMES**](http://docs.google.com/PrivateKey.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

**Uses of Interface**

**java.security.PrivateKey**

| Packages that use [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | |
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| [**java.security**](#3znysh7) | Provides the classes and interfaces for the security framework. |
| [**java.security.interfaces**](#2et92p0) | Provides interfaces for generating RSA (Rivest, Shamir and Adleman AsymmetricCipher algorithm) keys as defined in the RSA Laboratory Technical Note PKCS#1, and DSA (Digital Signature Algorithm) keys as defined in NIST's FIPS-186. |
| [**javax.crypto.interfaces**](#tyjcwt) | Provides interfaces for Diffie-Hellman keys as defined in RSA Laboratories' PKCS #3. |
| [**javax.net.ssl**](#3dy6vkm) | Provides classes for the secure socket package. |
| [**javax.security.auth.x500**](#1t3h5sf) | This package contains the classes that should be used to store X500 Principal and X500 Private Crendentials in a *Subject*. |

| Uses of [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) in [java.security](http://docs.google.com/java/security/package-summary.html) | |
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| Methods in [java.security](http://docs.google.com/java/security/package-summary.html) that return [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | |
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| protected abstract  [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | **KeyFactorySpi.**[**engineGeneratePrivate**](http://docs.google.com/java/security/KeyFactorySpi.html#engineGeneratePrivate(java.security.spec.KeySpec))([KeySpec](http://docs.google.com/java/security/spec/KeySpec.html) keySpec)            Generates a private key object from the provided key specification (key material). |
| [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | **KeyFactory.**[**generatePrivate**](http://docs.google.com/java/security/KeyFactory.html#generatePrivate(java.security.spec.KeySpec))([KeySpec](http://docs.google.com/java/security/spec/KeySpec.html) keySpec)            Generates a private key object from the provided key specification (key material). |
| [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | **KeyPair.**[**getPrivate**](http://docs.google.com/java/security/KeyPair.html#getPrivate())()            Returns a reference to the private key component of this key pair. |
| [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | **Signer.**[**getPrivateKey**](http://docs.google.com/java/security/Signer.html#getPrivateKey())()  **Deprecated.** Returns this signer's private key. |
| [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | **KeyStore.PrivateKeyEntry.**[**getPrivateKey**](http://docs.google.com/java/security/KeyStore.PrivateKeyEntry.html#getPrivateKey())()            Gets the PrivateKey from this entry. |

| Methods in [java.security](http://docs.google.com/java/security/package-summary.html) with parameters of type [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | |
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| protected abstract  void | **SignatureSpi.**[**engineInitSign**](http://docs.google.com/java/security/SignatureSpi.html#engineInitSign(java.security.PrivateKey))([PrivateKey](http://docs.google.com/java/security/PrivateKey.html) privateKey)            Initializes this signature object with the specified private key for signing operations. |
| protected  void | **SignatureSpi.**[**engineInitSign**](http://docs.google.com/java/security/SignatureSpi.html#engineInitSign(java.security.PrivateKey,%20java.security.SecureRandom))([PrivateKey](http://docs.google.com/java/security/PrivateKey.html) privateKey, [SecureRandom](http://docs.google.com/java/security/SecureRandom.html) random)            Initializes this signature object with the specified private key and source of randomness for signing operations. |
| void | **Signature.**[**initSign**](http://docs.google.com/java/security/Signature.html#initSign(java.security.PrivateKey))([PrivateKey](http://docs.google.com/java/security/PrivateKey.html) privateKey)            Initialize this object for signing. |
| void | **Signature.**[**initSign**](http://docs.google.com/java/security/Signature.html#initSign(java.security.PrivateKey,%20java.security.SecureRandom))([PrivateKey](http://docs.google.com/java/security/PrivateKey.html) privateKey, [SecureRandom](http://docs.google.com/java/security/SecureRandom.html) random)            Initialize this object for signing. |

| Constructors in [java.security](http://docs.google.com/java/security/package-summary.html) with parameters of type [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | |
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| [**KeyPair**](http://docs.google.com/java/security/KeyPair.html#KeyPair(java.security.PublicKey,%20java.security.PrivateKey))([PublicKey](http://docs.google.com/java/security/PublicKey.html) publicKey, [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) privateKey)            Constructs a key pair from the given public key and private key. |
| [**KeyStore.PrivateKeyEntry**](http://docs.google.com/java/security/KeyStore.PrivateKeyEntry.html#KeyStore.PrivateKeyEntry(java.security.PrivateKey,%20java.security.cert.Certificate%5B%5D))([PrivateKey](http://docs.google.com/java/security/PrivateKey.html) privateKey, [Certificate](http://docs.google.com/java/security/cert/Certificate.html)[] chain)            Constructs a PrivateKeyEntry with a PrivateKey and corresponding certificate chain. |
| [**SignedObject**](http://docs.google.com/java/security/SignedObject.html#SignedObject(java.io.Serializable,%20java.security.PrivateKey,%20java.security.Signature))([Serializable](http://docs.google.com/java/io/Serializable.html) object, [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) signingKey, [Signature](http://docs.google.com/java/security/Signature.html) signingEngine)            Constructs a SignedObject from any Serializable object. |

| Uses of [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) in [java.security.interfaces](http://docs.google.com/java/security/interfaces/package-summary.html) | |
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| Subinterfaces of [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) in [java.security.interfaces](http://docs.google.com/java/security/interfaces/package-summary.html) | |
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| interface | [**DSAPrivateKey**](http://docs.google.com/java/security/interfaces/DSAPrivateKey.html)            The standard interface to a DSA private key. |
| interface | [**ECPrivateKey**](http://docs.google.com/java/security/interfaces/ECPrivateKey.html)            The interface to an elliptic curve (EC) private key. |
| interface | [**RSAMultiPrimePrivateCrtKey**](http://docs.google.com/java/security/interfaces/RSAMultiPrimePrivateCrtKey.html)            The interface to an RSA multi-prime private key, as defined in the PKCS#1 v2.1, using the *Chinese Remainder Theorem* (CRT) information values. |
| interface | [**RSAPrivateCrtKey**](http://docs.google.com/java/security/interfaces/RSAPrivateCrtKey.html)            The interface to an RSA private key, as defined in the PKCS#1 standard, using the *Chinese Remainder Theorem* (CRT) information values. |
| interface | [**RSAPrivateKey**](http://docs.google.com/java/security/interfaces/RSAPrivateKey.html)            The interface to an RSA private key. |

| Uses of [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) in [javax.crypto.interfaces](http://docs.google.com/javax/crypto/interfaces/package-summary.html) | |
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| Subinterfaces of [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) in [javax.crypto.interfaces](http://docs.google.com/javax/crypto/interfaces/package-summary.html) | |
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| interface | [**DHPrivateKey**](http://docs.google.com/javax/crypto/interfaces/DHPrivateKey.html)            The interface to a Diffie-Hellman private key. |

| Uses of [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) in [javax.net.ssl](http://docs.google.com/javax/net/ssl/package-summary.html) | |
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| Methods in [javax.net.ssl](http://docs.google.com/javax/net/ssl/package-summary.html) that return [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | |
| --- | --- |
| [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | **X509KeyManager.**[**getPrivateKey**](http://docs.google.com/javax/net/ssl/X509KeyManager.html#getPrivateKey(java.lang.String))([String](http://docs.google.com/java/lang/String.html) alias)            Returns the key associated with the given alias. |

| Uses of [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) in [javax.security.auth.x500](http://docs.google.com/javax/security/auth/x500/package-summary.html) | |
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| Methods in [javax.security.auth.x500](http://docs.google.com/javax/security/auth/x500/package-summary.html) that return [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | |
| --- | --- |
| [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | **X500PrivateCredential.**[**getPrivateKey**](http://docs.google.com/javax/security/auth/x500/X500PrivateCredential.html#getPrivateKey())()            Returns the PrivateKey. |

| Constructors in [javax.security.auth.x500](http://docs.google.com/javax/security/auth/x500/package-summary.html) with parameters of type [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) | |
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| [**X500PrivateCredential**](http://docs.google.com/javax/security/auth/x500/X500PrivateCredential.html#X500PrivateCredential(java.security.cert.X509Certificate,%20java.security.PrivateKey))([X509Certificate](http://docs.google.com/java/security/cert/X509Certificate.html) cert, [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) key)            Creates an X500PrivateCredential that associates an X.509 certificate, a private key and the KeyStore alias. |
| [**X500PrivateCredential**](http://docs.google.com/javax/security/auth/x500/X500PrivateCredential.html#X500PrivateCredential(java.security.cert.X509Certificate,%20java.security.PrivateKey,%20java.lang.String))([X509Certificate](http://docs.google.com/java/security/cert/X509Certificate.html) cert, [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) key, [String](http://docs.google.com/java/lang/String.html) alias)            Creates an X500PrivateCredential that associates an X.509 certificate, a private key and the KeyStore alias. |

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/security/PrivateKey.html) | **Use** | [**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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| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/security//class-usePrivateKey.html)    [**NO FRAMES**](http://docs.google.com/PrivateKey.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[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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