

# Package ‘ROAuth’

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**Title** R Interface For OAuth

**Description** Provides an interface to the OAuth 1.0 specification allowing users to authenticate via OAuth to the server of their choice.

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**Imports** RCurl, digest, methods

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OAuth-class	<i>Class "OAuth": A class to manage OAuth authentication</i>
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## Description

Class OAuth wraps and handles OAuth handshakes and signatures for the user within R

## Details

The OAuth class is currently implemented as a reference class. An instance of a generator for this class is provided as a convenience to the user as it is configured to handle most standard cases. To access this generator, use the object OAuthFactory. See the examples section below for an example of how to instantiate an object of class OAuth.

In almost all cases, saving an OAuth object after handshake and loading it into future sessions will allow it to remain authorized without needing any manual intervention that might have been performed initially, such as the PIN step with Twitter authentication. Use the function save to save the credential object to a file and then load in another R session to bring it back in - there should be no reason to undergo another handshake by doing this.

The needsVerifier argument is optional and defaults to TRUE. In almost all cases, the default should be used, the option is primarily provided to enable the examples as the keys provided by the examples are already signed. If you feel that you're in a situation where this should be set to FALSE, it's best to double check this.

The signMethod to the handshake method tells the system which OAuth signature hash to use, one of HMAC for HMAC-SHA1 (default), RSA for RSA-SHA1 (not implemented), or text for plaintext.

The customHeader argument to OAuthRequest can be used to pass additional HTTP header commands to the underlying request.

The curl arguments can be used to provide a custom curl header, defaulting to a generic getCurHandle call.

## Fields

**consumerKey:** The consumer key provided by your application

**consumerSecret:** The consumer secret provided by your application

**needsVerifier:** Whether or not this OAuth needs the verification step. Defaults to TRUE

**handshakeComplete:** Whether or not the handshaking was successfully completed

**requestURL:** The URL provided for retrieving request tokens

**authURL:** The URL provided for authorization/verification purposes

**accessURL:** The URL provided for retrieving access tokens

**oauthKey:** For internal use

**oauthSecret:** For internal use

**verifier:** For internal use

**signMethod:** For internal use

## Methods

**handshake(signMethod='HMAC', curl=getCurHandle(), browseUrl=TRUE, ...):** Performs an OAuth handshake using the information provided. If browseUrl is TRUE, the [browseURL](#) function will be called on the authentication URL

**isVerified():** Returns the current verification status

`OAuthRequest(URL, params=character(), method="GET", customHeader=NULL, curl=getCurlHandle(), ...)`: Will sign the URL provided and make an HTTP request using either POST or GET, determined by method, defaulting to GET. NOTE: The URL argument will be run through `URLencode`, so doing this step beforehand might lead to bad behavior!

`initialize(needsVerifier, ...)`: For internal use

### Extends

All reference classes extend and inherit methods from "`envRefClass`".

### Author(s)

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### References

liboauth: <http://liboauth.sourceforge.net/>

### See Also

[setRefClass](#)

### Examples

```
## This example uses a test case from liboauth and the
## keys are already pre-signed. This is an example of
## one of the few times \code{needsVerifier} would be \code{FALSE}.
## Not run:
reqURL <- "http://term.ie/oauth/example/request_token.php"
accessURL <- "http://term.ie/oauth/example/access_token.php"
authURL <- "NORMALLY YOU NEED THIS"
cKey <- "key"
cSecret <- "secret"
testURL <- "http://term.ie/oauth/example/echo_api.php?method=foo bar"

credentials <- OAuthFactory$new(consumerKey=cKey,
                               consumerSecret=cSecret,
                               requestURL=reqURL,

                               accessURL=accessURL,
                               authURL=authURL,

                               needsVerifier=FALSE)

credentials$handshake()
## the GET isn't strictly necessary as that's the default
credentials$OAuthRequest(testURL, "GET")

## End(Not run)
```

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