

**NAME**

krb5 - Heimdal Kerberos 5 library

**SYNOPSIS**

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KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_add_et_list (krb5_context context,
void(*func)(struct et_list **))

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_set_password (krb5_context context,
krb5_creds *creds, const char *newpw, krb5_principal targprinc, int *result_code, krb5_data
*result_code_string, krb5_data *result_string)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_init_context (krb5_context *context)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_copy_context (krb5_context context,
krb5_context *out)

KRB5_LIB_FUNCTION void KRB5_LIB_CALL krb5_free_context (krb5_context context)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_set_config_files (krb5_context
context, char **filenames)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_prepend_config_files_default (const
char *filelist, char ***pfilenames)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_get_default_config_files (char
***pfilenames)

KRB5_LIB_FUNCTION void KRB5_LIB_CALL krb5_free_config_files (char **filenames)

KRB5_LIB_FUNCTION const krb5_enctype *KRB5_LIB_CALL krb5_kerberos_enctypes (krb5_context
context)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_set_default_in_tkt_etypes
(krb5_context context, const krb5_enctype *etypes)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_get_default_in_tkt_etypes
(krb5_context context, krb5_pdu pdu_type, krb5_enctype **etypes)

KRB5_LIB_FUNCTION void KRB5_LIB_CALL krb5_init_ets (krb5_context context)

KRB5_LIB_FUNCTION void KRB5_LIB_CALL krb5_set_use_admin_kdc (krb5_context context,
krb5_boolean flag)

KRB5_LIB_FUNCTION krb5_boolean KRB5_LIB_CALL krb5_get_use_admin_kdc (krb5_context
context)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_add_extra_addresses (krb5_context
context, krb5_addresses *addresses)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_set_extra_addresses (krb5_context
context, const krb5_addresses *addresses)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_get_extra_addresses (krb5_context
context, krb5_addresses *addresses)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_add_ignore_addresses (krb5_context
context, krb5_addresses *addresses)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_set_ignore_addresses (krb5_context
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context, const krb5_addresses *addresses)
KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_get_ignore_addresses (krb5_context
context, krb5_addresses *addresses)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_set_fcache_version (krb5_context
context, int version)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_get_fcache_version (krb5_context
context, int *version)

KRB5_LIB_FUNCTION krb5_boolean KRB5_LIB_CALL krb5_is_thread_safe (void)

KRB5_LIB_FUNCTION void KRB5_LIB_CALL krb5_set_dns_canonicalize_hostname (krb5_context
context, krb5_boolean flag)

KRB5_LIB_FUNCTION krb5_boolean KRB5_LIB_CALL krb5_get_dns_canonicalize_hostname
(krb5_context context)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_get_kdc_sec_offset (krb5_context
context, int32_t *sec, int32_t *usec)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_set_kdc_sec_offset (krb5_context
context, int32_t sec, int32_t usec)

KRB5_LIB_FUNCTION time_t KRB5_LIB_CALL krb5_get_max_time_skew (krb5_context context)

KRB5_LIB_FUNCTION void KRB5_LIB_CALL krb5_set_max_time_skew (krb5_context context, time_t
t)

KRB5_LIB_FUNCTION krb5_boolean KRB5_LIB_CALL krb5_set_home_dir_access (krb5_context
context, krb5_boolean allow)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_copy_host_realm (krb5_context
context, const krb5_realm *from, krb5_realm **to)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_free_cred_contents (krb5_context
context, krb5_CREDS *c)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_copy_creds_contents (krb5_context
context, const krb5_CREDS *incred, krb5_CREDS *c)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_copy_creds (krb5_context context,
const krb5_CREDS *incred, krb5_CREDS **outcred)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_free_creds (krb5_context context,
krb5_CREDS *c)

KRB5_LIB_FUNCTION krb5_boolean KRB5_LIB_CALL krb5_compare_creds (krb5_context context,
krb5_FLAGS whichfields, const krb5_CREDS *mcreds, const krb5_CREDS *creds)

KRB5_LIB_FUNCTION unsigned long KRB5_LIB_CALL krb5_creds_get_ticket_flags (krb5_CREDS
*c)

KRB5_LIB_FUNCTION void KRB5_LIB_CALL krb5_data_zero (krb5_data *p)

KRB5_LIB_FUNCTION void KRB5_LIB_CALL krb5_data_free (krb5_data *p)

KRB5_LIB_FUNCTION void KRB5_LIB_CALL krb5_free_data (krb5_context context, krb5_data *p)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_data_alloc (krb5_data *p, int len)

KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_data_realloc (krb5_data *p, int len)

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KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_data_copy (krb5_data *p, const void
*data, size_t len)
KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_copy_data (krb5_context context,
const krb5_data *indata, krb5_data **outdata)
KRB5_LIB_FUNCTION int KRB5_LIB_CALL krb5_data_cmp (const krb5_data *data1, const krb5_data
*data2)
KRB5_LIB_FUNCTION int KRB5_LIB_CALL krb5_data_ct_cmp (const krb5_data *data1, const
krb5_data *data2)
KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_krbhst_get_addrinfo (krb5_context
context, krb5_krbhst_info *host, struct addrinfo **ai)
KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_free_ticket (krb5_context context,
krb5_ticket *ticket)
KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_copy_ticket (krb5_context context,
const krb5_ticket *from, krb5_ticket **to)
KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_ticket_get_client (krb5_context
context, const krb5_ticket *ticket, krb5_principal *client)
KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_ticket_get_server (krb5_context
context, const krb5_ticket *ticket, krb5_principal *server)
KRB5_LIB_FUNCTION time_t KRB5_LIB_CALL krb5_ticket_get_endtime (krb5_context context, const
krb5_ticket *ticket)
KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_ticket_get_authorization_data_type
(krb5_context context, krb5_ticket *ticket, int type, krb5_data *data)
KRB5_LIB_FUNCTION krb5_error_code KRB5_LIB_CALL krb5_set_real_time (krb5_context context,
krb5_timestamp sec, int32_t usec)
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**Detailed Description****Function Documentation**

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_add\_et\_list (krb5\_context context,
void(\*)(struct et\_list \*\*) func)**

Add a specified list of error messages to the et list in context. Call func (probably a comerr-generated
function) with a pointer to the current et\_list.

**Parameters:**

*context* A kerberos context.

*func* The generated com\_err et function.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see
krb5\_get\_error\_message().

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_add\_extra\_addresses (krb5\_context context, krb5\_addresses \* addresses)**

Add extra address to the address list that the library will add to the client's address list when communicating with the KDC.

**Parameters:**

*context* Kerberos 5 context.

*addresses* addresses to add

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see `krb5_get_error_message()`.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_add\_ignore\_addresses (krb5\_context context, krb5\_addresses \* addresses)**

Add extra addresses to ignore when fetching addresses from the underlaying operating system.

**Parameters:**

*context* Kerberos 5 context.

*addresses* addresses to ignore

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see `krb5_get_error_message()`.

**KRB5\_LIB\_FUNCTION krb5\_boolean KRB5\_LIB\_CALL krb5\_compare\_creds (krb5\_context context, krb5\_flags whichfields, const krb5\_creds \* mcreds, const krb5\_creds \* creds)**

Return TRUE if 'mcreds' and 'creds' are equal ('whichfields' determines what equal means).

The following flags, set in whichfields affects the comparison:

- ⊕ KRB5\_TC\_MATCH\_SRV\_NAMEONLY Consider all realms equal when comparing the service principal.
- ⊕ KRB5\_TC\_MATCH\_KEYTYPE Compare enctypes.
- ⊕ KRB5\_TC\_MATCH\_FLAGS\_EXACT Make sure that the ticket flags are identical.
- ⊕ KRB5\_TC\_MATCH\_FLAGS Make sure that all ticket flags set in mcreds are also present in creds .

- ⊕ KRB5\_TC\_MATCH\_TIMES\_EXACT Compares the ticket times exactly.
- ⊕ KRB5\_TC\_MATCH\_TIMES Compares only the expiration times of the creds.
- ⊕ KRB5\_TC\_MATCH\_AUTHDATA Compares the authdata fields.
- ⊕ KRB5\_TC\_MATCH\_2ND\_TKT Compares the second tickets (used by user-to-user authentication).
- ⊕ KRB5\_TC\_MATCH\_IS\_SKEY Compares the existance of the second ticket.

**Parameters:**

*context* Kerberos 5 context.  
*whichfields* which fields to compare.  
*mcreds* cred to compare with.  
*creds* cred to compare with.

**Returns:**

return TRUE if mcred and creds are equal, FALSE if not.

**KRB5\_LIB\_FUNCTION** **krb5\_error\_code** **KRB5\_LIB\_CALL** **krb5\_copy\_context** (**krb5\_context** *context*,  
**krb5\_context** \* *out*)  
 Make a copy for the Kerberos 5 context, the new krb5\_context shoud be freed with  
**krb5\_free\_context()**.

**Parameters:**

*context* the Kerberos context to copy  
*out* the copy of the Kerberos, set to NULL error.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
**krb5\_get\_error\_message()**.

**KRB5\_LIB\_FUNCTION** **krb5\_error\_code** **KRB5\_LIB\_CALL** **krb5\_copy\_creds** (**krb5\_context** *context*,  
**const krb5\_creds** \* *incred*, **krb5\_creds** \*\* *outcred*)  
 Copy **krb5\_creds**.

**Parameters:**

*context* Kerberos 5 context.  
*incred* source credential  
*outcred* destination credential, free with **krb5\_free\_creds()**.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
*krb5\_get\_error\_message()*.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_copy\_creds\_contents (krb5\_context context, const krb5\_creds \* incred, krb5\_creds \* c)**

Copy content of *krb5\_creds*.

**Parameters:**

*context* Kerberos 5 context.

*incred* source credential

*c* destination credential, free with **krb5\_free\_cred\_contents()**.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
*krb5\_get\_error\_message()*.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_copy\_data (krb5\_context context, const krb5\_data \* indata, krb5\_data \*\* outdata)**

Copy the data into a newly allocated *krb5\_data*.

**Parameters:**

*context* Kerberos 5 context.

*indata* the *krb5\_data* data to copy

*outdata* new *krb5\_data* to copy too. Free with **krb5\_free\_data()**.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_copy\_host\_realm (krb5\_context context, const krb5\_realm \* from, krb5\_realm \*\* to)**

Copy the list of realms from ‘from’ to ‘to’.

**Parameters:**

*context* Kerberos 5 context.

*from* list of realms to copy from.

*to* list of realms to copy to, free list of **krb5\_free\_host\_realm()**.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see

krb5\_get\_error\_message().

**KRB5\_LIB\_FUNCTION** krb5\_error\_code KRB5\_LIB\_CALL krb5\_copy\_ticket (krb5\_context context,  
const krb5\_ticket \* from, krb5\_ticket \*\* to)  
Copy ticket and content

**Parameters:**

*context* a Kerberos 5 context  
*from* ticket to copy  
*to* new copy of ticket, free with **krb5\_free\_ticket()**

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
krb5\_get\_error\_message().

**KRB5\_LIB\_FUNCTION** unsigned long KRB5\_LIB\_CALL krb5\_creds\_get\_ticket\_flags (krb5\_creds \*  
creds)

Returns the ticket flags for the credentials in creds. See also **krb5\_ticket\_get\_flags()**.

**Parameters:**

*creds* credential to get ticket flags from

**Returns:**

ticket flags

**KRB5\_LIB\_FUNCTION** krb5\_error\_code KRB5\_LIB\_CALL krb5\_data\_alloc (krb5\_data \* p, int len)

Allocate data of and krb5\_data.

**Parameters:**

*p* krb5\_data to allocate.  
*len* size to allocate.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned.

**KRB5\_LIB\_FUNCTION** int KRB5\_LIB\_CALL krb5\_data\_cmp (const krb5\_data \* data1, const  
krb5\_data \* data2)

Compare to data.

**Parameters:**

*data1* krb5\_data to compare  
*data2* krb5\_data to compare

**Returns:**

return the same way as memcmp(), useful when sorting.

**KRB5\_LIB\_FUNCTION** krb5\_error\_code **KRB5\_LIB\_CALL** krb5\_data\_copy (krb5\_data \* *p*, const void \* *data*, size\_t *len*)

Copy the data of *len* into the krb5\_data.

**Parameters:**

*p* krb5\_data to copy into.  
*data* data to copy..  
*len* new size.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned.

**KRB5\_LIB\_FUNCTION** int **KRB5\_LIB\_CALL** krb5\_data\_ct\_cmp (const krb5\_data \* *data1*, const krb5\_data \* *data2*)

Compare to data not exposing timing information from the checksum data

**Parameters:**

*data1* krb5\_data to compare  
*data2* krb5\_data to compare

**Returns:**

returns zero for same data, otherwise non zero.

**KRB5\_LIB\_FUNCTION** void **KRB5\_LIB\_CALL** krb5\_data\_free (krb5\_data \* *p*)

Free the content of krb5\_data structure, its ok to free a zeroed structure (with memset() or **krb5\_data\_zero()**). When done, the structure will be zeroed. The same function is called **krb5\_free\_data\_contents()** in MIT Kerberos.

**Parameters:**

*p* krb5\_data to free.

**KRB5\_LIB\_FUNCTION** krb5\_error\_code **KRB5\_LIB\_CALL** krb5\_data\_realloc (krb5\_data \* *p*, int *len*)

Grow (or shrink) the content of krb5\_data to a new size.

**Parameters:**

*p* krb5\_data to free.  
*len* new size.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned.

**KRB5\_LIB\_FUNCTION void KRB5\_LIB\_CALL krb5\_data\_zero (krb5\_data \* p)**

Reset the (potentially uninitialized) krb5\_data structure.

**Parameters:**

*p* krb5\_data to reset.

**KRB5\_LIB\_FUNCTION void KRB5\_LIB\_CALL krb5\_free\_config\_files (char \*\* filenames)**

Free a list of configuration files.

**Parameters:**

*filenames* list, terminated with a NULL pointer, to be freed. NULL is an valid argument.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
 krb5\_get\_error\_message().

**KRB5\_LIB\_FUNCTION void KRB5\_LIB\_CALL krb5\_free\_context (krb5\_context context)**

Frees the krb5\_context allocated by **krb5\_init\_context()**.

**Parameters:**

*context* context to be freed.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_free\_cred\_contents (krb5\_context context, krb5\_creds \* c)**

Free content of krb5\_creds.

**Parameters:**

*context* Kerberos 5 context.  
*c* krb5\_creds to free.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
 krb5\_get\_error\_message().

**KRB5\_LIB\_FUNCTION** **krb5\_error\_code** **KRB5\_LIB\_CALL** **krb5\_free\_creds** (**krb5\_context** *context*,  
**krb5\_creds** \* *c*)  
Free **krb5\_creds**.

**Parameters:**

*context* Kerberos 5 context.  
*c* **krb5\_creds** to free.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
**krb5\_get\_error\_message()**.

**KRB5\_LIB\_FUNCTION** **void** **KRB5\_LIB\_CALL** **krb5\_free\_data** (**krb5\_context** *context*, **krb5\_data** \* *p*)  
Free **krb5\_data** (and its content).

**Parameters:**

*context* Kerberos 5 context.  
*p* **krb5\_data** to free.

**KRB5\_LIB\_FUNCTION** **krb5\_error\_code** **KRB5\_LIB\_CALL** **krb5\_free\_ticket** (**krb5\_context** *context*,  
**krb5\_ticket** \* *ticket*)  
Free ticket and content

**Parameters:**

*context* a Kerberos 5 context  
*ticket* ticket to free

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
**krb5\_get\_error\_message()**.

**KRB5\_LIB\_FUNCTION** **krb5\_error\_code** **KRB5\_LIB\_CALL** **krb5\_get\_default\_config\_files** (**char** \*\*\*  
**pfilenames**)  
Get the global configuration list.

**Parameters:**

*pfilenames* return array of filenames, should be freed with **krb5\_free\_config\_files()**.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see

`krb5_get_error_message()`.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_get\_default\_in\_tkt\_etypes  
(krb5\_context context, krb5\_pdu pdu\_type, krb5\_enctype \*\* etypes)**

Get the default encryption types that will be used in communication with the KDC, clients and servers.

**Parameters:**

*context* Kerberos 5 context.

*etypes* Encryption types, array terminated with ETYPE\_NULL(0), caller should free array with `krb5_xfree()`:

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos error code is returned, see `krb5_get_error_message()`.

**KRB5\_LIB\_FUNCTION krb5\_boolean KRB5\_LIB\_CALL krb5\_get\_dns\_canonicalize\_hostname  
(krb5\_context context)**

Get if the library uses DNS to canonicalize hostnames.

**Parameters:**

*context* Kerberos 5 context.

**Returns:**

return non zero if the library uses DNS to canonicalize hostnames.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_get\_extra\_addresses (krb5\_context  
context, krb5\_addresses \* addresses)**

Get extra address to the address list that the library will add to the client's address list when communicating with the KDC.

**Parameters:**

*context* Kerberos 5 context.

*addresses* addresses to set

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos error code is returned, see `krb5_get_error_message()`.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_get\_fcache\_version (krb5\_context  
context, int \* version)**

Get version of fcache that the library should use.

**Parameters:**

*context* Kerberos 5 context.

*version* version number.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
krb5\_get\_error\_message().

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_get\_ignore\_addresses (krb5\_context context, krb5\_addresses \* addresses)**

Get extra addresses to ignore when fetching addresses from the underlaying operating system.

**Parameters:**

*context* Kerberos 5 context.

*addresses* list adreses ignored

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
krb5\_get\_error\_message().

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_get\_kdc\_sec\_offset (krb5\_context context, int32\_t \* sec, int32\_t \* usec)**

Get current offset in time to the KDC.

**Parameters:**

*context* Kerberos 5 context.

*sec* seconds part of offset.

*usec* micro seconds part of offset.

**Returns:**

returns zero

**KRB5\_LIB\_FUNCTION time\_t KRB5\_LIB\_CALL krb5\_get\_max\_time\_skew (krb5\_context context)**

Get max time skew allowed.

**Parameters:**

*context* Kerberos 5 context.

**Returns:**

timeskew in seconds.

**KRB5\_LIB\_FUNCTION krb5\_boolean KRB5\_LIB\_CALL krb5\_get\_use\_admin\_kdc (krb5\_context context)**

Make the kerberos library default to the admin KDC.

**Parameters:**

*context* Kerberos 5 context.

**Returns:**

boolean flag to telling the context will use admin KDC as the default KDC.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_init\_context (krb5\_context \* context)**

Initializes the context structure and reads the configuration file /etc/krb5.conf. The structure should be freed by calling **krb5\_free\_context()** when it is no longer being used.

**Parameters:**

*context* pointer to returned context

**Returns:**

Returns 0 to indicate success. Otherwise an errno code is returned. Failure means either that something bad happened during initialization (typically ENOMEM) or that Kerberos should not be used ENXIO.

**KRB5\_LIB\_FUNCTION void KRB5\_LIB\_CALL krb5\_init\_ets (krb5\_context context)**

Init the built-in ets in the Kerberos library.

**Parameters:**

*context* kerberos context to add the ets too

**KRB5\_LIB\_FUNCTION krb5\_boolean KRB5\_LIB\_CALL krb5\_is\_thread\_safe (void)**

Runtime check if the Kerberos library was complied with thread support.

**Returns:**

TRUE if the library was compiled with thread support, FALSE if not.

**KRB5\_LIB\_FUNCTION const krb5\_enctype\* KRB5\_LIB\_CALL krb5\_kerberos\_enctypes (krb5\_context context)**

Returns the list of Kerberos encryption types sorted in order of most preferred to least preferred encryption type. Note that some encryption types might be disabled, so you need to check with **krb5\_enctype\_valid()** before using the encryption type.

**Returns:**

list of encypes, terminated with ETYPE\_NULL. Its a static array completed into the Kerberos library so the content doesn't need to be freed.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_krbhst\_get\_addrinfo (krb5\_context context, krb5\_krbhst\_info \* host, struct addrinfo \*\* ai)**

Return an ‘struct addrinfo \*’ for a KDC host.

Returns an the struct addrinfo in in that corresponds to the information in ‘host’. free:ing is handled by krb5\_krbhst\_free, so the returned ai must not be released.

First try this as an IP address, this allows us to add a dot at the end to stop using the search domains.

If the hostname contains a dot, assumes it's a FQDN and don't use search domains since that might be painfully slow when machine is disconnected from that network.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_prepend\_config\_files\_default (const char \* filelist, char \*\*\* pfilenames)**

Prepend the filename to the global configuration list.

**Parameters:**

*filelist* a filename to add to the default list of filename

*pfilenames* return array of filenames, should be freed with **krb5\_free\_config\_files()**.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see **krb5\_get\_error\_message()**.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_set\_config\_files (krb5\_context context, char \*\* filenames)**

Reinit the context from a new set of filenames.

**Parameters:**

*context* context to add configuration too.

*filenames* array of filenames, end of list is indicated with a NULL filename.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
*krb5\_get\_error\_message()*.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_set\_default\_in\_tkt\_etypes  
 (krb5\_context context, const krb5\_enctype \* etypes)**

Set the default encryption types that will be used in communication with the KDC, clients and servers.

**Parameters:**

*context* Kerberos 5 context.

*etypes* Encryption types, array terminated with ETYPE\_NULL (0).

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
*krb5\_get\_error\_message()*.

**KRB5\_LIB\_FUNCTION void KRB5\_LIB\_CALL krb5\_set\_dns\_canonicalize\_hostname (krb5\_context  
 context, krb5\_boolean flag)**

Set if the library should use DNS to canonicalize hostnames.

**Parameters:**

*context* Kerberos 5 context.

*flag* if its dns canonicalization is used or not.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_set\_extra\_addresses (krb5\_context  
 context, const krb5\_addresses \* addresses)**

Set extra address to the address list that the library will add to the client's address list when  
 communicating with the KDC.

**Parameters:**

*context* Kerberos 5 context.

*addresses* addresses to set

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
*krb5\_get\_error\_message()*.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_set\_fcache\_version (krb5\_context  
 context, int version)**

Set version of fcache that the library should use.

**Parameters:**

*context* Kerberos 5 context.  
*version* version number.

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
*krb5\_get\_error\_message()*.

**KRB5\_LIB\_FUNCTION krb5\_boolean KRB5\_LIB\_CALL krb5\_set\_home\_dir\_access (krb5\_context context, krb5\_boolean allow)**

Enable and disable home directory access on either the global state or the *krb5\_context* state. By calling *krb5\_set\_home\_dir\_access()* with context set to NULL, the global state is configured otherwise the state for the *krb5\_context* is modified.

For home directory access to be allowed, both the global state and the *krb5\_context* state have to be allowed.

Administrator (root user), never uses the home directory.

**Parameters:**

*context* a Kerberos 5 context or NULL  
*allow* allow if TRUE home directory

**Returns:**

the old value

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_set\_ignore\_addresses (krb5\_context context, const krb5\_addresses \* addresses)**

Set extra addresses to ignore when fetching addresses from the underlaying operating system.

**Parameters:**

*context* Kerberos 5 context.  
*addresses* addresses to ignore

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
*krb5\_get\_error\_message()*.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_set\_kdc\_sec\_offset (krb5\_context context, int32\_t sec, int32\_t usec)**

Set current offset in time to the KDC.

**Parameters:**

*context* Kerberos 5 context.  
*sec* seconds part of offset.  
*usec* micro seconds part of offset.

**Returns:**

returns zero

**KRB5\_LIB\_FUNCTION void KRB5\_LIB\_CALL** **krb5\_set\_max\_time\_skew (krb5\_context context, time\_t t)**

Set max time skew allowed.

**Parameters:**

*context* Kerberos 5 context.  
*t* timeskew in seconds.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL** **krb5\_set\_password (krb5\_context context, krb5\_creds \* creds, const char \* newpw, krb5\_principal targprinc, int \* result\_code, krb5\_data \* result\_code\_string, krb5\_data \* result\_string)**

Change password using creds.

**Parameters:**

*context* a Keberos context  
*creds* The initial kadmin/passwd for the principal or an admin principal  
*newpw* The new password to set  
*targprinc* if unset, the default principal is used.  
*result\_code* Result code, KRB5\_KPASSWD\_SUCCESS is when password is changed.  
*result\_code\_string* binary message from the server, contains at least the result\_code.  
*result\_string* A message from the kpasswd service or the library in human printable form. The string is NUL terminated.

**Returns:**

On sucess and \*result\_code is KRB5\_KPASSWD\_SUCCESS, the password is changed.

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**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL** **krb5\_set\_real\_time (krb5\_context context, krb5\_timestamp sec, int32\_t usec)**

Set the absolute time that the caller knows the kdc has so the kerberos library can calculate the relative difference between the KDC time and local system time.

**Parameters:**

*context* Keberos 5 context.

*sec* The applications new of 'now' in seconds

*usec* The applications new of 'now' in micro seconds

**Returns:**

Kerberos 5 error code, see `krb5_get_error_message()`.

If the caller passes in a negative usec, its assumed to be unknown and the function will use the current time usec.

**KRB5\_LIB\_FUNCTION void KRB5\_LIB\_CALL krb5\_set\_use\_admin\_kdc (krb5\_context context, krb5\_boolean flag)**

Make the kerberos library default to the admin KDC.

**Parameters:**

*context* Kerberos 5 context.

*flag* boolean flag to select if the use the admin KDC or not.

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_ticket\_get\_authorization\_data\_type (krb5\_context context, krb5\_ticket \* ticket, int type, krb5\_data \* data)**

Extract the authorization data type of type from the ticket. Store the field in data. This function is to use for kerberos applications.

**Parameters:**

*context* a Kerberos 5 context

*ticket* Kerberos ticket

*type* type to fetch

*data* returned data, free with `krb5_data_free()`

**KRB5\_LIB\_FUNCTION krb5\_error\_code KRB5\_LIB\_CALL krb5\_ticket\_get\_client (krb5\_context context, const krb5\_ticket \* ticket, krb5\_principal \* client)**

Return client principal in ticket

**Parameters:**

*context* a Kerberos 5 context

*ticket* ticket to copy

*client* client principal, free with **krb5\_free\_principal()**

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
krb5\_get\_error\_message().

**KRB5\_LIB\_FUNCTION** time\_t **KRB5\_LIB\_CALL** krb5\_ticket\_get\_endtime (**krb5\_context** context,  
**const krb5\_ticket \* ticket**)

Return end time of ticket

**Parameters:**

*context* a Kerberos 5 context  
*ticket* ticket to copy

**Returns:**

end time of ticket

**KRB5\_LIB\_FUNCTION** krb5\_error\_code **KRB5\_LIB\_CALL** krb5\_ticket\_get\_server (**krb5\_context**  
**context, const krb5\_ticket \* ticket, krb5\_principal \* server**)

Return server principal in ticket

**Parameters:**

*context* a Kerberos 5 context  
*ticket* ticket to copy  
*server* server principal, free with **krb5\_free\_principal()**

**Returns:**

Returns 0 to indicate success. Otherwise an kerberos et error code is returned, see  
krb5\_get\_error\_message().