

**NAME**

**gss\_get\_mic**, **gss\_sign** - Calculate a cryptographic message integrity code (MIC) for a message; integrity service

**SYNOPSIS**

```
#include <gssapi/gssapi.h>
```

*OM\_uint32*

```
gss_get_mic(OM_uint32 *minor_status, const gss_ctx_id_t context_handle, gss_qop_t qop_req,  
            const gss_buffer_t message_buffer, gss_buffer_t msg_token);
```

*OM\_uint32*

```
gss_sign(OM_uint32 *minor_status, const gss_ctx_id_t context_handle, gss_qop_t qop_req,  
         gss_buffer_t message_buffer, gss_buffer_t msg_token);
```

**DESCRIPTION**

Generates a cryptographic MIC for the supplied message, and places the MIC in a token for transfer to the peer application. The *qop\_req* parameter allows a choice between several cryptographic algorithms, if supported by the chosen mechanism.

Since some application-level protocols may wish to use tokens emitted by **gss\_wrap()** to provide "secure framing", implementations must support derivation of MICs from zero-length messages.

The **gss\_sign()** routine is an obsolete variant of **gss\_get\_mic()**. It is provided for backwards compatibility with applications using the GSS-API V1 interface. A distinct entrypoint (as opposed to #define) is provided, both to allow GSS-API V1 applications to link and to retain the slight parameter type differences between the obsolete versions of this routine and its current form.

**PARAMETERS**

*minor\_status*     Mechanism specific status code.

*context\_handle*   Identifies the context on which the message will be sent.

*qop\_req*           Specifies requested quality of protection. Callers are encouraged, on portability grounds, to accept the default quality of protection offered by the chosen mechanism, which may be requested by specifying `GSS_C_QOP_DEFAULT` for this parameter. If an unsupported protection strength is requested, **gss\_get\_mic()** will return a *major\_status* of `GSS_S_BAD_QOP`.

*message\_buffer*   Message to be protected.

`msg_token` Buffer to receive token. The application must free storage associated with this buffer after use with a call to `gss_release_buffer()`.

## RETURN VALUES

`GSS_S_COMPLETE` Successful completion

`GSS_S_CONTEXT_EXPIRED` The context has already expired

`GSS_S_NO_CONTEXT` The `context_handle` parameter did not identify a valid context

`GSS_S_BAD_QOP` The specified QOP is not supported by the mechanism

## SEE ALSO

`gss_release_buffer(3)`, `gss_wrap(3)`

## STANDARDS

RFC 2743 Generic Security Service Application Program Interface Version 2, Update 1

RFC 2744 Generic Security Service API Version 2 : C-bindings

## HISTORY

The `gss_get_mic` function first appeared in FreeBSD 7.0.

## AUTHORS

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