

# RMR Subscription ID

The subscription ID is now officially a part of the RMr message (available with routing since v1.0.19). It is available in the same way that the message type is: directly from the `rmr_mbuf_t` struct. The field was added at the end of the user accessible fields to minimize the potential for breaking wrappers, but that potential is there. The field in the actual message is a 32 bit, signed integer. The 'unset' or 'invalid' subscription id is -1 and messages will be initialized with this value.

Messages sent via `rmr_send_msg()`, `rmr_rts_msg()`, and `rmr_call()` can be routed in one of two ways:

- Using only the message type (original)
- Using both the message type and the subscription ID (where the subscription ID is assigned by a subscription manager)

When an application has a message which must be sent with a subscription ID, it must add that ID into the message in the same way that the message type is added. The following code shows both being added prior to sending the message:

```
sbuf->mtype = mtype;           // add the message type
sbuf->sub_id = subscribers[i] // add the subscription ID
```

**IMPORTANT:** When reusing or resending a message, the application should ensure that the subscription ID field is cleared if it is not needed. The field is cleared by setting it to `RMR_VOID_SUBID` (defined in `rmr.h`)