NAME

mac_ring_info, **mac_ring_info_t** - MAC ring information structure

SYNOPSIS

#include <sys/mac_provider.h>

INTERFACE STABILITY

Evolving - This interface is still evolving. API and ABI stability is not guaranteed.

DESCRIPTION

The *mac_ring_info_t* structure is used by the MAC framework as part of the MAC_CAPAB_RINGS capability. For more background on the MAC framework, please see mac(9E).

When a device driver declares that it supports the MAC_CAPAB_RINGS cpability and fills out the structure as described in mac_capab_rings(9E), it indicates that it supports a number of rings for transmitting and receiving.

TYPES

The following types define the function pointers in use in the *mac_ring_info_t* structure.

```
typedef int     (*mac_ring_start_t)(mac_ring_driver_t, uint64_t);
typedef void    (*mac_ring_stop_t)(mac_ring_driver_t);

typedef mblk_t  *(*mac_ring_send_t)(mac_ring_driver_t, mblk_t *);
typedef mblk_t  *(*mac_ring_poll_t)(mac_ring_driver_t, int);

typedef int     (*mac_ring_stat_t)(mac_ring_driver_t, uint_t, uint64_t *);
```

STRUCTURE MEMBERS

```
uint_t                  mri_extensions;
uint_t                mri_flags;
mac_ring_driver_t  mri_driver;
mac_ring_start_t       mri_start;
mac_ring_stop_t        mri_stop;
mac_intr_t             mri_intr;
mac_ring_send_t    mri_tx;
mac_ring_poll_t     mri_poll;
mac_ring_stat_t        mri_stat;
```

The *mri_extensions* member is used to negotiate extensions between the MAC framework and the

device driver. The MAC framework will set the value of *mri_extensions* to include all of the currently known extensions. The driver should intersect this list with the set that the driver supports. At this time, no such features are defined and the driver should set this member to **0**.

The *mri_flags* member is used to indicate various additional capabilities supported by the ring. Currently, no flags are defined and the device driver should set it to **0**.

The *mri_driver* member should be set to a driver-specific value that represents the data structure that corresponds to the ring. The driver will receive this value in all of the callback functions that are defined in this structure.

The *mri_start* member is a required entry point that is used to start the ring. While the device driver may not need to do any work with hardware to start the use of the ring, it must record the ring's generation number. For more information, see mri_start(9E).

The *mri_stop* member is an optional entry point that will be called when the ring is being stopped. For more information, see mri_stop(9E).

The *mri_intr* member contains information about the interrupt associated with the ring. For more information on filling it out, see mac_intr(9S).

The *mri_tx* member should only be set on transmit rings. It must not be set on receive rings. The *mri_tx* member should be set to a function that will transmit a given frame on the specified ring. For more information, see mri_tx(9E).

The *mri_poll* member should only be set on receive rings. It must not be set on transmit rings. The *mri_poll* member should be set to a function which will poll the specified ring. For more information, see mri_poll(9E).

The *mri_stat* member should be set to a function which will retrieve statistics about the specified ring. For more information, see mri_stat(9E).

Required Members

All non-function members are required. The *mri_intr* member must be a properly filled out as per mac_intr(9S).

For transmit rings, the *mri_tx* member is required.

For receive rings, the *mri_poll* member is required.

SEE ALSO

mac(9E), mac_capab_rings(9E), mri_poll(9E), mri_start(9E), mri_stat(9E), mri_stop(9E), mri_tx(9E), mac_intr(9S)