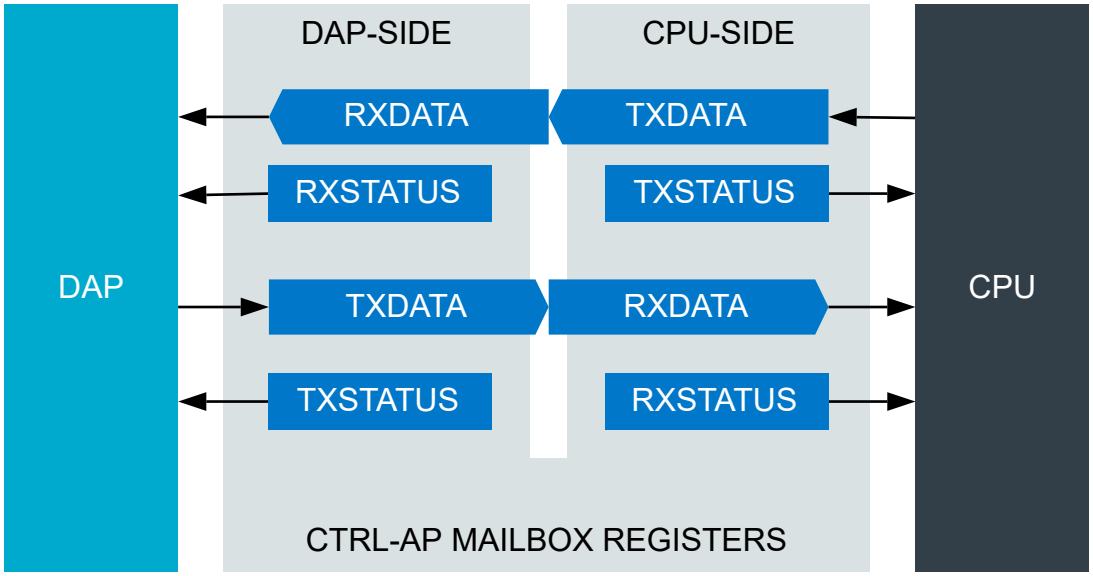

Figure 171: Mailbox register interface

Mailbox transfer sequence

1. Sender writes TXDATA
2. CTRL-AP sets sender's TXSTATUS to `DataPending`
3. CTRL-AP sets receiver's RXSTATUS to `DataPending`
4. Receiver reads RXDATA
5. CTRL-AP sets receiver's RXSTATUS to `NoDataPending`
6. CTRL-AP sets sender's TXSTATUS to `NoDataPending`

Events

EVENTS_RXREADY is generated when MAILBOX.RXSTATUS changes to `DataPending`. This indicates that a debugger has written new data to MAILBOX.RXDATA.

EVENTS_TXDONE is generated when the MAILBOX.TXSTATUSchanges to to `NoDataPending`. This indicates that a debugger has read the data from MAILBOX.TXDATA.

9.6.4 Device information

Device information, such as part number and hardware revision, can be read using CTRL-AP.

CTRL-AP provides the following information about the device:

- CTRL-AP identification register, IDR, see IDR
- Part number, see INFO.PARTNO
- Hardware revision, see INFO.HWREVISION

The information is available even for protected devices.

9.6.5 Debugger registers

CTRL-AP has a set of registers that can only be accessed from the debugger through the SWD interface. These are not accessible from the CPU.