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# MAC State Machine

## Proposed Changes

By Pablo Brenner  
**Bob O'Hara**

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# What can be done better?

## Current Situation

The transaction for CTS and ACK timeout, are triggered by strict timeouts, during these "waiting states" all information is discarded.

## Potential Problems

1. A "slow" station CTS may be discarded if CTS timeout too short.
2. A new RTS (from other station) may be discarded if timeout too long.

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# Proposed Solution

Use a longer timeout (more flexible to slow implementations), and let any new frame trigger a "timeout" transition (based on the fact that if we have received other frame we can assume that we are not receiving the CTS or the ACK)

## Changes Description

New Flag: Rx\_flag (indicates we've received a frame, even if not addressed to us)

On Rx State Machine:

Any Transition from R1 sets the Rx\_flag

On Control State Machine:

- Transition C12 clears Rx\_flag, and Frame Type Flags
- Transition C34 clears Rx\_flag, and Frame Type Flags
- Add Transition C27 when Rx\_flag is set
- Add Transition C47 when Rx\_flag is set
- Enlarge CTS\_timeout and ACK\_timeout
- C70 does not Reset Frame Type Flags

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