Non Token Based

II RICART AGRAWALA METHOD

- optimization of Lamport's that dispenses with RELEASE messages by merging them with REPLY messages.
- $\forall i : 1 \leq i \leq N :: R_i = \{S_1, S_2, \ldots S_N\}$

The Algo

Requesting the CS

1. When a site S_i wants to enter CS, it sends a timestamped REQUEST message to all the sites in its request set.
2. When site S_j receives a REQUEST message from site S_i, it sends a REPLY message to site S_i if site S_j is neither requesting nor executing the CS or if site S_j is requesting & S_i's request's timestamp is smaller than site S_j's own request's timestamp. The request is deferred otherwise.

Executing the CS

3. Site S_i enters the CS after it has received REPLY messages from all the sites in its request set.

Releasing the CS

4. When site S_i exits the CS, it sends REPLY messages to all the deferred requests.

A site's REPLY messages are blocked only by sites that are requesting the CS with higher priority. Thus, when a site sends out REPLY messages to all the deferred requests, the site with the next highest priority request receives the last needed REPLY message & enters the CS.