**System Description:**

There are five servers in our system. Messages are entered into the system with a certain distribution. If there is an empty server to provide the service, the message is sent to the server to process that message and exit the system. If there are two or more empty servers, based on the policies that will be mentioned below, a server for Service delivery to the message is selected. If all servers are processing, we call the message lost. The distribution of servers' service time is in this order :6, 8, 10, 12, 14. All distributions are exponential and only averages (in seconds) is written. Distribution of incoming messages: Exponential distribution with an average of 3.3 seconds.

**Policies:**

* Random Rule: This policy chooses randomly when choosing a server among servers that are empty.
* Longest Idle Rule: When selecting a server, this policy selects an empty server that has been idle for a longer time since the last service termination.
* Shortest Idle Rule: This policy, when selecting a server, selects an empty server that has been idle for less time since its last service termination.
* Longest Total Idle Rule: When selecting a server, this policy selects an empty server that has been idle for the longest time since the start of the system.

**Events and state changes:**

System mode changes:

* Number of free servers
* The status of each server (free or busy)
* The time elapsed since the last state of use of each server
* the total idle time of each server

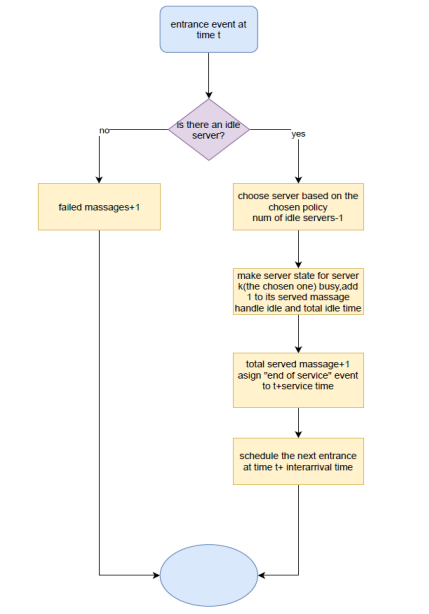
(The last two are required for server selection policies)

Events:

* New message arrival event
* Service event by each server

activities:

* Time between two message arrivals
* The time of each service

Diagrams:  
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