

## Results about edge cases

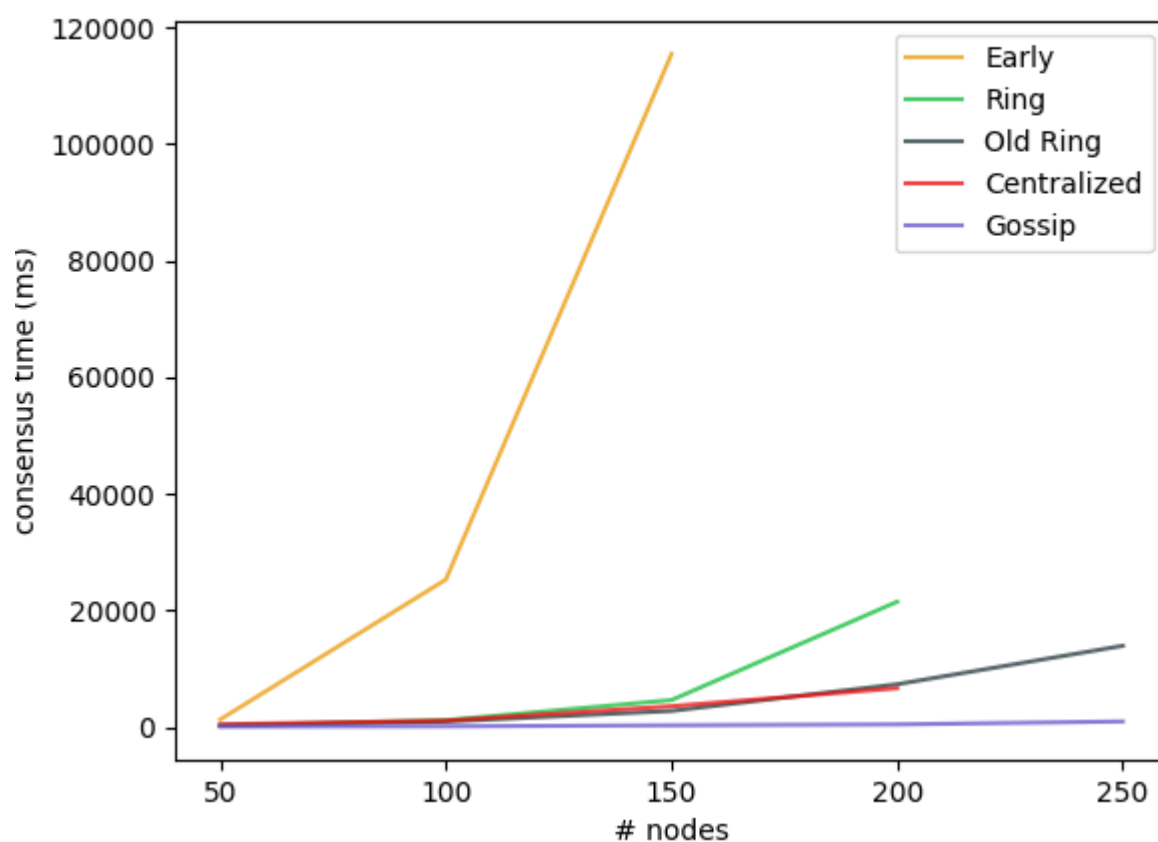
---

In order to have an overview and to be able to analyze all the results, a set of graphs was built. Each of these graphs represents a specific environment.

High latency

```
default_delta      = 2 s
max_tries          = 5 tries
percentage_miss     = 0.0 %
percentage_faults   = 0.0 %
probability_to_fail = 0.0 %
bandwidth          = 250 msgs/s
latency            = 650.0 ms
```

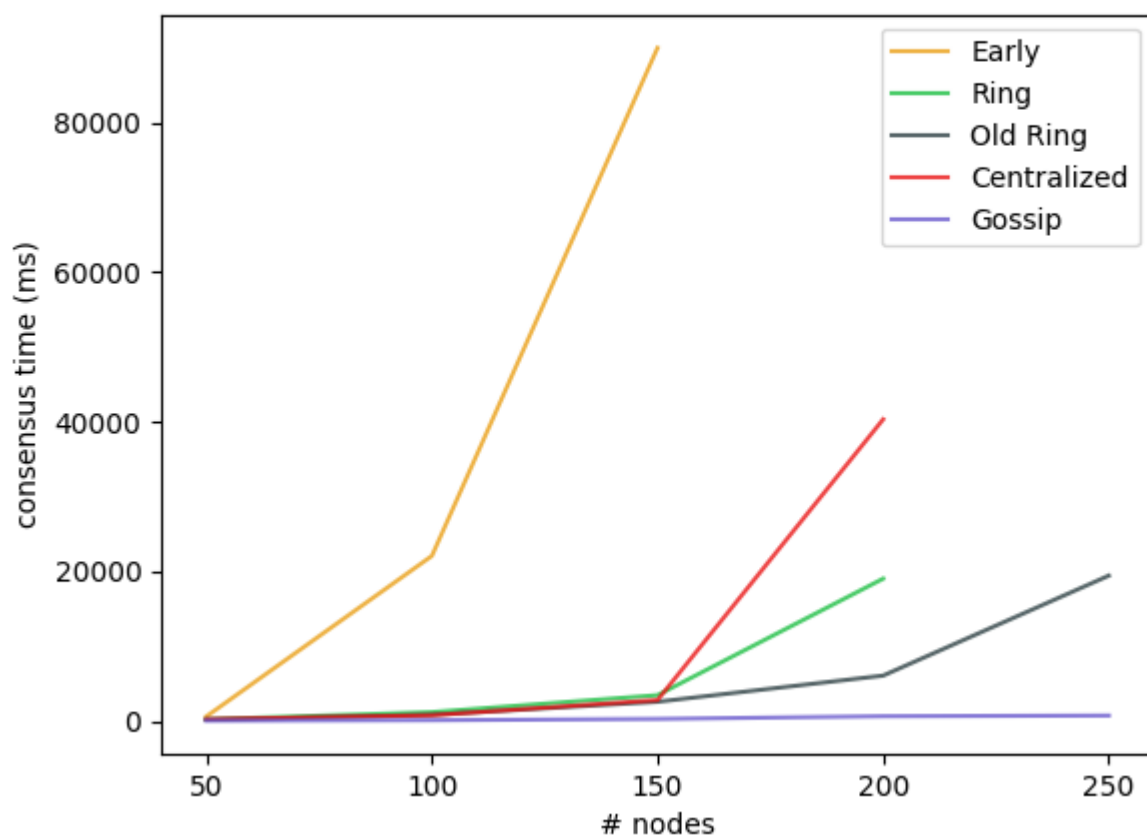
### Graph



## Large bandwidth

```
default_delta      = 2 s
max_tries          = 5 tries
percentage_miss     = 0.0 %
percentage_faults   = 0.0 %
probability_to_fail = 0.0 %
bandwidth          = 500 msgs/s
latency            = 100.0 ms
```

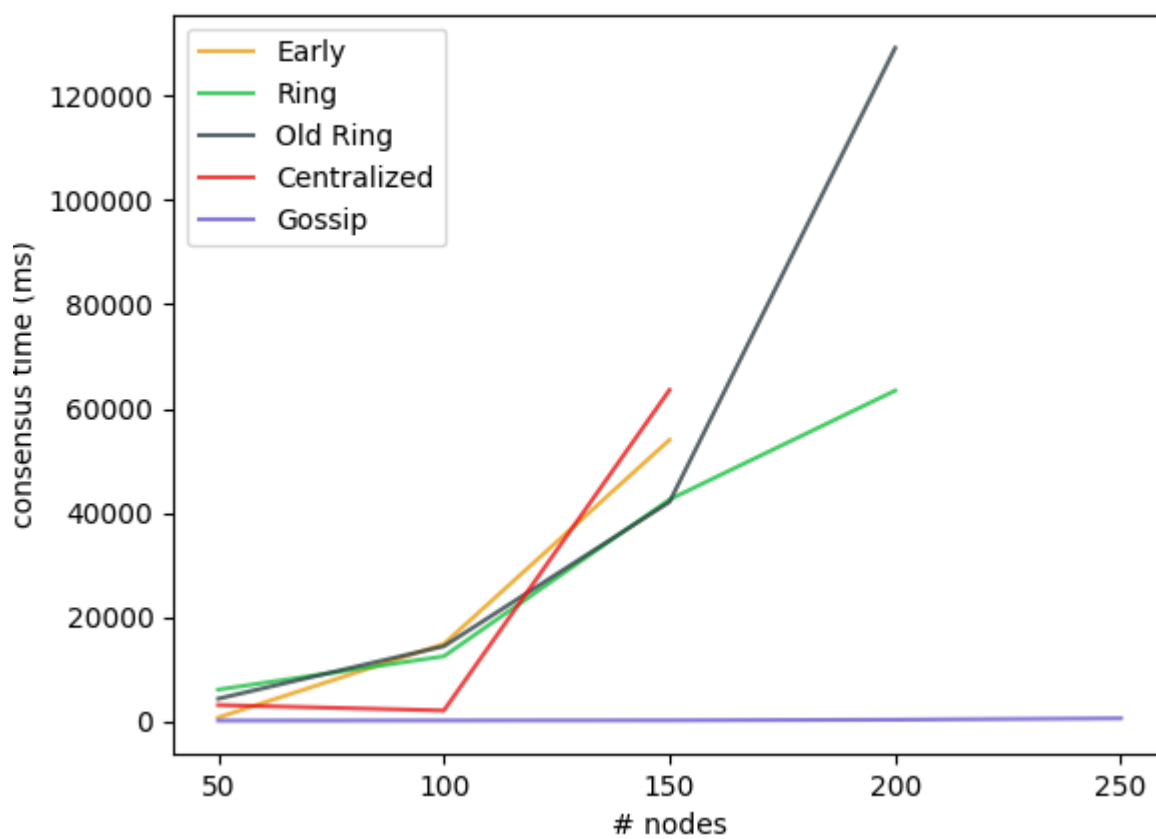
## Graph



## Faulty environment

```
default_delta      = 2 s
max_tries          = 5 tries
percentage_miss     = 8.0 %
percentage_faults   = 40.0 %
probability_to_fail = 40.0 %
bandwidth          = 250 msgs/s
latency            = 125.0 ms
```

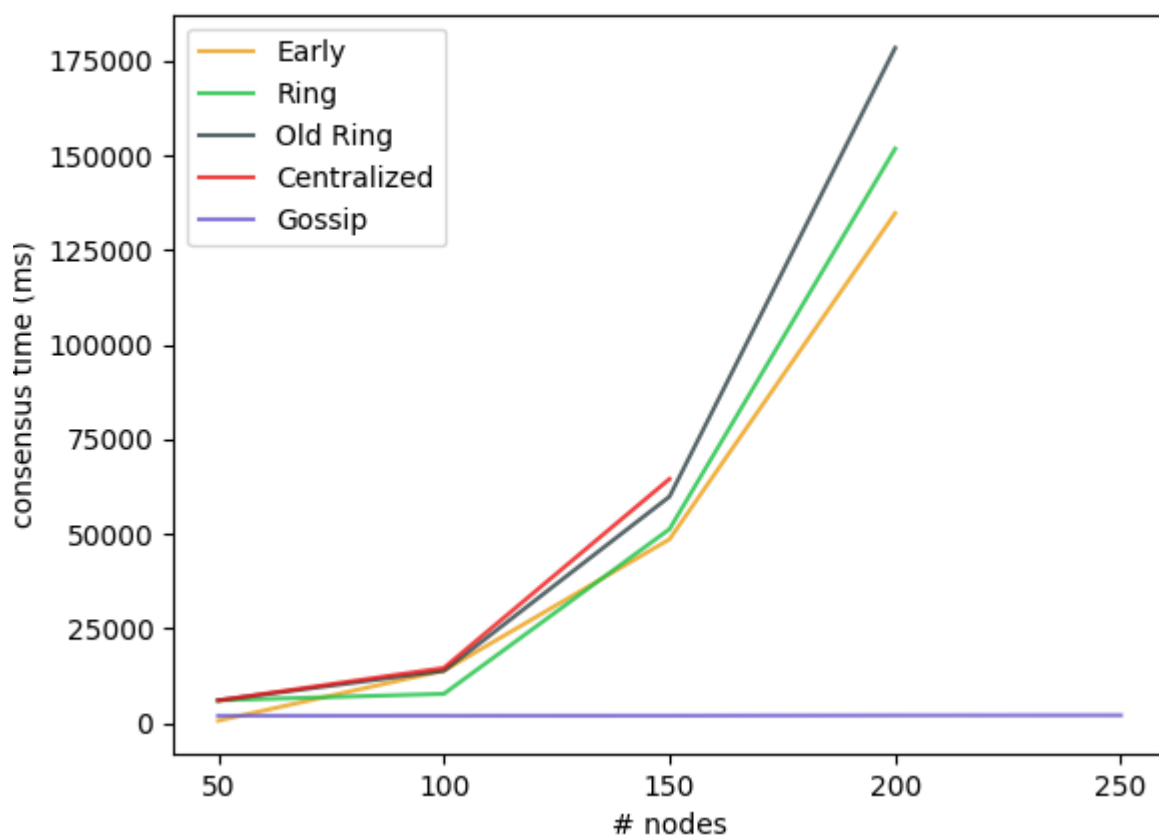
## Graph



## High probability of losing messages

```
default_delta      = 2 s
max_tries          = 5 tries
percentage_miss    = 60.0 %
percentage_faults  = 30.0 %
probability_to_fail = 30.0 %
bandwidth          = 250 msgs/s
latency            = 100.0 ms
```

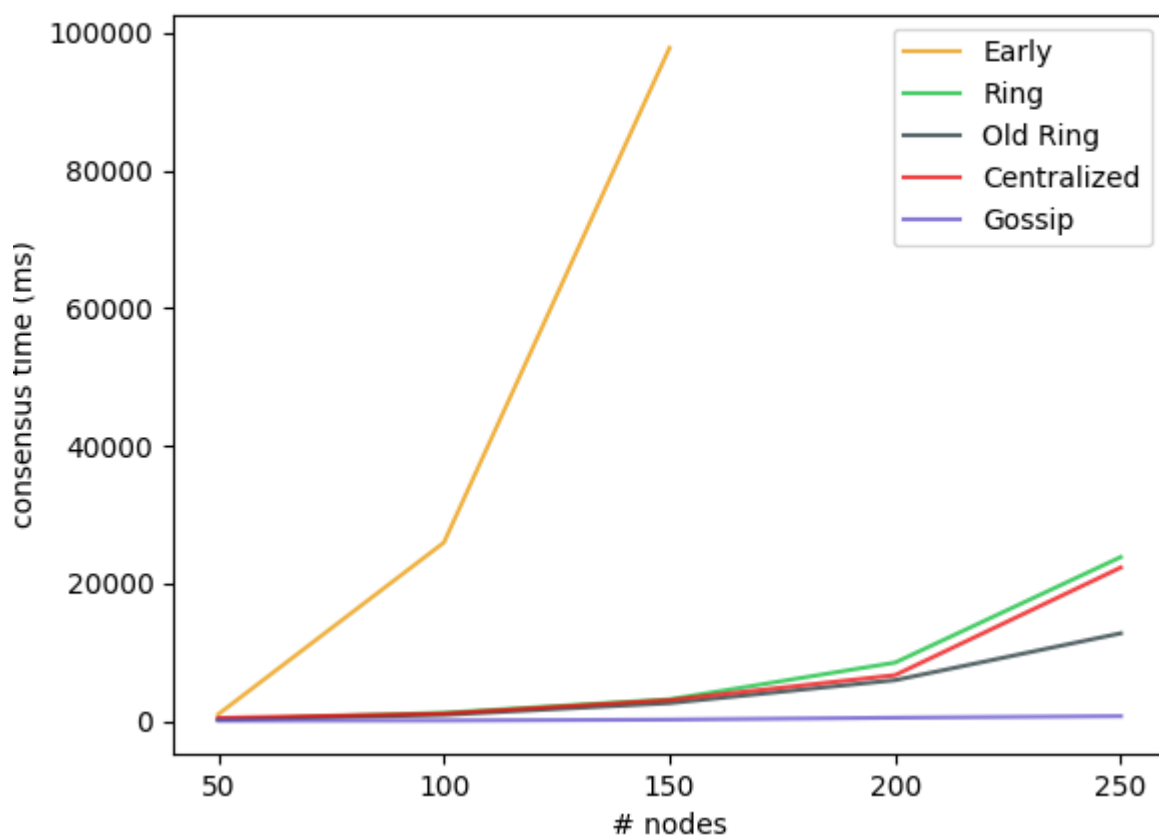
## Graph



## High default delta

```
default_delta      = 5 s
max_tries          = 5 tries
percentage_miss     = 0.0 %
percentage_faults   = 0.0 %
probability_to_fail = 0.0 %
bandwidth          = 250 msgs/s
latency            = 100.0 ms
```

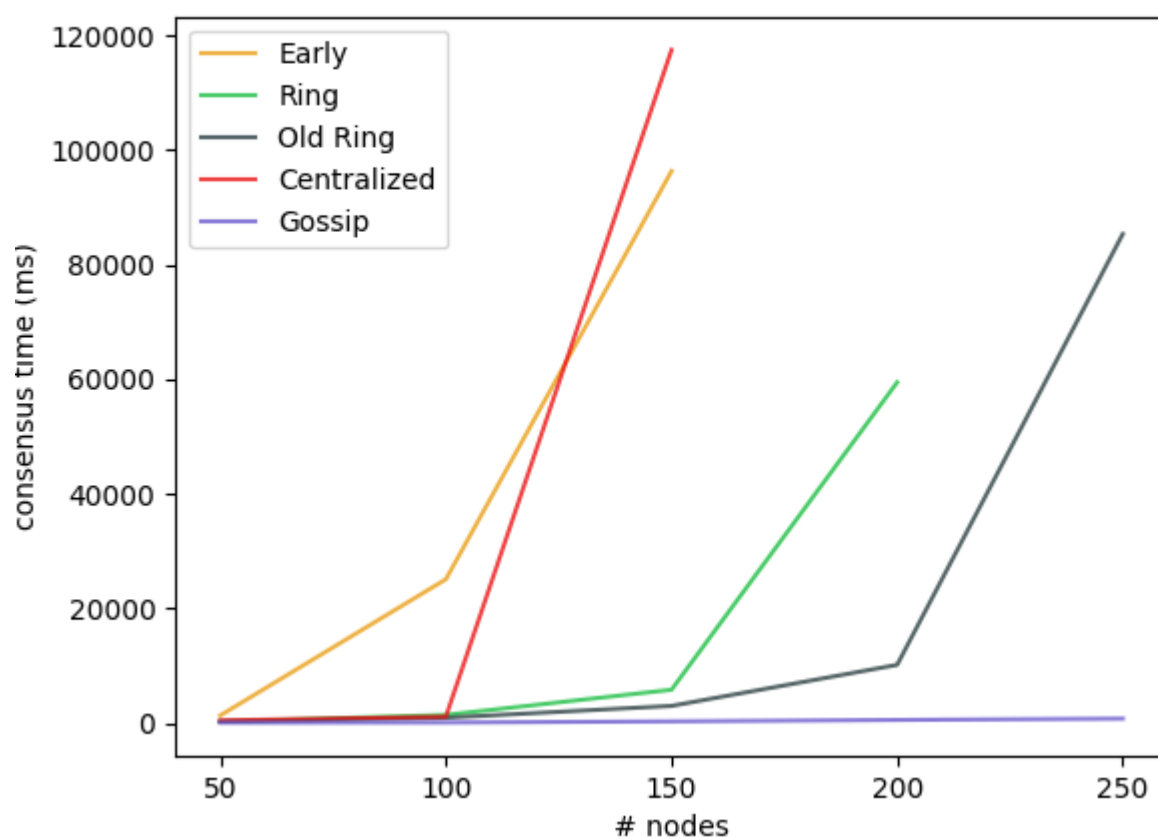
## Graph



## Low default delta

```
default_delta      = 1 s
max_tries          = 5 tries
percentage_miss    = 0.0 %
percentage_faults  = 0.0 %
probability_to_fail = 0.0 %
bandwidth          = 250 msgs/s
latency            = 100.0 ms
```

## Graph



## Conclusion

All mutation was submitted to several environments and, as we can see, some mutations got better performance in a specific environment. However, the gossip mutation got always the best performance (unquestionably) in all environments.