# Experiment Report

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### **Experiment Configuration**

Number of machines is  ${f 20}$ 

Bandwidth limit per process using Trickle:  $trickle - s - v - d \ 20000 - u \ 20000$ 

tc Delay on outgoing channel: **none** 

#### **Node Configuration**

```
## Attaching package: 'jsonlite'
## The following object is masked from 'package:purrr':
##
##
       flatten
## {
       "NodeCount": 500,
##
##
       "BAStar": {
           "UserMoney": 10,
##
           "ThresholdProposer": 26,
##
           "TSmallStep": 200,
##
##
           "TBigStep": 0.68,
##
           "TBigFinal": 1000,
##
           "TSmallFinal": 0.74,
           "LamdaPriority": 5,
##
           "LamdaBlock": 60,
##
           "LamdaStep": 20,
##
           "LamdaStepVar": 5
##
##
       "Blockchain": {
##
##
           "BlockPayloadSize": 1000000,
           "StopOnRound": 20
##
##
       },
##
       "Network": {
           "GossipNodeMessageBufferSize": 100,
##
           "PeerCount": 4
##
##
       },
       "Logger": {
##
##
           "EnableAgreementLoging": true,
           "EnableMemoryPoolLoging": true,
##
           "EnableBlockchainLoging": true,
##
           "EnableGossipNodeLoging": false
##
##
       "Validation": {
##
##
           "ValidateBlock": true,
           "ValidateVote": true
##
##
       }
## }
##
```

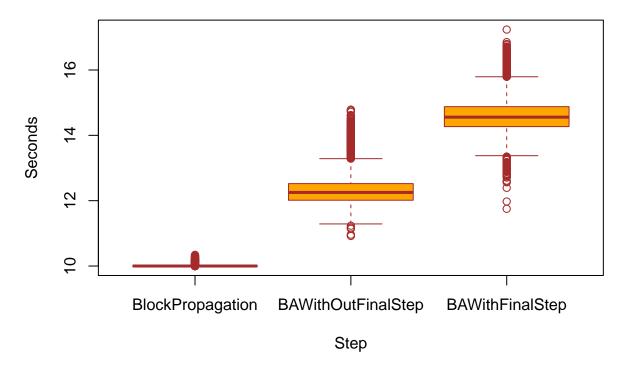
### Sanity Check

##	# /	A tibble: 20 x 6					
##		FileName	count	mean_bp	mean_ba_wo_final	mean_ba_w_final	max_round
##		<chr></chr>	<int></int>	<dbl></dbl>	<dbl></dbl>	<dbl></dbl>	<int></int>
##	1	<pre>nuc10.maas.stat</pre>	500	10.0	12.3	14.6	19
##	2	${\tt nuc14.maas.stat}$	500	10.0	12.3	14.6	19
##	3	nuc15.maas.stat	500	10.0	12.3	14.6	19
##	4	nuc16.maas.stat	500	10.0	12.3	14.6	19
##	5	${\tt nuc18.maas.stat}$	500	10.0	12.3	14.6	19
##	6	${\tt nuc19.maas.stat}$	500	10.0	12.3	14.6	19
##	7	nuc2.maas.stat	500	10.0	12.3	14.6	19
##	8	${\tt nuc20.maas.stat}$	500	10.0	12.3	14.6	19
##	9	${\tt nuc21.maas.stat}$	500	10.0	12.3	14.6	19
##	10	${\tt nuc22.maas.stat}$	500	10.0	12.4	14.6	19
##	11	${\tt nuc23.maas.stat}$	500	10.0	12.4	14.6	19
##	12	${\tt nuc24.maas.stat}$	500	10.0	12.3	14.6	19
##	13	${\tt nuc27.maas.stat}$	500	10.0	12.3	14.6	19
##	14	nuc3.maas.stat	500	10.0	12.4	14.6	19
##	15	nuc4.maas.stat	500	10.0	12.3	14.6	19
##	16	nuc5.maas.stat	500	10.0	12.3	14.6	19
##	17	nuc6.maas.stat	500	10.0	12.3	14.6	19
##	18	nuc7.maas.stat	500	10.0	12.3	14.6	19
##	19	nuc8.maas.stat	500	10.0	12.3	14.6	19
##	20	nuc9.maas.stat	500	10.0	12.3	14.6	19

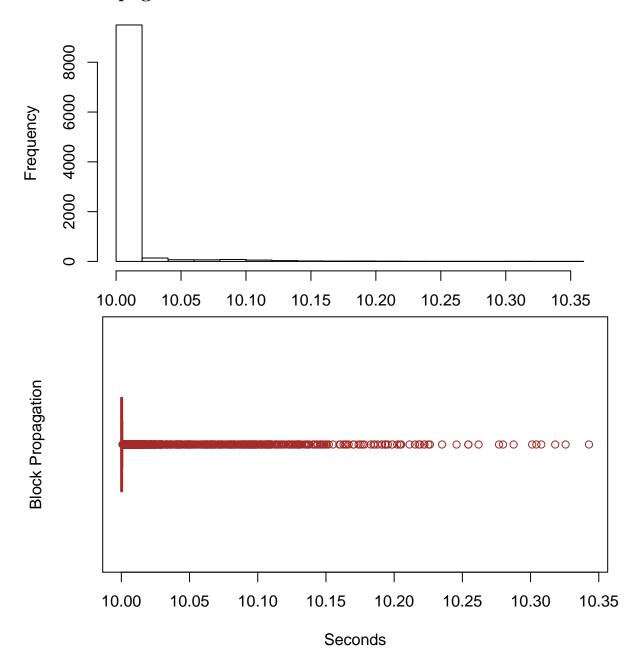
The number of rows in data set is 10000

Maximum round number is  $\mathbf{19}$ 

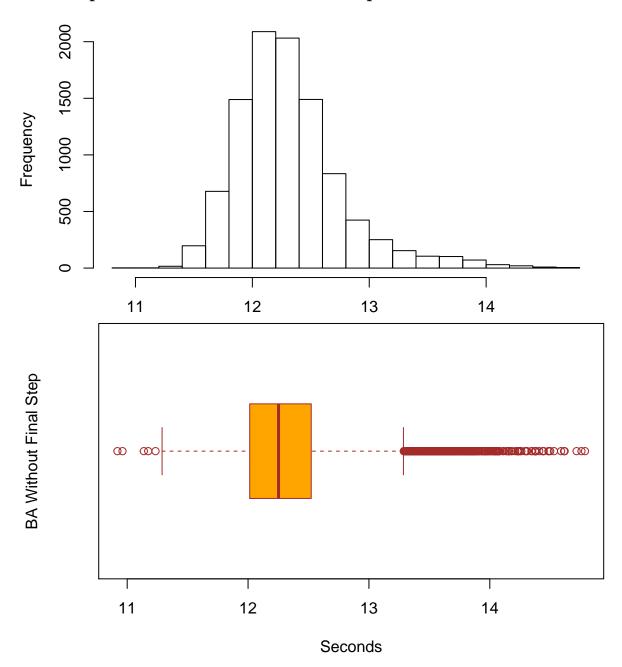
### Overal Results



#### **Block Propagation Statistics**



# **BA** Elapsed Time Without Final Step Statistics



# **BA** Elapsed Time With Final Step Statistics

