

1.1 10000 subscriptions and publications, 50% equality operator

Configuration File:

```
{
  "companyPossibleValues": ["C1", "C2", "C3"],
  "valueMin": 0.0,
  "valueMax": 100.0,
  "dropMin": 0.0,
  "dropMax": 50.0,
  "variationMin": 0.0,
  "variationMax": 1.0,
  "datePossibleValues": ["2024-04-06", "2024-04-07", "2024-04-08"],

  "companyFrequency": 0.7,
  "valueFrequency": 0.5,
  "dropFrequency": 0.3,
  "variationFrequency": 0.2,
  "dateFrequency": 0.5,

  "companyOperatorFrequency": 0.5,
  "valueOperatorFrequency": 0.5,
  "dropOperatorFrequency": 0.5,
  "variationOperatorFrequency": 0.5,
  "dateOperatorFrequency": 0.5,

  "numberOfThreads": 24,
  "numberOfPublications": 10000,
  "numberOfSubscriptions": 10000
}
```

Results:

The number of successfully delivered notifications: 1871793

Average delivery latency (ms): 3219.173597187296

1.2 10000 subscriptions and 1000 publications, 50% equality operator

Configuration File:

```
{
  "companyPossibleValues": ["C1", "C2", "C3"],
  "valueMin": 0.0,
  "valueMax": 100.0,
  "dropMin": 0.0,
  "dropMax": 50.0,
  "variationMin": 0.0,
  "variationMax": 1.0,
  "datePossibleValues": ["2024-04-06", "2024-04-07", "2024-04-08"],

  "companyFrequency": 0.7,
  "valueFrequency": 0.5,
  "dropFrequency": 0.3,
  "variationFrequency": 0.2,
  "dateFrequency": 0.5,

  "companyOperatorFrequency": 0.5,
  "valueOperatorFrequency": 0.5,
  "dropOperatorFrequency": 0.5,
  "variationOperatorFrequency": 0.5,
  "dateOperatorFrequency": 0.5,

  "numberOfThreads": 24,
  "numberOfPublications": 10000,
  "numberOfSubscriptions": 10000
}
```

Results:

The number of successfully delivered notifications: 356863

Average delivery latency (ms): 1677.1065506931232

2.1 10000 subscriptions and publications, 100% equality operator

Configuration File:

```
{
  "companyPossibleValues": ["C1", "C2", "C3"],
  "valueMin": 0.0,
  "valueMax": 100.0,
  "dropMin": 0.0,
  "dropMax": 50.0,
  "variationMin": 0.0,
  "variationMax": 1.0,
  "datePossibleValues": ["2024-04-06", "2024-04-07", "2024-04-08"],

  "companyFrequency": 0.7,
  "valueFrequency": 0.5,
  "dropFrequency": 0.3,
  "variationFrequency": 0.2,
  "dateFrequency": 0.5,

  "companyOperatorFrequency": 1,
  "valueOperatorFrequency": 1,
  "dropOperatorFrequency": 1,
  "variationOperatorFrequency": 1,
  "dateOperatorFrequency": 1,

  "numberOfThreads": 24,
  "numberOfPublications": 10000,
  "numberOfSubscriptions": 10000
}
```

Results:

The number of successfully delivered notifications: 1344830

Average delivery latency (ms): 2239.7234624450675

3.1 10000 subscriptions and publications, 25% equality operator

```
{
  "companyPossibleValues": ["C1", "C2", "C3"],
  "valueMin": 0.0,
  "valueMax": 100.0,
  "dropMin": 0.0,
  "dropMax": 50.0,
  "variationMin": 0.0,
  "variationMax": 1.0,
  "datePossibleValues": ["2024-04-06", "2024-04-07", "2024-04-08"],

  "companyFrequency": 0.7,
  "valueFrequency": 0.5,
  "dropFrequency": 0.3,
  "variationFrequency": 0.2,
  "dateFrequency": 0.5,

  "companyOperatorFrequency": 0.25,
  "valueOperatorFrequency": 0.25,
  "dropOperatorFrequency": 0.25,
  "variationOperatorFrequency": 0.25,
  "dateOperatorFrequency": 0.25,

  "numberOfThreads": 24,
  "numberOfPublications": 10000,
  "numberOfSubscriptions": 10000
}
```

Results:

The number of successfully delivered notifications: 1915542

Average delivery latency (ms): 3560.3027863654256