首先有公式

然后根据公式算出针对客户-服务器分发模式和P2P分发模式两种情况，对于N=10、100和1000以及u=500kbps、1Mbps和2Mbps的每种组的最小分发时间表

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| u=500kbps | N | 10 | 100 | 1000 |
|  | dcs | 7500 | 50000 | 500000 |
|  | dp2p-500kbps | 7500 | 18750 | 28301.88679 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| u=1Mbps | N | 10 | 100 | 1000 |
|  | dcs | 7500 | 50000 | 500000 |
|  | dp2p-1Mbps | 7500 | 11538.46154 | 14563.1068 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| u=500kbps | N | 10 | 100 | 1000 |
|  | dcs | 7500 | 50000 | 500000 |
|  | dp2p-2Mbps | 7500 | 7500 | 7500 |

然后对数据进行汇总，得到下表

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N | dcs | dp2p-500kbps | dp2p-1Mbps | dp2p-2Mbps |
| 10 | 7500 | 7500 | 7500 | 7500 |
| 100 | 50000 | 18750 | 11538.46154 | 7500 |
| 1000 | 500000 | 28301.88679 | 14563.1068 | 7500 |

画出对应图表，具体数据见附件