**fgw vs nginx 性能测试**

1. **测试环境说明**
2. 对比测试 fgw、nginx 在 HTTP反向代理（负载均衡）时的性能。
3. 后端服务 127.0.0.1:8086/index.html、127.0.0.1:8087/index.html
4. index.html 大小为 136120字节
5. 压测工具使用 wrk, 使用 5个线程（参数 -t 5）
6. **测试场景一 （fgw单线程 vs nginx单进程）**
7. **fgw**

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| **编号** | **连接数** | **持续时间（秒）** | **请求数/秒** | **吞吐量/秒** | **50%** | **75%** | **90%** | **99%** |
| 1 | 10 | 30 | 10102.20 | 1.28GB | 0.98ms | 1.00ms | 1.05ms | 1.19ms |
| 2 | 50 | 30 | 8438.83 | 1.07GB | 5.91ms | 6.12ms | 6.35ms | 6.75ms |
| 3 | 100 | 30 | 7212.15 | 0.92GB | 13.81ms | 14.00ms | 14.24ms | 15.01ms |
| 4 | 150 | 30 | 6465.37 | 840.48MB | 23.03ms | 23.44ms | 23.99ms | 25.50ms |
| 5 | 200 | 30 | 5825.10 | 757.22MB | 34.08ms | 34.63ms | 35.92ms | 37.79ms |
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1. **nginx**

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| **编号** | **连接数** | **持续时间（秒）** | **请求数/秒** | **吞吐量/秒** | **50%** | **75%** | **90%** | **99%** |
| 1 | 10 | 30 | 8758.19 | 1.11GB | 1.12ms | 1.22ms | 1.27ms | 1.37ms |
| 2 | 50 | 30 | 7873.29 | 1.00GB | 6.46ms | 6.73ms | 6.89ms | 7.17ms |
| 3 | 100 | 30 | 6898.48 | 0.88GB | 13.71ms | 14.44ms | 20.97ms | 21.50ms |
| 4 | 150 | 30 | 6132.26 | 798.67MB | 22.47ms | 23.77ms | 33.65ms | 35.16ms |
| 5 | 200 | 30 | 6726.00 | 0.86GB | 30.35ms | 31.04ms | 31.54ms | 34.83ms |
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1. **测试场景二 （fgw 5线程 vs nginx 5进程）**
2. **fgw (5线程)**

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| **编号** | **连接数** | **持续时间（秒）** | **请求数/秒** | **吞吐量/秒** | **50%** | **75%** | **90%** | **99%** |
| 1 | 10 | 30 | 27171.00 | 3.45GB | 322.00us | 474.00us | 656.00us | 1.22ms |
| 2 | 50 | 30 | 24075.78 | 3.06GB | 1.66ms | 2.79ms | 3.71ms | 5.63ms |
| 3 | 100 | 30 | 20635.81 | 2.62GB | 3.70ms | 7.21ms | 10.40ms | 13.33ms |
| 4 | 150 | 30 | 19292.77 | 2.45GB | 5.61ms | 11.87ms | 15.50ms | 18.39ms |
| 5 | 200 | 30 | 17434.16 | 2.21GB | 8.41ms | 16.13ms | 19.98ms | 32.92ms |
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1. **nginx (5进程)**

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| **编号** | **连接数** | **持续时间（秒）** | **请求数/秒** | **吞吐量/秒** | **50%** | **75%** | **90%** | **99%** |
| 1 | 10 | 30 | 16539.03 | 2.10GB | 537.00us | 825.00us | 1.06ms | 1.60ms |
| 2 | 50 | 30 | 16589.83 | 2.11GB | 2.72ms | 4.22ms | 6.04ms | 9.87ms |
| 3 | 100 | 30 | 14534.86 | 1.85GB | 6.72ms | 9.09ms | 11.75ms | 18.26ms |
| 4 | 150 | 30 | 15251.79 | 1.94GB | 9.72ms | 14.29ms | 19.05ms | 27.42ms |
| 5 | 200 | 30 | 14227.87 | 1.81GB | 13.23ms | 19.99ms | 27.47ms | 46.10ms |
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1. **附加**
2. **直接访问源网站 （127.0.0.1:8086/index.html、127.0.0.1:8087/index.html)**

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| **编号** | **连接数** | **持续时间（秒）** | **请求数/秒** | **吞吐量/秒** | **50%** | **75%** | **90%** | **99%** |
| 1 | 10 | 30 | 36548.67 | 4.64GB | 266.00us | 294.00us | 317.00us | 417.00us |
| 2 | 50 | 30 | 36198.93 | 4.59GB | 1.26ms | 1.40ms | 1.87ms | 2.04ms |
| 3 | 100 | 30 | 33946.12 | 4.31GB | 2.64ms | 3.66ms | 3.91ms | 4.13ms |
| 4 | 150 | 30 | 32906.00 | 4.17GB | 4.06ms | 5.69ms | 5.92ms | 6.20ms |
| 5 | 200 | 30 | 35552.25 | 4.51GB | 5.57ms | 5.68ms | 5.78ms | 8.42ms |
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