Unified Thread Pool

逊馁 (夏锐航 陈奕霖)

PingCAP **(1)** TIDB





Part I – Problem



Too many thread pools





Cons

• Limited performance

Fail to isolate

• Unpredictable





Limited performance





master hackathon

Failed to isolate





Unpredictable







Part II – Unified Thread Pool



Pros

- Single thread pool
- Fully utilize
- Easy to config
- Predictive impact from big query













Resource allocated to P0 tasks is configurable

Compare T_{P0} in the past second with configuration

Adjust C_{P0}(a.k.a. X)
dynamically

PingCAP

• E.g.: when set to 80%.





Resource allocated to P0 tasks is configurable





- query OK Max: 59.3 K Current: 47.4 K



TiDB query ≠ TiKV task





Smaller timeslice for Cop. request







Part III – Conclusion



Conclusion

● Sysbench read_only QPS 20% ↑

- Sysbench point_select QPS 60% 1
- Configurable big query impact





Thank You !

