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| **LU** | **标题** | **说明** |
| [LU-7982](https://jira.hpdd.intel.com/browse/LU-7982) | Client side QoS based on jobid | Lustre有基于NRS TBF的server端QoS机制，能够根据NID和JOBID进行速率限制。使用基于JOBID的TBF规则时，如果同一个client上运行多个jobs，这些job的RPC速率会相互影响。准确的说，本来有很高RPC速率的job事实上速率可能受到限制。原因：lower RPC rate limitations的job消耗max-in-flight-RPC-number limitation或者max-cache-pages limitation。基于此，client需要一种至少对所有job公平的发送机制。 |
| [LU-8433](https://jira.hpdd.intel.com/browse/LU-8433) | Maximizing Bandwidth utilization by TBF Rule with Dependency | TBF的目标是通过IO节流实现rate限制，而不是提升性能。即便是系统中还有额外的IO带宽和可用服务，TBF策略也不一定使用。但是在有些情况下，它应该具备分配空闲IO带宽给workload和后台job的能力。为了保证充分利用IO资源，我们提出一种dependency rule strategy，如下：  start ruleB <matchCondition> deprule=ruleA lowerrate=$r1 upperrate=$r2  其中deprule为依赖策略，也即'ruleB' depends on 'ruleA'，lowerrate、upperrate为上下限，原则就是RPC rate limited被限制在一个范围内，进行动态调整，以充分利用它的依赖规则没有使用的额外部分。The principle is that the real RPC rate limited value of a rule is dynamically adjusted between the lowerrate and upperrate to obtain more I/O bandwidth according to the spare I/O capacity that its dependent rule does not make full use of. |
| [LU-7470](https://jira.hpdd.intel.com/browse/LU-7470) | Extend TBF policy with NID/JobID expressions | 使用类似于JOBID={dd.500}&NID={192.168.1.1@tcp},JOBID={dd.0}&NID={192.168.1.\*@tcp} 10000逻辑表达式的方式实现复杂的TBF规则组合，改变TBF中策略单一的现状。 |
| [LU-5620](https://jira.hpdd.intel.com/browse/LU-5620) | nrs tbf policy based on opcode | Some times it need to limit the read or write operation, it can limit the performance of one operation and improve for the other.So, we want to limit the performance for the operation. |