```
[iocost-tune result] 2022-04-12 21:18:01 - 21:18:01

System info: kernel="5.14.0-rc6+"
             nr_cpus=52 memory=15.6G swap=5.2G swappiness=60
             mem_profile=16 (avail=14.4G share=12.0G target=11.0G)

IO info: dev=nvme0n1(259:0) model="WDC CL SN720 SDAQNTW-256G-1020" size=238G
         iosched=mq-deadline wbt=off iocost=on other=off
         iocost model: rbps=2319819327 rseqiops=85438 rrandiops=91580
                       wbps=377802583 wseqiops=18821 wrandiops=13765
         iocost QoS: rpct=95.00 rlat=41091 wpct=95.00 wlat=726663 min=37.23 max=37.23

Solutions
=========

[naive] vrate=75-100, rpct=99, wpct=99
  info: scale=100.0% MOF=1.370@16 aMOF=1.014 aMOF-delta=0.389 isol-01=89.52%
  rlat: 50-mean= 240u 50-99= 1.4m 50-100= 4.8m 99-mean=11.3m 99-99=90.6m 100-100= 543m
  wlat: 50-mean= 7.4m 50-99=18.5m 50-100=37.1m 99-mean=29.6m 99-99= 128m 100-100= 668m
  model: rbps=2319819327 rseqiops=85438 rrandiops=91580 wbps=377802583 wseqiops=18821 wrandiops=13765
  qos: rpct=99.00 rlat=11257 wpct=99.00 wlat=29551 min=75.00 max=100.00

[bandwidth        ] aMOF=max-vrate
[isolated-bandwidth] (lat-imp=min).clamp(isolation, bandwidth)
  info: scale=100.0% MOF=1.370@16 aMOF=1.014 aMOF-delta=0.389 isol-01=89.52%
  rlat: 50-mean= 240u 50-99= 1.4m 50-100= 4.8m 99-mean=11.3m 99-99=90.6m 100-100= 543m
  wlat: 50-mean= 7.4m 50-99=18.5m 50-100=37.1m 99-mean=29.6m 99-99= 128m 100-100= 668m
  model: rbps=2319819327 rseqiops=85438 rrandiops=91580 wbps=377802583 wseqiops=18821 wrandiops=13765
  qos: rpct=0.00 rlat=11257 wpct=0.00 wlat=29551 min=100.00 max=100.00

[isolation] aMOF-delta=min
  info: scale=37.08% MOF=1.344@16 aMOF=1.014 aMOF-delta=0.207 isol-01=89.52%
  rlat: 50-mean= 212u 50-99= 1.1m 50-100= 3.9m 99-mean= 6.7m 99-99=75.8m 100-100= 471m
  wlat: 50-mean= 5.4m 50-99=18.2m 50-100=37.1m 99-mean=22.8m 99-99=96.5m 100-100= 668m
  model: rbps=860103979 rseqiops=31677 rrandiops=33955 wbps=140075350 wseqiops=6978 wrandiops=5104
  qos: rpct=0.00 rlat=6744 wpct=0.00 wlat=22820 min=100.00 max=100.00

[rlat-99-q1] rlat-99=0.75-1
  info: scale=100.0% MOF=1.370@16 aMOF=1.014 aMOF-delta=0.389 isol-01=89.52%
  rlat: 50-mean= 240u 50-99= 1.4m 50-100= 4.8m 99-mean=11.3m 99-99=90.6m 100-100= 543m
  wlat: 50-mean= 7.4m 50-99=18.5m 50-100=37.1m 99-mean=29.6m 99-99= 128m 100-100= 668m
  model: rbps=2319819327 rseqiops=85438 rrandiops=91580 wbps=377802583 wseqiops=18821 wrandiops=13765
  qos: rpct=99.00 rlat=11257 wpct=0.00 wlat=0 min=54.48 max=100.00

[rlat-99-q2] rlat-99=0.5-0.75
  info: scale=54.48% MOF=1.370@16 aMOF=1.014 aMOF-delta=0.389 isol-01=89.52%
  rlat: 50-mean= 220u 50-99= 1.1m 50-100= 3.9m 99-mean=10.1m 99-99=75.8m 100-100= 543m
  wlat: 50-mean= 5.4m 50-99=18.2m 50-100=37.1m 99-mean=26.2m 99-99= 104m 100-100= 668m
  model: rbps=1263837569 rseqiops=46547 rrandiops=49893 wbps=205826847 wseqiops=10254 wrandiops=7499
  qos: rpct=99.00 rlat=10129 wpct=0.00 wlat=0 min=89.45 max=100.00

[rlat-99-q3] rlat-99=0.25-0.5
  info: scale=48.73% MOF=1.364@16 aMOF=1.014 aMOF-delta=0.381 isol-01=89.52%
  rlat: 50-mean= 217u 50-99= 1.1m 50-100= 3.9m 99-mean= 9.0m 99-99=75.8m 100-100= 543m
  wlat: 50-mean= 5.4m 50-99=18.2m 50-100=37.1m 99-mean=25.1m 99-99=96.5m 100-100= 668m
  model: rbps=1130447958 rseqiops=41634 rrandiops=44627 wbps=184103199 wseqiops=9171 wrandiops=6708
  qos: rpct=99.00 rlat=9001 wpct=0.00 wlat=0 min=88.20 max=100.00

[rlat-99-q4] rlat-99=0-0.25
  info: scale=42.98% MOF=1.354@16 aMOF=1.014 aMOF-delta=0.294 isol-01=89.52%
  rlat: 50-mean= 215u 50-99= 1.1m 50-100= 3.9m 99-mean= 7.9m 99-99=75.8m 100-100= 513m
  wlat: 50-mean= 5.4m 50-99=18.2m 50-100=37.1m 99-mean=24.0m 99-99=96.5m 100-100= 668m
  model: rbps=997058347 rseqiops=36721 rrandiops=39361 wbps=162379550 wseqiops=8089 wrandiops=5916
  qos: rpct=99.00 rlat=7872 wpct=0.00 wlat=0 min=86.62 max=100.00

Remarks
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* bandwidth: Isolatable memory size is 28.38% < supportable, sizing may be difficult.
* isolated-bandwidth: Isolatable memory size is 28.38% < supportable, sizing may be difficult.
* isolation: Isolatable memory size is 15.38% < supportable, sizing may be difficult.
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rlat-50-mean (WDC CL SN720 SDAQNTW-256G-1020)
vrate 37.2-122.2 (min=0.212 max=0.250 err=0.003)

rlat-99-mean (WDC CL SN720 SDAQNTW-256G-1020)
vrate 37.2-122.2 (min=6.744 max=11.257 R-infl=60.2 err=0.156)

rlat-50-99 (WDC CL SN720 SDAQNTW-256G-1020)
vrate 37.2-122.2 (min=1.099 max=1.384 L-infl=54.6 R-infl=64.6 err=0.083)

rlat-99-99 (WDC CL SN720 SDAQNTW-256G-1020)
vrate 37.2-122.2 (min=75.750 max=90.591 L-infl=56.1 R-infl=66.1 err=4.110)

rlat-50-100 (WDC CL SN720 SDAQNTW-256G-1020)
vrate 37.2-122.2 (min=3.864 max=7.250 L-infl=97.2 R-infl=107.2 err=0.441)

rlat-100-100 (WDC CL SN720 SDAQNTW-256G-1020)
vrate 37.2-122.2 (min=471.333 max=543.333 R-infl=47.2 err=17.829)