Host Memory Tiering Qualification Worksheet

RACK2CLOUD
THINK LIKE AN ARCHITECT. BUILD LIKE AN ENGINEER.

Host / cluster _____

Assessor and date _____

01 — HOST BASELINE

Consumed VM memory, aggregate (GB) _____

Installed DRAM (GB) _____

Proposed DRAM (GB) _____

ESXi kernel and per-VM overhead (GB) _____

02 — ELIGIBILITY

Memory of excluded VMs, nine classes (GB) _____

Memory of VMs you deactivate, fully reserved (GB) _____

VMs near 512 GB / 64 vCPU (count, GB) _____

Eligible share = eligible ÷ consumed (%) _____

03 — ACTIVE MEMORY

Measured peak active memory, this host (GB) _____

Peak-active source (tool, metric, telemetry ref) _____

Measurement window (start to end) _____

Peak active ÷ proposed DRAM (%) _____

Headroom allowed for variation and recovery _____

04 — TIER DEVICE

Device capacity (TB) _____

Endurance class and TBW (7,300+ required) _____

Performance class (F or G) and DWPD (3+) _____

Broadcom Compatibility Guide checked (Y / N) _____

Cost: single device ($) / mirrored pair ($) _____

EVIDENCE BOUNDARY The 1:1 ratio is this worksheet's design boundary, not a platform limit. 50 percent active memory is Broadcom guidance, not an engineered guarantee; a host at exactly 50 percent fails Gate 1. Modeled DRAM is a VM-memory figure, not the final DIMM requirement. Assumed active-memory shares are modeling inputs, not measurements.

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05 — FIVE-GATE ASSESSMENT

1 Measured peak active memory

On this specific host, below 50% of proposed DRAM, with headroom. Not an average, not a cluster figure.

☐ **PASS** ☐ **FAIL** Evidence ref: _____

2 Excluded memory fits in full

Excluded and deactivated VM memory fits in proposed DRAM in full, alongside eligible VMs' measured active memory.

☐ **PASS** ☐ **FAIL** Evidence ref: _____

3 Cold eligible memory covers the cut

Cold, eligible memory is at least the DRAM removed, and the tier stays within 1:1.

☐ **PASS** ☐ **FAIL** Evidence ref: _____

4 Qualifying mirrored device pair

A local, dedicated pair meeting the criteria is available and fully priced. A single device does not pass.

☐ **PASS** ☐ **FAIL** Evidence ref: _____

5 Failure window accepted

A named owner accepts the manual recovery path and the undocumented failure cases.

☐ **PASS** ☐ **FAIL** Evidence ref: _____

06 — OPERATIONAL OWNERSHIP

Recovery owner (name, role) _____

Maintenance window (when, how long) _____

Undocumented cases accepted in advance:

☐ Host boots with a tier device missing

☐ Second device fails in a mirrored pair

☐ Mirror runs degraded

07 — DECISION

☐ **QUALIFIES** all five gates pass, with evidence

☐ **DOES NOT QUALIFY** one or more gates fail

☐ **INSUFFICIENT EVIDENCE** measure again before deciding

QUALIFIES is a host-level result under the measured conditions and stated assumptions; reassess after material workload or configuration changes.

Signed and dated _____

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