CHECKLIST

VMware vSphere Cluster DRS Configuration for Load Balancing Checklist

A practical checklist for evaluating and tuning vSphere DRS load balancing so cluster automation improves stability without creating unnecessary migration churn.

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Use this checklist to decide whether DRS is appropriate for your cluster, verify the environment before enabling automation, and confirm whether the cluster is truly healthy in production.

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1) Confirm the cluster is a good candidate for DRS

- [ ] The cluster contains enough hosts to balance workloads effectively.
- [ ] Host hardware is reasonably homogeneous for CPU, memory, and storage performance.
- [ ] The cluster is not constrained by strict placement requirements that defeat balancing.
- [ ] The environment has a clear operational reason for using DRS, such as reduced contention or simpler maintenance.
- [ ] The team understands the expected tradeoff between automated balancing and migration activity.

2) Review workload characteristics

- [ ] Workloads tolerate live migration without service impact.
- [ ] Latency-sensitive applications have been identified.
- [ ] Bursty, batch, backup, and scheduled jobs are known and documented.
- [ ] Persistent hotspots are distinguished from temporary peaks.
- [ ] Workload owners have confirmed any special placement needs.

3) Check cluster constraints before enabling automation

- [ ] Affinity and anti-affinity rules are reviewed and still valid.
- [ ] VM reservations reflect current business need.
- [ ] Resource limits are justified and not left from old testing.
- [ ] Host maintenance patterns are understood.
- [ ] Licensing, hardware compatibility, and feature support are verified.
- [ ] Any storage, network, or CPU feature dependencies are documented.

4) Validate capacity and balance health

- [ ] Average utilization is not being confused with real balance.
- [ ] Sustained CPU contention is checked on individual hosts.
- [ ] Sustained memory contention is checked on individual hosts.
- [ ] Noisy-neighbor impact is reviewed for busy workloads.
- [ ] Host hotspots are tracked over time, not just in a point-in-time snapshot.
- [ ] The cluster has enough headroom to move workloads when needed.

5) Choose the right DRS automation posture

- [ ] Fully automated mode is selected only if the cluster is mature and stable.
- [ ] Partial automation is considered for mixed criticality or change-controlled workloads.
- [ ] Recommendation-only mode is used when human review is required.
- [ ] The chosen mode matches the team?s tolerance for motion churn.
- [ ] The selected posture reflects business risk, not convenience.

6) Tune for operational reality

- [ ] DRS behavior aligns with patching and remediation windows.
- [ ] Expected VM motion rates are acceptable to operations.
- [ ] The cluster is not so tightly packed that DRS has no meaningful room to act.
- [ ] Any repeated migrations are investigated for root cause.
- [ ] DRS aggressiveness is not compensating for poor capacity planning.

7) Assess whether the cluster is actually healthy

- [ ] Imbalance settles after normal events such as power-on, patching, or workload bursts.
- [ ] DRS recommendations match operator intuition most of the time.
- [ ] The same hosts are not repeatedly becoming hotspots.
- [ ] Corrective migrations are decreasing contention rather than just moving it.
- [ ] The cluster does not only look balanced because DRS is constantly reshuffling VMs.

8) Watch for signs of structural problems

- [ ] One host consistently carries more CPU ready pressure than the others.
- [ ] Memory contention appears uneven even though cluster averages look fine.
- [ ] Placement rules are masking a capacity issue.
- [ ] Persistent imbalance returns after DRS changes.

- [ ] The environment requires frequent manual intervention to keep balance acceptable.

9) Validate operational safety before production use

- [ ] The team knows how to review and interpret DRS recommendations.
- [ ] Change control requirements are met before enabling full automation.
- [ ] Escalation paths exist if DRS behavior causes unexpected workload movement.
- [ ] Monitoring is in place for host contention, migration frequency, and workload latency.
- [ ] Maintenance and incident response procedures account for DRS activity.

10) Quick decision checklist

Use this short test before switching to more aggressive automation:

- [ ] The cluster has enough capacity to rebalance.
- [ ] Placement rules are not overly restrictive.
- [ ] Workloads can tolerate live migration.
- [ ] Sustained imbalance exists, not just temporary skew.
- [ ] The team can absorb the operational impact of DRS activity.

If you answered no to any of the items above, review the cluster design, workload constraints, or capacity model before increasing automation.

Operator notes

- Good balancing does not mean identical host utilization at all times.
- A healthy cluster often shows temporary imbalance after normal operational events.
- The goal is to reduce sustained contention and unnecessary manual placement work.

- If DRS keeps moving the same workloads without improving performance or stability, look for a design problem rather than a tuning problem.

Recommended review cadence

- Weekly: Check for recurring hotspots, contention, and unusual migration patterns.
- Monthly: Review placement rules, reservations, and cluster headroom.
- Before maintenance windows: Confirm that DRS behavior will support host evacuation and patch sequencing.
- After major changes: Reassess whether automation mode and thresholds still fit the workload mix.

Final decision

Treat DRS as a control loop, not a magic fix.

Use automation when the cluster has enough freedom and headroom to benefit from it. Use recommendation mode when the environment needs human review. If the cluster remains uneven, investigate whether the real issue is capacity, policy, or workload design.