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Tableau Server Health Scorecard

Use this checklist from the InterWorks team to evaluate the current state of your Tableau Server environment and determine where improvements can be made.

GOOD TO GO   **ACTION ADVISED**

Process Topology & Considerations

Interactive and Non-Interactive workloads separated, if necessary
Do you have dedicated background worker(s)? If there is resource contention while the tasks are running, and the workload can't be moved to off-peak hours, you should use dedicated backgrounders.

Process Redundancy (High Availability) configured, if necessary
If you would like to configure for HA (minimize impact of losing a node/vm), you need a minimum of 3 nodes (for coordination services quorum) and every process on at least 2 workers.

Up to 1 Backgrounder per 4 CPU cores (combined nodes)
Up to 1 Backgrounder per CPU core (dedicated nodes)
Account for upstream workload when considering how many backgrounder processes to run. Too few processes will not fully utilize system resources, cause long queue times and potentially stale data. Too many processes will cause upstream data sources or the Tableau node to thrash, making all jobs take longer and potentially timeout unnecessarily.

1 VizQL process per 4 CPU cores
4 CPUs per VizQL process. Rule of thumb: validated with internal testing.

1 Cache Server process per VizQL Server Process
Each instance of cache = up to 1GB of memory utilized (stored as needed). More instances of cache server add capacity, but too many instances can contend for resources with other processes unnecessarily.

1 Vizportal process per Interactive worker (min 2 per cluster)
There should be redundancy on the cluster, but no need for multiple Vizportal servers per node.

Preferred/Active Repository on unlicensed/dedicated node
Repository can use a lot of memory during the tsm backup, wiping out cache from front-end processes, as well as disk latency, interfering with filestore/disk operation. Offloading this can create a more consistent end-user experience if the backup isn't completing during quiet hours.

Gateway on each Interactive node
Each machine with VizQL Server should have a gateway process. Backgrounder-only workers should not - we don't want the backgrounder load causing delays for interactive requests.

Coordination Services Ensemble deployed
1-, 3- or 5-node Coordination Services Ensemble depending on how many nodes are in the Tableau cluster. CS decides quorum state, so it's important to deploy at least 3 nodes if HA is expected.

Client File Service deployed to match Coordination Services
Rule of thumb: run CFS on nodes with Coordination Services Ensemble.

Resource Utilization & Considerations

No sustained high CPU on Interactive nodes
Sustained high CPU can cause intermittent or sustained slowness for Interactive users. Backgrounders should spike to 100%, and full utilization is fine as long as tasks are not timing out (if they are, reduce backgrounder process count), and jobs are completing on time (if they're not, add CPU to nodes with backgrounder or additional backgrounder nodes).

Committed bytes below 70% of physical RAM
After Tableau reads hyper data into memory and is finished handling the request, it keeps hyper data designated as "cached bytes," which can be overwritten if other processes need to use memory. Keeping committed bytes lower than 70% allows this data to remain in cache for longer, resulting in more cache hits and faster load times. Memory shortages can cause errors and poor performance from process crashing, page file thrashing and disk contention.

Disk latency below 10ms
High disk latency can cause slow interactive performance, slow extract refresh performance and slow nightly maintenance. Tableau's application disk should run on the fastest storage tier available (SSD), or, if on cloud, a minimum recommended 1500 IOPS.

Disk space available above 40% and 100GB
Tableau is "bursty" with disk usage and can consume 10s or 100s of GB quickly during maintenance windows or large extract refreshes. 40% is just a proxy for having a few days of runway if, say, old logs or backup files are not cleaned up for a day or two in a row.

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Questions about the health of your Tableau Server environment? The InterWorks team can help! Contact us to find out more.