

Official GCP guidance for SAP HANA

SAP directory structure and storage options

<https://cloud.google.com/sap/docs/architectures/sap-s4hana-on-gcp>

Why this guide?

- This is the official architecture reference document for SAP HANA on GCP
- Guide is up-to-date as of October 2, 2025

Standard directory structure and recommended storage options in following table:

SAP HANA directory	Recommended storage option in Google Cloud
<code>/usr/sap</code>	Balanced Persistent Disk
<code>/hana/data</code>	SSD-based Persistent Disk or Hyperdisk
<code>/hana/log</code>	SSD-based Persistent Disk or Hyperdisk
<code>/hana/shared*</code>	Balanced Persistent Disk
<code>/hanabackup*</code>	Balanced Persistent Disk

In distributed deployments, `/hana/shared` and `/hanabackup` can also be mounted as a network file system using an NFS solution such as Filestore.

Persistent disk storage certified to be used with SAP HANA found here:

https://cloud.google.com/sap/docs/certifications-sap-hana#persistent_disk_storage_for_sap_hana

SSD-based

- More cost effective

Hyperdisk

- Max IOPS and throughput

Native Backup option for HANA

<https://cloud.google.com/sap/docs/agent-for-sap/latest/backint-backup-recovery>

Assuming best practices for a production environment, the Backint feature of Google Cloud's Agent for SAP is the preferred choice for backup and recovery. This method allows backup storage and retrieval directly from cloud storage with SAP-native functionality.

Networking and IAM prerequisites

<https://cloud.google.com/sap/docs/agent-for-sap/latest/install-config-on-vm>

Minimum required IAM roles

- Compute Viewer (roles/compute.viewer)
- Monitoring Viewer (roles/monitoring.viewer)
- Workload Manager Insights Writer (roles/workloadmanager.insightWriter)

Minimum Google Cloud API access

- Cloud Platform: Enabled
- Compute Engine: Read Only
- Stackdriver Monitoring API: Read Only

Options for no public IPs

- Private Google Access – for agent without the need for internet access, enabling this on the subnet will allow access to Google APIs and services (*compute instance must be in a VPC*)
- Cloud NAT Gateway – if agent needs access to internet for package manager installations or other third-party services

Bonus tidbit – cool checklist I found for SAP HANA on GCP

<https://cloud.google.com/sap/docs/checklist-sap-hana>