

Helping secure the cloud for analytics

Confidential VMs let you innovate with data and adapt to evolving marketplace demands without sacrificing security and compliance.

Innovations in analytics demand high performance for intensive workloads. Confidential Computing powered by 2nd Generation AMD EPYC™ processors makes enhanced customer insights and experiences possible through artificial intelligence and machine learning. AMD EPYC processors are available in a wide range of compute and memory configurations that support data integration, data laking, and data warehousing, all while protecting your most sensitive data in the cloud—even while it's being processed.

Breakthrough confidentiality

Confidential Virtual Machines (VMs) leverage the Secure Encrypted Virtualization (SEV) feature of 2nd Gen AMD EPYC processors. That means your data stays encrypted while it is used, indexed, queried, or employed for training.

Enhanced innovation

Confidential Computing unlocks previously impossible computing scenarios so you can share confidential data sets and collaborate on research in the cloud—without sacrificing confidentiality.

Lift and shift: Simple for everyone

We've made moving to Confidential Computing easy because the transition to Confidential VMs is seamless: All GCP workloads you run in VMs today can run as a Confidential VM with a click on a checkbox.

Advanced threat protection

Confidential Computing helps ensure the integrity of the operating system you choose to run in your Confidential VM by building on the protections Shielded VMs offer against rootkits and bootkits.



World-class performance

Built on Google's resilient, scalable global infrastructure, and powered by 2nd Gen AMD EPYC processors, Confidential VMs deliver high performance for a wide variety of workloads, including running enterprise applications with databases with a minimal impact on performance.

Optimized deployment

Google Cloud offers comprehensive management tools that help you streamline rollout and troubleshoot issues within the console. Confidential VM is designed to fit your needs with pricing based on your usage of the machine types, persistent disks, and other resources you choose for your VMs.

Google Cloud and AMD:
Benefits that drive analytics innovation



High performance

Leverage high performance for intensive analytics workloads.



Enhanced insights

Use AI and machine learning for deeper customer insights and experiences.

With GCP's N2D instances running on 2nd Gen AMD EPYC processors

Google Cloud delivers...



Better performance

Up to

39%

better processing performance and memory bandwidth for intensive workloads, comparing N1 vs. N2D¹



Lower costs

Up to

13%

cost savings vs. N1 and N2D non-confidential VMs¹

1. Source: Vallejo C, [New AMD EPYC-based Compute Engine family, now in beta](#), February 2020 (N2D-standard-32 performed 39% better than N1-standard-32 when evaluated using Coremark.)