

PT study shows that enabling Intel QuickAssist Technology can speed up backup times vs. software compression

In hands-on testing, Intel QAT-enabled system sped up database backups compared to an AMD processor-based system with software compression

SANTA CLARA, CA, UNITED STATES, October 8, 2025 /EINPresswire.com/ -- Online transaction processing workloads, such as retail store payment processing systems or reservations systems, need to operate at maximum performance to meet customer demand. At the same time, data protection tasks such as encryption and compression are vital to meeting service level agreements, but these resource-intensive tasks can sometimes slow database performance. To show how hardware-based compression can improve backup speeds, Principled Technologies (PT) tested the backup speeds of an Intel Xeon 6 processor-powered system with built-in hardware compression using Intel QuickAssist Technology (Intel QAT) and an AMD EPYC processor-based system using software compression alone.

According to the report, "Customers with Intel Xeon 6 processor-powered systems have another option in their pockets that can offer high compression ratios while delivering faster backups and restores, ultimately reducing CPU overhead and minimizing negative impacts on workloads. As our tests show, enabling Intel QAT



Principled Technologies®



Safeguard your data while maintaining SLAs by enabling Intel QuickAssist Technology (Intel QAT)

An Intel QAT-enabled system with Microsoft SQL Server 2022 on VMware vSphere 8 sped up backups compared to an AMD processor-based system

When your organization handles a high volume of online transactions—whether for e-commerce, reservation taking, or online banking—it's crucial that your IT infrastructure dedicates substantial resources to maximize the customers you can serve. To ensure that compute resources remain focused on the money-making task at hand, some companies make the mistake of postponing critical data backups.

This approach has the potential to threaten business continuity and disaster recovery (BCDR) plans and service level agreements (SLAs), leaving critical data vulnerable to attack or loss—which can bring business to a screeching halt, or can leave businesses paying hefty penalties for broken agreements.

To improve data compression and shrink backup times, Intel® includes Intel QAT® technology directly on the chip of every member of the Intel® Xeon® 6 processor family. To show how hardware-accelerated Intel QAT on Intel Xeon processors can improve backups vs. using AMD™ processors with software compression, Principled Technologies compared SQL Server 2022 database on VMware vSphere 8 backup times in an idle scenario and while running a TPPOC-C workload. We found in both scenarios, Intel QAT delivered faster backups than using software compression alone, which can help reduce CPU overhead and performance impacts on critical database workloads.

The best part is that enabling this time-saving feature requires no additional cost. If you have new Intel Xeon 6 processors (or older 4th and 5th Gen Intel Xeon processors), admins just need to follow a simple, straightforward process for your organization to begin safeguarding your data while enjoying the benefits of faster backup times.

→ ←	⚡	☑
Shrink your overnight backup windows	Faster backups during the business day	Enable Intel QAT with ease at no additional cost
Complete backups in up to 41.5% less time when workloads are idle	Complete backups in up to 38.5% less time while running workloads	

Safeguard your data while maintaining SLAs by enabling Intel QuickAssist Technology (Intel QAT) September 2025

Safeguard your data while maintaining SLAs by enabling Intel QuickAssist Technology (Intel QAT)

can speed up backup times by up to 41.5 percent over software compression alone—whether your servers continue running workloads during backup or remain otherwise idle during scheduled backup windows.

Taking the extra step to enable hardware-accelerated compression with Intel QAT on your servers can help you safeguard your data through faster backups while ensuring you meet your SLAs—better than using a traditional software-based compression strategy.”

The study outlines possible benefits of Intel QAT, saying:

“Intel QAT offers organizations a simple, hardware-driven way to work toward both demands: meeting customer needs and prioritizing performance while simultaneously keeping a strong disaster recovery plan in place. Compared to software compression, which requires additional CPU overhead, hardware-accelerated compression removes some of that burden that can hurt performance. According to Intel, ‘Intel QAT offloads compute-intensive compression and decompression operations from the CPU cores, which improves CPU efficiency for greater overall system performance.’ This hardware-based acceleration can result in:

- Faster backups and restores: Can significantly reduce the time required for backup and restore operations, especially for large databases.
- Storage savings: High compression ratios lead to smaller backup file sizes.
- Little impact on workload performance: Offloading compression tasks helps to minimize the impact of backup operations on the performance of critical database workloads.”

To learn more, read the full report at <https://facts.pt/tHW7bPg>.

About Principled Technologies, Inc.

Principled Technologies, Inc. is the leading provider of technology marketing and learning & development services.

Principled Technologies, Inc. is located in Durham, North Carolina, USA. For more information, please visit www.principledtechnologies.com.

Sharon Horton

Principled Technologies, Inc.

press@principledtechnologies.com

Visit us on social media:

[LinkedIn](#)

[Facebook](#)

[YouTube](#)

[X](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/856447474>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors

try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.