

CASE STUDY:

PACCAR Powers Up for Growth with POWER9 and SAP HANA

PACCAR Inc. is one of the largest designers and manufacturers of light-, medium-, and heavy-duty commercial vehicles in the world, encompassing the Kenworth, Peterbilt, and DAF Trucks brands. PACCAR also designs and manufactures diesel engines, provides financial services and information technology, and distributes truck parts related to its principal business.

PACCAR Global sells the company's products in more than 100 countries and over 2,200 locations. PACCAR Parts offers aftermarket support to dealers and operates 24/7 call centers, while PACCAR Financial Services provides finance, lease, and insurance services to dealers and customers in 24 countries including a portfolio of more than 200,000 trucks and trailers and total financial services assets in excess of \$15 billion.

To ensure PACCAR's complex and multi-faceted business is able to accommodate ongoing growth and solidify its position as industry leader, PACCAR invests in cutting-edge technology and partners with only the most trusted service providers.

"PACCAR has an aggressive growth plan with several global projects slated for the next year. We anticipate scaling from about 2TB of data per system to 5-10TB per system, and we need a server environment that can support that capacity."

Maqsood Ahmed, Technical Fellow, PACCAR

THE BUSINESS CHALLENGE

PACCAR runs their SAP environment on a variety of IBM Power Systems, including IBM Power System 750, IBM Power System E870, and IBM Power System E880C. Last year, PACCAR purchased SAP S/4HANA, an in-memory, relational database, known for its advanced analytics capabilities and real-time decision-making support. While SAP HANA is a leader in its class, its in-memory data platform requires enormous amounts of memory and processing speeds that can be hard to come by in the market. In anticipation of upcoming growth, PACCAR needed a server environment with lightning-fast processors and the ability to scale and dynamically allocate resources. Their go-to solution was IBM Power Systems, however as part of their due diligence they examined a number of other options. In addition, management requested a study comparing the performance of SAP HANA on IBM Power Systems versus on the Intel-based x86 server.

"The community at PACCAR trusts IBM Power Systems to support our critical systems. In a year we will have grown to a capacity that only POWER9 can provide. Moving forward, every SAP HANA system at PACCAR will be run on IBM Power Systems. There will be no questions."

Maqsood Ahmed, Technical Fellow, PACCAR

PACCAR

Customer: PACCAR

Headquarters: Bellevue, WA

Employees: 25,000

Business Need:

A processor that could live up to the demands of the SAP S/4HANA in-memory database with the ability to scale for future growth.

Business Value Provided:

A single IBM Power System E980 processor is 1.5x faster than the POWER8 models, allowing PACCAR to achieve better performance with fewer software licenses.

THE BUSINESS CHALLENGE

- Acquisition of SAP S/4HANA required increased memory and processing speeds
- Anticipated growth will demand rapid scalability of up to 8TB per system
- After a long history with IBM Power Systems, management wanted to see a comparison study

THE SOLUTION

- Mainline's proposed IBM Power System E980 is the only solution in its class that can support PACCAR's growth
- Other enterprise solutions were ruled out for current and future support of SAP HANA
- PACCAR was able to migrate to IBM Power System E980 with zero downtime
- The Power System E980 provides best-in-class response time, rapid scalability, and dynamic allocation of resources.

THE RESULTS

- Cost savings with fewer software licenses needed
- IBM Power System E980 running with 6-10x more resources
- Ability to add more systems for better performance at a lower cost
- Created even deeper trust in Mainline partnership

THE SOLUTION

After conducting a month-long comparative study and multiple interviews with Intel x86 users, PACCAR determined that the x86 platform simply did not have the level of scalability or dynamic resources that IBM Power Systems offer. In the next year, PACCAR anticipates a data increase of up to 8TB per system, and their study deduced that POWER9 systems are the only enterprise servers in their class that can support that kind of volume at scale.

This solidified PACCAR's commitment to IBM Power Systems, and with the guidance of Mainline, PACCAR selected the IBM Power System E980 for its unbeatable response time, rapid scalability, and dynamic allocation of resources. Using IBM Live Partition Mobility from IBM Lab Services, PACCAR was able to migrate its critical systems from the IBM Power System E880C to the IBM Power System E980 with zero downtime.

THE RESULTS

PACCAR's investment in the IBM Power System E980 provided them with a high-performance, reliable enterprise server that they have confidence will support their most critical systems both today and in the future. The new systems running on the IBM Power System E980 are running with 6-10 times more resources, offering massive throughput and performance. Additional advantages include:

- Cost savings with fewer software licenses needed
- Rapid scalability, up to 64TB of memory
- Ranks #1 in every major reliability category by ITIC
- Infrastructure resilience
- Consolidation of servers
- Migration with zero downtime using IBM Live Partition Mobility

After migrating most of their SAP HANA systems to the IBM Power System E980, PACCAR is realigning resources and adding more systems to achieve better performance at a lower cost. In the near future, PACCAR will migrate the remaining SAP HANA Sidecar Systems they have onto the IBM Power System E980.

"We've been running POWER9 for more than a year and I have not had one complaint about performance. We're really happy with our selection, and we're always amazed at how well Mainline knows our environment and our needs. In the past 10 years of working with them, they have never been wrong. We trust Mainline."

Maqsood Ahmed
Technical Fellow, PACCAR

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