Zhengzhou Dennis Department Store Co., Ltd., a large retail business group, was seeking to bring high-performance, in-memory computing to its SAP environment by moving to the HANA platform. The company selected the Hitachi Unified Compute Platform for SAP HANA Platform (UCP for SAP HANA) solution, which successfully handled the move, thanks to its reliable quality and professional technical services.

The Challenges

IT Environment
Zhengzhou Dennis Department Store Co., Ltd., has operated its SAP Enterprise Resource Management (ERP) system, deployed on Oracle, Sybase and other traditional databases, for many years. With the rapid expansion of business, its IT systems became larger, imposing higher requirements for real-time processing of business data. In order to meet the requirements of fast data analysis and real-time data processing, the company decided to build a future-proof ERP system based on SAP HANA high-performance in-memory computing platform.

Benefits at a Glance
- Improved performance.
- Reduced the cost of operation and maintenance.
- Increased speed for online business.
SUCCESS STORY

With its high performance, high reliability, flexible scalability and real availability, Hitachi UCP for SAP HANA fully meets the business requirements of SAP HANA at Dennis Department Store.

Project Objectives
- Build a high-performance and highly reliable unified compute platform for SAP HANA to meet the needs of production and operation.
- Provide a disaster recovery solution for the ERP production system, ensure data security, and make sure that the disaster recovery system can quickly take over the operation for business continuity in case of failures in production systems.
- Ensure that the unified compute platform is scalable to meet the growing needs of the company.

Why Hitachi Data Systems?
Dennis Department Store selected Hitachi Data Systems to deliver the solution to these challenges after considering the following items:
- **Qualified solution.** Hitachi UCP for SAP HANA is SAP-certified with a proven track record in large enterprises.
- **High availability.** With its enterprise-class blades and high-performance storage hardware architecture, Hitachi UCP for SAP HANA provides higher performance and scalability than its competitors, as demonstrated in deployment cases.
- **Successful partnership with SAP.** As SAP’s highest-level partner (SAP Global Technology Partner/Global Service Partner), HDS has more than 2 decades of partnership with SAP in global integrated solutions implementations. And HDS provides 1-stop unified after-sale service for SAP HANA applications, offering customers peace of mind.

The Solution
Based on the project objectives of Dennis Department Store, and in full consideration of its business application demands, Hitachi Data Systems provided a sound infrastructure. The competitive solution includes 2 parts:

A Reliable Infrastructure for SAP HANA
Part of a new generation of in-memory databases, SAP HANA delivers high-performance processing for transaction data as well as data mining, but it also has more stringent requirements on hardware platforms. Hitachi UCP for SAP HANA is a converged infrastructure solution for SAP HANA for a new generation of converged data centers. The solution employs Hitachi enterprise-class blades as the compute unit, and proven high-performance Hitachi storage as the storage unit. UCP for SAP HANA is pre-installed with SAP HANA software and optimized for HANA in-memory computing, providing a solid integrated infrastructure for SAP HANA applications. Based on current and expected data requirements, HDS

![Figure 1. Configuration of the Hitachi Solution for Dennis Department Store](image-url)
Innovation is the engine of change, and information is its fuel. Innovate intelligently to lead your market, grow your company, and change the world. Manage your information with Hitachi Data Systems.

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Disaster Recovery for ERP on HANA System

After communications with the Dennis Department Store and in-depth analysis of the customer’s needs, HDS recommended SAP HANA System Replication for disaster recovery. This protection solution replicates the data from the ERP production system to the disaster recovery system in real time. It provides the following advantages:

- **Meet RPO/RTO requirements.** With real-time replication, System Replication keeps a copy of all data and changes instantly in the disaster recovery system. In case of a failure with the production systems, the standby will immediately take over the operation for business continuity with a recovery time objective of less than 30 minutes.

- **Make the best of resources of the device.** Normally, the standby device simultaneously runs development, testing, quality assurance and other nonproduction SAP HANA applications.

- **Minimize investment costs and simplify management.** System Replication is included in the standard SAP HANA application package without additional cost. This data protection solution is mature and easy to manage.

The Benefits

With its high performance, high reliability and flexible scalability, Hitachi UCP for SAP HANA lays a solid foundation for the SAP HANA platform of Dennis Department Store. The solution improves IT efficiency and drives business growth. By using System Replication for disaster recovery, the company’s investment is minimized, and its core data is secured.

- **High performance.** Hitachi UCP for SAP HANA uses HDS enterprise-class blades. With the high-performance Intel Xeon E7 series processors, the servers have a unique mixed I/O architecture and SMP compute node scale-out capabilities, providing more powerful processing than UNIX minicomputers. The back end adopts high-performance disk arrays for data storage, providing better data throughput than the local hard disks while reducing the data loading time at startup.

- **High reliability.** Both the blade compute unit and the disk array storage unit of Hitachi UCP for SAP HANA use full-redundancy architecture, which provides better reliability. Particularly, the data storage adopts more secure and reliable disk arrays rather than local hard disks, enhancing data security.

- **Flexible scalability.** A single node of Hitachi UCP for SAP HANA can be upgraded from the current 512GB to 1TB, 2TB or 4TB. Blades, memory and disks for storage system expansion can be added to the current system, ensuring smooth upgrade and scalability of the platform, meeting the needs of business growth, and protecting investments.

- **Real availability.** Hitachi UCP for SAP HANA is designed for applications. Combining the most advanced blade compute and storage technologies, it is specially optimized for HANA with professional technical services. As a trusted platform for SAP HANA customers, the solution is SAP-certified and demonstrates outstanding performance in actual customer environments.

- **Simplifies IT and improves productivity.** Hitachi UCP for SAP HANA integrates compute, network, storage and system software into 1 converged infrastructure platform. Optimized for HANA, it simplifies IT structures, improves IT efficiencies, and reduces deployment time, enabling business to go live faster, and reducing operating costs.

- **Professional services.** HDS offers professional consulting, implementation and maintenance services for Hitachi UCP for SAP HANA, which guarantee the reliable operation of the system. And HDS also provides a 1-stop single point of contact services for all the modules within UCP, eliminating the complexities of using and maintaining the IT systems.