

Hitachi High-Tech: Mastering side-by-side development techniques to innovate in a more agile and future-ready way



Explore Hitachi High-Tech's journey with SAP

Hitachi High-Tech Corporation replaced its highly customized multinational business landscape by investing in SAP S/4HANA Cloud in a two-tier public and private cloud model. With a fit-to-standard ethos, the company can now focus on supporting business innovation across its subsidiaries using a side-by-side approach on SAP Business Technology Platform.

Industry	Region	Company Size
High tech	Tokyo, Japan	12,717 employees

94%

reduction in customization footprint.

18x

faster handling of solution updates.

100%

of on-site maintenance requirements eliminated.

“By moving our operations to SAP S/4HANA Cloud, we can take advantage of flexibility and speed. So, when changing business conditions cause product orders to surge, we can quickly scale up CPUs and memory. It also provides superior security.”

Takuya Sakai
General Manager, Digital Transformation Business Group, Hitachi High-Tech Corporation

Moving to next-generation ERP in the cloud to be future-ready and agile

Hitachi High-Tech Corporation is committed to simplifying its customers' high-tech processes and resolving various social issues using the three core technologies of observation, measurement, and analysis. The company's activities encompass different verticals, including the manufacture and sales of clinical analyzers, biotechnology products, analytical instruments, semiconductor manufacturing equipment, and analysis equipment. It also provides high-value-added solutions in the fields of social and industrial infrastructures and mobility.

Since the 1990s, the SAP ERP application formed the backbone of its operations for both domestic and international business. Over time, Hitachi High-Tech had accumulated more than 9,000 customizations, hindering its ability to adapt quickly to variable business conditions.

Hitachi High-Tech envisioned reshaping its operations to form an ideal management model, rather than improving its current state, committing to investing in next-generation ERP to create future-ready business operations. The company also launched a business transformation project called Digital Experience (DX)-Pro, allowing it to focus on its true purpose of innovation powered by the right technology.

By embracing the change, Hitachi High-Tech not only moved from a legacy approach but also took a bold step to become an intelligent enterprise.

“Our new policy is to fit our business processes to standard as much as possible, reducing our need for customizations.”

Yuri Yasuda
Manager Corporate DX Department, Digital Transformation Business Group, Hitachi High-Tech Corporation

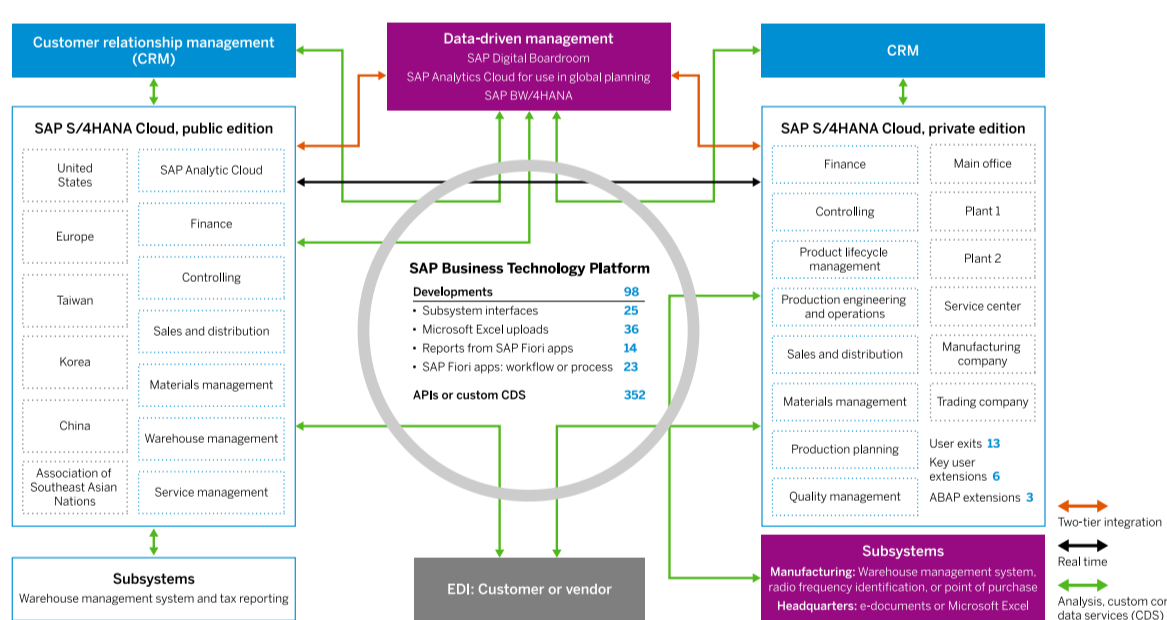
Taking advantage of a two-tier ERP model and side-by-side development

To create world-class business operations in the cloud, Hitachi High-Tech invested in SAP S/4HANA Cloud and adopted a two-tier model, illustrated in the figure below. Taking advantage of development flexibility, the company deployed SAP S/4HANA Cloud, private edition for its headquarters and group companies in Japan and SAP S/4HANA Cloud, public edition for its overseas sales offices.

The adoption of SAP S/4HANA Cloud allows Hitachi High-Tech to take advantage of the functionality offered by SAP Business Technology Platform (SAP BTP) for application development, data management, automation, integration, analytics, and AI.

The new two-tiered architecture uses SAP BTP as a hub and connects SAP S/4HANA Cloud, the SAP Analytics Cloud solution, and the SAP BW/4HANA solution deployed in Japan and overseas. It also links to various subsystems, such as its customer relationship management application, manufacturing execution system, warehouse management system, and electronic data interchange.

Leveraging side-by-side extensibility on SAP BTP enables Hitachi High-Tech to decouple essential development from the core system of record, allowing extensions to be developed without changing standard code. In this way, the company has developed 98 required extensions for mass registrations, workflows, and reports, as well as batch processing and interfaces for electronic data interchange and subsystem linkage for consolidation and bank connectivity. This helped Hitachi High-Tech operate at pace where innovation matched the ever-changing market conditions and technologies.



“We previously upgraded our instance of the SAP ERP application every five years, with the project taking about 18 months from preparation to implementation. We now perform major upgrades of SAP S/4HANA Cloud, private edition for our domestic company yearly and minor upgrades twice a year. We've also cut the time from preparation to switchover to around one month.”

Yuri Yasuda
Manager Corporate DX Department, Digital Transformation Business Group, Hitachi High-Tech Corporation

Adopting a fit-to-standard approach for future flexibility and speed

To ready its business operations for the future and take full advantage of the best-practice processes embedded in SAP S/4HANA Cloud, Hitachi High-Tech resisted modifying the solution architecture to meet its requirements. Instead, the company redefined processes to fit the standard.

Where extensions were considered essential, the company chose the disciplined approach of developing side-by-side extensions on SAP BTP. By leveraging the application development and automation capabilities of SAP BTP, the company developed customizations side by side as opposed to altering standard code. This minimizes modifications to the system architecture, safeguarding operational stability and reliability, and enables the agility needed to innovate at market speed. In addition, with minimal changes to the standard code, the company has more immediate access to improved functionality, with faster upgrade cycles. This led to the reuse of developments across its two-tier private and public cloud implementations and quicker troubleshooting in the event of upgrade issues.

Commenting on its new fit-to-standard approach, Yuri Yasuda, manager of the corporate DX department of the digital transformation business group at Hitachi High-Tech, explains, “With our new fit-to-standard policy, we pursue only essential customizations and develop these on SAP BTP. Consequently, our customization footprint shrank from over 9,000 extensions to just 22. Even when you include the APIs and custom core data services we developed on SAP S/4HANA Cloud for linking to external systems, there are fewer than 600 customizations in total.”

Beyond serving as a hub and using SAP Integration Suite to connect services, applications, events, and data, SAP BTP provided extensibility and personalization services to improve processes and experiences. Workflow management and robotic process automation capabilities enabled cross-system workflows and automated task execution, such as Microsoft Excel file uploads. And SAP Fiori apps helped ensure a consistent user experience across applications and intuitive self-service access to processes and reports.

“We made the decision become skilled at side-by-side development on SAP BTP for our customization requirements instead of developing add-ons to the standard code like we did in the past. This allows for faster upgrades, giving our people more immediate access to improved functionality.”

Takuya Sakai
General Manager, Digital Transformation Business Group, Hitachi High-Tech Corporation

Continuing to master new development methods for competitive agility

Thanks to its fit-to-standard approach and two-tier adoption of SAP S/4HANA Cloud, private edition and SAP S/4HANA Cloud, public edition, Hitachi High-Tech leverages the latest technology updates. This allows the company to take advantage of the emerging capabilities and collaborate with business ecosystems, quickly providing users with the latest features and functionality to respond to market changes.

The company plans to develop a variety of innovations on SAP BTP. One project currently underway expands on previous experiences with robotic process automation and aims to automate data entry using the SAP Build Process Automation solution. Another project leverages machine learning to predict financial results. Hitachi High-Tech also aims to enhance its development and process automation capability by establishing a monitoring environment that oversees the entire system while exploring the benefits of low-code development using SAP Build solutions.