

THK sets global success in motion with IBM integration solution.

Overview

■ Challenge

Achieve a single quality standard for worldwide operations, using a consistent set of business-automation systems

■ Solution: Enterprise Integration

Enterprise application integration (EAI) hub linking applications for sales, accounting, production and logistics

■ Why IBM?

THK had a long-standing relationship with IBM and successful experience with IBM WebSphere® MQ products; WebSphere MQ and IBM WebSphere MQ Integrator viewed as flexible and easy-to-use path to an EAI hub

■ Key Business Benefits

200% greater IT productivity by eliminating lengthy process of application-to-application integration



Toughness, high quality and know-how set THK's linear motion systems apart, and the same values apply to its reliable IBM enterprise application integration solution.

Many forms of industrial equipment require linear motion systems to facilitate smooth, almost-frictionless operation. Based in Tokyo, Japan, THK Company Ltd. (THK) pioneered the manufacturing of linear motion guides for quality manufacturing in a wide range of industrial markets. The company focuses on serving the machine tool, industrial robot and semiconductor production equipment markets worldwide and has become a global market leader in linear motion systems.

“Programming individual connections between applications made no sense and would have resulted in a maintenance nightmare. Fortunately, IBM already had created the ideal solution in WebSphere MQ Integrator.”

–Hidenori Goto, Systems Department Group Leader, THK Company Ltd.

e-business—blending new technologies with established strengths

Key Components

Software

- IBM WebSphere MQ for AIX® and OS/400®, Version 5.2
- IBM WebSphere MQ Integrator for AIX, Version 2.1

Servers

- IBM @server iSeries™ 890
- IBM UNIX®-based server

Services

- IBM Global Services
 - IBM e-business Hosting™ Center
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With its patented technologies, THK (www.thk.co.jp/en) dominated the Japanese market early in the 1970s and, in the following decade, began to operate internationally. Now the company has 4,000 employees worldwide and operations in the United States, Germany and eight other countries. Its consolidated sales volume is ¥89 billion (US\$720.5 million).

In order to succeed internationally, the company had to establish standards for quality performance in overseas operations—just as it already had done in Japan. This meant consistently manufacturing high-quality products and delivering them in a timely fashion while maintaining tight control over inventories and other elements of the supply chain.

Achieving a global standard for quality, however, would have been difficult, given the heterogeneous mix of sales, accounting, production and logistics systems in THK's overseas factories and distribution centers. Indeed, the company chose to replace these with a single set of business systems that would enforce a consistent, uniform way of doing business—and result in quality performance in these areas.

Building a simple interface

An enterprise application integration (EAI) hub was essential to THK's systems plan, serving as a single control point to integrate all the applications in the new systems mix. Application-to-application integration was necessary to ensure that all processes were operating in synch and that orders could be taken and filled in the most efficient manner.

When choosing software to enable the creation of a simple, manageable EAI layer, THK made a quick decision. A long-standing IBM customer, THK had successfully used IBM WebSphere MQ products in other enterprise implementations. Knowing the products to be flexible and easy-to-manage, the company selected WebSphere MQ and IBM WebSphere MQ Integrator without evaluating other available options.

“We chose to let IBM host the system so that we could concentrate on business applications. By enabling our IT staff to focus on core business applications, we have a better chance of providing the best possible tools to our operating units.”

—Hidenori Goto

A longtime proponent of IBM @server iSeries systems, THK chose to run all of its global systems—including WebSphere MQ—using the mainframe technology of the powerful iSeries 890 server at an IBM e-business Hosting Center in Tokyo. The integration hub with WebSphere MQ Integrator runs on IBM UNIX-based servers at the same center. IBM Global Services and THK's systems department implemented the solution in eight months.

"Programming individual connections between applications made no sense and would have resulted in a maintenance nightmare," says Hidenori Goto, systems department group leader, THK Company Ltd. "Fortunately, IBM already had created the ideal solution in WebSphere MQ Integrator."

Needing a high-performance server platform to host WebSphere MQ Integrator, THK chose a pair of UNIX-based servers, also running at the IBM Hosting Center. "We chose to let IBM host the system so that we could enable our IT staff to concentrate on business applications," says Goto. "By enabling our IT staff to focus on core business applications, we have a better chance of providing the best possible tools to our operating units."

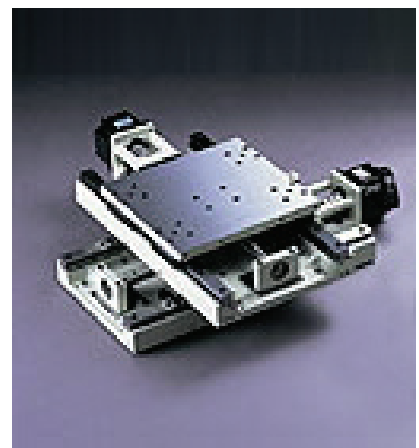
Higher productivity with WebSphere MQ Integrator

Approximately 3,000 THK employees log on to the company intranet and use the THK business applications to take orders, track the production process, send invoices and ship finished goods. Because the processes are integrated, information has to be entered only once for orders to travel through a complex manufacturing process and reach delivery dates on schedule.

THK used packages from two vendors for its production and accounting systems. For sales and logistics, it leveraged English versions of the in-house software it had developed in RPG code. With the WebSphere integration solution, THK systems engineers can spend their time developing and enhancing these applications and integrating them through the hub. Because of the open architecture of WebSphere MQ and WebSphere MQ Integrator, information can be exchanged in most standard codes. "IBM Global Services understood our systems and designed a simple interface with intuitive options," says Goto. "With this graphical development environment, programmers are able to visualize the application flow, making the task of integration much simpler."

"With our IBM integration solution, our business systems can and do work productively together to help our company compete globally."

—Hidenori Goto



Linear motion systems from THK ensure that automated operations are exactly on the mark, enabling industrial machinery to produce consistent, well-made products.

As a result of the solution, THK's applications are integrated and the company's application development is 200 percent more productive than it would have been if the company had decided to integrate applications to applications without the benefit of a central interface.

Mapping efficient information flows

WebSphere MQ Integrator is an information broker that selects and distributes information to the applications, databases and people that need it. MQ Integrator identifies the systems that need to be updated and converts the messages into the formats required.

WebSphere MQ Integrator then sends the message to WebSphere MQ on the iSeries server, which routes the message to the correct system

on the same platform. Messages are transmitted asynchronously to maintain application integrity.

Bringing the benefits home

The next step in THK's worldwide standardization process will be to incorporate the new business systems within the domestic Japanese environment, bringing the efficient applications and systems to the market where they were originally created. Using the IBM integration hub, this should be a swift and painless process.

"In Japan, we are careful to maintain the distinction between being able to do something and actually doing it. There is much talk in the systems world about solutions that can do various things, but don't—for one reason or another," says Goto. "With our IBM integration solution, our business systems can and do work productively together to help our company compete globally."

For more information

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Corporate Marketing
New Orchard Road
Armonk, NY 10504
U.S.A.

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