

# CA SiteMinder provides the authentication infrastructure for 400,000 Hitachi, Ltd. employees.

**HITACHI**  
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#### Customer Profile

Company: Hitachi, Ltd.  
Industry: Electronics  
Employees: 400,000  
Revenue: 10,000,369 million yen

## Benefit Summary

### Business Overview

Hitachi, Ltd. is the core company of the Hitachi Group, which has some 940 subsidiaries in Japan and overseas as well as many business divisions, and companies and possesses a vast array of technologies, products and solutions technologies.

### Challenge

Hitachi faced identity management issues from both a user perspective and a management perspective. Users had to have several different identities and passwords while management struggled to ensure the user information was accurate. Hitachi therefore decided to build a shared authentication infrastructure for the whole Hitachi Group.

### Solution

In 2002, Hitachi began the process of selecting products that would allow the creation of this integrated authentication infrastructure and make it possible to use a single user identity with appropriate credentials to get access to Hitachi's Web applications. The product selected for the Web access management portion of the solution was CA SiteMinder.

### Benefit

The Hitachi Group is expanding its integrated authentication infrastructure with a view to comprehensive group-wide use. Once the deployment is completed, Hitachi's deployment will be one of the world's largest single sign-on environments. CA SiteMinder will play a key role in the creation of this infrastructure.

*“Until now anyone who needed to use systems operated by Hitachi Ltd. needed a new identity and password every time a new system came on line.”*

**Naoshi Abe,**  
General Manager of the  
Security Management  
Department, Hitachi, Ltd.

## Business Overview

### 100 years of successful business

Hitachi, Ltd. is the core company of the Hitachi Group, which is one of Japan's largest corporations. Hitachi will be celebrating the 100th anniversary of its founding in 2010.

Hitachi has grown in parallel with Japanese industry and today has a presence in 70 countries, around 940 subsidiaries and some 400,000 employees. Its business activities range from consumer electronics, heavy electrical machinery, machinery and information technology to manufacturing components and raw materials for such products as well as logistics and finance.

The fact that Hitachi is the only Japanese group to be included in the category of conglomerates (companies with a wide range of different business activities) in the Forbes Global 2000 ranking demonstrates the scale of its operations.

## Challenge

### A disparate approach to identity and access management

Since 2002, this huge organisation has been building and enhancing an integrated authentication infrastructure covering the entire group.

Naoshi Abe, General Manager of the Security Management Department within the e-Platform Promotion Office of the Information Technology Division at Hitachi, Ltd., explains, “Identity management is considered important in terms of protecting personal information and for IT internal control auditing. Since 2002, the Hitachi Group has been addressing the issues of integrated management of user identities and access management with a view to preventing the falsification of data in conjunction with unauthorised access.

“Until now, anyone who needed to use systems operated by Hitachi, Ltd. and the other group companies needed a new identity and password every time a new system came on line, and identity were managed separately for each system.

“Users had to have several different identities and passwords. Not only was this inconvenient for the users, but there was a risk that it would lead to a range of common security problems such as people writing their identity and password on a piece of paper and sticking it to their PC.

“On the user management side, we also had problems ensuring that user information was accurate. There were huge differences across the group in the approach to manage this: the larger business groups and group companies, which had large numbers of users and many systems, created their own authentication infrastructures to tackle these issues and optimised them individually. Some of the smaller group companies had no IT department and were managing identities on spreadsheets.

“We therefore decided to build a shared authentication infrastructure for the whole Hitachi Group, aiming to both increase the general level of information security while reducing the cost of user management across the corporation.

*“As the product would be used in both Japan and overseas we felt it was important to choose a product that was the industry standard in this area.”*

**Tadashi Watanabe,**  
Senior Engineer of the  
Security Management  
Department, Hitachi, Ltd.

“By building a comprehensive group-wide system, we were able to create a ubiquitous environment within the group. This enables users to access information systems on Hitachi’s network from any location in exactly the same way as if they are in their own office.”

## Solution

### **A track record of operational stability in large-scale environments**

In 2002, Hitachi began the process of selecting products that would allow the creation of this integrated authentication infrastructure and make it possible to use a single user identity with appropriate credentials to get access to Hitachi’s Web applications. The product selected for the Web access management portion of the solution was CA SiteMinder.

Hitachi is itself a major IT vendor and could have chosen a product developed in-house, but Tadashi Watanabe, Senior Engineer in the Security Management Department (e-Platform Promotion Office, Information Technology Division), explains the choice of SiteMinder as follows: “First, as the product would be used both in Japan and overseas, we felt it was important to choose a product that was the industry standard in this area. We also wanted agent-based authentication. With reverse proxy-based authentication you can control things by concentrating all your servers in one location, but then the traffic gets concentrated through the reverse proxy.

“With an organisation the size of the Hitachi Group, there is a risk that a system of this kind could eventually become unmanageable. We have servers sprinkled around the premises of Hitachi Ltd. and its group companies, so an agent-based approach was essential if we were going to control all of those servers. We chose SiteMinder because it strongly supports agent-based authentication with a wide array of support for Web servers and application servers.”

Daisuke Hashino of the Security Management Department (e-Platform Promotion Office, Information Technology Division), says, “We were also impressed with SiteMinder’s scalability, which made it easy to expand as the number of users to be managed on the integrated authentication infrastructure increased from 300,000 to 350,000 and then to 400,000. The fact that SiteMinder is also supported on a large number of platforms is another reason we chose it. Originally, we ran SiteMinder on Solaris, but today we are running it on Windows, using BladeSymphony.”

“As the infrastructure is used by every company in the Hitachi Group, in Japan and overseas, it was essential that product support services were available worldwide. CA provides this global support. But because the majority of our companies are based in Japan, there had to be a support service available locally in Japan as well.”

When selecting SiteMinder, Hitachi was also impressed by SiteMinder’s strong global track record and customer base, which gave them confidence that the same results could be attained by Hitachi.

*"We were impressed with SiteMinder's scalability, which made it easy to expand as the number of users to be managed on the integrated authentication infrastructure increased from 300,000 to 400,000."*

**Daisuke Hashino,**  
of the Security Management  
Department, Hitachi, Ltd.

"As this was going to be the only Web authentication infrastructure for the entire Hitachi Group, it couldn't have faults or be unstable in operation. When choosing the product, we emphasised a track record of stable operation in large-scale environments, whether in Japan or overseas," says Naoshi Abe.

After deciding to go with SiteMinder, Hitachi conducted trials and began looking at the practical issues involved in introducing the system in April 2002. The production system was built during the second half of 2002 and entered service as an authentication infrastructure in April 2003. At this stage it did not cover all group companies but was first introduced in the Information Technology Division, which manages Hitachi's in-house systems, and was gradually expanded. Hitachi currently uses the SiteMinder-based integrated authentication infrastructure to manage 330,000 users.

Hitachi Group has systems used to manage people in their various organisations. These systems are linked directly to human resources systems and are used to initiate the life cycle of identities, in conjunction with employment and secondment contracts, etc. SiteMinder is linked to this management database.

Tomohisa Kumagai of the Security Management Department (e-Platform Promotion Office, Information Technology Division), explains: "SiteMinder is a very high-performance product. But because it is high-performance, it is also true that, even if you are only using basic functions, such as authentication and access control, the hurdles are very high — all the way from considering its introduction to commissioning. Deploying it to individual group companies and business sites 'as is' is difficult and involves training costs too. Implementing and managing authentication infrastructure is an additional workload for some IT departments that, until now, have only had to manage Web server content.

"We therefore narrowed down the range of functions that would be deployed and used a centralised approach to management where, as far as possible, settings that relate to the operation of Web servers are managed centrally. We gave the individual website content managers only the minimum access rights they needed to carry out the introduction work and control rights for their individual site (for setting access control conditions, and so on).

"This allowed us to transfer all the work of setting access control conditions, which require frequent modification, while minimising the work that IT departments would have to do in connection with the introduction process, and allowed rapid horizontal deployment."

*"Hitachi is looking at ways of linking AD with authentication infrastructure .. ... This linkage should further accelerate the deployment to Group companies overseas."*

**Noriyuki Okamoto,**  
of the Security Management  
Department, Hitachi, Ltd.

## Results

### One of the world's largest single sign-on environments

In Japan, SiteMinder is already in heavy use, but overseas, many group companies had already built their own authentication infrastructure or were using Application Service Provider (ASP) offerings for their business systems. These authentication systems are being integrated or replaced over time.

"Many group companies are using authentication infrastructures, e-mail, and file sharing based on Microsoft Active Directory (AD). There are companies using business systems based on package software and external ASP services, and so on, together. For this reason, identities and passwords have to be managed separately for each group company and system. Hitachi is looking at ways of linking AD with the authentication infrastructure so as to allow the deployment of the authentication infrastructure in a way that does not disrupt overseas group companies' existing infrastructure. This linkage should further accelerate the deployment to Group companies overseas," says Noriyuki Okamoto, of the Security Management Department (e-Platform Promotion Office, Information Technology Division).

Hitachi is also using SiteMinder for authentication to non-Web-based, client/server systems. Hitachi has addressed these client-server systems by installing an application that communicates with LDAP and carries out authentication by connecting to SiteMinder.

The Hitachi environment is large, but introducing server monitoring based on Hitachi's JP1 brand and using SiteMinder's SNMP alert function allow stable operation on a 24-hour/365-day basis.

Although there is continued expansion and refinement needed in the future, Hitachi has a high opinion of SiteMinder and especially of its expandability, which has far exceeded expectations. As Naoshi Abe says, "Given that it is deployed on such a large scale, it is quite stable in operation. We already have a great number of servers running SiteMinder but we don't feel restricted in terms of scalability or expandability. In other words, if the number of servers increases, it can expand to that scale. In that sense, it's a really good product."

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