



Shell Group

In the winter of 1999, the Royal Dutch Shell Group (<http://www.shell.com>) looked at the high total cost of ownership (TCO) for managing their desktop/IT environment and decided it was time for a change.

Shell sought a new approach, one that would have a positive effect on the bottom line while also improving security. In addition, the new approach needed to be simple and user-friendly and offer a clear path to e-business capabilities in the future.

Faced with the ever-escalating costs of password management, Royal Dutch Shell embarked on a smart card project as an important component of their Group Infrastructure/Desktop (GID) initiative. The GID was tasked with, among other things, reducing the support costs for PCs. To reduce those costs, Shell focused on reducing password management costs, which industry estimated at \$100 per user per year. By adopting a variety of technologies, such as thin clients, smart cards, and PKI, Shell hoped to reduce their desktop TCO by 50%.

The Hague-based energy corporation asked Axalto to deliver a global IT solution using smart cards integrated into Windows 2000. The project solution eventually affected 85,000 Shell employees at 1,200 sites across 134 countries.

Shell's goal was a unified security offering integrating physical, thin client, and desktop access. Smart cards constituted the best solution, allowing all of these services to be offered on a single platform that also supported existing physical access systems. The Microsoft Windows 2000 platform provided smart card support as part of its native PKI capability and offered integrated single sign-on using Kerberos.

With the massive proliferation of networks, Internet, thin clients, and PCs, Shell faced a fundamental problem: how to know who was really on their network. In the past, authentication was managed with passwords, but because passwords are expensive and provide very little security, a different, more cost-effective solution was required. Smart cards provide strong authentication of end users. Shell uses smart cards to authenticate users, reduce support costs, and leverage the investment in network equipment and IT personnel. Using one card, Shell employees have physical access to their facilities, can log onto the network from any device, and can sign and encrypt documents and e-mail. A Web-based card management system makes the cards easy for Shell and Shell employees to manage.

Through careful and thorough planning and commitment to consistent technologies, Shell has succeeded in this technically and logistically complex undertaking. As of July 2004, 100,000 smart ID cards have been issued worldwide, implementing the PKI applications. Currently, Shell is evaluating adding health, safety, and environment information to the employee smart cards.

This profile is an updated extract from a case study that was developed by the Smart Card Alliance with the assistance of Martha Jones, Axalto, and Bryan Ichikawa. The full case study is available in the Smart Card Alliance report, "Smart Card Case Studies and Implementation Profiles," available at http://www.smartcardalliance.org/alliance_activities/case_studies_implementation_profiles.cfm. For more information about how smart cards are used for secure identification applications, visit the Alliance web site at <http://www.smartcardalliance.org>.