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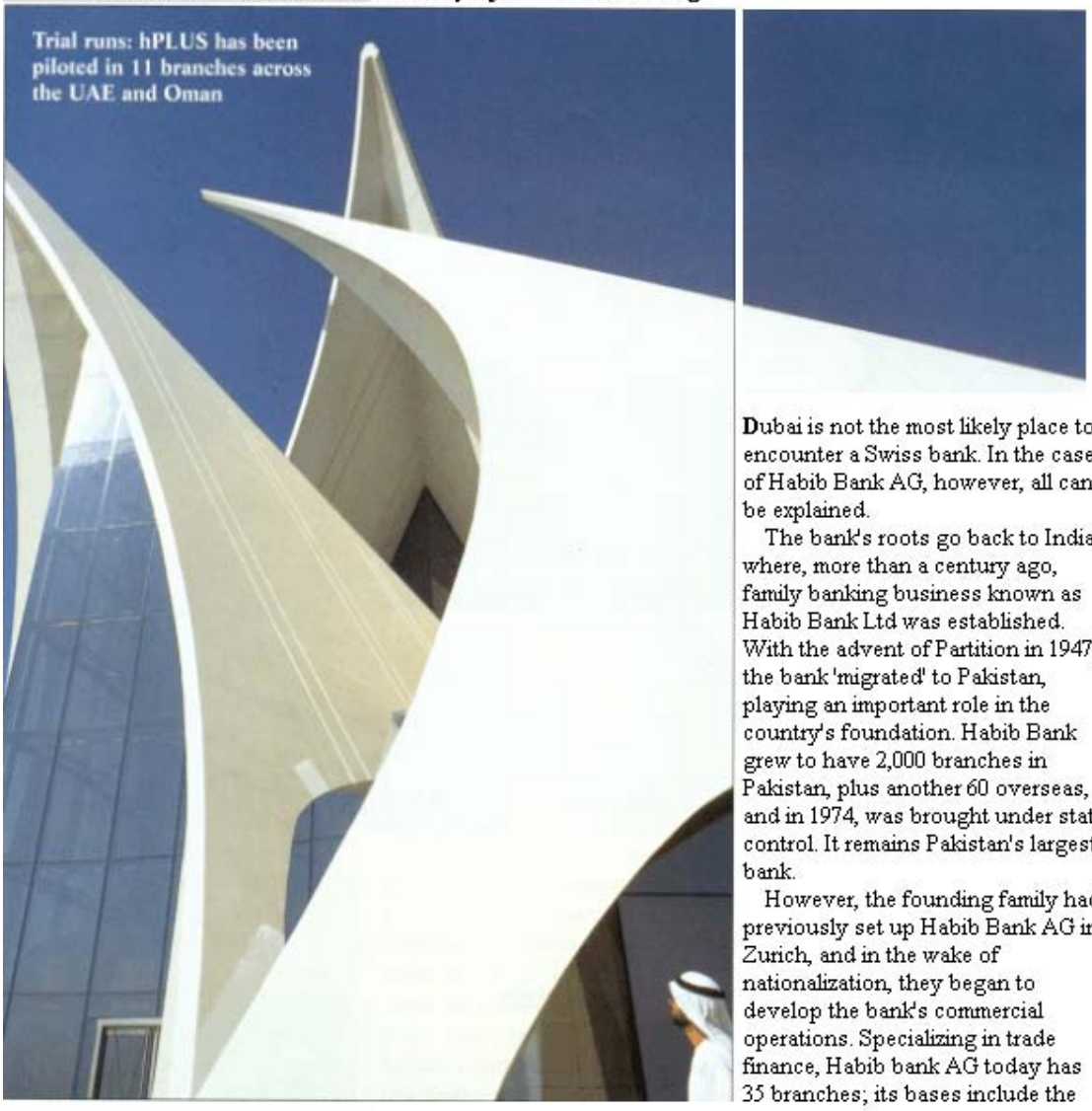
Eastern promise

One of the world's first port able Java-based banking solutions is ready to roll in the Unites Arab Emirates courtesy of Habib Bank Ag



Trial runs: hPLUS has been piloted in 11 branches across the UAE and Oman

Dubai is not the most likely place to encounter a Swiss bank. In the case of Habib Bank AG, however, all can be explained.

The bank's roots go back to India where, more than a century ago, family banking business known as Habib Bank Ltd was established. With the advent of Partition in 1947, the bank 'migrated' to Pakistan, playing an important role in the country's foundation. Habib Bank grew to have 2,000 branches in Pakistan, plus another 60 overseas, and in 1974, was brought under state control. It remains Pakistan's largest bank.

However, the founding family had previously set up Habib Bank AG in Zurich, and in the wake of nationalization, they began to develop the bank's commercial operations. Specializing in trade finance, Habib bank AG today has 35 branches; its bases include the

UAE, Oman, Sri Lanka, the UK, the US and a number of African nations.

Habib Bank's information technology is managed from Dubai. In 1995, having run its operations initially on localized PCs, the bank installed a TCP/IP-based WAN, with a Sun/Sybase platform as the back end. Sun servers have been steadily introduced in the bank's branches. Today they run in five countries; an HA Enterprise 6000 has recently been installed in the UAE.

Back in 1995, however, Habib Bank was eager to develop a streamlined banking system, but had reservations about how the solution should be handled at the front end.

"There were many client-server tools available, but all of them seemed to require fatter and fatter clients," says Reza Habib, cheif executive/vice president Habib Bank AG. "If we were to make use of these tools, we would have to invest in all those fat clients, and given the pace of change, they would be outdated before our banking solution was even ready. So we asked ourselves: how can we maintain all our PCs - starting with the most ancient 286s - and have them co-exist in one big system?"

The perfect match

Habib and his team decided there was only one answer: they would write their own object-based language, which would in turn enable them to write the flexible banking application they had in mind. So some six months prior to Java's announcement, they set to work on a task that was ultimately to bring them much closer to Sun.

Unaware of developments in California, the bank created a platform-independent language called hPLUS and, using that language, set about creating a modular banking package, which goes by the same name. Towards the end of last year, however, they discovered Java, and were amazed to find how closely it resembled the product they had written themselves.

"We couldn't beliebe what we were seeing," says Habib. "Our language is based on a microkernel, which matches data from the back end with instructions - op-code - and delivers it to the front end where it explodes and runs. So, our kernel is analogous to the Java virtual machine, and the forms we write at the back end are similar to Java applets."

A break with tradition

There was only one thing to do: port hPLUS to Java. "We looked at Java and fell in love with it - it was just the tool we needed," Habib says. "It is a really elegant language. And the advantage for us in the future is that we won't have to think about enhancing our own language. Java has become a standard, so Sun will take care of that."

hPLUS is among the world's first portable Java-based banking solutions. Based on a core of 55 modules, the package offers around 1,000 options, which can be used to deliver home and Internet banking services or run as a full-blown banking system.

Habib's system differs in philosophy from many traditional banking packages. Rather than using a four-stage processing model, which means transactions are not posted on the system for at least 24 hours, hPLUS is based on a two-stage process, updating records as transactions take place.

"Transactions are committed at both ends simultaneously, so everything is visible on the system, and authorisation processes are carried out subsequently at the core," says Habib. "That has allowed us to do away with interbranch reconciliation, so the more branches you have, the bigger the benefits of the package."

"Using hPLUS, you can do transactions involving multiple currencies, with multiple donors and recipients, across different time zones, without the need for reconciliation," he adds.

The Java version of hPLUS has now been piloted in 11 branches across the UAE and Oman, using an Enterprise 4000 as the host. The only requirement at the client end is the Java-enabled browser. "In the future we will be able to run hPLUS over either our intranet or the Internet," Habib says. "So long as you have a browser, the front end platform can vary. Sun's JavaStation and its picoJava chips are widening the options still further to smartphones and handkeld devices. hPLUS is fully fledged Java application, so you will be able to run it on almost anything."

Although always intended for the bank's internal use, Habib now believes the package could have wider appeal: "It is begining to look very commercial. Since we are a niche player, we don't compete with major banks, so it would be quite possible for us to market it to them."