

The return of the mainframe

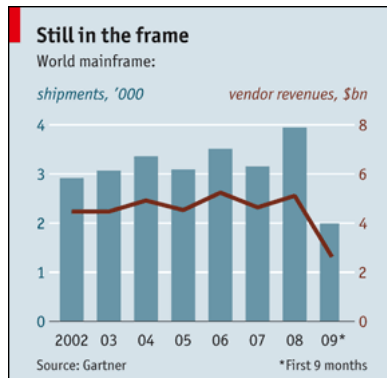
Back in fashion

The mother of all computers no longer looks that old

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GEEKS may roll their eyes at the news that Namibia is only now getting its first mainframe—a technology that most consider obsolete. Yet the First National Bank of Namibia, which bought the computer, is at the leading edge of a trend. Comeback is too strong a word, but mainframes no longer look that outdated.

Until the 1980s mainframes, so called because the processing unit was originally housed in a huge metal frame, ruled supreme in corporate data centres. Since then, these big, tightly laced bundles of software and hardware have been dethroned by "distributed systems", meaning networks of smaller and cheaper machines, usually not based on proprietary technology. But many large companies still run crucial applications on the "big iron": there are still about 10,000 in use worldwide. Withdraw money or buy insurance, and in most cases mainframes are handling the transaction.



Some companies like mainframes because they are reliable, secure and easy to maintain. But others have no choice. Banks, for instance, use decades-old applications to manage customer accounts. Moving these programs to other computers would be expensive and sometimes impossible. Most firms that can move off the mainframe have already done so, explains Rakesh Kumar of Gartner, a market-research firm.

High "switching costs" explain in large part why mainframes are still a good business for IBM. It is the only big firm left selling them, at prices that start at \$100,000 but often reach the millions. Sales of mainframes are said to have brought in about \$3.5 billion a year, on average, in the past decade. Although this is only about 3.5% of the firm's overall revenue, each dollar spent on hardware pulls in at least as much from sales of software and maintenance contracts. Toni Sacconaghi of Bernstein Research estimates that 40% of IBM's profits are mainframe-related.

To preserve its mainframe business, IBM has regularly modernised its line-up of machines, lowering prices and improving performance. It has also given cash and computers to hundreds of universities and schools to get them to train replacements for retiring mainframe administrators.

In addition, IBM is trying to get customers to use mainframes for more functions. For some years it has offered specialised add-on processors at considerably lower prices, to run a greater variety of programs, mostly based on Linux, an open-source operating system. And last year IBM started bundling mainframes with applications at a discount.

IBM is also trying to attract new customers, particularly in fast-growing emerging markets. Without mainframes, India's Housing Development Finance Corporation and the Bank of China in Hong Kong would have a hard time dealing with their explosive growth, says Tom Rosamilia, who heads IBM's mainframe business.

All these efforts have had a degree of success, although mainframe revenues have been badly hurt by the recession (see chart, above). About 1,300 firms, a third of IBM's mainframe customers, have bought add-ons enabling them to use Linux. But IBM is in legal trouble again, as it was in the 1970s. It is accused of abusing its mainframe monopoly by refusing to license software that allows other firms to build cheaper clones of its machines. Regulators in Washington and Brussels are looking into the case.

More worrying to IBM is a run-in with Neon, a software company. It sells a program that allows computing tasks that usually run on a mainframe's regular processors to be shifted to the discounted ones meant to run things like Linux. Predictably, IBM is not happy and

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is said to have threatened to charge higher licensing fees to customers using Neon's software. This, in turn, has led Neon to file a lawsuit against IBM. Defeat would make a big dent in IBM's mainframe revenues.

Still, the computer industry seems to be moving IBM's way. The mainframe may well find a new home in corporate computing clouds, the pools of data-processing capacity many firms are building. Many companies are also increasingly interested in buying simpler, more integrated computer systems, even if this means a higher price. Reacting to this, IBM's rivals are making bets on mainframe-like products. On January 13th HP and Microsoft announced a pact to come up with tight packages of hardware and software. Brad Day of Forrester Research, another market-research group, puts it thus: "We are on the way back to the future."

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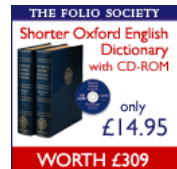
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