



anybody could trade and everybody did

By the late 90s, the average investor had acquired easier and more convenient access to trading, resulting in an unprecedented increase in trading volume on the New York Stock Exchange. At the time, the Exchange was processing transactions involving one billion shares per day. By the end of 2002, however, that number was projected to be around 1.4 billion. With nearly 99 percent of its orders processed electronically, the Exchange clearly needed to expand its systems.

the goal: upgrade without the uproar

The tricky part to upgrading a system the size of the New York Stock Exchange's was doing so without a significant disruption in operations. The Exchange takes great pride in its reputation as the centerpiece of the world's financial markets, and many of the reasons for that status—virtually flawless transaction, communication and record-keeping services—rely on hp mainframes. An interruption of regular operations, in order to upgrade, was out of the question.

an important but hardly noticeable upgrade

Information technology for the NYSE is handled by its subsidiary, the Securities Industry Automation Corporation (SIAC). hp has worked with SIAC for 22 years to provide the NYSE with mainframe solutions. In this case, SIAC and hp recommended upgrading from the HP NonStop® Himalaya K-series mainframes to the S-series. The Exchange's message handling capacity would increase from 600 to 2,000 messages per second, which would translate to the seven billion shares per day transacted target.

But most importantly, the upgrade was completely transparent. Despite significant differences in architecture between the K- and S-series mainframes, the transition was accomplished without even compiling any code—the new mainframes were started up with the exact same object programs that were on the old ones.

built for today, ready for tomorrow

In addition to meeting the objectives laid out at the beginning—upgrading without disruption and a seven billion shares per day transaction capacity—the HP NonStop mainframes also provide the NYSE with 99.999 percent reliability and fault tolerance, which means a piece might break, but the overall system remains operational. And increasing capacity in the future will be simple because of the linear scalability of hp processors, up to a theoretical limit of 4,000 processors.

With HP NonStop technology, the NYSE is able to keep pace with the rapid growth of trading volume, confident that it can continue to be the dependable leader of world markets.

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