

Microseconds and nanoseconds: the split-second world of algorithmic trading

A micro second is one millionth of a second: and in the speed fuelled universe of Automated Trading, these time differences determine profit or loss. High Frequency Trading (HFT) and algorithmic trading are both types of automated trading started in the USA in the early 2000s. Offering the advantages of reduced error and lightning-fast response speeds, 'algo trading' is now a worldwide phenomenon, and accounts for nearly 70% of equity trades in the US alone. Algo-trading evangelists stress its market-wide benefits like efficiency, liquidity, lower costs, hedging and arbitrage possibilities.

India began to allow direct market access and algorithmic trading in 2008. Traders embraced the technology and today with algo-trading at 40% of volumes, India is one of the fastest growing HFT markets.

Algo-trading – the rise of the machine

Algo trading is trading through computers and software, without any manual interference. Trades are executed by algorithms when a predefined set of rules is fulfilled. These programmes analyse real time market data to find and exploit extremely short term opportunities. Algo trading is based on lightning fast responses, with thousands of shares worth lakhs being traded in a matter of milliseconds.

There is no human intervention as sophisticated computer programmes from the brokers' end 'talk' directly to exchange servers. Large trading firms such as hedge funds, investment banks, and proprietary trading firms usually build or customise their own proprietary trading software, including large trading systems with dedicated data centers and support staff. Smaller trading firms and retail investors can purchase any one of a number of algo-trading software packages off the shelf.

In terms of hardware, high-performance dedicated computers with extremely high processing speeds are a must. These must be connected to the data generated by the stock exchange by an extremely high-speed network that can deliver data feeds in real time or near-real time.

Make Algo trading work for you

Algo trading is possible across all asset classes in India. Before entrusting hard-earned money to the trading software and system, it is vital to ensure that all three components: the software, the hardware, and the network: are up to the task.