

Introducing Trading Inc.

Trading Inc. - Company Profile

- Trading Inc. specialises in buying and selling shares . It operates a complex system for making market trades and for analysing market behaviour.
- The system is used by three departments with each having their own hardware infrastructure.



Front Office



Trading Department



Analysis Department

- The system is critical to the success of the business. Downtime or capacity problems translate into a direct loss of revenue for Trading Inc.

The Front Office



- The Front Office is where the main revenue generation for Trading Inc. occurs.
- During day time office hours, Traders use the Trading Inc. system to buy and sell stocks whilst maintaining their portfolio.
- During the night, Analysts use the department to schedule analysis work and interpret the results.
- Performance and reliability of the Trading Inc. system is paramount to the Front Office.
- The Front Office maintains a number of desktop machines that are constantly in use.

The Trading Department

- The Trading Department provides automated services allowing Traders from the Front Office to buy and sell shares.
- The Trading Department also maintains a record of all Trade transactions for the purposes of audit and analysis.
- Typical system load is 10% during day time office hours. Occasionally peak loads occur as Traders react to external market conditions, greatly reducing system performance.
- The hardware of the Trading department lies idle overnight.



The Analysis Department



- The department is responsible for providing the Traders with insightful market analysis at the start of the business day.
- Analysis is generated from the results of the days trading. The department is responsible for auditing and reconciling these results.
- Analysts work is often long running and compute intensive.
- Analysts are confident that any expansion of their compute capabilities will improve the quality of their analysis.
- The Analysis department hardware lies mainly idle during the working day.

Trading Inc. Software Setup.

- The Trading Inc. system is exposed to Traders via a web-based interface.
- Communication within the departments is facilitated by a Ethernet LAN with a high-speed backbone connecting the departments.
- The services of the Trading Inc. system are provided as Web Services. Internal communication between the Web Services uses SOAP as does communication from client applications.
- All Trading Inc. Web Services are hosted in a JBoss Application Server instance.
- Trading Inc. uses MySQL databases for all data storage.
- JMS queues ensure reliable delivery to and from the Market.