a) Architectural characteristics of the ticket system

3 Performance:

- Deadline to make risk report is before 9.am Singapore time.
- The system must support up to 50 concurrent users accessing the risk report.
 - The response time for downloading or viewing the report over the internet must not exceed 3 seconds.
 - The response time for accessing the report directly on the server must not exceed 1 second.

9 Scalability:

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- 10 The system must be able to cope with trade volumes for the next 5 years.
- The number of trade increase is 10 trades per day. It would be 3650 trades per year.
- Each day, the engine recalculates all counterparties and all trades up to date (e.g., the 5,000 base trades + all new ones).

14 Security:

- This system must follow bank policy that states system access is restricted to authenticated and authorized users only.
- 16 Reports must only be distributed to authorized users.
- Only a subset of the authorized users are permitted to modify the parameters used in the risk calculations.
- 18 Although desirable, there are no single sign-on requirements.
- All access to the system and reports will be within the confines of the bank's global network.

21 Availability:

- System acceptable downtime is less than 30 minutes/day. The availability is 98%

24 Adaptability:

- When the new Reference Data System is ready. The Financial Risk System must be configured to work with new system within 3 months. That is the time the legacy system to be decommissionized.

Configurability:

- Input files used in the risk calculation process must be retained for 1 year.

30 Auditability:

- The following events must be recorded in the system audit logs:
- Report generation.
- Modification of risk calculation parameters.

35 Traceability:

- The system should take appropriate steps to recover from an error if possible, but all errors should be logged.
- A Simple Network Management Protocol (SNMP) trap should be sent to the bank's Central Monitoring Service in the following circumstances:
 - When there is a fatal error with a system component.
- 40 When reports have not been generated before 9am Singapore time.