• The system must be able to cope with trade volumes for the next 5 years.
• The Trade Data System export includes approximately 5000 trades now and it is anticipated that there will be an additional 10 trades per day.
• The Reference Data System counterparty export includes approximately 20,000 counterparties and growth will be negligible.

Data integrity

* There are 40-50 business users around the world that need access to the report.
• Risk reports basically should be available to users 24x7, but a small amount of downtime (less than 30 minutes per day) can be tolerated.

Availability

• This system must follow bank policy that states system access is restricted to authenticated and authorized users only.
• 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.
• 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.

Security

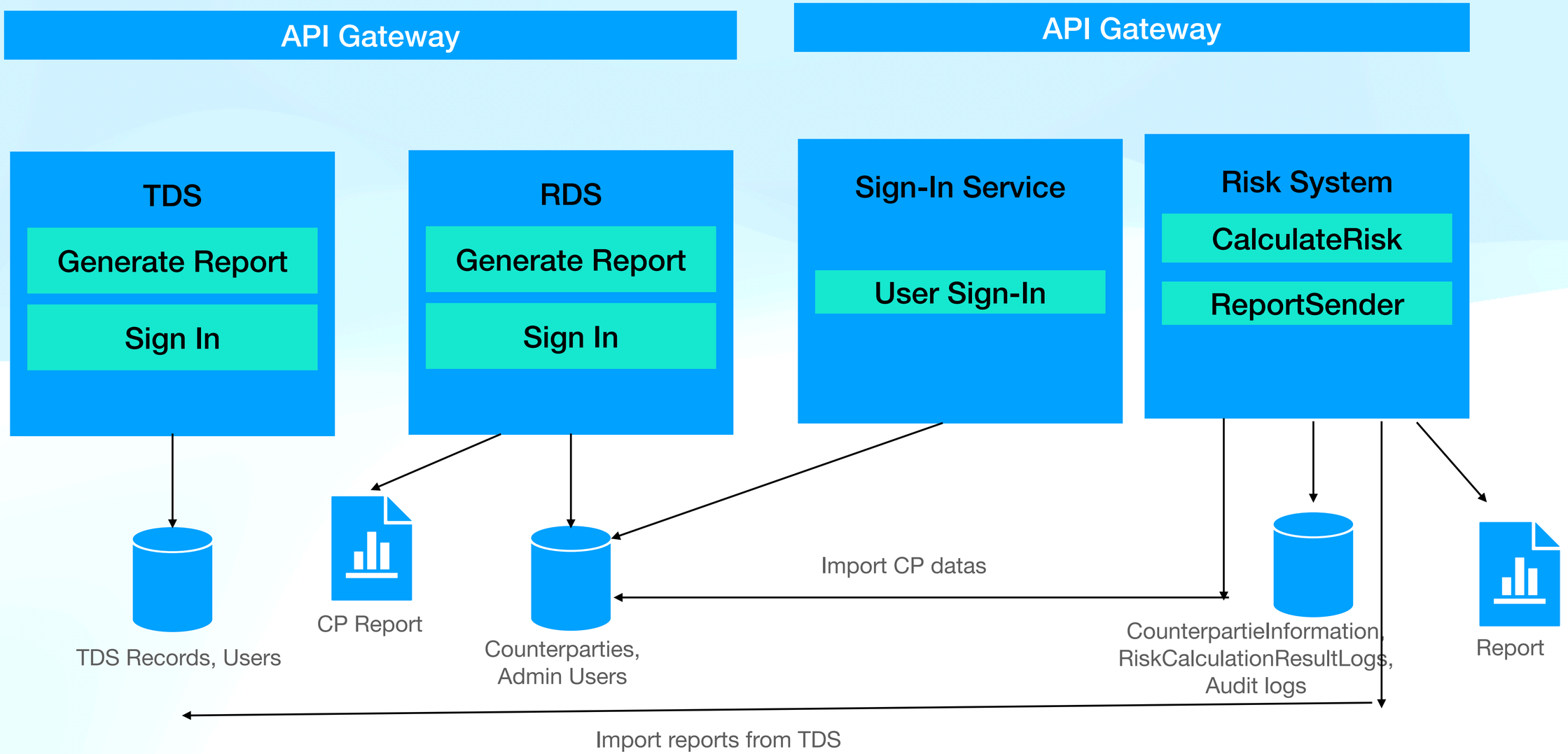
The following events must be recorded in the system audit logs: – Report generation. – Modification of risk calculation parameters.
• It must be possible to understand the input data that was used in calculating risk.
• • The system should take appropriate steps to recover from an error if possible, but all errors should be logged.

Audibility, Reliability

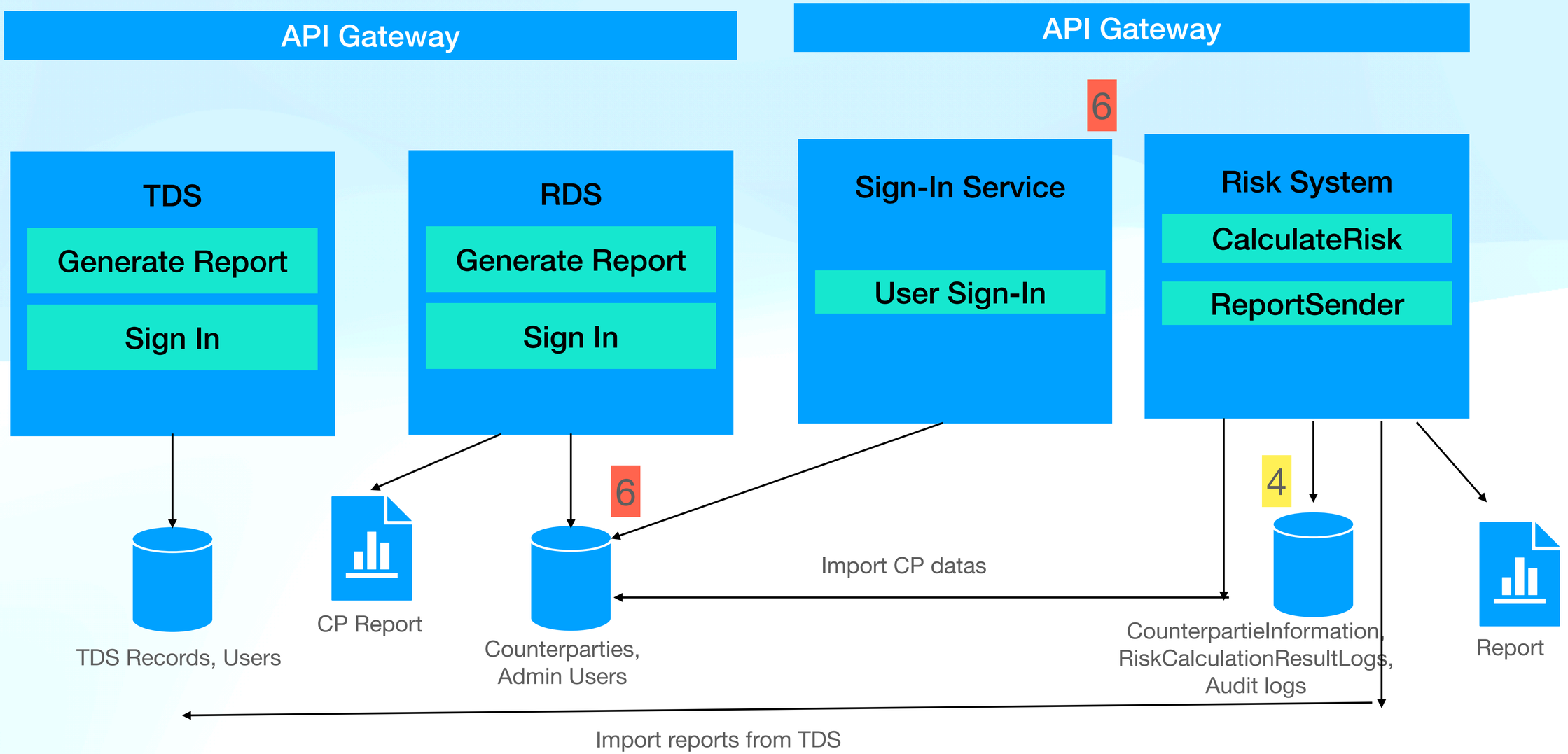
* A Simple Network Management Protocol (SNMP) trap should be sent to the bank's Central Monitoring Service in the following circumstances:
– When there is a fatal error with a system component.
– When reports have not been generated before 9am Singapore time.
• Input files used in the risk calculation process must be retained for 1 year.

Monitoring

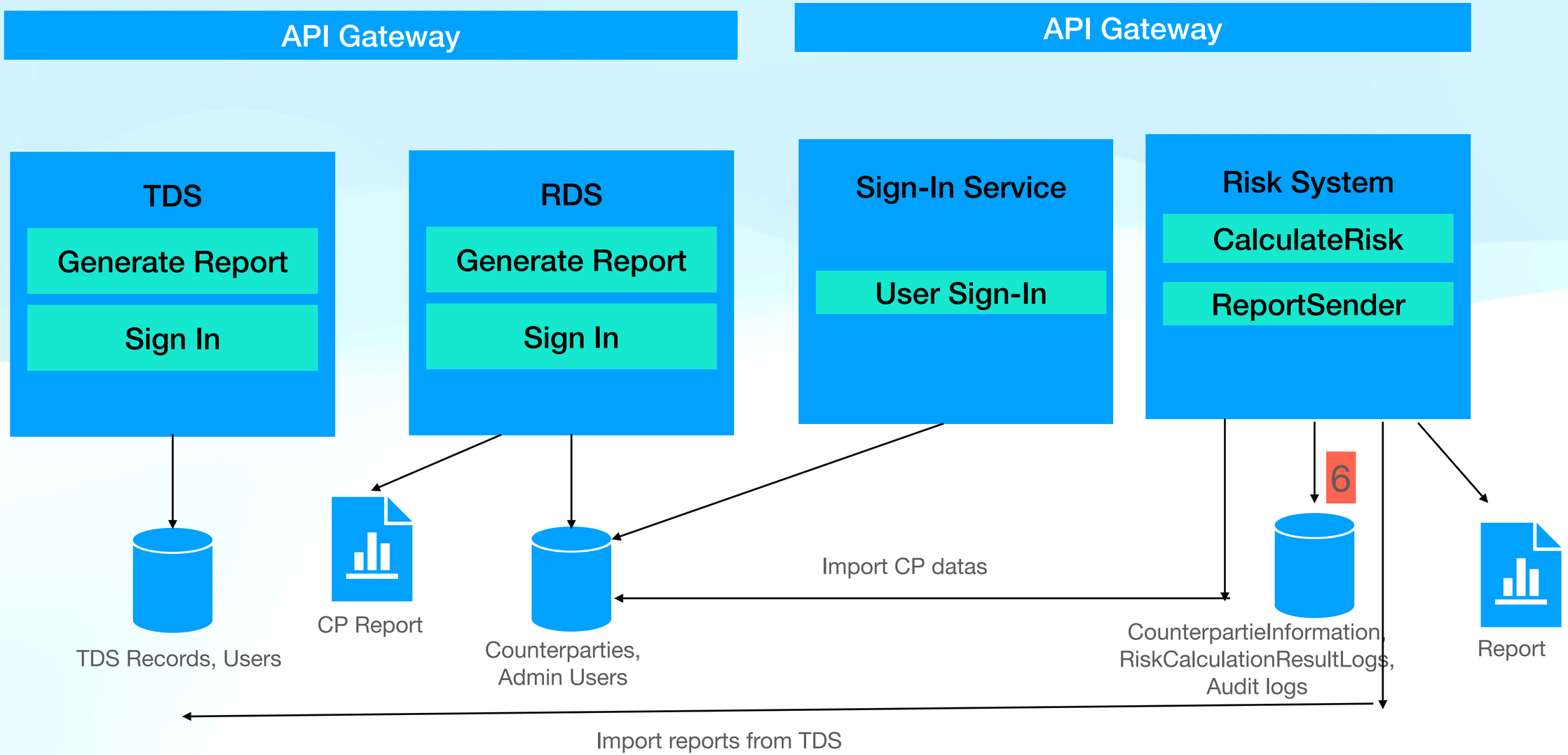
Functional Requirement design



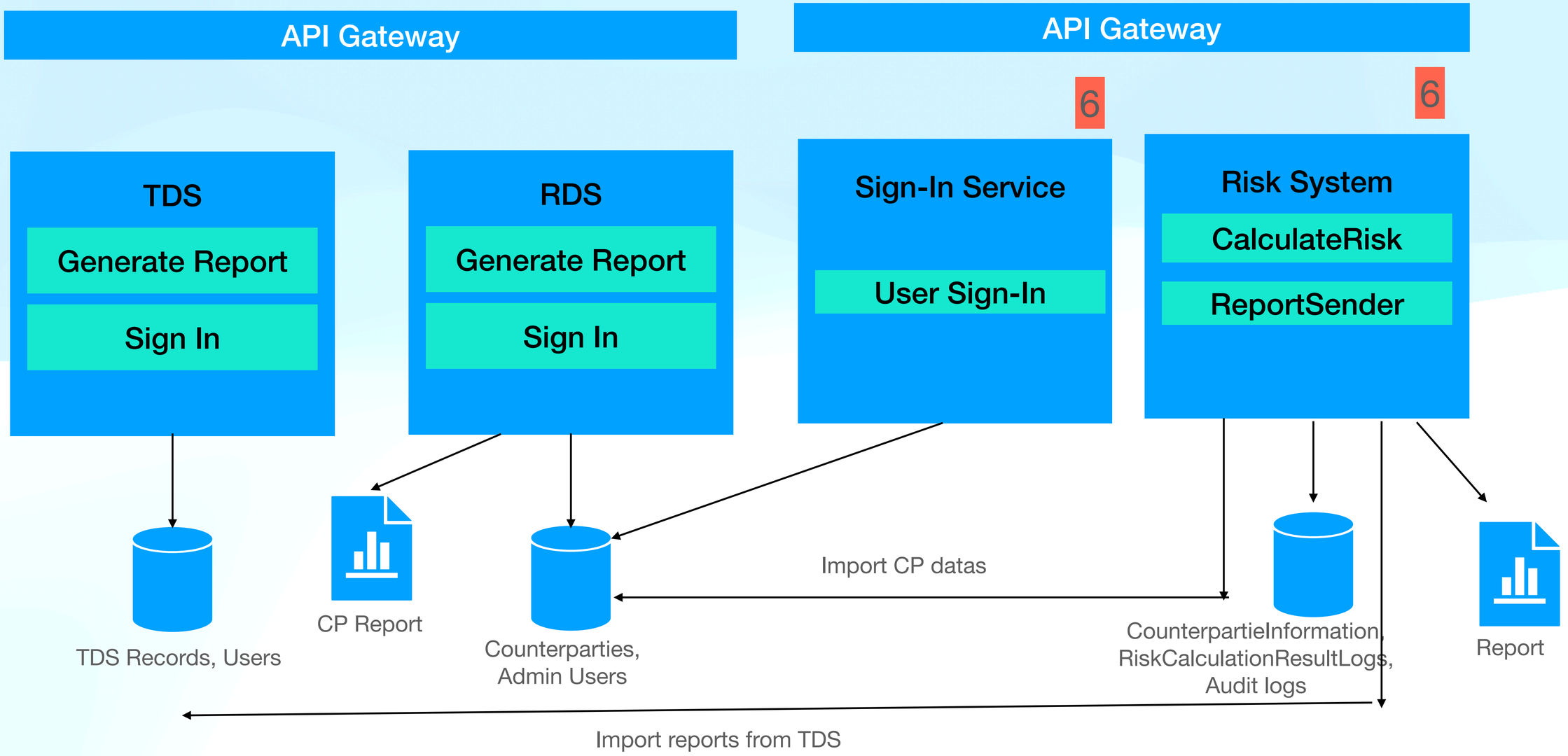
Security Risks



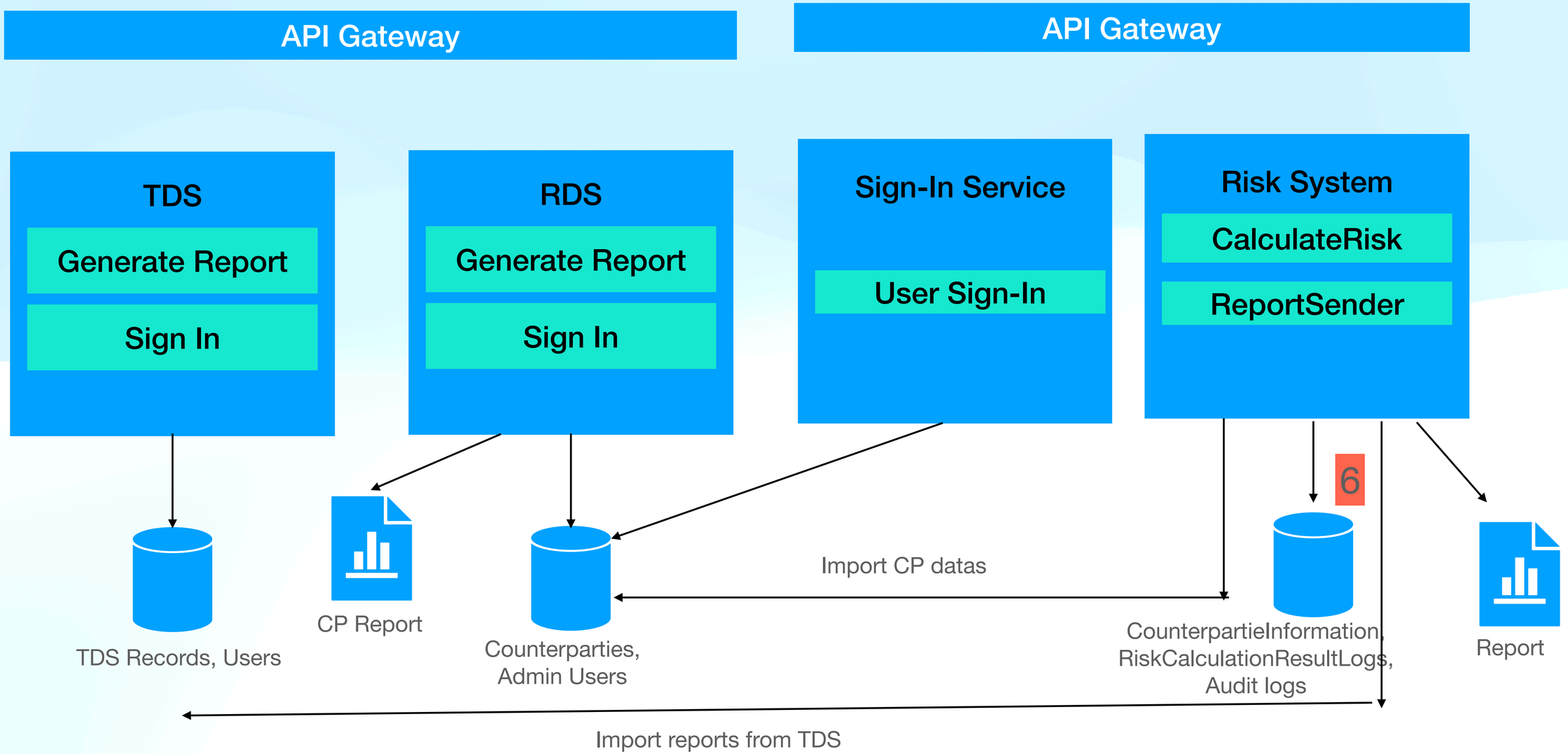
Data Integrity



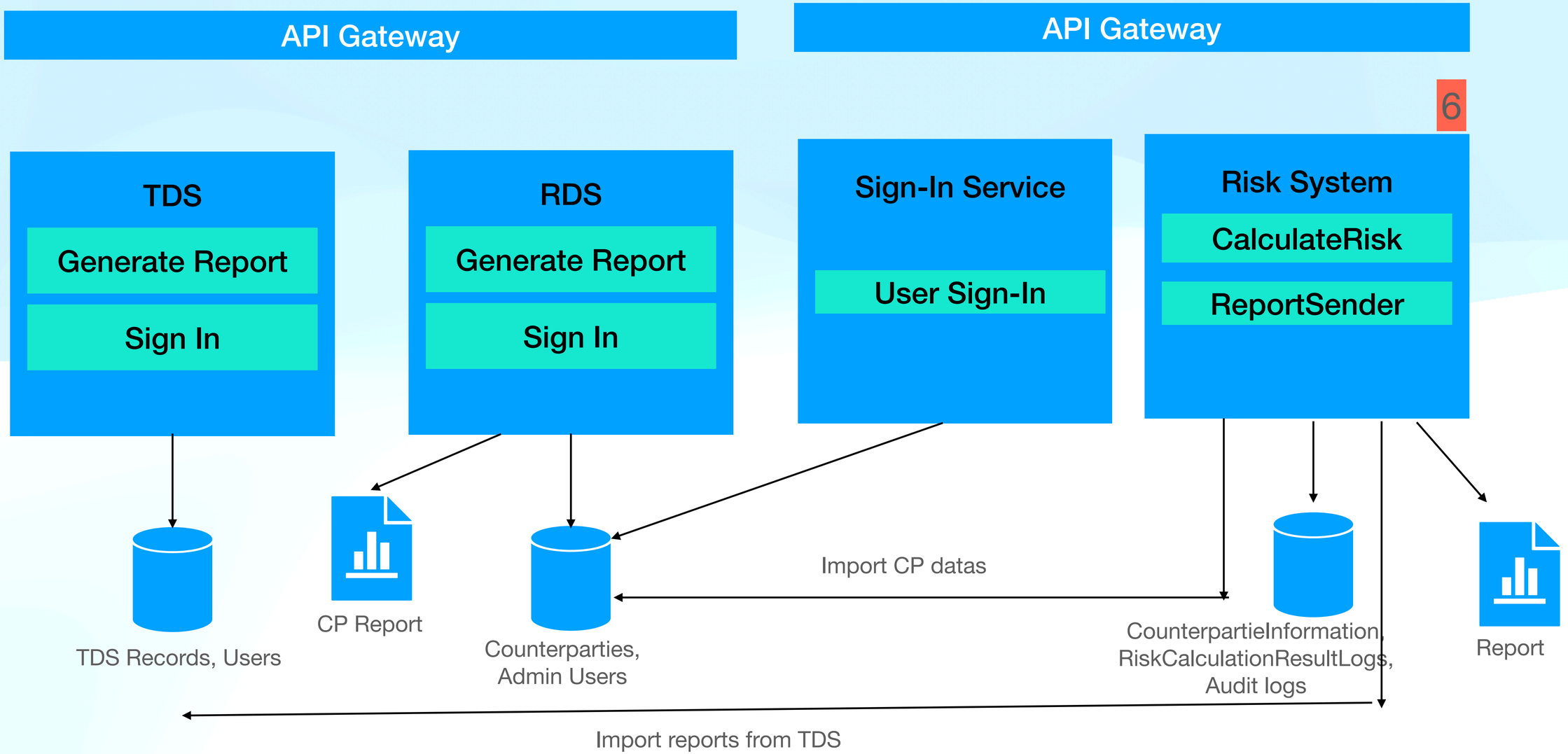
Availability



Audibility, Reliability



Monitoring


API Gateway
API Gateway
6
TDS
Generate Report
Sign In
RDS
Generate Report
Sign In
Sign-In Service
User Sign-In
Risk System
CalculateRisk
ReportSender
TDS Records, Users
CP Report
Counterparties,
Admin Users
Import CP datas
CounterpartieInformation,
RiskCalculationResultLogs,
Audit logs
Report
Import reports from TDS

Risk Mitigation